



CALL NO. 109

CONTRACT ID. 224413

MONTGOMERY COUNTY

FED/STATE PROJECT NUMBER HSIP 7912(001)

DESCRIPTION INDIAN MOUND DRIVE (KY 686)

WORK TYPE GRADE & DRAIN WITH ASPHALT SURFACE

PRIMARY COMPLETION DATE 10/31/2022

LETTING DATE: February 24,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN STANDARD TIME February 24,2022. Bids will be publicly announced at 10:00 am EASTERN STANDARD TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 12%

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 - 224413

HSIP 7912(001)

COUNTY - MONTGOMERY

PCN - 0708706862201

HSIP 7912(001)

INDIAN MOUND DRIVE (KY 686) (MP 4.700) CONSTRUCT A ROUNDABOUT AT THE INTERSECTION OF KY 686 & KY 713 (MP 5.000), A DISTANCE OF 0.40 MILES.GRADE & DRAIN WITH ASPHALT SURFACE SYP NO. 07-00961.00.
GEOGRAPHIC COORDINATES LATITUDE 38:03:16.49 LONGITUDE 83:55:00.41

COMPLETION DATE(S):

COMPLETED BY 10/31/2022

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.

April 30, 2018

FEDERAL CONTRACT NOTES

The Kentucky Department of Highways, in accordance with the Regulations of the United States Department of Transportation 23 CFR 635.112 (h), hereby notifies all bidders that failure by a bidder to comply with all applicable sections of the current Kentucky Standard Specifications, including, but not limited to the following, may result in a bid not being considered responsive and thus not eligible to be considered for award:

- | | |
|--------------------------------|--|
| 102.02 Current Rating | 102.08 Preparation and Delivery of Proposals |
| 102.13 Irregular Bid Proposals | 102.14 Disqualification of Bidders |
| 102.09 Proposal Guaranty | |

CIVIL RIGHTS ACT OF 1964

The Kentucky Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Federal Department of Transportation (49 C.F.R., Part 21), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin.

NOTICE TO ALL BIDDERS

To report bid rigging activities call: 1-800-424-9071.

The U.S. Department of Transportation (DOT) operates the above toll-free “hotline” Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

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

SECOND TIER SUBCONTRACTS

Second tier subcontracts are acceptable per Section 108.01 of the Standard Specifications for Road and Bridge Construction. There are special rules to DBE subcontractors satisfying DBE goals on federal-aid projects. 1st-Tier DBE Subcontractors may only enter into a 2nd-Tier subcontract with another DBE contractor.

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

It is the policy of the Kentucky Transportation Cabinet (“the Cabinet”) that Disadvantaged Business Enterprises (“DBE”) shall have the opportunity to participate in the performance of highway construction projects financed in whole or in part by Federal Funds in order to create a level playing field for all businesses who wish to contract with the Cabinet. To that end, the Cabinet will comply with the regulations found in 49 CFR Part 26, and the definitions and requirements contained therein shall be adopted as if set out verbatim herein.

The Cabinet, contractors, subcontractors, and sub-recipients shall not discriminate on the basis of race, color, national origin, or sex in the performance of work performed pursuant to Cabinet contracts. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted highway construction projects. The contractor will include this provision in all its subcontracts and supply agreements pertaining to contracts with the Cabinet.

Failure by the contractor to carry out these requirements is a material breach of its contract with the Cabinet, which may result in the termination of the contract or such other remedy as the Cabinet deems necessary.

DBE GOAL

The Disadvantaged Business Enterprise (DBE) goal established for this contract, as listed on the front page of the proposal, is the percentage of the total value of the contract.

The contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in a least the percent of the contract as set forth above as goals for this contract.

OBLIGATION OF CONTRACTORS

Each contractor prequalified to perform work on Cabinet projects shall designate and make known to the Cabinet a liaison officer who is assigned the responsibility of effectively administering and promoting an active program for utilization of DBEs.

If a formal goal has not been designated for the contract, all contractors are encouraged to consider DBEs for subcontract work as well as for the supply of material and services needed to perform this work.

Contractors are encouraged to use the services of banks owned and controlled by minorities and women.

CERTIFICATION OF CONTRACT GOAL

Contractors shall include the following certification in bids for projects for which a DBE goal has been established. BIDS SUBMITTED WHICH DO NOT INCLUDE CERTIFICATION OF DBE PARTICIPATION WILL NOT BE ACCEPTED. These bids will not be considered for award by the Cabinet and they will be returned to the bidder.

“The bidder certifies that it has secured participation by Disadvantaged Business Enterprises (“DBE”) in the amount of _____ percent of the total value of this contract and that the DBE participation is in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet pertaining to the DBE Program.”

The certification statement is located in the electronic bid file. All contractors must certify their DBE participation on that page. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted.

DBE PARTICIPATION PLAN

Lowest responsive bidders must submit the *DBE Plan/ Subcontractor Request*, form TC 14-35 DBE, within **5** days of the letting. This is necessary before the Awards Committee will review and make a recommendation. **The project will not be considered for award prior to submission and approval of the apparent low bidder’s DBE Plan/Subcontractor Request.**

The DBE Participation Plan shall include the following:

1. Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2. Description of the work each is to perform including the work item, unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Proposal Line Number, Category Number, and the Project Line Number can be found in the “material listing” on the Construction Procurement website under the specific letting;
3. The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows:
 - a. If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:
 - The entire expenditure paid to a DBE manufacturer;
 - 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
 - The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.

- b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
 - c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
 5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, along with the DBE's certificate of insurance. If the DBE is a supplier of materials for the project, a signed purchase order must be submitted to the Division of Construction Procurement.

Changes to DBE Participation Plans must be approved by the Cabinet. The Cabinet may consider extenuating circumstances including, but not limited to, changes in the nature or scope of the project, the inability or unwillingness of a DBE to perform the work in accordance with the bid, and/or other circumstances beyond the control of the prime contractor.

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set (hard copy along with an electronic copy) of this information must be received in the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Cabinet considers in judging good faith efforts. This documentation may include written subcontractors' quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

The Good Faith Effort Package shall include, but may not be limited to information showing evidence of the following:

1. Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the Disadvantaged Enterprise Business Liaison Officer (DEBLO) in the Office of Civil Rights and Small Business Development to give notification of the bidder's inability to get DBE quotes;
5. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6. Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7. Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8. Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9. Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10. Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11. Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

FAILURE TO MEET GOOD FAITH REQUIREMENT

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Good Faith Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. The bidder will be notified of the Committee's decision within 24 hours of its decision. The bidder will have 24 hours to request reconsideration of the Committee's decision. The reconsideration meeting will be held within two days of the receipt of a request by the bidder for reconsideration.

The request for reconsideration will be heard by the Office of the Secretary. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration explaining the basis for the finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so.

The result of the reconsideration process is not administratively appealable to the Cabinet or to the United States Department of Transportation.

The Cabinet reserves the right to award the contract to the next lowest responsive bidder or to rebid the contract in the event that the contract is not awarded to the low bidder as the result of a failure to meet the good faith requirement.

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

Failure by the prime contractor to fulfill the DBE requirements of a project under contract or to demonstrate good faith efforts to meet the goal constitutes a breach of contract. When this occurs, the Cabinet will hold the prime contractor accountable, as would be the case with all other contract provisions. Therefore, the contractor's failure to carry out the DBE contract requirements shall constitute a breach of contract and as such the Cabinet reserves the right to exercise all administrative remedies at its disposal including, but not limited to the following:

- Suspension of Prequalification;
- Disallow credit toward the DBE goal;
- Withholding progress payments;
- Withholding payment to the prime in an amount equal to the unmet portion of the contract goal; and/or
- Termination of the contract.

PROMPT PAYMENT

The prime contractor will be required to pay the DBE and Non-DBE Subcontractors within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

CONTRACTOR REPORTING

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a **signed and notarized** Affidavit of Subcontractor Payment (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be completed and signed within 7 days of being paid by the Cabinet.

Payment information that needs to be reported includes date the payment is sent to the DBE, check number, Contract ID, amount of payment and the check date. Before Final Payment is made on this contract, the Prime Contractor will certify that all payments were made to the DBE subcontractor and/or DBE suppliers.

******* IMPORTANT *******

Please mail the original, signed and completed TC (18-7) Affidavit of Subcontractor Payment form and all copies of checks for payments listed above to the following address:

Office of Civil Rights and Small Business Development
6th Floor West 200 Mero Street
Frankfort, KY 40622

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Melvin Bynes. Mr. Bynes' current contact information is email address – melvin.bynes2@ky.gov and the telephone number is (502) 564-3601.

DEFAULT OR DECERTIFICATION OF THE DBE

If the DBE subcontractor or supplier is decertified or defaults in the performance of its work, and the overall goal cannot be credited for the uncompleted work, the prime contractor may utilize a substitute DBE or elect to fulfill the DBE goal with another DBE on a different work item. If after exerting good faith effort in accordance with the Cabinet's Good Faith Effort policies and procedures, the prime contractor is unable to replace the DBE, then the unmet portion of the goal may be waived at the discretion of the Cabinet.

PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES

In accordance with the FY 2019 National Defense Authorization Act (NDAA), 2 CFR 200.216, and 2 CFR 200.471, Federal agencies are prohibited, after August 13, 2020, from obligating or expending financial assistance to obtain certain telecommunications and video surveillance services and equipment from specific producers. As a result of these regulations, contractors and subcontractors are prohibited, on projects with federal funding participation, from providing telecommunication or video surveillance equipment, services, or systems produced by:

- Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities)
- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities)

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – CARGO PREFERENCE ACT (CPA).

(REV 12-17-15) (1-16)

SECTION 7 is expanded by the following new Article:

102.10 **Cargo Preference Act – Use of United States-flag vessels.**

Pursuant to Title 46CFR Part 381, the Contractor agrees

- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

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.

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

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. **Any work operations not covered by a bid item shall be incidental to the overall project.** If a potential bidder has concerns with any bid items not used, a Question needs to be submitted during the Advertisement period.

STATIONING

The contractor is advised that stationing has been established for the construction of the Roundabout at the intersection of KY 686 and KY 713. See the Coordinate Control Sheet for that stationing.

LIDAR

Survey data was obtained in the area of the KY 686 and KY 713 intersection and was supplemented with available KYTC Aerial LIDAR. All information 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.

General Notes & Description of Work
Page 2 of 2

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:

Roundabout. The existing intersection of KY 686 and KY 713 will be reconstructed into a Roundabout. Refer to the Special Notes for Completion Date & Liquidated Damages for duration restrictions on this effort. Work will include asphalt milling & texturing for pavement resurfacing, constructing flume inlets, constructing storm sewer inlets and pipe, constructing channel lining for drainage, extending existing pipe culverts, roadside grading, surface paving and marking, installing signage, and the installation of lighting equipment. All roadway approaches will have a splitter island. The truck aprons are to be formed using dyed (Integral Buff with Autumn Brown Release Agent by Brickform or equivalent color as approved by Engineer) concrete. The top of the truck aprons are to be stamped with a London Cobble FM-540 by Brickform pattern or comparable options to be provided by Contractor to Engineer for approval. All islands are to be monolithic. The Detail Sheets included in this proposal include location and elevation throughout the Roundabout footprint.

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 typical sections. 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.

Guardrail. Segments of existing guardrail within the project will be replaced. 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.

Removal of Existing Signage and Installation of Proposed Signage. A quantity of "Remove Sign" has been included in the Sign Summary for removal of existing signs along the corridor. An estimated quantity of new signs and sign posts are included on the Sign Summary. Refer to the Special Note for Signage, Special Note for Staking, and Special Note for Signage for more details.

SPECIAL NOTE 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.

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- 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: DITCHING & SHOULDERING 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

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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

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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 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.

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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 stream.

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

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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 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

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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

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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.

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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.

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- 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.

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- 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 NOTE FOR SIGNAGE

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 STAKING

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

1. Contrary to Section 201.03.01, perform items 1 & 2 usually performed by the Engineer.
2. Using the proposed pavement superelevation rates, runout lengths, and runoff lengths, determine the necessary elevation changes along the edges of pavement for each proposed curve and the transitions leading into and out of each curve to achieve the proposed superelevation improvements. The intent is to provide a consistent superelevation throughout each proposed curve and smooth transitions into and out of each curve. Once the elevation changes along the edges of pavement for each proposed curve are determined and prior to starting paving operations, verify the proposed roadside re-grading corresponding to each curve can be constructed so that the new roadside will be flush with the new edges of pavement and the new toe of slope, or top of cut, will remain within the Right-of-Way, or within the general area noted on any applicable Consent & Releases, 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 elevations of the edges of pavement will cause the proposed roadside grading to extend beyond the Right-of-Way, or extend outside of the general area described on any applicable Consent & Releases, and/or impact a sensitive obstruction. Alternatively, with the approval of the Engineer and to the extent allowable by the "Ditching & Shouldering and Embankment Benching Details" and/or the Special Note for Ditching & Shouldering, the Contractor may be allowed to adjust the proposed dimensions of the roadside grading so the new toe of slope or top of cut will remain within the Right-of-Way, or within the general area noted on any applicable Consent & Releases, and/or not impact a sensitive obstruction. After the final proposed elevation changes along the edges of pavement for each curve 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 mix design of each lift of Leveling & Wedging the contractor plans to use to achieve the proposed 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,

Staking
Page 2 of 2

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 PIPELINE INSPECTION

1.0 DESCRIPTION. The Department will perform visual inspections on all pipe on the project. A video inspection will be required on projects having more than 250 linear feet of stormsewer and/or culvert pipe and on routes with an ADT of greater than 1,000 vehicles. Conduct video inspections on all pipe located under the roadway and 50 percent of the remaining pipe not under the roadway. Storm sewer runs and outfall pipes not under the roadway take precedence over rural entrance pipes. Contractors performing this item of work must be prequalified with the Department in the work type J51 (Video Pipe Inspection and Cleaning). Deflection testing shall be completed using a mandrel in accordance with the procedure outlined below or by physical measurement for pipes greater than 36 inches in diameter. Mandrel testing for deflection must be completed prior to the video inspection testing. Unless otherwise noted, Section references herein are to the Department's 2012 Standard Specifications for Road and Bridge Construction.

2.0 VIDEO INSPECTION. Ensure pipe is clear of water, debris or obstructions. Complete the video inspection and any necessary measurement prior to placing the final surface over any pipe. When paving will not be delayed, take measurements 30 days or more after the completion of earthwork to within 1 foot of the finished subgrade. Notify the Engineer a minimum of 24 hours in advance of inspection and notify the Engineer immediately if distresses or locations of improper installation are logged.

2.1 INSPECTION FOR DEFECTS AND DISTRESSES

A) Begin at the outlet end and proceed through to the inlet at a speed less than or equal to 30 ft/minute. Remove blockages that will prohibit a continuous operation.

B) Document locations of all observed defects and distresses including but not limited to: cracking, spalling, slabbing, exposed reinforcing steel, sags, joint offsets, joint separations, deflections, improper joints/connections, blockages, leaks, rips, tears, buckling, deviation from line and grade, damaged coatings/paved invert, and other anomalies not consistent with a properly installed pipe.

C) During the video inspection provide a continuous 360 degree pan of every pipe joint.

D) Identify and measure all cracks greater than 0.1" and joint separations greater than 0.5".

E) Video Inspections are conducted from junction to junction which defines a pipe run. A junction is defined as a headwall, drop box inlet, curb box inlet, manhole, buried junction, or other structure that disturbs the continuity of the pipe. Multiple pipe inspections may be conducted from a single set up location, but each pipe run must be on a separate video file and all locations are to be referenced from nearest junction relative to that pipe run.

F) Record and submit all data on the TC 64-765 and TC 64-766 forms.

3.0 MANDREL TESTING. Mandrel testing will be used for deflection testing. For use on Corrugated Metal Pipe, High Density Polyethylene Pipe, and Polyvinyl Chloride Pipe,

use a mandrel device with an odd number of legs (9 minimum) having a length not less than the outside diameter of the mandrel. The diameter of the mandrel at any point shall not be less than the diameter specified in Section 3.6. Mandrels can be a fixed size or a variable size.

3.1 Use a proving ring or other method recommended by the mandrel manufacturer to verify mandrel diameter prior to inspection. Provide verification documentation for each size mandrel to the Engineer.

3.2 All deflection measurements are to be based off of the AASHTO Nominal Diameters. Refer to the chart in section 3.6.

3.3 Begin by using a mandrel set to the 5.0% deflection limit. Place the mandrel in the inlet end of the pipe and pull through to the outlet end. If resistance is met prior to completing the entire run, record the maximum distance achieved from the inlet side, then remove the mandrel and continue the inspection from the outlet end of the pipe toward the inlet end. Record the maximum distance achieved from the outlet side.

3.4 If no resistance is met at 5.0% then the inspection is complete. If resistance occurred at 5.0% then repeat 3.1 and 3.2 with the mandrel set to the 10.0% deflection limit. If the deflection of entire pipe run cannot be verified with the mandrel then immediately notify the Engineer.

3.5 Care must be taken when using a mandrel in all pipe material types and lining/coating scenarios. Pipe damaged during the mandrel inspection will be video inspected to determine the extent of the damage. If the damaged pipe was video inspected prior to mandrel inspection then a new video inspection is warranted and supersedes the first video inspection. Immediately notify the Engineer of any damages incurred during the mandrel inspection and submit a revised video inspection report.

3.6 AASHTO Nominal Diameters and Maximum Deflection Limits.

Base Pipe Diameter (inches)	AASHTO Nominal Diameter (inches)	Max. Deflection Limit (inches)	
		5.0%	10.0%
15	14.76	14.02	13.28
18	17.72	16.83	15.95
24	23.62	22.44	21.26
30	29.53	28.05	26.58
36	35.43	33.66	31.89
42	41.34	39.27	37.21
48	47.24	44.88	42.52
54	53.15	50.49	47.84
60	59.06	56.11	53.15

4.0 PHYSICAL MEASUREMENT OF PIPE DEFLECTION. Alternate method for deflection testing when there is available access or the pipe is greater than 36 inches in diameter, as per 4.1. Use a contact or non-contact distance instrument. A leveling device is recommended for establishing or verifying vertical and horizontal control.

4.1 Physical measurements may be taken after installation and compared to the AASHTO Nominal Diameter of the pipe as per Section 3.6. When this method is used, determine the smallest interior diameter of the pipe as measured through the center point of the pipe (D2). All measurements are to be taken from the inside crest of the corrugation. Take the D2 measurements at the most deflected portion of the pipe run in question and at intervals no greater than ten (10) feet through the run. Calculate the deflection as follows:

$$\% \text{ Deflection} = [(AASHTO \text{ Nominal Diameter} - D2) / AASHTO \text{ Nominal Diameter}] \times 100\%$$

Note: The Engineer may require that preset monitoring points be established in the culvert prior to backfilling. For these points the pre-installation measured diameter (D1) is measured and recorded. Deflection may then be calculated from the following formula:

$$\% \text{ Deflection} = [(D1 - D2) / D1] (100\%)$$

4.2 Record and submit all data.

5.0 DEDUCTION SCHEDULE. All pipe deductions shall be handled in accordance with the tables shown below.

FLEXIBLE PIPE DEFLECTION	
Amount of Deflection (%)	Payment
0.0 to 5.0	100% of the Unit Bid Price
5.1 to 9.9	50% of the Unit Bid Price ⁽¹⁾
10 or greater	Remove and Replace ⁽²⁾

⁽¹⁾ Provide Structural Analysis for HDPE and metal pipe. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price. ⁽²⁾ The Department may allow the pipe to remain in place with no pay to the Contractor in instances where it is in the best interest to the public and where the structural analysis demonstrates that the pipe should function adequately.

RIGID PIPE REMEDIATION TABLE PIPE	
Crack Width (inches)	Payment
≤ 0.1	100% of the Unit Bid Price
Greater than 0.1	Remediate or Replace ⁽¹⁾

⁽¹⁾ Provide the Department in writing a method for repairing the observed cracking. Do not begin work until the method has been approved.

6.0 PAYMENT. The Department will measure the quantity in linear feet of pipe to inspect. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24814EC	Pipeline Inspection	Linear Foot
10065NS	Pipe Deflection Deduction	Dollars

SPECIAL NOTES FOR COMPLETION DATES & LIQUIDATED DAMAGES

The ultimate fixed completion date for this project will be October 31, 2022. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

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 road closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

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.

1-3193 Coordination Contracts
01/02/2012

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 asphalt 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.

