CALL NO. 323

CONTRACT ID. 234404

JESSAMINE COUNTY

FED/STATE PROJECT NUMBER FD04 057 0068 000-005

DESCRIPTION HARRODSBURG ROAD (US 68)

WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB

PRIMARY COMPLETION DATE 10/31/2023

LETTING DATE: January 26,2023

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN STANDARD TIME January 26,2023. Bids will be publicly announced at 10:00 AM EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

REQUIRED BID PROPOSAL GUARANTY: Not less than 5% of the total bid.

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 07

CONTRACT ID - 234404

FD04 057 0068 000-005

COUNTY - JESSAMINE

PCN - 0705700682201
FD04 057 0068 000-005

HARRODSBURG ROAD (US 68) (MP 0.000) FROM THE KENTUCKY RIVER IN JESSAMINE COUNTY EXTENDING NORTHEAST 4.807 MILES TO THE KY 29 INTERSECTION. (MP 4.807), A DISTANCE OF 04.81 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 07-09009.00.

GEOGRAPHIC COORDINATES LATITUDE 37:52:31.80 LONGITUDE 84:40:29.20

ADT 3,177

COMPLETION DATE(S):

COMPLETED BY 10/31/2023 APPLIES TO ENTIRE PROJECT

CONTRACT NOTES

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website (www.bidx.com) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

UNDERGROUND FACILITY DAMAGE PROTECTION

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by KRS 14A.9-010 to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under KRS 14A.9-030 unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in KRS 14A.9-010, the foreign entity should identify the applicable exception. Foreign entity is defined within KRS 14A.1-070.

For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.

Businesses can register with the Secretary of State at https://secure.kentucky.gov/sos/ftbr/welcome.aspx .

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to kytc.projectquestions@ky.gov. The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website (www.transportation.ky.gov/contract). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

HARDWOOD REMOVAL RESTRICTIONS

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

BUILD AMERICA, BUY AMERICA ACT (BABA)

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA), Pub. L. No. 117-58, includes the Build America, Buy America Act ("the Act"). Pub. L. No. 117-58, §§70901-52. The Act strengthens the Buy America preference to include "construction materials." The current temporary waiver for **"construction materials"** will expire on November 10, 2022.

The Act will apply to construction materials as outlined in the guidance issued in OMB M-22-11.

Construction Materials – Includes an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives – that is or consists primarily of:

- Non-ferrous metals
- Plastic/polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall.

Construction Materials only applies to items, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project.

Construction Materials does not apply to tools, equipment or supplies brought to the jobsite and removed before completion.

SPECIAL NOTE FOR RECIPROCAL PREFERENCE

RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

ASPHALT MIXTURE

Unless otherwise noted, the Department estimates the rate of application for all asphalt mixtures to be 110 lbs/sy per inch of depth.

DGA BASE

Unless otherwise noted, the Department estimates the rate of application for DGA Base to be 115 lbs/sy per inch of depth.

OPTION B

Be advised that the Department will control and accept compaction of asphalt mixtures furnished on this project under OPTION B in accordance with Sections 402 and 403.

Special Notes Applicable to Project – General Notes & Description of Work

Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. Section references are to the Standard Specifications.

CAUTION – PROPOSAL INFORMATION IS APPROXIMATE – PERFORM AN ON-SITE INSPECTION

Potential bidders are cautioned that the information within this proposal is approximate only and is not to be taken as an exact evaluation of the bid quantities, nor the materials and conditions that may be encountered during construction. As such, before submitting a bid, potential bidders shall make a thorough inspection of the site to examine the conditions to be encountered per Section 104.07. Furthermore, during the execution of the work, the Engineer reserves the right to make changes to the bid item quantities and/or alterations in the work when necessary to complete the project satisfactorily per Section 104.02.

NOTE: The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

BUY AMERICA REQUIREMENT

Federal Funds were used for the design phase of this project; therefore, the Contractor shall follow the "Buy America" provisions as required by Title 23 Code of Federal Regulations 635.410.

STATIONING

The contractor is advised that the planned locations of work were established from a beginning station number, which is STA 0+00.00 at the US 68 Kentucky River bridge, and corresponds to Milepoint 0.00 along US 68. **NOTE**: The existing mile marker signs may not correspond to the proposed work locations.

LIDAR

All survey information was obtained from available KYTC Aerial LIDAR data and should be field verified as appropriate during construction and prior to incorporating the various project work items. Refer to the Special Note for Staking concerning staking operations required to control and construct the work.

ON-SITE INSPECTION

Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

RIGHT OF WAY LIMITS

The Department has not established the exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured and environmentally cleared by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

CONTROL

Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his/her decision shall be final and binding upon the Contractor.

DESCRIPTION OF WORK

Except as specified herein, perform all work in accordance with the Department's Standard Specifications, Supplemental Specifications, applicable Special Notes and Special Provisions, and applicable Standard and Sepia Drawings, current editions. Furnish all materials, labor, equipment, and incidentals for the following work:

Superelevation Improvements. There are multiple curves where superelevation improvements are being proposed. The intent of this work is to bring a consistent pavement cross slope through the identified curves. Refer to the Superelevation Improvement Summary for locations and approximate quantities. The Superelevation Improvements are set up and quantified for the Contractor to utilize Leveling & Wedging in order to achieve the desired superelevation improvements at the identified location(s). The Superelevation Improvement Summary lists the estimated quantities of Leveling & Wedging for each curve; however, the Engineer will make the final determination as to which Leveling & Wedging mix design will be required at each superelevation improvement area, as well as the appropriate lift thicknesses and number of lifts based on the existing conditions encountered at the time of construction. After the superelevation improvements have been constructed, the full width of the identified curves will be overlaid with a surface course. As a result of the superelevation improvements and surfacing operations, the roadside shoulders, fill slopes, and/or ditches will have to be modified to match the final pavement elevations and tie in with the existing ground lines. A quantity of Roadside Regrading has been estimated for regrading the roadside within the identified curves. A representative cross section is given for each curve showing the proposed superelevation improvements and the resulting roadside grading.

NOTE: Some field adjustments of the proposed shoulder width, fill slope, ditch, and/or superelevation improvement may be required. The proposed shoulder and roadside grading is intended to occur within existing Right-of-Way and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require regrading the roadside, but the slopes may have to be constructed steeper than shown on the representative cross section. The desire of the Department is to construct the new fill slopes at 3:1 or flatter. When a fill slope needs to be constructed steeper than 3:1 to remain within existing Right-of-Way or not impact a sensitive obstruction, and the existing fill slope is steeper than 3:1, then the new

fill slope can be constructed steeper than 3:1, but the new fill slope shall not be constructed steeper than the existing fill slope. If a desired superelevation improvement will result in the new fill slope having to be graded steeper than the existing fill slope in order to remain within existing Right-of-Way or not impact a sensitive obstruction, then the superelevation rate should be modified (reduced) in order to reduce the final change in pavement edge elevation, thereby reducing the height of the new fill slope grading, and allowing for a flatter new fill slope that will not be steeper than the existing fill slope. Prior to making modifications to the proposed superelevation rate, shoulder width, and/or fill slope, coordinate with and obtain approval from the Engineer.

Roadside Regrading. Areas have been identified along the route for Roadside Regrading. The overall intent of the Roadside Regrading work operation is to improve the existing roadside by constructing a proposed width of earth shoulder and regrading the roadside fill slopes, ditch foreslopes, and/or ditch backslopes as flat as possible within the Right-of-Way (or any work areas the Department has obtained through Consent & Release), while NOT disturbing any sensitive obstructions (i.e. fences, buildings, utilities, etc.). A variety of information is included in the proposal to communicate the proposed Roadside Regrading.

- The Special Note for Roadside Regrading provides information on:
  - The required materials and construction methods.
  - How roadside regrading is measured and paid.
- The ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS includes:
  - 11 different Figures that show the common conditions and situations that may be encountered when performing Roadside Regrading.
  - Notes that provide guidance on how to adjust the proposed shoulder and/or roadside dimensions so that Roadside Regrading work operations will remain within the Right-of-Way (or Consent & Release work area) and/or not impact a sensitive obstruction.
- The Typical Section(s) show:
  - The desired dimensions of the proposed shoulder, ditch, and/or roadside slopes.
  - NOTE: There may situations where the desired shoulder, ditch, and/or roadside dimensions must be modified based on existing site conditions. When situations arise where the desired roadside dimensions need to be adjusted, the Contractor and Engineer should work together to determine the final dimensions for the proposed shoulder, ditch, and/or roadside slopes. The notes within the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS provide guidance on ways to adjust the Roadside Regrading when common site conditions and constraints are encountered.
- The Roadside Regrading Summary:
  - Lists the locations where Roadside Regrading is to be performed. While the Department anticipates the limits of Roadside Regrading shown on the Roadside Regrading Summary are accurate, it is always possible the condition of the existing shoulders and existing ditches could change between the Design phase and Construction phase of the project. Therefore, the Contractor and the Engineer are to work together to review the limits of Roadside Regrading and make alterations per Section 104.02.

- Lists estimated volumes of excavation and embankment for each Roadside Regrading location to help indicate the approximate level of effort of each Roadside Regrading location. NOTE: the estimated volumes of excavation and embankment are provided for informational purposes only and final payment for Roadside Regrading will be made based on the actual LF of Roadside Regrading performed.
- Indicates which Figure reference within the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS is the closest representation of each proposed Roadside Regrading location.
- Indicates if there is a need for a DGA Wedge and Channel Lining for each Roadside Regrading location.
- If applicable, lists the estimated quantities of DGA, Asphalt Seal Coat, Asphalt Seal Aggregate, Channel Lining, and Geotextile Fabric for each Roadside Regrading location.
- Summarizes the quantities of the bid items associated with the Roadside Regrading work operation.

Shoulder and Pavement Edge Repair. There are locations throughout the project where the pavement edge and/or shoulder are being repaired. See their respective detail sheets and summary sheets for more information on locations and pavement designs.

DGA Wedge & Chip Seal. Some sections of "Roadside Regrading" are set up to receive a DGA Wedge & Chip Seal after the Roadside Regrading operations are complete. Other areas of "Roadside Regrading" are NOT to receive the DGA Wedge & Chip Seal. Construct the DGA Wedge & Chip Seal at the locations identified on the Roadside Regrading Summary, or the locations as directed by the Engineer. The proposed DGA Wedge dimensions are detailed on the Typical Sections. Refer to the Special Note for Roadside Regrading and the Special Note for Double Asphalt Seal Coat for more information on the DGA Wedge & Chip Seal.

Entrance Pipe Replacement & Driveway Surfacing. Due to areas of existing ditch line being re-shaped and relocated further from the edge of pavement, there are areas throughout the project where the existing entrance pipe will have to be removed and replaced to line up with the new ditch line. Refer to the Entrance Detail within the Typical Sections for details on this work item. See the Entrance Summary for the locations and bid items/quantities associated with the entrance pipe replacements. The existing driveway surface is noted on the summary sheet and is to be replaced with like-kind surfacing. The Engineer will make the final determination as to the locations and quantities required to complete the work based on the existing conditions encountered during construction. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work.

Pipe Replacements & Extensions. There are locations throughout the project where culvert pipes are being extended, replaced, or newly installed. Locations and estimated quantities are noted on the Culvert Pipe Summary. For pipe extensions where the existing pipe is RCP, remove the existing headwall and first section of existing RCP attached to the headwall (approx. 3-4' ft). Other items that may be included with the pipe extensions/replacements include culvert headwalls, sloped & mitered concrete headwalls, safety box inlets, intermediate anchor/collar, roadside regrading, channel lining, erosion

control blanket, asphalt pavement quantities, etc. Refer to the Special Note for Pipe Replacements/Extensions for more information on this item of work.

Sloped & Mitered Concrete Headwalls. Sloped & Mitered Concrete Headwalls shall be constructed as shown on the detail sheets titled: SLOPED & MITERED CONCRETE HEADWALL DETAILS. This headwall is intended to combine the benefits of a pipe headwall with the advantages of safety and adaptability by allowing the headwall to be custom fit to the surrounding embankment. The Culvert Pipe Replacement & Extension Summary identifies which pipe ends are to receive the Sloped & Mitered Concrete Headwalls. The identified pipe ends shall have the headwall installed and the pipe mitered at a slope that matches the final embankment slopes at each location. If the pipe is on a skew, install the headwall and miter the pipe so that the concrete slope paving of the new headwall is perpendicular to the roadway. In other words the embankment slope should not be warped to fit the skew of the pipe; the headwall should be installed and the pipe should be mitered to match the final embankment slope, so that the roadside fill slope is fairly consistent prior to the pipe, at the pipe, and beyond the pipe, and does not create an excessive bulge in the embankment. When completed the edges of the Sloped & Mitered Concrete Headwall should be flush with the surrounding ground line. Payment at the Contract unit price Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary to install the headwall and miter the pipe.

NOTE: For pipes that receive the Sloped & Mitered Concrete Headwall, the pipe length will be measured to the furthest point along the mitered end of the pipe.

Channel Lining. A quantity of 1,967 Tons of Channel Lining Class II has been included in the Roadside Regrading Summary and the Superelevation Improvement Summary for use at location indicated in those summaries. An additional 600 Tons of Channel Lining Class II has been included in the Culvert Pipe Summary for potential use around drop box inlets, safety box inlets, inlets and outlets of pipes, along areas of regraded ditch line and/or fill slope, and other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Channel Lining throughout this project. The Engineer will make the final determination as to the needed quantities and placement of Channel Lining.

Erosion Control Blanket. A quantity of 14100 square yards of Erosion Control Blanket has been included in the contract for potential use along areas of regraded shoulders, ditch lines, fills slopes and/or back slopes, inlets and outlets of pipes, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Erosion Control Blanket throughout this project. The Engineer will make the final determination as to the quantities and placement of Erosion Control Blanket.

Guardrail. Several locations within the project are set up for guardrail replacement. The approximate locations and estimated quantities are noted on the Guardrail Summary. Refer to the Special Note for Guardrail, Typical Sections, and Plan Sheets for more detail and information on this item of work.
NOTE: When the plans call for a Type 1 or Type 4 End Treatment, a MASH eligibility letter from FHWA is required for these end terminals. When a MASH tested eligibility letter is not available for the end terminal being utilized, the most recent NCHRP 350 eligibility letter from FHWA for that terminal will apply. Acceptance of the terminal will be at the discretion of the engineer.

Drilled Railroad Rails and Cribbing. There are locations within the project where embankment slide repairs using drilled railroad rails and cribbing is proposed. Locations are noted on the Cribbing Summary. Refer to the Special Note for Embankment Slide Repair and the associated detail sheets for more information.

Guardrail Cribbing. There are locations within the project where guardrail cribbing is proposed. Locations are noted on the Cribbing Summary. Extra Length Guardrail Posts are noted on the Guardrail Summary. Refer to the Guardrail Cribbing detail sheet for more information.

Removal of Existing Signs and Installation of Proposed Signs. A quantity of "Remove Sign" has been included for removal of existing signs along the corridor as identified in on the Signing Plans. An estimated quantity of new signing and sign post is included on the Signing Summary. The Contractor and
Engineer will work with the District Traffic Section to determine the final signing layout and sign types prior to installation of the proposed signing. Refer to the Special Note for Signing and the Special Note for Signage for more details concerning the procedures for determining and staking the final layout and installation of the signing.

Removal and Relocation of Existing Sign Assemblies. A total quantity of 30 "Remove and Relocate Sign Assembly" has been included in the contract for any existing sign assemblies that may need to be removed and reinstalled. The need to remove and reinstall an existing sign assembly could occur for multiple reasons. One reason is when an existing sign assembly obstructs or interferes with proposed construction activities. Another reason to remove and relocate an existing sign assembly is when the existing sign falls within 200 feet of a proposed sign. An example would be an existing "School Bus Stop Ahead" sign that is within 200 feet of a proposed horizontal alignment sign. Situations such as this should become apparent during Staking operations. Therefore, during Staking operations the Contractor shall work with the Engineer and/or District Traffic Engineer to determine the best location to relocate any existing signs so the final signing meets the 200 foot spacing guideline, or is relocated as directed by the Engineer and/or District Traffic Engineer. (NOTE: chevrons are not included in the 200 foot minimum spacing guideline). Once it is determined that an existing sign is to be removed and reinstalled, the sign should be removed and reinstalled as soon as possible. The intent is for the sign to be "down" the minimum length of time necessary.

NOTE: The Department will consider all signs attached to one or more connected posts as a single sign assembly. The Department will measure and pay for "Remove and Relocate Sign Assembly" as each sign assembly removed and relocated; NOT each individual sign removed and relocated.

Prior to actually removing and relocating a sign, the Contractor should review the sheet sign and sign post for damage. It is the Contractor's responsibility to notify the Engineer of any sheet sign or sign post damage prior to removal and relocation of the sign, so that it can be documented that the existing sheet sign and/or sign post had pre-existing damage. If the Contractor does not make the Department aware of pre-existing damage prior to removing the sign from its existing location, the Department will have to assume the damage was the result of the Contractor's removal and relocation efforts. The Contractor shall replace any components of a sign that are damaged during removal and relocation. Replacement

of the damaged components shall be incidental to the bid item “Remove and Relocate Sign Assembly”.

If the existing sheet sign is found to have pre-existing damage, the Department will provide the Contractor with a new sheet sign to replace the sheet sign with pre-existing damage. Detaching the damaged sheet sign from the existing post and attaching the new sheet sign to the existing post shall be incidental to the bid item “Remove and Relocate Sign Assembly”.

If any of the existing hardware components (bracing, brackets, bolts, rivets, etc.) are found to have pre-existing damage, the Contractor shall provide the necessary replacement hardware for proper re-installation of the sign. These components shall be incidental to the bid item “Remove and Relocate Sign Assembly”.

If an existing sign that is being relocated is found to not have an existing soil stabilizer plate, or if the soil stabilizer plate and/or anchor is damaged during removal, then a new soil stabilizer plate and/or anchor shall be provided by the Contractor and shall be incidental to the bid item “Remove & Relocate Sheet Signs”.

If an existing sign that is being relocated requires a Type D slip base, providing and installing a new Type D slip base shall be incidental to the bid item “Remove and Relocate Sign Assembly”.

If an existing sign that is being relocated is found to have pre-existing damage to the sign post, the Department will NOT utilize the bid item “Remove and Relocate Sign Assembly” for removing and relocating such a sign. Instead, the Department will require the Contractor to install a new sign post(s) at the new location, and pay for the new post(s) under the bid item “Steel Post Type I”. Detaching the existing sheet sign from the existing, damaged post and attaching the existing sheet sign to the new post shall be incidental to the bid item “Steel Post Type I”. Any hardware that is needed to complete the installation shall also be incidental to the bid item “Steel Post Type I”. Removal of the existing damaged post(s) and any other sign components not needed will be paid under the bid item “Remove Sign”.

Trim & Remove Trees, Stumps, and Brush. There are locations within the project where Trees, Stumps, or Brush are to be removed and/or trimmed. Locations are noted on the Tree Removal & Trimming Summary. Refer to the Special Note for Tree, Stump, and Brush Removal for more information.

> **NOTE:** Any trees being removed near existing stone walls shall be cut flush to the ground and treated with the herbicide solution specified in the Special Note for Tree, Stump, and Brush Removal. It may be necessary to cut and remove any such trees in sections, so as not to disturb the existing stone walls. If any damage occurs to any stone walls during construction, the Engineer shall notify HSIP staff and the Division of Environmental Analysis. The existing stone walls are historic, and it may be determined that the damage needs to be repaired. The Contractor and Engineer should work together to determine the best method of tree removal to limit the chances of damage to any existing stone walls.

High Friction Surface Treatment. There are locations within the project where High Friction Surface Treatment is to be installed. Locations are noted on the High Friction Surface Summary. Refer to the

Special Note for Polymer Concrete Overlay Systems and the Special Note for Striping on High Friction Surface for more information on this item of work.

Temporary Striping. A quantity of 9,429 linear feet of Pave Striping – Temp Paint – 4 in has been included in the contract for potential use in the Superelevation Improvement areas, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement striping. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.

Gabion Baskets. There are locations within the project where Gabion Baskets are to be replaced due to new guardrail installation. Refer to the Guardrail Summary for more information.

Rock Removal. Rock Removal is to occur at areas indicated on the plan sheets and summary sheets. See the Rock Removal Details for more information. Begin and End limits at each area are to be field verified with approval from the Engineer. Removal is to occur through the means of using a hoe ram with no blasting being anticipated. All work is to be completed from the roadway. Disposal of all excess and unsuitable excavation is to be at approved sites off the right of way obtained by the Contractor at no additional cost to the Department with all cost being incidental to the bid item "Rock Removal". The Department will measure the Rock Removal as "Rock Removal" and will pay the quantity as Cubic Yards.

> **NOTE:** US 68 may be closed for no more than one extended time period of 36 calendar days from Brooklyn Road (Mile Point 0.1) to Pekin Pike (Mile Point 1.5) for the purpose of performing and completing Rock Removal within these limits. The extended road closure shall not take place while local schools are in session. See the Traffic Control Plan, the Coordination of Work with Other Contractors note, and the Special Note for Completion Date & Liquidated Damages for additional details.

SPECIAL NOTE FOR STAKING

Perform Contractor Staking according to Section 201; except, in addition to the requirements of Section 201, perform the following:

1. Contrary to Section 201, perform items 1-3 usually performed by the Engineer.
2. Using the proposed pavement superelevation rates, runout, and runoff lengths, determine the necessary changes in pavement edge elevation along the curves and the transitions leading into and out of the curve to achieve the proposed superelevation improvements. The intent to provide a consistent superelevation throughout the curves and smooth transitions into and out of the curves. Once the proposed changes in pavement edge elevations are determined and prior to starting paving operations, verify the proposed roadside re-grading along the curve can be constructed so that the new roadside is flush with the new pavement edge elevation and the new toe of slope, or top of cut, will remain within the existing Right-of-Way and/or not impact a sensitive obstruction. If necessary, and with the approval of the Engineer, reduce the proposed superelevation rate of a curve if the new edge of pavement elevation will cause the new roadside grading to extend beyond the Right-of-Way and/or impact a sensitive obstruction. Alternatively, with the approval of the Engineer and to the extent allowable by the "Roadside Regrading and Embankment Benching Details" and/or the Special Note for Roadside Regrading, the Contractor may be allowed to make adjustments to the roadside grading so the proposed roadside re-grading will remain within the existing Right-of-Way and/or not impact a sensitive obstruction. After the final proposed changes in pavement edge elevations are determined and before paving operations begin, submit to the Engineer and obtain approval for the number of asphalt lifts, each asphalt lift's thickness, and the asphalt mix type of each lift the contractor plans to use to achieve the superelevation improvement. Ensure positive drainage upon completion of the work.
3. Verify the dimensions, type, and quantities of the culvert pipes, entrance pipes, and/or box culverts as listed and detailed in the proposal, and determine flow line elevations and slopes necessary to provide positive drainage. Revise as necessary to accommodate the existing site conditions; to provide proper alignment of the drainage structures with existing and/or proposed ditches, stream channels, swales, and the roadway lines and grades; and to ensure positive drainage upon completion of the work.
4. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: The proposed signs are listed in the proposal by approximate location and are NOT to be taken as the exact location for the signs. During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices

(MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.

5. Produce and furnish to the Engineer "As Built" information for the superelevation improvements and the drainage improvements. For superelevation improvements, as built information will consist of a record of the final pavement cross slopes every 50 feet, for each lane of travel along the curves and the transitions into and out of the curves. Elevation data of the curve improvements is not necessary; simply the cross slope percentage every 50 feet. For the drainage improvements, as built information will consist of a final record of the actual types, sizes, and locations of the drainage structures (i.e. box inlets, headwalls, junction boxes, etc.), culvert pipes, and/or box culverts constructed. Final elevation data of the drainage improvements is not necessary.
6. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru and turning lanes. Obtain approval of the pre-marked layout from the Engineer and/or District Traffic Engineer prior to installing the striping and/or pavement markings.
7. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
8. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

Perform all erosion and water pollution control work in accordance with any other notes in the Proposal, the Department's Standard and Interim Supplemental Specifications, the Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions, or as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

II. MATERIALS

Furnish materials in accordance with these notes, the Standard Specifications and Interim Supplemental Specifications, applicable Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

III. CONSTRUCTION

Be advised, these Erosion Control Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, the construction phasing, methods, and the techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between these notes, the Standard Specifications, Interim Supplemental Specifications, Special Provisions and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work. Preserve existing vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a steam.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. All silt control devices shall be sized to retain a volume of 3,600 cubic feet per disturbed contributing acre. Remove sediment from silt traps before they become a maximum of ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

As work progresses, add or remove erosion control measures as required by the BMP, applicable to the Contractor's project phasing, construction methods, and techniques. Update the volume calculations and modify the BMP as necessary throughout the duration of the project. Ensure that an updated BMP is kept on site and available for public inspection throughout the life of the project.

The required volume at each Silt Trap shall be computed based on the Up Gradient Contributing Areas that are disturbed and/or stabilized to the satisfaction of the Engineer. The required volume calculation for each Silt Trap shall be determined by the Contractor and verified by the Engineer. The required volume at each Silt Trap may be reduced by the following amounts:

- Up Gradient Areas not disturbed (acres)
- Up Gradient Areas that have been reclaimed and protected by Erosion Control Blanket or other ground protection material such as Temporary Mulch (acres)
- Up Gradient Areas that have been protected by Silt Fence (acres) – Areas protected by Silt Fence shall be computed at a maximum rate of 100 square feet per linear foot of Silt Fence
- Up Gradient Areas that have been protected by Silt Traps (acres)

The use of Temporary Mulch is encouraged.

Silt Trap Type B shall always be placed at the collection point prior to discharging into a Blue Line Stream or onto an adjacent Property Owner. Where overland flow exists, a Silt Fence or other filter devices may be used.

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer's concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right of-Way) as nearly

as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. MEASUREMENT

The Department will measure the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

V. BASIS OF PAYMENT

The Department will make payment for the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

Special Note for Roadside Regrading

I. DESCRIPTION

Except as provided herein, all work shall be performed in accordance with Department's Standard Specifications, Interim Supplemental Specifications, applicable Standard and Sepia Drawings, applicable Special Provisions and Special Notes, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Site Preparation; (3) Roadside Regrading; (4) Constructing Embankments, Embankment Benching, and/or Excavation; (5) Erosion Control; and (6) Any other work as specified in this Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for Erosion Control.

C. DGA. Furnish Dense Graded Aggregate as per Section 805.

D. Asphalt Seal Coat. See the Special Note for Double Asphalt Seal Coat.

E. Asphalt Seal Aggregate. See the Special Note for Double Asphalt Seal Coat.

F. Channel Lining, Class II. When listed as a bid item, furnish Channel Lining, Class II as per Section 805.

G. Geotextile Fabric Class 1. When listed as a bid item, furnish Geotextile Fabric Class 1 as per Section 843.

H. Crushed Stone Base. Furnish Crushed Stone Base as per Section 805.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See the Traffic Control Plan.

B. Erosion Control. See the Special Note for Erosion Control.

C. Site Preparation. Be responsible for all site preparation including, but not limited to: staking; clearing, grubbing, and removal of all obstructions or any other items; excavation, embankment benching, compacting embankment in place; temporary pollution and erosion control; disposal of excess, waste, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the Engineer.

D. Staking. See the Special Note for Staking.

E. Roadside Regrading. Perform Roadside Regrading at the approximate locations listed on the Summary Sheets and/or Plan Sheets, or at locations as directed by the Engineer. All work shall be completed as specified in the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS, the Typical Sections, the Plan Sheets, or as directed by the Engineer. Roadside Regrading shall consist of any necessary clearing, grubbing, grading, and/or reshaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions detailed on the Typical Sections. Depending on the existing conditions encountered and to achieve the dimensions as detailed in the Typical Sections, Roadside Regrading may also include, but is not limited to: embankment benching, excavating and removing excess material, excavation of rock, providing additional earth material suitable for vegetation growth and grading, shaping, and compacting the earth material.

Provide positive drainage of ditches and slopes at all times during and upon completion of construction. When asphalt surfacing or resurfacing is included in the contract, perform all Roadside Regrading operations as is practical before beginning final surfacing operations.

F. Embankment Benching. Embankment Benching shall be required when the existing groundline has an incline greater than 15%. Any and all required embankment benching shall be incidental to the bid item ROADSIDE REGRADING. For more information refer to the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS.

G. DGA Wedge & Chip Seal. Some, or possibly all, areas of Roadside Regrading may be set up to receive a DGA Wedge & Chip Seal after the Roadside Regrading operations are complete. Other areas of Roadside Regrading may NOT be set up to receive the DGA Wedge & Chip Seal. See the Summary Sheets and/or Plan Sheets for the approximate locations to receive the DGA Wedge & Chip Seal. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal at the time of construction. Construct and compact the DGA as required by Section 302. Place Chip Seal over the entire width of the DGA Wedge. See the Special Note for Double Asphalt Seal Coat for the Chip Seal requirements.

H. Channel Lining. Install Class II Channel Lining along any sections of ditches, fill slopes, or ditch backslopes identified in the Proposal, or any other locations the Engineer directs for slope protection or erosion control. When Channel Lining is proposed to be installed along a steep fill slope in order to establish a width of shoulder (as shown in Figure 5 of the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS), the Channel Lining is to be capped with Geotextile Fabric Class 1 and 4” of Crushed Stone Base. In lieu of 4” of Crushed Stone Base, 4” of DGA and a

Double Asphalt Seal Coat may be specified in the Proposal. Install whichever aggregate capping material the Proposal specifies, or as directed by the Engineer.

I. Right-of-Way Limits. The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

J. Property Damage. The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

K. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

L. Caution. The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

M. Control. Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the

construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

N. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed excess material, debris, and other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

O. Final Dressing, Seeding and Protection. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for Erosion Control.

C. Site Preparation. Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.

D. Staking. See Special Note for Staking.

E. Roadside Regrading. The Department will measure the bid item ROADSIDE REGRADING in linear feet along the centerline of the roadway as the length of the actual Roadside Regrading work performed. Further, this measurement will only include one side of the roadway. Therefore, for areas where Roadside Regrading occurs on both sides of the road, the Department will measure each side independently. The Department will not measure cleaning pipe structures 36 inches or less in diameter or reshaping any deformed ends on metal entrance pipes that are to remain in place, as these operations are considered incidental to the bid item ROADSIDE REGRADING.

F. Embankment Benching. The Department will not measure Embankment Benching for payment. Any and all required embankment benching shall be incidental to the bid item ROADSIDE REGRADING.

G. DGA, CSB. When listed as bid items, DGA and Crushed Stone Base shall be measured according to Section 302.04.

H. Chip Seal. When specified in the contract, the bid items associated with Chip Seal shall be measured according to the Special Note for Double Asphalt Seal Coat.

I. Channel Lining, Class II. When listed as a bid item, Class II Channel Lining shall be measured according to Section 703.04.

J. Geotextile Fabric, Class 1. When listed as bid items, Geotextile Fabric, Class 1 shall be measured according to Section 214.04.

K. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for Erosion Control.

C. Staking. See Special Note for Staking.

D. Roadside Regrading. The Department will make payment for the completed and accepted quantities under the bid item ROADSIDE REGRADING. The Department will consider payment full compensation for furnishing all labor, materials, equipment, and incidentals necessary to perform Roadside Regrading as required by these notes, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

E. DGA, CSB. When listed as bid items, the Department will make payment for DGA and Crushed Stone Base according to Section 302.05.

F. Chip Seal. When specified in the contract, the Department will make payment for the bid items associated with Chip Seal according to the Special Note for Double Asphalt Seal Coat.

G. Channel Lining, Class II. When listed as a bid item, the Department will make payment for Class II Channel Lining according to Section 703.05.

H. Geotextile Fabric, Class 1. When listed as a bid item, the Department will make payment for Geotextile Fabric, Class 1 according to Section 214.05.

SPECIAL NOTE

For Tree Removal

Jessamine County
PERFORM LOW COST SAFETY IMPROVEMENTS ON US 68 FROM MP 0.00 TO MP 4.807
Item No. 07-9009

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST HEIGHT) FROM **JUNE 1 THROUGH JULY 31.**

If there are any questions regarding this note, please contact Danny Peake, Director, Division of Environmental Analysis, 200 Mero Street, Frankfort, KY 40601, Phone: (502) 564-7250.

SPECIAL NOTE FOR TREE, STUMP, AND BRUSH REMOVAL

I. DESCRIPTION

All work shall be performed in accordance with the Department's current Standard Specifications for Road and Bridge Construction and applicable Special Provisions, except as hereafter specified. Article references are to the Standard Specifications.

This work shall consist furnishing all equipment, labor, materials, and incidentals for the following: (1) Site Preparation; (2) Maintaining and controlling traffic; (3) Temporary erosion control and temporary pollution control; (4) Cutting, trimming, and/or removing trees, stumps, and/or brush as specified or directed by the Project Engineer; (5) Treating all cut stumps required by Project Engineer to prevent re-sprouting; (5) Clean up and disposal of waste; (6) Final dressing and seeding and protection; and (7) all other work specified in the Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Seeding and Protection. Use applicable Seed Mixture as specified per Section 212.03.03.

C. Erosion Control. See the Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Cutting, Trimming, and/or Removing Trees, Stumps, and/or Brush. The Contractor shall cut, trim, and/or remove trees within the clearing dimensions as shown on the Tree Trimming Detail. On this detail, the horizontal width is taken from the edge of pavement measured perpendicular to the roadway, but not to extend beyond the obvious Right-of-Way limits, or as directed by the Engineer. To achieve the tree trimming/clearing dimensions shown on the Tree Trimming Detail, the complete removal of some trees may be necessary. The Department’s expectation is that if the trunk or any portion of the trunk of any tree is within the tree trimming/clearing dimensions shown on the Tree Trimming Detail, any such tree shall be cut and removed as part of this bid item. Additionally, if

there are trees whose main trunk is not within the tree trimming/clearing dimensions, but more than approximately 50% of the tree's canopy will be removed due to trimming, any such tree shall be cut and removed as part of this bid item. Cut trees and/or bushes as close to the ground as possible; three inches (3") or less from ground line. All tree stumps within the mowing zone shall be removed via mechanical grinding, or other methods approved by the Engineer, to a minimum depth of four (4) inches below the surrounding grade line. For trees that are cut, but will not be required to have their stump removed, treat the stump, within one hour of cutting, with the herbicide solution specified below. The Contractor and Engineer should work together to identify the trees and/or stumps requiring removal. The Engineer will make the final determination on the decision to remove or leave any trees and/or stumps in question.

Replace and level any and all soil disturbed during the tree, stump, and/or brush removal and/or tree trimming operations. Leave the soil in a condition suitable for seeding that is level with the surrounding soil grade, with no holes or indentions to catch water or present unsafe mowing conditions. This work will be incidental to the bid item "Trim and Remove Trees and Brush."

NOTE: Tree cutting restrictions apply. See the Special Note for Tree Removal for details on the restrictions.

C. Removal of Tree, Stump, and Brush Debris. The Contractor will remove all debris and biomass from the trimming and/or removal of trees, stumps, and/or brush from the work site and dispose of such off the right-of-way in accordance with local, state, and federal solid waste laws and regulations. Cleanup and remove all existing down trees and brush located within the designated areas. At the discretion of the Engineer, the contractor may be permitted to chip and blow biomass onto non-mowing zones. Chips shall not be blown onto areas that would potentially restrict the flow of water in drainage ditches. All un-chipped biomass must be removed from roadway right-of-ways.

The Contractor shall keep the work zone free of accumulated waste material and debris at all times. Remove and dispose of all tree, stump, and brush chips off the right-of-way. Remove and dispose of all debris and waste material off the right-of-way as work is completed and at the end of each workday. Remove desirable wood pieces from the right-of-way at the end of each workday. Stockpile trees and brush off the right-of-way. At the discretion of the Project Engineer, the Contractor may be permitted to stockpile trees and brush at approved locations along the right-of-way.

The Contractor shall immediately correct any disturbance to all drainage features and structures caused by the Contractor's work.

D. Stump Treatment. Within one hour of cutting, the Contractor shall apply a stump treatment mix consisting of fifty percent (50%) Glyphosate (EPA Reg. No. 524-579) with water and add twelve (12) ounces of Imazapyr (EPA Reg. No. 241-431), as specified, per

gallon of solution. The addition of a non-ionic surfactant 5% (v/v) shall be added to the solution to increase uptake of the herbicide solution into the root system. Generic formulations are not acceptable. Mix the herbicide solution in the presence of the Inspector. Include a color indicator in the herbicide solution to mark the treated stumps. Spray or paint the herbicide solution onto all cut stumps within one hour after cutting. Apply the herbicide solution in a manner to avoid drift onto surrounding vegetative ground cover. Stumps in the mowing zone, designated for mechanical grinding treatment, need not receive the herbicide treatment.

Provide herbicide material for the treatment of cut stumps meeting the following criteria:

a. Glyphosate

Active ingredient: (**Glyphosate**)
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt..... 48.7%
Inert ingredients 51.3%
Total 100.0%
* Contains 660 grams per liter or 5.5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its potassium salt. Equivalent to 540 grams per liter or 4.5 pounds per U.S. gallon of the acid, glyphosate.
EPA Reg. No. 524-579

b. Imazapyr

Active ingredient: (**Imazapyr**)
*Isopropylamine salt of Imazapyr 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) 26.7%
Inert ingredients 73.3%
Total 100%
* Equivalent to 21.8 percent 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazolyl]-3-pyridinecarboxylic acid or 2 pounds acid per gallon.
EPA Reg. No. 241-431

KRS 217B requires that any individual who applies pesticides to Kentucky Highway Right-of-Way areas must be certified as a Pesticide Applicator under Category 6 guidelines. Comply with all current laws and regulations established by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and by KRS 217B that regulate the handling, use, and application of pesticides.

E. Property Damage. The Contractor will be responsible for all damage to public and/or private property resulting from his work.

F. Coordination with Utility Companies. NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The

Contractor shall have the responsibility for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Utility Owner while they relocate their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations.

G. Right-of-Way Limits. The exact limits of the Right-of-Way have not been established by the Department. The Contractor shall limit his activities to obvious Right-of-Way, permanent or temporary easements, and any work areas secured by consent and release of the adjacent property owners. The Contractor shall be responsible for all encroachments onto private lands.

H. Clean Up, Disposal of Waste. Clean up and dispose of all removed debris by the end of each work day, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for clean up or disposal of waste and debris from the project. See the Special Provision for Waste and Borrow Sites.

I. Final Dressing, Seeding and Protection. Apply final dressing, class A to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the appropriate Seed Mixture as specified in Section 212.03.03.

J. Erosion Control. See the Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See the Traffic Control Plan.

B. Site preparation. Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to the project bid items.

C. Trim & Remove Trees & Brush. The Department will measure the quantity by Linear Foot, per side of the highway. See the Tree Trimming Detail for the horizontal and vertical tree trimming/clearing dimensions.

D. Stump Treatment. The Department will NOT measure for payment the operation of Stump Treatment. This activity shall be incidental to the bid item “Trim & Remove Trees & Brush”.

E. Clean Up, Disposal of Waste. The Department will NOT measure for payment the

operations of Clean Up and Disposal of Waste. These activities shall be incidental to the project bid items.

F. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operations of Final Dressing. Seeding and Protection will be measured according to Section 212.

G. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See the Traffic Control Plan.

B. Trim & Remove Trees & Brush. The Department will make payment for the completed and accepted quantities per Linear Foot. The Department will consider payment at the contract unit price as full compensation for furnishing all materials, equipment, labor, other expenses, and all incidentals necessary to complete the work of trimming and removing the trees and brush.

C. Erosion Control. See the Special Note for Erosion Control.

SPECIAL NOTES FOR PIPE REPLACEMENTS / EXTENSIONS

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's Standard Specifications, interim Supplemental Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Constructing pipe replacements and/or pipe extensions; (3) Embankment and/or Excavation; (4) Erosion Control; and (6) Any other work as specified by this contract.

II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these notes.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Culvert Pipe. Furnish pipe meeting the requirements of Section 810. Select pipe for pH range Medium and minimum fill cover height according to the applicable Standard or Sepia Drawings, current editions. Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer’s approval of the class or gauge of pipe and type of coating prior to delivering pipe to project. Furnish approved connecting bands or pipe anchors and toe walls.

C. Flowable Fill. Furnish Flowable Fill for Pipe Backfill per Section 601.03.03(B).

D. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for Erosion Control.

C. Site Preparation. Be responsible for all site preparation including, but not limited to, saw cutting and removing pavement; clearing and grubbing; staking; incidental excavation and backfilling; common and solid rock excavation; embankment in place; removal of obstructions, or any other items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Limit clearing and grubbing to the absolute minimum required to construct the drainage features. Perform all site preparation only as approved or directed by the Engineer.

D. Removing Headwalls, Pipe, and Excavation. Remove existing headwalls and lengths of culvert and/or entrance pipes at the approximate locations noted on the summary. The Engineer will determine the exact locations and lengths of pipe to be removed at the time of construction. When removing pipe, or any portion of pipe under the roadway, saw cut the existing asphalt pavement and base to a neat edge prior to excavation and removal of the existing pipe. NOTE: Saw cutting the pavement shall be incidental. Obtain the Engineer's approval of trench width and/or saw cutting limits prior to saw cutting the pavement. Excavate the trench and remove the pipe as directed, or approved, by the Engineer without disturbing existing underground utilities.

E. Constructing Pipe, Headwalls, and Drainage Boxes. Construct culvert and/or entrance pipes, pipe extensions, headwalls, drainage boxes, and other drainage structures at the locations shown in the proposal or as designated by the Engineer. The contractor will establish, with the approval of the Engineer, the final centerlines, flow lines, and skews to obtain the best fit with the existing and/or proposed ditches and other proposed improvements. (See the Special Note for Staking.) Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings, current editions. Use approved connecting bands or concrete anchors as required. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide Positive drainage upon completion of pipe installation.

F. Pipe Backfill. Backfill entrance pipes according to Section 701.03.06. Contrary to Section 701.03.06, regardless of cover height, backfill culvert pipes with flowable fill as shown on the Culvert Pipe Replacement Detail from the outside edge of shoulder or back of curb to outside edge of shoulder or back of curb. Steel plates will likely be required to maintain traffic while the flowable fill cures. Once the flowable fill has sufficiently cured, place the Asphalt Base in lifts with thicknesses of 3-4 inches, up to the surface of the existing pavement. Seal with Leveling & Wedging. Allow the asphalt base and leveling & wedging to be exposed to traffic for a minimum of 14 days to allow for settlement. During the waiting period, level & wedge any settlement as directed by the Engineer. After the waiting period has been met for the last pipe replacement constructed, the final milling and/or surfacing operations can begin, unless directed otherwise by the Engineer. For culvert pipe beyond the outside edge of shoulder or back of curb, backfill according to Section 701.03.06.

G. Embankments. Backfill pipe and culvert extensions, and construct shoulder embankments as directed by the Engineer. The contractor shall bench into the existing slope and apply proper compaction according to Section 206. For more information and details on benching, refer to Note 2 on the detail sheet titled: ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS, found elsewhere in the Proposal. Provide positive drainage of ditches, shoulders, and slopes at all times during, and upon completion of construction.

H. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design, as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

I. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of pipe replacement and pipe extension operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

J. Right-of-Way Limits. The Department has not established exact limits of the Right-of-Way. Unless a consent and release form is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

K. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites off the Right of Way obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

L. Final Dressing, Seeding and Protection. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

M. Erosion Control. See the Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See the Traffic Control Plan.

B. Site Preparation. Other than the bid items listed, site preparation will NOT be measured for

payment, but shall be incidental to culvert and/or entrance pipe bid items, as applicable.

C. Remove Headwall. The Department will measure the removal of existing headwalls as Each. Any excavation, including rock excavation, necessary to remove existing headwalls will NOT be measured for payment, but shall be incidental to the bid item "Remove Headwall".

D. Remove Pipe. Removal of existing culvert and entrance pipe shall be measured according to Section 701.04.14. Any excavation, including rock excavation, necessary to remove existing pipe will NOT be measured for payment, but shall be incidental to the bid item "Remove Pipe".

E. Culvert and Entrance Pipe. The Department will measure the quantities according to Section 701.04. Any excavation, including rock excavation, necessary to install culvert or entrance pipe shall be incidental to the corresponding pipe bid items.

F. Headwalls, Drainage Boxes. The Department will measure according to Section 710. Any excavation, including rock excavation, necessary to construct headwalls and/or drainage boxes will NOT be measured for payment, but shall be incidental to the applicable bid item.

G. Excavation, Pipe Backfill, Embankments. The Department will NOT measure for payment the following items: any excavation, including rock excavation, necessary to remove the existing pipe and/or install the proposed culvert or entrance pipe, pipe backfill material, geotextile fabric, flowable fill, and re-constructing shoulder embankments, but shall considered these items incidental to the bid items for culvert and entrance pipe.

H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.

I. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See the Traffic Control Plan.

B. Remove Headwall. The Department will make payment for the completed and accepted quantities of Each headwall removed. Payment at the Contract unit price per Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing headwall.

C. Remove Pipe. The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing pipe.

D. Culvert and Entrance Pipe. The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary for installing and backfilling new culvert and entrance pipe.

E. Headwalls, Drainage Boxes. The Department will make payment according to Section 710.

F. Erosion Control. See the Special Note for Erosion Control.

SPECIAL NOTE FOR EMBANKMENT SLIDE REPAIR

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Furnish and install railroad rails; (3) Furnish and install cribbing**;** (4) Excavate, place geotextile material, and backfill the area around the railroad rails and on the fill slope; (5) Reconstruct shoulder area; (6) Install guardrail; (7) Maintain and Control Traffic; and (8) any other work as specified by this contract.

Repairs using drilled railroad steel and guardrail cribbing are to occur at locations indicated on the Plan Sheets and/or Summary Sheets. Begin and End limits at each area are to be field verified with approval from the Engineer.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Railroad Rails. Use recycled (used) railroad rails classified with a nominal weight of 130 lb/yd (pounds per yard) size or greater. Use only visibly straight recycled railroad rails with no splices. The Engineer will verify rail nominal weights (Manufacturer's Stamp with lb/yd, date, etc.) Provide Certification for nominal weight if the Manufacturer's Stamp is unidentifiable.

B. Wall Cribbing. Use recycled (used) steel "W" beam guardrail. **Cribbing material will be furnished by the Department of Highways.** Wall cribbing will be located at the ***Bailey Bridge Yard in Frankfort, KY.*** The Contractor will be responsible for picking up the cribbing material and delivering it to the project site as an incidental item.

C. Backfill material for Drilled Sockets. Use the following for backfill material for Drilled sockets: concrete, free flowing sand, pea gravel, crushed limestone, or crushed sandstone. Use backfill material with one hundred percent (100%) passing a one-half (1/2) inch sieve. Do not use auger tailings. Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.

D. Fill Material for CRIBBING. Use one of the following backfill materials: Kentucky Aggregate Gradation No. 2's or larger. Backfill material shall meet requirements of Section 805. The Engineer will use visual inspection and/or material testing, as applicable, to determine acceptability.

E. DGA. Furnish DGA as per Section 805. Do not use Crushed Stone Base.

F. Final Dressing, Seed and Protection. Use seed mixture(s) according to Section 212.

G. Geotextile Fabric. Furnish Geotextile Fabric Type IV as per Section 843.

H. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Staking. Establish proper slope elevations and ratios, shoulder widths, existing ditch profile and final ditch profile to insure positive drainage. Be responsible for field layout. Positive drainage is required upon completion of the project and is the responsibility of the Contractor.

C. Site Preparation. Prepare repair sites. This includes clearing and grubbing, if necessary. Remove all obstructions. Sweep and remove debris, if necessary. The area to be cleared has not been measured by the Department and the bidder must draw his own conclusions. Construct silt checks, temporary silt fence, or other erosion control devices, as necessary to satisfy the BMP, at locations directed by the engineer. The engineer shall approve all site preparation. The Department will not make direct payment for site preparation.

D. Installation of Railroad Rails. See attached summary for site locations and estimated quantities of materials required. The depth to rock shown on the summary is approximate. No geotechnical borings were advanced, and, as such, rock depths may differ from those estimated. Therefore the contractor is responsible for determining actual depth to rock and providing to the department to be approved by the engineer. The embankment failures at these sites are caused by erosion from steep slopes and poor drainage.

NOTE TO ENGINEER AND CONTRACTOR: ABSOLUTELY NO CHANGE IN SCOPE OF WORK OR INCREASE IN QUANTITIES WILL BE ALLOWED ON THIS PROJECT WITHOUT PRIOR WRITTEN APPROVAL FROM THE TEBM

(Transportation Engineering Branch Manager) OR HIS REPRESENTATIVE IN THE DISTRICT OFFICE.

THE DEPARTMENT SHALL NOT BE LIABLE FOR PAYMENTS DUE TO ADDITIONAL WORK THAT HAS NOT BEEN AUTHORIZED BY THE AFOREMENTIONED PERSONS.

Install used railroad rail piling in drilled sockets in rock or stable material under the landslides (see figure 1) or the eroded areas (see figure 2) as project location dictates or as directed by the Engineer.

Drill the socket, furnish, and install the railroad rails into holes at slide locations. If the Engineer determines from sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as "Railroad Rail-Drilled". Drill sockets into solid rock, if possible. The Department will monitor each hole, which will serve as a sounding for the rail to be installed in it. Embed the railroad rail into solid rock no less than one-half the free end length of the rail. (See figure 1 and figure 2). If solid rock cannot be obtained, the Engineer will determine the length of embedment required in other stable foundation. Allow adequate size of the drilled socket to allow free insertion of the railroad rail, but the maximum socket size is 1 foot in diameter.

After each hole is drilled, install railroad rail immediately with the flanges positioned perpendicular to the direction of the landslide or break (see figure 3). Determine the height of rail that is needed to reestablish pavement and shoulder typical section. Cut off excess rail flush with the proposed ground line that is not needed. Use cutoffs elsewhere in the project if possible; unusable cutoffs remain the property of the Contractor.

After railroad rail is installed, immediately backfill the drilled hole with the approved materials. Shovel the backfill material into the hole in small amounts. Avoid bridging between the rail and the sides of the hole. Do not us Auger tailings as backfill material.

When double or triple rows are required, stagger the rows to obtain the required spacing. Keep the spacing between the rows of rails as close as is practical; do not space between the rows of more than 2 feet, if possible. See figure 3 (Case II and Case III) for the diagrams showing two (2) or three (3) rows of rails. Select the spacing as per Table 1 for all 130 pound per yard rail or greater. The Department shall approve the selection prior to work being performed.

Crib any exposed portion of railroad rail before placing backfill.

E. Excavation and Backfill. Excavate each repair area to provide a platform for drilling the used railroad rails, if necessary. Excavate for roadway ditches as necessary for

slope, shoulder and pavement drainage. Place geotextile fabric, then construct embankment behind railroad rails, cribbing, and on slope, as per Section 206. Construct embankment up to the approximate existing pavement elevation.

Reconstruct the shoulder area with DGA up to the approximate existing elevation and width of the surrounding typical section or to a minimum width of 2 Feet at each slide location. Do not pond water on the shoulder area or at the shoulder edge. Reconstruct the shoulder before installing guardrail.

DO NOT USE EXCAVATED MATERIAL FROM THE SITE AS FILL MATERIAL. Excess excavation may be wasted at sites on the right-of-way, ONLY if approved by the Engineer. Material may NOT be wasted in flood prone areas or in streams.

If the Engineer deems no suitable sites are available within the right-of-way, the Contractor will be required to waste excess material off the right-of-way at sites obtained by the Contractor at no cost to the Department.

F. Installation of Wall Cribbing. Install Cribbing as shown on Figure 1 or Figure 2 as slide location dictates or as directed by the Engineer. Extend wall cribbing 2 feet below the existing ground line. If bedded rock is encountered, install the cribbing to the bedded rock only. If necessary, the Engineer will direct changes to this procedure. Furnish all labor and equipment to deliver and install wall cribbing on the recycled (used) railroad rail piling. Wall cribbing shall be lapped, bolted, and attached solid to the drilled railroad rails.

G. Final Dressing, Seeding and Protection. Apply Final Dressing, Class A to all disturbed areas, both on and off the right-of-way. Sow with Seed Mixture No. 1. The Department will NOT make direct payment for final dressing, or seeding and protection, but shall be incidental to Erosion Control.

H. On-Site Inspection. Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with the existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made.

I. Right-of-Way Limits. The Department has not established exact limits of the Right-of-Way. The Contractor shall make every effort to limit his activities to obvious right-of-way and permanent or temporary easements and shall be responsible for encroachments onto private lands.

J. Property Damage. The Contractor will be responsible for all damage to public and/or private property resulting from his work.

K. Erosion Control. See Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Staking. See Special Note for Staking.

C. Site Preparation. Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to the bid item Excavation and Backfill.

D. Railroad Rail-Drilled. The Department will measure the finished in-place length of this item in Linear Feet. Laps, cutoffs, excess, and waste will NOT be measured for payment. If the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as Railroad Rail-Drilled.

E. Excavation and Backfill. The Department will measure this item in cubic yards. The Department will measure the quantity in the field as per Section 204 (Roadway Excavation) or other accepted methods of measurement as directed by the Engineer.

F. Wall Cribbing. The Department will measure this item in square feet finished in placed area. Laps, cutoffs, excess and waste will not be measured for payment.

G. Geotextile Fabric. The Department will measure Geotextile Fabric Type IV according to Section 214.

H. DGA. The Department will measure according to Section 302.

I. Clean Up, Disposal of Waste. The Department will NOT measure for payment the operation of Clean Up and Disposal of Waste. These activities shall be incidental to project bid items.

J. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operation of Final Dressing. This shall be incidental. The Department will measure Seeding and Protection according to Section 212.

K. Erosion Control. See Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Staking. See Special Note for Staking.

C. Railroad Rail-Drilled. The Department will make payment for the completed and accepted quantities under the bid item: Railroad Rail-Drilled. The Department will consider payment full compensation for all work required in these notes and elsewhere in the Contract.

D. Excavation and Backfill. The Department will make payment for the completed and accepted quantities under the bid item: Excavation and Backfill. Payment will be based on quantity measured in the field. The Department will consider payment full compensation for all work and incidentals necessary to excavate and backfill the areas indicated on the plans or as directed by the Engineer.

E. Wall Cribbing. The Department will make payment for the completed and accepted quantities under the bid item: Cribbing. Payment will be based on the quantity installed in the field. The Department will not make separate payment for the hauling of the wall cribbing to the project site(s). The Department will consider payment full compensation for all work required on the project.

F. Geotextile Fabric. The Department will make payment of Geotextile Fabric Type IV according to Section 214.

G. DGA. The Department will make payment according to Section 302.

H. Erosion Control. See Special Note for Erosion Control.

SPECIAL NOTE FOR SIGNAGE

The final advisory speeds and some sign types will have to be determined after the curve superelevation improvements and final surfacing operations have been completed. The Contractor shall notify the Engineer and District Traffic Engineer when all of the superelevation improvements and surfacing operations have been completed. Once notified, the District Traffic Engineer will ball-bank the newly surfaced route to determine the appropriate advisory speeds and work with the Contractor to determine the final Signing Plan. The Engineer and/or District Traffic Engineer will provide the Contractor with the final advisory speeds, any changes to proposed sign types, and the final quantities within three (3) weeks of being notified by the Contractor that final surfacing operations are complete. After the Contractor has received this information from the Engineer and/or the District Traffic Engineer, the Contractor shall then proceed to layout and stake the signing according to the Special Note for Staking, included elsewhere in this proposal.

All sign sheeting shall be from the Cabinet's List of Approved Materials.

All permanent signs and sign components shall be fabricated using Type XI sheeting.

The following signs and sign components shall be fabricated using Type XI fluorescent yellow sheeting:

- Horizontal Alignment Signs and Plaques, including signs shown in Figure 2C-1 of the MUTCD
- All Advisory Speed (W13-1P) plaques

The following signs shall be fabricated using Type XI fluorescent yellow-green sheeting:

- School and school bus warning signs, including the fluorescent yellow-green signs shown in Figures 7B-1 and 7B-6 of the MUTCD and other school-related warning signs that are not included in the MUTCD.
- Bicycle Warning (W11-1) signs and SHARE THE ROAD (W16-1P) plaques or diagonal downward pointing arrow (W16-7P) plaques that supplement Bicycle Warning signs.
- Pedestrian Warning signs and diagonal downward pointing arrow plaques that supplement Pedestrian Warning signs.
- In-Street Pedestrian Crossing (R1-6) signs and Overhead pedestrian Crossing (R1-9) signs
- Supplemental plaques to any of the previously listed signs

SPECIAL NOTE FOR SIGNING

I. DESCRIPTION

Except as provided herein, this work shall be performed in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Department's current Standard Specifications and Interim Supplemental Specifications, applicable Standard and Sepia Drawings, and applicable Special Provisions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Furnish, Fabricate, and Erect Signs; and
(3) All other work specified in the Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Be responsible for all site preparation including, but not limited to: clearing and grubbing, staking, excavation, backfill, and removal of obstructions or any other material not covered by other items. Perform all site preparation only as approved, or directed, by the Engineer.

C. Staking. See Special Note for Staking.

D. Signs and Posts. Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer’s cuts, etc. covering all material to be used. Mill test reports for beams, steel panels, and each different gauge of aluminum or steel sheeting used must be submitted to the Division of Construction and approved prior to erection.

Fabricate sheet signs from .080 or .125 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209, and to the size and shape specified. Prepare the side of the sheet to be used as the sign face to receive the retroreflective background material

according to the recommendations of the sheeting and retroreflective material manufacturer(s). Sheeting used as background material for sign faces is to be the color specified and visually in accordance with the standard requirements of ASTM D-4956, and meet the requirements of Section 830 of the Standard Specifications. Contrary to Section 830.02.06, only the types and colors of sheeting as specified in the proposal will be accepted. All retroreflective material shall be fabricated and assembled in accordance with the specifications and/or recommendations of the manufacturer(s).

All hardware for the erection of sheeting signs shall be rust resistant: stainless steel, zinc coated, aluminum, or an Engineer approved material. All beams and posts shall be of sufficient lengths to extend from the top of the sign to the required embedment in the anchor. Splicing of the sign post shall NOT be allowed. For installations in soil, Type I steel posts shall be mounted on either a standard anchor, with soil stabilizer plate, or on a Type D breakaway sign support. Refer to Sheeting Sign Detail Sheet 1 of 2 for installation details for a standard anchor with soil stabilizer plate. When installing a standard anchor with soil stabilizer plate, if solid rock is encountered, the Contractor shall drill a hole to the required depth into the rock, install the anchor into the hole, and backfill the anchor post with concrete, or other method approved by the Engineer. The cost shall be incidental to Type I steel post, and a soil stabilizer plate will not be required. Refer to Standard Drawing RGX-065, current edition, for installation details of Type D breakaway sign supports. Approved manufacturers for Type D breakaway sign supports have been placed on the list of approved materials. For installations on existing concrete, such as a sidewalk, concrete median, etc., or installations on existing asphalt, such as flush medians, Type I steel posts shall be mounted on a Type D Surface Mount. For Type D Surface Mounts use only Kleen Break Model 425 by Xcessories Squared of Auburn, IL. If the Surface Mount is to be installed on sufficiently cured concrete, use part number XKBSM42520-G. If the Surface Mount is to be installed on asphalt surface, use part numbers XKB42520-G and AXT225 -36-G. Prior to installation, the Contractor shall submit to the Engineer shop drawings of the Type D Surface Mount(s). Install the Type D Surface Mount(s) according to all the applicable requirements of the manufacturer (see shop drawings). All steel post shall meet the requirements of Section 832. All hardware including, but not limited to, sign post anchors, soil stabilizer plates, nuts, bolts, washers, fasteners, fittings, and bracing, or any other incidentals necessary to erect the signs shall be furnished by the Contractor and will be incidental to the work.

New concrete bases, posts, support anchors, signs, etc. are to be installed prior to dismantling any existing sign(s). The removal of existing signs, posts, and support anchors is to be performed concurrently with the installation of new signs, posts, and support anchors, under the same lane closure during the same work shift. Completely remove existing sign support anchors or remove them to a minimum depth of six (6) inches below existing ground line and backfill the disturbed area to the existing ground line.

When listed in the summaries, Reflective Sign Post Panels shall be 2” wide x 60” tall (or 84” tall for urban installations) and shall have three 3/8” holes (one hole in the top 3”, one hole near the center, and one hole in the bottom 3”) that align with the holes on the Type I

steel post. Sheeting for the Reflective Sign Post Panels shall be the same Type and color as the sign installed on the post. Examples include:

- Red, fluorescent yellow, and fluorescent yellow-green (Type XI Sheeting)
- White and yellow (Type XI Sheeting).

All manufactured sheeting signs shall be free of visual defects including, but not limited to: cracks, tears, ridges, humps, discoloration, etc., and defective signs shall be replaced at no additional cost to the Department.

All sign blanks shall be hole punched by the manufacturer for either horizontal or vertical installation. Attach all aluminum sheeting signs to square post with 3/8" all steel rivets and nylon washers.

Post will be attached to the anchor with 5/16" corner bolts and 5/16" flanged nuts, and all post and anchor cuts shall be treated with a Cold Galvanizing Compound spray.

Sign posts shall be erected vertically by using a bubble level. The tolerance shall be a two (2) degree angle in any direction. For locations where there are more than one sign is mounted beside each other, the posts shall be spaced to provide approximately six inches (6") of spacing between signs.

E. Property Damage. The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

F. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs due to the Contractor's operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

G. Caution. The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

H. Control. Perform all work under the absolute control of the Department. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

I. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed concrete, debris, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for disposal of waste and debris from the project. Existing anchors, signs, posts, and any other hardware or material removed from the site are to become the property of the Contractor. See Special Provision for Waste and Borrow Sites.

J. Final Dressing, Seeding and Protection. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

K. Erosion Control. See Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.

C. Signs. The Department will measure the finished in-place area of signs in Square Feet.

D. Sign Posts. The Department will measure the finished in-place length of sign posts in Linear Feet, from the top of the anchor, or top of the sign support, to the top of the sign post. Laps, cutoffs, excess, and waste will NOT be measured for payment.

E. Type D Breakaway Sign Supports. The Department will measure Type D sign supports as Each support installed.

F. Type D Surface Mounts. The Department will measure Type D Surface Mounts as Each surface mount installed.

G. Class A Concrete for Signs. The Department will measure the Class A Concrete used in conjunction with Type D breakaway sign support installations in Cubic Yards. Any concrete that is required as backfill due to hitting rock during a standard installation shall be incidental to the bid item STEEL POST TYPE I, and soil stabilizers will not be required.

H. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection shall be measured according to Section 212.

I. Erosion Control. See Special Note for Erosion Control.

J. Remove Sign. The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as Each sign assembly removed and NOT each individual sign removed.

K. Items Provided by KYTC. The Department will NOT measure for payment the installation of signs and/or surface mounts provided by KYTC. These activities shall be incidental to the bid item STEEL POST TYPE I.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Signs. The Department will make payment for the completed and accepted quantities under the bid item SBM ALUM SHEET SIGNS .125 IN or .080 IN. The Department will consider payment full compensation for all work and incidentals necessary to install the signs, as required by these notes and the details found elsewhere in the proposal, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

C. Sign Posts. The Department will make payment for the completed and accepted quantities under the bid item STEEL POST TYPE I. The Department will consider payment full compensation for all work and incidentals necessary to install the sign posts as required by these notes and the details found elsewhere in the proposal.

D. Type D Breakaway Sign Supports. The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D. The Department will consider payment full compensation for all work and incidentals necessary to install the Type D breakaway sign supports as required by Standard Drawing RGX-065, current edition.

E. Type D Surface Mounts. The Department will make payment for the completed and accepted quantities under the bid item GMSS TYPE D (SURFACE MOUNT). The Department will consider payment full compensation for all work and incidentals necessary to install the Type D surface mounts according to all applicable manufacturer requirements.
NOTE: The permissible Type D Surface Mount alternative is: Kleen Break Model 425 for Surface Mount Concrete Installations by Xcessories Squared of Auburn, IL

F. Class A Concrete for Signs. The Department will make payment for the completed and accepted quantities, used in conjunction with Type D breakaway sign support installations, under the bid item CLASS A CONCRETE FOR SIGNS. The Department will consider payment full compensation for all work and incidentals necessary to install the concrete as required by Standard Drawing RGX-065, current edition.

G. Remove Sign. The Department will make payment for the completed and accepted quantities under the bid item REMOVE SIGN. The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

H. Erosion Control. See Special Note for Erosion Control.

SPECIAL NOTES FOR PAVEMENT EDGE REPAIR

Repair locations listed on the summary are approximate only. The Engineer will determine actual repair locations and dimensions at the time of construction. Prior to milling and/or resurfacing, saw cut the existing pavement, asphalt surface, base, subgrade, and PCC pavement (if present). Excavate to an approximate depth of 16.25 inches below the existing pavement surface level. Use all possible care to avoid damaging existing culvert pipes and any existing underground utilities. Repair or restore any damaged items at no additional cost to the Department. Waste all removed materials off the Right of Way at sites obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

On the same day trench is excavated, backfill the excavated area with 6.0 inches of Crushed Aggregate Size No. 23, wrapped on the bottom and sides in Class 2 Geotextile Fabric, 9.0 inches of Class 2 Asphalt Base 1.00D PG64-22 in 3.0 inch maximum courses, and 1.25 inches of Class 2 Asphalt Surface 0.38B PG64-22 up to the existing pavement surface. Compact the asphalt base to the proper compaction as required by Section 403. Seal the asphalt base with leveling and wedging. Perform all base failure/edge repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations in order to allow further compaction by traffic. Do not mill or place new asphalt surface over repaired areas until a minimum of 14 calendar days have elapsed after placement of the final course of asphalt base. After the 14 calendar day waiting period, and/or when the Engineer determines the base failure/edge repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw his or her own conclusions as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation of the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per ton for Crushed Aggregate Size No. 23, Asphalt Base, Leveling and Wedging, and Asphalt Surface as full compensation for all labor, materials, equipment, and incidentals for saw cutting pavement and excavating and disposing of all materials; furnishing and placing Crushed Aggregate Size No. 23 wrapped in geotextile fabric; furnishing and placing asphalt base up to the existing pavement boundary; leveling and wedging until the repair areas stabilize; and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer. The Department will not measure pavement removal, excavation, and geotextile fabric, but shall be incidental to Crushed Aggregate Size No. 23 and Asphalt Base as applicable.

SPECIAL NOTE FOR POLYMER CONCRETE OVERLAY SYSTEMS

I. DESCRIPTION

This work shall be performed in accordance with the current edition of the Department's Standard Specifications, and applicable Standard or Sepia Drawings, except as hereafter specified. Article references are to the Standard Specifications.

The Contractor shall furnish all materials, labor, and equipment for the following work:

(1) Maintaining and Controlling Traffic; (2) Cleaning and preparing the existing surface; (3) Installing a high friction surface treatment in accordance with the contract documents; and (4) All other work as specified as part of this contract.

II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Materials Field Sampling and Testing Manual. Make materials available, within the State of Kentucky, for sampling a sufficient time in advance of the use of the materials. Allow a minimum of 15 working days for testing. The Contractor shall use materials listed on the Department's List of Approved Materials for Polymer Concrete Overlay Systems (High Friction Surface and Bridge Deck Overlays).

A. Maintain and Control Traffic. See Traffic Control Plan.

B. High Friction Surface Treatment. The high friction surface treatment shall consist of a polymer resin binder and aggregate system chosen from the Department's List of Approved Materials. The Department will obtain samples of each binder component and aggregate at a frequency of one sample per lot per contract. The Department will obtain one, one-quart (32 ounce) sample of each binder component for testing. The Department will obtain one 60 to 70 pound composite sample of aggregate for testing. Reclaimed aggregate shall not be allowed for use.

a) Binder. The polymer resin binder shall hold the aggregate firmly in position and meet the following requirements:

TWO-PART MODIFIED BINDER REQUIREMENTS		
Property	**Specification Limits**	**Test Method**
Ultimate Tensile Strength	17.0 – 25.0 MPa (19.65 MPa)	ASTM D638
Compressive Strength	5mm min.; > 13 MPa	ASTM D695
Gel Time	50 ml; 10 minutes min. (16 minutes)	ASTM D2471
Elongation at break	30% minimum (54.0%)	ASTM D638
Peak Exothermic Temperature	150°F min.	ASTM D2471
Water Absorption	Less than 0.25%	ASTM D570
Shore Hardness	70 min.	ASTM D2240, Shore D
Cure Rate	3 hours max	ASTM D1640 @ 75°F
Mixing Ratio	Per Manufacturer's Recommendation	n/a

b) Aggregate. Ensure that the aggregate is clean, dry and free from foreign matter and meets the following requirements:

AGGREGATE REQUIREMENTS		
Property	**Specification Limits**	**Test Method**
SFC – Side Force Coefficient	0.70 min.	ASTM E670
SN – Skid Number	75 min SN40R	ASTM E274
PSV – Polished Stone Value	75.0 mm max. (70 mm)	ASTM E660
Texture Depth – Sand Patch Method	1 mm min. (1.2 mm)	ASTM E965
AAV – Aggregate Abrasion Value	20 max	AASHTO T96
Aggregate Gradation	95.0 – 100.0% Passing No. 6 0.0 – 5.0% Passing No. 16	AASHTO T27
Aluminum Oxide (Al_2O_3)	87 min	ASTM C114

III. CONSTRUCTION METHODS

Prior to beginning work, provide the Engineer with a certification from the manufacturer of the binder stating that all material used in the work will meet the requirements of Section II B. a. in this Special Note. Also provide the Engineer with a certification stating that all aggregates used in the work will meet the requirements of Section II B. b. of this Special Note.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Be responsible for all site preparation, including but not limited to the following:

a) Preparation and Restoration. Ensure that a manufacturer's representative is on site to provide technical assistance during the start up operations and as necessary during the surface preparation, material placement, and during any necessary remedial work.

b) Protective Coverings. Utilities, drainage structures, curbs, bridge joints, and any other structure within or adjacent to the high friction surface treatment location shall be protected from surface preparation activities and application of the surface treatment materials. Cover and protect all existing pavement markings that are adjacent to the surface treatment location. Pavement markings that conflict with the surface application shall be removed prior to performing the required surface preparation.

c) Surface Preparation. Prepare all surfaces in accordance with the following requirements. Ensure surfaces are dry and meet the requirements of the section immediately prior to installation of the high friction surface treatment. Surfaces contaminated with oils, greases, or other deleterious materials not removed by the required surface preparation shall be washed with a mild detergent solution, rinsed with clean potable water, and dried using a hot compressed air lance.

d) Asphalt Pavement. Clean asphalt pavement surfaces using mechanical sweepers and high pressure air wash. Mechanically sweep all surfaces to remove dirt, loose aggregate, debris, and deleterious material. Air wash all surfaces using a minimum of 180 CFM clean and dry compressed air. Maintain

the air lance perpendicular to the surface and the tip of air lance within 12 inches of the surface. For applications on new asphalt pavement, ensure the surface has cured a minimum of 30 days prior to performing surface preparation and installation of the high friction surface treatment.

e) Concrete Pavement. Clean concrete pavement surfaces by shot blasting and vacuum sweeping. Shot blast all surfaces to remove all curing compound, loosely bonded mortar, surface carbonation, and deleterious material. The prepared surface shall comply with the International Concrete Repair Institute (ICRI) standard for surface roughness CSP 5. After shot blasting, vacuum sweep all surfaces to remove all dust, debris, and deleterious material.

f) Concrete Bridge Deck. Clean the entire area of the deck surface and vertical faces of curbs, barrier walls and plinths up to a height of one inch above the top elevation of the overlay, and areas to receive epoxy-sand slurry, by shot blasting and vacuum sweeping. Shot blast all surfaces to remove all curing compound, loosely bonded mortar, surface carbonation, and deleterious material. Areas to receive epoxy-sand slurry shall be cleaned to a bright, clean appearance. The prepared bridge deck surface to receive high friction surface treatment shall comply with the International Concrete Repair Institute (ICRI) standard for surface roughness CSP 5. After shot blasting, vacuum sweep all surfaces to remove all dust, debris, and deleterious material.

g) Pre-Treating. Pre-treat joints and cracks greater than 1/4 inch in width and depth with properly proportioned and mixed polymer resin binder. Once the binder in the pre-treated areas has gelled, the installation of the high friction surface treatment may proceed.

C. Mechanized Application. Do not apply surface treatment on a wet surface, when the ambient air or surface temperature is below 50ºF or above 110ºF, or when the anticipated weather conditions or surface temperature would prevent the proper application of the surface treatment as determined by the manufacturer.

Apply the polymer resin binder by a truck or trailer mounted application machine that must be capable of continually mixing and delivering the binder components on demand within the temperature range specified in varying widths of up to 12 feet wide at a uniform application thickness. Ensure that the mechanically applied distributing equipment includes accurate measuring devices and/or calibrated containers and thermometers for measuring the binder temperature prior to placement should heating be required. Operations will proceed in such a manner that will not allow the binder 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. Ensure that mechanical applications are capable of applying binder uniformly at a minimum rate of 10 gallons per minute. The mixed components are mechanically applied onto a prepared surface with a minimum coverage rate of 3.5 square yards per gallon at a minimum uniform thickness of 50 mils onto the surface. In addition, ensure that the application machine complies with the requirements of the binder manufacturer.

The aggregate shall be applied within 120 seconds of the binder application onto the surface. Uniformly spread aggregate immediately without causing excessive overlap of aggregate outside of coverage area. Ensure that the mechanical aggregate spreader is capable of applying a continuous application of varying widths up to 12 feet wide, in a manner to not violently disturb the wet binder film, at a rate of approximately 13-15 lbs per square yard. Complete coverage of the “wet” binder with aggregate is necessary to achieve a uniform surface. No exposed wet spots of the binder shall be visible once the aggregate is installed. The operations should proceed in such a manner that will not allow the mixed binder material to separate, cure, dry, be exposed, or otherwise harden in such a way as to impair retention and bonding of the high friction surfacing aggregate. Do not use reclaimed aggregate. Do not use vibratory or impact type compaction on the aggregate after placement.

D. Hand Application. At the Engineers discretion, corrective work and application to areas such as intersections or areas less than 300 square yards, or where truck mounted application machines are not

applicable to the specified locations because of logistical restrictions, may be performed by hand application of the high friction surface treatment.

Do not apply surface treatment on a wet surface, when the ambient air or surface temperature is below 50°F or above 110°F, or when the anticipated weather conditions or surface temperature would prevent the proper application of the surface treatment as determined by the manufacturer.
The polymer resin binder components Part (A) and Part (B) shall be proportioned to the correct ratio (+/- 2% by volume), mixed using a low speed high torque drill fitted with a helical stirrer.

The mixed components shall be hand applied onto a prepared surface at a minimum coverage rate of 3.5 square yards per gallon at a minimum uniform thickness of 50 mils onto the surface. Hand applied binder will be uniformly spread onto the prepared surface by the use of a continuous V notch serrated edged squeegee.

Immediately after placing the binder, apply the aggregate, in a manner to not violently disturb the wet binder film, at a rate of approximately 13-15 lbs per square yard. Do not use reclaimed aggregate. Do not use vibratory or impact type compaction on the aggregate after placement.

E. Curing of Installed High Friction Surface Treatment. Allow the installed high friction surface treatment to cure in accordance with manufacturer recommendations (approximately 3 hours at an ambient air temperature of at least 50 degrees Fahrenheit). Protect treated surfaces from traffic and environmental effects until the area has cured.

F. Removal of Excess Aggregate. Remove the excess aggregate from the treatment area and all adjacent surfaces by mechanical sweeping or vacuum sweeping the surfaces a minimum of 3 times before applying additional application and/or opening to traffic. In addition, re-sweep the treatment area and adjacent surfaces using mechanical sweeping or vacuum sweeping 48 hours after opening to traffic to remove all additional loose aggregate and aggregate shed by the action of traffic.

G. Disposal of Waste. All debris, excess aggregate, materials containers, and other waste shall be disposed of off the Right-of-Way at approved sites obtained by the Contractor at no cost to the Department. No separate payment will be made for the disposal of waste and debris from the project, but shall be incidental to the other items of the work.

H. Restoration. Any roadway features disturbed by the work or the Contractor's operations shall be restored in like kind materials and design as directed by the Engineer at no additional cost to the Department.

I. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

J. On-Site Inspection. Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

K. Right-of-Way Limits. All work is located within the existing right of way. Limit work activities to the Right-of-Way, and work and staging areas secured by the Contractor, at no additional cost to the Department. Be responsible for all encroachments onto private lands.

L. Caution. The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not

guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

M. Control. Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his/her decision shall be final and binding upon the Contractor.

IV. FIELD EVALUATION

High friction surface treatment locations that can be safely tested at 40 mph shall be evaluated by locked wheel skid test as per ASTM E274 between 60 and 90 days after installation. A minimum skid number of 75 SN40R is required. Installations that are not conducive to skid testing due to roadway geometrics or speed limitations shall be accepted based upon visual determination of acceptable bond and aggregate exposure.

Surface treatment applications not meeting average minimum skid test results of 75 SN **shall be removed and replaced** at no cost to the Department.

V. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment, but shall be incidental to high friction surface treatment.

C. High Friction Surface Treatment. The Department will measure the surface area coverage of High Friction Surface Treatment in Square Yards.

VI. BASIS OF PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. High Friction Surface Treatment. Payment for the accepted quantity at the Contract unit price per Square Yard shall be full compensation for furnishing all labor, materials, equipment, and incidentals for furnishing and installing High Friction Surface Treatment. Payment shall not be made prior to the final and accepted sweeping, 48 hours after installation.

SPECIAL NOTE FOR STRIPING ON HIGH FRICTION SURFACE TREATMENTS

I. DESCRIPTION

Installation of pavement striping, temporary, durable waterborne markings, and/or thermoplastic markings on High Friction Surface (HFS) Treatments.

II. CONSTRUCTION

Conduct striping under lane closures meeting the conditions of the MUTCD and Kentucky Standard Drawings and Specifications, current editions. Upon initial completion of the HFS installation, install temporary striping as the Engineer directs. Upon completion of the 48 hour vacuum sweeping, install either durable waterborne markings or thermoplastic markings, whichever the Contract specifies or as directed by the Engineer. Temporary Pavement Striping will comply with all applicable requirements within Section 112. Thermoplastic markings shall comply with all applicable requirements within Section 714. Durable waterborne markings shall comply with all applicable requirements within Section 713.

III. MEASUREMENT

The Department will measure striping quantities in linear feet. NOTE: On HFS installations, the Contractor is advised that it may be necessary to install multiple passes of striping in order to achieve the required specifications. Final payment will be based on the actual length of the final striping regardless of the number passes required to meet specifications.

IV. PAYMENT

The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
----	Pavement Striping - Temporary	Linear Foot
----	Durable Waterborne Marking, width, color	Linear Foot
----	Pavement Striping - Thermoplastic, width, color	Linear Foot

The Department will consider payment as full compensation for all work required under this note, Section 112, Section 713, and Section 714.

Special Note for Completion Date & Liquidated Damages

I. COMPLETION DATE

The ultimate fixed completion date for this project will be October 31, 2023. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

II. LIQUIDATED DAMAGES

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **$1,000** per hour for each hour, or fraction of an hour, for any and all lane or culvert replacement road closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

As noted in the Traffic Control Plan, US 68 may be closed for the purpose of performing and completing Rock Removal operations and associated activities. Refer to the Traffic Control Plan for exact details about the road closure. The Department will assess Liquidated Damages in the amount of **$2,400** per day for each day, or fraction of a day, that the extended road closure is in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer. See the General Notes & Description of Work, the Coordination of Work With Other Contractors note, and the Traffic Control plan for additional details.

Trees and/or bushes that are 5 inches or greater (diameter at breast height) shall not be cut or trimmed between June 1st and July 31st. Any trees and/or bushes that are cut or trimmed between June 1st and July 31st will NOT receive payment at the contract unit price. Furthermore, failure to adhere to these restrictions shall result in Liquidated Damages in the amount of **$392** per affected tree. Activities that are a part of this contract that do not involve the initial trimming and/or cutting of trees and/or bushes will be permitted under the ultimate fixed completion date.

Contrary to Section 108.09, Liquidated Damages will be assessed for the months of December through March.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites
01/02/2012

COORDINATION OF WORK WITH OTHER CONTRACTS

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

Be advised, the Department has entered into an agreement with Windstream, the owner of the overhead utility lines and poles near the rock excavation areas, to lower the overhead utility lines to behind the existing guardrail during rock removal operations. Once rock removal operations have been completed, Windstream will rehang the overhead lines. The Contractor shall coordinate with Windstream and the Engineer for all work/activities associated with the rock removal operations.

At least 14 days in advance of the start of the Contractor's rock removal operations, the Contractor shall provide written notice to Ms. Deborah Saddler at Windstream detailing the start date for Windstream to proceed with the lowering of the overhead utility lines. Ms. Saddler's contact info is:

- Office: (859) 246-2355
- Direct: (502) 564-3801
- Address:
  Windstream Holdings, LLC
  Ms. Deborah Saddler
  130 West New Circle Road, Suite 170
  Lexington, KY 40505-1408

At least 7 days in advance of the completion of the Contractor's rock removal operations, the Contractor shall provide written notice to Ms. Saddler at Windstream detailing the start date for Windstream to proceed with rehanging the overhead utility lines.

See the General Notes & Description of Work, the Traffic Control Plan, and the Special Note for Completion Date & Liquidated Damages for additional details.

SPECIAL NOTE FOR DOUBLE ASPHALT SEAL COAT

Use RS-2 or RS-2C asphalt material that is compatible with the seal aggregate. Apply the first course of asphalt seal coat at the rate of 3.2 lbs/sy of asphalt and 30 lbs/sy of size #78 seal coat aggregate. Apply the second course at 2.8 lbs/sy of asphaltt and 20 lbs/sy of size #9M seal coat aggregate. The Engineer may adjust the rate of application as conditions warrant. Use caution in applying liquid asphalt material to avoid over spray getting on curbs, gutter, barrier walls, bridges, guardrail, and other roadway appurtenances.

The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

1-3215 Double Asphalt Seal Coat
01/02/2012

SPECIAL NOTES FOR SHOULDER FAILURE REPAIR

Repair locations listed in the summary are approximate only. The Engineer will determine the actual shoulder failure repair locations and dimensions at the time of construction. Prior to milling and/or resurfacing, saw cut the existing pavement, asphalt surface, base, DGA, and PCC pavement (if present). Excavate to an approximate depth of 14 inches below the top of the existing shoulder pavement level. Remove and dispose of all materials. Use all possible care to avoid damaging existing culvert pipes and any existing underground utilities. Repair or restore any damaged items at no additional cost to the Department. Waste all removed materials off the Right of Way at sites obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

On the same day trench is excavated, backfill the excavated area with 9.75 inches of Crushed Limestone Size No. 23, wrapped on the bottom and sides in Class 2 Geotextile Fabric, 3 inches of Class 2 Asphalt Base 1.00D PG64-22, and 1.25 inches of Class 2 Asphalt Surface 0.38D PG64-22 up to the existing shoulder pavement surface. Compact the asphalt base to the proper compaction as required by the Section 403 and seal with Leveling and Wedging. Perform all shoulder failure repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations. Do not place new asphalt surface over repaired shoulder failures until a minimum of 14 days has elapsed after placement of the final course of asphalt base. After the 14 calendar day waiting period, and/or when the Engineer determines the repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw his or her own conclusions as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation of the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per ton for Crushed Limestone, Asphalt Base, and Leveling and Wedging as full compensation for all labor, materials, equipment, and incidentals for saw cutting pavement and excavating and disposing of all materials; furnishing and placing crushed limestone stone wrapped in geotextile fabric; furnishing and placing asphalt base up to the existing pavement boundary; leveling and wedging until the repair areas stabilize; and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer. The Department will not measure pavement removal, excavation, and geotextile fabric, but shall be incidental to Crushed Limestone and Asphalt Base as applicable.

SPECIAL NOTES FOR GUARDRAIL

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications, Special Notes and Special Provisions, and the Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail systems; (3) Construct Guardrail, Guardrail with Extra Length Post, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (4) Delineators for guardrail; (5) Maintain and Control Traffic; and (6) all other work specified as part of this contract.

II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Guardrail. Furnish guardrail system components according to Section 814 and the Standard and Sepia Drawings; except use steel posts only, no alternates. Furnish approximately _99_ Extra Length Post (9 foot length, steel, no alternates).

C. Delineators for Guardrail. Furnish white and/or yellow Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.

D. DGA. Furnish Dense Graded Aggregate as per Section 805.

E. Erosion Control. See the Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site Preparation. Remove existing guardrail system, including the guardrail end treatments, Bridge End connectors and all other elements of the existing guardrail system as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with the existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way. Be responsible for all site preparation, including but

not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal of excess, waste materials, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

C. Guardrail. Except as specified herein, construct guardrail system according to Section 719 and the Standard and Sepia Drawings, current editions. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations and locations for Extra Length Posts at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on the current Standard and Sepia Drawings, or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

When removing existing guardrail and installing new guardrail, do not leave the blunt end exposed where it would be hazardous to the public. When it is not practical to complete the construction of the guardrail and the permanent end treatments and terminal sections first, provide a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

D. DGA. Place and compact DGA along and under the guardrail as shown on the Typical Section(s) or as directed by the Engineer. Place a Double Asphalt Seal Coat over the entire width of the DGA along and under the guardrail. See the Special Note for Double Asphalt Seal Coat.

E. Delineators for Guardrail. Construct Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.

F. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.

G. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it

is discovered that the work does require utilities to be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

H. Right of Way Limits. The Department has not established the exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

I. Clean Up, Disposal of Waste. Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See the Special Provision for Waste and Borrow Sites.

J. Final Dressing, Seeding and Protection. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

K. Erosion Control. See the Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Site preparation. Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to the Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable.

C. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail. The Department will measure according to Section 719.04.

D. DGA. The Department will measure according to Section 302.04.

E. Delineators for Guardrail. See Standard Drawing RBR-055 – Delineators for Guardrail.

F. Clean Up, Disposal of Waste, Final Dressing, and Seeding and Protection. The Department will NOT measure for payment the operations of: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection will be measured according to Section 212.

G. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail. The Department will make payment according to Section 719.05.

C. DGA. The Department will make payment according to Section 302.05.

D. Delineators for Guardrail. See Standard Drawing RBR-055 – Delineators for Guardrail.

E. Erosion Control. See the Special Note for Erosion Control.

SPECIAL NOTE FOR
ASPHALT MILLING AND TEXTURING

Begin paving operations within **48 hours** of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate prescribed by Section 108.09 until such time as paving operations are begun.

Take possession of the millings and recycle the millings or dispose of the millings off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.

1-3520 48 hours Contractor keeps millings
01/2/2012

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications, and the Standard and Sepia Drawings. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

PROJECT PHASING & CONSTRUCTION PROCEDURES

Do NOT erect lane closures or partial lane closures during the following days and/or hours:

Normal Workday Rush Hours
Monday-Friday 7:00 am – 9:00 am, and 3:00 pm – 6:00 pm, daily

Holidays & Special Events

Memorial Day Weekend	3 pm Friday, May 27, 2022 – 8 pm Monday, May 30, 2022
Independence Day	3 pm Friday, July 1, 2022 – 11 pm Monday, July 4, 2022
Labor Day Weekend	3 pm Friday, September 2, 2022 – 8 pm Monday, September 5, 2022
Thanksgiving Holiday	3 pm Wednesday, November 23, 2022 – 8 pm Sunday, Nov. 27, 2022
Christmas Holiday	3 pm Friday, December 23, 2022 – 8 pm Sunday, December 25, 2022
New Year's Day Holiday	7 am Saturday, December 31, 2022 – 8 pm Sunday, January 1, 2023
Easter Weekend	3 pm Friday, April 7, 2023 – 8 pm Sunday, April 9, 2023
Memorial Day Weekend	3 pm Friday, May 26, 2023 – 8 pm Monday, May 29, 2023
Labor Day Weekend	3 pm Friday, September 1, 2023 – 8 pm Monday, September 4, 2023

The Engineer may specify additional days and/or hours when lane closures or partial lane closures will not be allowed due to unforeseen events.

US 68 may be closed to through traffic between 9 a.m. and 3 p.m. for culvert replacement(s). The contractor shall submit proposed days of road closures to the Engineer at least 7 calendar days in advance for approval. Liquidated Damages in the amount of $1,000 per hour will be assessed for each hour or fraction of an hour that US 68 remains closed after 3 p.m. on an approved daily road closure day.

With the prior approval of the Engineer, and after placing signs and/or message boards to notify the public 14 days in advance of the extended road closure, US 68 may be closed for no more than one extended time period of 36 calendar days from Brooklyn Road (Mile Point 0.1) to Pekin Pike (Mile

Point 1.5) for the purpose of performing and completing all Rock Removal operations within these limits.

- The 36-calendar day closure consists of:
  - 3 calendar days for Windstream to lower the overhead utility lines to behind the existing guardrail
  - 28 calendar days for the Contractor to complete rock removal operations. If Windstream does not use all 3 days to lower the overhead utility lines, then the total road closure days will be reduced by the number of days Windstream does not use. In other words, the Contractor has 28 calendar days for the rock removal operations and the Department will start counting the 28 calendar days the day after Windstream finishes lowering the overhead lines.
  - 5 calendar days for Windstream to rehang the overhead utility lines
- The extended road closure shall NOT take place while local schools are in session.
- The extended road closure shall not last any longer than what it takes to complete the Rock Removal. During this closure, the Contractor shall maintain local access to all existing entrances in this area.
- The Contactor shall be responsible for completing the rock removal within the 28 calendar days of their rock removal operations. Refer to the Special Note for Completion Dates & Liquidated Damages for information on the liquidated damages that will be assessed if the Contractor exceeds their 28 calendar day portion of the road closure.

See the General Notes & Description of Work, the Coordination of Work With Other Contractors note, and the Special Note for Completion Dates & Liquidated Damages for additional details.

All other work must be completed at all times, maintaining alternating one way traffic during construction operations. The clear lane width shall be 11 feet. With approval of the Engineer, short stoppages of no more than 20 minutes for construction operations can be experienced, however, the contractor shall make all provisions for the passage of all emergency vehicles and school buses on an official run as quickly as possible in less than the 20 minute allowed stoppage time.

The Department will provide public notification regarding approved road closures. Notify the Engineer immediately and obtain approval of any deviations from the previously approved closure schedule. The contractor shall be responsible for road closure barricades and signs; work zone and pavement condition signs; advanced warning signs; additional signs as directed by the Engineer; and variable message signs.

Under special circumstances, KYTC reserves the right to restrict the use of lane closures and/or road closures due to unforeseen special events.

MAINTAIN & CONTROL TRAFFIC.

Will be measured only once for payment.

LANE CLOSURES

Other than the allowed 4 week road closure, do not leave lane closures in place during nonworking hours. Do not leave lane closures in place during prohibited periods, holidays, and special events. No long term lane closures will be allowed; therefore, contrary to Section 112, lane closures will not be measured for payment. For information on Lane Closure setup, please refer to the Sepia Drawing 017, “Lane Closure Two-Lane Highway”.

SIGNS

Contrary to Section 112.04.02, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment; short term signs (signs intended to be left in place for 3 days or less) will not be measured for payment, but will be incidental to Maintain and Control Traffic.

TEMPORARY SIGNS

Temporary sign posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer’s documentation validating this compliance shall be provided to the Engineer prior to installation. Temporary signs, including any splices, shall be installed according to manufacturer’s specifications and installation recommendations. Contrary to section 112.04.02, only long-term temporary signs (temporary signs intended to be continuously in place for more than 3 days) will be measured for payment. Short-term temporary signs (temporary signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

CHANGEABLE MESSAGE SIGNS

Provide changeable message signs at locations determined by the Engineer. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign within 24 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure for payment any replacements for damaged Changeable Message Signs or any changeable message signs the Engineer directs to be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

BARRICADES

Barricades used in lieu of barrels and cones for channelization or delineation will be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas will be bid as each according to Section 112.04.04.

PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Greater than 4" - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing on coming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the Engineer.

INGRESS AND EGRESS

Reasonable means of ingress and egress shall be maintained to all properties within the project limits. Access to fire hydrants must also be maintained at all times.

USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

Application

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

CMS should not be used for:

- Replacement of static signs (e.g. road work ahead), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related)

Messages

Basic principles that are important to providing proper messages and insuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- No more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

Placement

Placement of the CMS is important to insure that the sign is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent theft (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

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Standard Abbreviations

The following is a list of standard abbreviations to be used on CMS:

Word	Abbrev	Example
Access	ACCS	ACCIDENT AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	ACCIDENT AHEAD/ USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/ DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/ MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/ USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/ USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/ MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/ USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/ EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/ DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/ PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/ DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/ DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ ALL TRAF EXIT 25
Highway	HWY	ACCIDENT ON AA HWY/ EXPECT DELAYS
Hour	HR	ACCIDENT ON AA HWY/ 2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/ DETOUR EXIT 20
Lane	LN	LN CLOSED MERGE LEFT
Left	LFT	LANE CLOSED MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
Major	MAJ	MAJ DELAYS I75/ USE ALT RTE
Mile	MI	ACCIDENT 3 MI AHEAD/ USE ALT RTE
Minor	MNR	ACCIDENT 3 MI MNR DELAY
Minutes	MIN	ACCIDENT 3 MI/ 30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
Prepare	PREP	ACCIDENT 3 MI/ PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/ USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/ DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

Standard Abbreviations (cont)

Word	Abbrev	Example
Street	ST	MAIN ST CLOSED/ USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/ DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/ DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/ POSSIBLE DELAYS

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NO USE THESE ABBREVIATIONS:

Abbrev	Intended Word	Word Erroneously Given
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)
LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

Typical Messages

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

Reason/Problem	Action
ACCIDENT	ALL TRAFFIC EXIT RT
ACCIDENT/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT
FOG XX MILES	PASS TO RIGHT

Typical Messages (cont)

Reason/Problem	Action

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FREEWAY CLOSED
FRESH OIL
HAZMAT SPILL
ICE
INCIDENT AHEAD
LANES (NARROW, SHIFT, MERGE, ETC.)
LEFT LANE CLOSED
LEFT LANE NARROWS
LEFT 2 LANES CLOSED
LEFT SHOULDER CLOSED
LOOSE GRAVEL
MEDIAN WORK XX MILES
MOVING WORK ZONE, WORKERS IN ROADWAY
NEXT EXIT CLOSED
NO OVERSIZED LOADS
NO PASSING
NO SHOULDER
ONE LANE BRIDGE
PEOPLE CROSSING
RAMP CLOSED
RAMP (SLIPPERY, ICE, ETC.)
RIGHT LANE CLOSED
RIGHT LANE NARROWS
RIGHT SHOULDER CLOSED
ROAD CLOSED
ROAD CLOSED XX MILES
ROAD (SLIPPERY, ICE, ETC.)
ROAD WORK
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)
ROAD WORK XX MILES
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)
NEW SIGNAL XX MILES
SLOW 1 (OR 2) - WAY TRAFFIC
SOFT SHOULDER
STALLED VEHICLES AHEAD
TRAFFIC BACKUP
TRAFFIC SLOWS
TRUCK CROSSING
TRUCKS ENTERING
TOW TRUCK AHEAD
UNEVEN LANES
WATER ON ROAD
WET PAINT
WORK ZONE XX MILES
WORKERS AHEAD
PREPARE TO STOP
REDUCE SPEED
SLOW
SLOW DOWN
STAY IN LANE
STOP AHEAD
STOP XX MILES
TUNE RADIO 1610 AM
USE NN ROAD
USE CENTER LANE
USE DETOUR ROUTE
USE LEFT TURN LANE
USE NEXT EXIT
USE RIGHT LANE
WATCH FOR FLAGGER

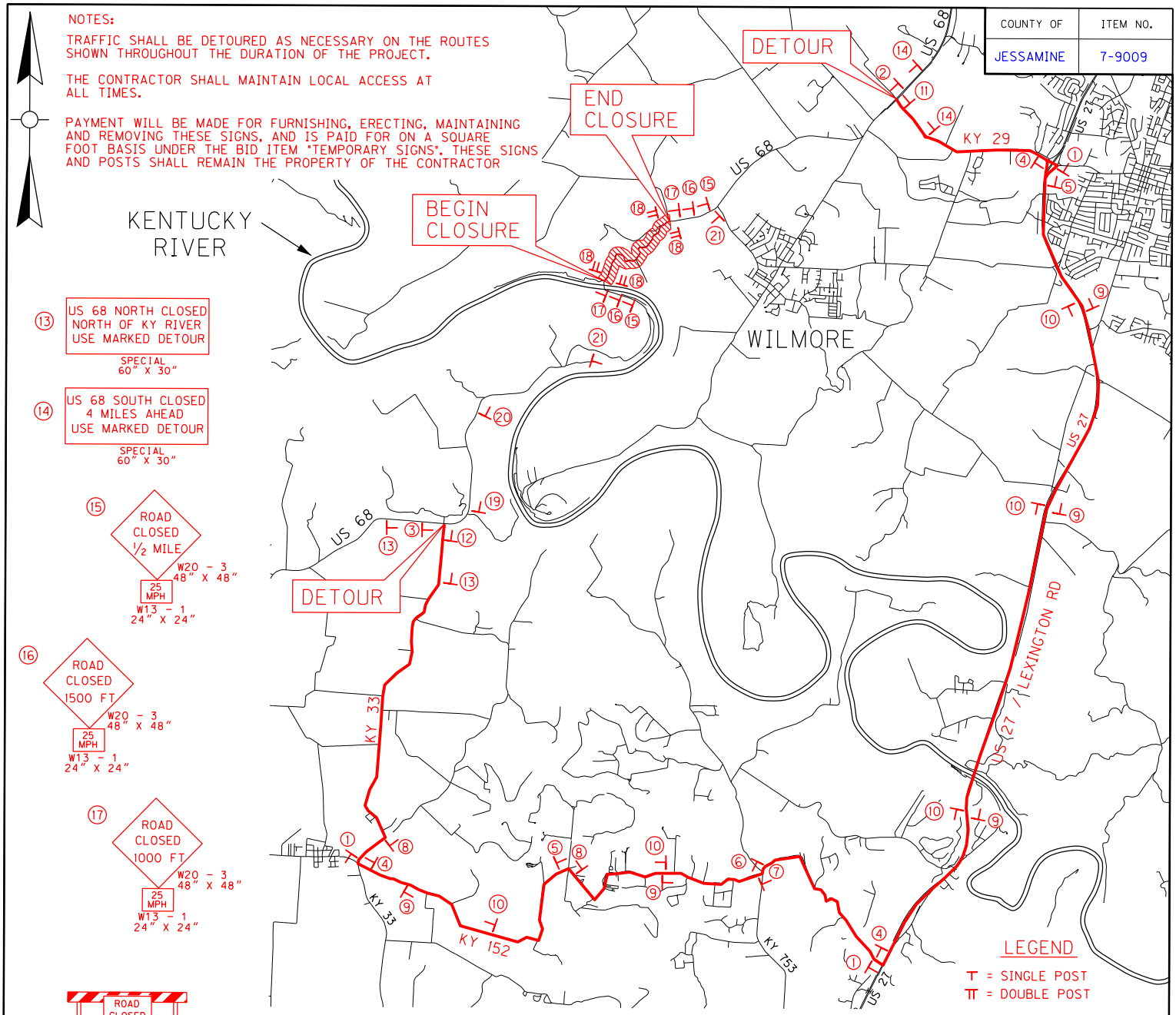
NOTES:

TRAFFIC SHALL BE DETOURED AS NECESSARY ON THE ROUTES SHOWN THROUGHOUT THE DURATION OF THE PROJECT.

THE CONTRACTOR SHALL MAINTAIN LOCAL ACCESS AT ALL TIMES.

PAYMENT WILL BE MADE FOR FURNISHING, ERECTING, MAINTAINING AND REMOVING THESE SIGNS, AND IS PAID FOR ON A SQUARE FOOT BASIS UNDER THE BID ITEM "TEMPORARY SIGNS". THESE SIGNS AND POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



(13) US 68 NORTH CLOSED NORTH OF KY RIVER USE MARKED DETOUR
SPECIAL 60" X 30"

(14) US 68 SOUTH CLOSED 4 MILES AHEAD USE MARKED DETOUR
SPECIAL 60" X 30"

(15) ROAD CLOSED ½ MILE
W20 - 3 48" X 48"
25 MPH
W13 - 1 24" X 24"

(16) ROAD CLOSED 1500 FT
W20 - 3 48" X 48"
25 MPH
W13 - 1 24" X 24"

(17) ROAD CLOSED 1000 FT
W20 - 3 48" X 48"
25 MPH
W13 - 1 24" X 24"

(18) ROAD CLOSED
TYPE III BARRICADE (ORANGE AND WHITE)

(19) ROAD CLOSED 5.5 MILES AHEAD LOCAL TRAFFIC ONLY
R11 - 3 60" X 30"

(20) ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY
R11 - 3 60" X 30"

(21) ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY
R11 - 3 60" X 30"

(1) DETOUR M4 - 8 (24" X 12") / NORTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 1 (21" X 15")

(2) DETOUR M4 - 8 (24" X 12") / SOUTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 1 (21" X 15")

(3) DETOUR M4 - 8 (24" X 12") / NORTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 1 (21" X 15")

(4) DETOUR M4 - 8 (24" X 12") / SOUTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 1 (21" X 15")

(5) DETOUR M4 - 8 (24" X 12") / NORTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 2 (21" X 15")

(6) DETOUR M4 - 8 (24" X 12") / SOUTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 2 (21" X 15")

(7) DETOUR M4 - 8 (24" X 12") / NORTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 2 (21" X 15")

(8) DETOUR M4 - 8 (24" X 12") / SOUTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 2 (21" X 15")

(9) DETOUR M4 - 8 (24" X 12") / NORTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24")

(10) DETOUR M4 - 8 (24" X 12") / SOUTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24")

(11) END DETOUR M4 - 8a (24" X 18") / NORTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 1 (21" X 15")

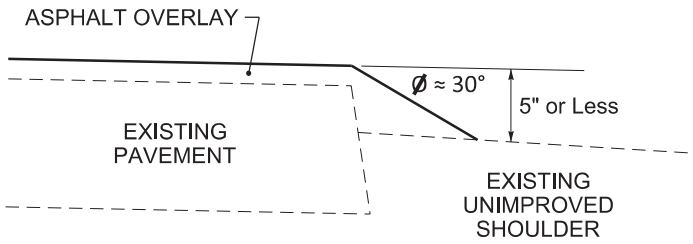
(12) END DETOUR M4 - 8a (24" X 18") / SOUTH M3 - 1 (24" X 12") / 68 M1 - 4 (24" X 24") / M6 - 1 (21" X 15")

5000 0 5000 10000 15000
GRAPHIC SCALE IN FEET

US 68
MOT DETOUR PLAN

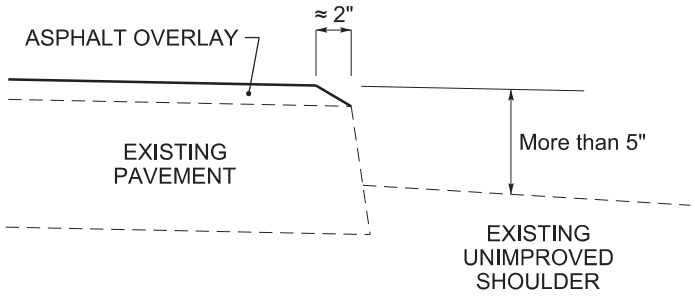
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)



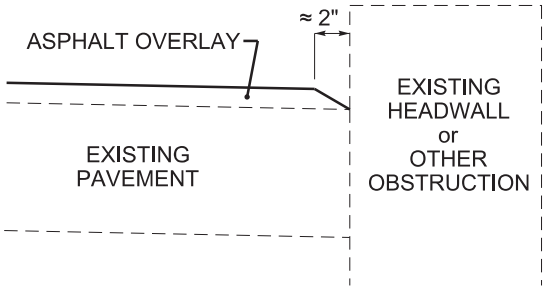
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)



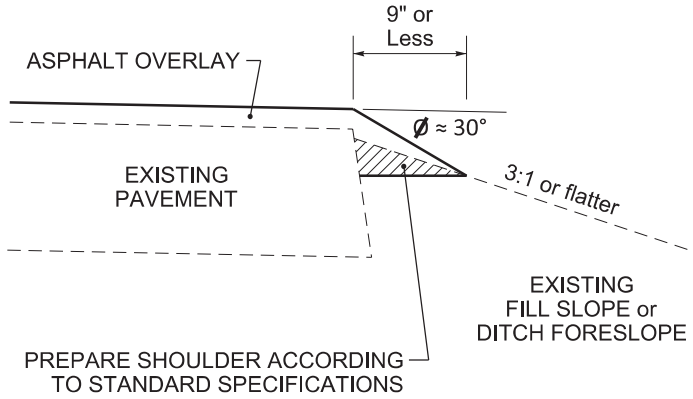
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to an obstruction, such as an existing headwall)



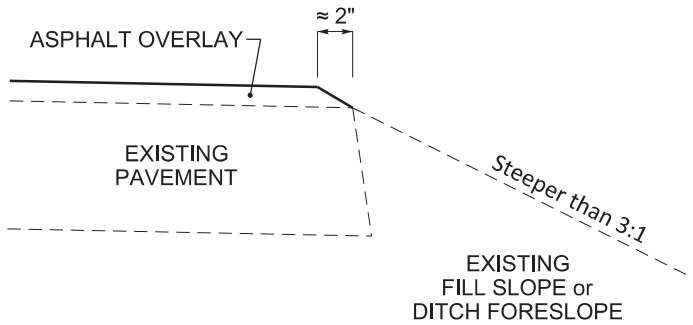
DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to fill slope or ditch foreslope that is 3:1 or less)



DURABLE PAVEMENT EDGE DETAIL

(Resurfacing adjacent to fill slope or ditch foreslope that is steeper than 3:1)



NOTES

1. DETAILS DO NOT APPLY TO OVERLAYS LESS THAN 1 INCH THICK.
2. THE DURABLE PAVEMENT EDGE DEVICE MAY BE DISENGAGED AT DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT, AS APROVED BY THE ENGINEER.

DRAWING NOT TO SCALE

DURABLE PAVEMENT EDGE DETAILS

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

☒ Original	☐ Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	**COUNTY**	**PROJECT # (STATE)**	**PROJECT # (FEDERAL)**
7-9009.00	Jessamine	FD52 057 0068 000-005	HSIP 2681 (034)

PROJECT DESCRIPTION

Perfrom low cost safety improvements on US 68 from Milepoint 0.00 to Milepoint 4.807 in Jessamine County

☒ **No Additional Right of Way Required**

Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.

☐ **Condition # 1 (Additional Right of Way Required and Cleared)**

All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.

☐ **Condition # 2 (Additional Right of Way Required with Exception)**

The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract

☐ **Condition # 3 (Additional Right of Way Required with Exception)**

The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.

Total Number of Parcels on Project	0	**EXCEPTION (S) Parcel #**	**ANTICIPATED DATE OF POSSESSION WITH EXPLANATION**
Number of Parcels That Have Been Acquired			
Signed Deed	0		
Condemnation	0		
Signed ROE	0		

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Cecil Smith
Signature		Signature	Cecil Smith 2021.12.06 09:15:51 -05'00'
Date		Date	12/6/2021

Right of Way Director		FHWA	
Printed Name		Printed Name	
Signature	2021.12.09 09:29:52 -05'00'	Signature	No Signature Required as per FHWA-KYTC Current Stewardship Agreement
Date		Date	

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County
FD04 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

GENERAL PROJECT NOTE ON UTILITY PROTECTION

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by a varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

Utility coordination efforts determined that no significant utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the Kentucky Transportation Cabinet. The contractor will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

NOTE: DO NOT DISTURB THE FOLLOWING UTILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

List all applicable utilities whose facilities are present and are not to be disturbed during construction activities. List Utility Type, Utility Size, Utility Location for each.

- Waterlines left and right of US 68 along corridor
- Utility poles and overhead utility lines left and right of US 68 along corridor
- Gas lines left and right of US 68 at approximate Sta. 113+00 – 119+00
- Underground telecommunications lines left of US 68 from approximate Sta. 113+00 – 121+00

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County
FD04 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

The Contractor is fully responsible for protection of all utilities listed above

THE FOLLOWING COMPANIES ARE RELOCATING/ADJUSTING THEIR UTILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

N/A

THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE COMPANY OR THE COMPANY'S SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

The Department has entered into an agreement with Windstream, the owner of the overhead utility lines and poles near the rock excavation areas, to lower the overhead utility lines to behind the existing guardrail during rock removal operations. Once rock removal operations have been completed, Windstream will rehang the overhead lines.

At least 14 days in advance of the start of the Contractor's rock removal operations, the Contractor shall provide written notice to Ms. Deborah Saddler at Windstream detailing the start date for Windstream to proceed with the lowering of the overhead utility lines. Ms. Saddler's contact info is:

- Office: (859) 246-2355
- Direct: (502) 564-3801
- Address: Windstream Holdings, LLC
  Ms. Deborah Saddler
  130 West New Circle Road, Suite 170
  Lexington, KY 40505-1408

At least 7 days in advance of the completion of the Contractor's rock removal operations, the Contractor shall provide written notice to Ms. Saddler at Windstream detailing the start date for Windstream to proceed with the replacing of the overhead utility lines.

The first 3 days and last 5 days of the US 68 36 calendar day road closure are solely reserved for lowering and raising the overhead utility lines. The Contractor shall be responsible for completing the rock removal within the 28 calendar days. See General Notes and Description of Work and the Traffic Control Plan for additional details.

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County
FD04 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE ROAD CONTRACTOR AS INCLUDED IN THIS CONTRACT

N/A

THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ **No Rail Involved** ☐ **Minimal Rail Involved (See Below)** ☐ **Rail Involved (See Below)**

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County
FD04 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation.

The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

UTILITIES AND RAIL CERTIFICATION NOTE

Jessamine County
FD04 057 0068 000-005
Safety Improvements Along US 68
Item No. 7-9009.00

AREA UTILITIES CONTACT LIST

Utility Company/Agency	Contact Name	Contact Information
1. Spectrum	Kelly Oram	(859) 519-3434 john.oram@charter.com
2. Jessamine South Elkhorn Water District	Richard Decker	(859) 881-0589 Jessamine.South@JSEWD.com
3. Delta Gas	Brian Sidwell	(859) 885-4141
4. Bluegrass Energy	Tony Smith	(859) 885-2134 tonys@bgenergy.com
5. Kentucky Utilities	Caroline Justice	(502) 627-3708 caroline.justice@lge-ku.com
6. Windstream Communications	Steve Johnson	(859) 357-6209 Steve.Johnson@windstream.com

NOTE: The Utilities Contact List is provided as informational only, and may not be a complete list of all Utility Companies with facilities in the project area.

N O T I C E

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
NATIONWIDE #14 PERMIT AUTHORIZATION
KENTUCKY DIVISION OF WATER 401 WQC

01-10-2022

PROJECT: Jessamine County, Item No. 7-9009
Perform low cost safety improvements on US 68 from MP 0.00 to MP 4.807 in Jessamine County.

The Section 404 & 401 activities for this project have been previously permitted under the authority of the Department of the Army Nationwide Permit No. 14 "Linear Transportation Projects" & Division of Water General Water Quality Certification. In order for these authorizations to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Permit & General WQC in a conspicuous location at the project site for the duration of construction and comply with the general conditions as required.

Mile Point 0.138	Extend a 24 inch culvert. The **ephemeral** stream an U.T. to Indian Creek will have impacts below the normal high water mark. The estimated area of impact is **2 linear feet** and **0.0001 acres**.
Mile Point 074	Extend a 24 inch culvert. The **ephemeral** stream an U.T. to Indian Creek will have impacts below the normal high water mark. The estimated area of impact is **2 linear feet** and **0.0001 acres**.
Mile Point 3.765	Extend a 24 inch culvert. The **ephemeral** stream an U.T. to East Fork Clear Creek will have impacts below the normal high water mark. The estimated area of impact is **11 linear feet** and **0.0005 acres**.

This project involves work near and/or within Jurisdictional Waters of the United States as defined by the United States Army Corps of Engineers and therefore requires a Nationwide 14 General 404 Permit. The Division of Water certified this General Permit with several conditions (See attached). One that should be brought to your attention is regarding the use of heavy equipment in the stream channel. If there is need to cross the stream channel with heavy equipment or conduct work from within the stream channel a working platform or temporary crossing is authorized. This should be constructed with clean rock and sufficient pipe to allow stream flow to continue unimpeded (see attached typical drawing).

In order for this authorization to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Approval in a conspicuous location at the project site for the duration of construction and comply with the general conditions as required.

To more readily expedite construction, the contractor may elect to alter the design or perform the work in a manner different from what was originally proposed and specified. Prior to commencing such alternative work, the contractor shall obtain **written** permission from the Division of Construction and the Division of Environmental Analysis. If such changes necessitate further permitting then the contractor will be responsible for applying to the Army Corps of Engineers and the Kentucky Division of Water (KDOW). A copy of any request to the Corps of Engineers or the KDOW to alter this proposal and subsequent responses shall be forwarded to the Division of Environmental Analysis, DA Permit Coordinator, for office records and for informational purposes.

MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

R. BRUCE SCOTT
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

General Certification--Nationwide Permit # 14
Linear Transportation Projects

This General Certification is issued March 19, 2017, in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33 U.S.C. §1341), as well as Kentucky Statute KRS 224.16-050.

For this and all nationwide permits, the definition of surface water is as per 401 KAR 10:001 Chapter 10, Section 1(80): Surface Waters means those waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Lagoons used for waste treatment and effluent ditches that are situated on property owned, leased, or under valid easement by a permitted discharger are not considered to be surface waters of the commonwealth.

Agricultural operations, as defined by KRS 224.71-100(1) conducting activities pursuant to KRS 224.71-100 (3), (4), (5), (6), or 10 are deemed to have certification if they are implementing an Agriculture Water Quality Plan pursuant to KRS 224.71-145.

For all other operations, the Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 304, 306 and 307 of the CWA, will not be violated for the activity covered under NATIONWIDE PERMIT 14, namely Linear Transportation Projects, provided that the following conditions are met:

1. The activity will not occur within surface waters of the Commonwealth identified by the Kentucky Division of Water as Outstanding State or National Resource Water, Cold Water Aquatic Habitat, or Exceptional Waters.

2. The activity will not occur within surface waters of the Commonwealth identified as perpetually-protected (e.g. deed restriction, conservation easement) mitigation sites.

3. The activity will impact less than 1/2 acre of wetland/marsh.

General Certification--Nationwide Permit # 14
Linear Transportation Projects
Page 2

4. The activity will impact less than 300 linear feet of surface waters of the Commonwealth. Stream realignment greater than 100 feet and in-stream stormwater detention/retention basins are not covered under this general water quality certification.

5. For complete linear transportation projects, all impacts shall not exceed a cumulative length of 500 linear feet within each Hydrologic Unit Code (HUC) 14.

6. Any crossings must be constructed in a manner that does not impede natural water flow.

7. Stream impacts covered under this General Water Quality Certification and undertaken by those persons defined as an agricultural operation under the Agricultural Water Quality Act must be completed in compliance with the Kentucky Agricultural Water Quality Plan (KWQP).

8. The Kentucky Division of Water may require submission of a formal application for an individual certification for any project if the project has been determined to likely have a significant adverse effect upon water quality or degrade the waters of the Commonwealth so that existing uses of the water body or downstream waters are precluded.

9. Activities that do not meet the conditions of this General Water Quality Certification require an Individual Section 401 Water Quality Certification.

10. Activities qualifying for coverage under this General Water Quality Certification are subject to the following conditions:

    - Projects requiring in-stream stormwater detention/retention basins shall require individual water quality certifications.
    - Erosion and sedimentation pollution control plans and Best Management Practices must be designed, installed, and maintained in effective operating condition at all times during construction activities so that violations of state water quality standards do not occur (401 KAR 10:031 Section 2 and KRS 224.70-100).
    - Sediment and erosion control measures, such as check-dams constructed of any material, silt fencing, hay bales, etc., shall not be placed within surface waters of the Commonwealth, either temporarily or permanently, without prior approval by the Kentucky Division of Water's Water Quality Certification Section. If placement of sediment and erosion control measures in surface waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in such a manner that may result in instability of streams that are adjacent to,

General Certification--Nationwide Permit # 14
Linear Transportation Projects
Page 3

upstream, or downstream of the structures. All sediment and erosion control devices shall be removed and the natural grade restored within the completion timeline of the activities.

- Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse.
- Removal of riparian vegetation in the utility line right-of-way shall be limited to that necessary for equipment access.
- To the maximum extent practicable, all in-stream work under this certification shall be performed under low-flow conditions.
- Heavy equipment, e.g. bulldozers, backhoes, draglines, etc., if required for this project, should not be used or operated within the stream channel. In those instances in which such in-stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize turbidity and disturbance to substrates and bank or riparian vegetation.
- Any fill shall be of such composition that it will not adversely affect the biological, chemical, or physical properties of the receiving waters and/or cause violations of water quality standards. If rip-rap is utilized, it should be of such weight and size that bank stress or slump conditions will not be created because of its placement.
- If there are water supply intakes located downstream that may be affected by increased turbidity and suspended solids, the permittee shall notify the operator when such work will be done.
- Should evidence of stream pollution or jurisdictional wetland impairment and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the KDOW shall be notified immediately by calling (800) 928-2380.

Non-compliance with the conditions of this general certification or violation of Kentucky state water quality standards may result in civil penalties.

2017 Nationwide Permits Regional and Permit-Specific Conditions
COMMONWEALTH OF KENTUCKY

These regional conditions are in addition to, but do not supersede, the requirements in the Federal Register (Volume 82, No. 4 of January 6, 2017, pp 1860).

Notifications for all Nationwide Permits (NWPs) shall be in accordance with General Condition No. 32.

1. For activities that would impact Outstanding State or National Resource Waters (OSNRWs), Exceptional Waters (EWs), Coldwater Aquatic Habitat Waters (CAHs) under the Endangered Species Act for the NWPs listed below, a Pre-Construction Notification (PCN) will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWPs (Section 404 activities), for impacts to these waters.

   NWP 3 (Maintenance)
   NWP 4 (Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities)
   NWP 5 (Scientific Measurement Devices)
   NWP 6 (Survey Activities)
   NWP 7 (Outfall Structures and Associated Intake Structures)
   NWP 12 (Utility Line Activities)
   NWP 13 (Bank Stabilization)
   NWP 14 (Linear Transportation Projects)
   NWP 15 (U.S. Coast Guard Approved Bridges)
   NWP 16 (Return Water from Upland Contained Disposal Areas)
   NWP 17 (Hydropower Projects)
   NWP 18 (Minor Discharges)
   NWP 19 (Minor Dredging)
   NWP 20 (Response Operations for Oil or Hazardous Substances)
   NWP 21 (Surface Coal Mining Activities)
   NWP 22 (Removal of Vessels)
   NWP 23 (Approved Categorical Exclusions)
   NWP 25 (Structural Discharges)
   NWP 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities)
   NWP 29 (Residential Developments)
   NWP 30 (Moist Soil Management for Wildlife)
   NWP 31 (Maintenance of Existing Flood Control Facilities)
   NWP 32 (Completed Enforcement Actions)
   NWP 33 (Temporary Construction, Access, and Dewatering)
   NWP 34 (Cranberry Production Activities)
   NWP 36 (Boat Ramps)
   NWP 37 (Emergency Watershed Protection and Rehabilitation)
   NWP 38 (Cleanup of Hazardous and Toxic Waste)
   NWP 39 (Commercial and Institutional Developments)
   NWP 40 (Agricultural Activities)

NWP 41 (Reshaping Existing Drainage Ditches)
NWP 42 (Recreational Facilities)
NWP 43 (Stormwater Management Facilities)
NWP 44 (Mining Activities)
NWP 45 (Repair of Uplands Damaged by Discrete Events)
NWP 46 (Discharges in Ditches)
NWP 48 (Commercial Shellfish Aquaculture Activities)
NWP 49 (Coal Remining Activities)
NWP 50 (Underground Coal Mining Activities)
NWP 51 (Land-Based Renewable Energy Generation Facilities)
NWP 52 (Water-Based Renewable Energy Generation Pilot Projects)
NWP 53 (Removal of Low-Head Dams)
NWP 54 (Living Shorelines)

2. In addition to the notification and agency coordination requirements in the NWPs, for impacts greater than 0.25 acres in all "waters of the U.S." for the NWPs listed below, a PCN will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWPs:

NWP 3 (Maintenance)
NWP 7 (Outfall Structures and Associated Intake Structures)
NWP 12 (Utility Line Activities)
NWP 14 (Linear Transportation Projects)
NWP 29 (Residential Developments)
NWP 39 (Commercial and Institutional Developments)
NWP 40 (Agricultural Activities)
NWP 41 (Reshaping Existing Drainage Ditches)
NWP 42 (Recreational Facilities)
NWP 43 (Stormwater Management Facilities)
NWP 44 (Mining Activities)
NWP 51 (Land-Based Renewable Energy Generation Facilities)
NWP 52 (Water-Based Renewable Energy Generation Pilot Projects)
NWP 53 (Removal of Low-Head Dams)

3. For activities in all "waters of the U.S." for the NWPs listed below, a PCN will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWPs:

NWP 21 (Surface Coal Mining Activities)
NWP 27 (Aquatic Habitat Restoration, Establishment & Enhancement Activities)
NWP 49 (Coal Remining Activities)
NWP 50 (Underground Coal Mining Activities)

4. Nationwide Permit No. 14 – Linear Transportation Projects.

   (a) New road alignments or realignments are limited to a permanent loss of 500 linear feet of intermittent or perennial stream length at each crossing. Road crossings with permanent losses greater than 500 linear feet of intermittent or perennial stream associated with new

alignments or realignments will be evaluated as an individual permit (i.e., a Letter of Permission or as a Standard Individual Permit).