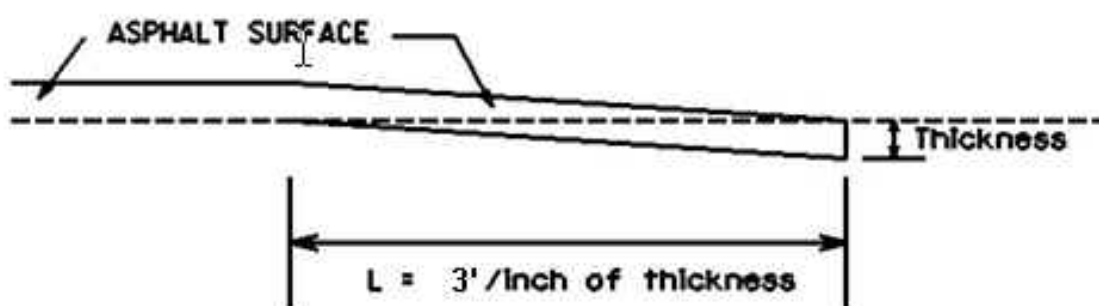
The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

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

SPECIAL NOTE FOR EDGE KEY

Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at intersections with ramps, as applicable. Unless specified in the Contract or directed by the Engineer, do not construct edge keys at intersecting streets, roads, alleys, or entrances. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will measure the Edge Key at the joint as the width of the pavement perpendicular to the centerline in linear feet. The Department will pay for this work at the Contract unit price per linear foot, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

EDGE KEY



Thickness = 1.5 Inches

L = 4.5 LF

L = Length of Edge Key

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, 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.
- C. Delineators for Guardrail.** Furnish white and/or yellow Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- D. CSB.** Furnish Crushed Stone Base 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, and adding and compacting suitable

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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 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. CSB.** Place and compact CSB 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 CSB 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

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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, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will measure according to Section 719.04.
- D. CSB.** 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.

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- B. Guardrail, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will make payment according to Section 719.05.
- C. CSB.** 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

Construction Phasing for Roundabout Construction at the intersection of KY 686 and KY 713:

1. Phases I & II – Install temporary traffic control devices as directed by the Engineer. Shift traffic away from work areas and utilize existing traffic lanes as driving surface. Maintain a minimum clear lane width of 10 feet (9’ travel lane and 1’ shoulder) in each direction. Complete work outside of the existing roadway as shown in the plans, including paving up to the final base course in preparation of following phases. Do not construct any parts of the splitter islands.
2. Phase III – Install temporary traffic control devices as directed by the Engineer. Shift traffic away from work areas and utilize existing traffic lanes as driving surface. Maintain a minimum clear lane width of 10 feet (9’ travel lane and 1’ shoulder) in each direction. Close KY 713 to traffic on both sides of the intersection. Complete work outside of the existing traveled way as shown in the plans, including paving up to the final base course in preparation of following phases. Construct the splitter islands on KY 713 and a portion of the central island.
3. Phase IV – Close KY 686 and KY 713 on both sides of the intersection. Construct all remaining work items including the splitter islands on KY 686 and the remainder of the central island. Overlay final surface course of all pavement to final grade and install permanent pavement markings and signs. Install final lighting. After all work is complete, open the roundabout to traffic.

For all other construction activities, utilize a lane closure, and maintain alternating one-way traffic. This may require part-width construction of certain elements. Provide a minimum clear lane width of 10 feet; however, provide for passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus or emergency vehicle on an official run arrives on the scene, make provisions for the passage of the school bus or emergency vehicle as quickly as possible.

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Unless otherwise approved by the Engineer, no lane and/or road closures will be allowed on the following dates:

Easter Weekend,	Friday, April 15, 2022 – Sunday, April 17, 2022
Memorial Day Weekend	Friday, May 27, 2022 – Monday, May 30, 2022
Independence Day Weekend	Saturday, July 2, 2022 – Monday, July 4, 2022
Labor Day Weekend	Friday, September 2, 2022 – Monday, September 5, 2022
Thanksgiving Holiday	Thursday, November 24, 2022 – Sunday, November 27, 2022
Christmas Holiday,	Saturday, December 24, 2022 – Monday, December 26, 2022
New Year’s Holiday,	Saturday, December 31, 2022 – Monday, January 2, 2023

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

Normal Workday Rush Hours

Monday-Friday 6:00 am – 9:00 am, and 3:00 pm – 6:00 pm, daily

During allowable periods of active work, the Contractor may be permitted to close KY 713, east and west of KY 686, and KY 686, north and south of KY 713, to through traffic for completion of roadway construction. Such road closures shall not occur during the Montgomery County Public School Calendar Year. Construction shall be coordinated with Montgomery County Public Schools by the Engineer as dates become available. The duration of the KY 713 road closure shall not exceed thirty (30) consecutive calendar days. The duration of the KY 686 road closure shall not exceed ten (10) consecutive calendar days.

Unless otherwise approved by the Engineer, no lane closures shall be allowed before 8:30 am during weekdays and no lane closures shall be allowed after dusk. The Contractor shall submit proposed days of lane closures to the Engineer at least 14 calendar days in advance for approval.

At the discretion of the Engineer, additional days and hours may be specified when lane closures will not be allowed.

The Department will provide public notification regarding approved lane and/or road closures. The Contractor shall submit proposed lane and/or road closure days and times to the Engineer at least 14 calendar days in advance for approval. Liquidated Damages will be assessed for each hour or fraction of an hour that a lane and/or road closure is in place outside of an approved time period. See the Special Notes for Completion Dates & Liquidated Damages for details on the Liquidated Damages amount.

LANE CLOSURES

Long term lane closures shall not be allowed; therefore, lane closures will not be measured for payment. Do not leave lane closures in place during non-working hours and prohibited periods

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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 8 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

The Department will measure barricades used for road closures and to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual barricades 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 barricades, or any barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of construction.

TEMPORARY ENTRANCES

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify

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all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties, and apartments or apartment complexes of four or more units at all times. Access to fire hydrants must also be maintained at all times

THERMOPLASTIC INTERSECTION MARKINGS

Consider the locations listed on the summary and/or shown on the plan sheets as approximate only. Prior to milling and/or resurfacing, locate and document the locations of the existing markings. After final surfacing operations, replace the markings at their approximate existing locations, as shown on the plan sheets, or as directed by the Engineer. Place markings not existing prior to resurfacing as shown on the plan sheets or as directed by the Engineer.

PAVEMENT MARKINGS

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the final surface course. Install Temporary Striping according to Section 112 with the following exception:

If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.

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 un-resurfaced 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

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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 oncoming 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.

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)

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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:

<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
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

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Standard Abbreviations (cont)

<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
Street	ST	MAIN ST CLOSED/ USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/ DETOUR EXIT 60
Vehicle	VEH	OVSZ 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:

<u>Abbrev</u>	<u>Intended Word</u>	<u>Word Erroneously Given</u>
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.

<u>Reason/Problem</u>	<u>Action</u>
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

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Typical Messages (cont)

Reason/Problem

FOG XX MILES
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

Action

PASS TO RIGHT
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



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

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION			
ITEM #		COUNTY		PROJECT # (STATE)		PROJECT # (FEDERAL)	
7-961.00		Montgomery		FD52 087 0686 004-005		HSIP 7912(001)	
PROJECT DESCRIPTION							
Construction of a Roundabout at the Intersection of KY 686 and KY 713							
<input checked="" type="checkbox"/>	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.							
<input type="checkbox"/>	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.							
<input type="checkbox"/>	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							
<input type="checkbox"/>	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)							
TC-10 to come after construction is complete.							
LPA RW Project Manager				Right of Way Supervisor			
Printed Name				Printed Name		Cecil Smith	
Signature				Signature		 <small>Cecil Smith 2022.01.14 11:08:43 -05'00'</small>	
Date				Date		1/14/2022	
Right of Way Director				FHWA			
Printed Name		2022.01.14		Printed Name			
Signature		 <small>12:10:16</small>		Signature		No Signature Required as per FHWA-KYTC Current Stewardship Agreement	
Date		-05'00'		Date			

UTILITIES AND RAIL CERTIFICATION NOTE

**Montgomery County - HSIP 7912(001)
FD52 087 0686 004-005
Construct a Roundabout at the Intersection of Indian Mound
Drive (KY 686) and Spencer Pike (KY 713)
Item No. 7-0961.00**

GENERAL PROJECT NOTE ON UTILITY PROTECTION

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

Overhead Electric / Telephone Facilities

Overhead electric/telephone lines are located on the north leg of Indian Mound Drive (KY 686) and the east leg of Spencer Pike (KY 713).

Underground Electric

Underground electric for the existing traffic and lighting poles is located on the east leg of Spencer Pike (KY 713).

Water Facilities

A 1" water line in an 18" encasement pipe runs under the north leg of Indian Mound Drive (KY 686).

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

None

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

None

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

None

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

Montgomery County - HSIP 7912(001)
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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

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AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. Mt. Sterling Water & Sewer		300 East Main Street Mount Sterling, KY 40353 (859) 498-0166
2. Montgomery County Water District		4412 Camargo Road Camargo, KY 40353 (859) 498-0521
3. Kentucky Utilities Company		340 Calk Avenue Mount Sterling, KY 40353 (800) 981-0600
4. Spencer Park		Mount Sterling, KY 40353 (859) 498-4538
5. Clark Energy Cooperative, Inc.		(606) 768-2383 Frenchburg (606) 663-4430 Stanton (606) 663-6071 Stanton (606) 744-4251 Winchester
6. AT&T		104 Commonwealth Drive, Suite 1 Mount Sterling, KY 40353 (859) 498-1490 www.att.com
7. Time Warner Cable		223 Indian Mound Drive Mount Sterling, KY 40353 (866) 625-5007

UTILITIES AND RAIL CERTIFICATION NOTE

Montgomery County - HSIP 7912(001)
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- | | |
|------------------------------------|---|
| 8. Columbia Gas of Kentucky | (606) 929-6511 Ashland
(606) 324-7114 Ashland |
| 9. Delta Natural Gas Company, Inc. | (606) 674-2213 Owingsville |
| 10. Delta Natural Gas Company | (859) 744-6171 Winchester
www.deltagas.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.

KYTC BMP Plan for Project CID 21-4413



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 KY 686 &
KY 713 in MONTGOMERY County**

Project: CID 21-4413

KYTC BMP Plan for Project CID 21-4413

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): KY 686 & KY 713
6. Latitude/Longitude (project mid-point): 38° 03' 17", -83° 55' 00"
7. County (project mid-point): Montgomery
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KYTC BMP Plan for Project CID 21-4413

A. Site description:

1. Nature of Construction Activity (from letting project description): [Grade, Drain, & Surfacing of Proposed Roundabout at KY 686 & KY 713.](#)
2. Order of major soil disturbing activities: [\(2\) and \(3\)](#)
3. Projected volume of material to be moved: 1329 CY (Cut) & 1765 CY (Fill)
4. Estimate of total project area (acres): 6.46
5. Estimate of area to be disturbed (acres): 3.22
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: Spencer Creek
10. TMDLs and Pollutants of Concern in Receiving Waters: [\(1\) Typically use: No TDML's were involved on this project. \(If unsure, consult with DEA\)](#)
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. [\(3\)](#)

KYTC BMP Plan for Project CID 21-4413

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. All DDA's will have adequate BMP's in place before being disturbed.
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.

KYTC BMP Plan for Project CID 21-4413

- 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

KYTC BMP Plan for Project CID 21-4413

- 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: *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:**

KYTC BMP Plan for Project CID 21-4413

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.

KYTC BMP Plan for Project CID 21-4413

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 contact with a hazardous substance.

KYTC BMP Plan for Project CID 21-4413

- 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 cleanup 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. (1) Typically use: *There are no other local (MS4) requirements that are expected to be necessary for this project. (If MS4 requirements are necessary, it will be noted on the CE in Section M. Water Resource Impacts.)*

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

KYTC BMP Plan for Project CID 21-4413

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 from cleaning concrete trucks and equipment.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).

KYTC BMP Plan for Project CID 21-4413

- 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 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.

KYTC BMP Plan for Project CID 21-4413

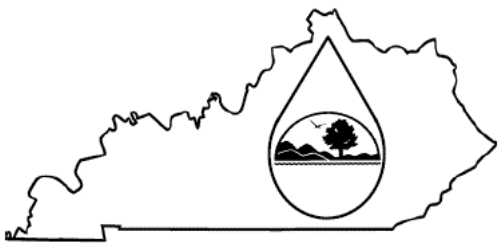
The contractor is responsible for the preparation of a plan that addresses the 401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (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.)

CID 22-4413
Montgomery County
Highway Safety Improvement Project along KY-686
from MP 4.600 – 5.000
Item No.: 7-9610

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: 265563

	<h2 style="margin: 0;">KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p style="margin: 5px 0;">Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000</p> <p style="margin: 10px 0;"> Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm) </p> <p style="margin: 5px 0;"> Click here to obtain information and a copy of the KPDES General Permit. (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf) </p> <p style="margin: 0;">(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field</p>
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Reason for Submittal:(*) <input type="text" value="Application for New Permit Coverage"/>	Agency Interest ID: <input type="text" value="Agency Interest ID"/>	Permit Number:(✓) <input type="text" value="KPDES Permit Number"/>
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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:(✓) <input type="text" value="Kentucky Transportation Cabinet, District 7"/>	First Name:(✓) <input type="text" value="Kelly"/>	M.I.: <input type="text" value="MI"/>	Last Name:(✓) <input type="text" value="Baker"/>
Mailing Address:(*) <input type="text" value="800 Newtown Court"/>	City:(*) <input type="text" value="Lexington"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="40511"/>
eMail Address:(*) <input type="text" value="KellyA.Baker@ky.gov"/>	Business Phone:(*) <input type="text" value="8592462354"/>	Alternate Phone: <input type="text" value="Phone"/>	

SECTION II -- GENERAL SITE LOCATION INFORMATION

Project Name:(*) <input type="text" value="KYTC Project 224413"/>	Status of Owner/Operator(*) <input type="text" value="State Government"/>	SIC Code(*) <input type="text" value="1611 Highway and Street Const"/>
Company Name:(✓) <input type="text" value="Company Name"/>	First Name:(✓) <input type="text" value="First Name"/>	M.I.: <input type="text" value="MI"/>
Last Name:(✓) <input type="text" value="Last Name"/>		
Site Physical Address:(*) <input type="text" value="KY 686"/>		
City:(*) <input type="text" value="Mount Sterling"/>	State:(*) <input type="text" value="Kentucky"/>	Zip:(*) <input type="text" value="40353"/>
County:(*) <input type="text" value="Montgomery"/>	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) <input type="text" value="38.054580"/>	Longitude(decimal degrees)(*) <input type="text" value="-83.916782"/>

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION

Project Description:(*)

a. For single projects provide the following information

Total Number of Acres in Project:(✓) <input style="width:95%;" type="text" value="6.5"/>	Total Number of Acres Disturbed:(✓) <input style="width:95%;" type="text" value="3.2"/>
Anticipated Start Date:(✓) <input style="width:95%; height: 20px;" type="text"/>	Anticipated Completion Date:(✓) <input style="width:95%; height: 20px;" type="text"/>

b. For common plans of development provide the following information

Total Number of Acres in Project:(✓) <input style="width:95%;" type="text" value="# Acre(s)"/>	Total Number of Acres Disturbed:(✓) <input style="width:95%;" type="text" value="# Acre(s)"/>
Number of individual lots in development, if applicable:(✓) <input style="width:95%;" type="text" value="# lot(s)"/>	Number of lots in development:(✓) <input style="width:95%;" type="text" value="# lot(s)"/>
Total acreage of lots intended to be developed:(✓) <input style="width:95%;" type="text" value="Project Acres"/>	Number of acres intended to be disturbed at any one time:(✓) <input style="width:95%;" type="text" value="Disturbed Acres"/>
Anticipated Start Date:(✓) <input style="width:95%; height: 20px;" type="text"/>	Anticipated Completion Date:(✓) <input style="width:95%; height: 20px;" type="text"/>

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	No	38.054489	-83.916383	Spencer Creek	Delete
2	No	38.054069	-83.916656	Spencer Creek	Delete
3	No	38.054059	-83.916718	Spencer Creek	Delete
4	No	38.055165	-83.916980	Spencer Creek	Delete
5	No	38.054670	-83.917274	Spencer Creek	Delete
+					

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

Name of MS4: <input style="width:95%; height: 20px;" type="text"/>											
Date of application/notification to the MS4 for construction site permit coverage: <input style="width:95%; height: 20px;" type="text" value="Date"/>	Discharge Point(s):(*) <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;"></th> <th style="width:20%;">Latitude</th> <th style="width:20%;">Longitude</th> <th style="width:20%;"></th> <th style="width:20%;"></th> </tr> </thead> <tbody> <tr> <td style="text-align:center;">+</td> <td style="height: 50px;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Latitude	Longitude			+				
	Latitude	Longitude									
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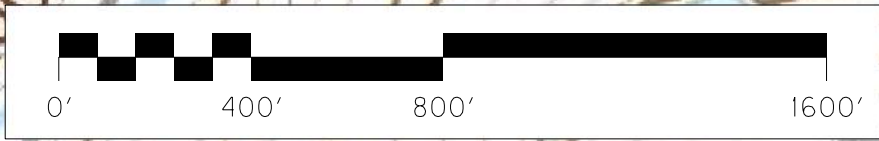
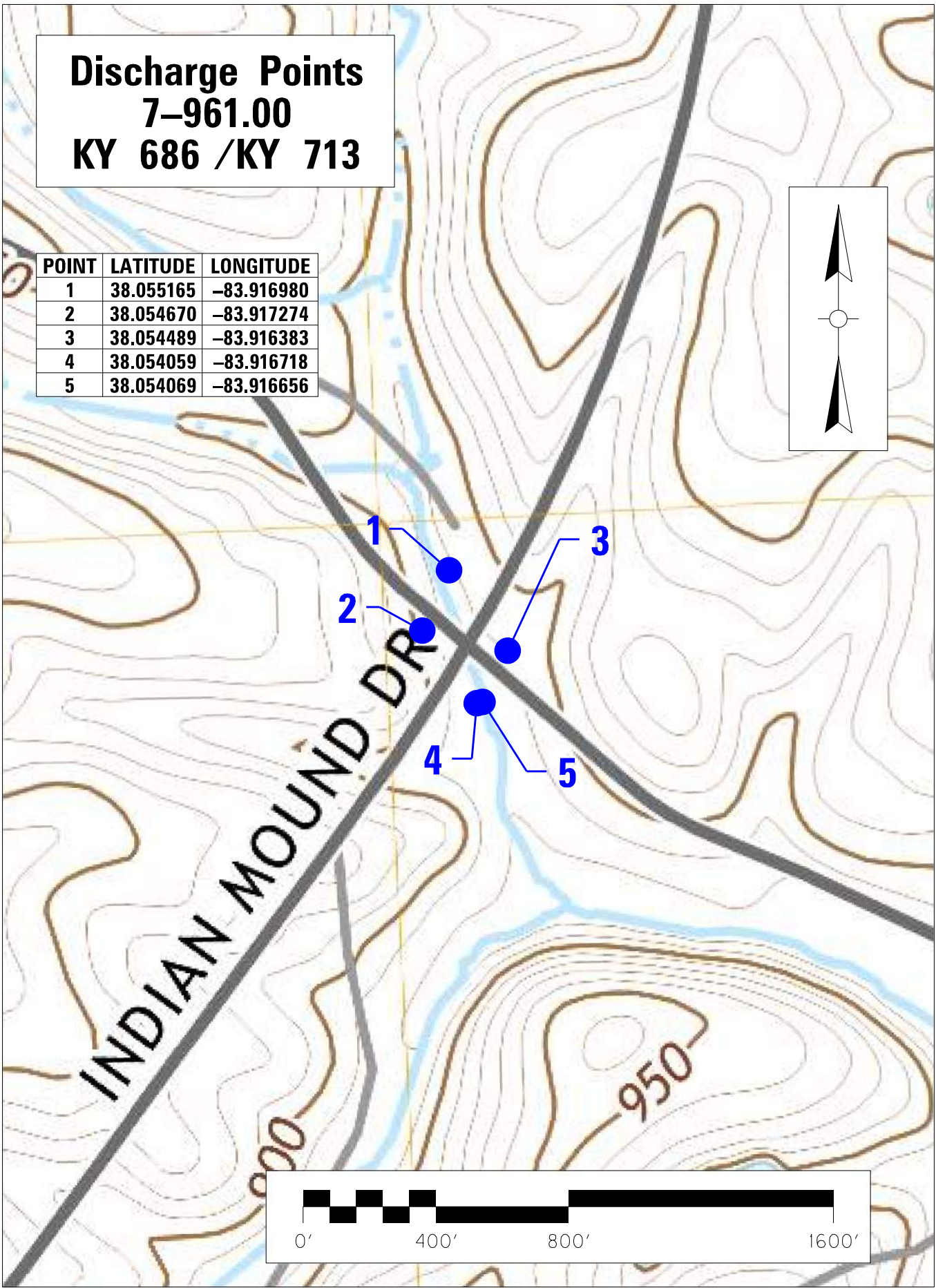
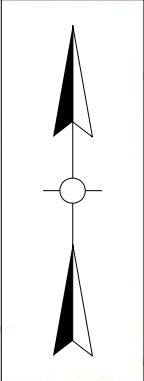
SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?: (*)	<input style="width:95%;" type="text" value="No"/>
If Yes, describe scope of activity: (✓)	<input style="width:95%; height: 20px;" type="text" value="describe scope of activity"/>
Is a Clean Water Act 404 permit required?:(*)	<input style="width:95%;" type="text" value="No"/>