(b) In addition to the notification requirements contained in NWP 14, the permittee must submit a PCN to the district engineer prior to commencing the activity for the permanent loss of greater than 300 feet of ephemeral, intermittent and perennial stream of all “waters of the U.S.” (See General Condition 32 and the definition of "loss of waters of the United States" in the Nationwide Permits for further information.)

5. Notification in accordance with General Condition 32 is required to the Corps for all activities which are subject to jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

6. All applications are required as both a paper copy and in an electronic media format, including electronic mail or compact disc.

7. For all activities, the applicant shall review the U.S. Fish and Wildlife Service’s IPaC website: http://ecos.fws.gov/ipac to determine if the activity might affect threatened and/or endangered species or designated critical habitat. If federally-listed species or designated critical habitat are identified, a PCN in accordance with General Condition 18 and 32 would be triggered and the official species list generated from the IPaC website must be submitted with the PCN.

Further information:

Outstanding State or National Resource Water (OSNRWs), Exceptional Waters (EWs), and Coldwater Aquatic Habitat Waters (CAHs) are waters designated by the Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet. The list can be found at the following link: http://eppcapp.ky.gov/spwaters/

Information on Pre-Construction Notification (PCN) can be found at NWP General Condition No. 32 in the Federal Register (Volume 81, No. 105 of June 1, 2017, pp 35211).

COORDINATING RESOURCE AGENCIES

Chief, Wetlands Regulatory Section
U.S. Environmental Protection Agency
Region IV
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

Supervisor
U.S. Fish & Wildlife Service
JC Watts Federal Building, Room 265
330 West Broadway
Frankfort, Kentucky 40601

Supervisor
401 Water Quality Certification
Kentucky Division of Water
300 Sower Boulevard, 3rd Floor
Frankfort, KY 40601

Commissioner
Department of Fish and Wildlife Resources
#1 Game Farm Road
Frankfort, Kentucky 40601

Executive Director and State Historic Preservation Officer
Kentucky Heritage Council
300 Washington Street
Frankfort, Kentucky 40601

ADDITIONAL COORDINATING RESOURCE AGENCY FOR NWPS 21, 49, AND 50

Kentucky Department for Natural Resources
Division of Mine Permits
300 Sower Boulevard
Frankfort, KY 40601

Terms for Nationwide Permit No. 14
Linear Transportation Projects

Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, “District Engineer’s Decision.” The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Kentucky Transportation Cabinet

Highway District 7

And

_____(2), Construction

Kentucky Pollutant Discharge Elimination System Permit KYR10 Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

Highway Safety Improvement Project on US 68 in Jessamine County

Project: 7-9009

Revised 3/4/2016

Project information

Note – (1) = Design (2) = Construction (3) = Contractor

1. Owner – Kentucky Transportation Cabinet, District 7
2. Resident Engineer: (2)
3. Contractor name: (2)
   Address: (2)

   Phone number: (2)
   Contact: (2)
   Contractors agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number: (2)
5. Route (Address): US 68
6. Latitude/Longitude (project mid-point): 37° 52’ 31.86”, -84° 40’ 29.27”
7. County (project mid-point): Jessamine
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

A. Site description:

1. Nature of Construction Activity (from letting project description): Safety improvements to US 68 from MP 0.000 to MP 4.807 in Jessamine County.

2. Order of major soil disturbing activities: (2) and (3)

3. Projected volume of material to be moved: *This project does not involve significant cut and fill.*

4. Estimate of total project area (acres): 29.1

5. Estimate of area to be disturbed (acres): 24.4

6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.

7. Data describing existing soil condition: (1) & (2)

8. Data describing existing discharge water quality (if any): (1) & (2)

9. Receiving water name: Kentucky River, Indian Creek, East Fork Clear Creek Tributary 2, East Fork Clear Creek Tributary 2.1

10. TMDLs and Pollutants of Concern in Receiving Waters: *No TDML's were involved on this project.*

11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.

12. Potential sources of pollutants:

The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing

and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

1. Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

   Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as “Do Not Disturb” until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP’s shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA’s as the work progresses. <u>All DDA’s will have adequate BMP’s in place before being disturbed.</u>

3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:

   - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
   - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically

(once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.

- Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
  - Leaving areas undisturbed when possible.
  - Silt basins to provide silt volume for large areas.
  - Silt Traps Type A for small areas.
  - Silt Traps Type C in front of existing pipes and drop inlets which are to be saved
  - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
  - Brush and/or other barriers to slow and/or divert runoff.
  - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
  - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
  - Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
  - Silt Traps Type B in ditches and/or drainways as they are completed
  - Silt Traps Type C in front of pipes and drop inlets after they are placed
  - Channel Lining
  - Erosion Control Blanket
  - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
  - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
  - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
  - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
  - Additional Channel Lining and/or Erosion Control Blanket.
  - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
  - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probable changes include:

- Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
- Permanent Seeding and Protection
- Placing Sod
- Planting trees and/or shrubs where they are included in the project

➢ BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are: (1) Typically use: *This project does not include storm water BMPs or flow controls for post-construction use.*

C. Other Control Measures

1. No solid materials, including building materials, shall be discharged to waters of the commonwealth, except as authorized by a Section 404 permit.

2. Waste Materials

All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Section Engineer if there any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.

4. Spill Prevention

The following material management practices will be used to reduce the risk of spills or other exposure of materials and substances to the weather and/or runoff.

- **Good Housekeeping:**

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of the product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site contractor will inspect daily to ensure proper use and disposal of materials onsite

- **Hazardous Products:**

These practices will be used to reduce the risks associated with any and all hazardous materials.

- Products will be kept in original containers unless they are not resealable
- Original labels and material safety data sheets (MSDS) will be reviewed and retained
- Contractor will follow procedures recommended by the manufacturer when handling hazardous materials
- If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed

The following product-specific practices will be followed onsite:

- **Petroleum Products:**

Vehicles and equipment that are fueled and maintained on site will be monitored for leaks, and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products onsite will be stored in tightly sealed containers, which are clearly labeled and will be protected from exposure to weather.

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

This project (will / will not) (3) have over 1,320 gallons of petroleum products with a total capacity, sum of all containers 55 gallon capacity and larger.

- **Fertilizers:**

Fertilizers will be applied at rates prescribed by the contract, standard specifications or as directed by the resident engineer. Once applied, fertilizer will be covered with mulch or blankets or worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

- **Paints:**

All containers will be tightly sealed and stored indoors or under roof when not being used. Excess paint or paint wash water will not be discharged to the drainage or storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

- **Concrete Truck Washout:**

Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

- **Spill Control Practices**

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup**:**

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.

- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contract with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. *There are no other local (MS4) requirements that are expected to be necessary for this project.*

E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.

- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.

- Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance.*There are no such BMP's for this project.*

F. Inspections

Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

G. Non – Storm Water discharges

It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- Water from water line flushings.
- Water form cleaning concrete trucks and equipment.

- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater and rain water (from dewatering during excavation).

All non-storm water discharges will be directed to the sediment basin or to a filter fence enclosure in a flat vegetated infiltration area or be filtered via another approved commercial product.

H. Groundwater Protection Plan (3)

This plan serves as the groundwater protection plan as required by 401 KAR 5:037.

- Contractors statement: (3)

The following activities, as enumerated by 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan, will or may be may be conducted as part of this construction project:

_____ 2. (e) land treatment or land disposal of a pollutant;

_____ 2. (f) Storing, …, or related handling of hazardous waste, solid waste or special waste, …, in tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);

_____ 2. (g) …. Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;

_____ 2. (j) Storing or related handling of road oils, dust suppressants, …., at a central location;

_____ 2. (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);

_____ 2. (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

Or, check the following only if there are no qualifying activities

_____ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

The contractor is responsible for the preparation of a plan that addresses the

401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

(a) General information about this project is covered in the Project information;
(b) Activities that require a groundwater protection plan have been identified above;
(c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
(d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
(e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
(f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
(g) Certification (see signature page.)

KYTC BMP Plan for Project 7-9009

Contractor and Resident Engineer Plan certification

The contractor that is responsible for implementing this BMP plan is identified in the Project Information section of this plan.

The following certification applies to all parties that are signatory to this BMP plan:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, this plan complies with the requirements of 401 KAR 5:037. By this certification, the undersigned state that the individuals signing the plan have reviewed the terms of the plan and will implement its provisions as they pertain to ground water protection.

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____title_____, _____
Typed or printed name[2] signature

(3) Signed _____title_____, _____
Typed or printed name[1] signature

1. Contractors Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

2. KyTC note: to be signed by the Chief District Engineer or a person designated to have the authority to sign reports by such a person (usually the resident engineer) in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601 Reference the Project Control Number (PCN) and KPDES number when one has been issued.

Sub-Contractor Certification

The following sub-contractor shall be made aware of the BMP plan and responsible for implementation of BMPs identified in this plan as follows:

Subcontractor

Name:
Address:
Address:

Phone:

The part of BMP plan this subcontractor is responsible to implement is:

I certify under penalty of law that I understand the terms and conditions of the general Kentucky Pollutant Discharge Elimination System permit that authorizes the storm water discharges, the BMP plan that has been developed to manage the quality of water to be discharged as a result of storm events associated with the construction site activity and management of non-storm water pollutant sources identified as part of this certification.

Signed _____title_____, _____
Typed or printed name[1] signature

1. Sub Contractor Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Project Control Number (PCN) and KPDES number when one has been issued.

Project 7-9009
Jessamine County
Highway Safety Improvement Project along US-68
from MP 0.000 – 4.807
Item No.: 7-9009.00

An electronic Notice of Intent (eNOI) for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, a copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the "Building Contractor" and the eNOI will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work within this contract in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control, as well as meeting the requirements of the KYR10 permit and the KDOW.

eForm Submittal ID: 264734

KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000

Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm)

Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf)

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Reason for Submittal:(*) Application for New Permit Coverage

Agency Interest ID: Agency Interest ID

Permit Number:(✓) KPDES Permit Number

If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓)

ELIGIBILITY:
Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.

EXCLUSIONS:
The following are excluded from coverage under this general permit:
1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan;
2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;
3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.

SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)

Company Name:(✓) Kentucky Transportation Cabinet, District 7

First Name:(✓) Kelly

M.I.: MI

Last Name:(✓) Baker

Mailing Address:(*) 800 Newtown Court

City:(*) Lexington

State:(*) Kentucky

Zip:(*) 40511

eMail Address:(*) KellyA.Baker@ky.gov

Business Phone:(*) 8592462354

Alternate Phone: Phone

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*) KYTC Project 214447

Status of Owner/Operator(*) State Government

SIC Code(*) 1611 Highway and Street Const

Company Name:(✓) Company Name

First Name:(✓) First Name

M.I.: MI

Last Name:(✓) Last Name

Site Physical Address:(*) US 68

City:(*) Wilmore

State:(*) Kentucky

Zip:(*) 40390

County:(*) Jessamine

Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) 37.875516

Longitude(decimal degrees)(*) -84.674798

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*) Highway Safety Improvement Program consisting of various improvements such as Pipe Replacement, Rock Removal, Superelevation Improvements, Ditching & Shoulde

a. For single projects provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
29.1	24.4
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

b. For common plans of development provide the following information

Total Number of Acres in Project:(✓)	Total Number of Acres Disturbed:(✓)
# Acre(s)	# Acre(s)
Number of individual lots in development, if applicable:(✓)	Number of lots in development:(✓)
# lot(s)	# lot(s)
Total acreage of lots intended to be developed:(✓)	Number of acres intended to be disturbed at any one time:(✓)
Project Acres	Disturbed Acres
Anticipated Start Date:(✓)	Anticipated Completion Date:(✓)

List Building Contractor(s) at the time of Application:(*)

	Company Name	
+		

SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED

Discharge Point(s):

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name	
1	Yes	37.882850	-84.367315	Kentucky River	Delete
2	Yes	37.888107	-84.643765	Indian Creek	Delete
3	Yes	37.888408	-84.648733	Indian Creek	Delete
4	Yes	37.888687	-84.651600	Indian Creek	Delete
5	Yes	37.888573	-84.651614	Indian Creek	Delete
6	Yes	37.888075	-84.655896	Indian Creek	Delete
7	Yes	37.888170	-84.655969	Indian Creek	Delete
8	Yes	37.885859	-84.661800	Indian Creek	Delete
9	Yes	37.885934	-84.661853	Indian Creek	Delete
10	Yes	37.882750	-84.667160	Indian Creek	Delete

SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED

Name of MS4:

Date of application/notification to the MS4 for construction site permit coverage:	Discharge Point(s):(*)
Date	

	Latitude	Longitude	
+			

SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?: (*)	Yes
If Yes, describe scope of activity: (✓)	describe scope of activity
Is a Clean Water Act 404 permit required?:(*)	Yes

Is a Clean Water Act 401 Water Quality Certification required?:(*)	Yes

SECTION VII -- NOI PREPARER INFORMATION

First Name:(*) First Name	M.I.: MI	Last Name:(*) Last Name	Company Name:(*) Company Name
Mailing Address:(*) Mailing Address	City:(*) City	State:(*)	Zip:(*) Zip
eMail Address:(*) eMail Address	Business Phone:(*) Phone	Alternate Phone: Phone	

SECTION VIII -- ATTACHMENTS

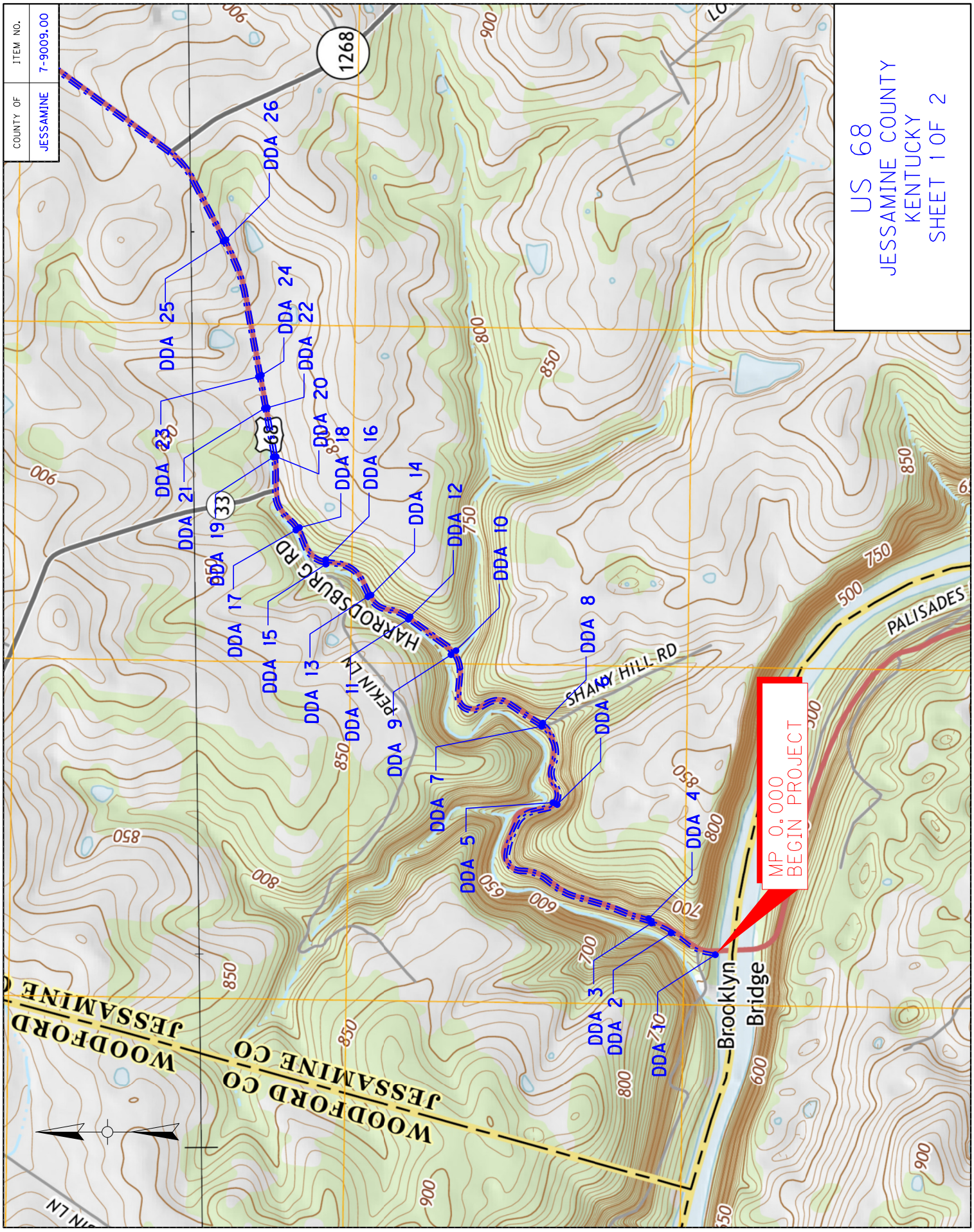
Facility Location Map:(*)	Upload file
Supplemental Information:	Upload file

SECTION IX -- CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:(*) Signature	Title:(*) Title		
First Name:(*) First Name	M.I.: MI	Last Name:(*) Last Name	
eMail Address:(*) eMail Address	Business Phone:(*) Phone	Alternate Phone: Phone	Signature Date:(*) Date

Click to Save Values for Future Retrieval | Click to Submit to EEC


ITEM NO.
7-9009.00
COUNTY OF
JESSAMINE
US 68
JESSAMINE COUNTY
KENTUCKY
SHEET 1 OF 2
MP 0.000
BEGIN PROJECT
1268
68
33
DDA 1
DDA 2
DDA 3
DDA 4
DDA 5
DDA 7
DDA 8
DDA 9
DDA 10
DDA 11
DDA 12
DDA 13
DDA 14
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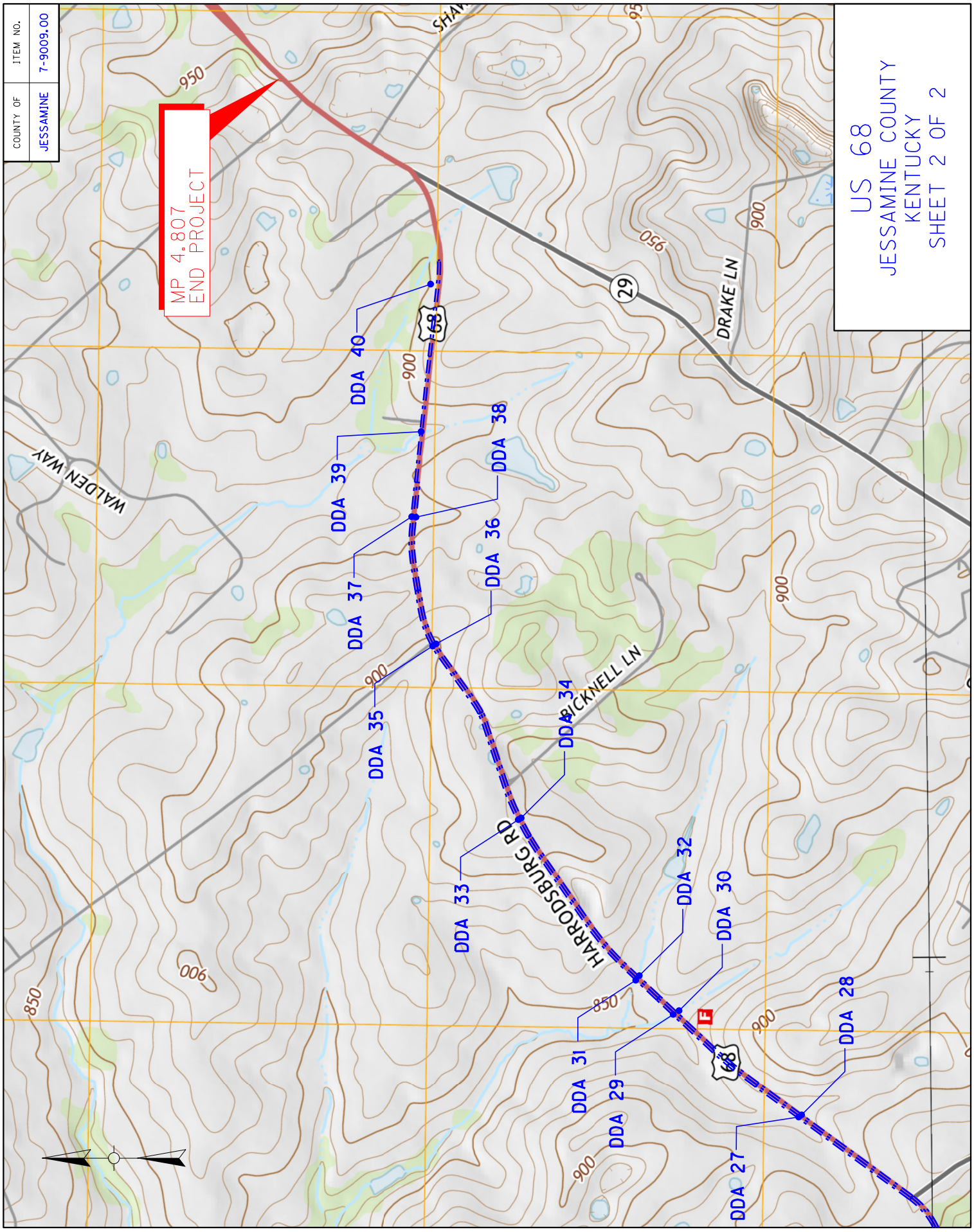
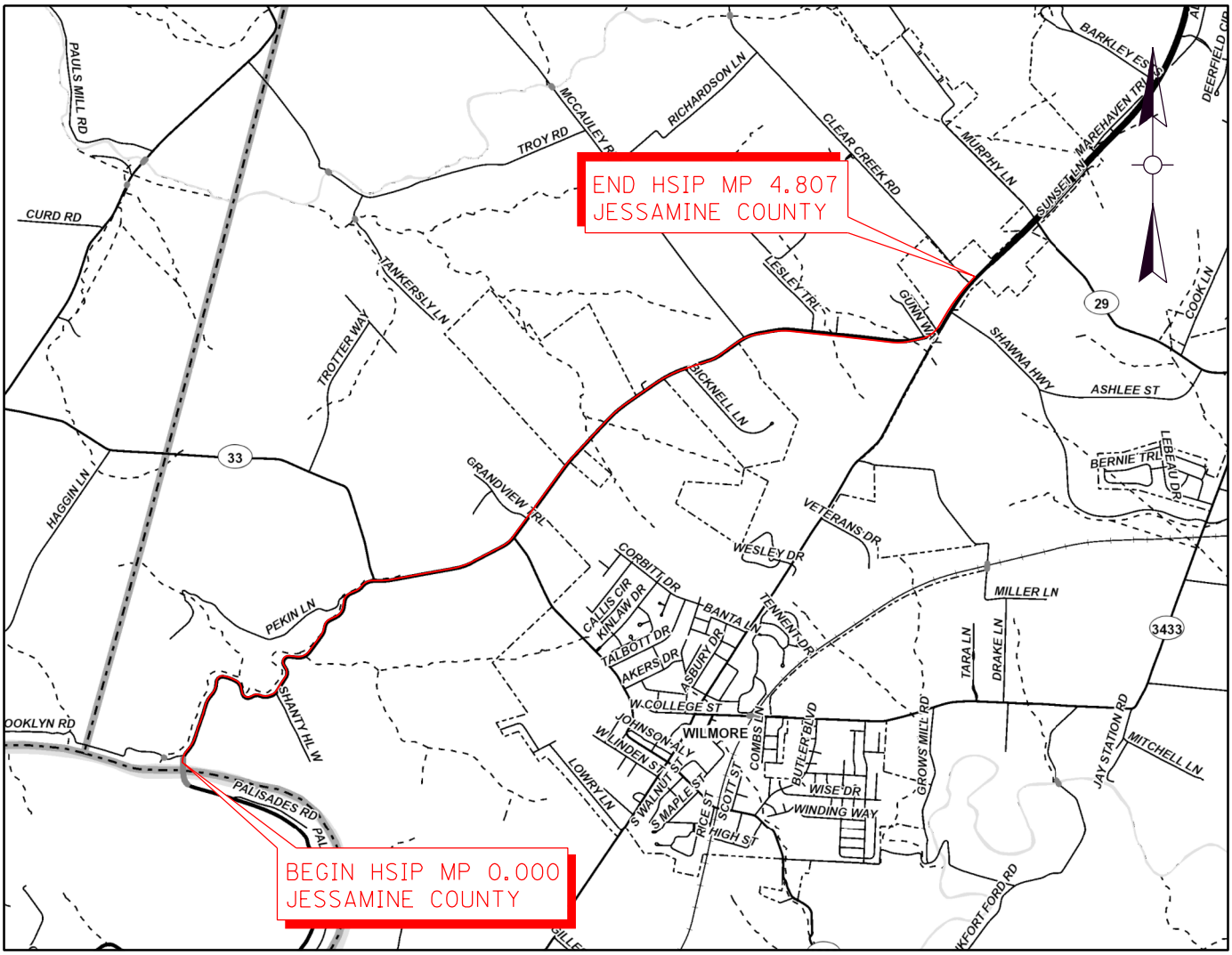
DDA 20
DDA 21
DDA 22
DDA 23
DDA 24
DDA 25
DDA 26
HARRODSBURG RD
PERKIN LN
SHANTY HILL RD
PALISADES
Brocklyn Bridge
WOODFORD CO
JESSAMINE CO

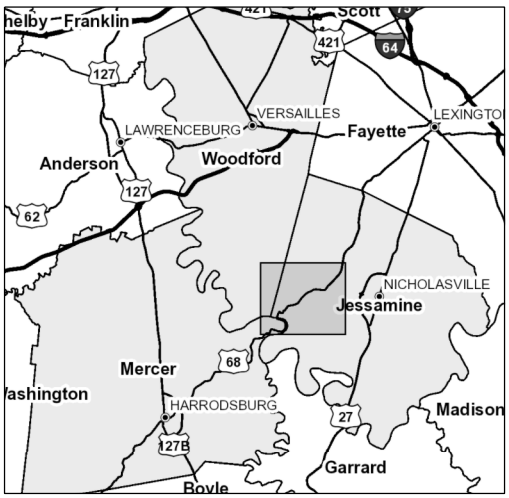

COUNTY OF
JESSAMINE
ITEM NO.
7-9009.00
US 68
JESSAMINE COUNTY
KENTUCKY
SHEET 2 OF 2
MP 4.807
END PROJECT
DDA 40
DDA 39
DDA 38
DDA 37
DDA 36
DDA 35
DDA 34
DDA 33
DDA 32
DDA 31
DDA 30
DDA 29
DDA 28
DDA 27
HARRODSBURG RD
PICKNELL LN
DRAKE LN
WALDEN WAY
29
68
950
900
850

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

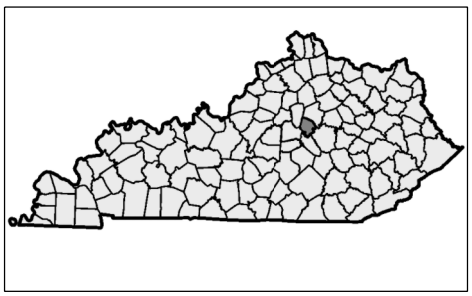
JESSAMINE COUNTY

US 68





KENTUCKY TRANSPORTATION CABINET



US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITY
1	DGA BASE (4) (3) (1)	TON	638
3	CRUSHED STONE BASE (6)	TON	69
78	CRUSHED AGGREGATE SIZE NO 2 (6)	TON	297
80	CRUSHED AGGREGATE SIZE NO 23 (9) (8)	TON	306
100	ASPHALT SEAL AGGREGATE (3) (1)	TON	70
103	ASPHALT SEAL COAT (3) (1)	TON	10
190	LEVELING & WEDGING PG64-22 (9) (8) (5) (2)	TON	1039
212	CL2 ASPH BASE 1.00D PG64-22 (11) (9) (8) (4) (2)	TON	440
307	CL2 ASPH SURF 0.38B PG64-22 (11) (9) (8) (5) (4) (2)	TON	1371
356	ASPHALT MATERIAL FOR TACK (11)	TON	4
440	ENTRANCE PIPE-15 IN (4)	LF	50
441	ENTRANCE PIPE-18 IN (4)	LF	30
462	CULVERT PIPE-18 IN (2)	LF	459
464	CULVERT PIPE-24 IN (2)	LF	27
1204	PIPE CULVERT HEADWALL-18 IN (2)	EACH	2
1208	PIPE CULVERT HEADWALL-24 IN (2)	EACH	2
1310	REMOVE PIPE (4) (2)	LF	136
1726	SAFETY BOX INLET-18 IN SDB-1 (2)	EACH	11
1987	DELINEATOR FOR GUARDRAIL B/W (1)	EACH	169
2014	BARRICADE-TYPE III	EACH	4
2159	TEMP DITCH	LF	12690
2160	CLEAN TEMP DITCH	LF	6345
2360	GUARDRAIL TERMINAL SECTION NO 1 (1)	EACH	3
2367	GUARDRAIL END TREATMENT TYPE 1 (1)	EACH	8
2369	GUARDRAIL END TREATMENT TYPE 2A (1)	EACH	2
2371	GUARDRAIL END TREATMENT TYPE 7 (1)	EACH	1
2378	GUARDRAIL CONNECTOR TO BRIDGE END TY D (1)	EACH	1
2381	REMOVE GUARDRAIL (1)	LF	8388
2391	GUARDRAIL END TREATMENT TYPE 4A (1)	EACH	2
2399	EXTRA LENGTH GUARDRAIL POST (1)	EACH	99
2483	CHANNEL LINING CLASS II (6) (3) (2)	TON	2567
2562	TEMPORARY SIGNS	SQFT	800
2565	OBJECT MARKER TYPE 2 (7)	EACH	16
2568	MOBILIZATION	LS	1
2569	DEMOBILIZATION	LS	1
26175EC	ROADSIDE REGRADING (3)	LF	27055
2603	FABRIC-GEOTEXTILE CLASS 2 (6) (3)	SQYD	1809
2610	RETAINING WALL-GABION (1)	CUYD	27
2625	REMOVE HEADWALL (4) (2)	EACH	13
2650	MAINTAIN & CONTROL TRAFFIC	LS	1

(1) QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY
(2) QUANTITY CARRIED OVER FROM CULVERT PIPE SUMMARY
(3) QUANTITY CARRIED OVER FROM ROADSIDE REGRADING SUMMARY
(4) QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY
(5) QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY
(6) QUANTITY CARRIED OVER FROM CRIBBING SUMMARY
(7) QUANTITY CARRIED OVER FROM SIGN SUMMARY
(8) QUANTITY CARRIED OVER FROM SHOULDER REPAIR SUMMARY
(9) QUANTITY CARRIED OVER FROM EDGE REPAIR SUMMARY
(10) QUANTITY CARRIED OVER FROM TREE TRIMMING AND REMOVAL SUMMARY
(11) QUANTITY CARRIED OVER FROM ROCK REMOVAL SUMMARY
(12) ADDITIONAL QUANTITY INCLUDED FOR USE AS DIRECTED BY ENGINEER

US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITY
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	2
2676	MOBILIZATION FOR MILL & TEXT	LS	1
2677	ASPHALT PAVE MILLING & TEXTURING (11) (5) (2)	TON	1295
2697	EDGELINE RUMBLE STRIPS (11) (9) (5) (2)	LF	15079
2701	TEMP SILT FENCE	LF	12690
2703	SILT TRAP TYPE A	EACH	25
2704	SILT TRAP TYPE B	EACH	25
2705	SILT TRAP TYPE C	EACH	25
2706	CLEAN SILT TRAP TYPE A	EACH	25
2707	CLEAN SILT TRAP TYPE B	EACH	25
2708	CLEAN SILT TRAP TYPE C	EACH	25
2726	STAKING	LS	1
3234	RAILROAD RAILS-DRILLED (6)	LF	3856
3235	EXCAVATION AND BACKFILL (6)	CUYD	87
3236	CRIBBING (6)	SQFT	5123
3269	TRIM & REMOVE TREES & BRUSH (10)	LF	10710
5950	EROSION CONTROL BLANKET (12)	SQYD	14100
5952	TEMP MULCH	SQYD	78651
5953	TEMP SEEDING AND PROTECTION	SQYD	59048
5963	INITIAL FERTILIZER	TON	3
5964	MAINTENANCE FERTILIZER	TON	3
5985	SEEDING AND PROTECTION	SQYD	41954
5992	AGRICULTURAL LIMESTONE	TON	36
6406	SBM ALUM SHEET SIGNS .080 IN (7)	SQFT	62
6407	SBM ALUM SHEET SIGNS .125 IN (7)	SQFT	17
6410	STEEL POST TYPE 1 (7)	LF	174
6490	CLASS A CONCRETE FOR SIGNS (7)	CUYD	1.25
6511	PAVE STRIPING-TEMP PAINT-6 IN (11) (5)	LF	9429
6515	PAVE STRIPING-PERM PAINT-6 IN (11) (5)	LF	9429
8100	CONCRETE-CLASS A (2)	CUYD	2
20191ED	OBJECT MARKER TY 3 (1)	EACH	10
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST) (1)	LF	7919
23312EC	ROCK REMOVAL (11)	CUYD	2191
21134ND	REMOVE-STORE AND REINSTALL SIGN (12)	EACH	30
21373ND	REMOVE SIGN (7)	EACH	12
21596ND	GMSS TYPE D	EACH	5
23229EC	HIGH FRICTION SURFACE TREATMENT (5)	SQYD	1088
26131ED	SLOPED AND MITERED HEADWALL-18 IN (2)	EACH	7
26132ED	SLOPED AND MITERED HEADWALL-24 IN (2)	EACH	2
26130ED	SLOPED AND MITERED HEADWALL-15 IN (4)	EACH	2
24631EC	BARCODE SIGN INVENTORY (7)	EACH	40

(1) QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY
(2) QUANTITY CARRIED OVER FROM CULVERT PIPE SUMMARY
(3) QUANTITY CARRIED OVER FROM ROADSIDE REGRADING SUMMARY
(4) QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY
(5) QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY
(6) QUANTITY CARRIED OVER FROM CRIBBING SUMMARY
(7) QUANTITY CARRIED OVER FROM SIGN SUMMARY
(8) QUANTITY CARRIED OVER FROM SHOULDER REPAIR SUMMARY
(9) QUANTITY CARRIED OVER FROM EDGE REPAIR SUMMARY
(10) QUANTITY CARRIED OVER FROM TREE TRIMMING AND REMOVAL SUMMARY
(11) QUANTITY CARRIED OVER FROM ROCK REMOVAL SUMMARY
(12) ADDITIONAL QUANTITY INCLUDED FOR USE AS DIRECTED BY ENGINEER

Guardrail Summary **Counties: Jessamine** **Route: US 68**

Notes: Begin/End Milepoints are estimated to include the entire length of the Rail AND the End Treatments. The Engineer may adjust the proposed guardrail termini to ensure proper installation of the guardrail system.

Proposed Guardrail to be Constructed										Existing Guardrail to be Removed					
Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Proposed ENDING Treatment	Proposed Length (LF)	Number of Radius Rail	Remarks	Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Existing Length (LF)
REMOVE AND REPLACE AND/OR EXTEND EXISTING GUARDRAIL WITH 7' POSTS															
LT	Connector Type D	1+23	0.023	1+56	0.030		52.50	4		LT	1+23	0.023	1+56	0.030	37.50
LT	Type 1	1+84	0.035	7+00	0.133		482.50	2		LT	1+84	0.035	7+00	0.133	525.00
LT		7+50	0.142	10+95	0.207		350.00			LT	7+50	0.142	10+95	0.207	350.00
LT		12+03	0.228	17+52	0.332		550.00			LT	12+03	0.228	17+52	0.332	550.00
LT		19+50	0.369	19+87	0.376		37.50			LT	19+50	0.369	19+87	0.376	37.50
LT		20+85	0.395	23+90	0.453		312.50			LT	20+85	0.395	23+90	0.453	312.50
LT		26+29	0.498	31+00	0.587		475.00			LT	26+29	0.498	31+00	0.587	475.00
LT		32+50	0.616	39+00	0.739		650.00			LT	32+50	0.616	39+00	0.739	650.00
LT		39+10	0.741	42+09	0.797		300.00			LT	39+10	0.741	42+09	0.797	300.00
LT		43+09	0.816	44+97	0.852		200.00			LT	43+09	0.816	44+97	0.852	200.00
LT		46+30	0.877	48+06	0.910	Type 1	137.50			LT	46+30	0.877	48+06	0.910	187.50
LT	Terminal Section 1	48+24	0.914	61+93	1.173	Terminal Section 1	1,378.75	1		LT	48+24	0.914	61+93	1.173	1,375.00
LT	Terminal Section 1	62+17	1.177	64+54	1.222		248.75	3		LT	62+17	1.177	64+54	1.222	237.50
LT		66+55	1.260	67+57	1.280		112.50			LT	66+55	1.260	67+57	1.280	112.50
LT		67+92	1.286	70+06	1.327	Type 1	175.00			LT	67+92	1.286	70+06	1.327	225.00
LT	Type 7	70+78	1.341	76+12	1.442	Type 1	437.50			LT	70+78	1.341	76+12	1.442	537.50
LT	Type 4A	76+39	1.447	77+96	1.477		132.50	2	End of proposed string ties into existing Type 7 end treatment	LT	76+39	1.447	77+96	1.477	162.50
LT		78+25	1.482	79+54	1.506	Type 1	98.75	3	Beginning of proposed string ties into existing Type 7 end treatment	LT	78+25	1.482	79+54	1.506	137.50
LT	Type 1	146+76	2.780	149+00	2.822	Type 1	125.00		Includes Gabion Basket Replacement (25')	LT	146+76	2.780	149+00	2.822	225.00
RT	Type 2A	52+38	0.992	54+50	1.032	Type 2A	212.50			RT	52+38	0.992	54+50	1.032	212.50
RT	Type 4A	145+62	2.758	148+62	2.815	Type 1	212.50			RT	145+62	2.758	148+62	2.815	300.00
REMOVE AND REPLACE AND/OR EXTEND EXISTING GUARDRAIL WITH EXTRA LENGTH POSTS															
LT		7+00	0.133	7+50	0.142		50.00		4 Extra Length Posts	LT	7+00	0.133	7+50	0.142	50.00
LT		10+95	0.207	12+03	0.228		112.50		9 Extra Length Posts	LT	10+95	0.207	12+03	0.228	112.50
LT		18+82	0.356	19+50	0.369		75.00		6 Extra Length Posts	LT	18+82	0.356	19+50	0.369	75.00
LT		19+87	0.376	20+85	0.395		100.00		8 Extra Length Posts	LT	19+87	0.376	20+85	0.395	100.00
LT		23+90	0.453	26+29	0.498		250.00		20 Extra Length Posts	LT	23+90	0.453	26+29	0.498	250.00
LT		31+00	0.587	32+50	0.616		150.00		12 Extra Length Posts	LT	31+00	0.587	32+50	0.616	150.00
LT		39+00	0.739	39+10	0.741		12.50		1 Extra Length Posts	LT	39+00	0.739	39+10	0.741	12.50
LT		42+09	0.797	43+09	0.816		100.00		8 Extra Length Posts	LT	42+09	0.797	43+09	0.816	100.00
LT		44+97	0.852	46+30	0.877		137.50		11 Extra Length Posts	LT	44+97	0.852	46+30	0.877	137.50

Guardrail Summary **Counties: Jessamine** **Route: US 68**

Notes: Begin/End Milepoints are estimated to include the entire length of the Rail AND the End Treatments. The Engineer may adjust the proposed guardrail termini to ensure proper installation of the guardrail system.

Proposed Guardrail to be Constructed										Existing Guardrail to be Removed					
Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Proposed ENDING Treatment	Proposed Length (LF)	Number of Radius Rail	Remarks	Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Existing Length (LF)
LT		64+54	1.222	66+55	1.260		212.50		17 Extra Length Posts	LT	64+54	1.222	66+55	1.260	212.50
LT		67+57	1.280	67+92	1.286		37.50		3 Extra Length Posts	LT	67+57	1.280	67+92	1.286	37.50

ITEM	DESCRIPTION	UNIT	QUANTITY
00001	DGA BASE	TON	563
00100	ASPHALT SEAL AGGREGATE	TON	61
00103	ASPHALT SEAL COAT	TON	8
01987	DELINEATOR FOR GUARDRAIL B/W	EACH	169
02360	GUARDRAIL TERMINAL SECTION NO 1	EACH	3
02367	GUARDRAIL END TREATMENT TYPE 1	EACH	8
02369	GUARDRAIL END TREATMENT TYPE 2A	EACH	2
02371	GUARDRAIL END TREATMENT TYPE 7	EACH	1
02378	GUARDRAIL CONNECTOR TO BRIDGE END TY D	EACH	1
02381	REMOVE GUARDRAIL	LF	8388
02391	GUARDRAIL END TREATMENT TYPE 4A	EACH	2
02399	EXTRA LENGTH GUARDRAIL POST	EACH	99
02610	RETAINING WALL-GABION	CUYD	27
21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	LF	7919
20191ED	OBJECT MARKER TY 3	EACH	10

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

US 68 JESSAMINE COUNTY
ITEM NO. 7-9009.00
CULVERT PIPE SUMMARY

Mile Point	Station	Existing Culvert Pipe	Skew	Remove Pipe LT (LF)	Remove Pipe RT (LF)	Remove Headwall (ea)	Proposed Culvert Pipe Length (LF)		End Anchors (Class "A" Conc)	Left Headwall - Proposed	Right Headwall - Proposed
							18"	24"			
0.138	7+27	24" RCP	48°	4	-	1	-	6		24" Pipe Culvert Headwall	-
0.199	10+50	-	0°	-	-	-	43	-	0.16	-	18" Safety Box Inlet
0.275	14+50	-	0°	-	-	-	37	-	0.16	-	18" Safety Box Inlet
0.369	19+50	-	0°	-	-	-	31	-	0.16	-	18" Safety Box Inlet
0.445	23+50	-	0°	-	-	-	35	-	0.16	-	18" Safety Box Inlet
0.583	30+78	18" RCP	15°	4	-	1	6	-		18" Pipe Culvert Headwall	-
0.620	32+75	-	0°	-	-	-	44	-	0.16	-	18" Safety Box Inlet
0.740	39+07	24" RCP	12°	4	-	1	-	6		24" Pipe Culvert Headwall	-
0.782	41+30	-	0°	-	-	-	42	-	0.16	-	18" Safety Box Inlet
0.866	45+75	-	0°	-	-	-	38	-	0.16	-	18" Safety Box Inlet
0.938	49+50	-	0°	-	-	-	36	-	0.16	-	18" Safety Box Inlet
1.113	58+79	18" RCP	0°	4	-	-	6	-		18" Pipe Culvert Headwall	-
1.155	61+00	-	0°	-	-	-	38	-	0.16	-	18" Safety Box Inlet
1.264	66+76	-	0°	-	-	-	37	-	0.16	-	18" Safety Box Inlet
1.543	81+46	18" RCP	0°	4	-	1	10	-		18" Sloped & Mitered Headwall	-
1.634	86+29	18" RCP	0°	4	-	1	9	-		18" Sloped & Mitered Headwall	-
1.954	103+15	18" RCP	0°	4	4	2	11	-		18" Safety Box Inlet	18" Sloped & Mitered Headwall
3.162	166+95	18" RCP	0°	4	4	2	16	-		18" Sloped & Mitered Headwall	18" Sloped & Mitered Headwall
3.522	185+97	18" RCP	0°	4	4	-	20	-		18" Sloped & Mitered Headwall	18" Sloped & Mitered Headwall
3.765	198+77	24" RCP	0°	4	4	2	-	15		24" Sloped & Mitered Headwall	24" Sloped & Mitered Headwall

ITEM	DESCRIPTION	UNIT	QUANTITY	
00190	LEVELING & WEDGING PG64-22	TON	9	
00212	CL2 ASPH BASE 1.00D PG64-22	TON	49	
00307	CL2 ASPH SURF 0.38B PG64-22	TON	379	
00462	CULVERT PIPE-18 IN	LF	459	
00464	CULVERT PIPE-24 IN	LF	27	
01204	PIPE CULVERT HEADWALL-18 IN	EACH	2	
01208	PIPE CULVERT HEADWALL-24 IN	EACH	2	
01310	REMOVE PIPE	LF	56	
01726	SAFETY BOX INLET-18 IN SDB-1	EACH	11	
02483	CHANNEL LINING CLASS II	TON	600	*
02625	REMOVE HEADWALL	EACH	11	
02677	ASPHALT PAVE MILLING & TEXTURING	TON	379	
02697	EDGELINE RUMBLE STRIPS	LF	3400	
08100	CONCRETE-CLASS A	CUYD	2	
26131ED	SLOPED AND MITERED HEADWALL-18 IN	EACH	7	
26132ED	SLOPED AND MITERED HEADWALL-24 IN	EACH	2	

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
The Contractor shall field verify types and dimensions prior to ordering.
All quantities carried over to the General Summary.

*For use as directed by engineer

Roadside Regrading Summary — County: Jessamine — Route: US 68

Notes:
* The "Figure References" noted below refer to the Figure number within the Roadside Regrading Detail Sheet that is the closest representation of the intended Roadside Regrading
** The Estimated Volumes of Excavation and Embankment are provided for informational purposes ONLY. The Department gives no guarantee to the accuracy of the estimated volumes. The Bidder must draw his/her own conclusion. Payment will be based on the Linear Footage of Roadside Regrading performed, regardless of the accuracy of the Estimated Volumes of Excavation and Embankment.

LOCATION																
Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint	Length (LF)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Roadside Regrading Detail Sheet Figure Ref.*	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt Seal Coat (TON)	Asphalt Seal Aggregate (TON)	Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	FABRIC-GEOTEXTILE CLASS 2(SQ YD)	Remarks
LT	6+77	0.128	7+77	0.147	100	0	3	Figure 4	No				No			Pipe Extension
RT	7+66	0.145	8+06	0.153	40	1	0	Figure 11	No				Yes - Ditch	8	0	Clean/Reshape
LT	8+06	0.153	9+83	0.186	177	0	5	Figure 4	No				No			SE Improvement
RT	8+06	0.153	9+83	0.186	177	7	7	Figure 11	Yes	2	0.05	0.37	Yes - Ditch	36	15	SE Improvement
RT	9+83	0.186	13+65	0.259	382	8	3	Figure 11	Yes	**4**	**0.10**	**0.80**	Yes - Ditch	**77**	**32**	SE Improvement
LT	10+00	0.189	11+00	0.208	100	0	3	Figure 4	No				No			Proposed Cross Drain
LT	14+00	0.265	15+00	0.284	100	0	3	Figure 4	No				No			Proposed Cross Drain
RT	14+00	0.265	15+00	0.284	100	4	4	Figure 11	No				Yes - Ditch	20	0	Pipe Extension
RT	17+00	0.322	23+05	0.437	605	13	4	Figure 11	No				Yes - Ditch	**121**	**0**	Clean/Reshape
LT	19+00	0.360	20+00	0.379	100	0	3	Figure 4	No				No			Proposed Cross Drain
LT	23+00	0.436	26+01	0.493	301	0	8	Figure 4	No				No			Cross Drain, SE Improvement
RT	23+05	0.437	26+01	0.493	296	11	11	Figure 11	Yes	3	0.08	0.62	Yes - Ditch	60	25	SE Improvement
RT	26+01	0.493	28+00	0.530	199	4	1	Figure 11	No				Yes - Ditch	**40**	**0**	Clean/Reshape
RT	29+24	0.554	33+00	0.625	376	0	4	Figure 1	Yes	4	0.10	0.79	No			SE Improvement
LT	30+28	0.573	31+28	0.592	100	0	3	Figure 4	No				No			Pipe Extension
LT	32+25	0.611	33+25	0.630	100	0	3	Figure 4	No				No			Proposed Cross Drain
RT	33+00	0.625	34+36	0.651	136	3	1	Figure 11	No				Yes - Ditch	**28**	**0**	Clean/Reshape
RT	34+36	0.651	37+76	0.715	340	13	13	Figure 11	Yes	4	0.09	0.71	Yes - Ditch	68	28	SE Improvement
RT	37+76	0.715	38+25	0.724	49	1	0	Figure 11	No				Yes - Ditch	**10**	**0**	Clean/Reshape
LT	38+57	0.730	39+57	0.749	100	0	3	Figure 4	No				No			Pipe Extension
RT	39+25	0.743	41+80	0.792	255	6	2	Figure 11	No				Yes - Ditch	**51**	**0**	Clean/Reshape
LT	40+80	0.773	41+80	0.792	100	0	3	Figure 4	No				No			Proposed Cross Drain
RT	44+00	0.833	49+00	0.928	500	11	4	Figure 11	No				Yes - Ditch	**100**	**0**	Clean/Reshape
LT	45+25	0.857	46+25	0.876	100	0	3	Figure 4	No				No			Proposed Cross Drain
LT	49+00	0.928	50+00	0.947	100	0	3	Figure 4	No				No			Proposed Cross Drain
RT	49+00	0.928	51+00	0.966	200	3	9	Figure 8	Yes	2	0.05	0.42	No			Clean/Reshape, SE Improvement
RT	51+00	0.966	52+38	0.992	138	5	5	Figure 11	Yes	**2**	**0.04**	**0.29**	Yes - Ditch	**28**	**12**	SE Improvement
RT	52+38	0.992	54+74	1.037	236	0	4	Figure 4	No				No			SE Improvement
RT	57+00	1.080	58+31	1.104	131	3	1	Figure 11	No				Yes - Ditch	**27**	**0**	Clean/Reshape
LT	58+29	1.104	59+29	1.123	100	0	3	Figure 4	No				No			Pipe Extension
RT	58+31	1.104	61+50	1.165	319	12	12	Figure 11	Yes	**4**	**0.08**	**0.67**	Yes - Ditch	**64**	**27**	SE Improvement
LT	60+50	1.146	61+50	1.165	100	0	3	Figure 4	No				No			Proposed Cross Drain
RT	61+50	1.165	65+00	1.231	350	8	3	Figure 11	No				Yes - Ditch	**70**	**0**	Clean/Reshape
RT	65+00	1.231	68+25	1.293	325	5	7	Figure 9	No				No			Clean/Reshape
LT	66+26	1.255	67+26	1.274	100	0	3	Figure 4	No				No			Proposed Cross Drain
RT	68+25	1.293	72+83	1.379	458	17	17	Figure 11	Yes	5	0.12	0.96	Yes - Ditch	92	38	SE Improvement
RT	72+83	1.379	74+00	1.402	117	2	3	Figure 11	No				Yes - Ditch	**24**	**0**	Clean/Reshape
RT	74+00	1.402	78+91	1.495	491	11	18	Figure 11	No				Yes - Ditch	99	0	Clean/Reshape
RT	78+91	1.495	83+00	1.572	409	15	15	Figure 11	Yes	**4**	**0.11**	**0.86**	Yes - Ditch	**82**	**34**	SE Improvement
LT	79+55	1.507	80+50	1.525	95	0	2	Figure 5	Yes	4	0.05	0.40	Yes - Fill Slope	19	16	Widen Shoulder near Stream
LT	81+25	1.539	83+00	1.572	175	0	4	Figure 5	Yes	**7**	**0.09**	**0.73**	Yes - Fill Slope	**35**	**29**	Widen Shoulder near Stream
RT	83+00	1.572	88+00	1.667	500	6	24	Figure 11	No				Yes - Ditch	100	0	Clean/Reshape
LT	85+00	1.610	87+25	1.652	225	0	36	Figure 2	No				No			Widen Shoulder
LT	87+25	1.652	94+00	1.780	675	0	53	Figure 4	No				No			Widen Shoulder

Roadside Regrading Summary

County: Jessamine **Route: US 68**

Notes:
* The "Figure References" noted below refer to the Figure number within the Roadside Regrading Detail Sheet that is the closest representation of the intended Roadside Regrading.
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LOCATION					Length (LF)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Roadside Regrading Detail Sheet Figure Ref.*	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt Seal Coat (TON)	Asphalt Seal Aggregate (TON)	Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	FABRIC-GEOTEXTILE CLASS 2(SQ YD)	Remarks
Side of Road	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint												
RT	88+00	1.667	92+50	1.752	450	0	72	Figure 3	No				No			Widen Shoulder
LT	94+00	1.780	113+00	2.140	1,900	260	183	Figure 9	No				No			Clean/Reshape
RT	95+00	1.799	101+00	1.913	600	0	19	Figure 2	No				No			Widen Shoulder
RT	101+00	1.913	112+75	2.135	1,175	0	32	Figure 4	No				No			Widen Shoulder
RT	114+75	2.173	117+75	2.230	300	4	4	Figure 9	No				No			Clean/Reshape
LT	121+00	2.292	128+50	2.434	750	0	36	Figure 2	No				No			Widen Shoulder
RT	121+82	2.307	139+56	2.643	1,774	20	20	Figure 9	No				No			Clean/Reshape
LT	128+50	2.434	146+76	2.780	1,826	0	149	Figure 3	No				No			Widen Shoulder
LT	149+00	2.822	152+00	2.879	300	0	8	Figure 2	No				No			Widen Shoulder
RT	154+50	2.926	160+00	3.030	550	0	90	Figure 3	No				No			Widen Shoulder
RT	160+00	3.030	164+25	3.111	425	0	5	Figure 2	No				No			Widen Shoulder
RT	165+00	3.125	184+00	3.485	1,900	0	120	Figure 2	No				No			Widen Shoulder
LT	166+00	3.144	170+00	3.220	400	22	4	Figure 8	No				No			Clean/Reshape
LT	171+25	3.243	186+00	3.523	1,475	0	191	Figure 2	No				No			Widen Shoulder
RT	184+00	3.485	190+41	3.606	641	2	5	Figure 8	No				No			Clean/Reshape
LT	186+70	3.536	190+50	3.608	380	0	11	Figure 2	No				No			Widen Shoulder
RT	190+41	3.606	194+00	3.674	359	1	3	Figure 8	No				No			Clean/Reshape
LT	198+27	3.755	200+50	3.797	223	20	1	Figure 5	Yes	9	0.12	0.93	Yes - Fill Slope	119	37	Widen Shoulder
RT	198+27	3.755	199+27	3.774	100	0	2	Figure 4	No				No			Pipe Extension
LT	206+00	3.902	208+00	3.939	200	0	18	Figure 2	No				No			Widen Shoulder
LT	208+00	3.939	220+50	4.176	1,250	0	102	Figure 2	No				No			Widen Shoulder

ITEM	DESCRIPTION	UNIT	QUANTITY
00001	DGA BASE	TON	54
00100	ASPHALT SEAL AGGREGATE	TON	9
00103	ASPHALT SEAL COAT	TON	2
02603	FABRIC-GEOTEXTILE CLASS 2	SQYD	292
02483	CHANNEL LINING CLASS II	TON	1,378
26175EC	ROADSIDE REGRADING	LF	27055

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
ENTRANCE SUMMARY

Side of Road	Station	Milepoint	Type	Cl2 Asph Surf 0.38B PG64-22 (ton)	Cl2 Asph Base 1.00D PG64-22 (ton)	DGA (ton)	Remove Pipe (LF)	Entrance Pipe-15 in (LF)	Entrance Pipe-18 in (LF)	Headwall - Proposed	Notes
RT	95+78	1.814	GRAVEL	--	--	7.7	26	26		15" Sloped & Mitered Headwall	For Roadside Regrading
RT	116+60	2.208	ASPH	1.9	6.1	6.4	30		30		For Roadside Regrading
RT	135+52	2.567	ASPH	1.8	5.9	6.1	24	24			For Roadside Regrading

ITEM	DESCRIPTION	UNIT	QUANTITY
00001	DGA BASE	TON	21
00212	CL2 ASPH BASE 1.00D PG64-22	TON	12
00307	CL2 ASPH SURF 0.38B PG64-22	TON	4
00440	ENTRANCE PIPE-15 IN	LF	50
00441	ENTRANCE PIPE-18 IN	LF	30
01310	REMOVE PIPE	LF	80
02625	REMOVE HEADWALL	EACH	2
26130ED	SLOPED AND MITERED HEADWALL-15 IN	EACH	2

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All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
SUPERELEVATION IMPROVEMENT SUMMARY

Curve No.	PC Station	PC Milepoint	PT Station	PT Milepoint	Radius	Length of Curve (ft)	Existing Superelevation	Desired SE	Runoff Length	Runout Length	Leveling & Wedging PG 64-22 (ton)	Asphalt Pave Milling & Texturing (ton)	CL2 Asph. Surf. 0.38B PG 64-22 (ton)	HFS (SY)	
3 WB	8+74.33	0.166	9+61.06	0.182	690	87	-0.1%	2.0%	51	51	93.2	28.5	48.6		
3 EB							-0.8%	-2.0%	51	51					
4 WB	10+05.70	0.190	12+97.63	0.246	2,275	292	-3.2%				76.6	23.2	85.7		
4 EB							-0.9%	2.0%	51	51					
7 WB	20+99.76	0.398	23+34.91	0.442	139	236	7.6%	HFS	128	34				385	
7 EB							-6.3%	HFS							
8 WB	23+73.36	0.450	25+32.85	0.480	684	160	-2.2%	2.0%	51	51	59.3	11.1	54.3		
8 EB							-4.3%								
10 WB	29+87.81	0.566	32+30.51	0.612	136	243	-7.8%				80.5	47.1	93.1		
10 EB							2.8%	4.0%	64	32					
11 WB	33+19.32	0.629	34+53.27	0.654	173	134	7.1%	HFS	134	34				318	
11 EB							-6.2%	HFS							
12 WB	35+04.52	0.664	37+07.73	0.702	175	204	-0.7%	-2.0%	51	51	113.7	44.1	68.1		
12 EB							1.3%	2.0%	51	51					
16 WB	46+14.42	0.874	49+02.55	0.929	133	289	5.1%	HFS	81	32				384	
16 EB							-4.9%	HFS							
17 WB	51+08.23	0.967	54+13.93	1.025	297	306	-3.7%				106.4	57.6	90.4		
17 EB							1.1%	3.0%	55	36					
18 WB	59+04.14	1.118	60+71.80	1.150	359	168	-5.2%				62.5	20.2	64.4		
18 EB							1.5%	4.0%	73	36					
21 WB	69+22.25	1.311	71+85.50	1.361	248	264	4.2%	6.0%	109	36	144.2	128.5	111.9		**
21 EB							-5.5%								
24 WB	79+58.98	1.507	82+36.01	1.560	1,507	278	-9.0%				75.9	34.6	86.5		
24 EB							0.1%	2.0%	51	51					
32 WB	184+86.80	3.501	189+73.23	3.593	1,067	487	0.6%	2.0%	51	51	48.5	79.0	109.8		**
32 EB							-4.1%								

ITEM	DESCRIPTION	UNIT	QUANTITY
00190	LEVELING & WEDGING PG64-22	TON	931
00307	CL2 ASPH SURF 0.38B PG64-22	TON	848
23229EC	HIGH FRICTION SURFACE TREATMENT	SQYD	1088
02677	ASPHALT PAVE MILLING & TEXTURING	TON	579
02697	EDGELINE RUMBLE STRIPS	LF	10287
06511	PAVE STRIPING-TEMP PAINT-6 IN	LF	8914
06515	PAVE STRIPING-PERM PAINT-6 IN	LF	8914

** Additional quantities are included for Curve 21 and Curve 32 to tie Pekin Lane and McCauley Road into proposed superelevation improvements.

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All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
CRIBBING SUMMARY

REPLACE OR INSTALL CRIBBING

Offset	Begin Mile Point	Begin Station	End Mile Point	End Station	Description	Excavation & Backfill (CUYD)	Proposed Cribbing (SQFT)	Railroad Rails - Drilled (LF)	Channel Lining - Class II (Tons)	FABRIC-GEOTEXTILE CLASS 2 (SQYD)
LT	0.240	12+65	0.256	13+53	Replace Cribbing	6.40	176.00	264.00	29.30	48.89
LT	0.259	13+65	0.260	13+72	Replace Cribbing	0.50	10.50	19.69	1.75	3.50
LT	0.369	19+50	0.376	19+87	Replace Cribbing	2.83	111.00	124.88	18.48	24.67
LT	0.445	23+50	0.453	23+90	Replace Cribbing	3.05	120.00	135.00	19.98	26.67
LT	0.563	29+73	0.587	31+00	Replace Cribbing	10.16	508.00	476.25	84.58	98.78
LT	0.816	43+09	0.852	44+97	Replace Cribbing	14.36	564.00	634.50	93.91	125.33
LT	0.933	49+27	0.982	51+86	Replace Cribbing	19.78	777.00	874.13	129.37	172.67
LT	1.001	52+83	1.025	54+11	Replace Cribbing	9.31	256.00	384.00	42.62	71.11
LT	1.111	58+67	1.125	59+39	Replace Cribbing	5.50	216.00	243.00	35.96	48.00
LT	1.213	64+02	1.222	64+54	Replace Cribbing	4.18	209.08	196.01	34.81	40.65
LT	1.525	80+50	1.539	81+25	Proposed Cribbing	6.82	525.00	365.63	87.41	83.33
RT	1.684	88+91	1.694	89+42	Replace Cribbing	3.57	63.75	138.66	10.61	24.08

REPLACE OR INSTALL "GUARDRAIL" CRIBBING (In Front Of Guardrail)

Offset	Begin Mile Point	Begin Station	End Mile Point	End Station	Description	Extra Length Guardrail Posts	Proposed Cribbing (SQFT)	CRUSHED AGGREGATE SIZE NO 2 (tons)	CRUSHED STONE BASE (tons)	FABRIC-GEOTEXTILE CLASS 2 (SQYD)
LT	0.133	7+00	0.142	7+50	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	100.00	20.13	2.88	38.89
LT	0.207	10+95	0.228	12+03	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	108.00	18.63	6.21	60.00
LT	0.356	18+82	0.395	19+50	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	68.00	11.73	3.91	37.78
LT	0.376	19+87	0.498	20+85	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	98.00	16.91	5.64	54.44
LT	0.453	23+90	0.482	25+43	Proposed "Guardrail Cribbing"	Accounted for in Guardrail Summary	306.00	61.58	8.80	119.00
LT	0.482	25+43	0.498	26+29	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	258.00	54.40	4.95	86.00
LT	0.587	31+00	0.616	32+50	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	150.00	25.88	8.63	83.33
LT	0.739	39+00	0.741	39+10	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	30.00	6.33	0.58	10.00
LT	0.797	42+09	0.816	43+09	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	99.70	17.20	5.73	55.39
LT	0.852	44+97	0.877	46+30	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	133.00	22.94	7.65	73.89
LT	1.222	64+54	1.260	66+55	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	200.57	34.60	11.53	111.43
LT	1.280	67+57	1.286	67+92	Replace "Guardrail Cribbing"	Accounted for in Guardrail Summary	34.43	5.94	1.98	19.13

ITEM	DESCRIPTION	UNIT	QUANTITY
02483	CHANNEL LINING CLASS II	TON	589
00078	CRUSHED AGGREGATE SIZE NO 2	TON	297
00003	CRUSHED STONE BASE	TON	69
02603	FABRIC-GEOTEXTILE CLASS 2	SQYD	1517
03234	RAILROAD RAILS-DRILLED	LF	3856
03235	EXCAVATION AND BACKFILL	CUYD	87
03236	CRIBBING	SQFT	5123

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
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Sign Summary

County: Jessamine **Route: US 68**

SIGN LOCATION						MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	# of Sign Posts	Estimated Length of 2" Post (ft)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling					Text/ Symbol Color	Background Color	Sheeting Type							
1	RT	15	7+45	0.14	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
2	RT	15	29+00	0.55	EB	W1-1a	TURN/ADVISORY SPEED	20 MPH Left	36 x 36	Black	White	XI	9.00		Stnd w/ Soil Plate	1	11	11	1
3	RT	13	30+16	0.57	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18 x 24	Black	FL Yellow	XI	3.00		Stnd w/ Soil Plate	1	10	10	2
	RT	13	30+16	0.57	EB/WB		REFLECTIVE POST PANELS 2"X60"		2 x 60		FL Yellow	XI	1.67						2
4	RT	18	30+65	0.58	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18 x 24	Black	FL Yellow	XI	3.00		Stnd w/ Soil Plate	1	10	10	2
	RT	18	30+65	0.58	EB/WB		REFLECTIVE POST PANELS 2"X60"		2 x 60		FL Yellow	XI	1.67						2
5	RT	15	39+07	0.74	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
6	RT	14	58+79	1.11	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
7	RT	19	59+81	1.13	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18 x 24	Black	FL Yellow	XI	6.00		Stnd w/ Soil Plate	1	10	10	2
8	RT	15	63+40	1.20	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
9	RT	12	69+19	1.31	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
10	RT	22	73+18	1.39	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18 x 24	Black	FL Yellow	XI	6.00		Stnd w/ Soil Plate	1	10	10	2
11	RT	15	73+71	1.40	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
12	LT	13	81+25	1.54	WB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
13	RT	15	81+41	1.54	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
14	RT	12	86+24	1.63	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
15	RT	12	89+38	1.69	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
16	LT	12	89+62	1.70	WB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
17	LT	15	89+65	1.70	EB	W14-3	NO PASSING ZONE		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate	2	25	25	1
18	RT	15	92+50	1.75	WB	W14-3	NO PASSING ZONE		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate	2	25	25	1
19	LT	16	113+67	2.15	WB	M1-5A	STATE ROUTE SIGN (3 OR 4 DIGIT)	RTE 1268	30 x 24	Black	White	XI	5.00		Stnd w/ Soil Plate	1	13	13	1
	LT	16	113+67	2.15	WB	M6-1	ADVANCE LEFT TURN ARROW		21 x 15	Black	White	XI	2.19						1
20	LT	13	120+01	2.27	WB	M1-5A	STATE ROUTE SIGN (3 OR 4 DIGIT)	JCT 1268	30 x 24	Black	White	XI	5.00		Stnd w/ Soil Plate	1	13	13	1
	LT	13	120+01	2.27	WB	M2-1	JUNCTION		21 x 15	Black	White	XI	2.19						1
21	RT	20	123+30	2.34	WB	W14-3	NO PASSING ZONE		48 x 48 x 36	Black	Yellow	XI		5.56	Stnd w/ Soil Plate	2	25	25	1
22	RT	11	126+67	2.40	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
23	LT	12	126+99	2.41	WB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
24	LT	12	142+73	2.70	WB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
25	RT	15	181+25	3.43	EB	W2-2L	SIDE ROAD		30 x 30	Black	Yellow	XI	6.25		Stnd w/ Soil Plate	1	11	11	1
	RT	15	181+25	3.43	EB	W16-8P	ADVANCED STREET NAME PLAQUE	McCauley Road	24 x 12	Black	Yellow	XI	2.00		Stnd w/ Soil Plate				1
26	LT	15	189+50	3.59	WB	W2-2R	SIDE ROAD		30 x 30	Black	Yellow	XI	6.25		Stnd w/ Soil Plate	1	11	11	1
	LT	15	189+50	3.59	WB	W16-8P	ADVANCED STREET NAME PLAQUE	McCauley Road	24 x 12	Black	Yellow	XI	2.00		Stnd w/ Soil Plate				1
27	RT	12	207+03	3.92	EB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
28	LT	12	207+22	3.92	WB	OM2-2V	OBJECT MARKER TYPE 2		6 x 12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1

Remove Sign

Jessamine County **US 68**

Side of Road	Station	Approx. MP	Remove Sign	Description
RT	29+00	0.55	1	TURN/ADVISORY SPEED
RT	30+16	0.57	1	RIGHT/LEFT CHEVRON
RT	30+16	0.57	1	REFLECTIVE POST PANELS 2"X60"
RT	30+65	0.58	1	RIGHT/LEFT CHEVRON
RT	30+65	0.58	1	REFLECTIVE POST PANELS 2"X60"
RT	59+81	1.13	1	RIGHT/LEFT CHEVRON
RT	73+18	1.39	1	RIGHT/LEFT CHEVRON
RT	89+38	1.69	1	OBJECT MARKER TYPE 3
LT	89+65	1.70	1	NO PASSING ZONE
LT	113+67	2.15	1	STATE ROUTE SIGN (3 OR 4 DIGIT)
LT	113+67	2.15	1	ADVANCE LEFT TURN ARROW
LT	120+01	2.27	1	STATE ROUTE SIGN (3 OR 4 DIGIT)
LT	120+01	2.27	1	JUNCTION
RT	123+30	2.34	1	NO PASSING ZONE
RT	181+25	3.43	1	SIDE ROAD
LT	189+50	3.59	1	SIDE ROAD

ITEM	DESCRIPTION	UNIT	QUANTITY
02565	OBJECT MARKER TYPE 2	EACH	16
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	62
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	17
06410	STEEL POST TYPE 1	LF	174
21373ND	REMOVE SIGN	EACH	12
24631EC	BARCODE SIGN INVENTORY	EACH	40

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
SHOULDER REPAIR SUMMARY

Offset	Begin Milepoint	Begin Station	End Milepoint	End Station	Crushed Aggregate Size No. 23 (TON)	CL2 Asphalt Base 1.00D PG64-22 (TON)	Leveling & Wedging PG64-22 (TON)	CL2 ASPH SURF 0.38B PG64-22
LT	0.743	39+25	0.814	43+00	210	62	62	26
LT	0.909	48+00	0.928	49+00	50	15	15	6

ITEM	DESCRIPTION	UNIT	QUANTITY
00080	CRUSHED AGGREGATE SIZE NO 23	TON	261
00190	LEVELING & WEDGING PG64-22	TON	77
00307	CL2 ASPH SURF 0.38B PG64-22	TON	32
00212	CL2 ASPH BASE 1.00D PG64-22	TON	77

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field
All quantities carried over to the General Summary.

Sign Summary

County: Jessamine **Route: US 68**

SIGN LOCATION						MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)			SHEETING			SBM Alum Sheet Signs 0.080 IN (SQ FT)	SBM Alum Sheet Signs 0.125 IN (SQ FT)	Installation Type	# of Sign Posts	Estimated Length of 2'' Post (ft)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Traveling							Text/ Symbol Color	Background Color	Sheeting Type							
1	RT	15	7+45	0.14	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
2	RT	15	29+00	0.55	EB	W1-1a	TURN/ADVISORY SPEED	20 MPH Left	36	x	36	Black	White	XI	9.00		Type D	1	11	11	1
3	RT	13	30+16	0.57	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	x	24	Black	FL Yellow	XI	3.00		Type D	1	10	10	2
	RT	13	30+16	0.57	EB/WB		REFLECTIVE POST PANELS 2"X60"		2	x	60		FL Yellow	XI	1.67						2
4	RT	18	30+65	0.58	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	x	24	Black	FL Yellow	XI	3.00		Type D	1	10	10	2
	RT	18	30+65	0.58	EB/WB		REFLECTIVE POST PANELS 2"X60"		2	x	60		FL Yellow	XI	1.67						2
5	RT	15	39+07	0.74	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Type D	n/a	n/a	n/a	1
6	RT	14	58+79	1.11	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Type D	n/a	n/a	n/a	1
7	RT	19	59+81	1.13	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	x	24	Black	FL Yellow	XI	6.00		Type D	1	10	10	2
8	RT	15	63+40	1.20	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Type D	n/a	n/a	n/a	1
9	RT	12	69+19	1.31	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Type D	n/a	n/a	n/a	1
10	RT	22	73+18	1.39	EB/WB	W1-8R/L	RIGHT/LEFT CHEVRON		18	x	24	Black	FL Yellow	XI	6.00		Type D	1	10	10	2
11	RT	15	73+71	1.40	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Type D	n/a	n/a	n/a	1
12	LT	13	81+25	1.54	WB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
13	RT	15	81+41	1.54	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
14	RT	12	86+24	1.63	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
15	RT	12	89+38	1.69	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
16	LT	12	89+62	1.70	WB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
17	LT	15	89+65	1.70	EB	W14-3	NO PASSING ZONE		48 x 48 x 36			Black	Yellow	XI		5.56	Stnd w/ Soil Plate	2	25	25	1
18	RT	15	92+50	1.75	WB	W14-3	NO PASSING ZONE		48 x 48 x 36			Black	Yellow	XI		5.56	Stnd w/ Soil Plate	2	25	25	1
19	LT	16	113+67	2.15	WB	M1-5A	STATE ROUTE SIGN (3 OR 4 DIGIT)	RTE 1268	30	x	24	Black	White	XI	5.00		Stnd w/ Soil Plate	1	13	13	1
	LT	16	113+67	2.15	WB	M6-1	ADVANCE LEFT TURN ARROW		21	x	15	Black	White	XI	2.19						1
20	LT	13	120+01	2.27	WB	M1-5A	STATE ROUTE SIGN (3 OR 4 DIGIT)	JCT 1268	30	x	24	Black	White	XI	5.00		Stnd w/ Soil Plate	1	13	13	1
	LT	13	120+01	2.27	WB	M2-1	JUNCTION		21	x	15	Black	White	XI	2.19						1
21	RT	20	123+30	2.34	WB	W14-3	NO PASSING ZONE		48 x 48 x 36			Black	Yellow	XI		5.56	Stnd w/ Soil Plate	2	25	25	1
22	RT	11	126+67	2.40	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
23	LT	12	126+99	2.41	WB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
24	LT	12	142+73	2.70	WB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
25	RT	15	181+25	3.43	EB	W2-2L	SIDE ROAD		30	x	30	Black	Yellow	XI	6.25		Stnd w/ Soil Plate	1	11	11	1
	RT	15	181+25	3.43	EB	W16-8P	ADVANCED STREET NAME PLAQUE	McCauley Road	24	x	12	Black	Yellow	XI	2.00		Stnd w/ Soil Plate				1
26	LT	15	189+50	3.59	WB	W2-2R	SIDE ROAD		30	x	30	Black	Yellow	XI	6.25		Stnd w/ Soil Plate	1	11	11	1
	LT	15	189+50	3.59	WB	W16-8P	ADVANCED STREET NAME PLAQUE	McCauley Road	24	x	12	Black	Yellow	XI	2.00		Stnd w/ Soil Plate				1
27	RT	12	207+03	3.92	EB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1
28	LT	12	207+22	3.92	WB	OM2-2V	OBJECT MARKER TYPE 2		6	x	12	n/a	Yellow	XI	n/a		Stnd w/ Soil Plate	n/a	n/a	n/a	1

Remove Sign

Jessamine County **US 68**

Side of Road	Station	Approx. MP	Remove Sign	Description
RT	29+00	0.55	1	TURN/ADVISORY SPEED
RT	30+16	0.57	1	RIGHT/LEFT CHEVRON
RT	30+16	0.57	1	REFLECTIVE POST PANELS 2"X60"
RT	30+65	0.58	1	RIGHT/LEFT CHEVRON
RT	30+65	0.58	1	REFLECTIVE POST PANELS 2"X60"
RT	59+81	1.13	1	RIGHT/LEFT CHEVRON
RT	73+18	1.39	1	RIGHT/LEFT CHEVRON
RT	89+38	1.69	1	OBJECT MARKER TYPE 3
LT	89+65	1.70	1	NO PASSING ZONE
LT	113+67	2.15	1	STATE ROUTE SIGN (3 OR 4 DIGIT)
LT	113+67	2.15	1	ADVANCE LEFT TURN ARROW
LT	120+01	2.27	1	STATE ROUTE SIGN (3 OR 4 DIGIT)
LT	120+01	2.27	1	JUNCTION
RT	123+30	2.34	1	NO PASSING ZONE
RT	181+25	3.43	1	SIDE ROAD
LT	189+50	3.59	1	SIDE ROAD

ITEM	DESCRIPTION	UNIT	QUANTITY
02565	OBJECT MARKER TYPE 2	EACH	16
06406	SBM ALUM SHEET SIGNS .080 IN	SQFT	62
06407	SBM ALUM SHEET SIGNS .125 IN	SQFT	17
06410	STEEL POST TYPE 1	LF	174
06490	CLASS A CONCRETE FOR SIGNS	CUYD	1.25
21373ND	REMOVE SIGN	EACH	12
21596ND	GMSS TYPE D	EACH	5
24631EC	BARCODE SIGN INVENTORY	EACH	40

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

Trim and Remove Trees and Brush Summary

County: Jessamine Route: US 68

Notes: * Intent of remarks is to provide the contractor with the an approximate level of effort for each location. Refer to the Staking note and Special Note for Tree Stump and Brush Removal for further details about expected level of effort, particularly Part B of the Construction Methods which describes when complete removal of trees are required.
** Approximate Dimensions for Tree Clearing. Actual Dimensions determined in the Field by Engineer. Refer to Staking note.

LOCATION					Length (LF)	"X" Dimension**	"Y" Dimension **	Case 1 * Tree Trimming without Undergrowth Removal	Case 1B * Tree Trimming with Undergrowth Removal	Case 2 * Tree Trimming and/or Tree Removal without Undergrowth Removal	Case 2B * Tree Trimming and/or Tree Removal with Undergrowth Removal	Case 3B * Undergrowth Removal Only	Remarks *
Side of Road	Approx. BEGIN Milepoint	Approx. BEGIN Station	Approx. END Milepoint	Approx. END Station									
LT	0.095	05+00	0.142	07+50	250	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.237	12+50	0.251	13+25	75	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
LT	0.341	18+00	0.388	20+50	250	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.412	21+75	0.436	23+00	125	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
RT	0.511	27+00	0.530	28+00	100	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
RT	0.530	28+00	0.568	30+00	200	10	35	X					Tree canopy trimming only is expected at this location.
LT	0.568	30+00	0.625	33+00	300	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.631	33+30	0.650	34+30	100	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
RT	0.650	34+30	0.710	37+50	320	10	35	X					Tree canopy trimming only is expected at this location.
LT	0.663	35+00	0.748	39+50	450	15	35	X					Tree canopy trimming only is expected at this location.
LT	0.805	42+50	0.862	45+50	300	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.881	46+50	0.928	49+00	250	15	N/A				X		Estimated linear foot quantity is for trimming and removal of trees as necessary for Rock Removal. See Rock Removal Summary for locations.
LT	0.966	51+00	1.042	55+00	400	15	35	X					Tree canopy trimming only is expected at this location.
RT	0.966	51+00	1.487	78+50	2750	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	1.117	59+00	1.155	61+00	200	15	35	X					Tree canopy trimming only is expected at this location.
LT	1.241	65+50	1.307	69+00	350	15	35	X					Tree canopy trimming only is expected at this location.
LT	1.383	73+00	1.420	75+00	200	15	35	X					Tree canopy trimming only is expected at this location.
LT	1.506	79+50	1.572	83+00	350	15	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 2-5 tree (<18" in diameter).
RT	1.515	80+00	1.553	82+00	200	10	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 2 tree (18"-24" in diameter).
RT	1.634	86+30	1.661	87+70	140	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	1.648	87+00	1.771	93+50	650	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
RT	1.695	89+50	1.752	92+50	300	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
RT	2.320	122+50	2.528	133+50	1100	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	2.525	133+30	2.533	133+75	45	10	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 2 tree (18"-30" in diameter).
LT	2.718	143+50	2.746	145+00	150	15	35				X		Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Includes removal of 3 tree (<18" in diameter).
LT	2.784	147+00	2.806	148+15	115	10	35	X					Tree canopy trimming only is expected at this location.
RT	3.125	165+00	3.182	168+00	300	15	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	3.305	174+50	3.341	176+40	190	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
RT	3.404	179+75	3.499	184+75	500	15	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.
LT	3.897	205+75	3.906	206+25	50	10	35		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location.

ITEM	DESCRIPTION	UNIT	QUANTITY
03269	TRIM & REMOVE TREES & BRUSH	LF	10710

These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field.
All quantities carried over to the General Summary.

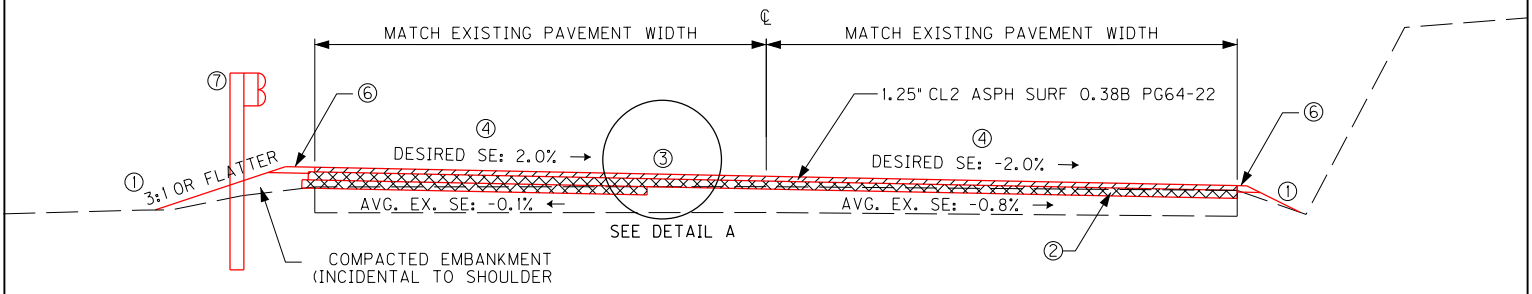
US 68 - JESSAMINE COUNTY
ITEM NO. 7-9009.00
ROCK REMOVAL SUMMARY

Beginning STA	Ending STA	Length	Width	Excavation Volume (CY)	Notes
12+50	13+25	75	-	139	Only remove rock overhang
21+75	23+00	125	4	733	
27+00	28+00	100	4	369	
33+30	34+30	100	4	253	
46+50	48+40	190	4	697	

ITEM	DESCRIPTION	UNIT	QUANTITY
00212	CL2 ASPH BASE 1.00D PG64-22	TON	238
00307	CL2 ASPH SURF 0.38B PG64-22	TON	99
00356	ASPHALT MATERIAL FOR TACK	TON	4
02677	ASPHALT PAVE MILLING & TEXTURING	TON	337
02697	EDGELINE RUMBLE STRIPS	LF	1,030
06511	PAVE STRIPING-TEMP PAINT-6 IN	LF	515
06515	PAVE STRIPING-PERM PAINT-6 IN	LF	515
23312EC	ROCK REMOVAL	CUYD	2,191

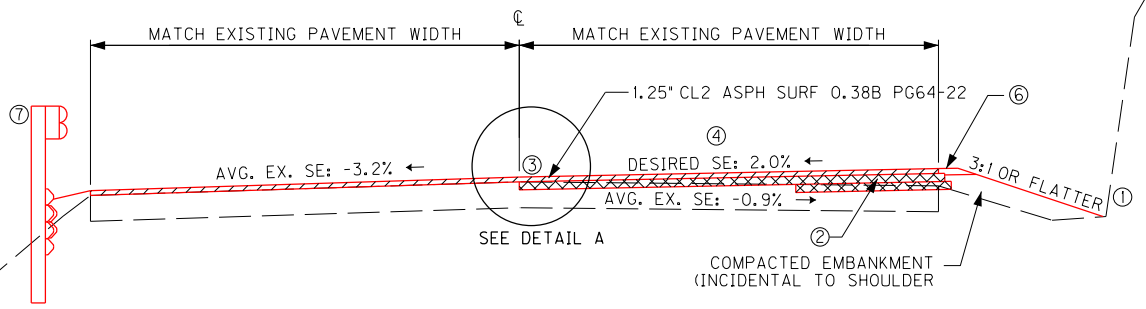
These numbers are for estimate purposes only. Final locations and quantities will be determined by the Engineer in the field
All quantities carried over to the General Summary.

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



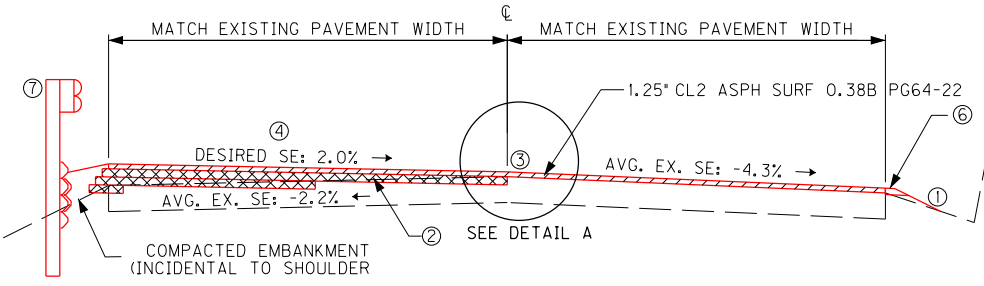
CURVE 3 SUPERELEVATION IMPROVEMENT

STA. 8+06.39 TO STA. 9+83.38 ⑤



CURVE 4 SUPERELEVATION IMPROVEMENT

STA. 9+83.38 TO STA. 13+65.56 ⑤



CURVE 8 SUPERELEVATION IMPROVEMENT

STA. 23+05.43 TO STA. 26+00.78 ⑤

① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)

② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.

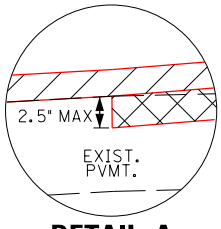
③ MAXIMUM DEPTH OF MILLING TO KEY INTO EXISTING PAVEMENT SHALL BE 2.5". SEE DETAIL A.

④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.

⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.

⑥ 2" DGA WITH 2 APPLICATIONS OF ASPHALT SEAL COAT. QUANTITIES INCLUDED IN SUPERELEVATION IMPROVEMENT SUMMARY.

⑦ REPLACE GUARDRAIL AS SHOWN ON GUARDRAIL SUMMARY.

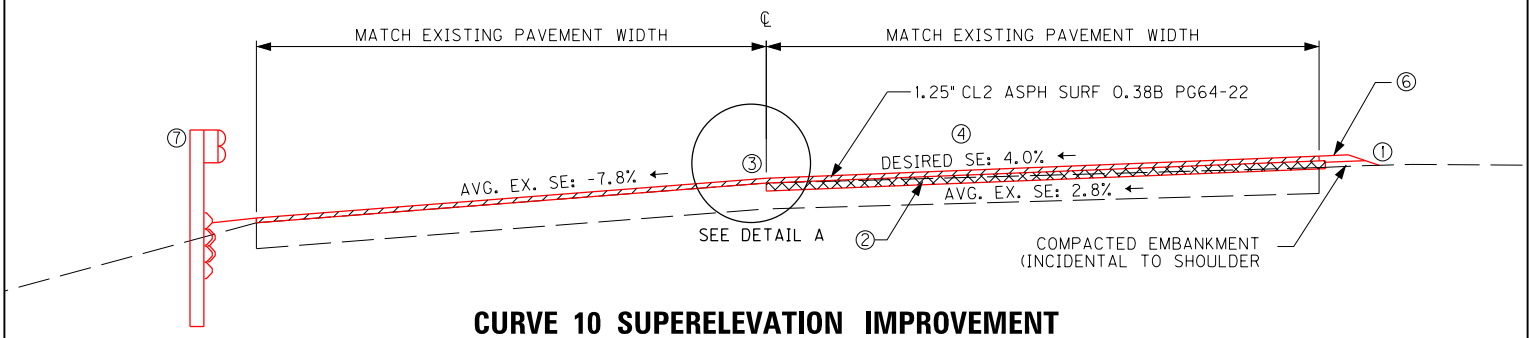


DETAIL A

N.T.S.

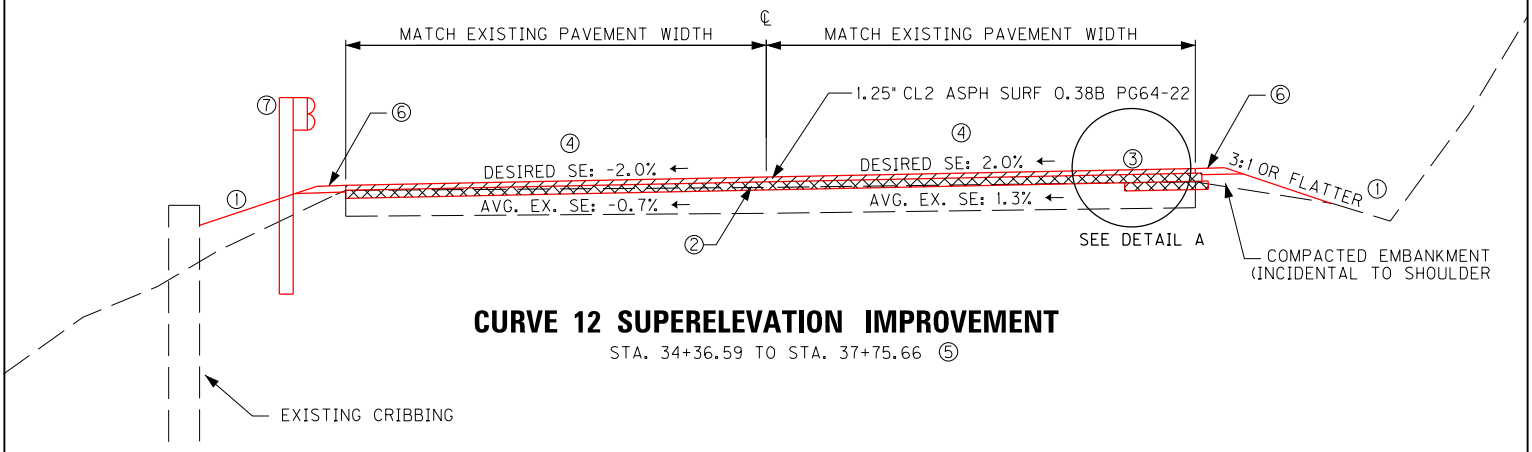
US 68
SUPERELEVATION IMPROVEMENTS
TYPICAL SECTION

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



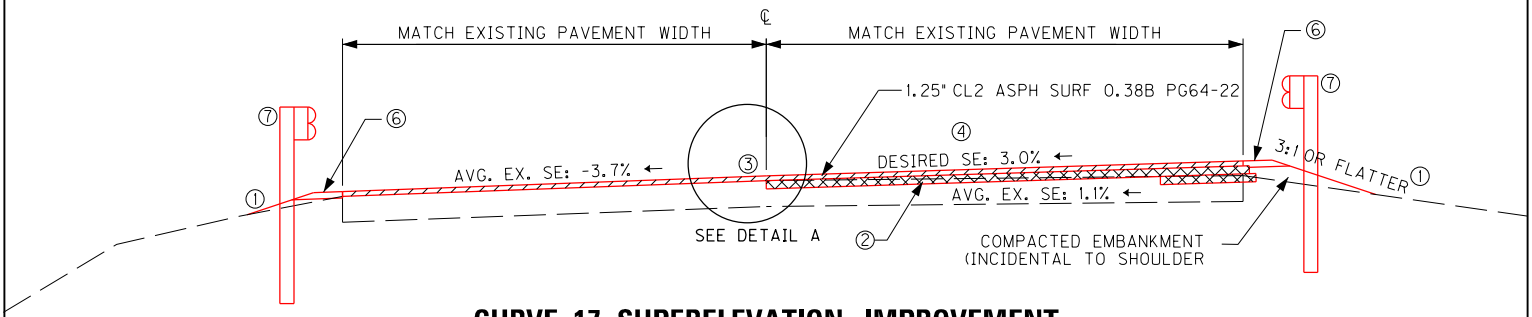
CURVE 10 SUPERELEVATION IMPROVEMENT

STA. 29+23.87 TO STA. 32+94.45 ⑤



CURVE 12 SUPERELEVATION IMPROVEMENT

STA. 34+36.59 TO STA. 37+75.66 ⑤



CURVE 17 SUPERELEVATION IMPROVEMENT

STA. 50+47.93 TO STA. 54+74.23 ⑤

① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)

② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.

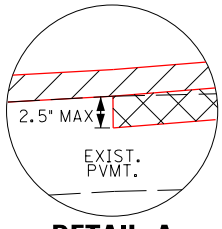
③ MAXIMUM DEPTH OF MILLING TO KEY INTO EXISTING PAVEMENT SHALL BE 2.5". SEE DETAIL A.

④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.

⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.

⑥ 2" DGA WITH 2 APPLICATIONS OF ASPHALT SEAL COAT. QUANTITIES INCLUDED IN SUPERELEVATION IMPROVEMENT SUMMARY.

⑦ REPLACE GUARDRAIL AS SHOWN ON GUARDRAIL SUMMARY.

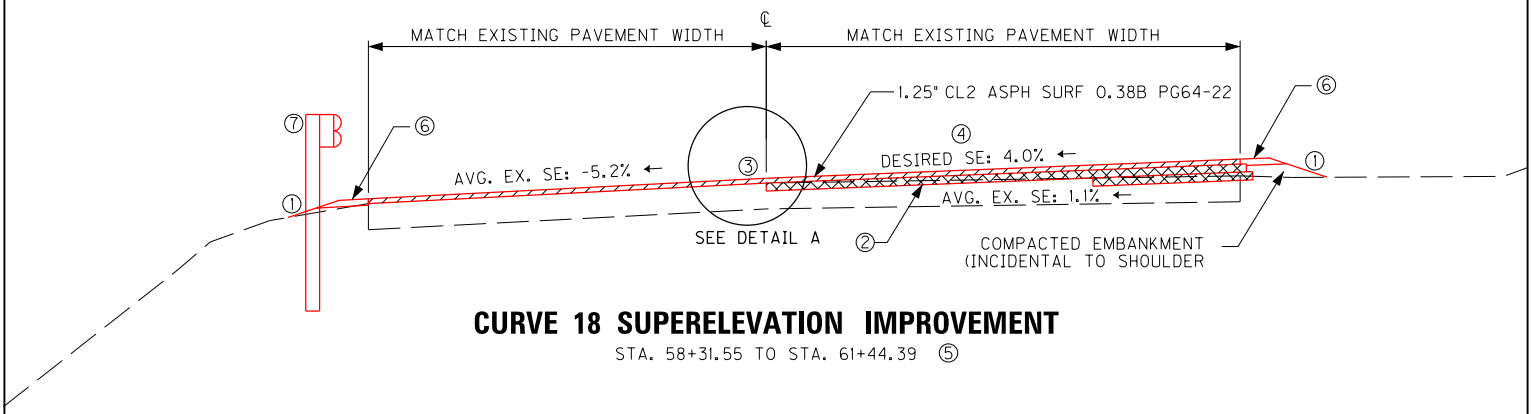


DETAIL A

N.T.S.

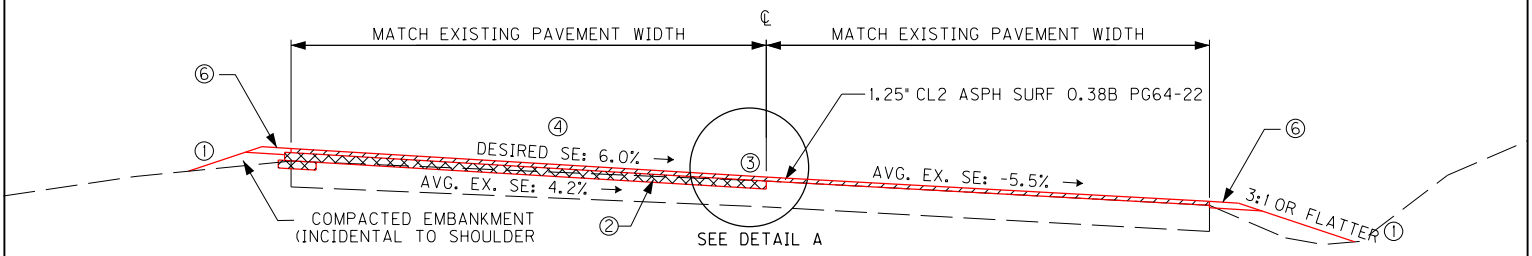
US 68
SUPERELEVATION IMPROVEMENTS
TYPICAL SECTION

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



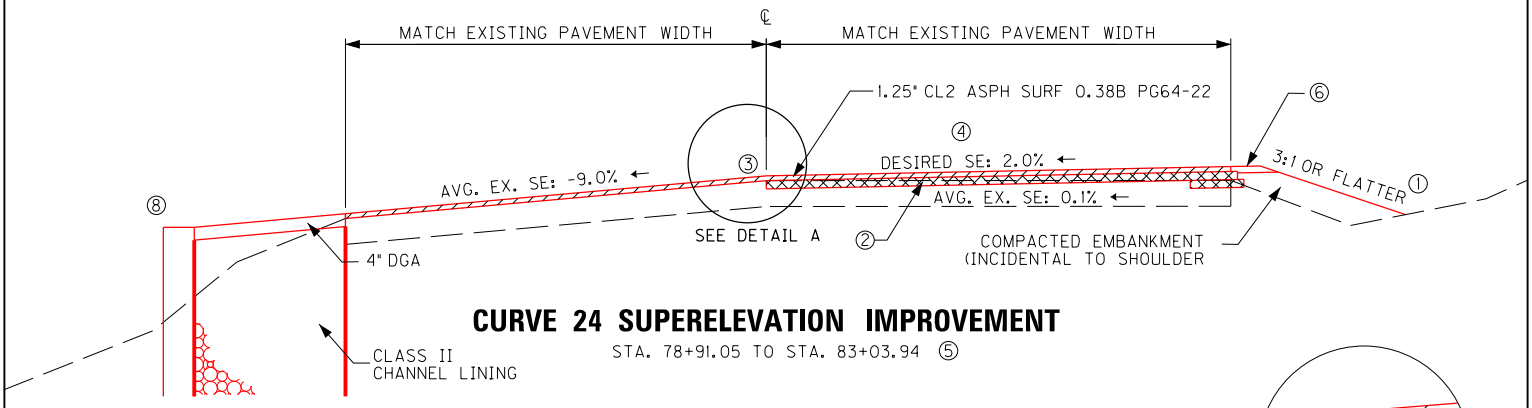
CURVE 18 SUPERELEVATION IMPROVEMENT

STA. 58+31.55 TO STA. 61+44.39 ⑤



CURVE 21 SUPERELEVATION IMPROVEMENT

STA. 68+25.35 TO STA. 72+82.40 ⑤



CURVE 24 SUPERELEVATION IMPROVEMENT

STA. 78+91.05 TO STA. 83+03.94 ⑤

① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)

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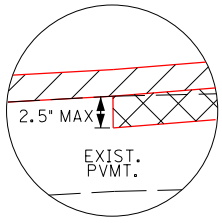
⑦ REPLACE GUARDRAIL AS SHOWN ON GUARDRAIL SUMMARY.

⑧ INSTALL CRIBBING AS SHOWN ON CRIBBING SUMMARY.

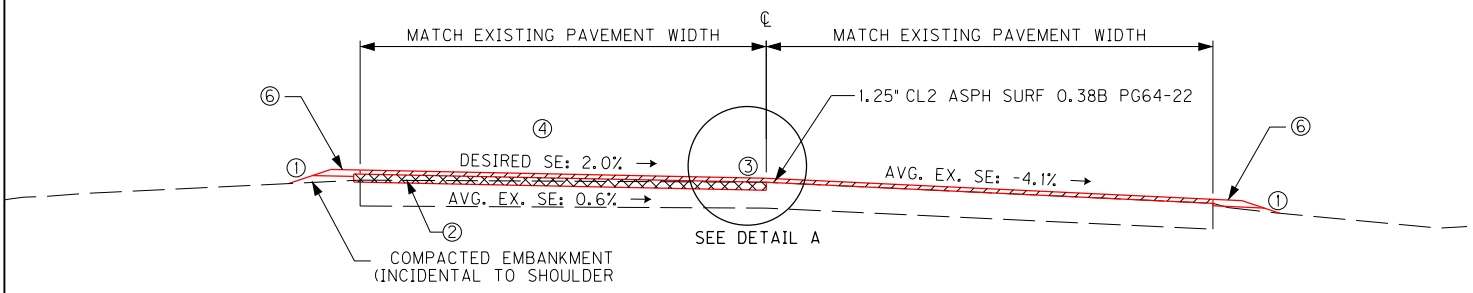


DETAIL A

N.T.S.

US 68
SUPERELEVATION IMPROVEMENTS
TYPICAL SECTION

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



CURVE 32 SUPERELEVATION IMPROVEMENT

STA. 184+18.87 TO STA. 190+41.16 ⑤

① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)

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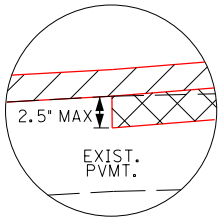
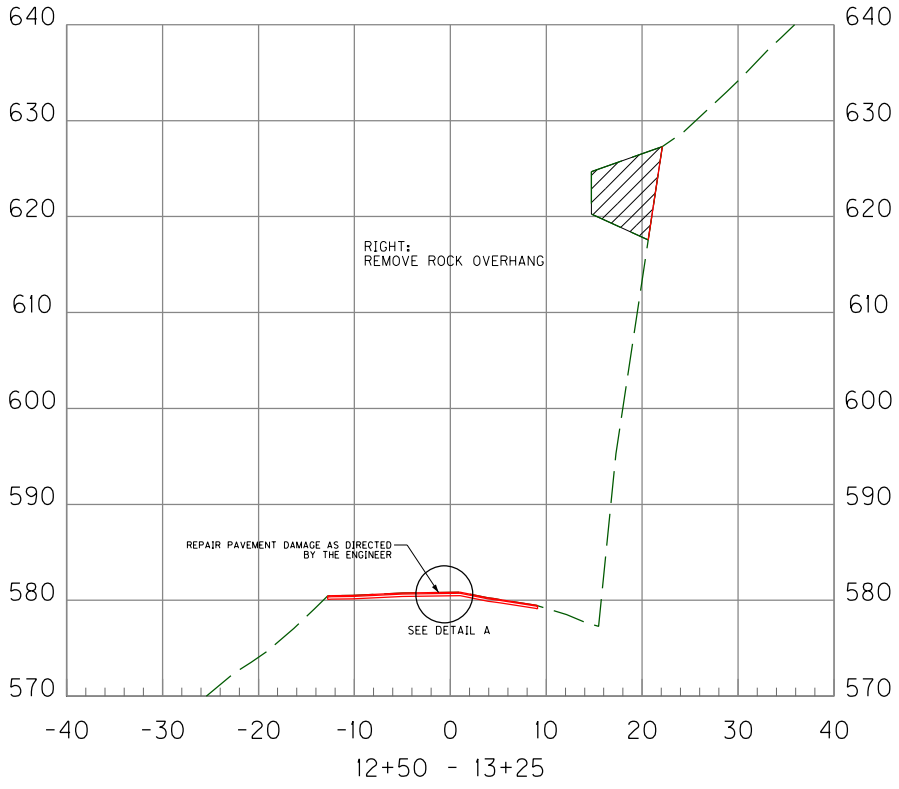


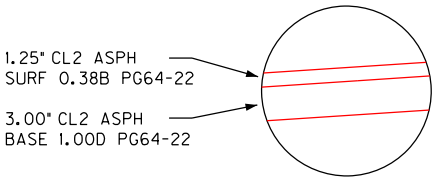
DETAIL A

N.T.S.

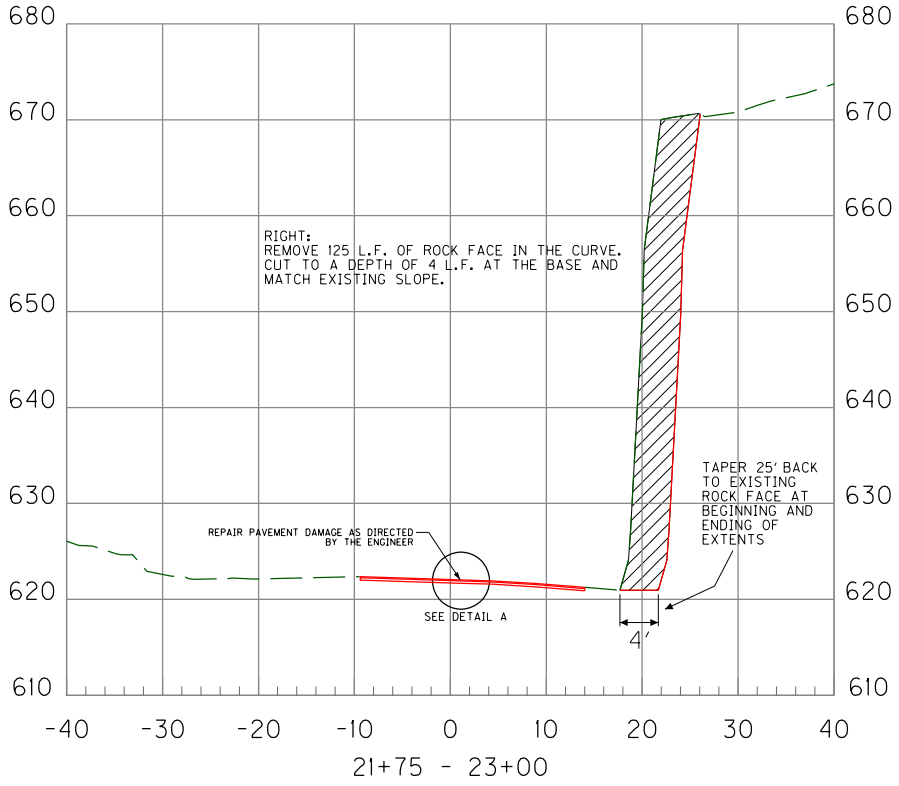
US 68
SUPERELEVATION IMPROVEMENTS
TYPICAL SECTION

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00





DETAIL A



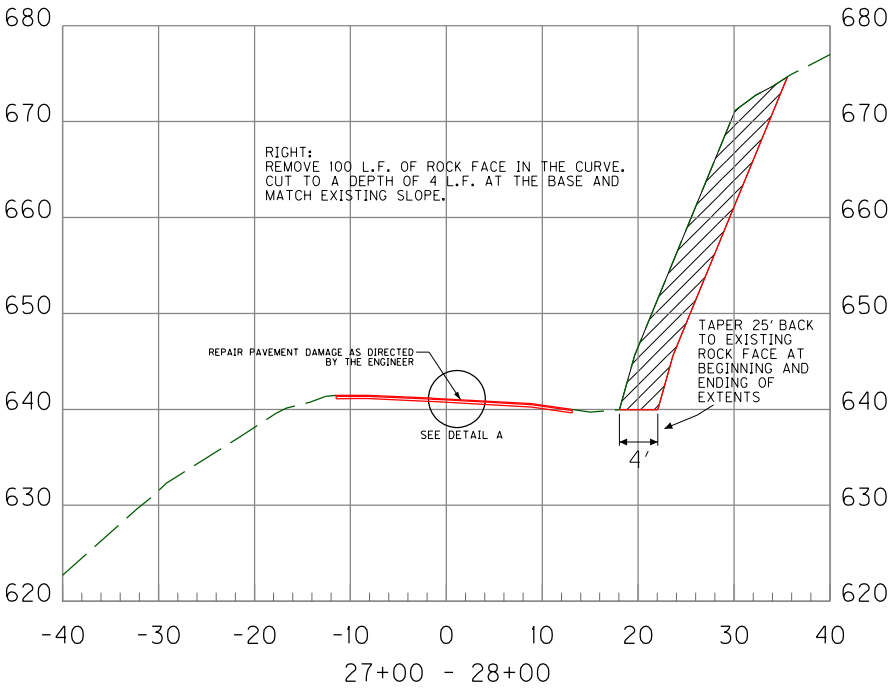
NOTES:

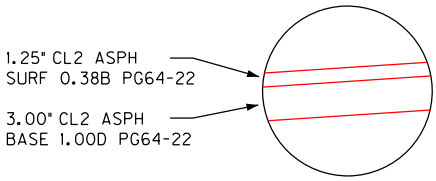
1. ALL ROCK EXCAVATION TO BE COMPLETED FROM THE ROADWAY.
2. WASTE ALL EXCAVATED ROCK MATERIAL ON WESTERN SLOPES FOR STABILIZATION.

SCALE: 1"=20'

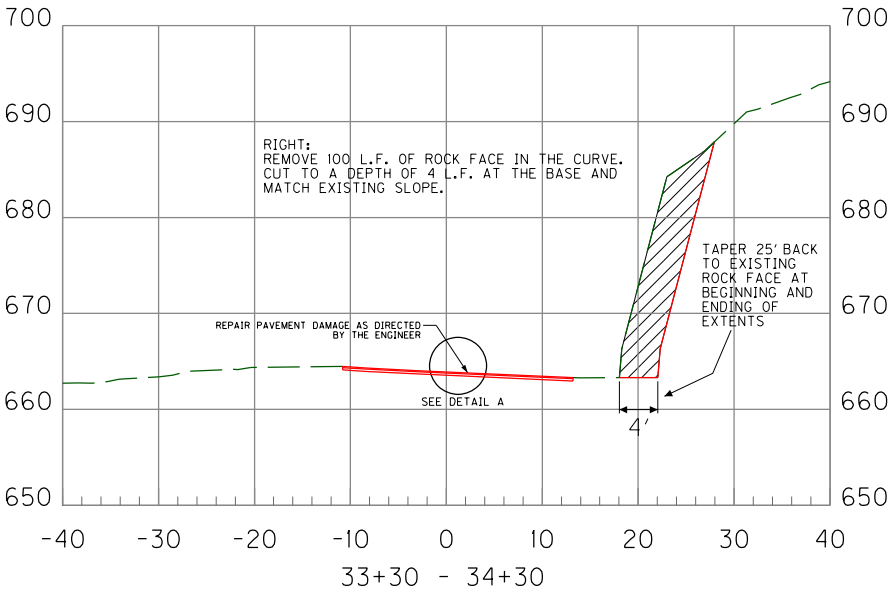
US 68
ROCK REMOVAL
DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00





DETAIL A



NOTES:

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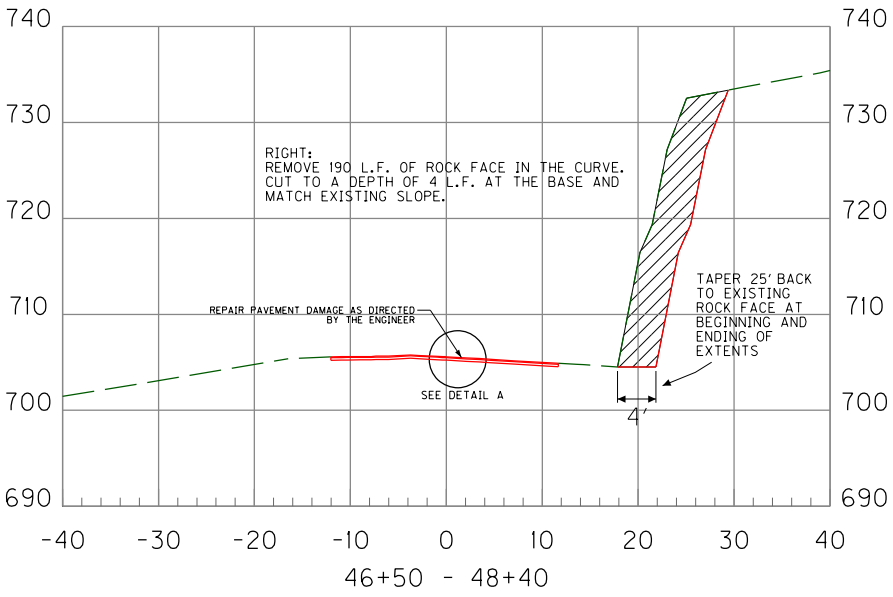
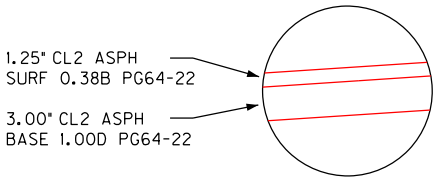
2. WASTE ALL EXCAVATED ROCK MATERIAL ON WESTERN SLOPES FOR STABILIZATION.

SCALE: 1"=20'

US 68
ROCK REMOVAL
DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00





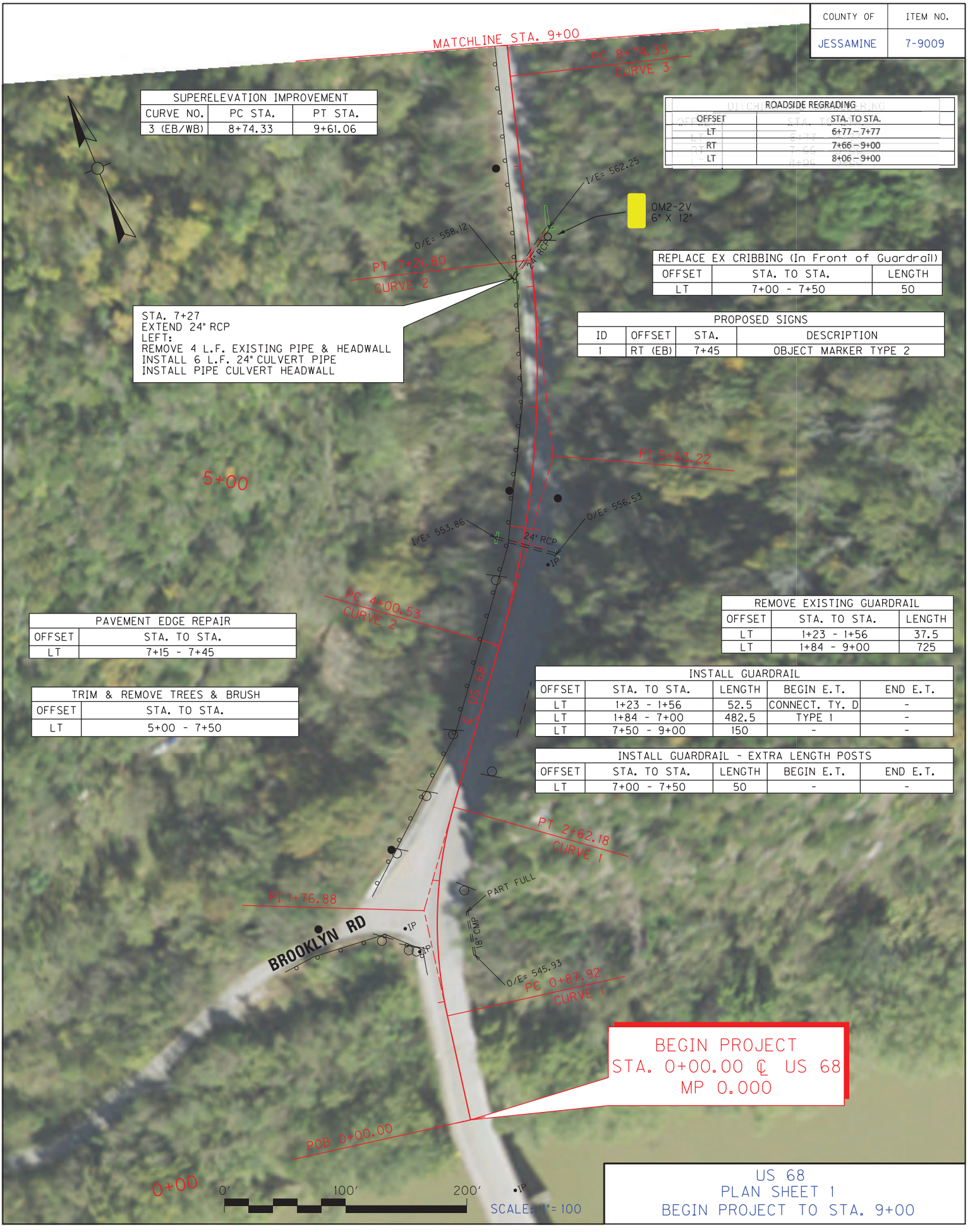
DETAIL A

NOTES:

1. ALL ROCK EXCAVATION TO BE COMPLETED FROM THE ROADWAY.
2. WASTE ALL EXCAVATED ROCK MATERIAL ON WESTERN SLOPES FOR STABILIZATION.