Is a Clean Water Act 401 Water Quality Certification required?:(*)		No	
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
<div style="display: flex; justify-content: space-around;"> Click to Save Values for Future Retrieval Click to Submit to EEC </div>			

Discharge Points
7-961.00
KY 686 /KY 713

POINT	LATITUDE	LONGITUDE
1	38.055165	-83.916980
2	38.054670	-83.917274
3	38.054489	-83.916383
4	38.054059	-83.916718
5	38.054069	-83.916656



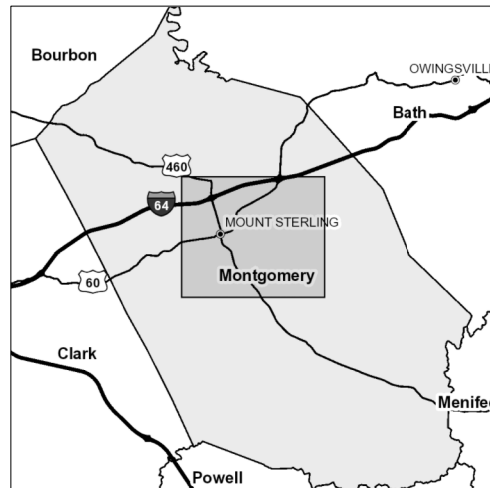
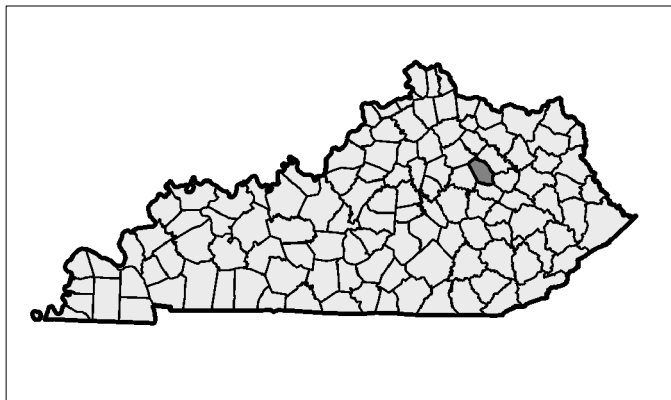
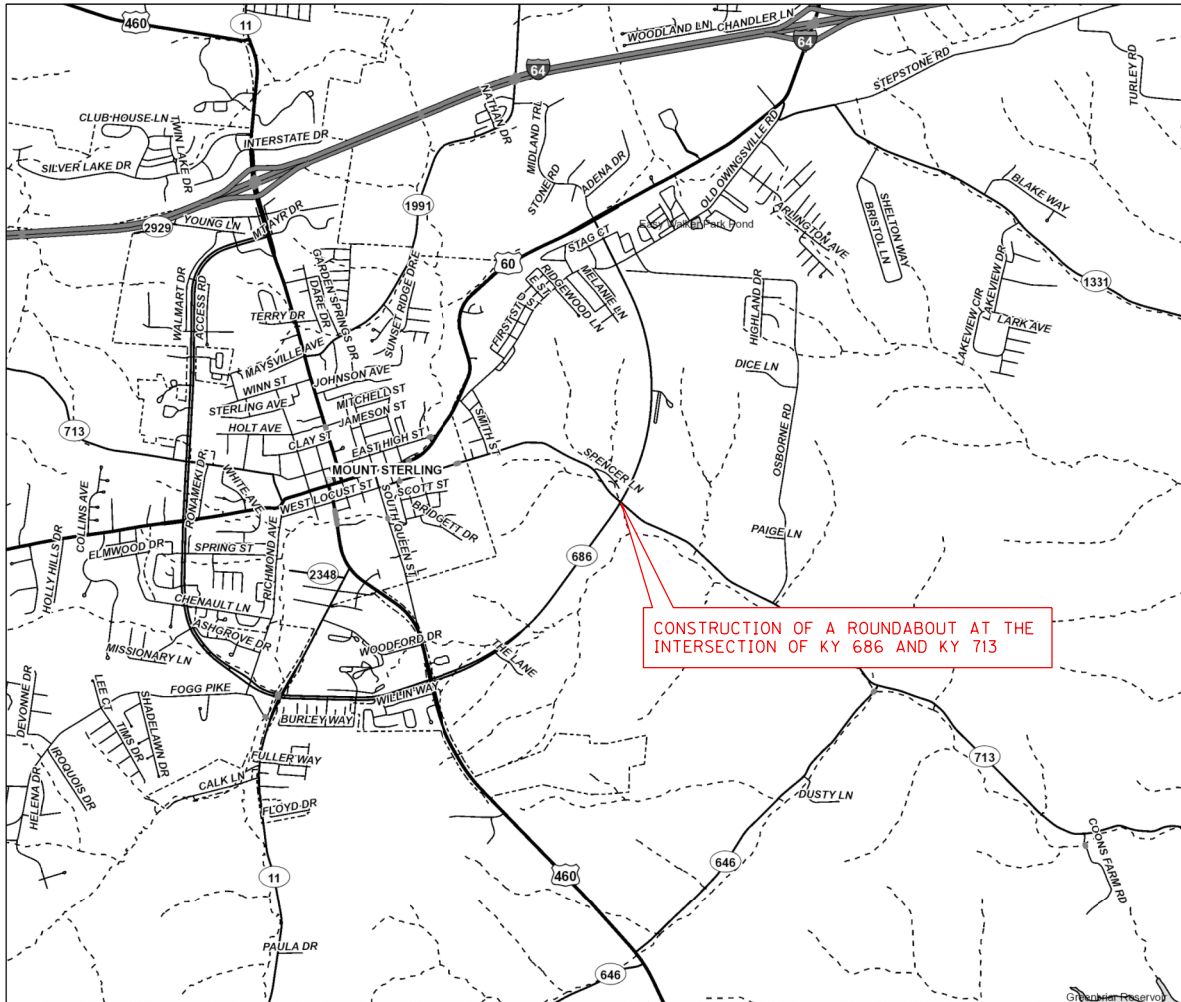
COUNTY OF	ITEM NO.
MONTGOMERY	7-951.00

Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS



PLANS OF PROPOSED PROJECT

KY 686 AT KY 713 ROUNDABOUT



KY 686 GENERAL SUMMARY			COUNTY OF MONTGOMERY
ITEM	DESCRIPTION	UNIT	PROJECT TOTALS
1691	FLUME INLET TYPE 2 (5)	EACH	2
1810	STANDARD CURB AND GUTTER	LF	537
1811	STANDARD CURB AND GUTTER MODIFIED	LF	1,107
1825	ISLAND CURB AND GUTTER	LF	779
1982	DELINEATOR FOR GUARDRAIL-WHITE	EACH	10
2014	BARRICADE TYPE III	EACH	12
2091	REMOVE PAVEMENT	SQYD	65
2159	TEMP DITCH	LF	669
2160	CLEAN TEMP DITCH	LF	335
2230	EMBANKMENT IN PLACE (3)	CUYD	1,942
2242	WATER (2)	MGAL	254
2351	GUARDRAIL-STEEL W BEAM-S FACE	LF	472
2381	REMOVE GUARDRAIL	LF	460
2483	CHANNEL LINING CLASS II (5)	TON	92
2545	CLEARING AND GRUBBING (3.22 AC)	LS	1
2562	TEMPORARY SIGNS	SQFT	1,400
2569	DEMOBILIZATION	LS	1
2585	EDGE KEY	LF	138
2602	FABRIC-GEOTEXTILE CLASS 1 (5)	SQYD	145
2603	FABRIC-GEOTEXTILE CLASS 2 (6)	SQYD	5,576
2607	FABRIC GEOTEXTILE CLASS 2 FOR PIPE (5)	SQYD	1,647
2650	MAINTAIN & CONTROL TRAFFIC	LS	1
2671	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	4
2676	MOBILIZATION FOR MILLING & TEXTURING (6)	LS	1
2696	SHOULDER RUMBLE STRIPS - SAWED	LF	631
2701	TEMP SILT FENCE	LF	669
2703	SILT TRAP TYPE A	EACH	4
2704	SILT TRAP TYPE B	EACH	4
2705	SILT TRAP TYPE C	EACH	4
2706	CLEAN SILT TRAP TYPE A	EACH	4
2707	CLEAN SILT TRAP TYPE B	EACH	4
2708	CLEAN SILT TRAP TYPE C	EACH	4
2726	STAKING	LS	1
4701	POLE 40' MTG HT	EACH	12
4723	BRACKET 10'	EACH	12
4740	POLE BASE	EACH	12

NOTES:

- ① NOT USED.
- ② FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY.
- ③ ESTIMATES FOR EARTHWORK CALCULATIONS FOR DESIGN ONLY. THE CONTRACTOR IS ADVISED THAT THE EARTHWORK CALCULATIONS SHOWN ARE FOR INFORMATION ONLY. ASSUMPTIONS FOR SHRINKAGE AND SWELL FACTORS ARE THE CONTRACTOR'S RESPONSIBILITIES.
- ④ 300 LBS. PER ACRE FOR MAINTENANCE FERTILIZER. 500 LBS. PER ACRE FOR INITIAL FERTILIZER. 3 TONS PER ACRE FOR AGRICULTURAL LIMESTONE.
- ⑤ FROM PIPE DRAINAGE SUMMARY.
- ⑥ FROM PAVING SUMMARY.
- ⑦ INCLUDES THE REMOVAL OF SIGNAL HEADS, CONTROLLER CABINET, AND SIGNAL/UTILITY POLES AT ONE LOCATION.
- ⑧ INCLUDES AN ADDITIONAL 776 LF TO REPLACE STRIPING OUTSIDE THE

KY 686 GENERAL SUMMARY			COUNTY OF MONTGOMERY
ITEM	DESCRIPTION	UNIT	PROJECT TOTALS
4750	TRANSFORMER BASE	EACH	12
4761	LIGHTING CONTROL EQUIPMENT	EACH	1
4780	FUSED CONNECTOR KIT	EACH	24
4795	CONDUIT 2 INCH	LF	250
4820	TRENCHING AND BACKFILLING	LF	1,675
4832	WIRE-NO. 12	LF	1,900
4940	REMOVE LIGHTING	LS	1
5952	TEMP MULCH	SQYD	10,398
5953	TEMP SEEDING AND PROTECTION	SQYD	7,799
5963	INITIAL FERTILIZER (4)	TON	0.5
5964	MAINTENANCE FERTILIZER (4)	TON	0.3
5985	SEEDING AND PROTECTION	SQYD	8,834
5989	SPECIAL SEEDING CROWN VETCH	SQYD	41
5990	SODDING	SQYD	354
5992	AGRICULTURAL LIMESTONE (4)	TON	5.5
6406	SBM ALUM SHEET SIGNS .080 IN	SQFT	311.35
6410	STEEL POST TYPE 1	LF	425
6490	CLASS A CONCRETE FOR SIGNS	CUYD	3.00
6511	PAVE STRIPING-TEMP PAINT-6 IN	LF	11,759
6515	PAVE STRIPING-PERM PAINT-6 IN (8)	LF	6,671
6531	PAVE STRIPING REMOVAL-6 IN	LF	10,601
6546	PAVE STRIPING-THERMO-12 IN W	LF	41
6575	PAVE MARKING-THERMO COMB ARROW	EACH	4
20391NS835	ELECTRICAL JUNCTION BOX TYPE A	EACH	6
20550ND	SAWCUT PAVEMENT	LF	5,698
21289ED	LONGITUDINAL EDGE KEY	LF	1,471
21373ND	REMOVE SIGN	EACH	12
21543EN	BORE AND JACK CONDUIT	LF	250
21596ND	GMSS TYPE D	EACH	16
23274EN11F	TURF REINFORCEMENT MAT 1	SQYD	185
23745EC	YIELD LINES	EACH	20
23778EC	WIRE NO. 10	LF	6,100
24589ED	LED LUMINAIRE	EACH	12
24631EC	BARCODE SIGN INVENTORY	EACH	90
24900EC	PVC CONDUIT - 1 1/4 INCH - SCHEDULE 80	LF	1,675
24955ED	REMOVE SIGNAL EQUIPMENT (7)	EACH	1

NOTES:

- (1) NOT USED.
- (2) FOR CONTROLLING DUST CAUSED BY MAINTAINING TRAFFIC ONLY.
- (3) ESTIMATES FOR EARTHWORK CALCULATIONS FOR DESIGN ONLY. THE CONTRACTOR IS ADVISED THAT THE EARTHWORK CALCULATIONS SHOWN ARE FOR INFORMATION ONLY. ASSUMPTIONS FOR SHRINKAGE AND SWELL FACTORS ARE THE CONTRACTOR'S RESPONSIBILITIES.
- (4) 300 LBS. PER ACRE FOR MAINTENANCE FERTILIZER. 500 LBS. PER ACRE FOR INITIAL FERTILIZER. 3 TONS PER ACRE FOR AGRICULTURAL LIMESTONE.
- (5) FROM PIPE DRAINAGE SUMMARY.
- (6) FROM PAVING SUMMARY.
- (7) INCLUDES THE REMOVAL OF SIGNAL HEADS, CONTROLLER CABINET, AND SIGNAL/UTILITY POLES AT ONE LOCATION.
- (8) INCLUDES AN ADDITIONAL 776 LF TO REPLACE STRIPING OUTSIDE THE CONSTRUCTION ZONE THAT WAS REMOVED DURING THE MAINTENANCE OF TRAFFIC.

KY 686 ROUNDABOUT PAVING SUMMARY				COUNTY OF
				MONTGOMERY
ITEM	DESCRIPTION	UNIT	PROJECT TOTAL	
3	CRUSHED STONE BASE	TON	1,189	
78	CRUSHED AGGREGATE SIZE NO 2	TON	1,832	
100	ASPHALT SEAL AGGREGATE	TON	13	
103	ASPHALT SEAL COAT	TON	2	
190	LEVELING AND WEDGING PG64-22	TON	129	
212	CLASS 2 ASPHALT BASE 1.00D PG64-22	TON	644	
307	CLASS 2 ASPHALT SURFACE 0.38B PG64-22	TON	409	
24970EC	ASPHALT MATERIAL FOR TACK NON-TRACKING	TON	1	
2084	JPC PAVEMENT-8 IN	SQ YD	563	
2603	FABRIC-GEOTEXTILE CLASS 2	SQ YD	5,576	
2676	MOBILIZATION FOR MILL & TEXT	LS	1	
2677	ASPHALT PAVE MILLING & TEXTURING	TON	285	
8100	CONCRETE-CLASS A	CU YD	48	
20071EC	JOINT ADHESIVE	LF	5,856	

ALL ASPHALT MIXTURES SHALL BE ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH, UNLESS NOTED OTHERWISE.

- NOTES:
- ① ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH.
 - ② ESTIMATED AT 20 LBS. PER SQ. YD.
 - ③ ESTIMATED AT 2.4 LBS. PER SQ. YD.
 - ④ CARRIED FORWARD TO THE GENERAL SUMMARY.
 - ⑤ ESTIMATED AT 0.7 LBS. PER SQ. YD.
 - ⑥ INCLUDES AN ADDITIONAL 132 TONS FOR CONSTRUCTING AGGREGATE WEDGES ALONG PARTIAL WIDENING AREAS DURING CONSTRUCTION.
 - ⑦ FOR PAVING OF CONCRETE SPLITTER ISLANDS.

KY 686 ROUNDABOUT GUARDRAIL SUMMARY										COUNTY OF MONTGOMERY	
Proposed Guardrail to be Constructed							Existing Guardrail to be Removed				
Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Station	Approx. END Station	Proposed ENDING Treatment	Proposed Length (LF)	Number of Radius Rail	Remarks	Side of Road	Approx. BEGIN Station	Approx. END Station	Existing Length (LF)
RT		16+76.24	17+00.00		24		Connect to Ex. Guardrail	RT	16+76.24	17+00.00	24
RT		17+00.00	92+00.00		401			RT	17+00.00	92+00.00	389
RT		92+00.00	92+46.53		47		Connect to Ex. Guardrail	RT	92+00.00	92+46.53	47

NOTES: Begin/End Stations 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.

Summary of Items			
Guardrail - Steel "W" Beam- S Face	472	LF	Delineator for Guardrail BW
Remove Guardrail	460	LF	10 EACH

**KY 686 ROUNDABOUT
 PAVEMENT MARKINGS SUMMARY**

Begin Station	End Station	Side	Quantity	Pavement Markings	Comments
16+76	53+50	Roundabout Edgelines	2505	Solid White	6" Paint
17+61	52+49	Roundabout Edgelines	1331	Solid Yellow	6" Paint
16+76	53+50	Roundabout Centerlines	2059	Double Solid Yellow	6" Paint
19+51	50+49	Roundabout Yield Lines	41	Yield Line	Thermo - 12" Wide, 2' Long with a 2' Gap

THERMOPLASTIC INTERSECTION MARKINGS			
Station	Intersection	Quantity	Comments
See Plans	KY 713	20	Yield Triangles - 2' Wide, 3' Long with a 1' Gap
See Plans	KY 713	4	Combination Roundabout Arrow

INTERSECTION MARKINGS	Totals
Pavement Striping - 6 IN White	2505 LF
Pavement Striping - 6 IN Yellow	3390 LF
Pavement Striping - Thermo - 12 IN White	41 LF
Pavement Marking - Thermo - Yield Triangle	20 EACH
Pavement Marking - Thermo - Combination Roundabout Arrow	4 EACH

Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Travelling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SMM Alum Signs (SQ FT)	SMM Alum Signs (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	Stiffener Req'd (incont to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
										Text/ Symbol Color	Background Color	Sheeting Type										
S-1	R	30	13+50	0.256	EB	W2-6	Circular Intersection		30 x 30	Black	Yellow	XI	6.25		Type D		1	14			14	1
						W16-17P	Roundabout	20 M.P.H.	24 x 18	Black	FL Yellow	XI	2.00									
S-2	R	30	11+50	0.218	EB	M2-1	Junction	713	21 x 15	Black	White	XI	2.19		Std w/ Soil Plate		1	13			13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00									
S-4	R	34	15+50	0.294	EB	M3-4	West		24 x 12	Black	White	XI	2.00		Std w/ Soil Plate	Yes	1	15			15	1
						M1-5a	State Route Sign (3 or 4 digit)	713	30 x 24	Black	White	XI	5.00									
						M5-3	Advance Roundabout Turn Arrow		21 x 15	Black	White	XI	2.19									
S-5	R	37	15+50	0.294	EB	M3-2	East		24 x 12	Black	White	XI	2.00		Std w/ Soil Plate	Yes	1	16			16	1
						M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00									
						M6-3	Straight Arrow		21 x 15	Black	White	XI	2.19									
S-6	R	40	15+50	0.294	EB	M3-2	East		24 x 12	Black	White	XI	2.00		Std w/ Soil Plate	Yes	1	16			16	1
						M1-5a	State Route Sign (3 or 4 digit)	713	30 x 24	Black	White	XI	5.00									
						M5-1R	Advance Right Turn Arrow		21 x 15	Black	White	XI	2.19									
S-8	L	28	17+43	0.330	WB	M3-4	West		24 x 12	Black	White	XI	2.00		Std w/ Soil Plate		1	13			13	1
						M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00									
						R1-2	Yield		30 x 30	White	Red	XI	3.90									
S-9	R	43	19+35	0.366	EB	R6-5P	Roundabout Circulation		30 x 30	Black	White	XI	6.25		Std w/ Soil Plate		1	16			16	1
						M3-4	West		24 x 12	Black	White	XI	2.00									
						M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00									
S-10	C	5	19+43	0.368	WB	M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00		Type D Surface Mount		1	12			12	1
						M6-2R	Upward Right Diagonal Arrow		21 x 15	Black	White	XI	2.19									
						R1-2	Yield		36 x 36 x 36	White	Red	XI	6.25									
S-11	R	41	75+94	1.438	EB	R6-5P	Roundabout Circulation		30 x 30	Black	White	XI	6.25		Type D		1	14			14	1
						M3-4	West		24 x 12	Black	White	XI	2.00									
						M1-5a	State Route Sign (3 or 4 digit)	713	30 x 24	Black	White	XI	5.00									
S-12	C	0	75+99	1.439	WB	M6-2R	Upward Right Diagonal Arrow		21 x 15	Black	White	XI	2.19		Type D Surface Mount		1	12			12	1
						R6-1R	One Way		36 x 12	Black	White	XI	3.00									
						R6-4	One Way		36 x 12	Black	White	XI	3.00									
S-14	C	10	19+90	0.377	EB	R6-4	2 Chevrons		36 x 12	Black	White	XI	3.00		Std w/ Soil Plate		1	12			12	1
						R6-1R	One Way		36 x 12	Black	White	XI	3.00									
						R6-4	2 Chevrons		36 x 12	Black	White	XI	3.00									
S-15	C	19	76+45	1.448	EB	R6-4	2 Chevrons		36 x 12	Black	White	XI	3.00		Std w/ Soil Plate		1	12			12	1
						R6-1R	One Way		36 x 12	Black	White	XI	3.00									
						R6-4	2 Chevrons		36 x 12	Black	White	XI	3.00									
S-16	C	1	90+35	1.711	WB	R6-1R	2 Chevrons		30 x 24	Black	White	XI	5.00		Std w/ Soil Plate		1	12			12	1
						R6-4	One Way		30 x 24	Black	White	XI	5.00									
						R6-1R	2 Chevrons		30 x 24	Black	White	XI	5.00									
S-17	C	8	50+11	0.949	WB	R6-1R	One Way		30 x 24	Black	White	XI	5.00		Std w/ Soil Plate		1	12			12	1
						R6-4	2 Chevrons		30 x 24	Black	White	XI	5.00									
						M3-2	East		24 x 12	Black	White	XI	2.00									
S-18	C	10	90+84	1.720	EB	M1-5a	State Route Sign (3 or 4 digit)	713	30 x 24	Black	White	XI	5.00		Type D Surface Mount		1	12			12	1
						M6-2R	Upward Right Diagonal Arrow		21 x 15	Black	White	XI	2.19									
						R1-2	Yield		36 x 36 x 36	White	Red	XI	3.90									
S-19	L	32	90+82	1.720	WB	R1-2	Yield		36 x 36 x 36	White	Red	XI	6.25		Type D		1	14			14	1
						R6-5P	Roundabout Circulation		30 x 30	Black	White	XI	2.00									
						M3-2	East		24 x 12	Black	White	XI	2.00									
S-20	R	25	92+00	1.742	EB	M1-5a	State Route Sign (3 or 4 digit)	713	30 x 24	Black	White	XI	5.00		Std w/ Soil Plate		1	13			13	1
						R1-2	Yield		36 x 36 x 36	White	Red	XI	3.90									
						R6-5P	Roundabout Circulation		30 x 30	Black	White	XI	2.00									
S-22	L	42	50+65	0.959	WB	R1-2	Yield		30 x 30	Black	White	XI	6.25		Std w/ Soil Plate		1	16			16	1
						M3-2	East		24 x 12	Black	White	XI	2.00									
						M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00									
S-23	C	5	50+58	0.958	EB	M6-2R	Upward Right Diagonal Arrow		21 x 15	Black	White	XI	2.19		Type D Surface Mount		1	12			12	1
						M3-2	East		24 x 12	Black	White	XI	2.00									
						M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00									
S-25	R	30	52+58	0.996	EB	M3-2	East		24 x 12	Black	White	XI	2.00		Std w/ Soil Plate		1	14			14	1
						M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00									

Assembly ID	Side of Road	Approx Offset (ft)	Approx Station	Approx. Mile Point	Facing Traffic Travelling	MUTCD Code	Sign Description	Sign Text / Remarks	Sign Dimensions (in x in)	SHEETING			SMB Alum Sheet Signs (SQ FT)	SMB Alum Sheet Signs (SQ FT)	Installation Type	Bracing Req'd	# of Sign Posts	Estimated Length of 2" Post (ft)	Estimated Length of 2-1/2" Post (ft)	Stiffener Req'd (incont to post)	TOTAL Estimated Sign Post Length (LF)	Barcode Sign Inv. (EACH)
										Text/ Symbol Color	Background Color	Sheeting Type										
S-26	L	30	54+50	1.032	WB	M3-2	East State Route Sign (3 or 4 digit)	713	24 x 12	Black	White	XI	2.00			Yes					13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					24	1
						M5-3	Advance Roundabout Turn Arrow		21 x 15	Black	White	XI	2.19			Yes					12	1
S-27	L	33	54+50	1.032	WB	M3-4	West State Route Sign (3 or 4 digit)	686	24 x 12	Black	White	XI	2.00			Yes					13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					26	1
						M6-3	Straight Arrow		21 x 15	Black	White	XI	2.19			Yes					12	1
						M3-4	West State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
S-28	L	36	54+50	1.032	WB	M1-5a	State Route Sign (3 or 4 digit)	713	30 x 24	Black	White	XI	5.00			Yes					13	1
						M5-1R	Advance Right Turn Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M2-1	Junction		30 x 24	Black	White	XI	5.00			Yes					13	1
S-30	L	31	58+50	1.108	WB	M2-6	Circular Intersection		30 x 30	Black	Yellow	XI	6.25			Yes					14	1
						M2-5	Circular Intersection		24 x 12	Black	Yellow	XI	2.25			Yes					14	1
						W16-77F	Roundabout		30 x 30	Black	Yellow	XI	6.25			Yes					14	1
S-31	L	31	56+50	1.070	WB	W13-1P	XX MPH (Advisory Speed)	20 M.P.H.	24 x 12	Black	Yellow	XI	2.00			Yes					15	1
						W2-6	Circular Intersection		30 x 30	Black	Yellow	XI	6.25			Yes					15	1
S-32	R	25	69+86	1.323	EB	W16-77F	Roundabout		24 x 12	Black	Yellow	XI	2.00			Yes					14	1
						W13-1P	XX MPH (Advisory Speed)	20 M.P.H.	18 x 18	Black	FL Yellow	XI	2.25			Yes					14	1
						M2-1	Junction		21 x 15	Black	White	XI	2.19			Yes					14	1
S-33	R	24	67+86	1.285	EB	M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00			Yes					14	1
						M3-2	East State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					14	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					14	1
S-35	R	19	72+00	1.364	EB	M5-3	Advance Roundabout Turn Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M3-2	East State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					13	1
S-36	R	22	72+00	1.364	EB	M6-3	Straight Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M3-4	West State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					13	1
S-37	R	25	72+00	1.364	EB	M5-1R	Advance Right Turn Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M3-4	West State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					13	1
S-38	L	17	94+75	1.795	WB	M5-3	Advance Roundabout Turn Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M3-4	West State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
						M1-5a	State Route Sign (3 or 4 digit)		30 x 24	Black	White	XI	5.00			Yes					13	1
S-39	L	20	94+75	1.795	WB	M3-2	East State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
						M6-3	Straight Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M3-2	East State Route Sign (3 or 4 digit)		24 x 12	Black	White	XI	2.00			Yes					13	1
S-40	L	23	94+75	1.795	WB	M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00			Yes					13	1
						M5-1R	Advance Right Turn Arrow		21 x 15	Black	White	XI	2.19			Yes					13	1
						M2-1	Junction		30 x 24	Black	White	XI	5.00			Yes					13	1
S-42	L	14	98+75	1.870	WB	M1-5a	State Route Sign (3 or 4 digit)	686	30 x 24	Black	White	XI	5.00			Yes					13	1
						W2-6	Circular Intersection		30 x 30	Black	Yellow	XI	6.25			Yes					13	1
						W16-77F	Roundabout		24 x 12	Black	Yellow	XI	2.00			Yes					13	1
S-43	L	16	96+75	1.832	WB	W13-1P	XX MPH (Advisory Speed)	20 M.P.H.	18 x 18	Black	FL Yellow	XI	2.25			Yes					13	1

Summary of Items			
SBM Alum Sheet Signs 0.080 INCH	311.35	SQ FT	
SBM Alum Sheet Signs 0.125 INCH	0.00	SQ FT	
Barcode Sign Inventory	90	EACH	

Summary of Items			
Steel Post - Type 1	425	LF	
GNSS Type D	12	EACH	
GNSS Type D (Surface Mount)	4	EACH	
Class A Concrete for Signs	3	CU YD	

KY 886 ROUNDABOUT
PIPE SUMMARY

LOCATION AND STATION	SKEW	DESIGN Ph LEVEL	COVER HEIGHT	CULVERT PIPE		STORM SEWER PIPE		PIPE CULVERT HEADWALL			REMOVE PIPE	SLOPED BOX OUTLET TYPE 1		DROP BOX INLET TYPE		FLUME INLET TYPE 2	MANHOLE TYPE A	CHANNEL LINING CLASS II	FABRIC - GEOTEXTILE CLASS		DITCH EXCAVATION	CONNECT TO EXISTING CULVERT	PIPELINE VIDEO INSPECTION	REMARKS		
				42"	15"	18"	15"	18"	42"	18"		13G	13S	1	2 FOR PIPE											
51+39.35 TO 51+45.74																										
50+30.10 TO 50+77.29																										
75+36.48 TO 75+52.53																										
75+52.53 TO 76+04.35																										
75+25.32 TO 75+65.77																										
19+50.86 TO 19+80.67																										
17+61.48 TO 18+33.21																										
90+55.63 TO 90+94.08																										
91+15.17																										
19+11.11																										
91+25.21																										
TOTAL				24	345	240	3	2	1	4	1	11	2	2	1	1	92	145	1,647	8	1	530				

- ① CARRIED FORWARD TO GENERAL SUMMARY.
- ② FOR INFORMATIONAL PURPOSES ONLY.

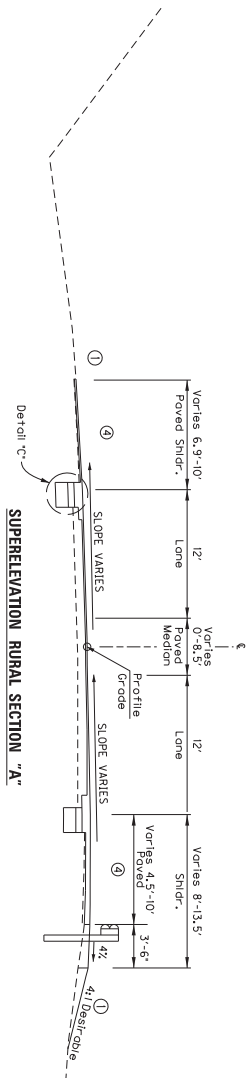
① ① ① ① ②

COUNTY OF
MONTGOMERY

NOTES:

- ① SEE CROSS SECTIONS FOR SHOULDER LIMITS OF THE SHOULDERS.
- ② MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVEMENT SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" FOR THE MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ③ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE OF THE PAVED SHOULDER TO FLOWN TWO FEET DOWN THE DITCH OR FILL SLOPE.

TYPICAL SECTIONS KY 686



TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3.57" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1,000 PG64-22
- 6" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1,000 PG64-22
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

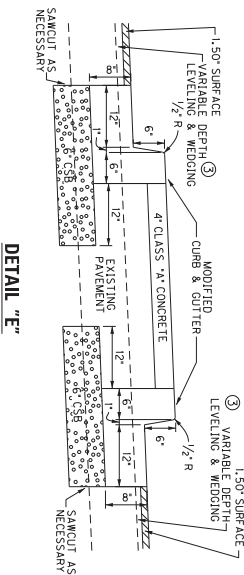
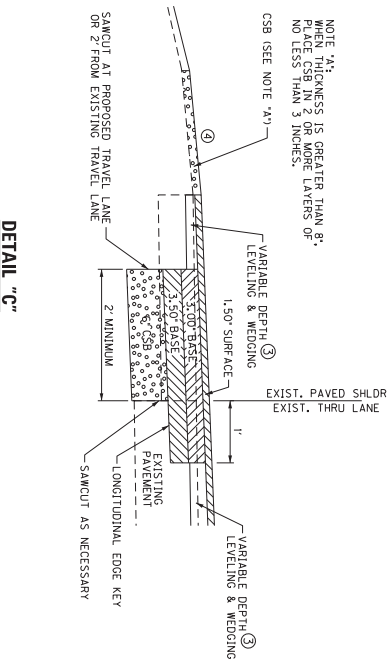
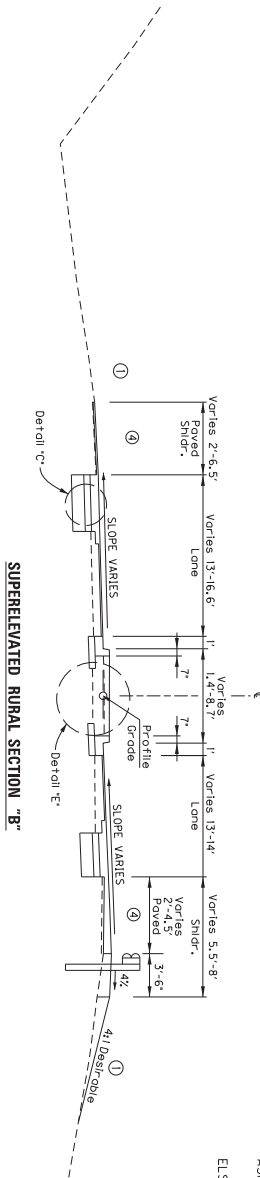
TRAFFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3.57" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1,000 PG64-22
- 6" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1,000 PG64-22
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

ASPHALT SEAL:

- ASPHALT SEAL COAT 2.4 LB/SQ. YD. (2 APPLICATIONS)
- ASPHALT SEAL AGGREGATE 20 LB/SQ. YD. (SIZE NO. 8 OR 9W) (2 APPLICATIONS)

ELSEWHERE: COMPACTED EARTH



NTS

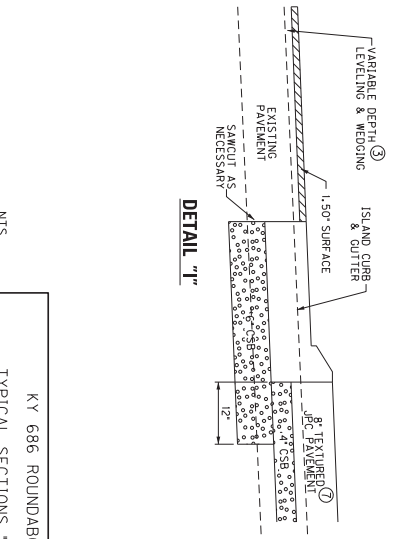
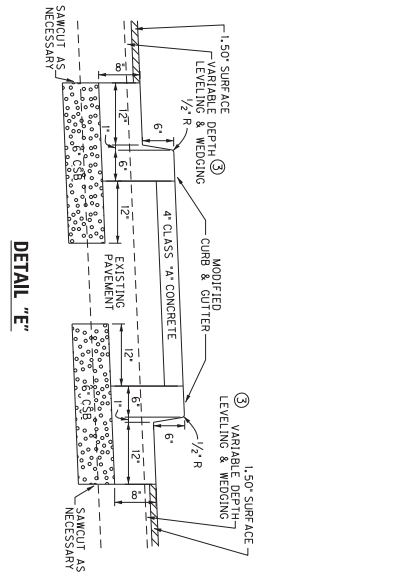
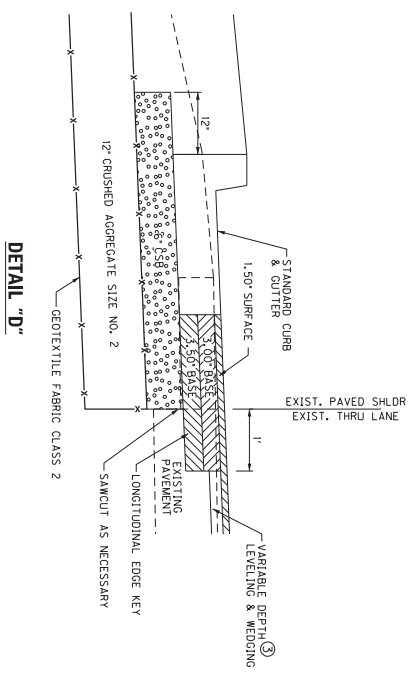
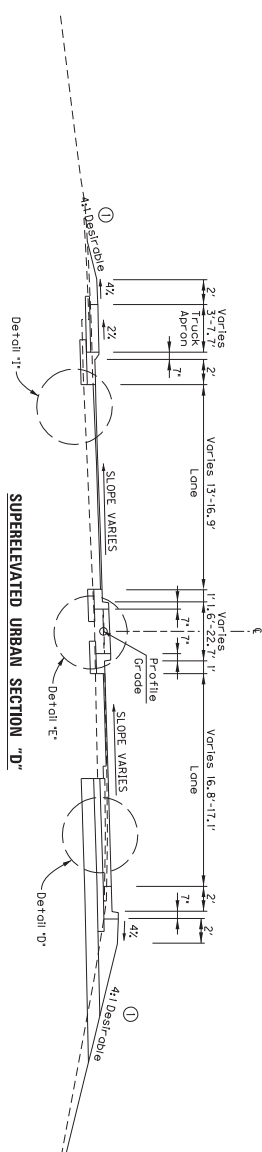
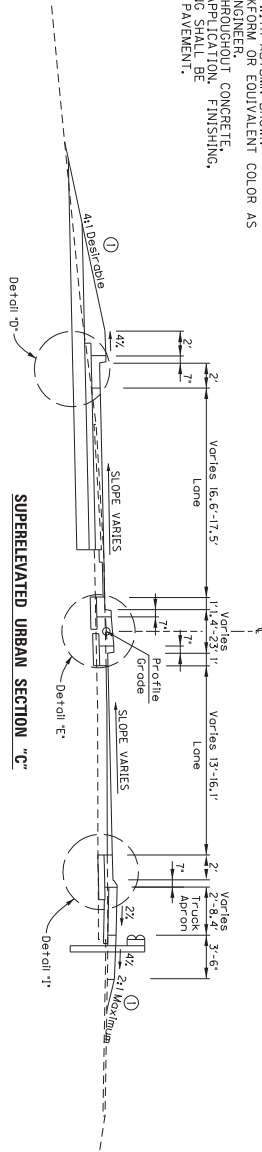
KY 686 ROUNDABOUT
TYPICAL SECTIONS "A-B"

COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-964.00	TS1

NOTES:

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS.
- ② MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVEMENT SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" OF ASPHALT SURFACE TO BE MAINTAINED FOR THE UNIT BID PER TON FOR MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ③ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE OF THE PAVED SHOULDER TO POINT TWO FEET DOWN THE DITCH OR FILL SLOPE.
- ④ TEXTURED JPC PAVEMENT IS TO BE AS FOLLOWS:
STAMP = LONDON COBBLE FM-540 BY BRICKFORM OR EQUIVALENT APPROVED BY SECTION ENGINEER. RELEASE AGENT BY BRICKFORM OR EQUIVALENT COLOR AS APPROVED BY SECTION ENGINEER.
COLOR TO BE APPLIED THROUGHOUT CONCRETE. NOT ONLY ON SURFACE APPLICATION, FINISHING, BUT ON ALL VERTICAL SURFACES TO BE INCIDENT TO THE JPC PAVEMENT.