SCALE: 1"=20'

US 68
ROCK REMOVAL
DETAIL SHEET



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
3 (EB/WB)	8+74.33	9+61.06

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	6+77 – 7+77
RT	7+66 – 9+00
LT	8+06 – 9+00

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	7+00 - 7+50	50

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
1	RT (EB)	7+45	OBJECT MARKER TYPE 2

PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
LT	7+15 - 7+45

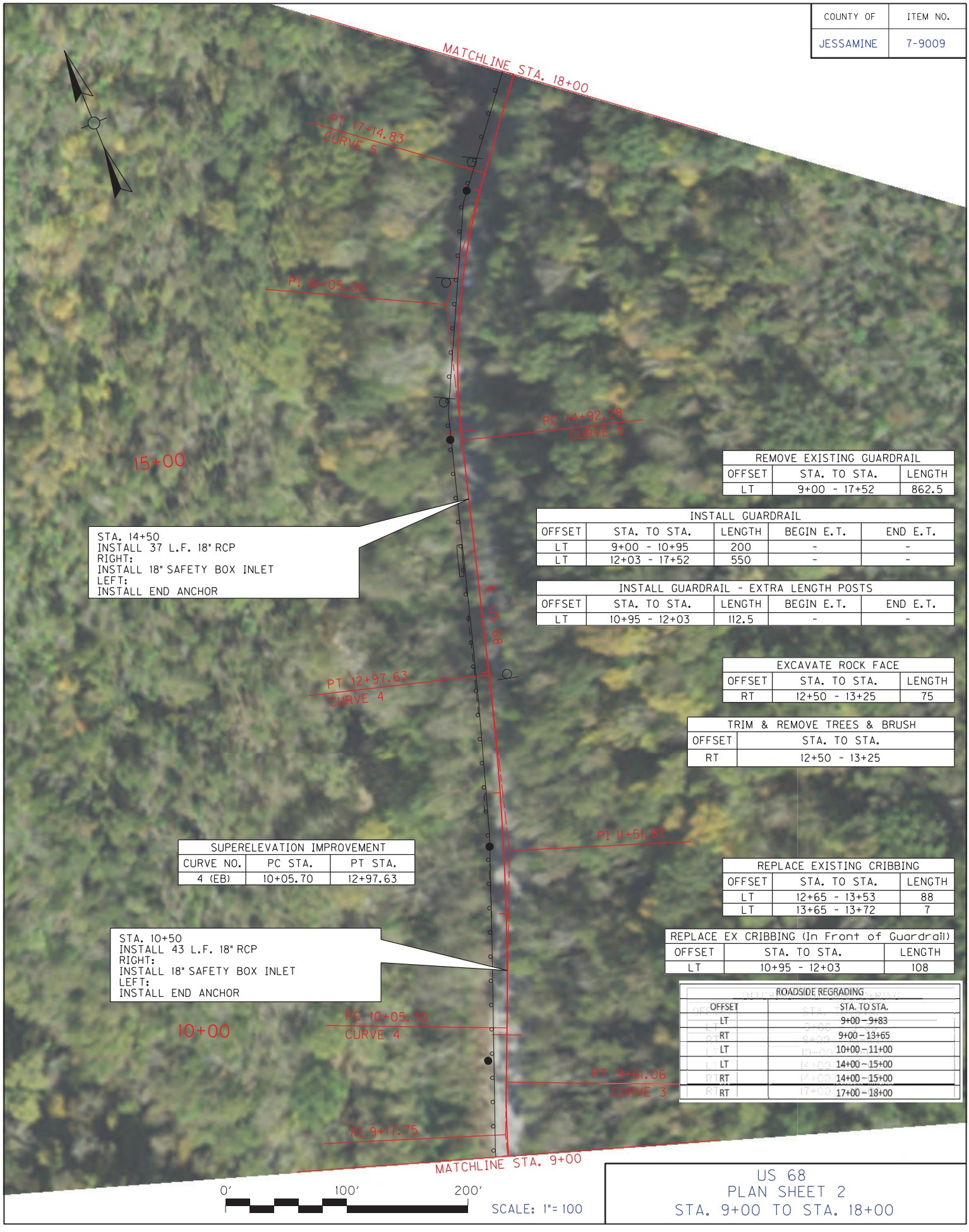
REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	1+23 - 1+56	37.5
LT	1+84 - 9+00	725

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	5+00 - 7+50

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	1+23 - 1+56	52.5	CONNECT. TY. D	-
LT	1+84 - 7+00	482.5	TYPE 1	-
LT	7+50 - 9+00	150	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	7+00 - 7+50	50	-	-

US 68
PLAN SHEET 1
BEGIN PROJECT TO STA. 9+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	9+00 - 17+52	862.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	9+00 - 10+95	200	-	-
LT	12+03 - 17+52	550	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	10+95 - 12+03	112.5	-	-

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	12+50 - 13+25	75

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	12+50 - 13+25

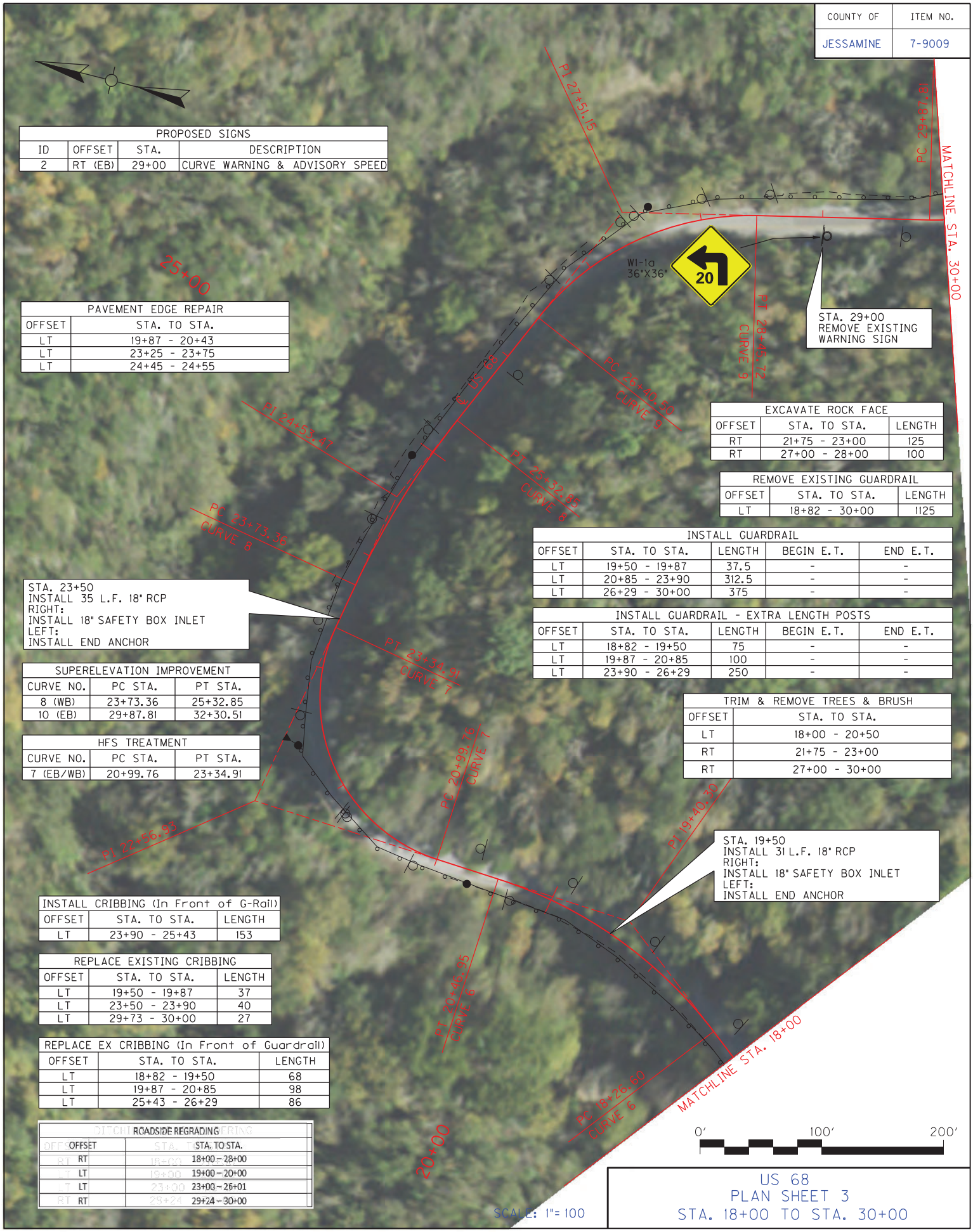
SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
4 (EB)	10+05.70	12+97.63

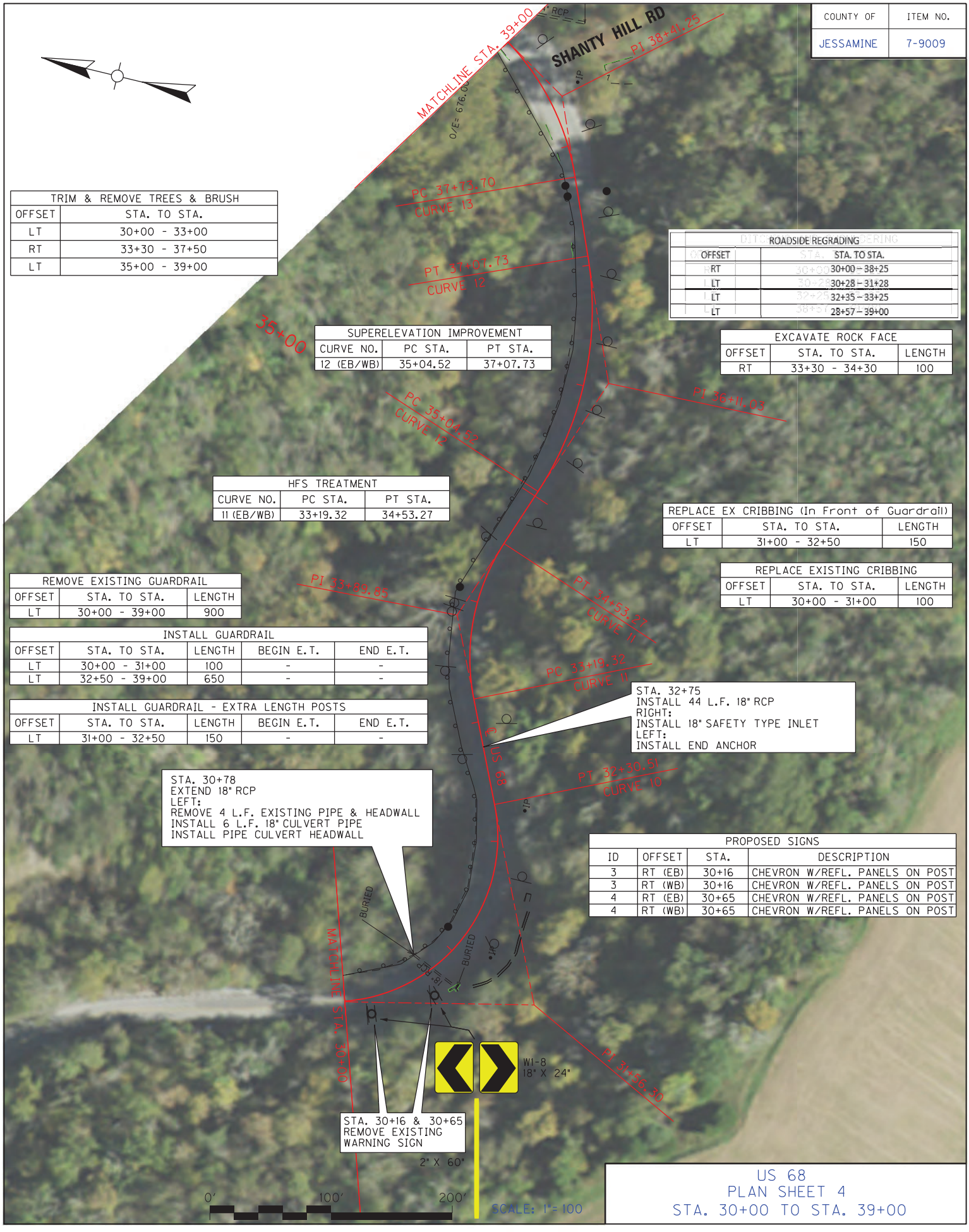
REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	12+65 - 13+53	88
LT	13+65 - 13+72	7

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	10+95 - 12+03	108

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	9+00 - 9+83
RT	9+00 - 13+65
LT	10+00 - 11+00
LT	14+00 - 15+00
RT	14+00 - 15+00
RT	17+00 - 18+00

US 68
PLAN SHEET 2
STA. 9+00 TO STA. 18+00


COUNTY OF
ITEM NO.
JESSAMINE
7-9009
PROPOSED SIGNS
ID | OFFSET | STA. | DESCRIPTION
2 | RT (EB) | 29+00 | CURVE WARNING & ADVISORY SPEED
PAVEMENT EDGE REPAIR
OFFSET | STA. TO STA.
LT | 19+87 - 20+43
LT | 23+25 - 23+75
LT | 24+45 - 24+55
25+00
PI 27+51.15
PC 29+87.81
MATCHLINE STA. 30+00
W1-1a
36"X36"
20
STA. 29+00
REMOVE EXISTING
WARNING SIGN
PI 28+45.72
CURVE 9
PC 28+40.50
CURVE 9
PI 24+53.47
PT 25+32.85
CURVE 8
PC 23+73.36
CURVE 8
EXCAVATE ROCK FACE
OFFSET | STA. TO STA. | LENGTH
RT | 21+75 - 23+00 | 125
RT | 27+00 - 28+00 | 100
REMOVE EXISTING GUARDRAIL
OFFSET | STA. TO STA. | LENGTH
LT | 18+82 - 30+00 | 1125
INSTALL GUARDRAIL
OFFSET | STA. TO STA. | LENGTH | BEGIN E.T. | END E.T.
LT | 19+50 - 19+87 | 37.5 | - | -
LT | 20+85 - 23+90 | 312.5 | - | -
LT | 26+29 - 30+00 | 375 | - | -
STA. 23+50
INSTALL 35 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
INSTALL GUARDRAIL - EXTRA LENGTH POSTS
OFFSET | STA. TO STA. | LENGTH | BEGIN E.T. | END E.T.
LT | 18+82 - 19+50 | 75 | - | -
LT | 19+87 - 20+85 | 100 | - | -
LT | 23+90 - 26+29 | 250 | - | -
SUPERELEVATION IMPROVEMENT
CURVE NO. | PC STA. | PT STA.
8 (WB) | 23+73.36 | 25+32.85
10 (EB) | 29+87.81 | 32+30.51
PT 23+34.91
CURVE 7
TRIM & REMOVE TREES & BRUSH
OFFSET | STA. TO STA.
LT | 18+00 - 20+50
RT | 21+75 - 23+00
RT | 27+00 - 30+00
HFS TREATMENT
CURVE NO. | PC STA. | PT STA.
7 (EB/WB) | 20+99.76 | 23+34.91
PC 20+99.76
CURVE 7
PI 22+56.93
PI 19+40.30
STA. 19+50
INSTALL 31 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
INSTALL CRIBBING (In Front of G-Rail)
OFFSET | STA. TO STA. | LENGTH
LT | 23+90 - 25+43 | 153
REPLACE EXISTING CRIBBING
OFFSET | STA. TO STA. | LENGTH
LT | 19+50 - 19+87 | 37
LT | 23+50 - 23+90 | 40
LT | 29+73 - 30+00 | 27
PT 20+46.95
CURVE 6
REPLACE EX CRIBBING (In Front of Guardrail)
OFFSET | STA. TO STA. | LENGTH
LT | 18+82 - 19+50 | 68
LT | 19+87 - 20+85 | 98
LT | 25+43 - 26+29 | 86
MATCHLINE STA. 18+00
PC 18+26.60
CURVE 6
20+00
ROADSIDE REGRADING
OFFSET | STA. TO STA.
RT | 18+00 – 28+00
LT | 19+00 – 20+00
LT | 23+00 – 26+01
RT | 29+24 – 30+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 3
STA. 18+00 TO STA. 30+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	30+00 - 33+00
RT	33+30 - 37+50
LT	35+00 - 39+00

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	30+00 - 38+25
LT	30+28 - 31+28
LT	32+35 - 33+25
LT	28+57 - 39+00

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
12 (EB/WB)	35+04.52	37+07.73

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	33+30 - 34+30	100

HFS TREATMENT		
CURVE NO.	PC STA.	PT STA.
11 (EB/WB)	33+19.32	34+53.27

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	31+00 - 32+50	150

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	30+00 - 31+00	100

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	30+00 - 39+00	900

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	30+00 - 31+00	100	-	-
LT	32+50 - 39+00	650	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	31+00 - 32+50	150	-	-

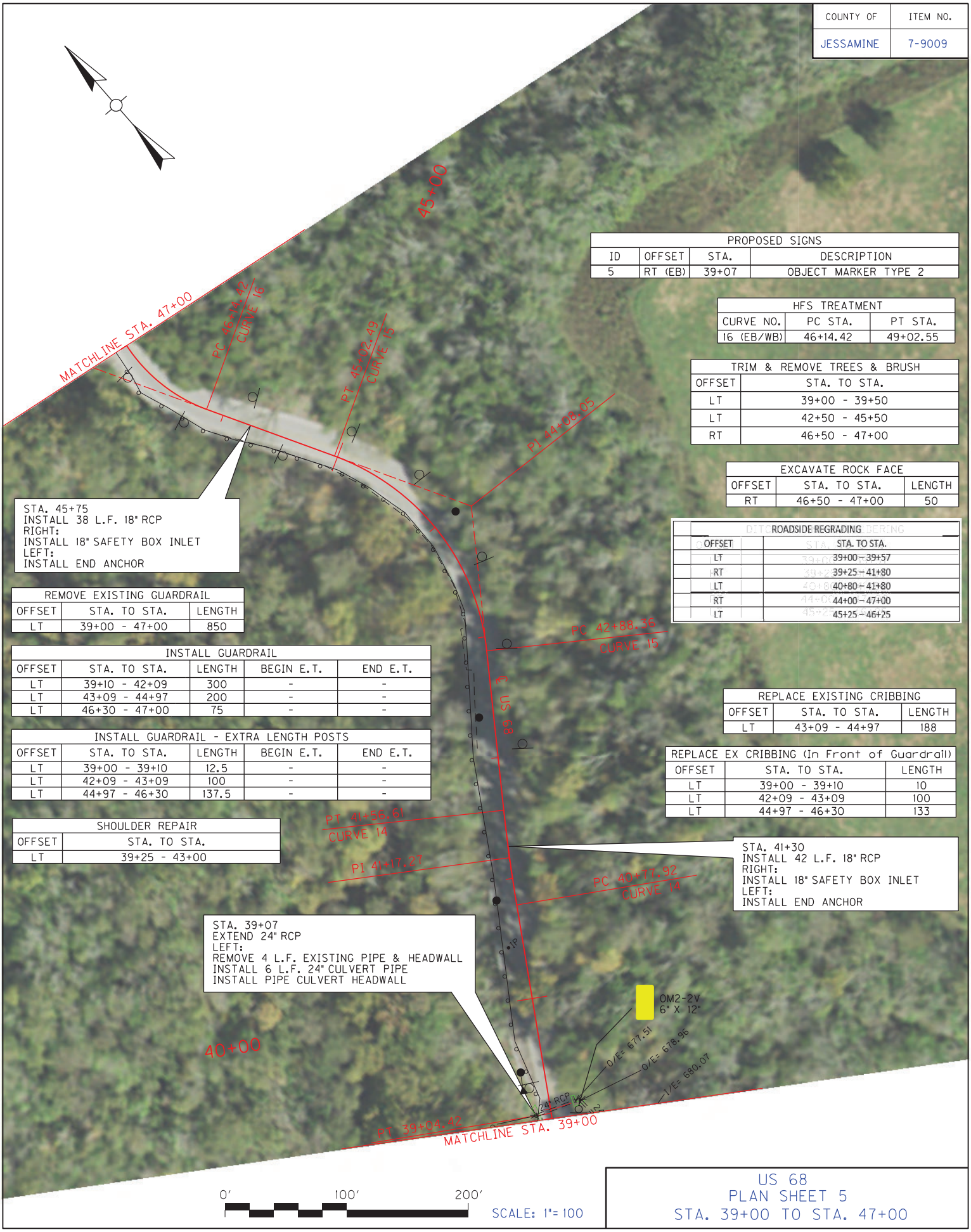
STA. 32+75
INSTALL 44 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY TYPE INLET
LEFT:
INSTALL END ANCHOR

STA. 30+78
EXTEND 18" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 6 L.F. 18" CULVERT PIPE
INSTALL PIPE CULVERT HEADWALL

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
3	RT (EB)	30+16	CHEVRON W/REFL. PANELS ON POST
3	RT (WB)	30+16	CHEVRON W/REFL. PANELS ON POST
4	RT (EB)	30+65	CHEVRON W/REFL. PANELS ON POST
4	RT (WB)	30+65	CHEVRON W/REFL. PANELS ON POST

STA. 30+16 & 30+65
REMOVE EXISTING
WARNING SIGN

US 68
PLAN SHEET 4
STA. 30+00 TO STA. 39+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
5	RT (EB)	39+07	OBJECT MARKER TYPE 2

HFS TREATMENT		
CURVE NO.	PC STA.	PT STA.
16 (EB/WB)	46+14.42	49+02.55

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	39+00 - 39+50
LT	42+50 - 45+50
RT	46+50 - 47+00

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	46+50 - 47+00	50

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	39+00 - 39+57
RT	39+25 - 41+80
LT	40+80 - 41+80
RT	44+00 - 47+00
LT	45+25 - 46+25

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	39+00 - 47+00	850

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	39+10 - 42+09	300	-	-
LT	43+09 - 44+97	200	-	-
LT	46+30 - 47+00	75	-	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	39+00 - 39+10	12.5	-	-
LT	42+09 - 43+09	100	-	-
LT	44+97 - 46+30	137.5	-	-

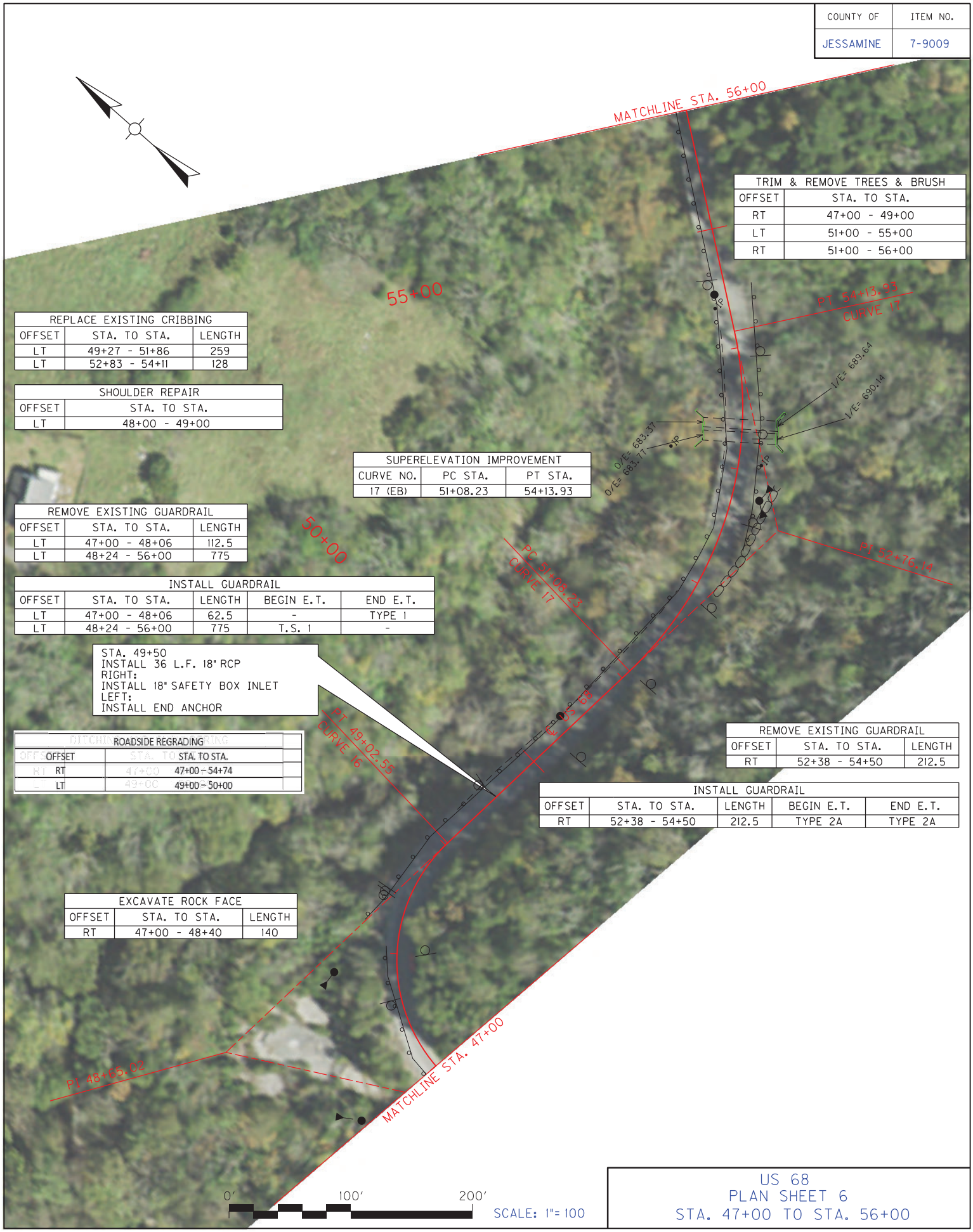
SHOULDER REPAIR	
OFFSET	STA. TO STA.
LT	39+25 - 43+00

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	43+09 - 44+97	188

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	39+00 - 39+10	10
LT	42+09 - 43+09	100
LT	44+97 - 46+30	133

US 68
PLAN SHEET 5
STA. 39+00 TO STA. 47+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	47+00 - 49+00
LT	51+00 - 55+00
RT	51+00 - 56+00

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	49+27 - 51+86	259
LT	52+83 - 54+11	128

SHOULDER REPAIR	
OFFSET	STA. TO STA.
LT	48+00 - 49+00

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
17 (EB)	51+08.23	54+13.93

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	47+00 - 48+06	112.5
LT	48+24 - 56+00	775

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	47+00 - 48+06	62.5	-	TYPE 1
LT	48+24 - 56+00	775	T.S. 1	-

STA. 49+50
INSTALL 36 L.F. 18" RCP
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	47+00 - 54+74
LT	49+00 - 50+00

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
RT	52+38 - 54+50	212.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	52+38 - 54+50	212.5	TYPE 2A	TYPE 2A

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	47+00 - 48+40	140

US 68
PLAN SHEET 6
STA. 47+00 TO STA. 56+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
6	RT (EB)	58+79	OBJECT MARKER TYPE 2
7	RT (EB)	59+81	RIGHT/LEFT CHEVRON
7	RT (WB)	59+81	RIGHT/LEFT CHEVRON
8	RT (EB)	63+40	OBJECT MARKER TYPE 2

PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
RT	58+74 - 58+84
LT	59+01 - 59+77
LT	60+17 - 60+33
LT	64+40 - 64+60

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	56+00 - 65+00
LT	59+00 - 61+00

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
18 (EB)	59+04.14	60+71.80

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	57+00 - 65+00
LT	58+29 - 59+29
LT	60+50 - 61+50

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	56+00 - 61+93	600
LT	62+17 - 65+00	287.5

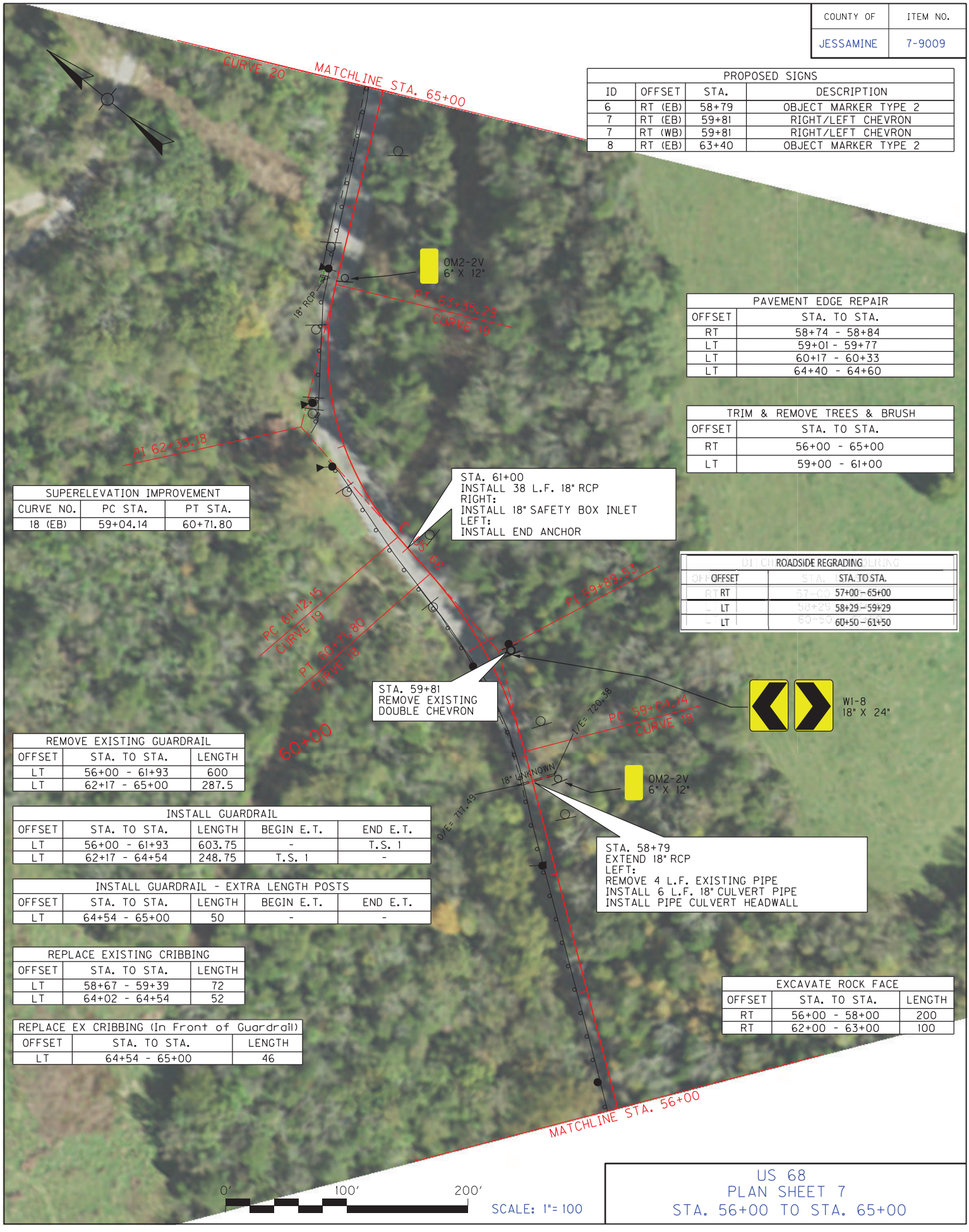
INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	56+00 - 61+93	603.75	-	T.S. 1
LT	62+17 - 64+54	248.75	T.S. 1	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	64+54 - 65+00	50	-	-

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	58+67 - 59+39	72
LT	64+02 - 64+54	52

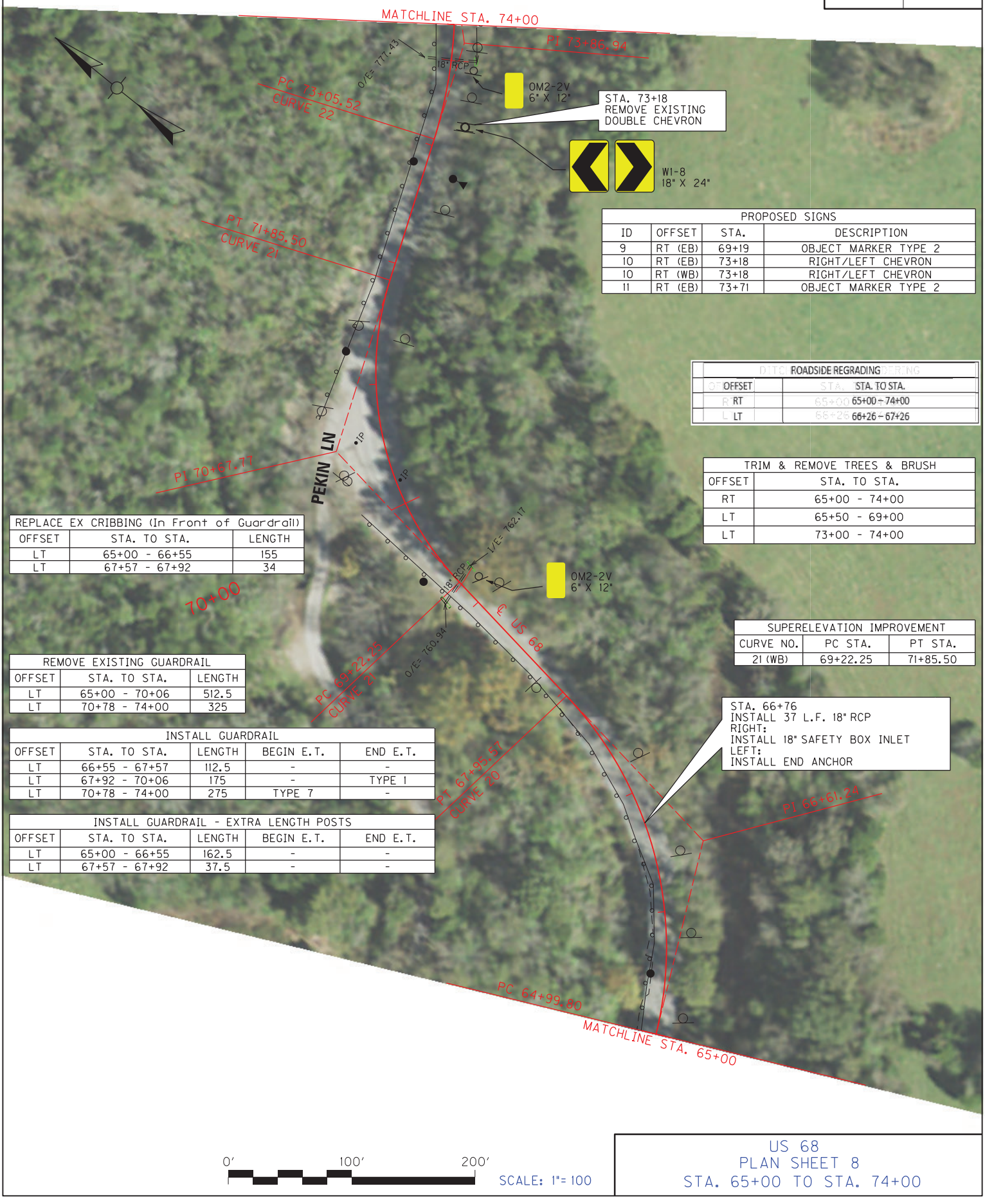
REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	64+54 - 65+00	46

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	56+00 - 58+00	200
RT	62+00 - 63+00	100



US 68
PLAN SHEET 7
STA. 56+00 TO STA. 65+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
9	RT (EB)	69+19	OBJECT MARKER TYPE 2
10	RT (EB)	73+18	RIGHT/LEFT CHEVRON
10	RT (WB)	73+18	RIGHT/LEFT CHEVRON
11	RT (EB)	73+71	OBJECT MARKER TYPE 2

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	65+00 - 74+00
LT	66+26 - 67+26

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	65+00 - 74+00
LT	65+50 - 69+00
LT	73+00 - 74+00

REPLACE EX CRIBBING (In Front of Guardrail)		
OFFSET	STA. TO STA.	LENGTH
LT	65+00 - 66+55	155
LT	67+57 - 67+92	34

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
21 (WB)	69+22.25	71+85.50

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	65+00 - 70+06	512.5
LT	70+78 - 74+00	325

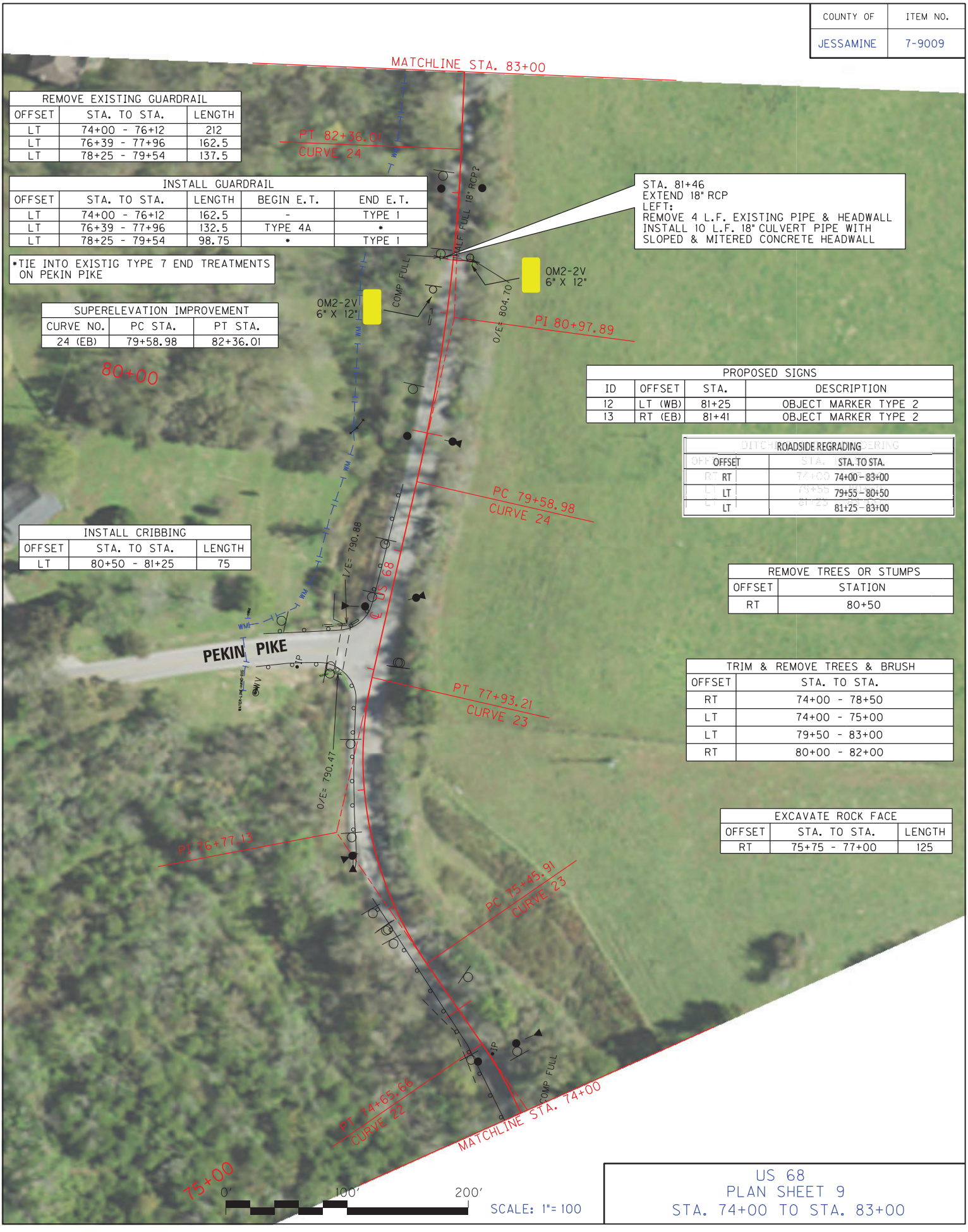
INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	66+55 - 67+57	112.5	-	-
LT	67+92 - 70+06	175	-	TYPE 1
LT	70+78 - 74+00	275	TYPE 7	-

INSTALL GUARDRAIL - EXTRA LENGTH POSTS				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	65+00 - 66+55	162.5	-	-
LT	67+57 - 67+92	37.5	-	-

0' 100' 200'
SCALE: 1"= 100

US 68
PLAN SHEET 8
STA. 65+00 TO STA. 74+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	74+00 - 76+12	212
LT	76+39 - 77+96	162.5
LT	78+25 - 79+54	137.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	74+00 - 76+12	162.5	-	TYPE 1
LT	76+39 - 77+96	132.5	TYPE 4A	*
LT	78+25 - 79+54	98.75	*	TYPE 1

*TIE INTO EXISTIG TYPE 7 END TREATMENTS ON PEKIN PIKE

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
24 (EB)	79+58.98	82+36.01

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
12	LT (WB)	81+25	OBJECT MARKER TYPE 2
13	RT (EB)	81+41	OBJECT MARKER TYPE 2

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	74+00 - 83+00
LT	79+55 - 80+50
LT	81+25 - 83+00

INSTALL CRIBBING		
OFFSET	STA. TO STA.	LENGTH
LT	80+50 - 81+25	75

REMOVE TREES OR STUMPS	
OFFSET	STATION
RT	80+50

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	74+00 - 78+50
LT	74+00 - 75+00
LT	79+50 - 83+00
RT	80+00 - 82+00

EXCAVATE ROCK FACE		
OFFSET	STA. TO STA.	LENGTH
RT	75+75 - 77+00	125

US 68
PLAN SHEET 9
STA. 74+00 TO STA. 83+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

MATCHLINE STA. 92+00

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
14	RT (EB)	86+24	OBJECT MARKER TYPE 2
15	RT (EB)	89+38	OBJECT MARKER TYPE 2
16	LT (WB)	89+62	OBJECT MARKER TYPE 2
17	LT (EB)	89+65	NO PASSING ZONE

STA. 89+65
REMOVE EXISTING
NO PASSING ZONE

NO PASSING ZONE

W14-3
48"X48"X36"

90+00

OM2-2V
6" X 12"

OM2-2V
6" X 12"

STA. 89+38
REMOVE EXISTING
OBJECT MARKER

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	83+00 – 92+00
LT	85+00 – 92+00

REPLACE EXISTING CRIBBING		
OFFSET	STA. TO STA.	LENGTH
RT	88+91 - 89+42	51

PAVEMENT EDGE REPAIR	
OFFSET	STA. TO STA.
LT	89+40 - 89+52

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	86+30 - 87+70
LT	87+00 - 92+00
RT	89+50 - 92+00

℄ US 68

HALF FULL

COMP FULL OF ROCK

18" RCP

STA. 86+29
EXTEND 18" RCP
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 9 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL

OM2-2V
6" X 12"

85+00

MATCHLINE STA. 83+00

0' 100' 200'

SCALE: 1"= 100

US 68
PLAN SHEET 10
STA. 83+00 TO STA. 92+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
18	RT (WB)	92+50	NO PASSING ZONE

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	92+00 – 101+00
RT	92+00 – 92+50
RT	95+00 – 101+00

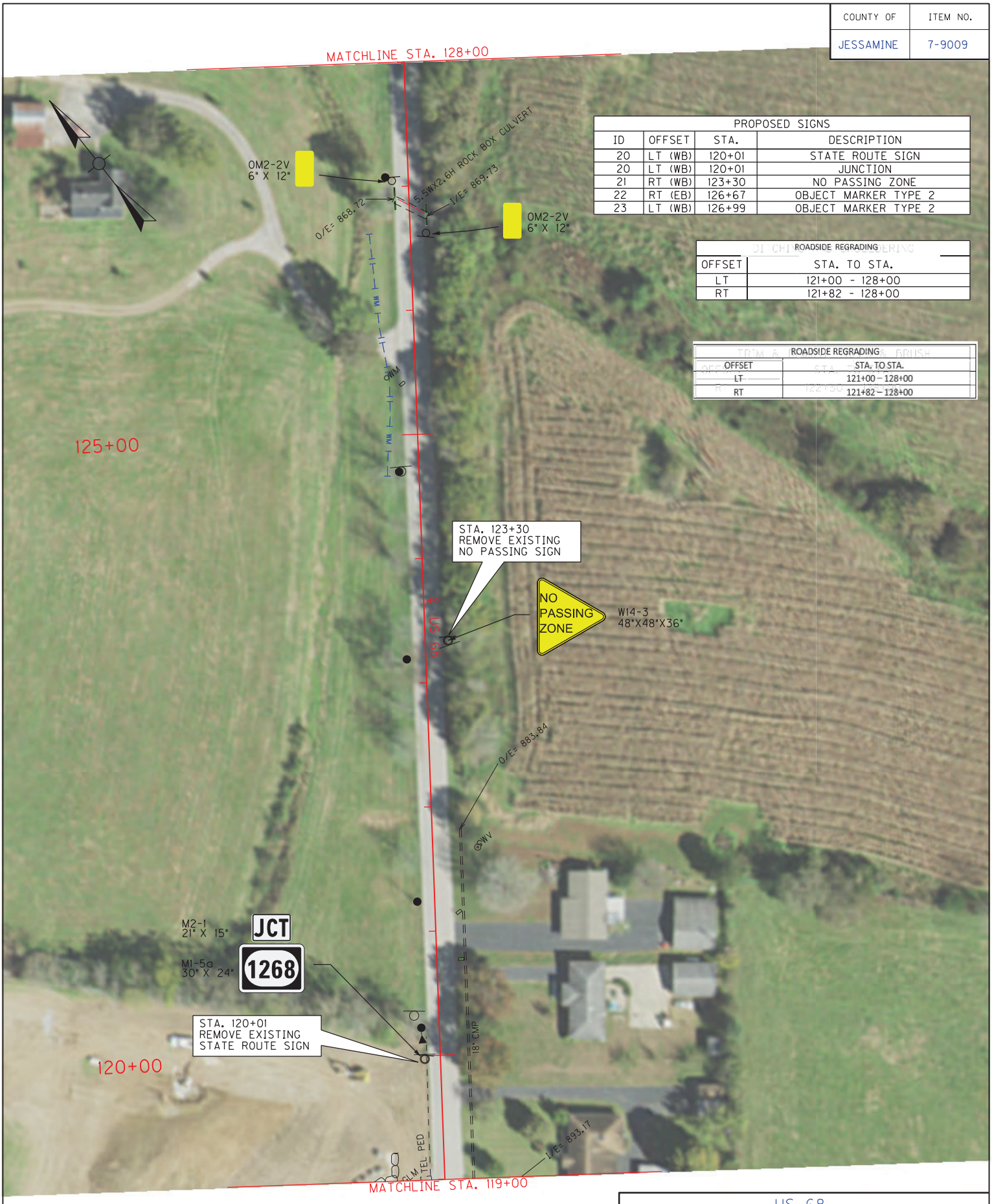
TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	92+00 - 93+50
RT	92+00 - 92+50

US 68
PLAN SHEET 11
STA. 92+00 TO STA. 101+00


COUNTY OF
ITEM NO.
JESSAMINE
7-9009
MATCHLINE STA. 110+00
PC 109+89.73
CURVE 26
ROADSIDE REGRADING
OFFSET
STA. TO STA.
LT
101+00 ~ 110+00
RT
101+00 ~ 110+00
US 68
105+00
COMP FULL
HALF FULL
18" RCP
STA. 103+15
EXTEND 18" RCP
RIGHT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 7 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 4 L.F. 18" CULVERT PIPE
INSTALL 18" SAFETY BOX INLET
PT 101+84.96
CURVE 25
MATCHLINE STA. 101+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 12
STA. 101+00 TO STA. 110+00


MATCHLINE STA. 119+00
COUNTY OF
ITEM NO.
JESSAMINE
7-9009
PROPOSED SIGNS
ID | OFFSET | STA. | DESCRIPTION
19 | LT (WB) | 113+67 | STATE ROUTE SIGN
19 | LT (WB) | 113+67 | ADVANCED LEFT TURN ARROW
ROADSIDE REGRADING
OFFSET | STA. TO STA.
LT | 110+00 – 113+00
RT | 110+00 – 112+75
RT | 114+75 – 117+25
O/E= 895.00 (577)
I/E= 897.00
O/E= 899.74
I/E= 900.58
O/E= 908.06
I/E= 908.74
18" CMP
15" RCP
15IN RCP HALF FULL
CHANGES TO 15IN CMP
US 68
115+00
M1-5a
30" X 24"
1268
M5-1L
21" X 15"
STA. 113+67
REMOVE EXISTING
STATE ROUTE SIGN
PT 113+42.79
CURVE 26
JEWELL RD
PI 111+69.47
110+00
MATCHLINE STA. 110+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 13
STA. 110+00 TO STA. 119+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009



PROPOSED SIGNS

ID	OFFSET	STA.	DESCRIPTION
20	LT (WB)	120+01	STATE ROUTE SIGN
20	LT (WB)	120+01	JUNCTION
21	RT (WB)	123+30	NO PASSING ZONE
22	RT (EB)	126+67	OBJECT MARKER TYPE 2
23	LT (WB)	126+99	OBJECT MARKER TYPE 2

ROADSIDE REGRADING

OFFSET	STA. TO STA.
LT	121+00 - 128+00
RT	121+82 - 128+00

ROADSIDE REGRADING

OFFSET	STA. TO STA.
LT	121+00 – 128+00
RT	121+82 – 128+00

0′ 100′ 200′
SCALE: 1"= 100

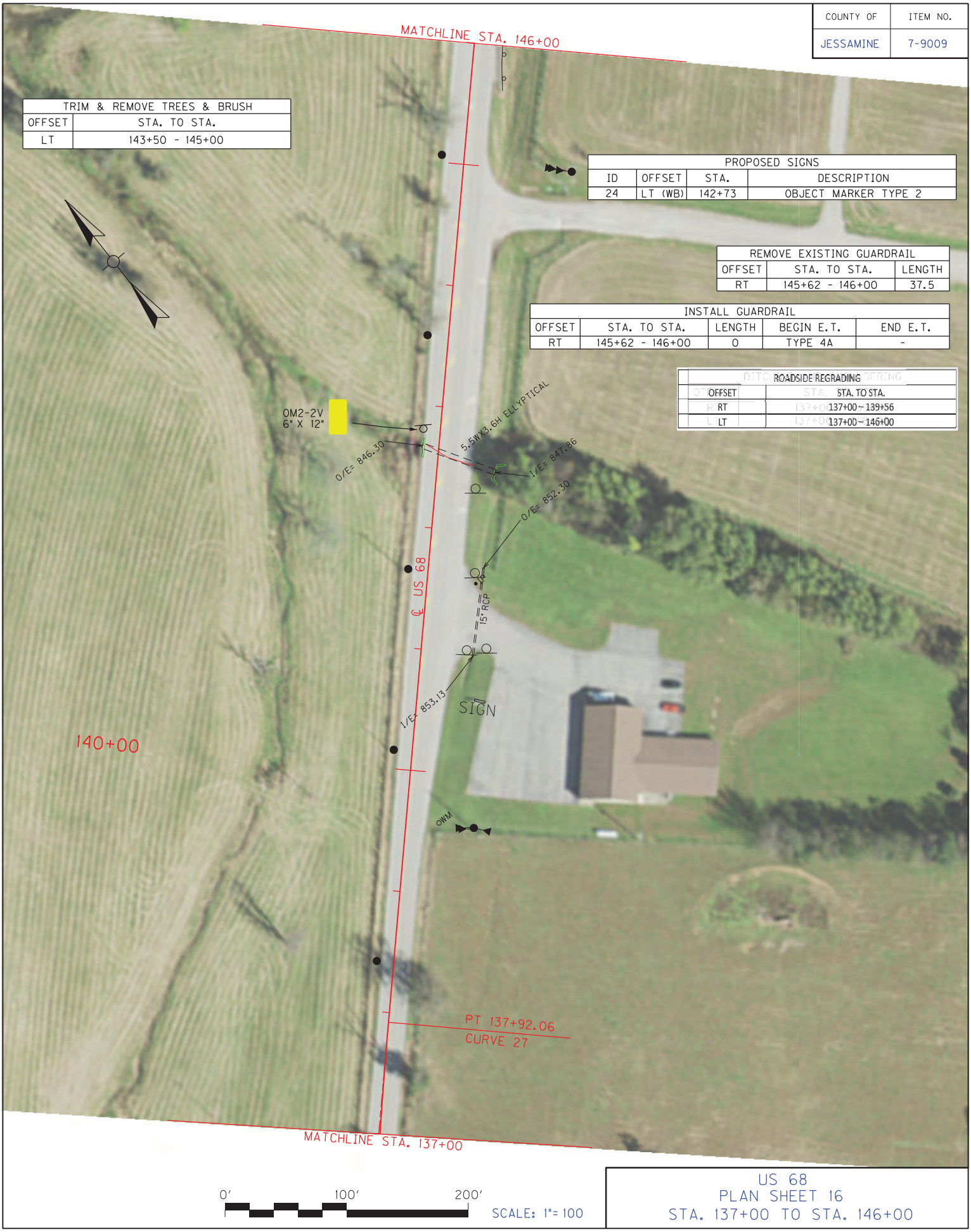
US 68
PLAN SHEET 14
STA. 119+00 TO STA. 128+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	128+00 - 137+00
RT	128+00 - 137+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	128+00 - 133+50
LT	133+30 - 133+75

US 68
PLAN SHEET 15
STA. 128+00 TO STA. 137+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	143+50 - 145+00

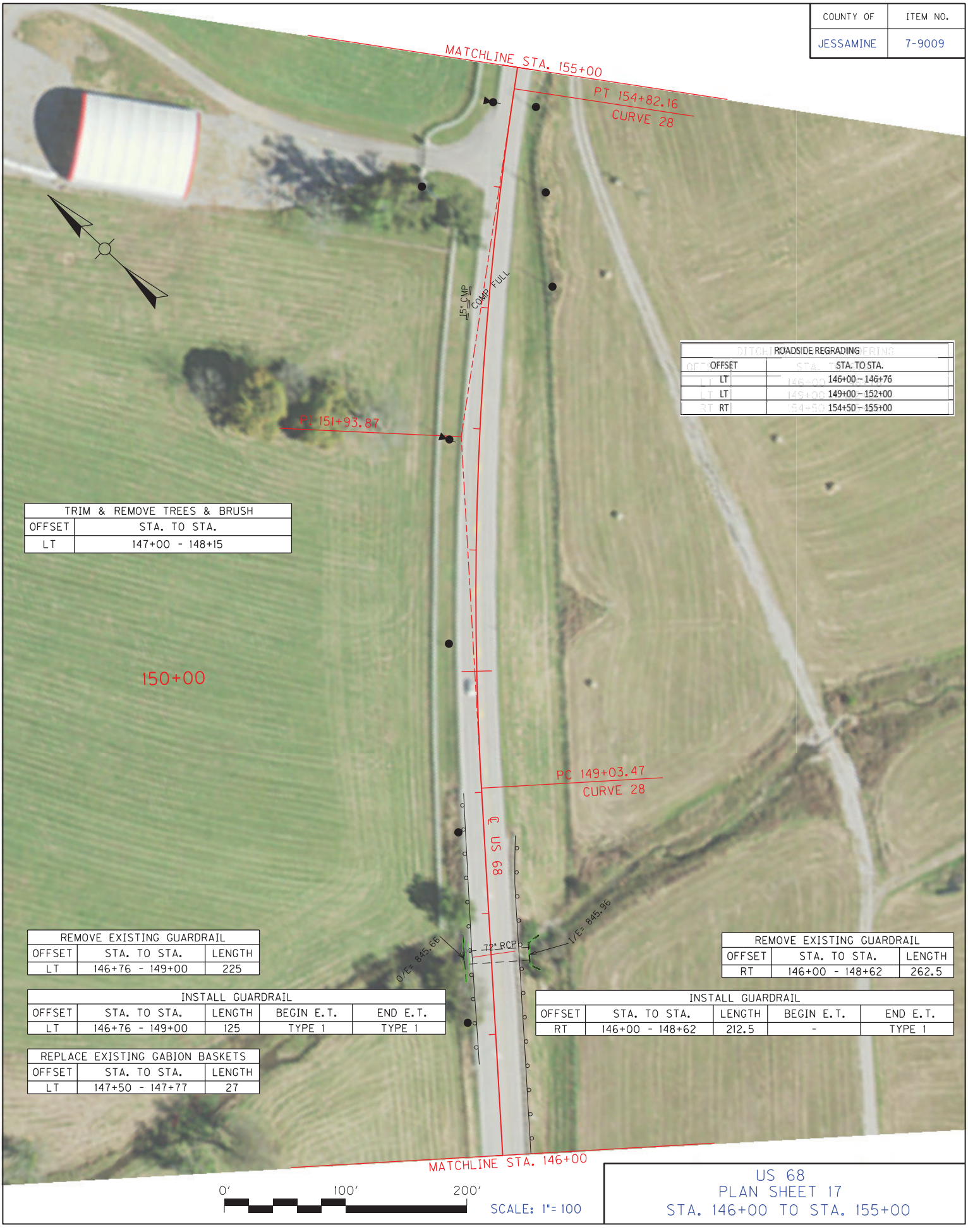
PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
24	LT (WB)	142+73	OBJECT MARKER TYPE 2

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
RT	145+62 - 146+00	37.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	145+62 - 146+00	0	TYPE 4A	-

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
R RT	137+00 - 139+56
L LT	137+00 - 146+00

US 68
PLAN SHEET 16
STA. 137+00 TO STA. 146+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	146+00 – 146+76
LT	149+00 – 152+00
RT	154+50 – 155+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	147+00 - 148+15

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
LT	146+76 - 149+00	225

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
LT	146+76 - 149+00	125	TYPE 1	TYPE 1

REPLACE EXISTING GABION BASKETS		
OFFSET	STA. TO STA.	LENGTH
LT	147+50 - 147+77	27

REMOVE EXISTING GUARDRAIL		
OFFSET	STA. TO STA.	LENGTH
RT	146+00 - 148+62	262.5

INSTALL GUARDRAIL				
OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	146+00 - 148+62	212.5	-	TYPE 1

US 68
PLAN SHEET 17
STA. 146+00 TO STA. 155+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

US 68
PLAN SHEET 18
STA. 155+00 TO STA. 164+00


COUNTY OF
ITEM NO.
JESSAMINE
7-9009
MATCHLINE STA. 173+00
ROADSIDE REGRADING
OFFSET
STA. TO STA.
RT
164+00 - 164+25
RT
165+00 - 173+00
LT
166+00 - 170+00
LT
171+25 - 173+00
TRIM & REMOVE TREES & BRUSH
OFFSET
STA. TO STA.
RT
165+00 - 168+00
BICKNELL LN
170+00
PT 170+41.92
CURVE 30
I/E= 909.48
O/E= 908.37
15" CMP PART FULL
PI 168+70.19
I/E= 904.66
O/E= 903.70
18" RCP
PC 166+97.71
CURVE 30
PT 166+30.43
CURVE 29
STA. 166+95
EXTEND 18" RCP
RIGHT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 7 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 9 L.F. 18" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL
15" CMP PART FULL
165+00
PI 164+62.08
MATCHLINE STA. 164+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 19
STA. 164+00 TO STA. 173+00

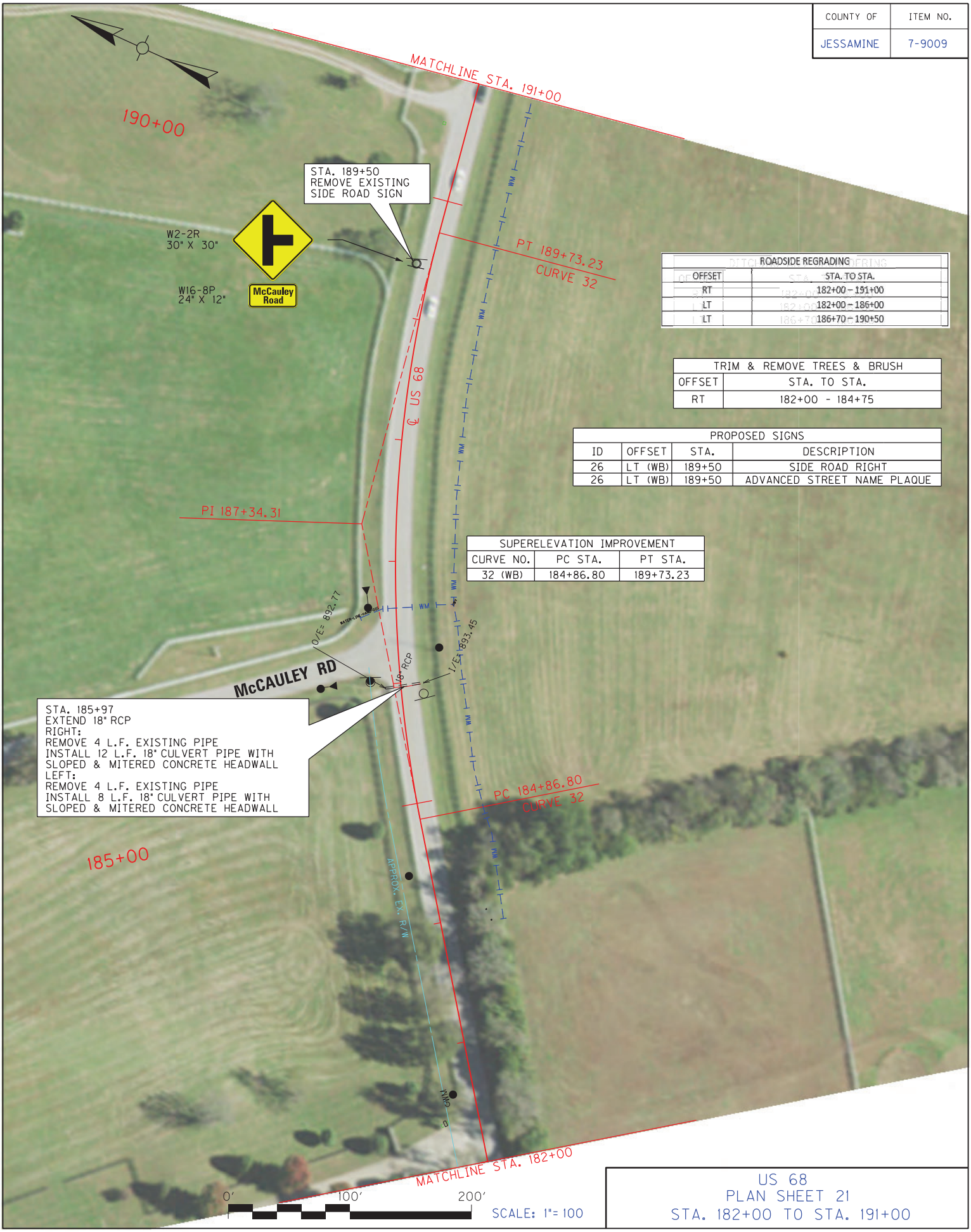
COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
25	RT (EB)	181+25	SIDE ROAD LEFT
25	RT (EB)	181+25	ADVANCED STREET NAME PLAQUE

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	173+00 – 182+00
LT	173+00 – 182+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	174+50 - 176+40
RT	179+75 - 182+00

US 68
PLAN SHEET 20
STA. 173+00 TO STA. 182+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
RT	182+00 – 191+00
LT	182+00 – 186+00
LT	186+70 – 190+50

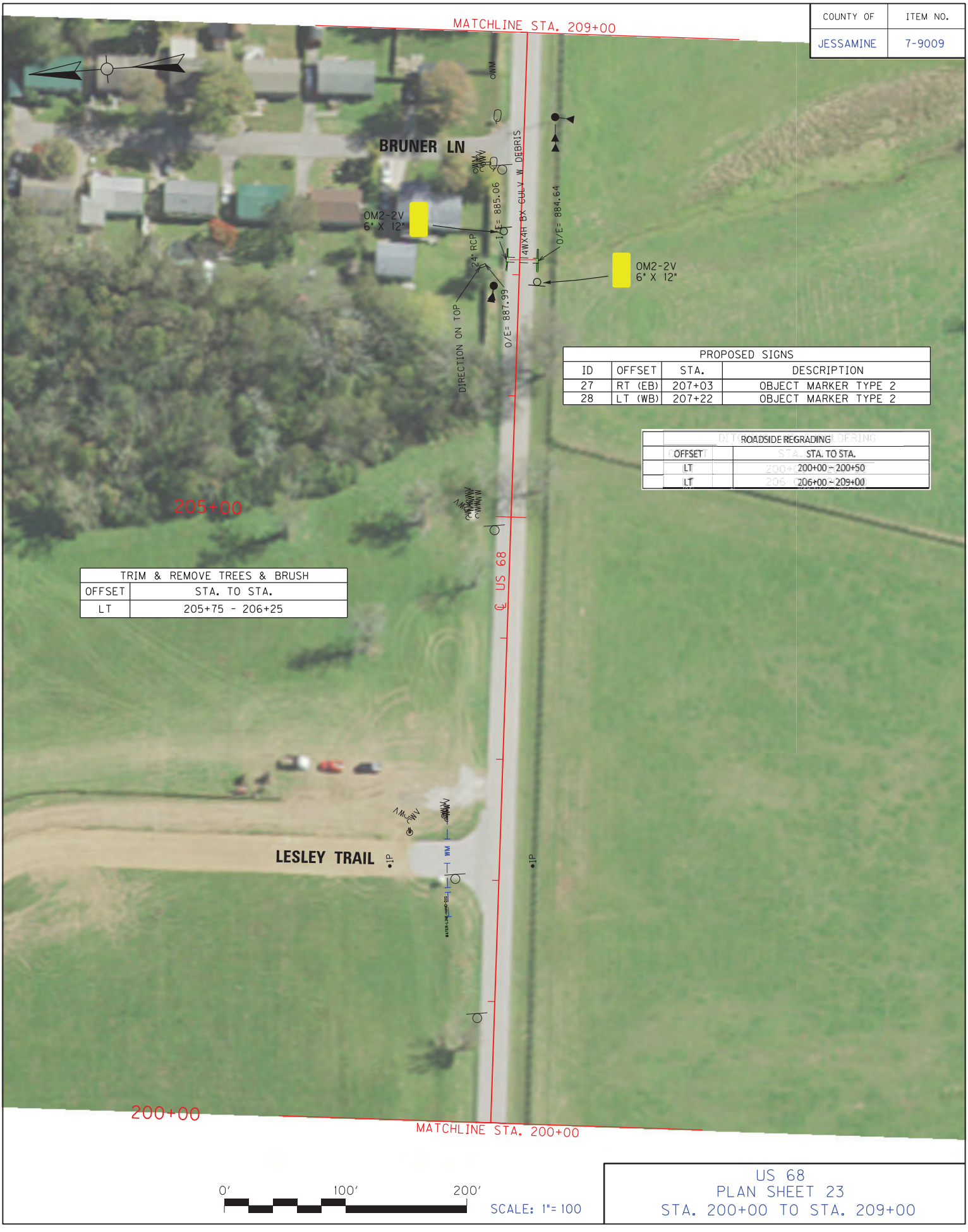
TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
RT	182+00 - 184+75

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
26	LT (WB)	189+50	SIDE ROAD RIGHT
26	LT (WB)	189+50	ADVANCED STREET NAME PLAQUE

SUPERELEVATION IMPROVEMENT		
CURVE NO.	PC STA.	PT STA.
32 (WB)	184+86.80	189+73.23

US 68
PLAN SHEET 21
STA. 182+00 TO STA. 191+00


COUNTY OF
ITEM NO.
JESSAMINE
7-9009
MATCHLINE STA. 200+00
STA. 198+77
EXTEND 24" RCP
RIGHT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 10 L.F. 24" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL
LEFT:
REMOVE 4 L.F. EXISTING PIPE & HEADWALL
INSTALL 5 L.F. 24" CULVERT PIPE WITH
SLOPED & MITERED CONCRETE HEADWALL
O/E= 886.38
I/E= 886.95
24" RCP
ROADSIDE REGRADING
OFFSET
STA. TO STA.
RT
191+00 – 194+00
LT
198+27 – 200+00
RT
198+27 – 199+27
PT 197+75.88
CURVE 33
O/E= 895.73
O/E= 893.85 (325)
I/E= 896.93 (327)
I/E= 897.02
15" CMP
PART FULL OF DEBRIS
12" CMP
PART FULL
PI 195+89.19
195+00
PC 194+00.17
CURVE 33
US 68
MATCHLINE STA. 191+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 22
STA. 191+00 TO STA. 200+00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009

PROPOSED SIGNS			
ID	OFFSET	STA.	DESCRIPTION
27	RT (EB)	207+03	OBJECT MARKER TYPE 2
28	LT (WB)	207+22	OBJECT MARKER TYPE 2

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	200+00 - 200+50
LT	206+00 - 209+00

TRIM & REMOVE TREES & BRUSH	
OFFSET	STA. TO STA.
LT	205+75 - 206+25

US 68
PLAN SHEET 23
STA. 200+00 TO STA. 209+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

ROADSIDE REGRADING	
OFFSET	STA. TO STA.
LT	209+00 – 218+00

US 68
PLAN SHEET 24
STA. 209+00 TO STA. 218+00

COUNTY OF	ITEM NO.
JESSAMINE	7-9009

DITCH GRADING	
OFFSET	STA. TO STA.
LT LT	218+00 218+00 – 220+50

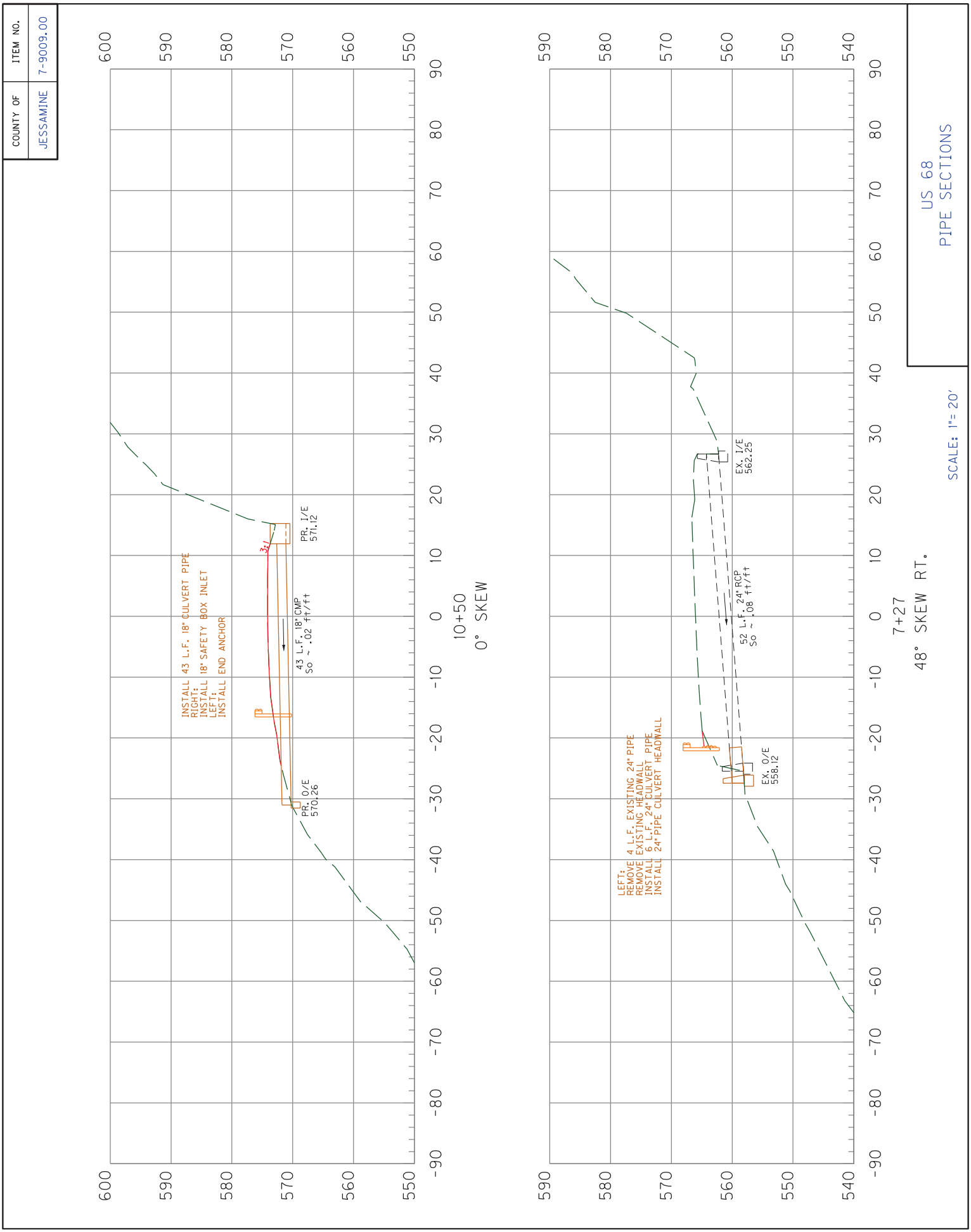
US 68
PLAN SHEET 25
STA. 218+00 TO STA. 227+00


COUNTY OF
ITEM NO.
JESSAMINE
7-9009
MATCHLINE STA. 236+00
235+00
PT 234+37.80
CURVE 36
PI 231+82.02
230+00
PC 228+93.61
CURVE 36
US 68
41IN PVC? CANT FIND OUTLET
15IN CMP CRUSHED
HALF FULL DEBRIS
MATCHLINE STA. 227+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 26
STA. 227+00 TO STA. 236+00

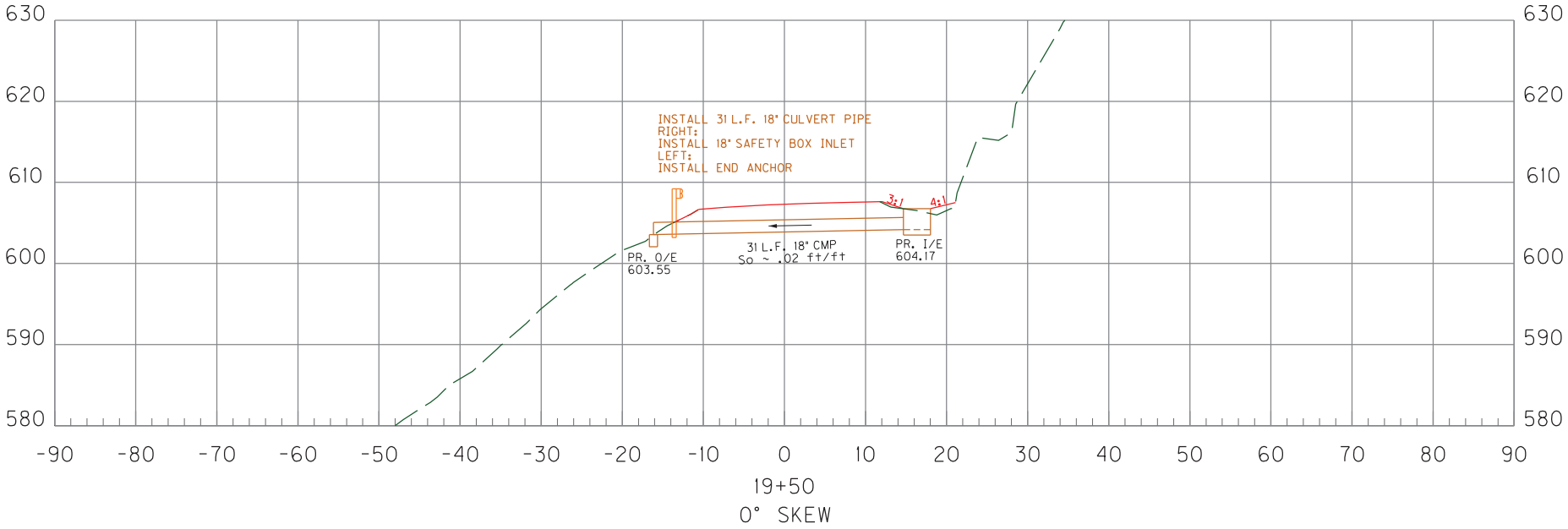
COUNTY OF	ITEM NO.
JESSAMINE	7-9009

US 68
PLAN SHEET 27
STA. 236+00 TO STA. 245+00

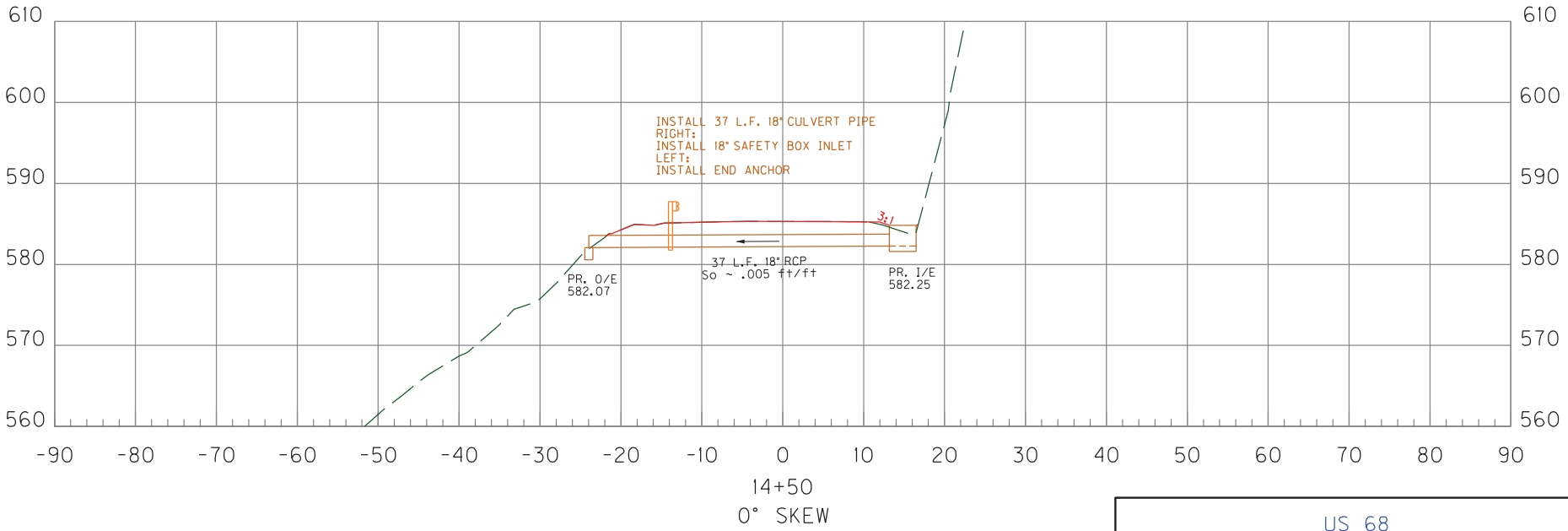

COUNTY OF
ITEM NO.
JESSAMINE
7-9009
END PROJECT
STA. 248+76 ℄ US 68
MP 4.807
248+76
POE 248+76.22
IP
CLM
℄ US 68
SSMH
PT 247+32.71
CURVE 37
245+00
MATCHLINE STA. 245+00
0'
100'
200'
SCALE: 1"= 100
US 68
PLAN SHEET 28
STA. 245+00 TO END PROJECT


COUNTY OF
JESSAMINE
ITEM NO.
7-9009.00
US 68
PIPE SECTIONS
SCALE: 1"= 20'
10+50
0° SKEW
INSTALL 43 L.F. 18" CULVERT PIPE
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
43 L.F. 18" CMP
So ~ .02 ft/ft
PR. I/E
571.12
PR. O/E
570.26
3:1
7+27
48° SKEW RT.
LEFT:
REMOVE 4 L.F. EXISTING 24" PIPE
REMOVE EXISTING HEADWALL
INSTALL 6 L.F. 24" CULVERT PIPE
INSTALL 24" PIPE CULVERT HEADWALL
52 L.F. 24" RCP
So ~ .08 ft/ft
EX. I/E
562.25
EX. O/E
558.12

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



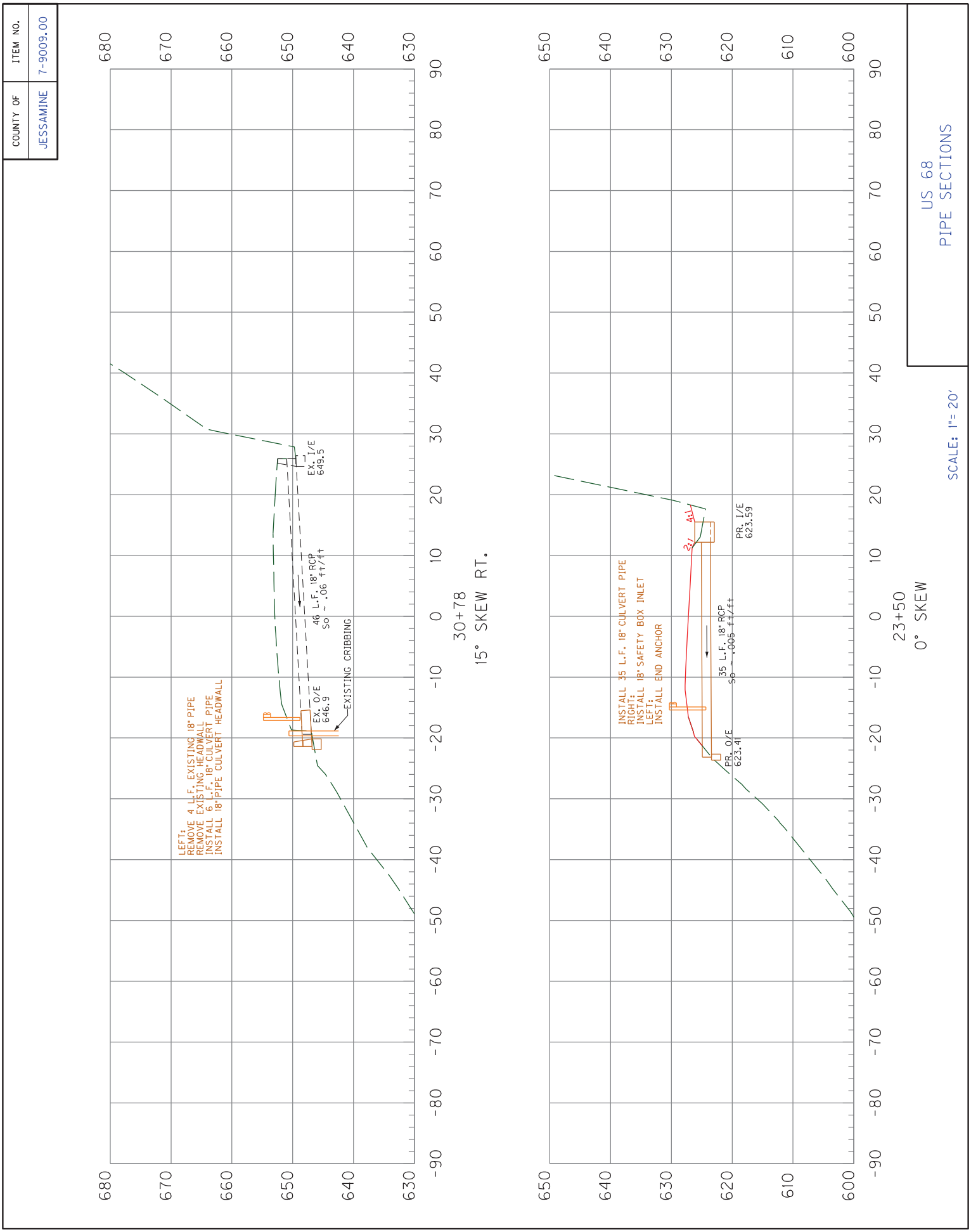
19+50
0° SKEW



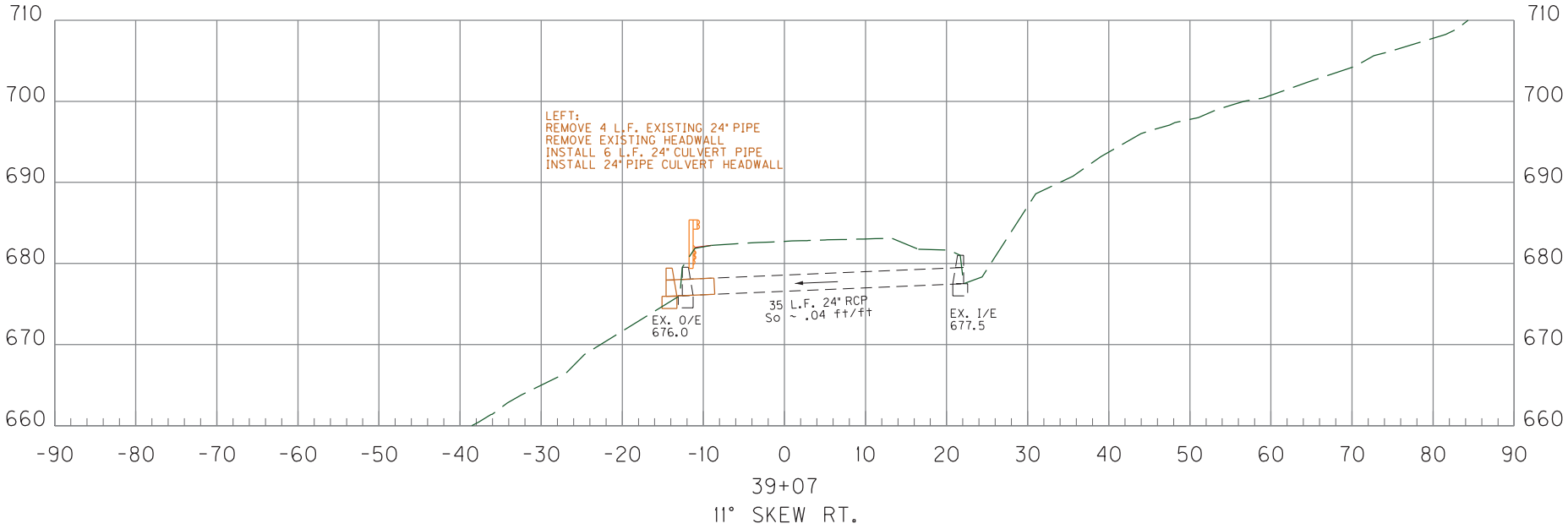
14+50
0° SKEW

SCALE: 1"= 20'

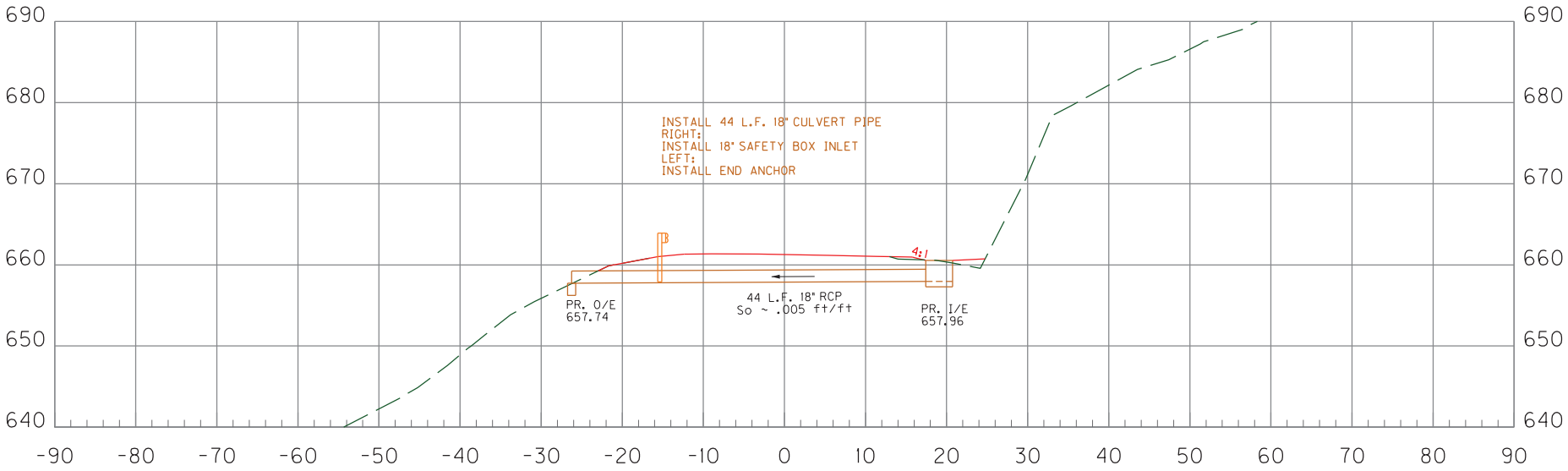
US 68
PIPE SECTIONS


COUNTY OF
JESSAMINE
ITEM NO.
7-9009.00
US 68
PIPE SECTIONS
SCALE: 1"= 20'
30+78
15° SKEW RT.
LEFT:
REMOVE 4 L.F. EXISTING 18" PIPE
REMOVE EXISTING HEADWALL
INSTALL 6 L.F. 18" CULVERT PIPE
INSTALL 18" PIPE CULVERT HEADWALL
EXISTING CRIBBING
EX. O/E
646.9
46 L.F. 18" RCP
So ~ .06 ft/ft
EX. I/E
649.5
23+50
0° SKEW
INSTALL 35 L.F. 18" CULVERT PIPE
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
PR. O/E
623.41
35 L.F. 18" RCP
So ~ .005 ft/ft
PR. I/E
623.59
4:1
3:1

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



39+07
11° SKEW RT.

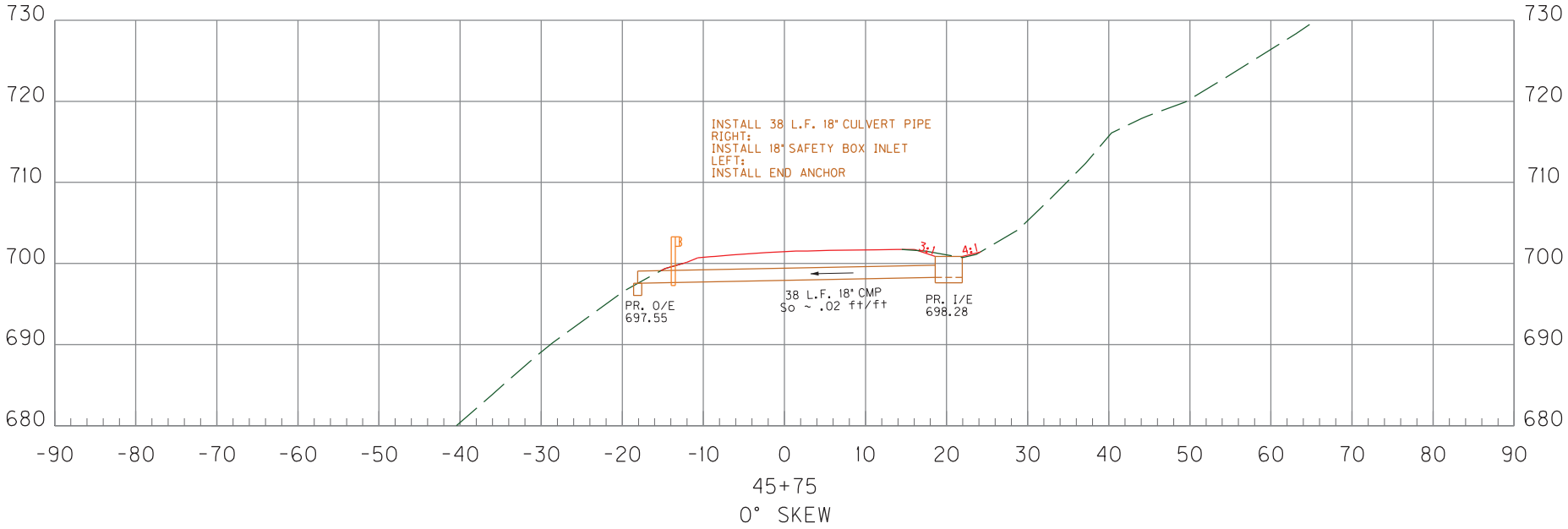


32+75
0° SKEW

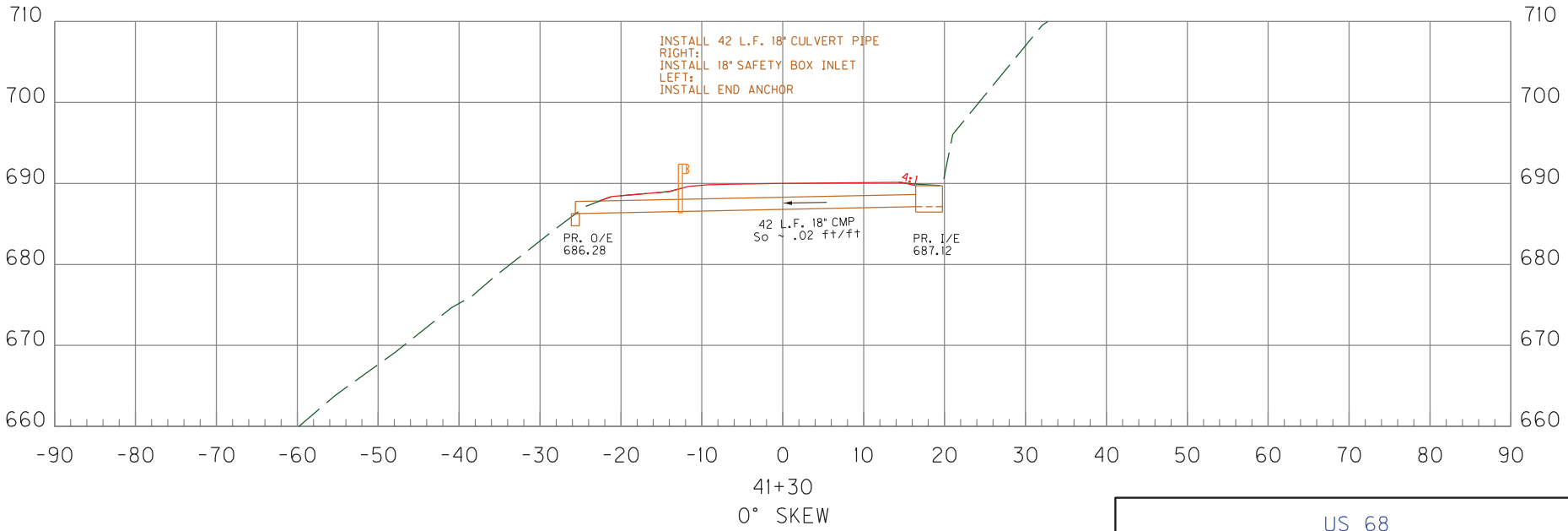
SCALE: 1"= 20'

US 68
PIPE SECTIONS

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



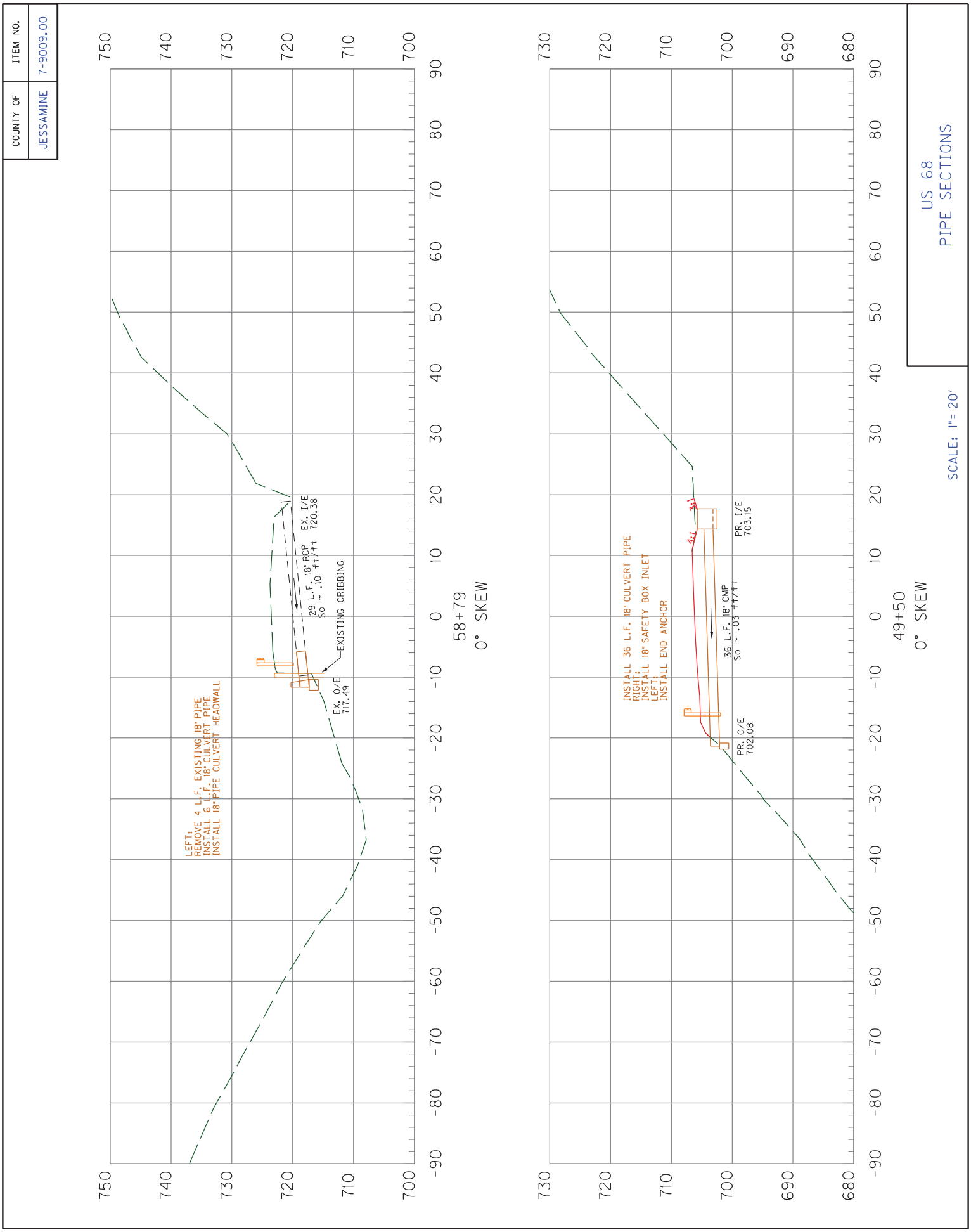
45+75
0° SKEW

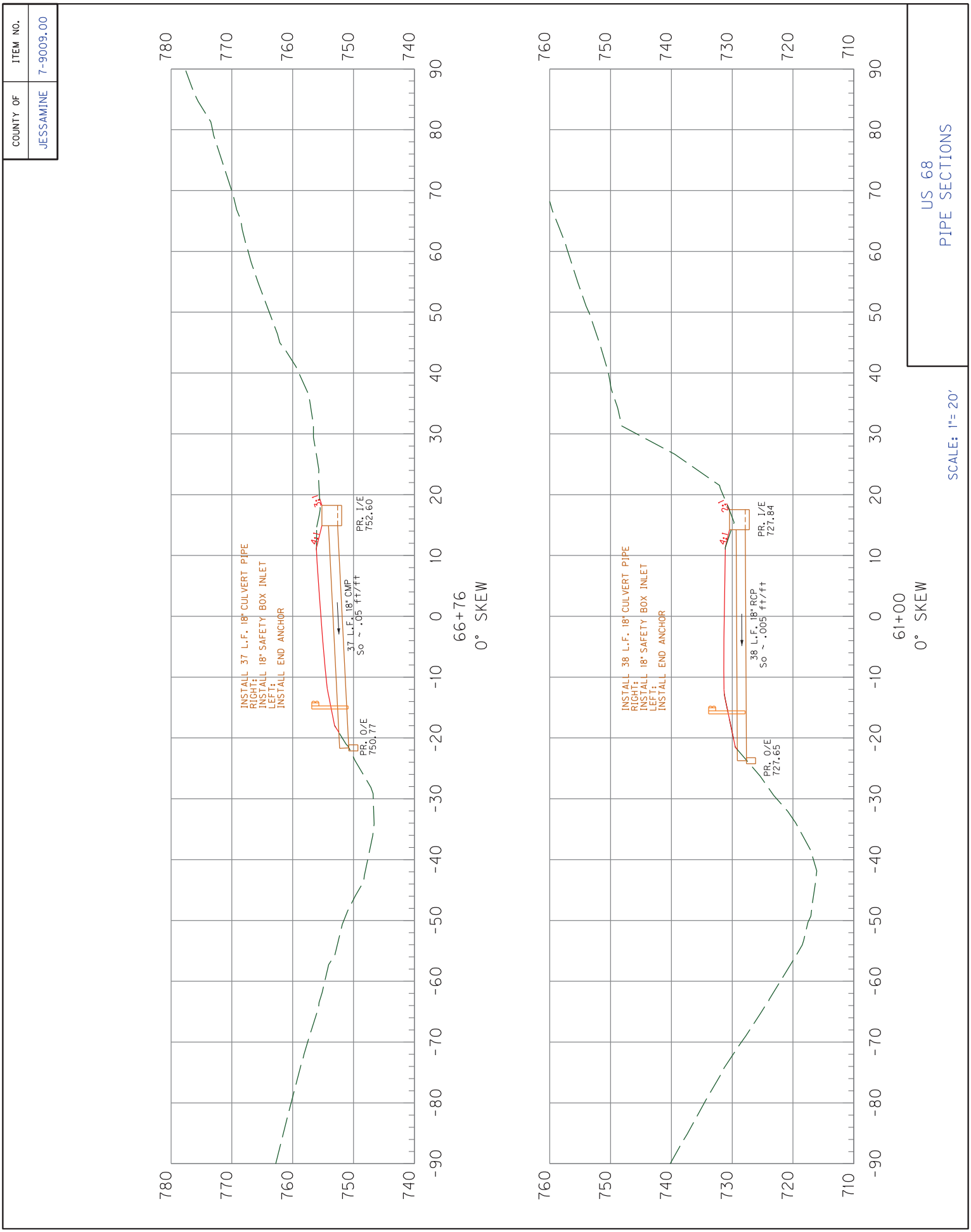


41+30
0° SKEW

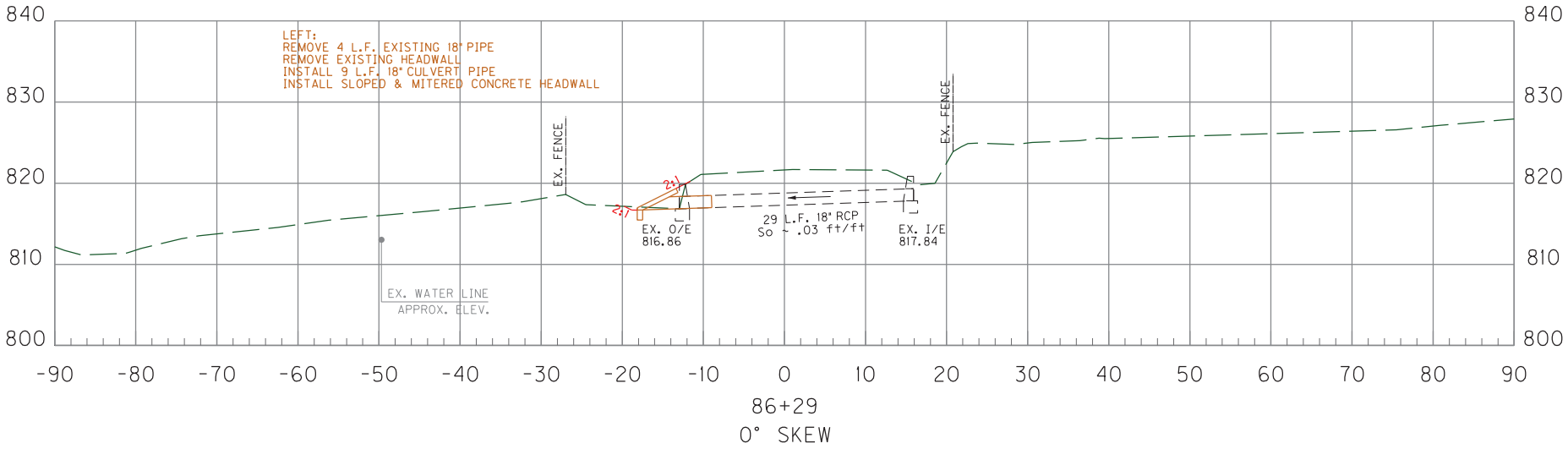
SCALE: 1"= 20'

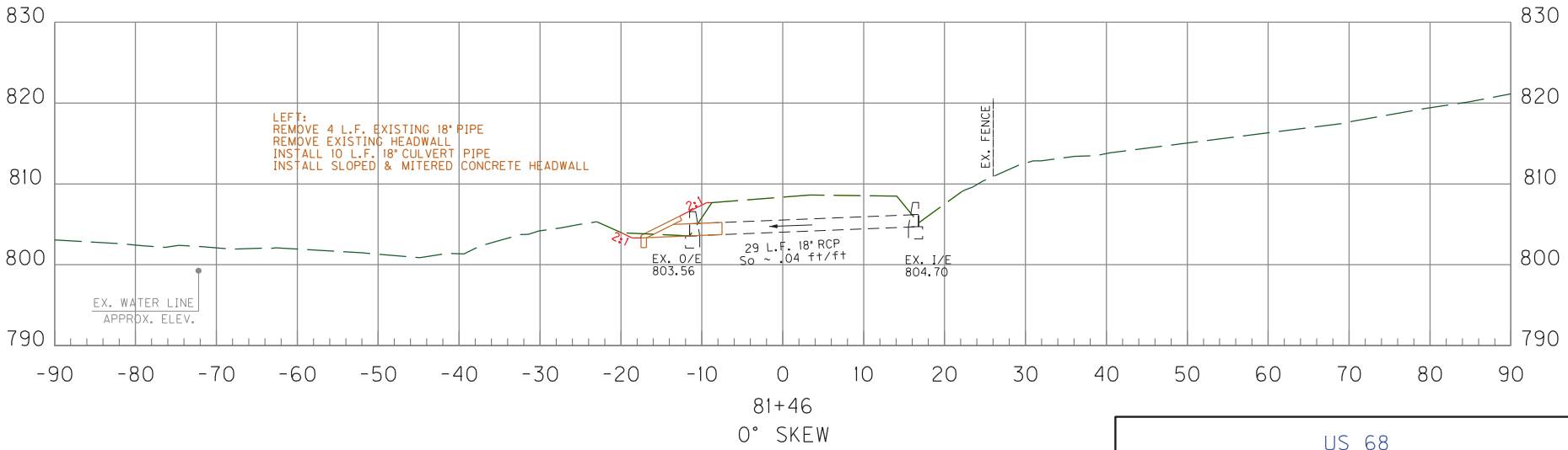
US 68
PIPE SECTIONS


COUNTY OF
JESSAMINE
ITEM NO.
7-9009.00
US 68
PIPE SECTIONS
SCALE: 1"= 20'
58+79
0° SKEW
49+50
0° SKEW
LEFT:
REMOVE 4 L.F. EXISTING 18" PIPE
INSTALL 6 L.F. 18" CULVERT PIPE
INSTALL 18" PIPE CULVERT HEADWALL
EXISTING CRIBBING
29 L.F. 18" RCP
So ~ .10 ft/ft
EX. I/E
720.38
EX. O/E
717.49
INSTALL 36 L.F. 18" CULVERT PIPE
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
36 L.F. 18" CMP
So ~ .03 ft/ft
PR. I/E
703.15
PR. O/E
702.08
3:1
4:1


COUNTY OF
JESSAMINE
ITEM NO.
7-9009.00
US 68
PIPE SECTIONS
SCALE: 1"= 20'
66+76
0° SKEW
INSTALL 37 L.F. 18" CULVERT PIPE
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
37 L.F. 18" CMP
So ~ .05 ft/ft
PR. I/E
752.60
PR. O/E
750.77
61+00
0° SKEW
INSTALL 38 L.F. 18" CULVERT PIPE
RIGHT:
INSTALL 18" SAFETY BOX INLET
LEFT:
INSTALL END ANCHOR
38 L.F. 18" RCP
So ~ .005 ft/ft
PR. I/E
727.84
PR. O/E
727.65

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

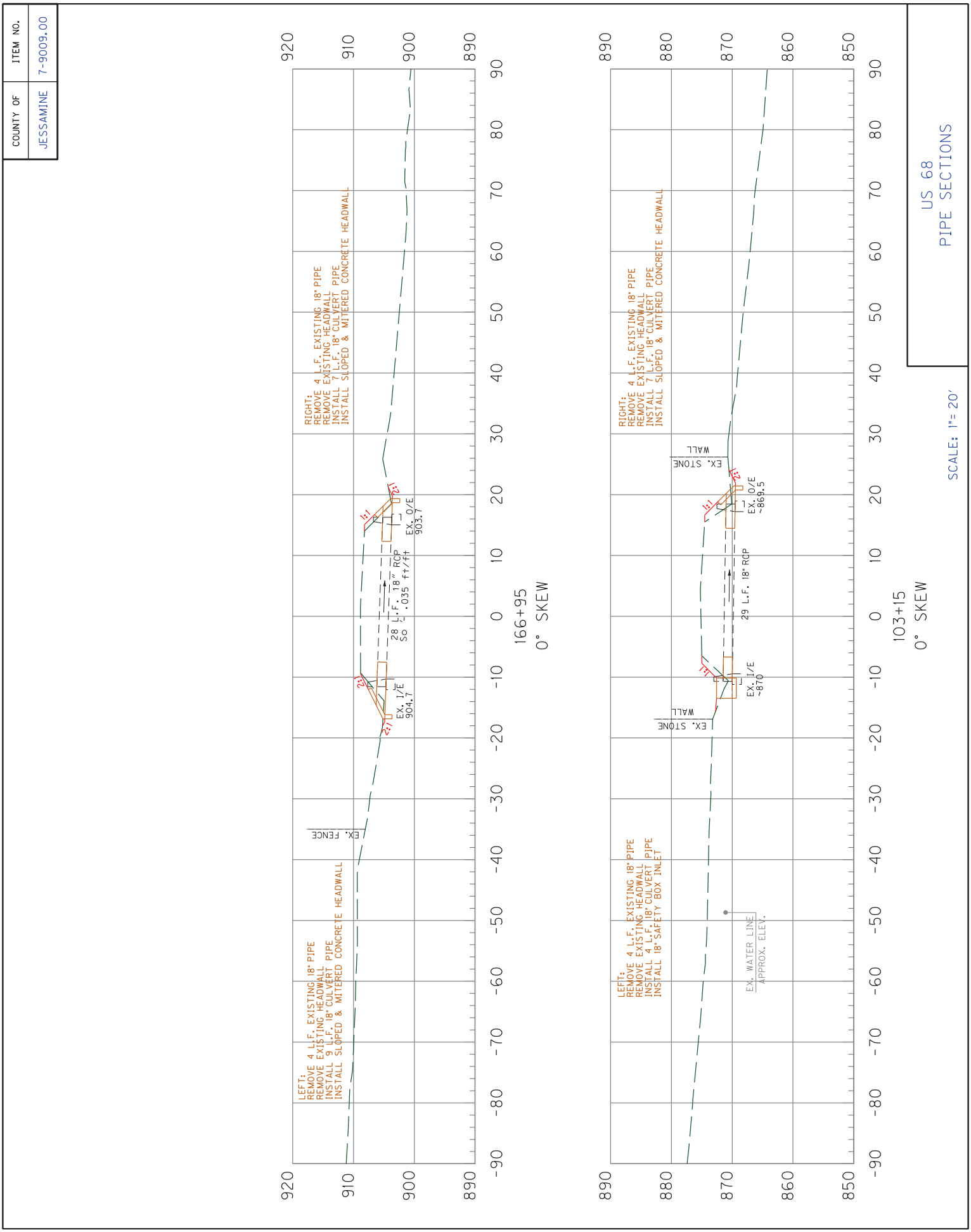




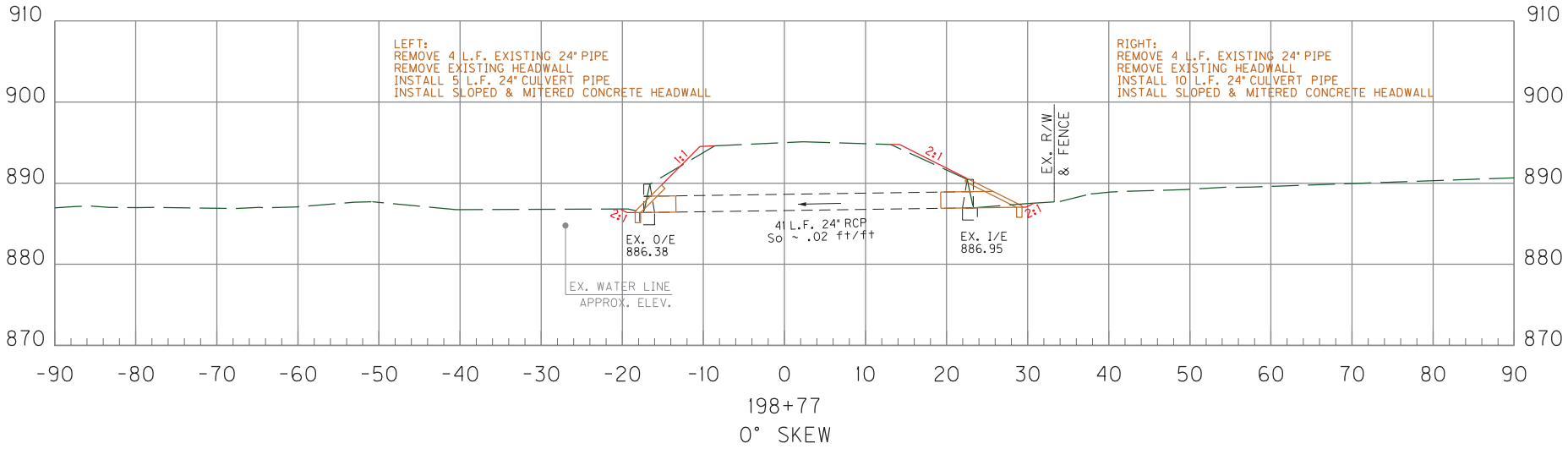
SCALE: 1"= 20'

US 68
PIPE SECTIONS

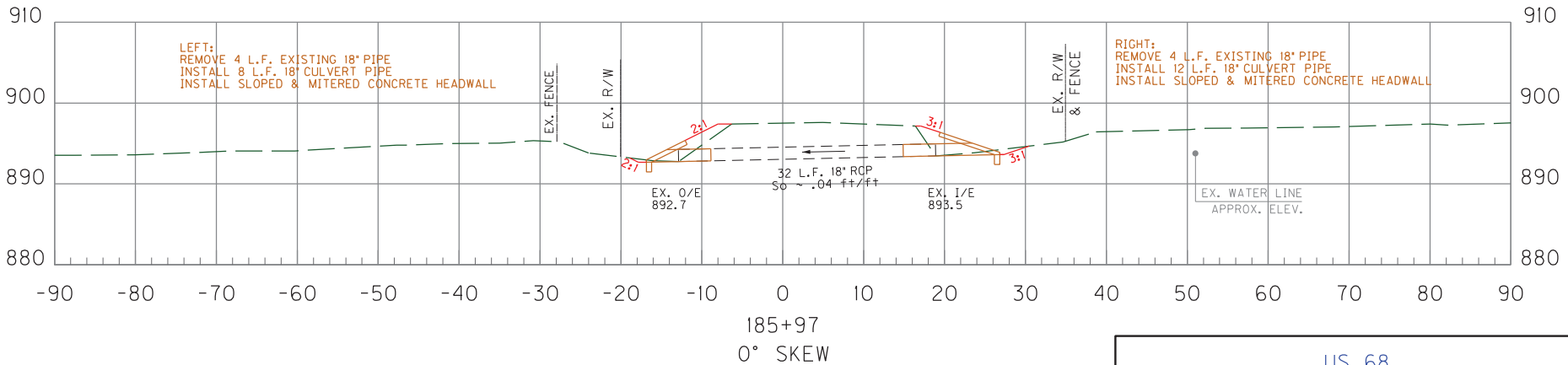
COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



198+77
0° SKEW

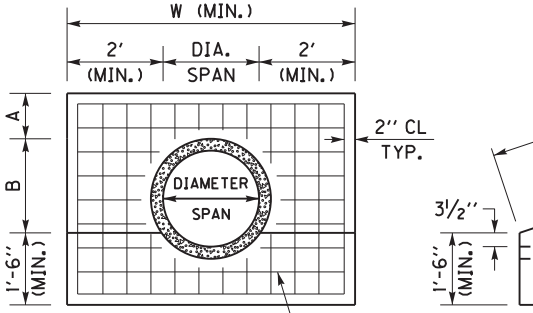


185+97
0° SKEW

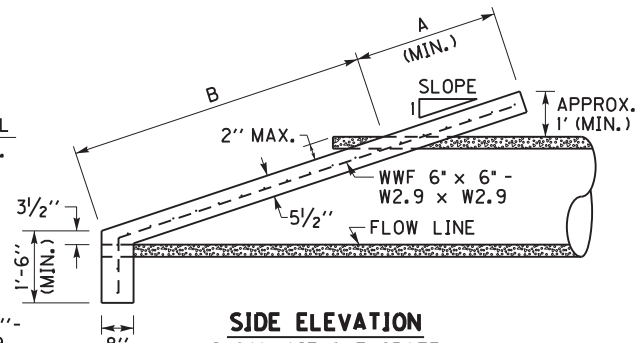
SCALE: 1"= 20'

US 68
PIPE SECTIONS

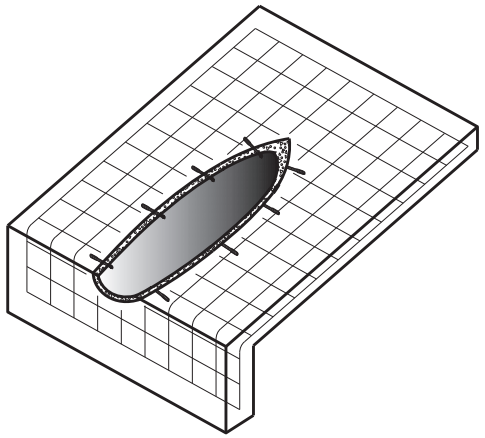
COUNTY OF	ITEM NO.	SHEET NO.



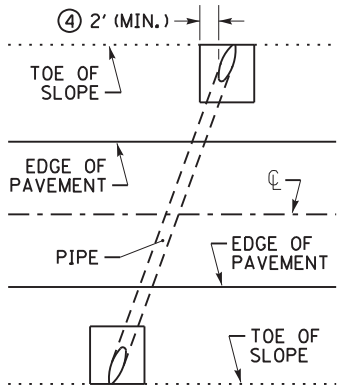
END ELEVATION
SHOWN WITH WOVEN WIRE REINFORCEMENT



SIDE ELEVATION
SHOWN WITHOUT GRATE



ISOMETRIC VIEW
SHOWN WITH WOVEN WIRE REINFORCEMENT AND WEDGE ANCHORS



PLAN VIEW
SHOWN WHEN THE PIPE IS ON A SKEW ④

~ NOTES ~

1. FOR PIPES THAT RECEIVE THE SLOPED & MITERED CONCRETE HEADWALL, THE PIPE LENGTH SHALL BE MEASURED TO THE FURTHEST POINT ALONG THE MITERED END OF THE PIPE.
2. THE EMBANKMENT FILL MATERIAL IS TO BE PLACED, COMPACTED, AND GRADED AROUND THE PIPE BEFORE THE CONCRETE SLOPE PAVING IS PLACED. THE INTENT IS FOR THE SLOPED & MITERED HEADWALL TO MATCH THE FINAL EMBANKMENT SLOPE.
3. THE PIPE SHALL BE MITERED AFTER THE CONCRETE SLOPE PAVING HAS BEEN PLACED AND SUFFICIENTLY CURED. THE PIPE SHOULD BE MITERED AS CLOSE TO FLUSH WITH THE SLOPE PAVING AS POSSIBLE, AND NO HIGHER THAN 2" ABOVE THE SLOPE PAVING. HAND FINISHING AND/OR CUTTING MAY BE NECESSARY.
④ WHEN THE PIPE IS ON A SKEW, INSTALL THE HEADWALL AND MITER THE PIPE SO THAT THE CONCRETE SLOPE PAVING IS PERPENDICULAR TO THE ROADWAY. FOR HEADWALLS ON SKEWED PIPES, THE HEADWALL WIDTH, W, SHALL BE WIDENED, AS NEEDED, SO THAT THE OUTSIDE EDGE OF THE CONCRETE SLOPE PAVING IS A MINIMUM OF 2' FROM THE OUTER MOST EDGE OF THE PIPE.
5. THE DIMENSION 'A' IS BASED ON THE FINAL GRADED SLOPE. THE DIMENSION 'B' IS BASED ON CIRCULAR REINFORCED CONCRETE PIPE AT 0° SKEW FOR THE LISTED SLOPE. THE DIMENSION 'W' IS BASED ON THE DIAMETER, OR SPAN, OF THE PIPE. THE FINAL HEADWALL DIMENSIONS AND CONCRETE QUANTITIES MAY VARY BASED ON THE FINAL GRADED SLOPE, PIPE SKEW, AND/OR TYPE OF PIPE.
6. WOVEN WIRE REINFORCEMENT (WWF 6"x6" - W2.9xW2.9) IS REQUIRED FOR THE SLOPE PAVING AND TOE WALL. UTILIZE 2" CLEARANCE FROM ALL EDGES.
7. DIMENSIONS AND CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL, INSTALLED ON A PIPE WITH SKEW = 0°.
8. AFTER THE PIPE HAS BEEN MITERED, ANCHOR THE PIPE TO THE CONCRETE SLOPE PAVING BY CORE DRILLING AND INSTALLING 1/2" DIAMETER x 7" LENGTH STEEL WEDGE ANCHORS (3" MINIMUM EMBEDMENT) ON 18" CENTERS ALONG THE SIDES OF THE PIPE. HOLE SIZE & DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE. NOTE: STEEL WEDGE ANCHORS ARE NOT REQUIRED FOR REINFORCED CONCRETE PIPE.
⑨ THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
-24" DIAMETER PIPE ON GREATER THAN 30° SKEW
-30" DIAMETER PIPE ON GREATER THAN 15° SKEW
-PIPE WITH GREATER THAN 30" DIAMETER.
-ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
SEE SHEET 2 FOR GRATE DETAILS
10. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

DIMENSIONS AND CONCRETE QUANTITIES (FOR PIPE WITH SKEW = 0°) ④

PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE				GRATE REQUIRED
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	
15"	3'	3'-7½"	5'-3"	0.74	4'	4'-8¾"	5'-3"	0.93	6'	6'-11¾"	5'-3"	1.29	NO
18"	3'	4'-5¾"	5'-6"	0.85	4'	5'-10"	5'-6"	1.05	6'	8'-7¼"	5'-6"	1.48	NO
24"	3'	6'-2½"	6'-0"	1.05	4'	8'-1"	6'-0"	1.32	6'	11'-11"	6'-0"	1.87	SEE ⑨
30"	3'	7'-10¾"	6'-6"	1.43	4'	10'-3¾"	6'-6"	1.80	6'	15'-2½"	6'-6"	2.28	SEE ⑨

DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND LISTED FOR INFORMATIONAL PURPOSES ONLY

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR _ INCH PIPE) - EACH

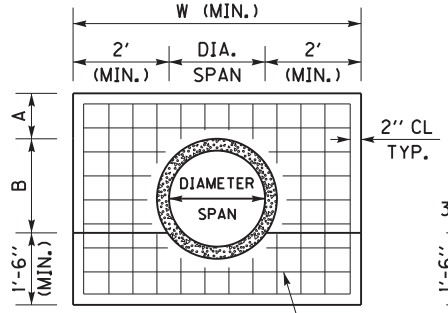
SEE SHEET 2 FOR DIMENSIONS OF HEADWALLS FOR PIPE OVER 30" DIAMETER

NOT TO SCALE

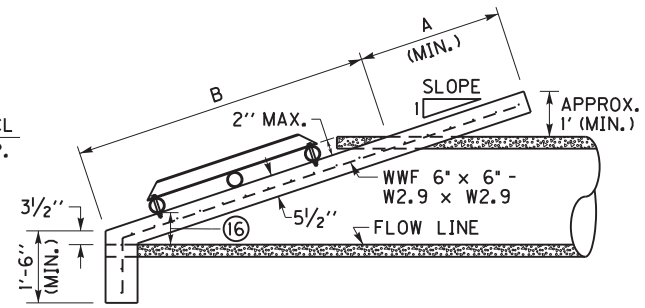
KENTUCKY DEPARTMENT OF HIGHWAYS

SLOPED & MITERED CONCRETE HEADWALL (SHEET 1 OF 2)

COUNTY OF	ITEM NO.	SHEET NO.



END ELEVATION
SHOWN WITH WOVEN WIRE REINFORCEMENT

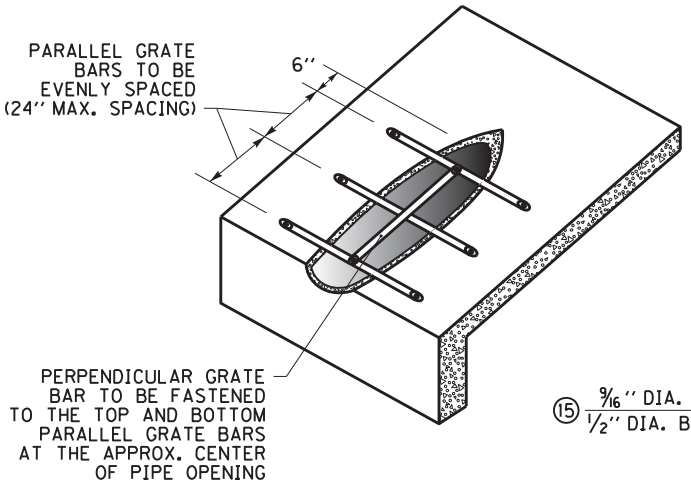


SIDE ELEVATION
SHOWN WITH GRATE

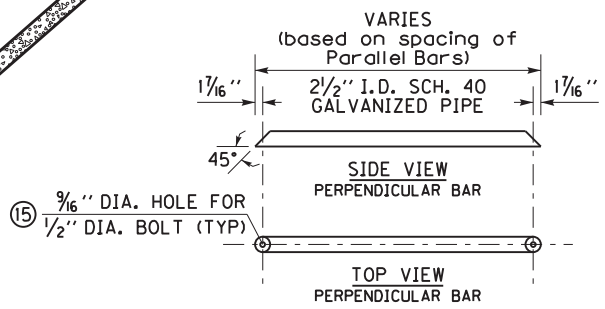
~ NOTES ~

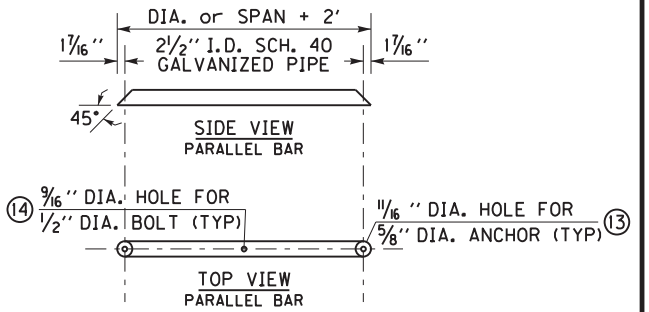
SEE SHEET 1 FOR NOTES 1 THRU 8

9. THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
-24" DIAMETER PIPE ON GREATER THAN 30° SKEW
-30" DIAMETER PIPE ON GREATER THAN 15° SKEW
-PIPE WITH GREATER THAN 30" DIAMETER.
-ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
10. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
11. THE PIPE USED TO CONSTRUCT THE GRATE SHALL BE STEEL, SCHEDULE 40, CONFORMING TO ASTM A53, AND GALVANIZED IN ACCORDANCE WITH AASHTO M 111 AFTER FABRICATION.
12. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
13. FASTEN PARALLEL BARS TO HEADWALL WITH 5/8" DIA. x 4½" LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2¾" HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE.
14. CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
15. FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM PARALLEL BARS WITH ½" DIA. x 4" LENGTH HEX HEAD BOLTS, HEX HEAD NUTS, & FLAT WASHERS.
16. THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.