TYPICAL SECTIONS KY 686



TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.00D PG64-22
- 3.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.00D PG64-22
- 6" COMPACTED DEPTH CRUSHED STONE BASE 1.00D PG64-22
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

TRAFFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- VARIABLE DEPTH LEVELING AND WEDGING, PG64-22
- DEPTH VARIES AS REQUIRED TO ACHIEVE PROPOSED PROFILE GRADE.
- CONSTRUCT IN TENS TO CORRESPOND WITH CONSTRUCTION OF NEW PAVEMENT¹⁾
- 1.50" MILLING AND TEXTURING OF EXISTING PAVEMENT

COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-964.00	152

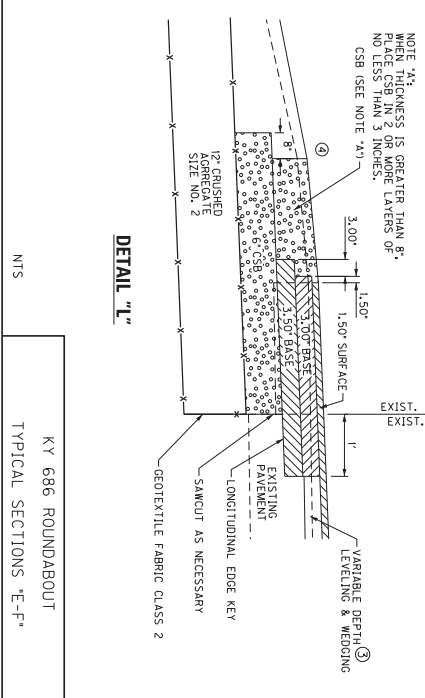
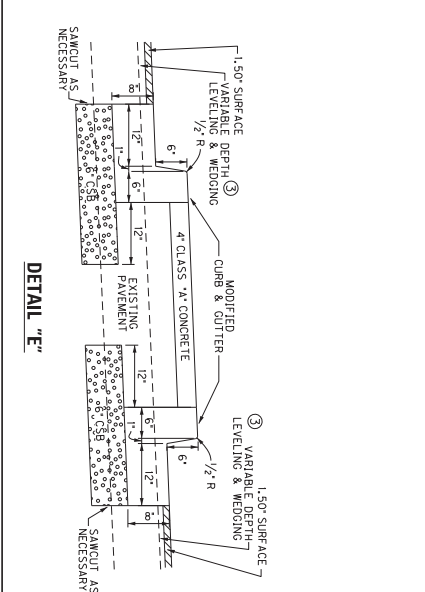
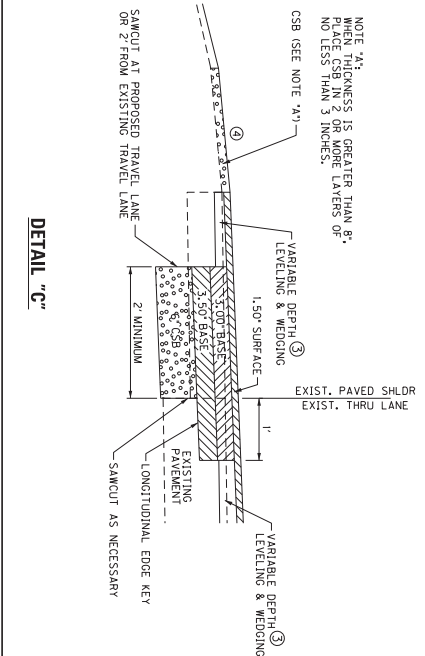
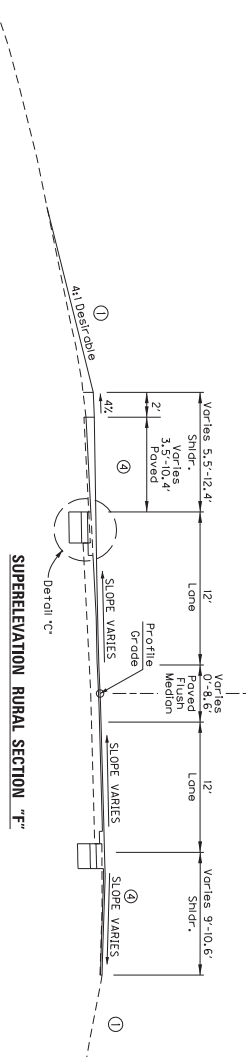
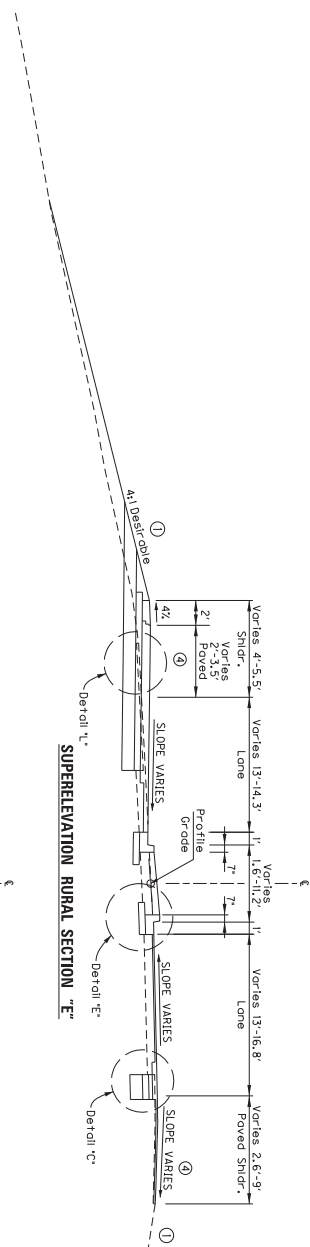
KY 686 ROUNDABOUT
TYPICAL SECTIONS 'C - D'

NOTES:

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS.
- ③ MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVED SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" OF ASPHALT SURFACE. THE MINIMUM DEPTH OF ASPHALT FOR THE UNIT BID PER FOOT FOR MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ④ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE OF THE ASPHALT SHOULDERS TO POINT TWO FEET DOWN THE DITCH OR FILL SLOPE.

TYPICAL SECTIONS KY 686

COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	153



KY 686 ROUNDABOUT
TYPICAL SECTIONS 'E-F'

TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.00D PG64-22
- 3.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.00D PG64-22
- 6" COMPACTED DEPTH CRUSHED STONE BASE
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

TRAFFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- VARIABLE DEPTH LEVELING AND WEDGING PG64-22
- DEPTH VARIES AS REQUIRED TO ACHIEVE PROPOSED PROFILE GRADE.
- CONSISTENT LAYERS TO CORRESPOND WITH CONSTRUCTION OF "NEW PAVEMENT"
- 1.50" MILLING AND TENUING OF EXISTING PAVEMENT

ASPHALT SEAL:

- ASPHALT SEAL COAT 2.4 LB/SQ. YD. (2 APPLICATIONS)
- ASPHALT SEAL AGGREGATE 20 LB/SQ. YD. (SIZE NO. 8 OR 9M (2 APPLICATIONS))
- ELSEWHERE: COMPACTED EARTH

NOTE 'A':
MINIMUM THICKNESS IS GREATER THAN 8".
PLACE CSB IN 2 OR MORE LAYERS OF
NO LESS THAN 3 INCHES.
CSB (SEE NOTE 'A1')

NOTE 'A':
MINIMUM THICKNESS IS GREATER THAN 8".
PLACE CSB IN 2 OR MORE LAYERS OF
NO LESS THAN 3 INCHES.
CSB (SEE NOTE 'A1')

NTS

TYPICAL SECTIONS CIRCULATORY ROADWAY

NOTES:

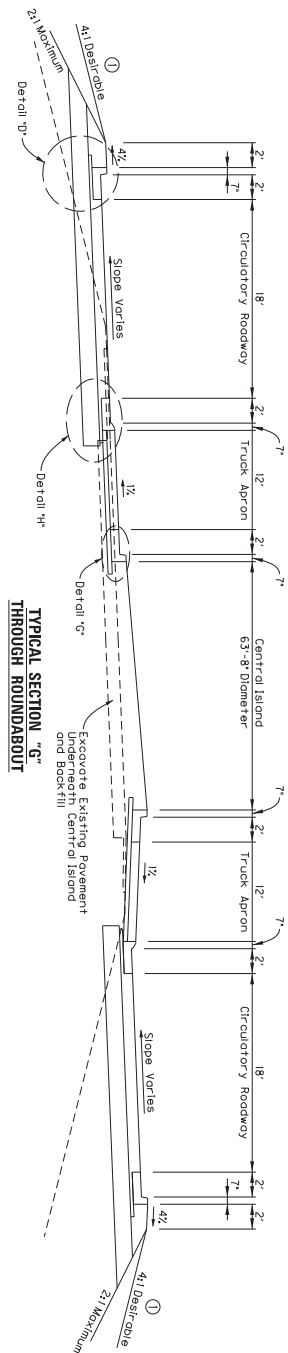
- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS.
- ② MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVEMENT SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" FOR THE UNIT BELOW. MILLING SHALL BE AT THE UNIT BID PER FOOT FOR MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ③ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE OF THE PAVED SHOULDER TO THE POINT TWO FEET DOWN THE DITCH OR FILL SLOPE.
- ④ TEXTURED JPC PAVEMENT IS TO BE AS FOLLOWS:
STAMP = LONDON COBBLE FM-540 BY BRICKFORM OR EQUIVALENT APPROVED BY SECTION ENGINEER. RELEASE AGENT BY BRICKFORM OR EQUIVALENT AS APPROVED BY SECTION ENGINEER.
COLOR TO BE APPLIED THROUGHOUT CONCRETE, NOT ONLY AS SURFACE APPLICATION, FINISHING, BUT THROUGHOUT THE ENTIRE THICKNESS OF THE ASPHALT PAVEMENT.

TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

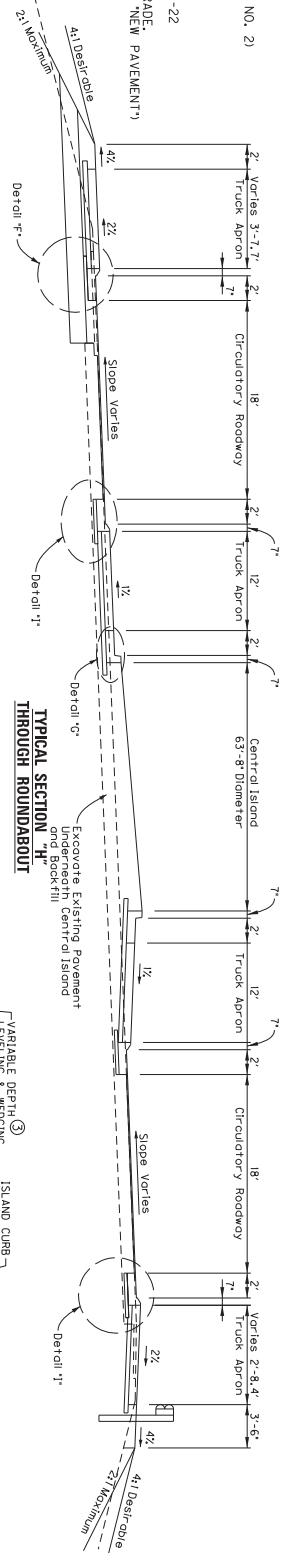
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 PG64-22
- 4.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 PG64-22
- 6" COMPACTED DEPTH CRUSHED STONE BASE
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

TRAFFIC LANES (OVERLAY):

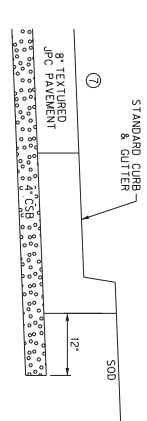
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- VARIABLE DEPTH LEVELING AND WEDGING PG64-22
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- CONSTRUCT IN LAYERS TO CORRESPOND WITH CONSTRUCTION OF NEW PAVEMENT
- 1.50" MILLING AND TEXTURING OF EXISTING PAVEMENT



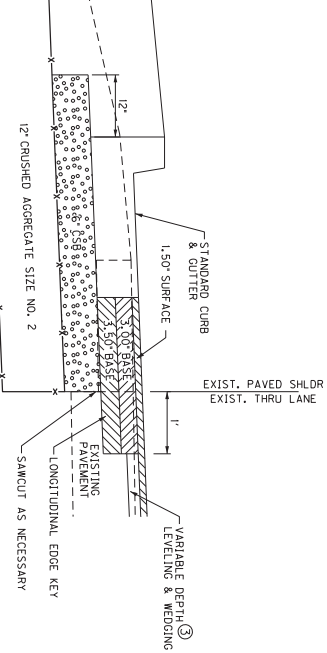
TYPICAL SECTION "G" THROUGH ROUNDABOUT



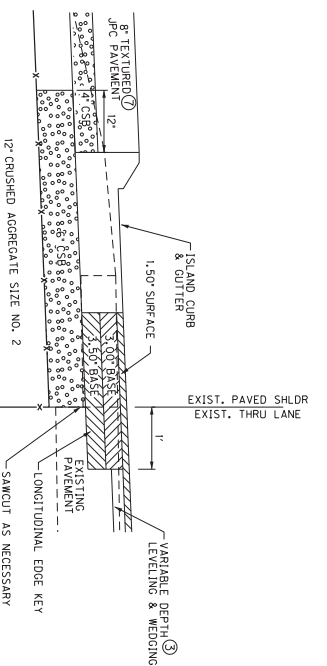
TYPICAL SECTION "H" THROUGH ROUNDABOUT



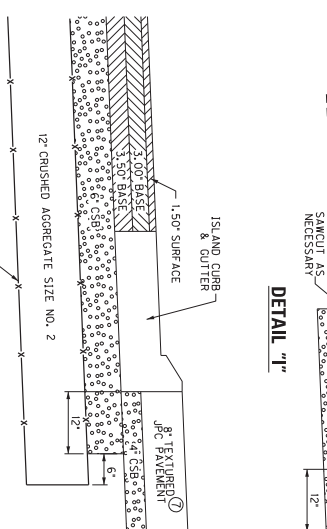
DETAIL "G"



DETAIL "D"



DETAIL "F"



DETAIL "I"



DETAIL "H"

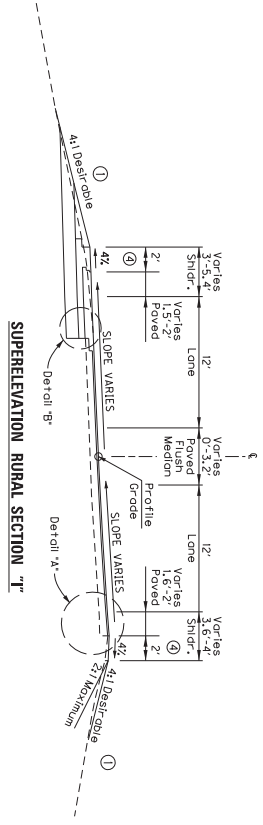
NTS
KY 686 ROUNDABOUT
TYPICAL SECTIONS "G-H"

COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-964.00	154

NOTES:

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS.
- ② MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVEMENT SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" OF ASPHALT PER TON FOR MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ③ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE DOWN THE PAVED SHOULDER OR FILL SLOPE.
- ④ TEXTURED JPC PAVEMENT IS TO BE AS FOLLOWS:
STAMP = LONDON COBBLE FM-540 BY BRICKFORM ON 0.388" COMPACTED DEPTH CLASS 2 ASPHALT BASE. RELEASE AGENT BY BRICKFORM OR EQUIVALENT COLOR AS APPROVED BY SECTION ENGINEER.
NOT ONLY AS SURFACE APPLICATION, FINISHING, THE COLOR OF THE JPC PAVEMENT.

TYPICAL SECTIONS KY 713



TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

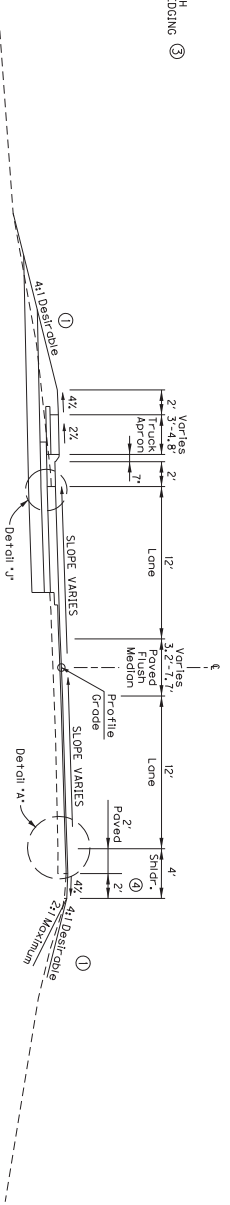
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 PG64-22
- 3.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 PG64-22
- 6" COMPACTED DEPTH CRUSHED STONE BASE
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

TRAFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- VARIABLE DEPTH LEVELING AND WEDGING PG64-22
- ④ JPC PAVEMENT AS REQUIRED TO ACHIEVE PROPOSED PROFILE GRADE.
- CONSTRUCT IN LAYERS TO CORRESPOND WITH CONSTRUCTION OF "NEW PAVEMENT"
- 1.50" MILLING AND TEXTURING OF EXISTING PAVEMENT

ASPHALT SEAL:

ASPHALT SEAL COAT 2.4 LB/50. YD. (2 APPLICATIONS)
ASPHALT SEAL AGGREGATE 20 LB/50. YD. (SIZE NO. 8 OR 9M) (2 APPLICATIONS)
ELSEWHERE, COMPACTED EARTH



TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- 3" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 PG64-22
- 3.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 PG64-22
- 6" COMPACTED DEPTH CRUSHED STONE BASE
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

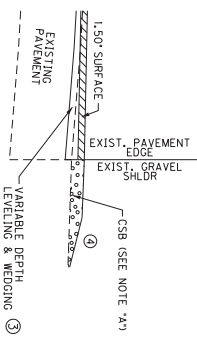
TRAFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 PG64-22
- VARIABLE DEPTH LEVELING AND WEDGING PG64-22
- ④ JPC PAVEMENT AS REQUIRED TO ACHIEVE PROPOSED PROFILE GRADE.
- CONSTRUCT IN LAYERS TO CORRESPOND WITH CONSTRUCTION OF "NEW PAVEMENT"
- 1.50" MILLING AND TEXTURING OF EXISTING PAVEMENT

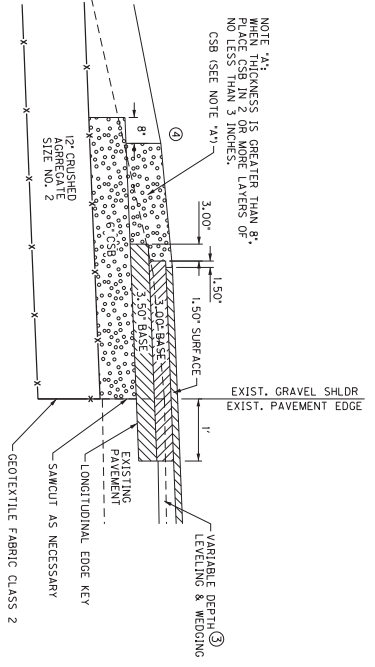
ASPHALT SEAL:

ASPHALT SEAL COAT 2.4 LB/50. YD. (2 APPLICATIONS)
ASPHALT SEAL AGGREGATE 20 LB/50. YD. (SIZE NO. 8 OR 9M) (2 APPLICATIONS)
ELSEWHERE, COMPACTED EARTH

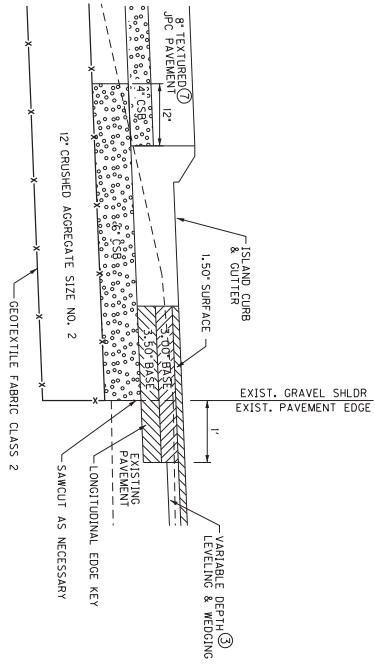
DETAIL "A"



DETAIL "B"



DETAIL "J"



NTS

KY 686 ROUNDABOUT
TYPICAL SECTIONS "I"- "J"

COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-984.00	155

NOTES:

- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS.
- ② MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVEMENT SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" OF ASPHALT SURFACE FOR MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ③ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE DOWN THE DITCH OR FILL SLOPE.
- ④ TEXTURED JPC PAVEMENT IS TO BE AS FOLLOWS:
 STAMP = LONDON COBBLE FM-540 BY BRICKFORM OR EQUIVALENT APPROVED BY SECTION ENGINEER, RELEASE AGENT BY BRICKFORM OR EQUIVALENT COLOR AS APPROVED BY SECTION ENGINEER.
 COLOR TO BE APPLIED THROUGHOUT CONCRETE, NOT ONLY SURFACE APPLICATION, FINISHING, INCIDENTAL TO THE JPC PAVEMENT.