ISOMETRIC VIEW
SHOWING HEADWALL WITH GRATE





PIPE FOR GRATE DETAILS
SEE NOTE 9 TO DETERMINE IF GRATE IS REQUIRED

DIMENSIONS AND CONCRETE QUANTITIES (FOR PIPE WITH SKEW = 0°) (4)													
PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE				GRATE REQUIRED
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	
36"	3'	9'-7½"	7'-0"	1.51	4'	12'-6½"	7'-0"	1.91	6'	18'-6"	7'-0"	2.42	YES
42"	3'	11'-4"	7'-6"	1.76	4'	14'-9¼"	7'-6"	2.23	6'	21'-9½"	7'-6"	3.19	YES

DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND LISTED FOR INFORMATIONAL PURPOSES ONLY

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR _ INCH PIPE) - EACH

SEE SHEET 1 FOR DIMENSIONS OF HEADWALLS FOR PIPE 30" DIAMETER & LESS

NOT TO SCALE

KENTUCKY DEPARTMENT OF HIGHWAYS

SLOPED & MITERED CONCRETE HEADWALL (SHEET 2 OF 2)

FIGURE 1

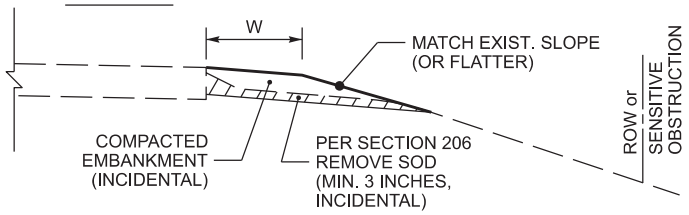


FIGURE 2

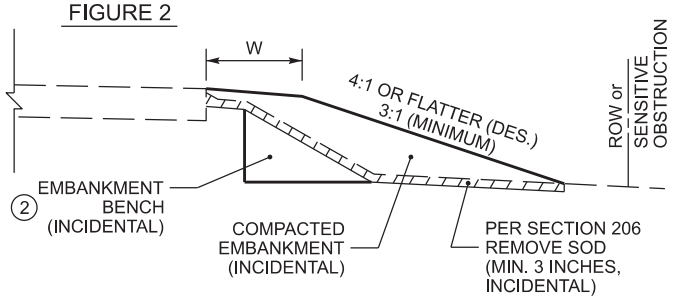


FIGURE 3

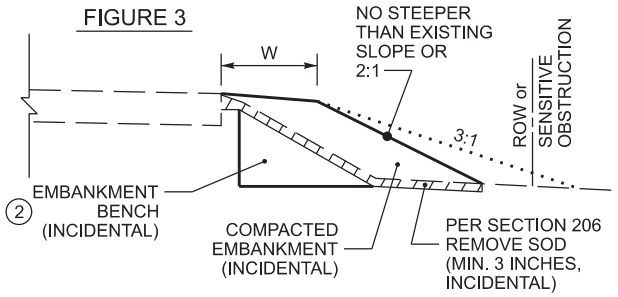


FIGURE 4

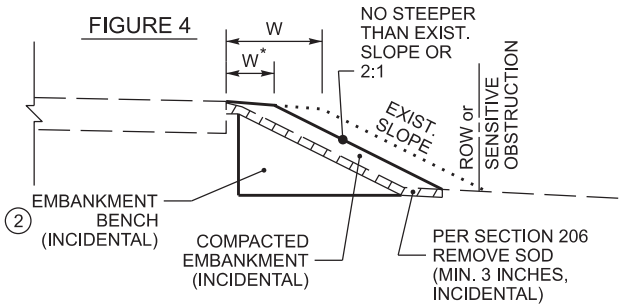


FIGURE 5

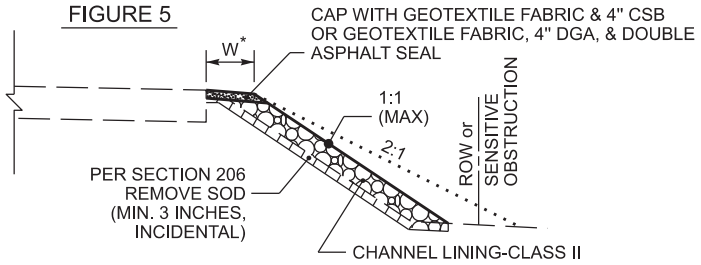
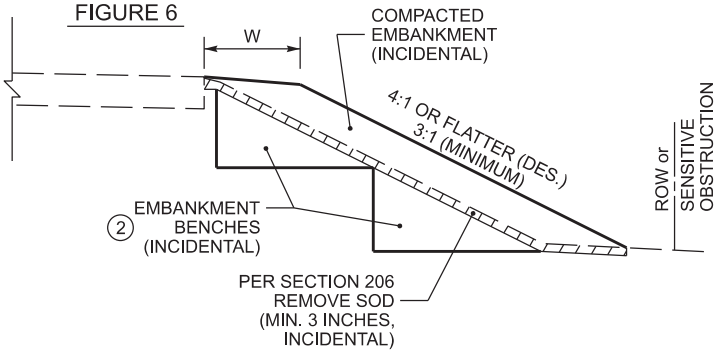


FIGURE 6



~ NOTES ~

BID ITEM AND UNIT TO BID:
26175EC - ROADSIDE REGRADING - LF

1. THE BID ITEM 'ROADSIDE REGRADING' SHALL CONSIST OF ANY AND ALL NECESSARY CLEARING & GRUBBING, GRADING, AND/OR RESHAPING OF THE EXISTING SHOULDER, DITCH, AND/OR ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS, AS DETAILED ON THE TYPICAL SECTIONS. FINAL PAYMENT WILL BE BASED ON THE ACTUAL LINEAR FEET OF ROADSIDE REGRADING PERFORMED, AND WILL INCLUDE ALL WORK AND INCIDENTALS NECESSARY TO PERFORM THE ROADSIDE REGRADING ACCORDING TO THESE DETAILS, NOTES, AND ANY OTHER INFORMATION FOUND ELSEWHERE IN THE PROPOSAL OR STANDARD SPECIFICATIONS. IN THE CASE OF A DISCREPANCY, REFER TO SECTION 105.05 OF THE STANDARD SPECIFICATIONS. DEPENDING ON THE EXISTING CONDITIONS ENCOUNTERED, ROADSIDE REGRADING MAY ALSO INCLUDE, BUT IS NOT LIMITED TO:
   - PROVIDING ADDITIONAL EARTH MATERIAL AND GRADING, SHAPING, AND COMPACTING THE EARTH MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS. COMPACT MATERIAL ACCORDING TO SECTION 206 OF THE STANDARD SPECIFICATIONS.
     NOTE: ADDITIONAL EARTH MATERIAL PROVIDED SHALL BE SUITABLE FOR VEGETATION GROWTH.
   - EXCAVATING AND REMOVING EXCESS MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS
   - EMBANKMENT BENCHING

(2) EMBANKMENT BENCHING WILL BE REQUIRED WHEN THE EXISTING GROUNDLINE HAS AN INCLINE GREATER THAN 15% (APPROX. 6:1). ANY AND ALL REQUIRED EMBANKMENT BENCHING SHALL BE INCIDENTAL TO THE BID ITEM 'ROADSIDE REGRADING'. THE FOLLOWING ARE GUIDELINES FOR EMBANKMENT BENCHING USED IN CONJUNCTION WITH THE BID ITEM 'ROADSIDE REGRADING':
   - THE TYPICAL HEIGHT (OR RISE) IS 1' TO 6'
   - THE TYPICAL WIDTH (OR RUN) WILL VARY BASED ON THE HEIGHT OF THE BENCH
   - MULTIPLE SMALL BENCHES MAY BE USED, AND MAY BE MORE ADVANTAGEOUS AS THIS WILL REQUIRE PROCESSING LESS EARTHWORK.

3. AS SHOWN IN FIGURE 1, IN SOME SITUATIONS, MINOR SHOULDERING, WITH MINIMAL ADDITIONAL EARTH MATERIAL, MAY BE ALL THAT IS REQUIRED TO RESHAPE THE EARTH SHOULDER TO THE PROPOSED WIDTH AND BRING IT FLUSH WITH THE EDGE OF PAVEMENT.

4. AS SHOWN IN FIGURE 2, MOST SITUATIONS WILL REQUIRE ADDITIONAL EARTH MATERIAL TO ACHIEVE THE PROPOSED EARTH SHOULDER WIDTH. IT IS DESIRED THAT THE RESULTING FILL SLOPE BE INSTALLED AS FLAT AS POSSIBLE AND REMAIN WITHIN THE RIGHT-OF-WAY AND/OR AVOID SENSITIVE OBSTRUCTIONS.

5. AS SHOWN IN FIGURE 3, IF A 3:1 FILL SLOPE WILL RESULT IN THE TOE OF SLOPE EXTENDING BEYOND THE RIGHT-OF-WAY OR IMPACT A SENSITIVE OBSTRUCTION, THEN THE FILL SLOPE MAY BE INSTALLED STEEPER THAN 3:1, BUT NO STEEPER THAN THE EXISTING FILL SLOPE, OR A 2:1, WHICHEVER IS FLATTER.

6. AS SHOWN IN FIGURE 4, IF MATCHING THE EXISTING FILL SLOPE OR INSTALLING A 2:1 FILL SLOPE (WHICHEVER IS FLATTER) STILL RESULTS IN THE TOE OF SLOPE EXTENDING BEYOND THE RIGHT-OF-WAY OR STILL IMPACTS A SENSITIVE OBSTRUCTION, THEN THE PROPOSED EARTH SHOULDER WIDTH MAY BE REDUCED SO THAT THE RESULTING TOE OF SLOPE WILL REMAIN WITHIN THE RIGHT-OF-WAY AND/OR NOT IMPACT THE SENSITIVE OBSTRUCTION.

7. AS SHOWN IN FIGURE 5, IF THE EXISTING FILL SLOPE IS STEEPER THAN 2:1 AND THERE IS NOT ENOUGH SPACE TO INSTALL A 2:1 FILL SLOPE WITHOUT EXTENDING BEYOND THE RIGHT-OF-WAY AND/OR IMPACTING A SENSITIVE OBSTRUCTION, THEN CLASS II CHANNEL LINING MAY BE INSTALLED ALONG THE STEEP EXISTING SLOPE IN ORDER TO ESTABLISH A WIDTH OF AGGREGATE SHOULDER. THESE LOCATIONS WILL BE NOTED ELSEWHERE IN THE PROPOSAL AS SLOPE PROTECTION. THE CHANNEL LINING IS TO BE CAPPED WITH GEOTEXTILE FABRIC CLASS 1 AND 4" OF CRUSHED STONE BASE OR 4" OF DGA WITH DOUBLE ASPHALT SEAL COAT.

8. AS SHOWN IN FIGURE 6, AS THE HEIGHT OF THE FILL INCREASES, MULTIPLE EMBANKMENT BENCHES MAY BE REQUIRED.

SEE SHEET 2 FOR NOTES 9 THRU 13

NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

ROADSIDE REGRADING
AND EMBANKMENT DETAILS
(SHEET 1 OF 2)

FIGURE 7

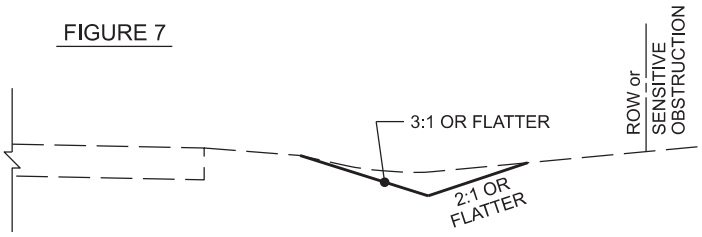


FIGURE 8

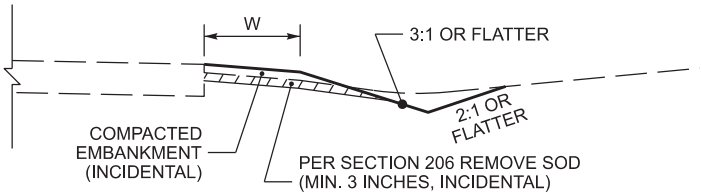


FIGURE 9

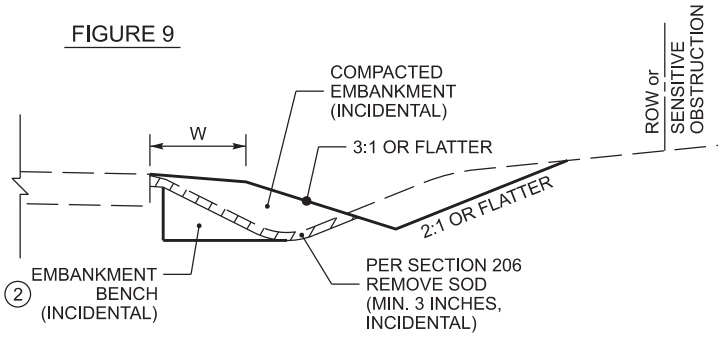


FIGURE 10

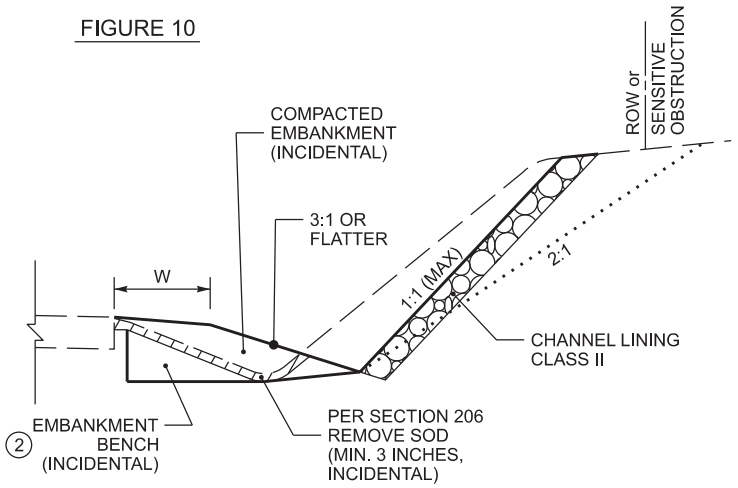
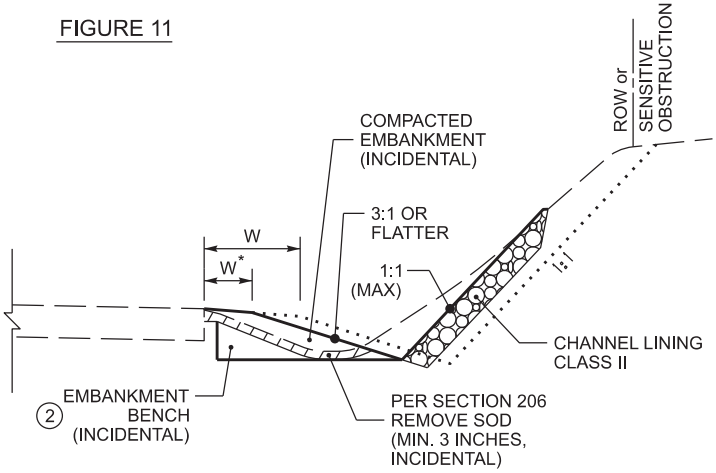


FIGURE 11



~ NOTES ~

BID ITEM AND UNIT TO BID:
26175EC - ROADSIDE REGRADING - LF

1. THE BID ITEM 'ROADSIDE REGRADING' SHALL CONSIST OF ANY AND ALL NECESSARY CLEARING & GRUBBING, GRADING, AND/OR RESHAPING OF THE EXISTING SHOULDER, DITCH, AND/OR ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS, AS DETAILED ON THE TYPICAL SECTIONS. FINAL PAYMENT WILL BE BASED ON THE ACTUAL LINEAR FEET OF ROADSIDE REGRADING PERFORMED, AND WILL INCLUDE ALL WORK AND INCIDENTALS NECESSARY TO PERFORM THE ROADSIDE REGRADING ACCORDING TO THESE DETAILS, NOTES, AND ANY OTHER INFORMATION FOUND ELSEWHERE IN THE PROPOSAL OR STANDARD SPECIFICATIONS. IN THE CASE OF A DISCREPANCY, REFER TO SECTION 105.05 OF THE STANDARD SPECIFICATIONS. DEPENDING ON THE EXISTING CONDITIONS ENCOUNTERED, ROADSIDE REGRADING MAY ALSO INCLUDE, BUT IS NOT LIMITED TO:
   - PROVIDING ADDITIONAL EARTH MATERIAL AND GRADING, SHAPING, AND COMPACTING THE EARTH MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS. COMPACT MATERIAL ACCORDING TO SECTION 206 OF THE STANDARD SPECIFICATIONS.
     NOTE: ADDITIONAL EARTH MATERIAL PROVIDED SHALL BE SUITABLE FOR VEGETATION GROWTH.
   - EXCAVATING AND REMOVING EXCESS MATERIAL TO ACHIEVE THE DIMENSIONS SHOWN ON THE TYPICAL SECTIONS
   - EMBANKMENT BENCHING

(2) EMBANKMENT BENCHING WILL BE REQUIRED WHEN THE EXISTING GROUNDLINE HAS AN INCLINE GREATER THAN 15% (APPROX. 6:1). ANY AND ALL REQUIRED EMBANKMENT BENCHING SHALL BE INCIDENTAL TO THE BID ITEM 'ROADSIDE REGRADING'. THE FOLLOWING ARE GUIDELINES FOR EMBANKMENT BENCHING USED IN CONJUNCTION WITH THE BID ITEM 'ROADSIDE REGRADING':
   - THE TYPICAL HEIGHT (OR RISE) IS 1' TO 6'
   - THE TYPICAL WIDTH (OR RUN) WILL VARY BASED ON THE HEIGHT OF THE BENCH
   - MULTIPLE SMALL BENCHES MAY BE USED, AND MAY BE MORE ADVANTAGEOUS AS THIS WILL REQUIRE PROCESSING LESS EARTHWORK.

SEE SHEET 1 FOR NOTES 3. THRU 8.

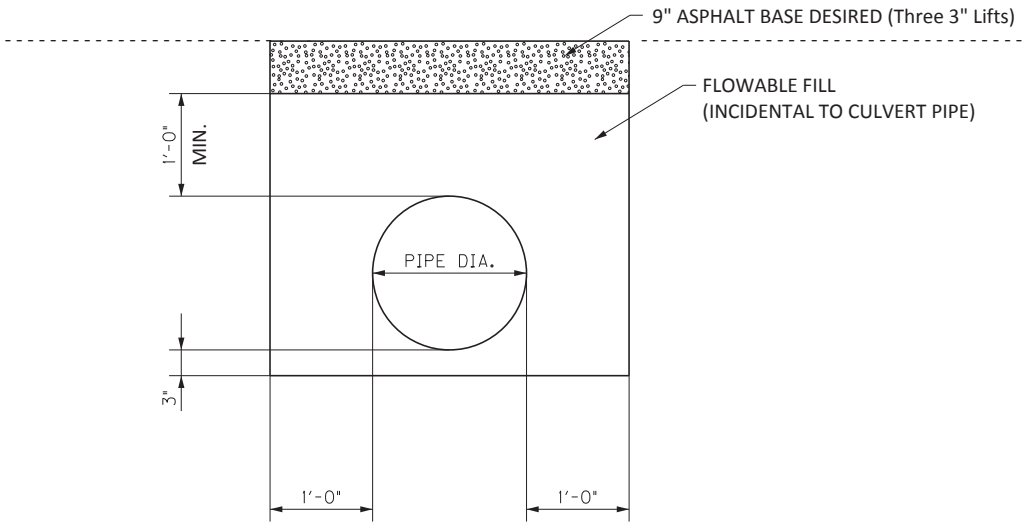
9. AS SHOWN IN FIGURE 7, IN SOME SITUATIONS, ALL THAT MAY BE REQUIRED IS TO CLEAN OUT THE EXISTING DITCH AND RESHAPE IT TO THE PROPOSED DIMENIONS. THE MATERIAL EXCAVATED FROM THE DITCH MAY BE RE-USED ELSEWHERE ON THE PROJECT, PROVIDED THE ENGINEER DETERMINES THE MATERIAL REMOVED FROM THE DITCH IS SUITABLE FOR THE INTENDED RE-USE.
10. AS SHOWN IN FIGURE 8, IN SOME SITUATIONS, THE DITCH AND SHOULDER MAY ONLY NEED MINOR REGRADING AND/OR RESHAPING. THE MATERIAL EXCAVATED FROM THE DITCH MAY BE USED TO RESHAPE THE EARTH SHOULDER, PROVIDED THE ENGINEER DETERMINES THE MATERIAL REMOVED FROM THE DITCH IS SUITABLE FOR SHOULDERING. IF THE MATERIAL IS NOT SUITABLE, ADDITIONAL EARTH MATERIAL MAY BE REQUIRED.
11. AS SHOWN IN FIGURE 9, IN MOST SITUATIONS, REGRADING AND RESHAPING THE ROADSIDE TO ACHIEVE THE PROPOSED SHOULDER, DITCH, AND/OR ROADSIDE DIMENSIONS WILL RESULT IN MOVING THE DITCH FURTHER AWAY FROM THE ROADWAY. IT IS DESIRED THAT DITCH FORESLOPES BE 3:1 OR FLATTER AND DITCH BACKSLOPES BE 2:1 OR FLATTER.
12. AS SHOWN IN FIGURE 10, IF INSTALLING A 2:1 DITCH BACKSLOPE WILL RESULT IN THE TOP OF CUT EXTENDING BEYOND THE RIGHT-OF-WAY OR IMPACTING A SENSITIVE OBSTRUCTION, THEN THE DITCH BACK SLOPE MAY BE INSTALLED STEEPER THAN 2:1, UP TO 1:1 MAXIMUM. IN THIS SITUATION, THE DITCH BACKSLOPE SHALL HAVE CLASS II CHANNEL LINING INSTALLED FOR SLOPE PROTECTION.
13. AS SHOWN IN FIGURE 11, IF USING A 1:1 DITCH BACKSLOPE STILL RESULTS IN THE TOP OF CUT EXTENDING BEYOND THE RIGHT-OF-WAY OR STILL IMPACTS A SENSITIVE OBSTRUCTION, THEN THE PROPOSED EARTH SHOULDER WIDTH MAY BE REDUCED SO THAT THE STEEP DITCH BACKSLOPE CAN BE INSTALLED WITHIN THE RIGHT-OF-WAY AND/OR TO AVOID A SENSITIVE OBSTRUCTION.

NOT TO SCALE

KENTUCKY
DEPARTMENT OF HIGHWAYS

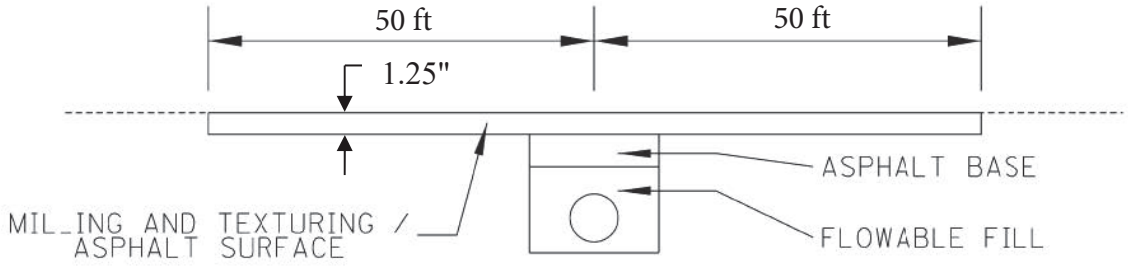
ROADSIDE REGRADING AND EMBANKMENT DETAILS (SHEET 2 OF 2)

CULVERT PIPE REPLACEMENT DETAIL

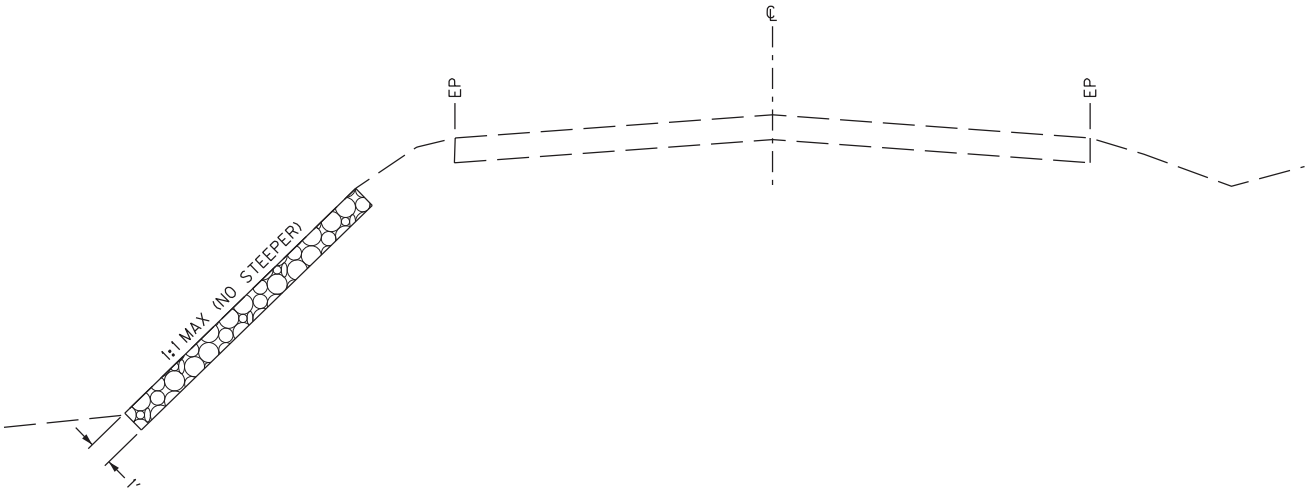


CULVERT PIPE REPLACEMENTS - INITAL BACKFILL

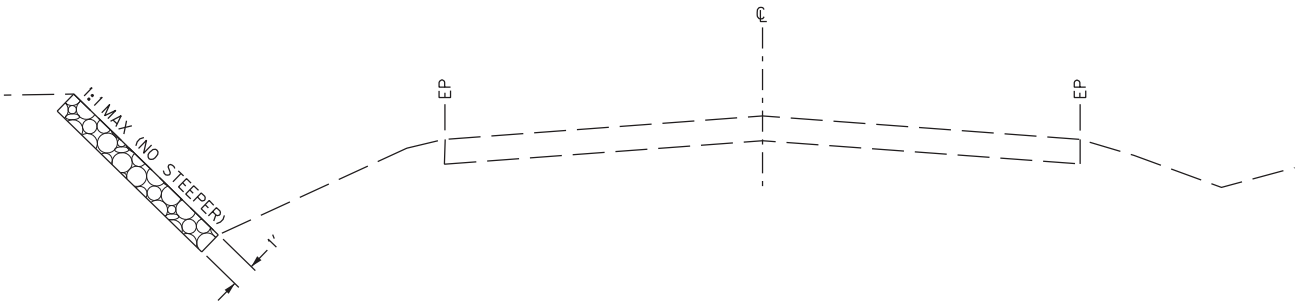
Culvert Pipe Replacements shall be constructed according to the Inital Backfill Detail shown above, or as directed by the Engineer. Allow the asphalt base to be exposed to traffic a minimum of 14 days to allow for settlement. After the 14 day waiting period, mill and inlay 1.25 inches of asphalt surface according to the detail below.



COUNTY OF	ITEM NO.	SHEET NO.



PROTECTION DETAIL FOR EMBANKMENT FILL SLOPE



PROTECTION DETAIL FOR DITCH BACKSLOPE

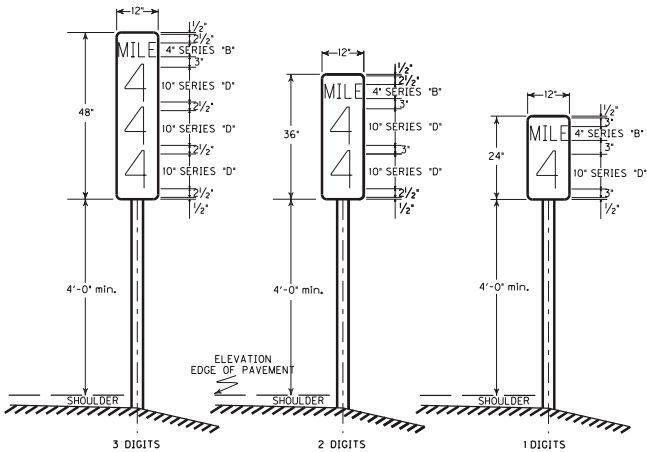
NOTES:

1. SEE CHANNEL LINING SUMMARY FOR APPROXIMATE LOCATIONS OF SLOPE PROTECTION.
2. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. EXCAVATION IS INCIDENTAL TO THE PLACEMENT OF THE CHANNEL LINING.

SLOPE PROTECTION DETAILS

COUNTY OF	ITEM NO.	SHEET NO.

MILEPOST MARKERS



TYPICAL SIGN PANEL DIMENSIONS AND MILEPOST LOCATIONS

MILE POST NUMBER	STATION NUMBER * ____ BOUND LANE (S)

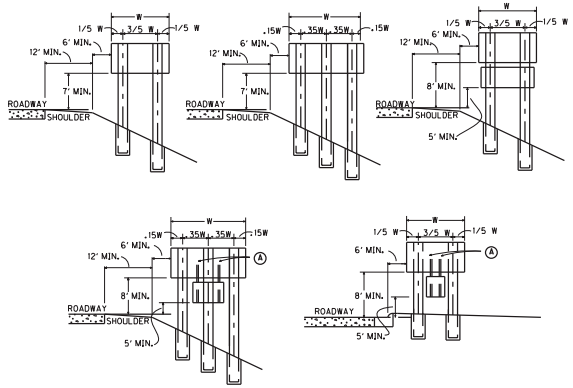
MILE POST NUMBER	STATION NUMBER * ____ BOUND LANE (S)

NOTE: STATION NUMBERS ARE GIVEN FOR NOTED DIRECTION OF TRAVEL ONLY. CORRESPONDING MILEPOST MARKERS FOR OTHER DIRECTION SHOULD BE PLACED DIRECTLY OPPOSITE THOSE FOR WHICH STATION NUMBERS ARE GIVEN.

IN JEFFERSON COUNTY, FINAL LOCATION OF MILEPOST MARKERS SHALL BE VERIFIED BY TRIMARC. NOTIFY TRIMARC AT LEAST TWO WEEKS PRIOR TO BEGINNING WORK ON THIS ITEM:

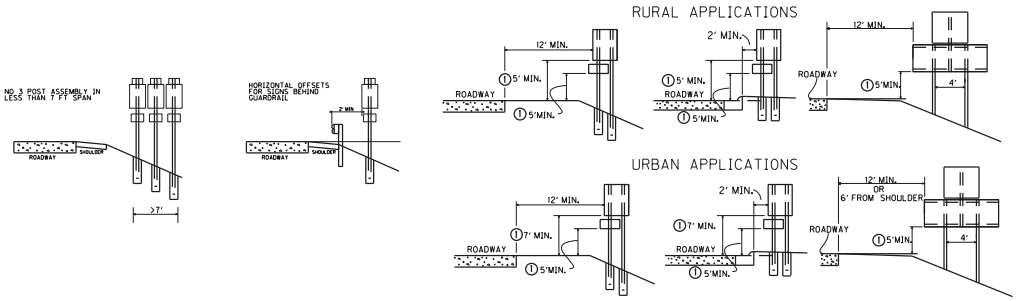
901 WEST MAIN STREET
LOUISVILLE, KY 40202
502-587-6624
270-307-7456

PANEL SIGNS



Ⓐ ATTACHMENT OF SECONDARY SIGN TO MAJOR SIGN IS TO BE MADE WITH TWO (2) 3" X 3" X ¾' ANGLES OF SUFFICIENT LENGTH TO EXTEND FROM THE LOWER EDGE OF THE SECONDARY SIGN TO AT LEAST THREE FEET UP THE BACK OF THE MAJOR SIGN. A MINIMUM OF ONE POST CLIP PER FOOT SHALL BE USED IN ATTACHING EXTRUSIONS TO EACH ANGLE.

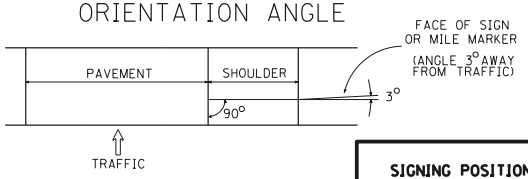
SHEETING SIGNS



NOTE: SHOULD A SIGN BE LOCATED AT A POINT WHERE GUARDRAIL IS CALLED FOR OR EXISTING, ALL SIGN SUPPORTS SHALL BE PLACED BEHIND THE GUARDRAIL AND LATERAL OFFSET SHALL BE MEASURED FROM THE GUARDRAIL.

① NOT TO EXCEED 8' IN URBAN AREAS AND 6' IN RURAL AREAS UNLESS SPECIFIED BY THE ENGINEER

ORIENTATION ANGLE



SIGNING POSITIONING DETAIL SHEET

COUNTY OF | ITEM NO. | SHEET NO.

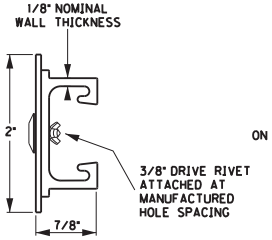
SHEETING SIGN DETAIL
SHEET 1 OF 2
NOT TO SCALE

2"x2" TYPE I POST
2" RECOMMEND
4" MAXIMUM
6" - 8" MAXIMUM
STRAIGHT 3/8"-16 x 3" GRADE 8 FLANGED SHOULDER BOLT & NUT
2.25" x 2.25" x 3" TYPE I ANCHOR
5/16" (2.5" L) MEDIUM CORNER BOLT
GROUND LINE
ADDED HOLE IN SOIL PLATE
SOIL STABILIZER
SOIL STABILIZER DETAIL FOR TYPE I POST
TRAFFIC FLOW
PLAN VIEW
NOT TO SCALE
SOIL STABILIZER
TYPE J -SQUARE TUBING OR TYPE JJ CHANNEL POST
HOLES ARE 1" ON CENTER
3"
SOIL STABILIZER DETAIL

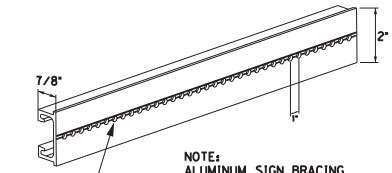
STOP
PLAN VIEW
NOT TO SCALE
32" - 34"
TYPE JJ CHANNEL POST WITH SOIL STABILIZER
FOR SIGN INSTALLATIONS NOT EMBEDDED IN CONCRETE, INSTALL SOIL STABILIZING PLATE ON BACKSIDE OF POST FROM TRAFFIC FLOW
TRAFFIC FLOW
SEE SHEETING SIGN DETAIL SHEET 2 OF 2 FOR BRACING REQUIREMENTS
City Name
City Name
City Name
NOTE: SEE SIGN DETAIL SHEETS FOR QUANTITY, LENGTH, SIZE AND GAUGE OF TYPE J POSTS
PLAN VIEW
NOT TO SCALE
TYPE J SQUARE TUBING POST WITH SOIL STABILIZER
SEE MANUFACTURER'S SPECIFICATIONS
GROUND LINE
PLAN VIEW
NOT TO SCALE
TYPE J SQUARE TUBING POST WITH TYPE "D" SUPPORT

COUNTY OF	ITEM NO.	SHEET NO.

FOR ATTACHMENT OF SIGNS LESS THAN 72" IN WIDTH USING MANUFACTURED 3/8" HOLES ACCORDING TO 2004 STANDARD HIGHWAY SIGNS BLANK STANDARDS PGS 7-1 THRU 7-6

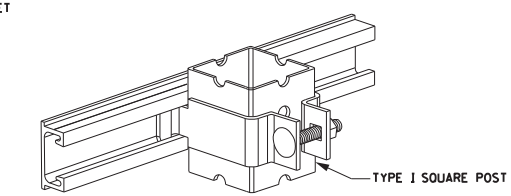


SIGN BRACE



NOTE:
ALUMINUM SIGN BRACING
2" MOUNTING SURFACE x 7/8" DEPTH x 1/8" NOMINAL WALL THICKNESS

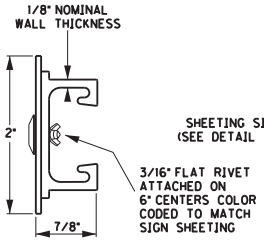
6061-T6 ALUMINUM ALLOY, PUNCHED WITH 3/8" DIAMETER HOLES ON 1" CENTERS FOR ATTACHMENT OF SIGN SUBSTRATE USING 3/8" DRIVE RIVETS



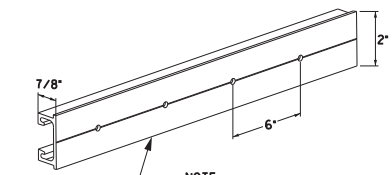
SQUARE POST CLAMP & BRACE

FOR ATTACHMENT OF SIGNS GREATER THAN 72" IN WIDTH.

RIVETS SHALL BE COLOR CODED TO MATCH SHEETING IN ORDER TO MINIMIZE GLARE FROM RIVETS

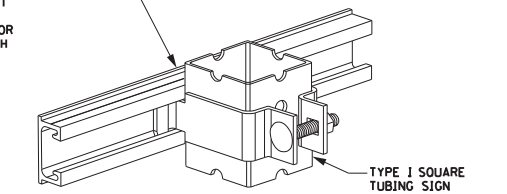


SIGN BRACE

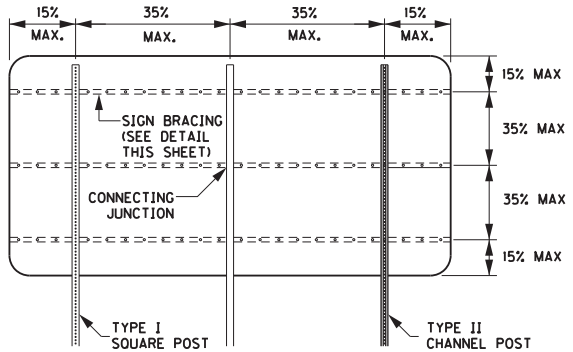


NOTE:
ALUMINUM SIGN BRACING
2" MOUNTING SURFACE x 7/8" DEPTH x 1/8" NOMINAL WALL THICKNESS

6061-T6 ALUMINUM ALLOY, PUNCHED WITH 3/16" DIAMETER HOLES ON 6" CENTERS FOR ATTACHMENT OF SIGN SUBSTRATE USING RIVETS



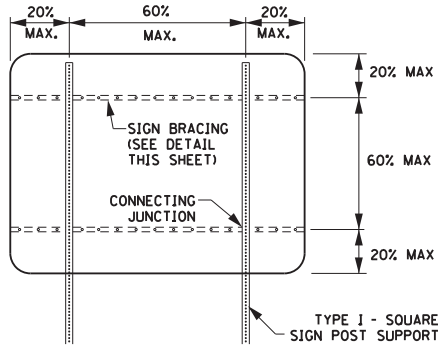
SQUARE POST CLAMP & BRACE



3 POST - BRACING DIAGRAM

NOTE:
1. MAXIMUM AREA PER CONNECTING JUNCTION = 16 SQ. FT.

2. BRACING SHOULD NOT BE SPLICED WITHIN 6" OF A BRACE TO POST JUNCTION.



2 POST - BRACING DIAGRAM

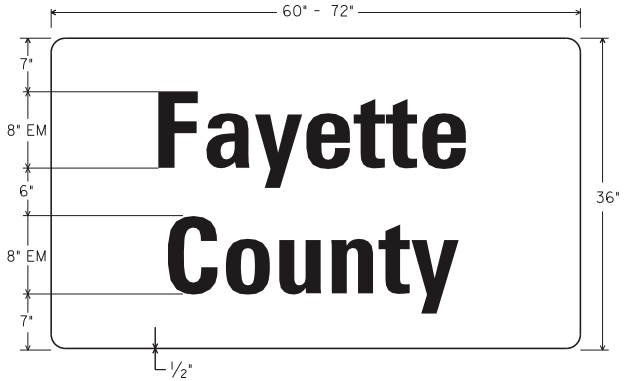
NOTE:
USE OF SIGN BRACING NOT SHOWN ON THIS SHEET MAY BE PERMITTED BY PROJECT ENGINEER AND/OR DISTRICT TRAFFIC ENGINEER.

NOT TO SCALE

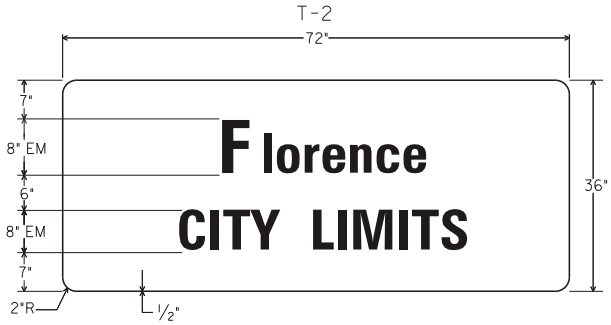
SHEETING SIGN DETAIL
SHEET 2 OF 2

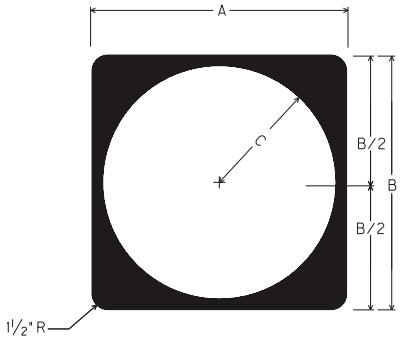
COUNTY OF	ITEM NO.	SHEET NO.

T-1



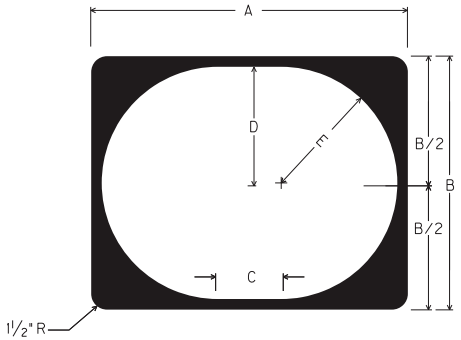
T-2





M1-5 (1 OR 2 DIGIT)

	A	B	C	FONT
CONVENTIONAL	24"	24"	11"	12D
EXPRESSWAY/ FREEWAY	36"	36"	17"	18D



M1-5 (3 OR 4 DIGIT)

	A	B	C	D	E	FONT	
						3 DIGIT	4 DIGIT
CONVENTIONAL	30"	24"	6"	11"	11"	12D	12B
EXPRESSWAY/ FREEWAY	45"	36"	9"	16.5"	16.5"	18D	18B

S-1

NOTE: FOR ROUTE MARKERS, IF NECESSARY, ADJUSTMENTS TO THE DIGIT LAYOUT AND/OR FONT TYPE MAY BE MADE TO ENSURE VISUAL ACUITY

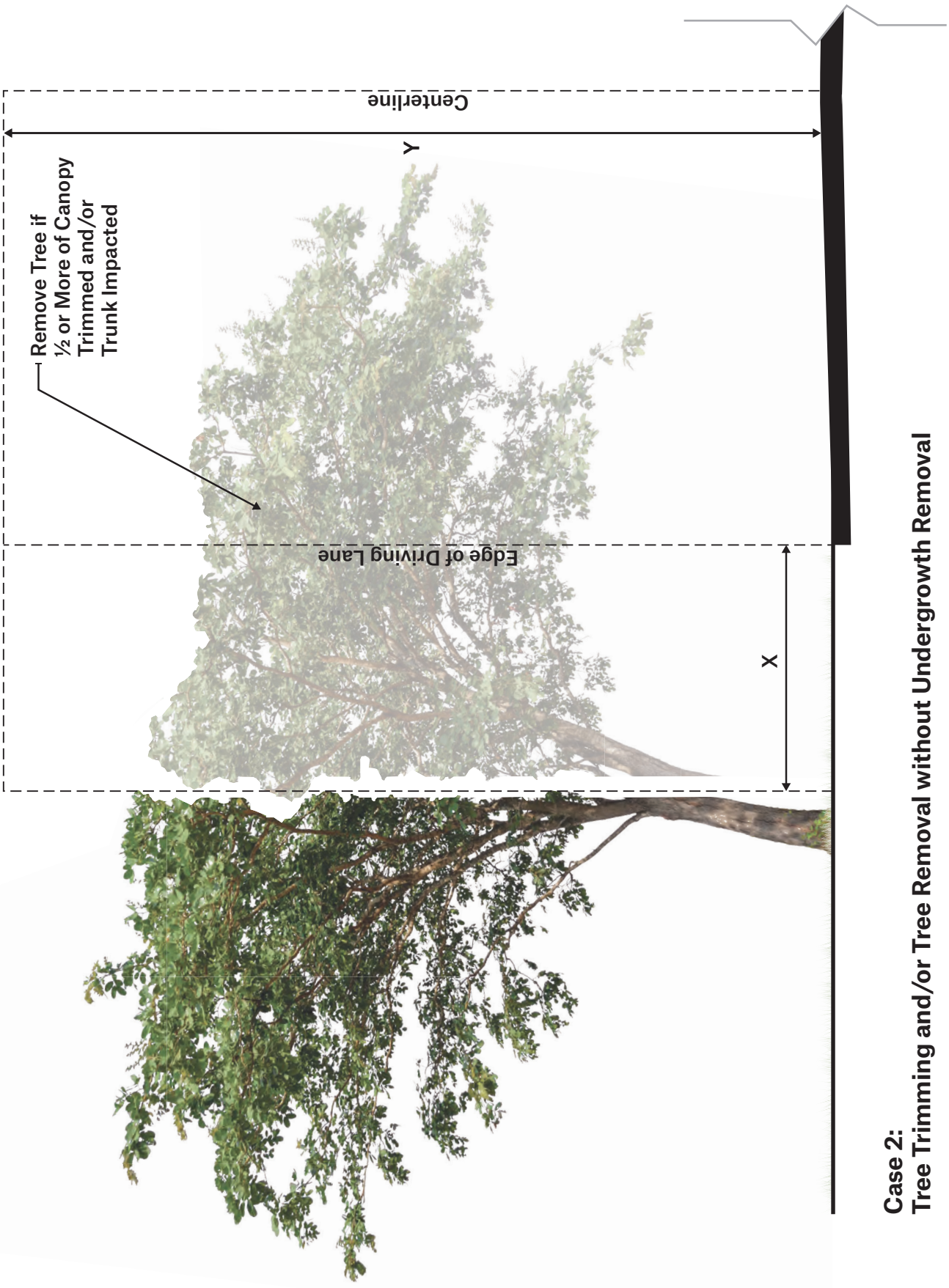
NOTE: EXPRESSWAY/FREEWAY DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL OR FULL CONTROL OF ACCESS

NOT TO SCALE

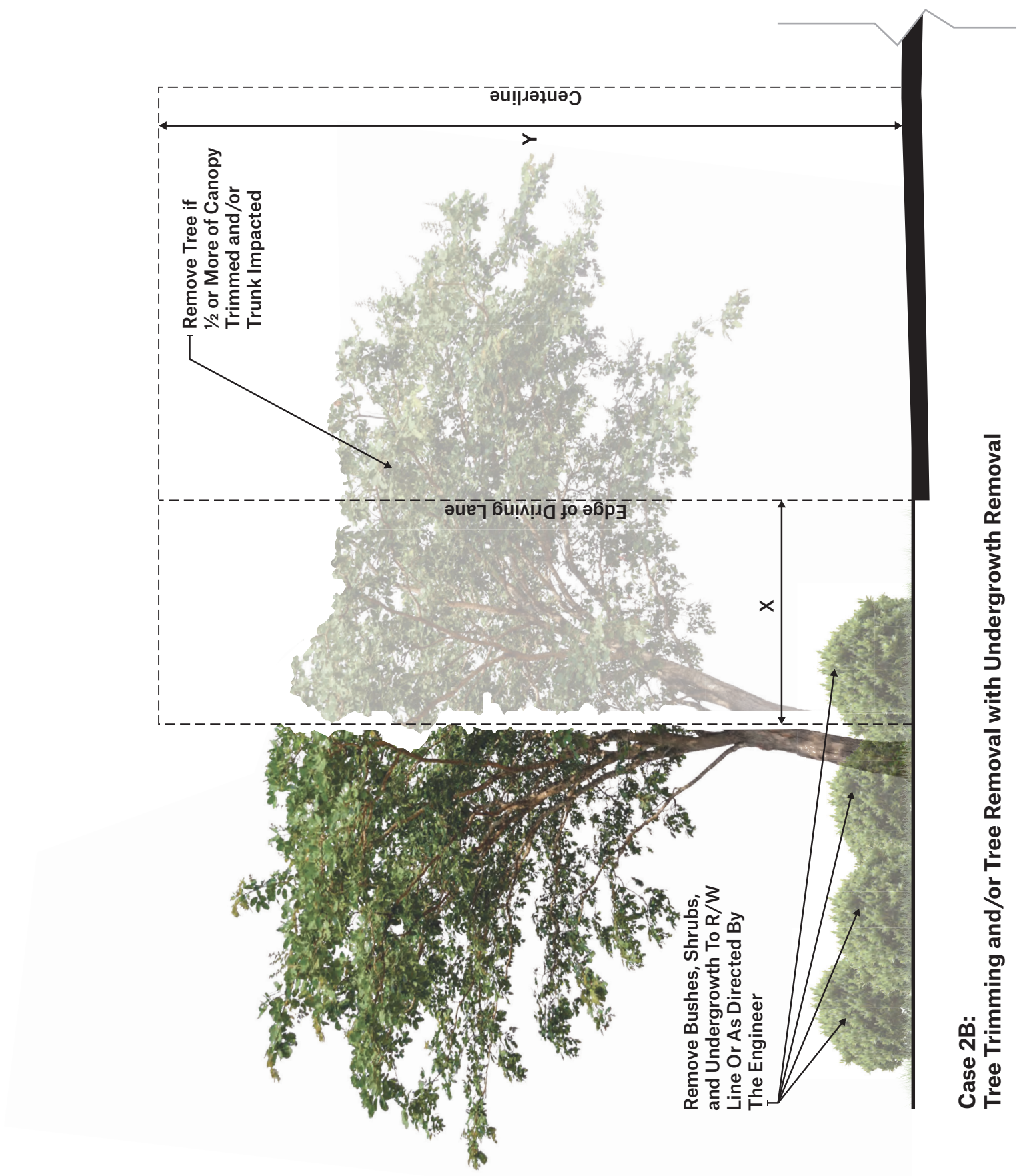
TYPICAL SIGNS

Case 1:
Tree Trimming without Undergrowth Removal

Case 1B:
Tree Trimming with Undergrowth Removal



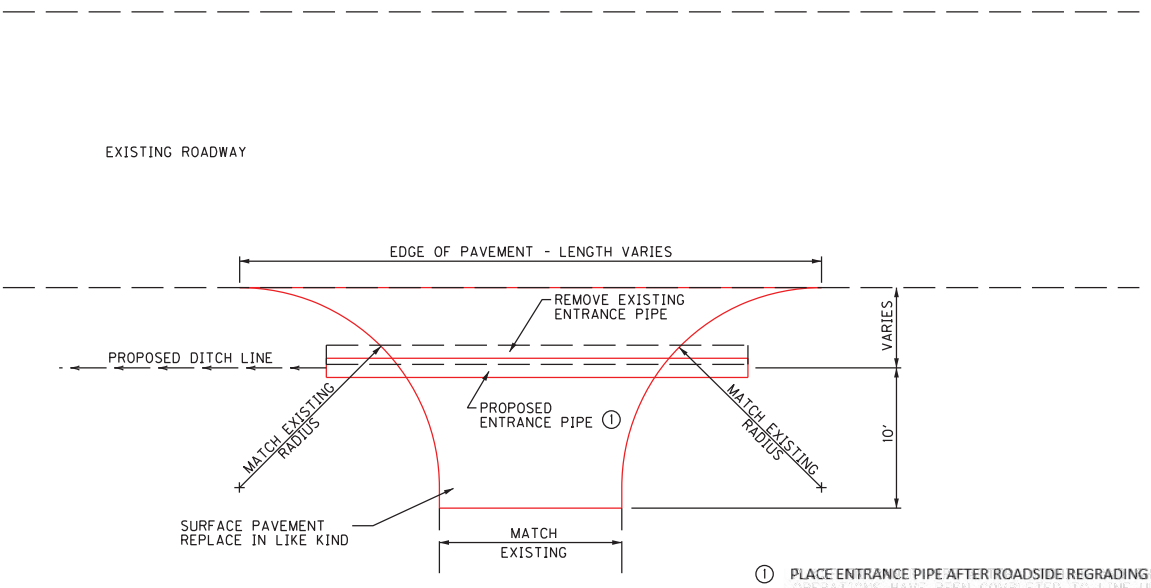
Case 2:
Tree Trimming and/or Tree Removal without Undergrowth Removal



Case 2B:
Tree Trimming and/or Tree Removal with Undergrowth Removal

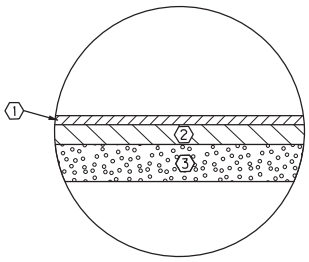
Case 3B:
Undergrowth Removal Only

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



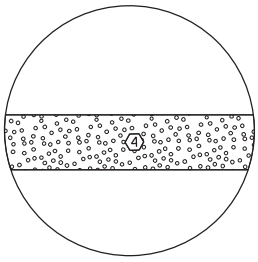
(1) PLACE ENTRANCE PIPE AFTER ROADSIDE REGRADING OPERATIONS HAVE BEEN COMPLETED TO LINE UP WITH NEW DITCH LINE.

ENTRANCE DETAIL



ASPHALT ENTRANCE
NTS

1. 1.50" CL2 ASPH SURFACE 0.38B PG64-22
2. 2.00" CL2 ASPH BASE 1.00D PG64-22
3. 4.00" DGA



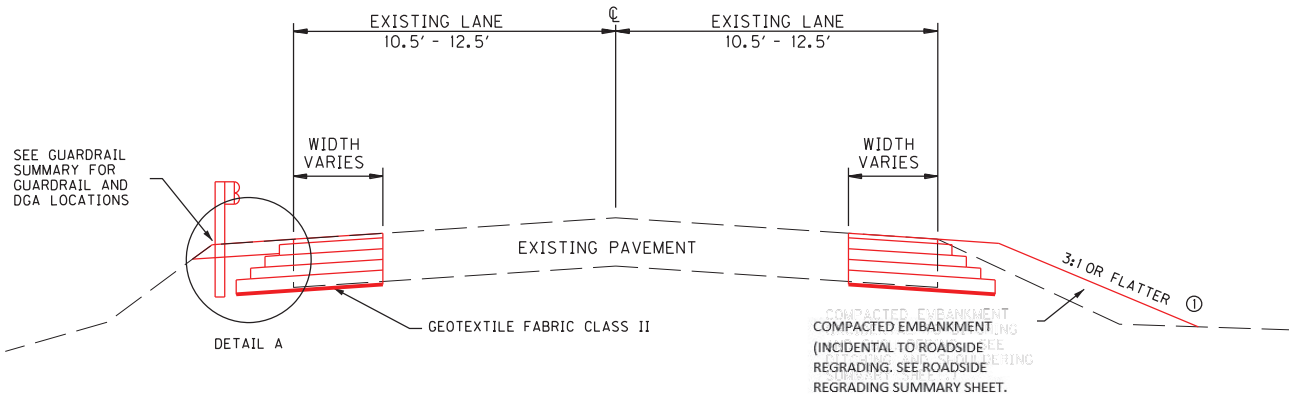
GRAVEL ENTRANCE
NTS

4. 6.00" DGA

NOT TO SCALE

US 68
ENTRANCE DETAIL SHEET

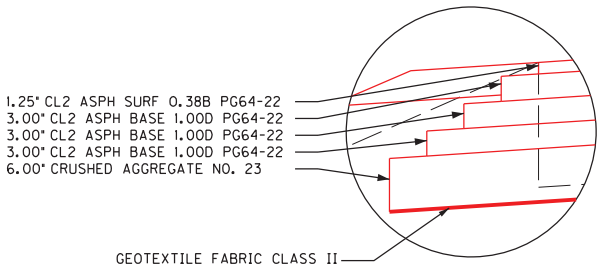
COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



PAVEMENT EDGE REPAIR DETAIL

PAVEMENT EDGE REPAIR

1.25" CL2 ASPH SURF 0.38B PG64-22
3.00" CL2 ASPH BASE 1.00D PG64-22
3.00" CL2 ASPH BASE 1.00D PG64-22
3.00" CL2 ASPH BASE 1.00D PG64-22
6.00" CRUSHED AGGREGATE NO. 23



DETAIL A

① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)

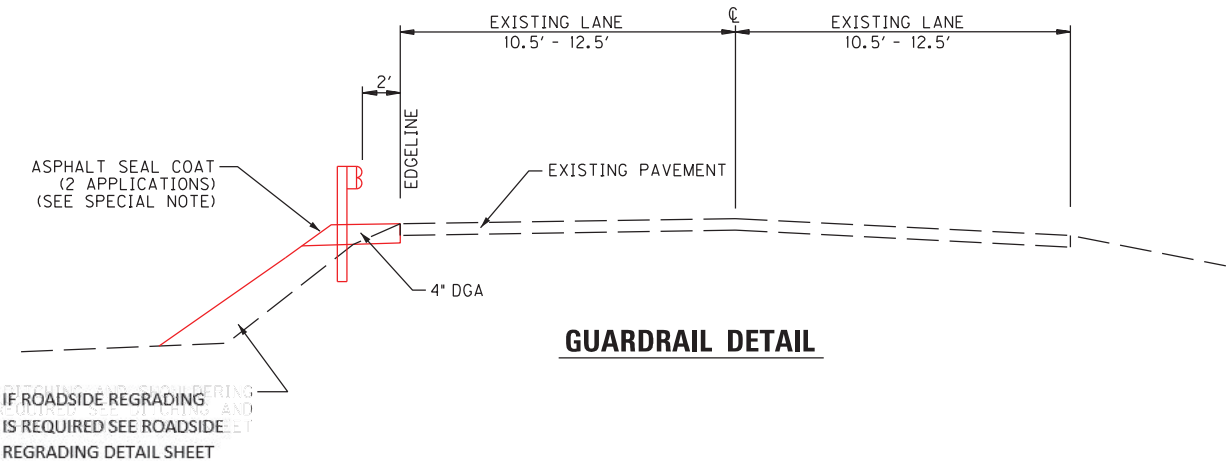
NOTES:

1. CONTRACTOR SHALL PROPERLY BENCH INTO EXISTING SLOPE AND APPLY PROPER COMPACTION.
2. COMPACT MATERIAL ACCORDING TO STANDARD SPECIFICATIONS (SECT. 206).
3. SHOULDER EMBANKMENT MATERIAL SHALL BE SUITABLE FOR VEGETATION GROWTH.
4. SEE SUMMARY SHEETS FOR GUARDRAIL OR CRIBBING LOCATIONS.

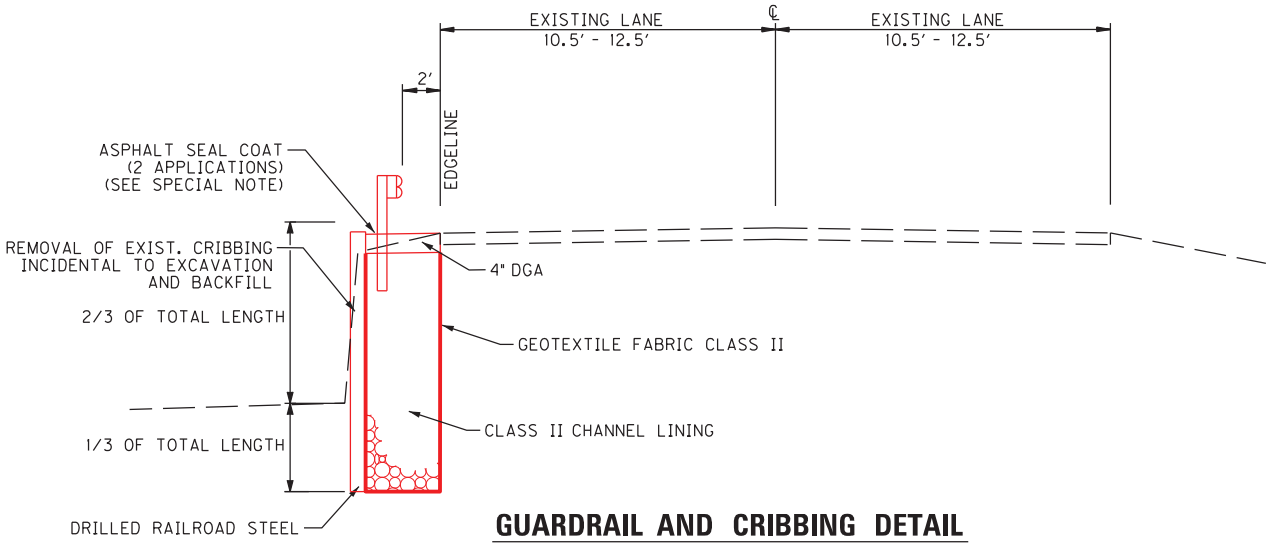
NOT TO SCALE

US 68
PAVEMENT EDGE REPAIR
DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



GUARDRAIL DETAIL



GUARDRAIL AND CRIBBING DETAIL

NOTES:

1. SEE GUARDRAIL SUMMARY FOR GUARDRAIL LOCATIONS.
2. CONSTRUCT ROADSIDE REGRADING, DGA WEDGE, OR CRIBBING (AS APPLICABLE) BEFORE INSTALLING GUARDRAIL. REMOVAL OF EXISTING CRIBBING IS INCIDENTAL TO EXCAVATION & BACKFILL.

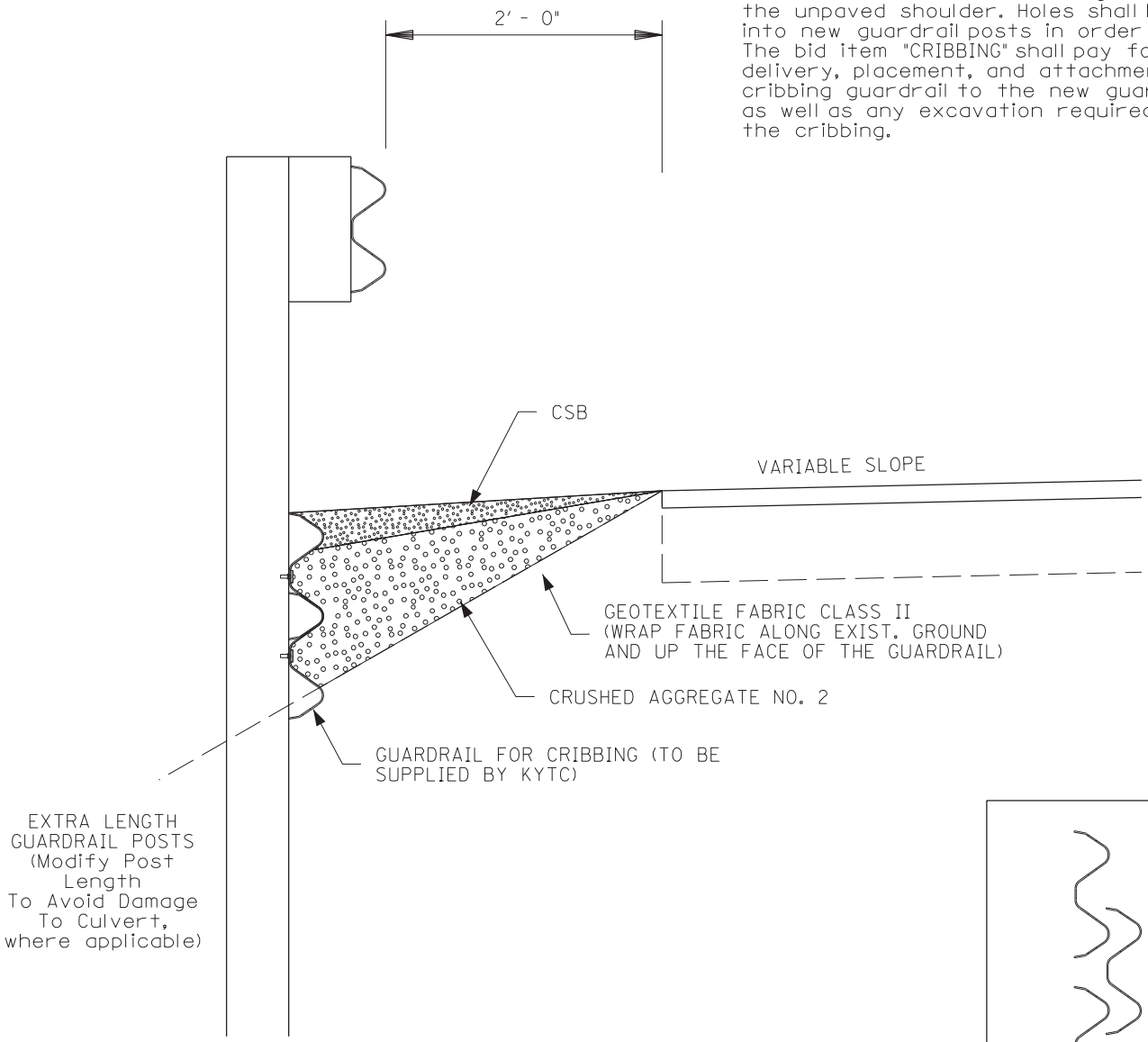
NOT TO SCALE

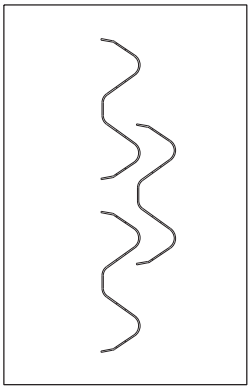
US 68
GUARDRAIL & CRIBBING
DETAIL SHEET

COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00

GUARDRAIL CRIBBING DETAIL

Contractor can utilize the existing guardrail being removed along the project, or may pick up guardrail at the Bailey Bridge lot in Frankfort to use for cribbing to stabilize the unpaved shoulder. Holes shall be drilled into new guardrail posts in order to bolt. The bid item "CRIBBING" shall pay for pick up, delivery, placement, and attachment of the cribbing guardrail to the new guardrail posts as well as any excavation required to place the cribbing.



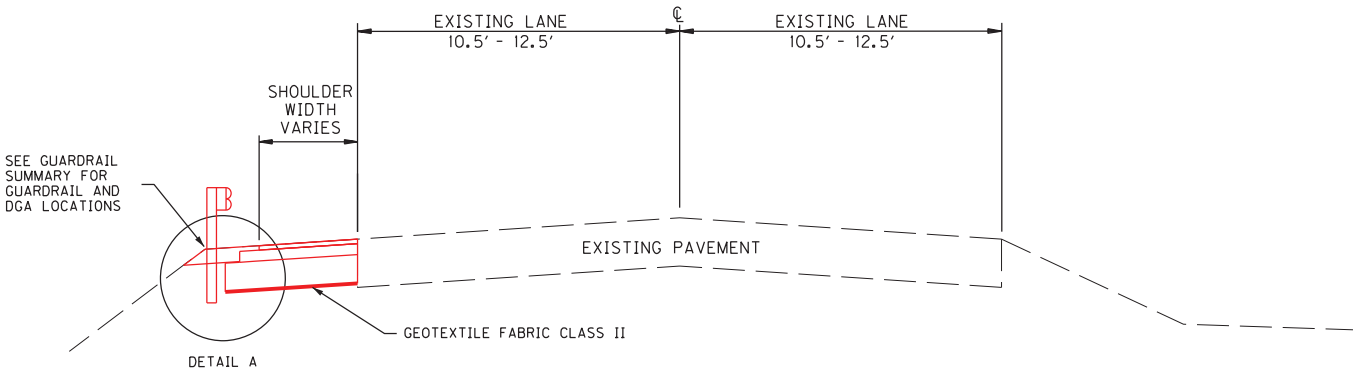


CRIBBING OVERLAP
DETAIL

NOT TO SCALE

US 68
GUARDRAIL CRIBBING
DETAIL SHEET

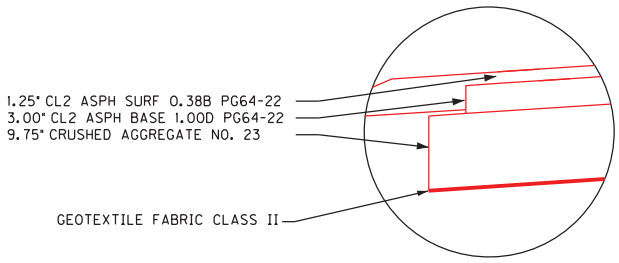
COUNTY OF	ITEM NO.
JESSAMINE	7-9009.00



SHOULDER REPAIR DETAIL

SHOULDER REPAIR

1.25" CL2 ASPH SURF 0.38B PG64-22
3.00" CL2 ASPH BASE 1.00D PG64-22
9.75" CRUSHED AGGREGATE NO. 23



DETAIL A

NOTES:

1. SEE SUMMARY SHEETS FOR GUARDRAIL OR CRIBBING LOCATIONS.

NOT TO SCALE

US 68
SHOULDER REPAIR
DETAIL SHEET

TYPICAL SECTION DEPICTING INSTALLATION OF RECYCLED RAILROAD RAIL PLACED IN DRILLED SOCKET FOR LANDSLIDE CORRECTION

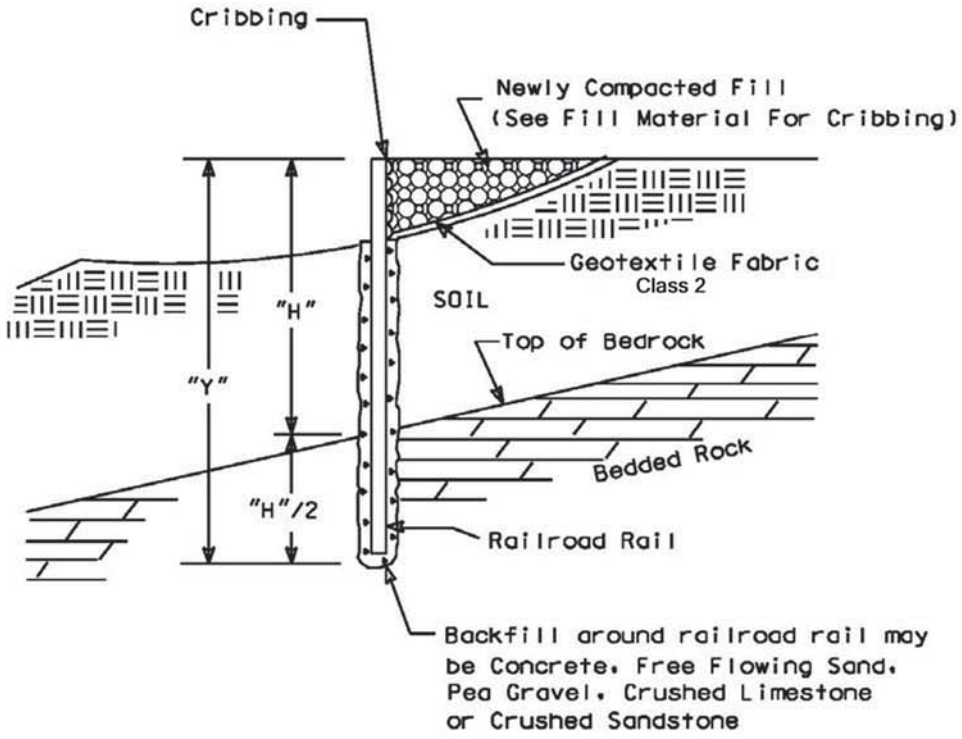
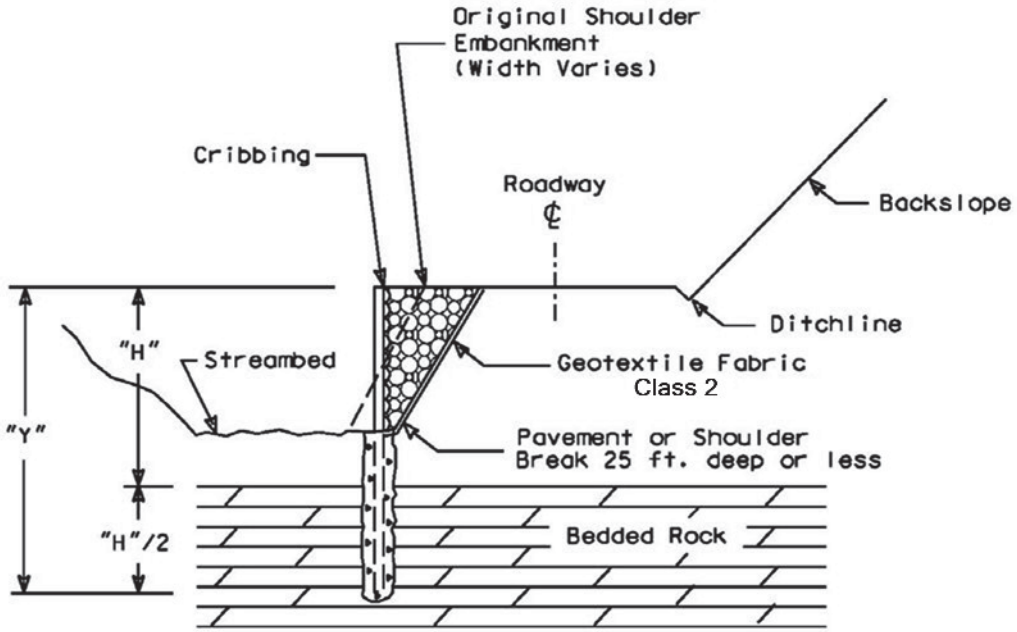


Figure 1

TYPICAL CROSS SECTION OF ROADWAY REPAIRS UTILIZING RECYCLED RAILROAD RAILS IN DRILLED SOCKETS FOR EMBANKMENT EROSION CORRECTION

NOTE:
Spacing from edge to edge of drilled socket : 3 ft. max.



NOTE :
"H"/2 Depth of Rail into bedded rock = 1/3 total length where rock is present.

Figure 2

ALTERNATE SCHEMES FOR INSTALLING RAILROAD RAILS IN DRILLED SOCKETS

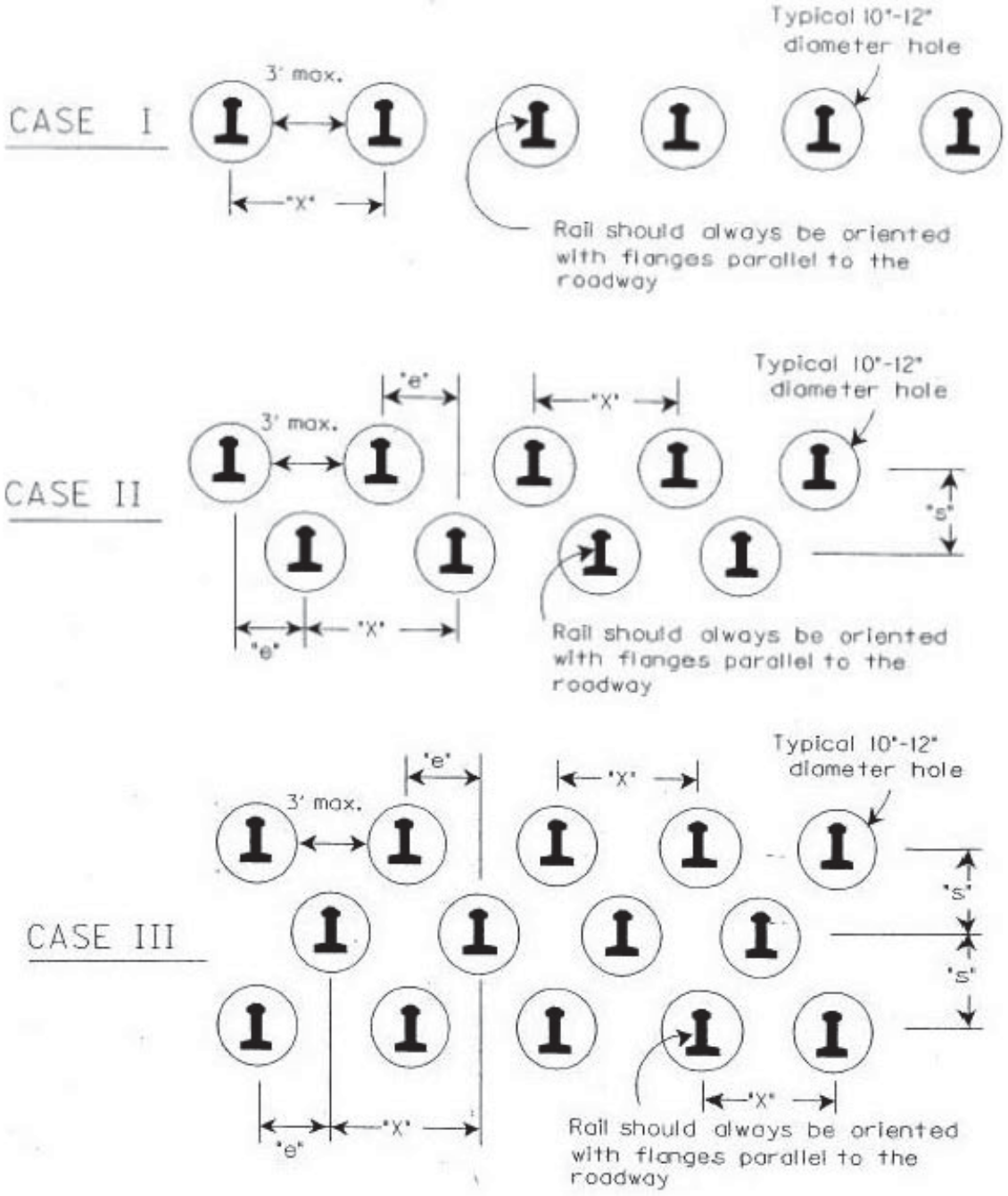


FIGURE 3

DESIGN CHART FOR 130LBS/YD TO 133 LBS/YD RECYCLED (USED) RAILROAD RAILS
FACTOR OF SAFETY = 1

Soil Depth to Bedded Rock "H" (Feet)	Minimum Embedment into Bedded Rock "H/2" (Feet)	Total Length of Installed Railroad Rail "Y" (Feet)	Required Number of Rows	Maximum Spacing Between Rails "X" (Max. 48") (Inches)	Effective Spacing Between Rows of Rails "e'" (Inches)
8	4	12	1	48	N/A
9	4.5	13.5	1	48	N/A
10	5	15	1	48	N/A
11	5.5	16.5	1	48	N/A
12	6	18	1	48	N/A
13	6.5	19.5	1	48	N/A
14	7	21	1	32	N/A
15	7.5	22.5	2	48	24
16	8	24	2	44	22
17	8.5	25.5	2	36	18
18	9	27	2	28	14
19	9.5	28.5	2	24	12
20	10	30	3	33	11
21	10.5	31.5	3	28.5	9.5
>21	N/A	N/A	N/A	N/A	N/A

NOTES: 1. REFER TO FIGURES 1, 2, & 3 FOR DIMENSIONS SHOWN
2. FOR SOIL DEPTHS "H" GREATER THAN 21 FEET CONTACT THE ENGINEER.

TABLE I

IDENTIFICATION OF RAILROAD RAIL SIZES

1. Typically classified in units of lbs-per-yard.

   Examples :

   155 lbs/yd, 140 lbs/yd, 132 lbs/yd, 90 lbs/yd

2. Each rail has a classification stamped in web:

   Example :

   112 25 RE OH ILLINOIS USA 1935 IIIIII

   Weight in lbs/yd

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____ **Contractor: _____**

Section Engineer: _____ **District & County: _____**

DESCRIPTION	UNIT	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

****Required Signatures before Leaving Project Site***

Printed Section Engineer's Representative_____ & Date_____

Signature Section Engineer's Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

****Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)***

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____& Date_____

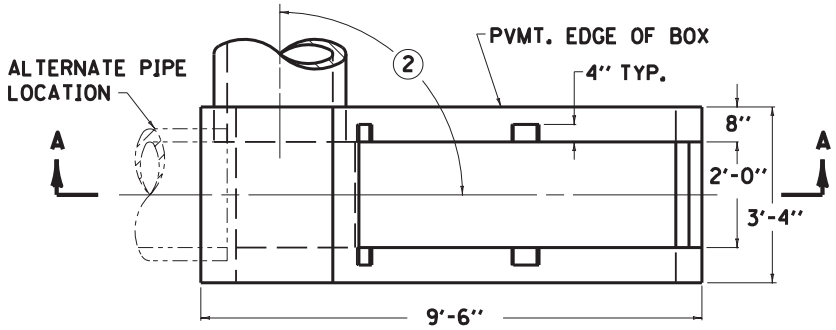
Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

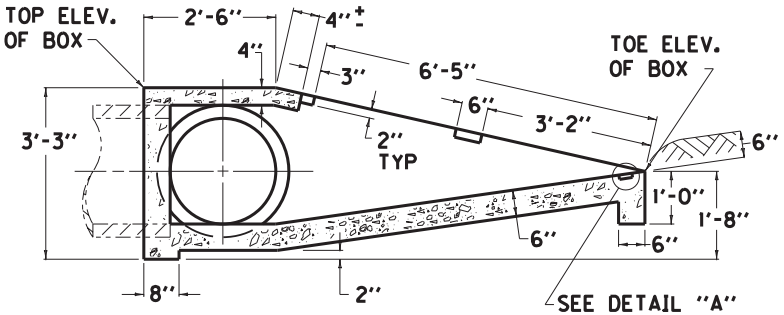
**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

COUNTY OF	ITEM NO.	SHEET NO.



PLAN VIEW



SECTION A-A

NOTES

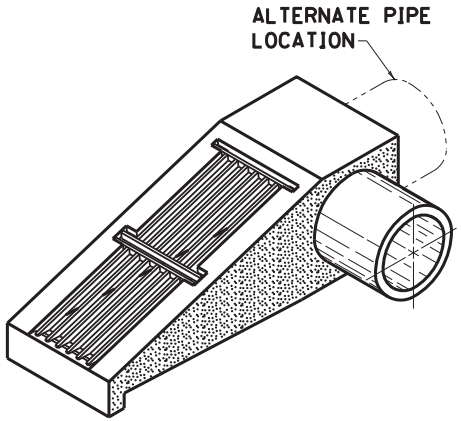
ITEM CODE	BID ITEM	UNIT
1726	SAFETY BOX INLET-18 INCH SDB-1	EACH
1727	SAFETY BOX INLET-24 INCH SDB-1	EACH

THE UNIT BID FOR EACH STRUCTURE SHALL INCLUDE ALL CONCRETE, STRUCTURAL STEEL GRATING, EXCAVATION, LABOR AND INCIDENTALS NECESSARY FOR ITS CONSTRUCTION AS DETAILED ON THIS SHEET.

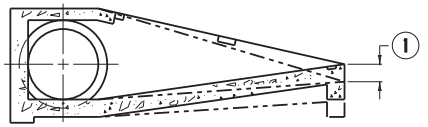
(1) TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.

(2) SKEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.

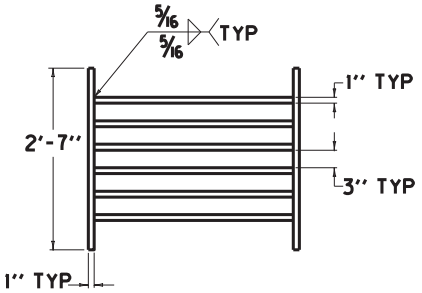
APPROXIMATE QUANTITIES			
CLASS "A" CONC.	GRATE	LBS. STRUCTURAL STEEL	
CUBIC YARDS	NUMBER	EACH GRATE	TOTAL POUNDS
1.44	1	145	298
	2	153	



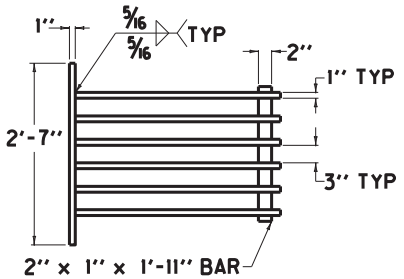
ISOMETRIC VIEW



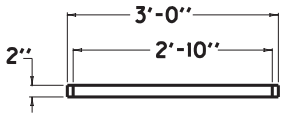
SECTIONAL VIEW



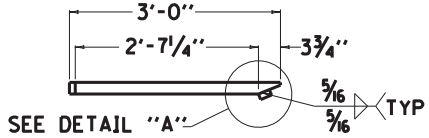
GRATE NO. 1
PLAN VIEW



GRATE NO. 2
PLAN VIEW



GRATE NO. 1
SIDE ELEVATION



GRATE NO. 2
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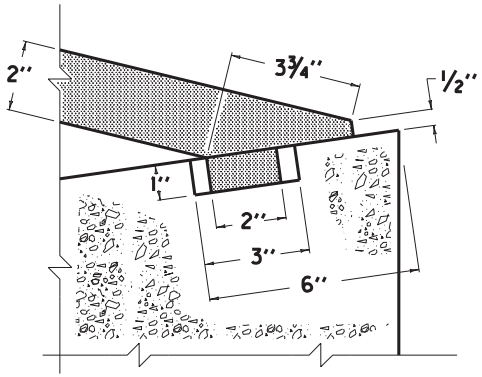


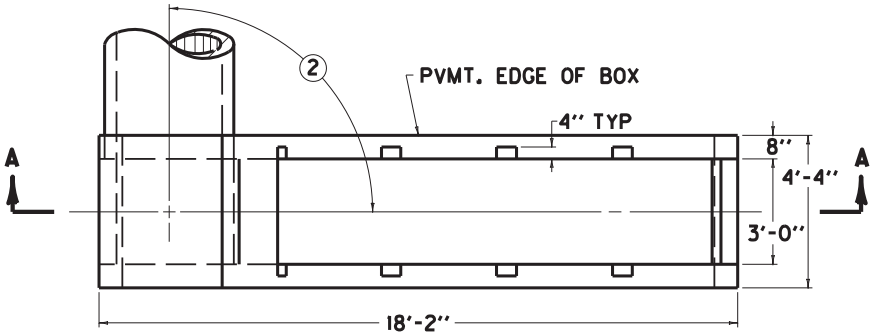
DETAIL "A"

KENTUCKY
DEPARTMENT OF HIGHWAYS

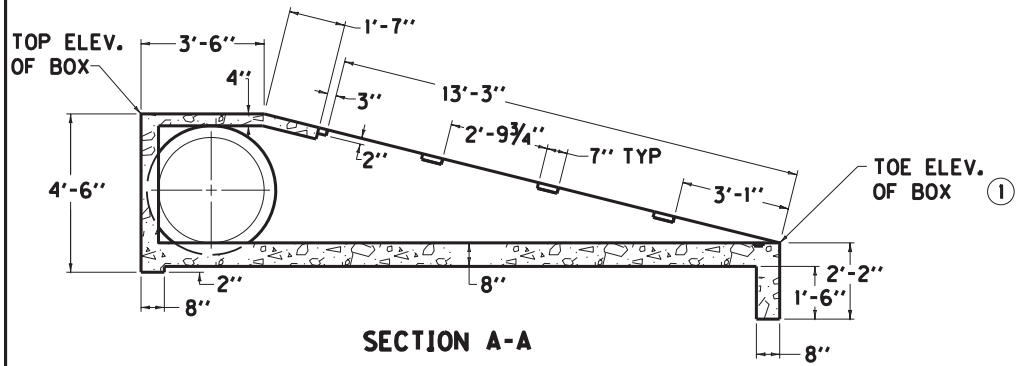
SAFETY TYPE
BOX INLET
(18" OR 24")

APPROVED _____ PROJECT ENGINEER 06-04-2008 DATE

COUNTY OF	ITEM NO.	SHEET NO.



PLAN VIEW



SECTION A-A

NOTES

ITEM CODE	BID ITEM	UNIT
23044NS710	SAFETY BOX INLET-36 INCH SDB-1	EACH

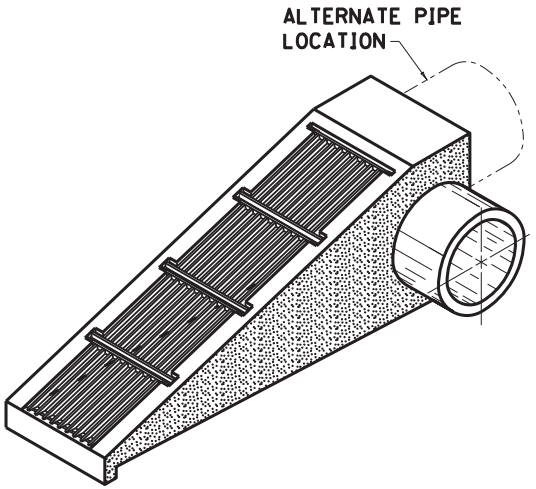
THE UNIT BID FOR EACH STRUCTURE SHALL INCLUDE ALL CONCRETE, STRUCTURAL STEEL GRATING, EXCAVATION, LABOR AND INCIDENTALS NECESSARY FOR ITS CONSTRUCTION AS DETAILED ON THIS SHEET.

(1) TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.

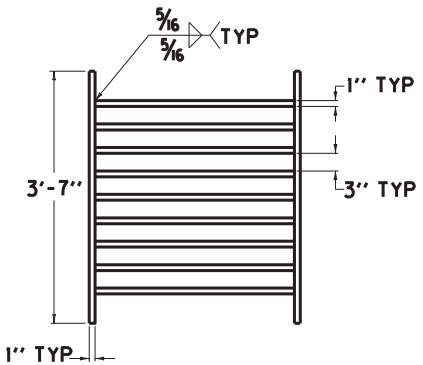
(2) SKEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.

3. ALL QUANTITIES ARE FOR ONE HEADWALL.

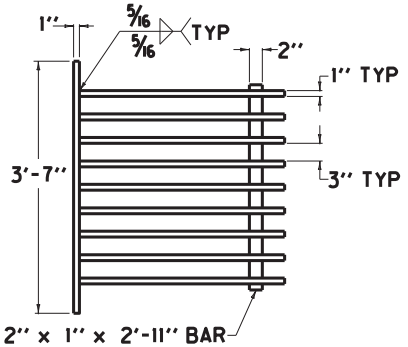
APPROXIMATE QUANTITIES					
CLASS "A" CONC.	GRATE	NO. OF GRATES REQ'D.	LBS.		
			STRUCTURAL STEEL		REINF. STEEL
CUBIC YARDS	NUMBER		EACH GRATE		
4.51	1	3	222	896	261
	2	1	230		



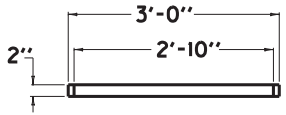
ISOMETRIC VIEW



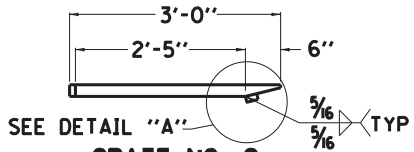
GRATE NO. 1
PLAN VIEW



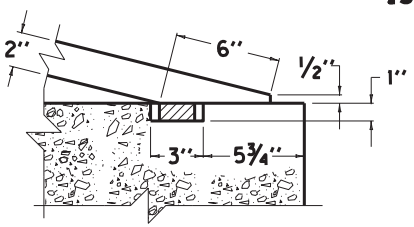
GRATE NO. 2
PLAN VIEW



GRATE NO. 1
SIDE ELEVATION



GRATE NO. 2
SIDE ELEVATION



DETAIL "A"

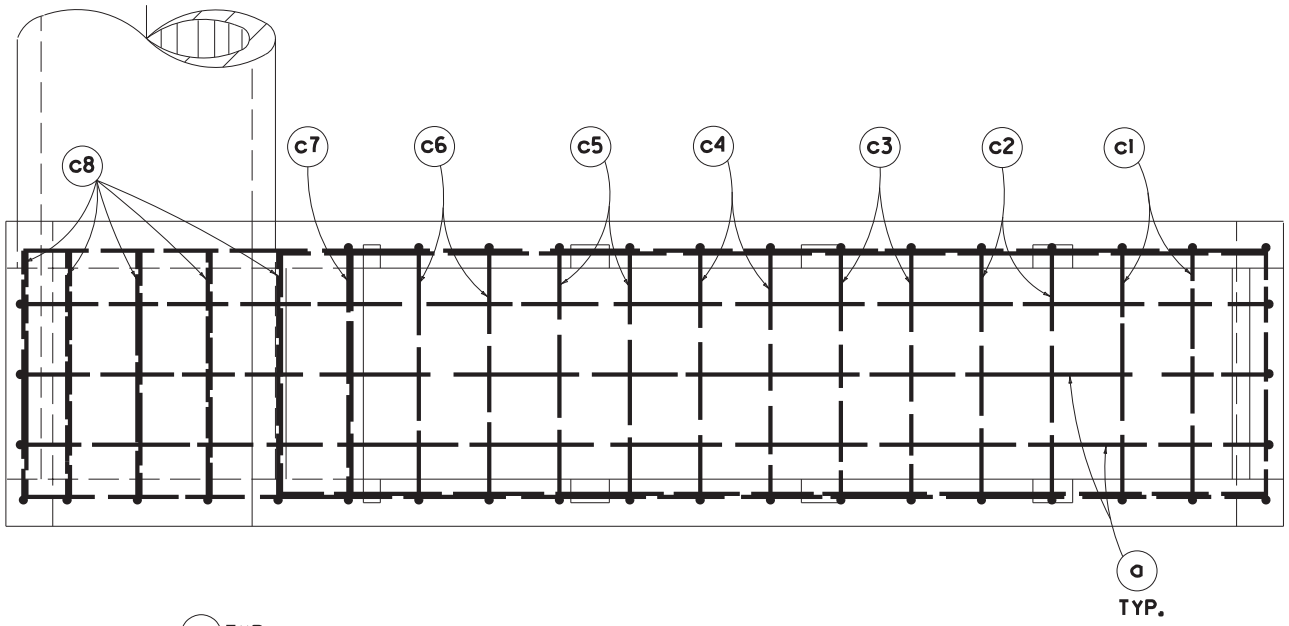
SHEET 1 OF 2

KENTUCKY
DEPARTMENT OF HIGHWAYS

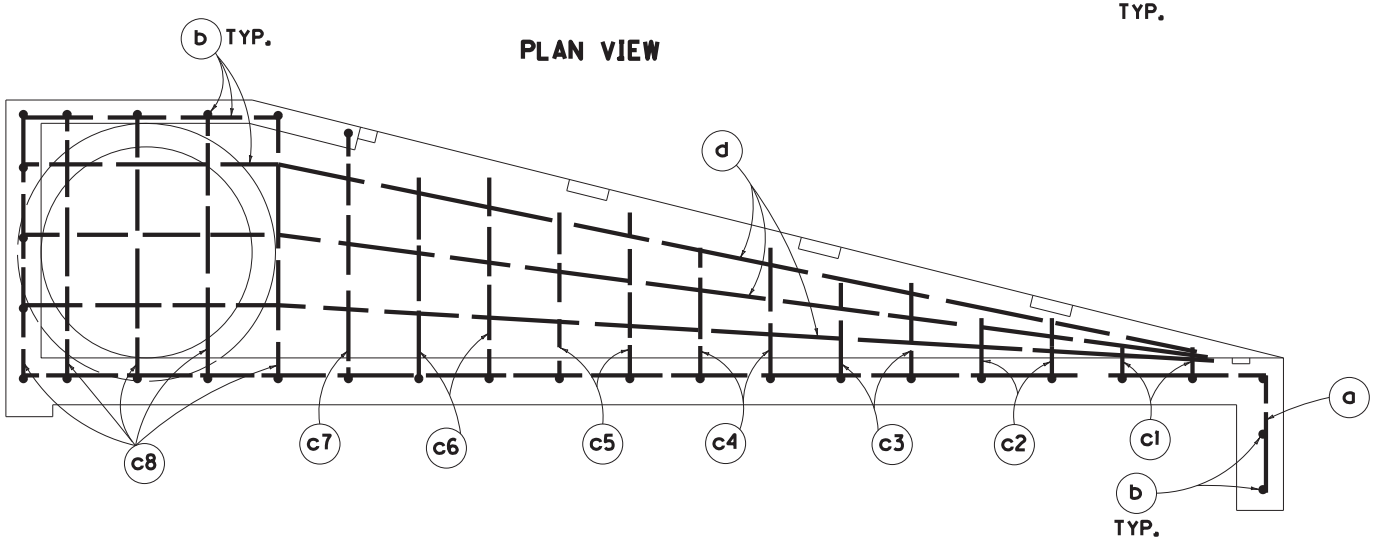
SAFETY TYPE BOX INLET (36")

APPROVED _____ PROJECT ENGINEER 06-04-2008 DATE

COUNTY OF	ITEM NO.	SHEET NO.



PLAN VIEW



ELEVATION VIEW

NOTES

1. NUMBER OF BARS IN ONE HEADWALL.
2. DIMENSIONS ARE O. TO O. OF BARS.
3. ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.

BENT BAR SHAPES

K=3'-6"

BARS (c)

K=1'-8"

BARS (a)

MARK	SIZE	NO (1)	LGTH FT	LGTH IN	K FT	K IN
36"						
a	4	5	19	6	1	8
b	4	16	3	6		
c1	4	2	5	0	3	6
c2	4	2	5	10	3	6
c3	4	2	6	10	3	6
c4	4	2	7	10	3	6
c5	4	2	8	10	3	6
c6	4	2	9	10	3	6
c7	4	1	11	0	3	6
c8	4	5	11	6	3	6
d	4	6	13	4		

SHEET 2 OF 2

KENTUCKY
DEPARTMENT OF HIGHWAYS

BILL OF REINFORCEMENT SAFETY TYPE BOX INLET (36")

APPROVED _____ PROJECT ENGINEER 06-04-2008 DATE

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020.*

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:

http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx

SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

1.0 DESCRIPTION. Install barcode label on sheeting signs. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

2.0 MATERIALS. The Department will provide the Contractor with a 2 inch x 1 inch foil barcode label for each permanent sheeting sign. A unique number will be assigned to each barcode label.

The Contractor shall contact the Operations and Pavement Management Branch in the Division of Maintenance at (502) 564-4556 to obtain the barcode labels.

3.0 CONSTRUCTION. Apply foil barcode label in the lower right quadrant of the sign back. Signs where the bottom edge is not parallel to the ground, the lowest corner of the sign shall serve as the location to place the barcode label. The barcode label shall be placed no less than one-inch and no more than three inches from any edge of the sign. The barcode must be placed so that the sign post does not cover the barcode label.

Barcodes shall be applied in an indoor setting with a minimum air temperature of 50°F or higher. Prior to application of the barcode label, the back of the sign must be clean and free of dust, oil, etc. If the sign is not clean, an alcohol swab shall be used to clean the area. The area must be allowed to dry prior to placement of the barcode label.

Data for each sign shall include the barcode number, MUTCD reference number, sheeting manufacturer, sheeting type, manufacture date, color of primary reflective surface, installation date, latitude and longitude using the North American Datum of 1983 (NAD83) or the State Plane Coordinates using an x and y ordinate of the installed location.

Data should be provided electronically on the TC 71-229 Sign Details Information and TC 71-230 Sign Assembly Information forms. The Contractor may choose to present the data in a different format provided that the information submitted to the Department is equivalent to the information required on the Department TC forms. The forms must be submitted in electronic format regardless of which type of form is used. The Department will not accept PDF or handwritten forms. These completed forms must be submitted to the Department prior to final inspection of the signs. The Department will not issue formal acceptance for the project until the TC 71-229 and TC-230 electronic forms are completed for all signs and sign assemblies on the project.

4.0 MEASUREMENT. The Department will measure all work required for the installation of the barcode label and all work associated with completion and submission of the sign inventory data (TC 71-229 and TC 71-230).

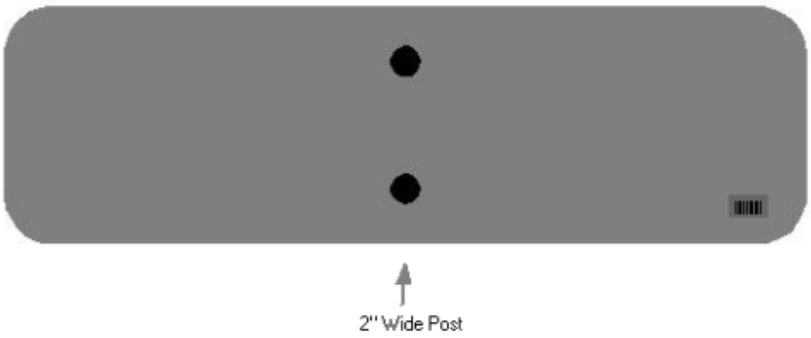
The installation of the permanent sign will be measured in accordance to Section 715.

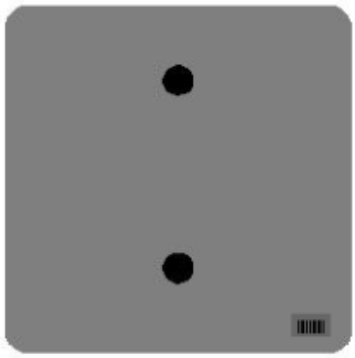
5.0 PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
24631EC	Barcode Sign Inventory	Each

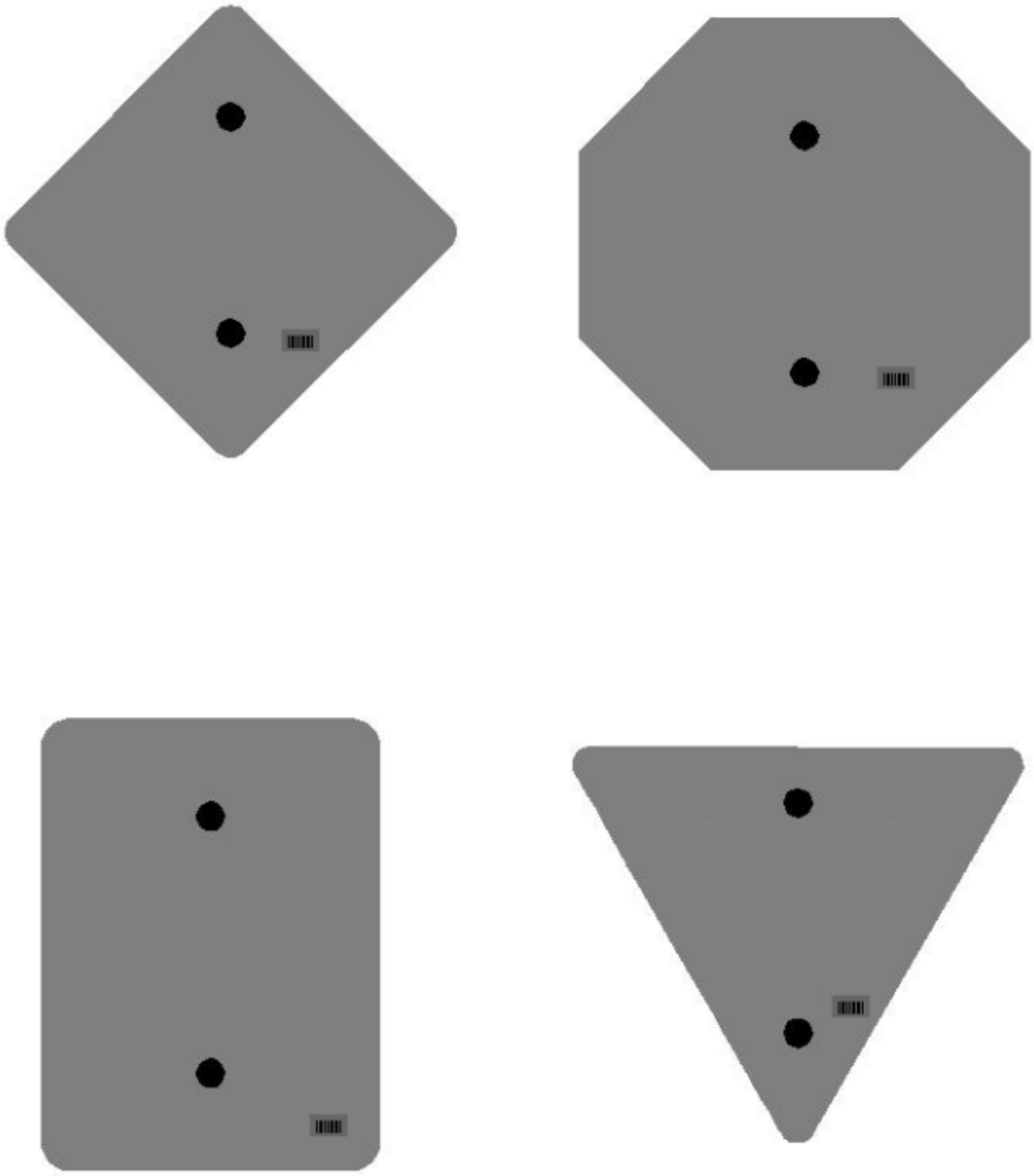
The Department will not make payment for this item until all barcodes are installed and sign inventory is complete on every permanent sign installed on the project. The Department will make payment for installation of the permanent sign in accordance to Section 715. The Department will consider payment as full compensation for all work required under this special note.

One Sign Post

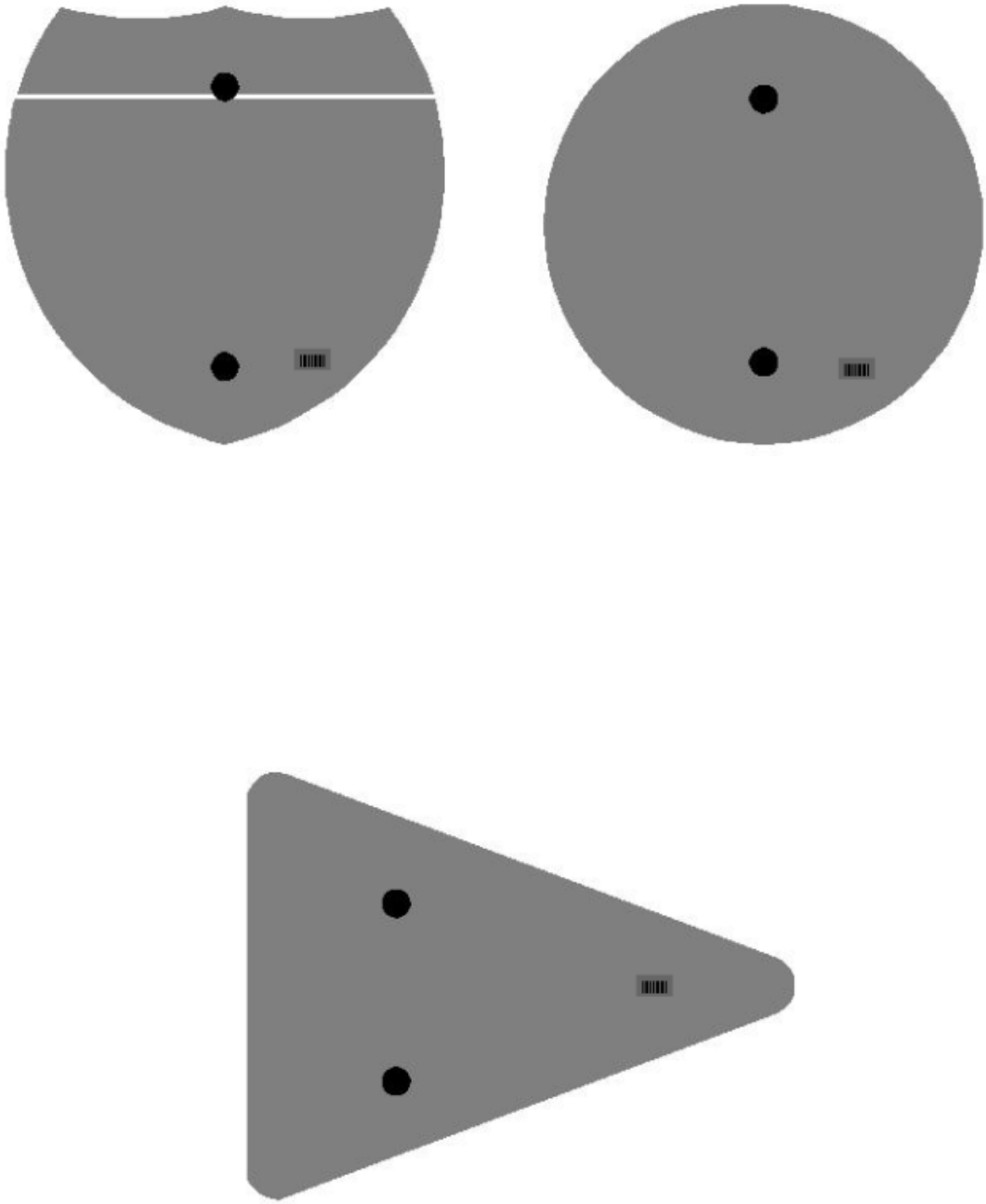




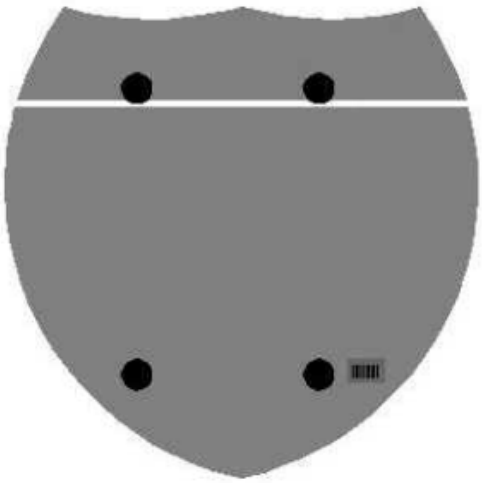
One Sign Post



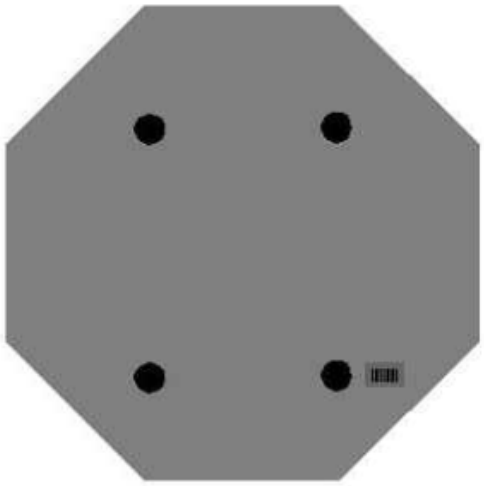
One Sign Post



Double Sign Post

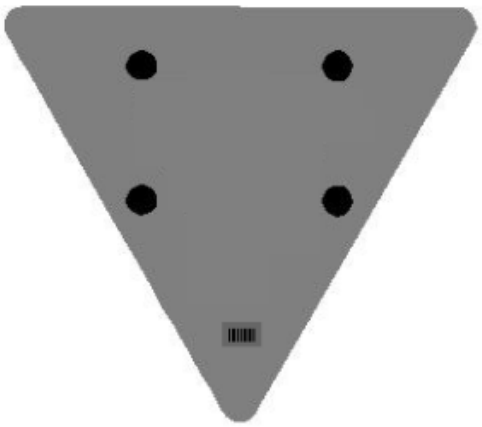


Interstate
Shield



48" Stop

2 Post Signs



2020 STANDARD DRAWINGS THAT APPLY

ROADWAY

~ *BARRIERS* ~

GUARDRAIL CONNECTORS TO BRIDGE ENDS

GUARDRAIL CONNECTOR TO BRIDGE END TYPE D RBC-004-08
GUARDRAIL CONNECTOR TO BRIDGE END TYPE D NOTES RBC-004N

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONS RBI-001-12
TYPICAL GUARDRAIL INSTALLATIONS RBI-002-07
TYPICAL INSTALLATION FOR GUARDRAIL END TREATMENT TYPE 2A RBI-003-09
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1 ..... RBI-004-06

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL (W-BEAM) RBR-001-13
GUARDRAIL COMPONENTS RBR-005-11
GUARDRAIL TERMINAL SECTIONS RBR-010-06
STEEL GUARDRAIL POSTS RBR-015-06
TIMBER GUARDRAIL POSTS RBR-016-05
GUARDRAIL END TREATMENT TYPE 1 ..... RBR-020-07
GUARDRAIL END TREATMENT TYPE 2A RBR-025-06
GUARDRAIL END TREATMENT TYPE 4A RBR-035-12
GUARDRAIL END TREATMENT TYPE 7 ..... RBR-050-08
GUARDRAIL END TREATMENT TYPE 7 ALTERNATE ANCHOR RBR-051-01
DELINEATORS FOR GUARDRAIL RBR-055-01
DELINEATORS AT NARROW SHOULDER BRIDGES RBR-060

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

CHANNEL LINING CLASS II AND III RDD-040-05

PIPE AND BOX CULVERT HEADWALLS

CONCRETE HEADWALLS FOR 12” - 27” CIRCULAR PIPE CULVERTS RDH-005-02
PIPE CULVERT HEADWALLS, 0° SKEW (LAYOUT AND STEEL PATTERN) RDH-110-02

TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12” – 24” PIPE) RDI-001-10
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER PIPE RDI-020-10
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER, REINFORCED CONC. PIPE RDI-021-01
EROSION CONTROL BLANKET SLOPE INSTALLATION RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION RDI-041-01

MISCELLANEOUS DRAINAGE

SECURITY DEVICES FOR FRAMES, GRATES AND LIDS RDX-160-06
TEMPORARY SILT FENCE RDX-210-03
SILT TRAP - TYPE A RDX-220-05
SILT TRAP - TYPE B RDX-225-01

Standard Drawings That Apply
Page 2 of 2

SILT TRAP - TYPE C RDX-230-01

~ GENERAL ~

CURVE WIDENING AND SUPERELEVATION

CURVE WIDENING AND SUPERELEVATION TRANSITIONS RGS-001-07
SUPERELEVATION FOR MULTILANE PAVEMENTS RGS-002-06

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS RGX-001-06
GABION RETAINING WALLS RGX-050-02

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT RPM-110-07

TRAFFIC

~ PERMANENT ~

MARKERS

PAVEMENT STRIPING DETAILS FOR TWO LANE TWO WAY ROADWAYS TPM-175

RUMBLE STRIPS

SHOULDER & EDGELINE RUMBLE STRIPS PLACEMENT DETAILS TPR-115
EDGELINE RUMBLE STRIP DETAILS TWO LANE ROADWAYS TPR-120

~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY TTC-100-05
LANE CLOSURE MULTI-LANE HIGHWAY CASE I TTC-115-04
LANE CLOSURE MULTI-LANE HIGHWAY CASE II TTC-120-04
SHOULDER CLOSURE TTC-135-03

DEVICES

DOUBLE FINES ZONE SIGNS TTD-120-03
PAVEMENT CONDITION WARNING SIGNS TTD-125-03
SPEED ZONE SIGNING FOR WORK ZONES TTD-130

STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE II TTS-105-02

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

LABOR AND WAGE REQUIREMENTS
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY
GENERAL ASSEMBLY TO PREVENT
DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address: **https://www.eProcurement.ky.gov**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

EMPLOYEE RIGHTS
UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE
$7.25 PER HOUR
BEGINNING JULY 24, 2009

OVERTIME PAY

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than
- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT

Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

WWW.WAGEHOUR.DOL.GOV

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

234404

PROPOSAL BID ITEMS

Report Date 12/27/22

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	638.00	TON		$	
0020	00003		CRUSHED STONE BASE	69.00	TON		$	
0030	00078		CRUSHED AGGREGATE SIZE NO 2	297.00	TON		$	
0040	00080		CRUSHED AGGREGATE SIZE NO 23	306.00	TON		$	
0050	00100		ASPHALT SEAL AGGREGATE	70.00	TON		$	
0060	00103		ASPHALT SEAL COAT	10.00	TON		$	
0070	00190		LEVELING & WEDGING PG64-22	1,039.00	TON		$	
0080	00212		CL2 ASPH BASE 1.00D PG64-22	440.00	TON		$	
0090	00307		CL2 ASPH SURF 0.38B PG64-22	1,371.00	TON		$	
0100	00356		ASPHALT MATERIAL FOR TACK	4.00	TON		$	
0110	02676		MOBILIZATION FOR MILL & TEXT (JESSAMINE US 68)	1.00	LS		$	
0120	02677		ASPHALT PAVE MILLING & TEXTURING	1,295.00	TON		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0130	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	169.00	EACH		$	
0140	02014		BARRICADE-TYPE III	4.00	EACH		$	
0150	02159		TEMP DITCH	12,690.00	LF		$	
0160	02160		CLEAN TEMP DITCH	6,345.00	LF		$	
0170	02360		GUARDRAIL TERMINAL SECTION NO 1	3.00	EACH		$	
0180	02367		GUARDRAIL END TREATMENT TYPE 1	8.00	EACH		$	
0190	02369		GUARDRAIL END TREATMENT TYPE 2A	2.00	EACH		$	
0200	02371		GUARDRAIL END TREATMENT TYPE 7	1.00	EACH		$	
0210	02378		GUARDRAIL CONNECTOR TO BRIDGE END TY D	1.00	EACH		$	
0220	02381		REMOVE GUARDRAIL	8,388.00	LF		$	
0230	02391		GUARDRAIL END TREATMENT TYPE 4A	2.00	EACH		$	
0240	02399		EXTRA LENGTH GUARDRAIL POST	99.00	EACH		$	
0250	02483		CHANNEL LINING CLASS II	2,567.00	TON		$	
0260	02562		TEMPORARY SIGNS	800.00	SQFT		$	
0270	02603		FABRIC-GEOTEXTILE CLASS 2	1,809.00	SQYD		$	
0280	02610		RETAINING WALL-GABION	27.00	CUYD		$	
0290	02650		MAINTAIN & CONTROL TRAFFIC (JESSAMINE US 68)	1.00	LS		$	
0300	02671		PORTABLE CHANGEABLE MESSAGE SIGN	2.00	EACH		$	
0310	02697		EDGELINE RUMBLE STRIPS	15,079.00	LF		$	
0320	02701		TEMP SILT FENCE	12,690.00	LF		$	
0330	02703		SILT TRAP TYPE A	25.00	EACH		$	
0340	02704		SILT TRAP TYPE B	25.00	EACH		$	
0350	02705		SILT TRAP TYPE C	25.00	EACH		$	
0360	02706		CLEAN SILT TRAP TYPE A	25.00	EACH		$	
0370	02707		CLEAN SILT TRAP TYPE B	25.00	EACH		$	
0380	02708		CLEAN SILT TRAP TYPE C	25.00	EACH		$	

234404

PROPOSAL BID ITEMS

Report Date 12/27/22

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0390	02726		STAKING (JESSAMINE US 68)	1.00	LS		$	
0400	03234		RAILROAD RAILS-DRILLED	3,856.00	LF		$	
0410	03235		EXCAVATION AND BACKFILL	87.00	CUYD		$	
0420	03236		CRIBBING	5,123.00	SQFT		$	
0430	03269		TRIM & REMOVE TREES & BRUSH	10,710.00	LF		$	
0440	05950		EROSION CONTROL BLANKET	14,100.00	SQYD		$	
0450	05952		TEMP MULCH	78,651.00	SQYD		$	
0460	05953		TEMP SEEDING AND PROTECTION	59,048.00	SQYD		$	
0470	05963		INITIAL FERTILIZER	3.00	TON		$	
0480	05964		MAINTENANCE FERTILIZER	3.00	TON		$	
0490	05985		SEEDING AND PROTECTION	41,954.00	SQYD		$	
0500	05992		AGRICULTURAL LIMESTONE	36.00	TON		$	
0510	06511		PAVE STRIPING-TEMP PAINT-6 IN	9,429.00	LF		$	
0520	06515		PAVE STRIPING-PERM PAINT-6 IN	9,429.00	LF		$	
0530	20191ED		OBJECT MARKER TY 3	10.00	EACH		$	
0540	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	7,919.00	LF		$	
0550	23229EC		HIGH FRICTION SURFACE TREATMENT	1,088.00	SQYD		$	
0560	23312EC		ROCK REMOVAL	2,191.00	CUYD		$	
0570	26175EC		ROADSIDE REGRADING	27,055.00	LF		$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0580	00440		ENTRANCE PIPE-15 IN	50.00	LF		$	
0590	00441		ENTRANCE PIPE-18 IN	30.00	LF		$	
0600	00462		CULVERT PIPE-18 IN	459.00	LF		$	
0610	00464		CULVERT PIPE-24 IN	27.00	LF		$	
0620	01204		PIPE CULVERT HEADWALL-18 IN	2.00	EACH		$	
0630	01208		PIPE CULVERT HEADWALL-24 IN	2.00	EACH		$	
0640	01310		REMOVE PIPE	136.00	LF		$	
0650	01726		SAFETY BOX INLET-18 IN SDB-1	11.00	EACH		$	
0660	02625		REMOVE HEADWALL	13.00	EACH		$	
0670	08100		CONCRETE-CLASS A (FOR PIPE END ANCHORS)	2.00	CUYD		$	
0680	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE FOR 15 INCH PIPE)	2.00	EACH		$	
0690	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE FOR 24 INCH PIPE)	2.00	EACH		$	
0700	24575ES610		HEADWALL (SLOPED & MITERED CONRETE FOR 18 INCH PIPE)	7.00	EACH		$	

Section: 0004 - SIGNING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0710	02565		OBJECT MARKER TYPE 2	16.00	EACH		$	

PROPOSAL BID ITEMS

234404

Report Date 12/27/22

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0720	06406		SBM ALUM SHEET SIGNS .080 IN	62.00	SQFT		$	
0730	06407		SBM ALUM SHEET SIGNS .125 IN	17.00	SQFT		$	
0740	06410		STEEL POST TYPE 1	174.00	LF		$	
0750	06490		CLASS A CONCRETE FOR SIGNS	1.25	CUYD		$	
0760	21134ND		REMOVE-STORE AND REINSTALL SIGN	30.00	EACH		$	
0770	21373ND		REMOVE SIGN	12.00	EACH		$	
0780	21596ND		GMSS TYPE D	5.00	EACH		$	
0790	24631EC		BARCODE SIGN INVENTORY	40.00	EACH		$	

Section: 0005 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0800	02568		MOBILIZATION	1.00	LS		$	
0810	02569		DEMOBILIZATION	1.00	LS		$	