TYPICAL SECTIONS KY 713

TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

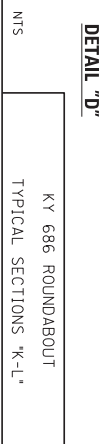
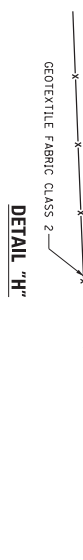
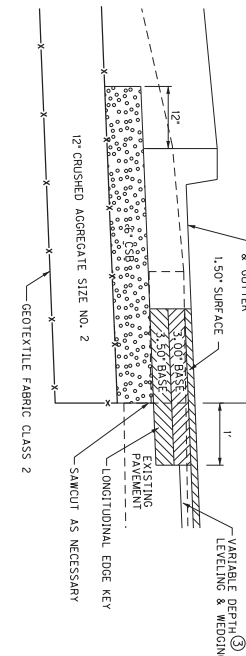
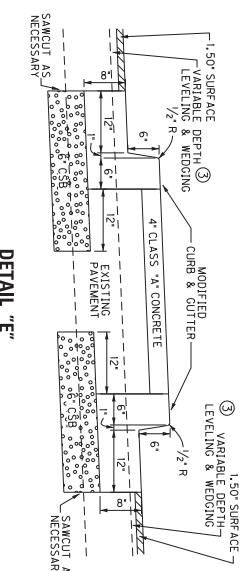
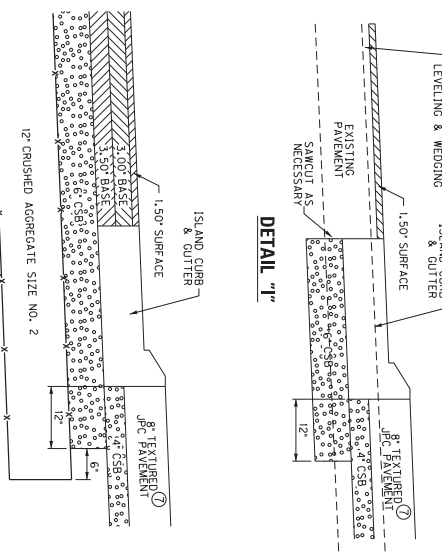
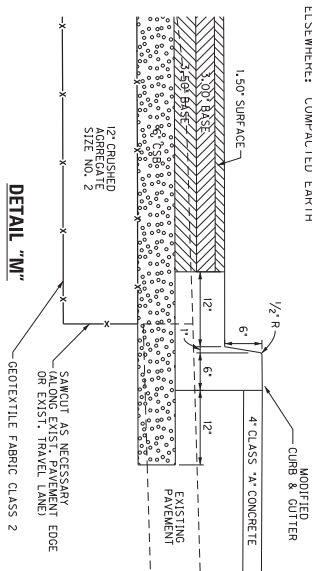
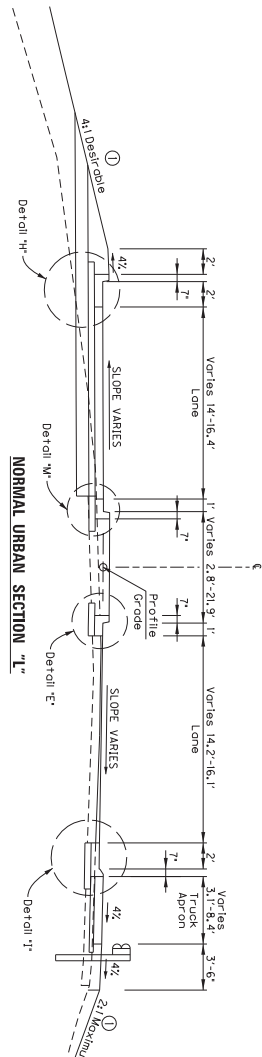
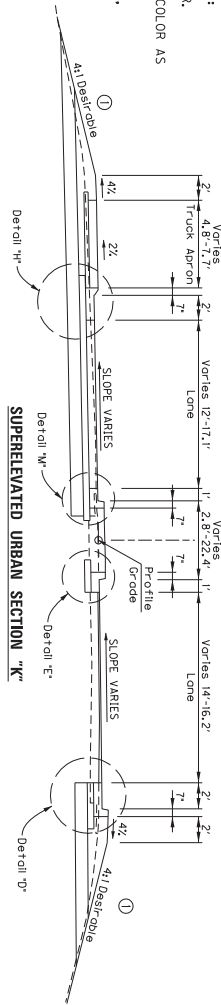
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 P664-22
- 3" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 P664-22
- 3.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 P664-22
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

TRAFFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 P664-22
- VARIABLE DEPTH LEVELING AND WEDGING P664-22 (DEPTH VARIES AS REQUIRED TO CORRECT PROPOSED PROFILE GRADE)
- 1.50" MILLING AND TEXTURING OF EXISTING PAVEMENT

ASPHALT SEAL:

- ASPHALT SEAL COAT 2.4 LB/50 YD. (2 APPLICATIONS)
- ASPHALT SEAL AGGREGATE 20 LB/50 YD. (SIZE NO. 8 OR 9M (2 APPLICATIONS))
- ELSEWHERE: COMPACTED EARTH



COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	TS6

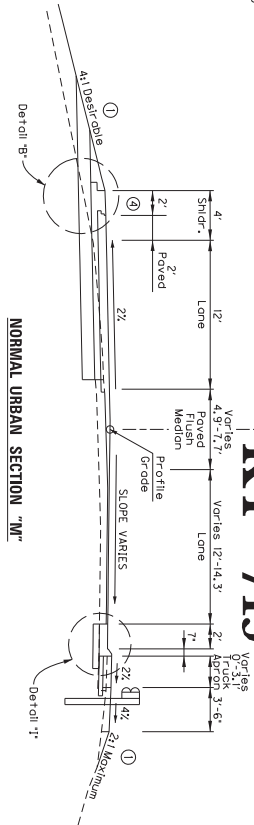
KY 686 ROUNDABOUT
 TYPICAL SECTIONS 'K-L'

NOTES:

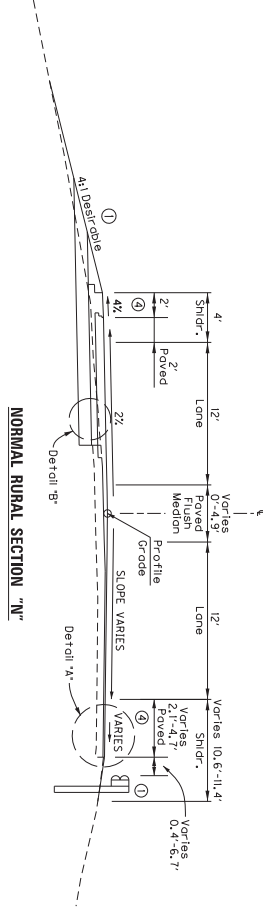
- ① SEE CROSS SECTIONS FOR SLOPES OUTSIDE THE LIMITS OF THE SHOULDERS.
- ② MILLING MAY BE REQUIRED ON THE EXISTING ASPHALT PAVEMENT SURFACE TO MAINTAIN A MINIMUM DEPTH OF 1.50" OF ASPHALT FOR THE UNIT BID PER TON FOR MILLING. SEE CROSS SECTIONS FOR THE THICKNESS OF THE ASPHALT BASE COURSES.
- ③ ASPHALT SEAL REQUIRED FROM THE OUTSIDE EDGE DOWN THE DITCH OR FILL SLOPE.
- ④ TEXTURED JPC PAVEMENT IS TO BE AS FOLLOWS:
STAMP = LONDON COBBLE FM-540 BY BRICKFORM OR EQUIVALENT APPROVED BY SECTION ENGINEER.
RELEASE AGENT BY BRICKFORM OR EQUIVALENT COLOR AS APPROVED BY SECTION ENGINEER.
COLOR TO BE APPLIED THROUGHOUT CONCRETE, NOT ONLY AS SURFACE APPLICATION, FINISHING, INCLUDING CURB AND GUTTER, AND BE INCIDENTAL TO THE JPC PAVEMENT.

TYPICAL SECTIONS

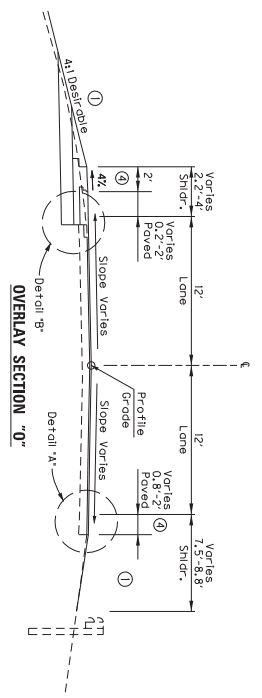
KY 713



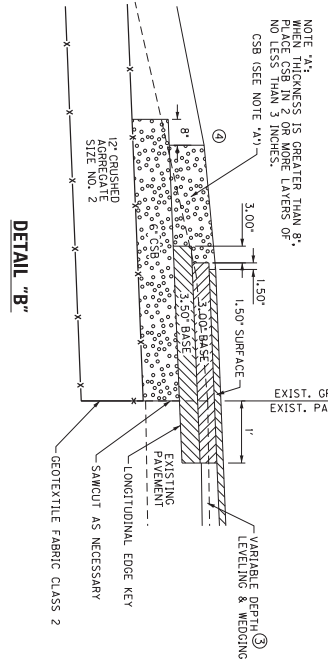
NORMAL URBAN SECTION "M"



NORMAL RURAL SECTION "N"

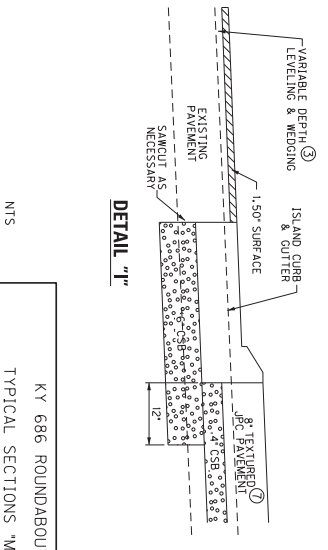


OVERLAY SECTION "O"



DETAIL "A"

DETAIL "B"



DETAIL "T"

NTS

KY 686 ROUNDABOUT
TYPICAL SECTIONS "M-O"

TRAFFIC LANES & SHOULDERS (NEW PAVEMENT):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 P664-22
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 P664-22
- 3.5" COMPACTED DEPTH CLASS 2 ASPHALT BASE 1.000 P664-22
- 6" COMPACTED DEPTH CRUSHED STONE BASE
- 12" COMPACTED DEPTH ROCK SUBBASE (CRUSHED AGGREGATE SIZE NO. 2)

TRAFFIC LANES (OVERLAY):

- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 P664-22
- 1.50" COMPACTED DEPTH CLASS 2 ASPHALT SURFACE 0.388 P664-22
- DEPTH VARIES AS REQUIRED TO ACHIEVE PROPOSED PROFILE GRADE.
- CONSTRUCT IN LAYERS TO CORRESPOND WITH CONSTRUCTION OF "NEW PAVEMENT"
- 1.50" MILLING AND TEXTURING OF EXISTING PAVEMENT

ASPHALT SEAL:

- ASPHALT SEAL COAT 2.4 LB/50. YD. (2 APPLICATIONS)
- ASPHALT SEAL AGGREGATE 20 LB/50. YD. (SIZE NO. 8 OR 9M) (2 APPLICATIONS)
- ELSEWHERE: COMPACTED EARTH

COUNT OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-964.00	157

COORDINATE CONTROL POINTS					
POINT	DESCRIPTION	State Plane Coordinates			STATION and OFFSET
		NORTH (N)	EAST (E)	ELEV (Z)	
C.R.#101	Concrete Monument	3914599.80	5449622.59	954.58	N/A
C.R.#102	Concrete Monument	3913483.14	5449622.59	954.29	N/A
C.R.#103	Concrete Monument	3916192.06	5448405.59	903.88	N/A
C.R.#104	Rebar in Concrete	3916072.52	5449252.56	914.25	N/A

KY 686 SOUTH PROPOSED ALIGNMENT					
POINT	STATION	State Plane Coordinates			
		NORTH (N)	EAST (E)	ELEV (Z)	
PC	10+00.00	391912.1590	5448468.0793		
PI	12+49.35	392121.3760	5448615.5904		
P.C.C	14+98.70	392331.0537	5448761.9484		
PI	17+66.65	392551.9939	5448919.2359		
P.T.	20+33.80	392767.9713	5449066.1633		

KY 686 NORTH PROPOSED ALIGNMENT					
POINT	STATION	State Plane Coordinates			
		NORTH (N)	EAST (E)	ELEV (Z)	
PC	50+00.00	3912763.732	5449063.435		
PI	54+12.20	3913118.83	5449263.657		
P.T.	58+21.05	3913499.649	5449421.402		

KY 713 WEST PROPOSED ALIGNMENT					
POINT	STATION	State Plane Coordinates			
		NORTH (N)	EAST (E)	ELEV (Z)	
POB	70+00.00	391233.5867	544858.2974		
PC	71+40.58	391316.4007	544859.9466		
PI	74+14.03	391288.4039	544881.0030		
P.T.	76+73.48	391270.3709	5449051.3440		

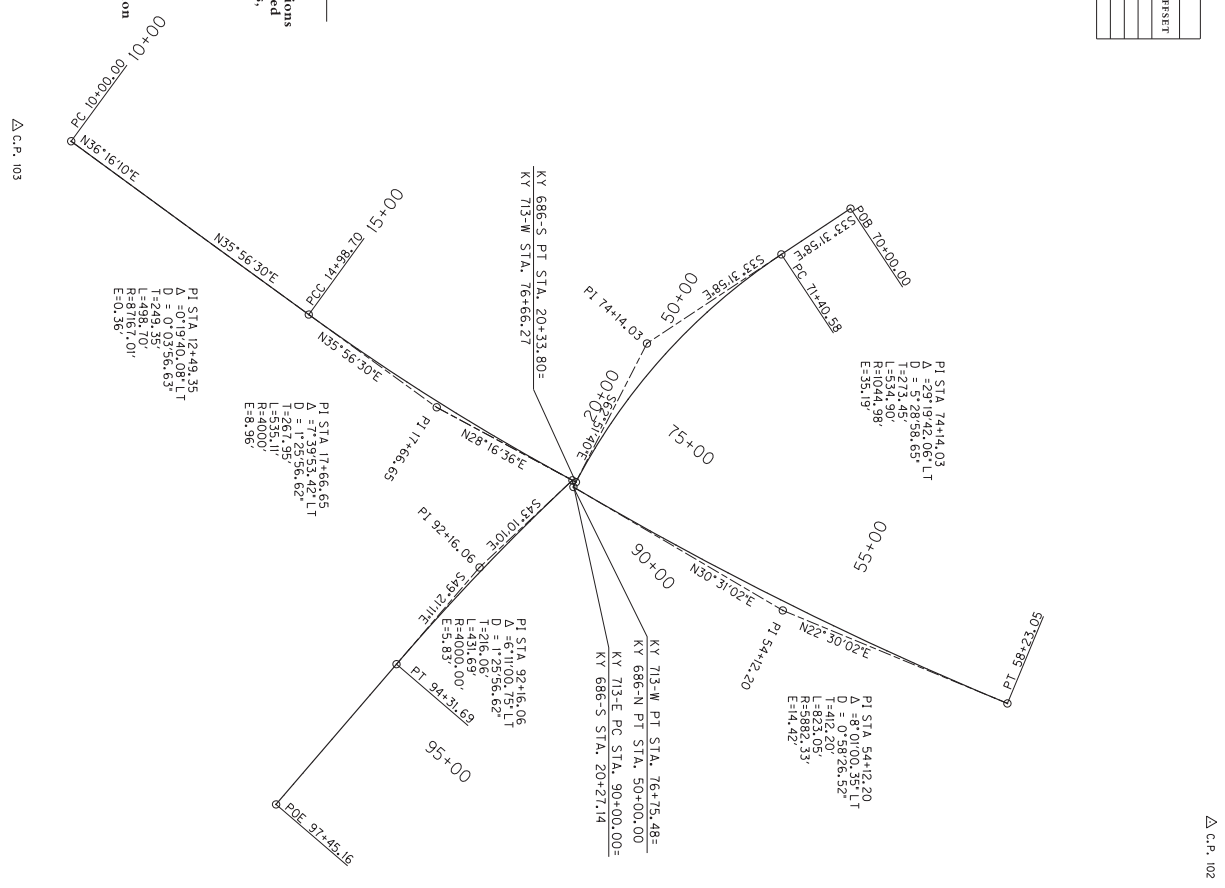
KY 713 EAST PROPOSED ALIGNMENT					
POINT	STATION	State Plane Coordinates			
		NORTH (N)	EAST (E)	ELEV (Z)	
PC	90+00.00	3912762.4073	5449023.0027		
PI	92+16.06	3912604.5505	5449100.8194		
P.T.	94+31.69	3912463.7924	5449351.7494		
POE	97+45.16	3912325.5978	5449592.5923		

BASIS OF HORIZONTAL COORDINATES

Horizontal coordinates on control points were obtained from an OPUS solution dated September 7, 2021. GPS-Static field observations were made on August 26, 2021. Horizontal Control coordinates are based on the NAD83/2011 system and are Kentucky State Plane Coordinates, Single Zone. Horizontal Control Coordinates are in U.S. Survey Feet.

BASIS OF ELEVATIONS

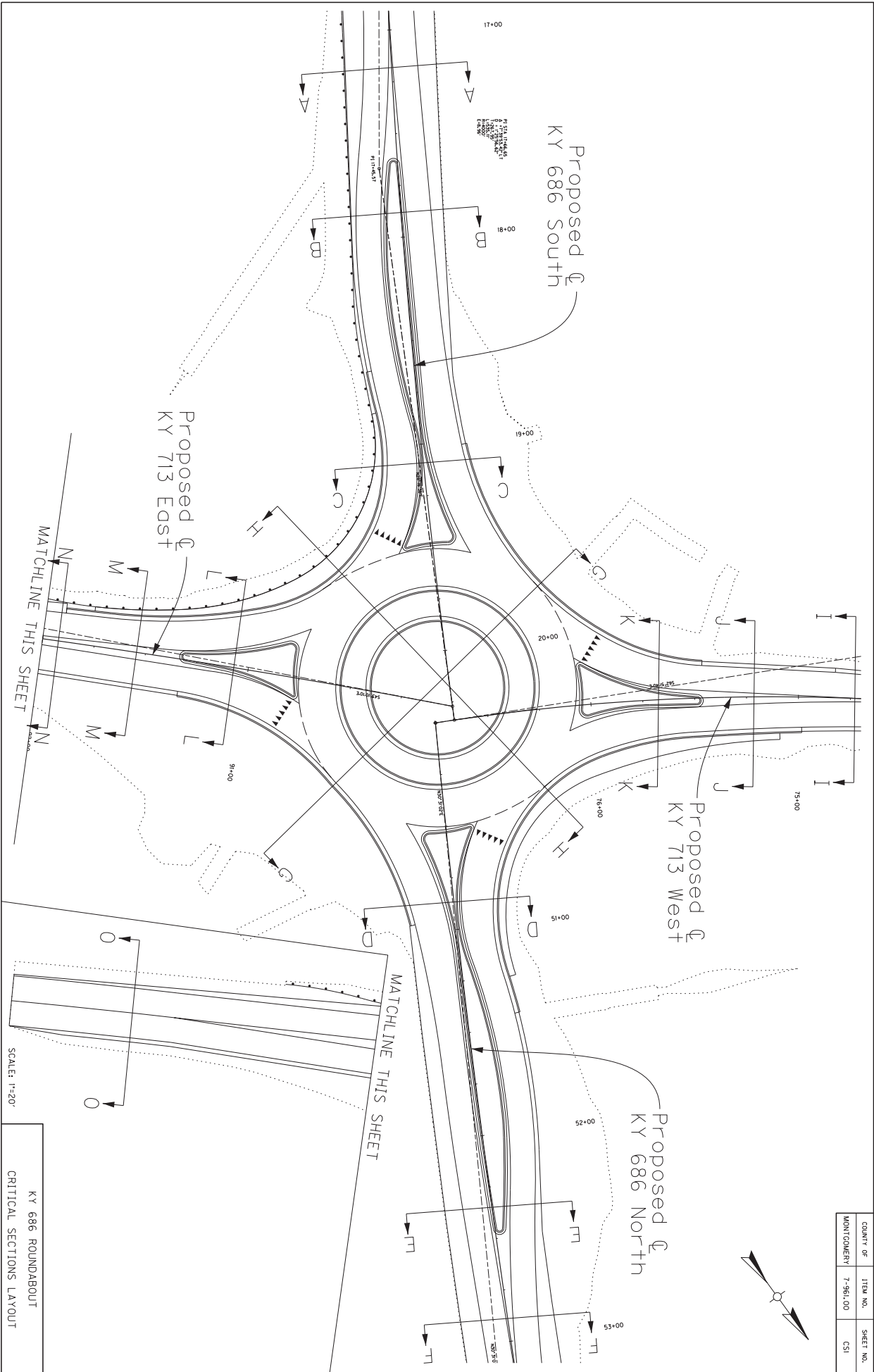
The Basis of Elevations for C.R.#103 was obtained by an OPUS solution and is based on the NAVD88 Vertical Datum. Elevations are in U.S. Survey Feet using Geoid Model 18. Elevations for all other Project Control Monuments were obtained by using conventional (Level Rod) Leveling methods.



SCALE: 1"=100'

KY 686 ROUNDABOUT
COORDINATE CONTROL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	CC



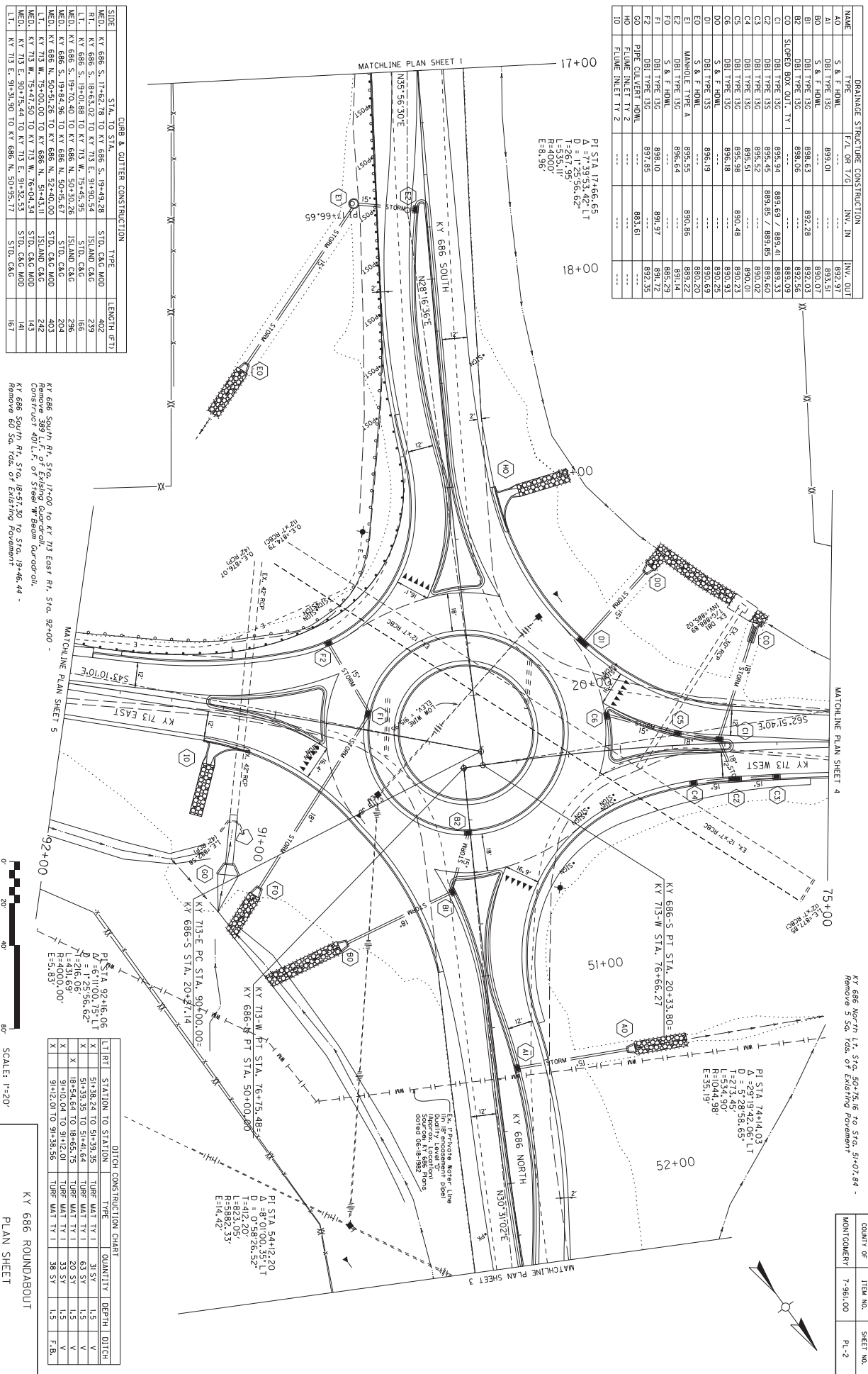
MATCHLINE THIS SHEET

MATCHLINE THIS SHEET

SCALE: 1"=20'

KY 686 ROUNDABOUT
 CRITICAL SECTIONS LAYOUT

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	CSI



DRAINAGE STRUCTURE CONSTRUCTION			
ITEM	TYPE	F/L OR T/O	INVT. IN
A0	S & F HDWL	---	---
A1	DBI TYPE 135	899.01	899.01
B0	S & F HDWL	---	---
B1	DBI TYPE 135	898.63	892.28
B2	DBI TYPE 135	898.06	892.56
CO	SLOPED BOX OUT - TV 1	---	---
C0	SLOPED BOX OUT - TV 1	899.69 / 899.41	889.09
C1	DBI TYPE 135	899.94	889.33
C2	DBI TYPE 135	899.45	889.60
C3	DBI TYPE 135	899.52	889.67
C4	DBI TYPE 135	899.59	889.74
C5	DBI TYPE 135	899.66	889.81
C6	DBI TYPE 135	899.73	889.88
D0	S & F HDWL	---	---
D1	DBI TYPE 135	896.19	890.25
E0	S & F HDWL	---	---
E1	MANHOLE TYPE A	899.55	890.86
E2	DBI TYPE 135	896.64	891.22
E3	DBI TYPE 135	897.73	891.58
E4	DBI TYPE 135	898.82	891.94
F1	DBI TYPE 135	899.91	892.30
F2	DBI TYPE 135	897.85	892.56
G0	PIPE CULVERT HDWL	---	---
H0	FLUME INLET TV 2	---	---
I0	FLUME INLET TV 2	---	---

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

STATION	STA. TO STA. 686 S. 18+48.28	TYPE	LENGTH (FT)
ME0	KY 686 S. 17+62.78 TO KY 686 S. 18+48.28	STD. CRG. MUD	403
ME1	KY 686 S. 18+63.02 TO KY 713 E. 91+90.54	ISLAND CRG.	239
ME2	KY 686 S. 19+01.88 TO KY 713 W. 75+45.95	STD. CRG.	166
ME3	KY 686 S. 19+10.40 TO KY 686 N. 50+30.26	ISLAND CRG.	296
ME4	KY 686 S. 19+84.96 TO KY 686 N. 50+15.67	STD. CRG.	204
ME5	KY 686 N. 50+51.26 TO KY 686 N. 52+40.00	STD. CRG. MUD	403
ME6	KY 713 W. 75+41.50 TO KY 686 N. 51+43.11	ISLAND CRG.	242
ME7	KY 713 W. 75+41.50 TO KY 713 W. 76+04.34	STD. CRG. MUD	143
ME8	KY 713 W. 76+04.34 TO KY 713 E. 91+90.54	STD. CRG. MUD	161
ME9	KY 713 E. 91+90.54 TO KY 686 N. 50+30.26	STD. CRG.	161

Remove 399' L.V. of Existing Landmark Foundation.
 Remove 60' L.V. of Existing Landmark Foundation.
 Remove 60' Sd. 700' of Existing Pavement.
 KY 686 South Rt. Sta. 17+00 to KY 713 East Rt. Sta. 92+00 -
 KY 686 South Rt. Sta. 18+48.28 to Sta. 19+46.44 -
 Remove 60' Sd. 700' of Existing Pavement

ITEM	STATION TO STATION	TYPE	QUANTITY	DEPTH	DITCH
X	51+38.24 TO 51+39.35	TURF MAT TV 1	31 SY	1.5	V
X	51+39.35 TO 51+41.64	TURF MAT TV 1	63 SY	1.5	V
X	18+54.64 TO 18+65.75	TURF MAT TV 1	20 SY	1.5	V
X	91+02.04 TO 91+12.01	TURF MAT TV 1	33 SY	1.5	V
X	91+12.01 TO 91+38.56	TURF MAT TV 1	38 SY	1.5	F.B.

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.33'$
 $R = 5582.33'$
 $E = 14.42'$

PI STA 74+14.03
 $\Delta = 29.194206^{\circ}$ LT
 $D = 5.2858.65'$
 $T = 213.45'$
 $R = 1044.98'$
 $E = 35.19'$

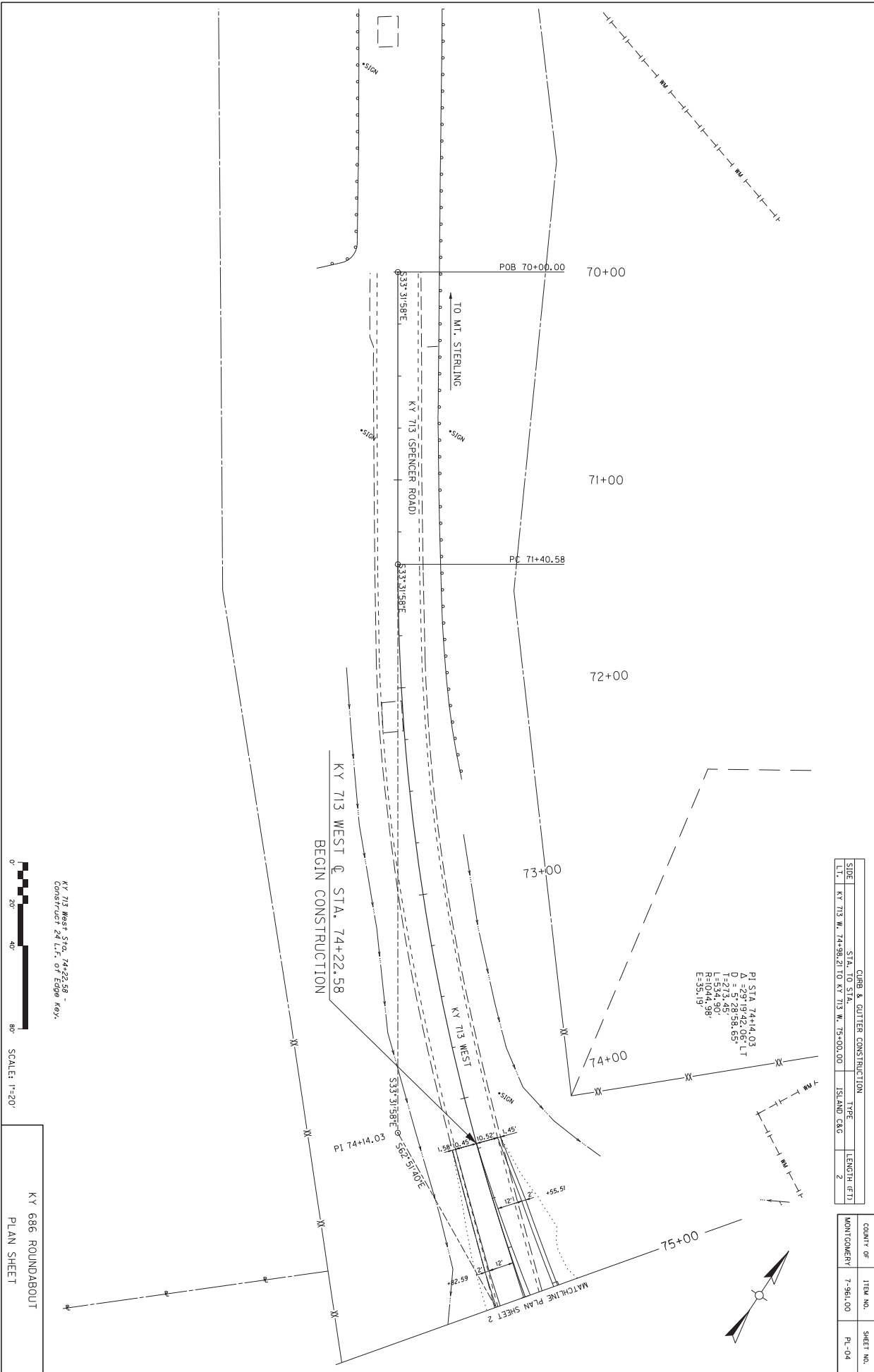
PI STA 92+16.06
 $\Delta = 6.1100075^{\circ}$ LT
 $D = 125.96.62'$
 $T = 431.69'$
 $R = 4000.00'$
 $E = 5.83'$

PI STA 17+66.65
 $\Delta = 1.3995342^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

PI STA 20+33.80
 $\Delta = 16.66.27^{\circ}$ LT
 $T = 267.95$
 $L = 535.11'$
 $R = 4000'$
 $E = 8.96$

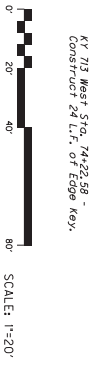
PI STA 50+75.16 TO STA. 51+07.84 -
 Remove 5 Sd. 700' of Existing Pavement

PI STA 54+12.20
 $\Delta = 8.0100351^{\circ}$ LT
 $D = 142.20'$
 $T = 582.3$



STATION	STA. TO STA.	CURB & GUTTER CONSTRUCTION	TYPE	LENGTH (FT)
70+00	74+22.58	ISLAND GAS C	ISLAND GAS C	2

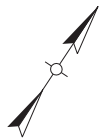
COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	PL-04



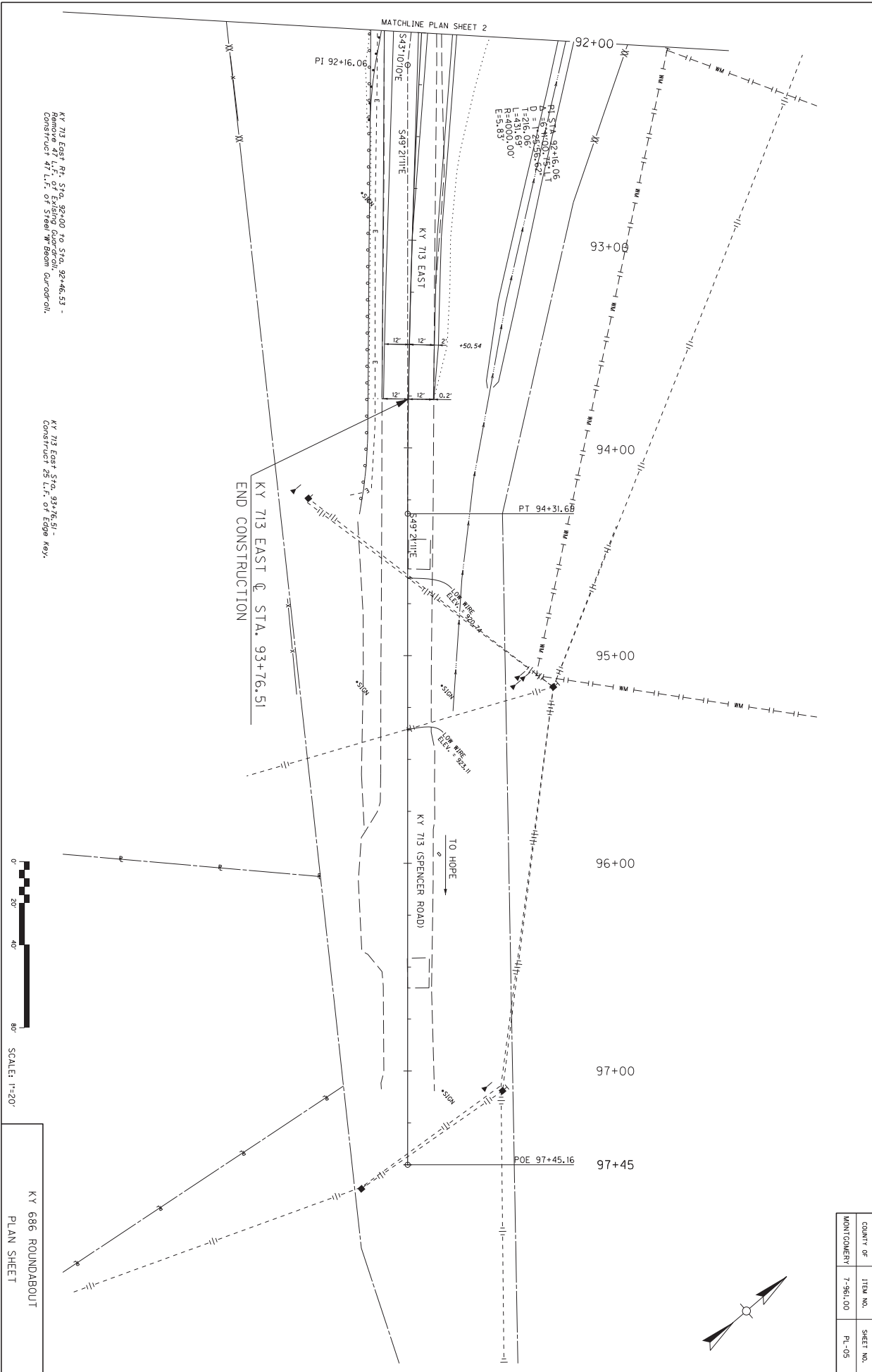
KY 686 ROUNDABOUT
PLAN SHEET

KY 713 West Sta. 74+22.58 -
Construct 24 L.F. of Edge Key.

PI STA 74+14.03
Δ = 29°19'42.06" LT
D = 5728.58.65'
L = 642.49'
R = 1044.98'
E = 35.19'



MATCHLINE PLAN SHEET 2



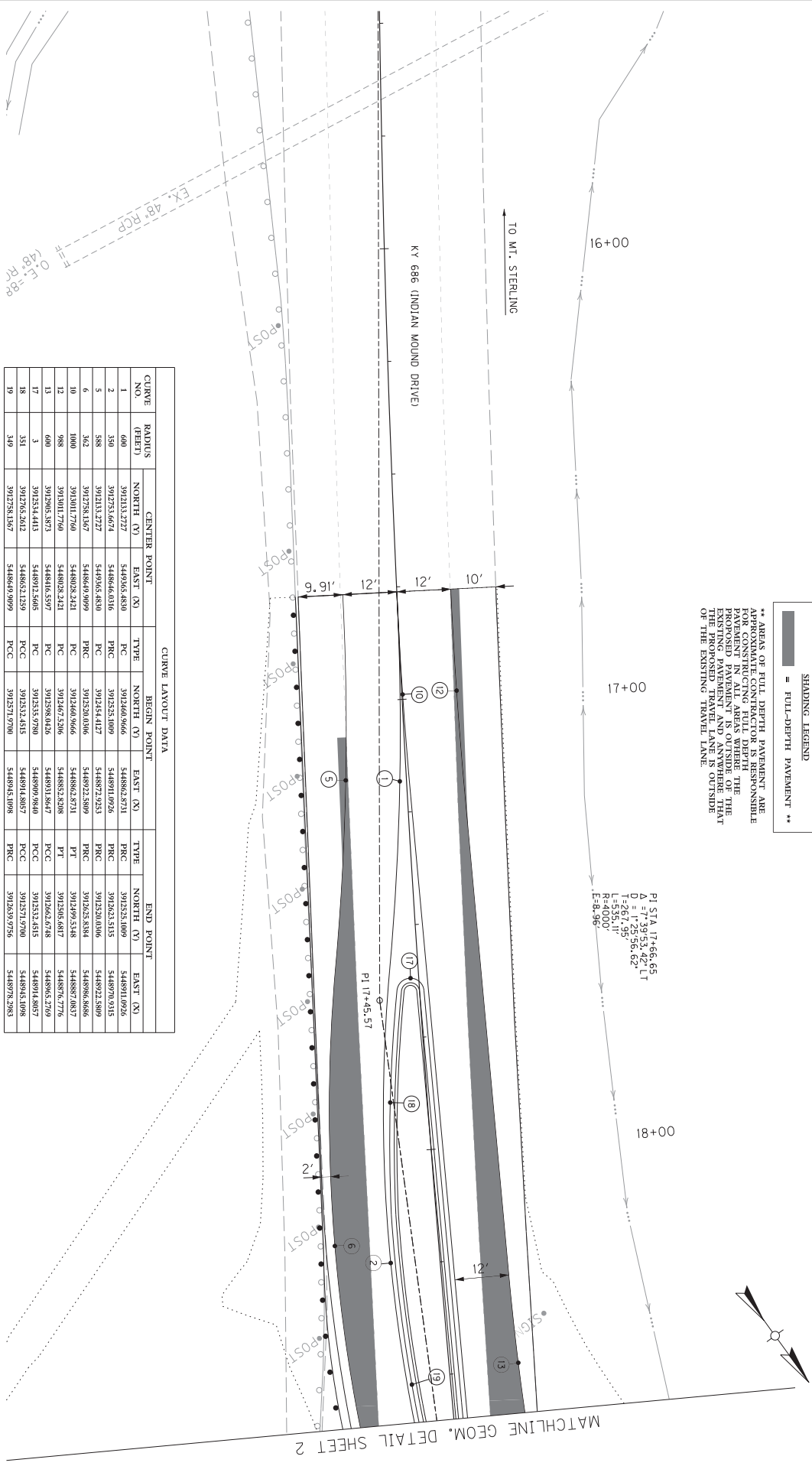
KY 713 East Rt. Sta. 92+00 to Sta. 92+46.53 -
Remove 47 L.F. of Existing Guardrail,
Construct 47 L.F. of Steel W-beam Guardrail.

KY 713 East Sta. 93+76.51 -
Construct 25 L.F. of Edge Key.



KY 686 ROUNDABOUT
PLAN SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	PL-05



SHADING LEGEND
 ■ = FULL-DEPTH PAVEMENT

** AREAS OF FULL DEPTH PAVEMENT ARE APPROXIMATE CONSTRUCTION RESPONSIBLE PAVEMENT IN ALL AREAS WHERE THE PROPOSED PAVEMENT IS OUTSIDE OF THE EXISTING TRAVEL LANE. THE PAVEMENT OF THE PROPOSED TRAVEL LANE IS OUTSIDE OF THE EXISTING TRAVEL LANE.

PI STA 17+66.65
 Δ = 17-35.52, 42, 17
 T = 267.95, 62.62
 L = 535.17'
 R = 4000'
 E = 8.96'

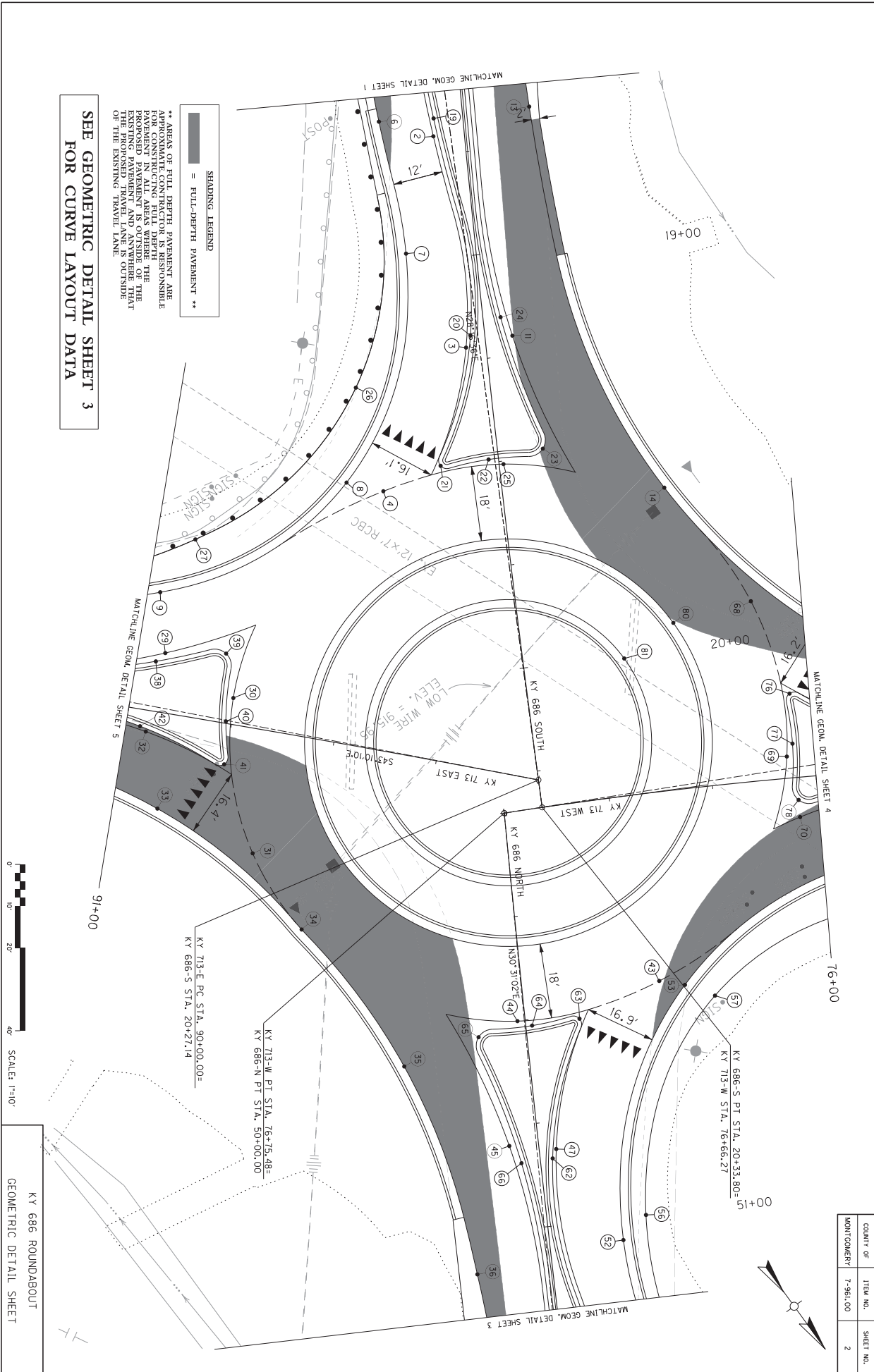
CURVE LAYOUT DATA

CURVE NO.	RADIUS (FEET)	CENTER POINT			TYPE	BEGIN POINT			END POINT		
		NORTH (Y)	EAST (X)			NORTH (Y)	EAST (X)		NORTH (Y)	EAST (X)	
1	600	391213.7272	544905.4830		391246.6666	544882.8711	PRC	391252.1009	544891.0926		
2	350	391273.6674	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544879.0315		
3	588	391278.1567	544905.4830	PRC	391252.1009	544891.0926	PRC	391262.5135	544892.2589		
4	350	391278.1567	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544886.8866		
5	350	391278.1567	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544887.0837		
6	350	391278.1567	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544887.0837		
7	350	391278.1567	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544887.0837		
8	350	391278.1567	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544887.0837		
9	350	391278.1567	544866.0316	PRC	391252.1009	544891.0926	PRC	391262.5135	544887.0837		
10	1000	391301.1766	544802.2421	PC	391246.6666	544882.8711	PT	391205.6817	544887.0837		
11	600	391205.6817	544816.5597	PC	391246.6666	544882.8711	PT	391205.6817	544887.0837		
12	600	391205.6817	544816.5597	PC	391246.6666	544882.8711	PT	391205.6817	544887.0837		
13	600	391205.6817	544816.5597	PC	391246.6666	544882.8711	PT	391205.6817	544887.0837		
14	3	391253.4413	544892.5605	PC	391252.1009	544891.0926	PRC	391252.1009	544892.2589		
15	351	391275.2012	544865.1259	PC	391252.1009	544891.0926	PRC	391252.1009	544892.2589		
16	349	391278.1567	544869.9999	PC	391252.1009	544891.0926	PRC	391252.1009	544892.2589		



KY 686 ROUNDABOUT
 GEOMETRIC DETAIL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	1

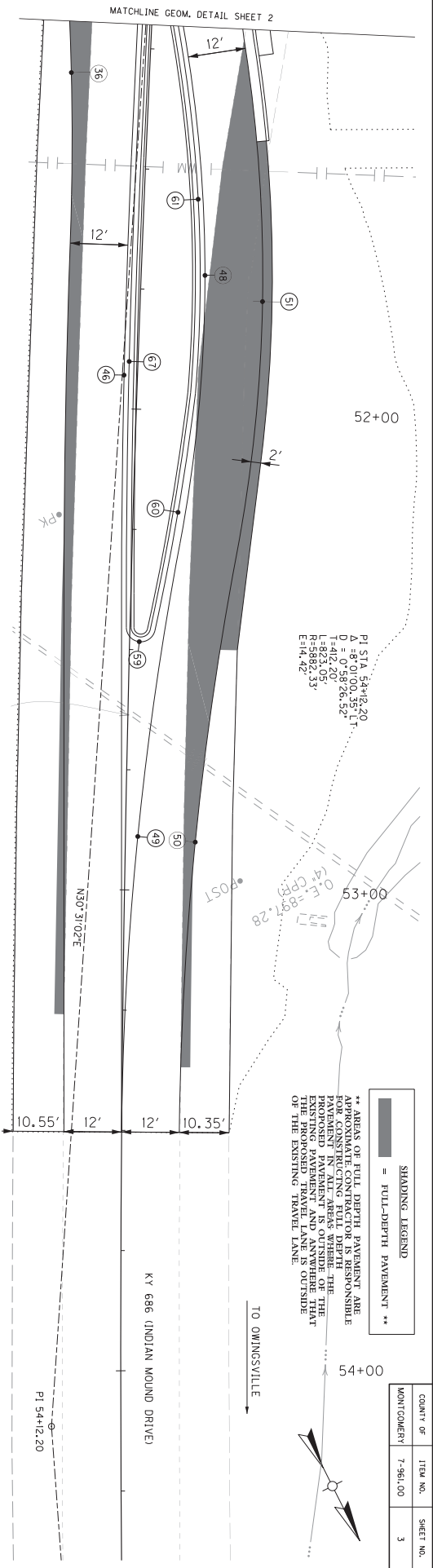


SHADING LEGEND
 [Shaded Area] = FULL-DEPTH PAVEMENT
 ** AREAS OF FULL DEPTH PAVEMENT ARE RESPONSIBLE FOR CONSTRUCTING FULL DEPTH PAVEMENT IN ALL AREAS WHERE THE EXISTING PAVEMENT AND ANYWHERE THAT THE PROPOSED TRAVEL LANE IS OUTSIDE OF THE EXISTING TRAVEL LANE.

SEE GEOMETRIC DETAIL SHEET 3
 FOR CURVE LAYOUT DATA

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	2

KY 686 ROUNDABOUT
 GEOMETRIC DETAIL SHEET



GEOMETRIC DETAIL SHEET 2 - CURVE LAYOUT DATA

CURVE NO.	RADIUS (FEET)	CENTER POINT NORTH (N)	CENTER POINT EAST (E)	TYPE	BEGIN POINT NORTH (N)	BEGIN POINT EAST (E)	END POINT NORTH (N)	END POINT EAST (E)
2	150	391253.1624	544866.0116	PCC	391253.1609	544891.0726	391261.5315	544970.9315
3	90	391250.0453	544895.4772	PCC	391253.1515	544897.9315	391262.9312	544905.9685
4	131.4	391251.1877	544895.3277	PCC	391262.9312	544898.9685	391269.4272	544906.4375
6	106	391258.4664	544860.9099	PCC	391269.4272	544892.3989	391265.8384	544898.8686
7	106	391257.4664	544895.4682	PCC	391265.8384	544898.8686	391265.8384	544906.6239
8	200	391244.6751	544882.5353	PCC	391265.8384	544906.6239	391265.8384	544908.0821
9	100	391272.0660	544852.9147	PCC	391265.8384	544906.6239	391265.8384	544908.0821
11	600	391278.3773	544857.2429	PCC	391265.8384	544906.6239	391265.8384	544908.0821
14	549	391261.1971	544880.9099	PCC	391265.8384	544906.6239	391265.8384	544908.0821
19	85	391267.0684	544908.2783	PCC	391265.8384	544906.6239	391265.8384	544908.0821
20	2	391272.1466	544908.3631	PCC	391265.8384	544906.6239	391265.8384	544908.0821
22	4	391265.5891	544896.7896	PCC	391265.8384	544906.6239	391265.8384	544908.0821
23	4	391265.5891	544896.7896	PCC	391265.8384	544906.6239	391265.8384	544908.0821
24	107	391275.5480	544902.6215	PCC	391265.8384	544906.6239	391265.8384	544908.0821
25	26	391258.9355	544907.7187	PCC	391265.8384	544906.6239	391265.8384	544908.0821
26	72	391259.6313	544907.7187	PCC	391265.8384	544906.6239	391265.8384	544908.0821
27	130	391259.6313	544908.7899	PCC	391265.8384	544906.6239	391265.8384	544908.0821
29	150	391256.7458	544908.4272	PCC	391265.8384	544906.6239	391265.8384	544908.0821
30	67	391270.6313	544904.5685	PCC	391265.8384	544906.6239	391265.8384	544908.0821
31	67	391270.6313	544904.5685	PCC	391265.8384	544906.6239	391265.8384	544908.0821
32	100	391273.1463	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
33	121.79	391274.5430	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
34	67	391274.5430	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
35	150	391274.5430	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
36	600	391261.1852	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
38	151	391264.1207	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
39	67	391264.1207	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
40	67	391264.1207	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
41	2	391271.1556	544905.0226	PCC	391265.8384	544906.6239	391265.8384	544908.0821
42	98	391270.4153	544905.0226	PCC	391265.8384	544906.6239	391265.8384	544908.0821
43	90.03	391270.4153	544905.0226	PCC	391265.8384	544906.6239	391265.8384	544908.0821
44	160	391273.1454	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
45	90	391273.1454	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821
47	90	391273.1454	544905.3861	PCC	391265.8384	544906.6239	391265.8384	544908.0821

GEOMETRIC DETAIL SHEET 2 - CURVE LAYOUT DATA (CONT.)

CURVE NO.	RADIUS (FEET)	CENTER POINT NORTH (N)	CENTER POINT EAST (E)	TYPE	BEGIN POINT NORTH (N)	BEGIN POINT EAST (E)	END POINT NORTH (N)	END POINT EAST (E)
52	100	391261.6287	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
53	90	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
54	90	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
56	45	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
57	45	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
62	86	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
63	2	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
64	4	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
65	4	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
66	4	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
68	78.47	391277.0247	544925.0773	PCC	391268.9756	544906.6239	391268.9756	544906.6239
69	67	391278.8221	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
70	100	391268.9756	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
72	2	391278.8221	544903.8749	PCC	391268.9756	544906.6239	391268.9756	544906.6239
77	77	391275.5310	544905.3465	PCC	391268.9756	544906.6239	391268.9756	544906.6239
78	4	391280.1764	544901.4215	PCC	391268.9756	544906.6239	391268.9756	544906.6239
80	49	391275.6313	544904.5685	PCC	391268.9756	544906.6239	391268.9756	544906.6239
81	34.42	391275.6313	544904.5685	PCC	391268.9756	544906.6239	391268.9756	544906.6239

GEOMETRIC DETAIL SHEET 3 - CURVE LAYOUT DATA

CURVE NO.	RADIUS (FEET)	CENTER POINT NORTH (N)	CENTER POINT EAST (E)	TYPE	BEGIN POINT NORTH (N)	BEGIN POINT EAST (E)	END POINT NORTH (N)	END POINT EAST (E)
36	600	391261.1852	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
37	2000	391280.6185	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
38	700	391280.6185	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
39	688	391280.6185	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
40	312	391292.6853	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
41	3	391292.6853	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
42	517	391292.6853	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
43	299	391292.6853	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907
44	1999	391292.6853	544905.3840	PCC	391280.6185	544911.3907	391280.6185	544911.3907

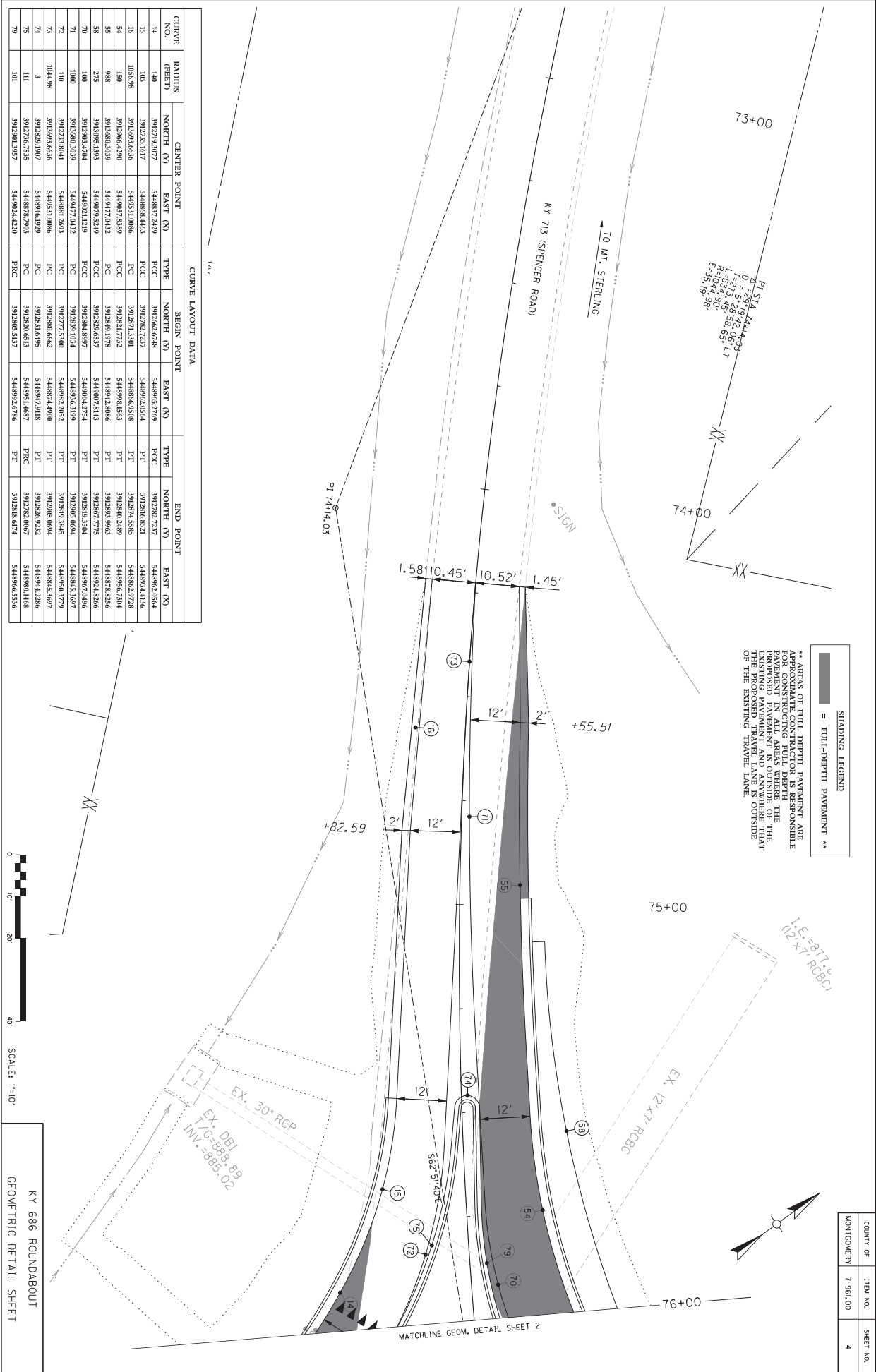
KY 686 ROUNDABOUT
GEOMETRIC DETAIL SHEET



COUNTY OF MONTEGOMERY
ITEM NO. 7-961.00
SHEET NO. 3

SHADING LEGEND
= FULL-DEPTH PAVEMENT

** AREAS OF FULL DEPTH PAVEMENT ARE APPROXIMATE CONTRACTOR IS RESPONSIBLE FOR PAVEMENT IN ALL AREAS WHERE THE PROPOSED PAVEMENT IS OUTSIDE OF THE EXISTING TRAVEL LANE IS OUTSIDE OF THE EXISTING TRAVEL LANE.



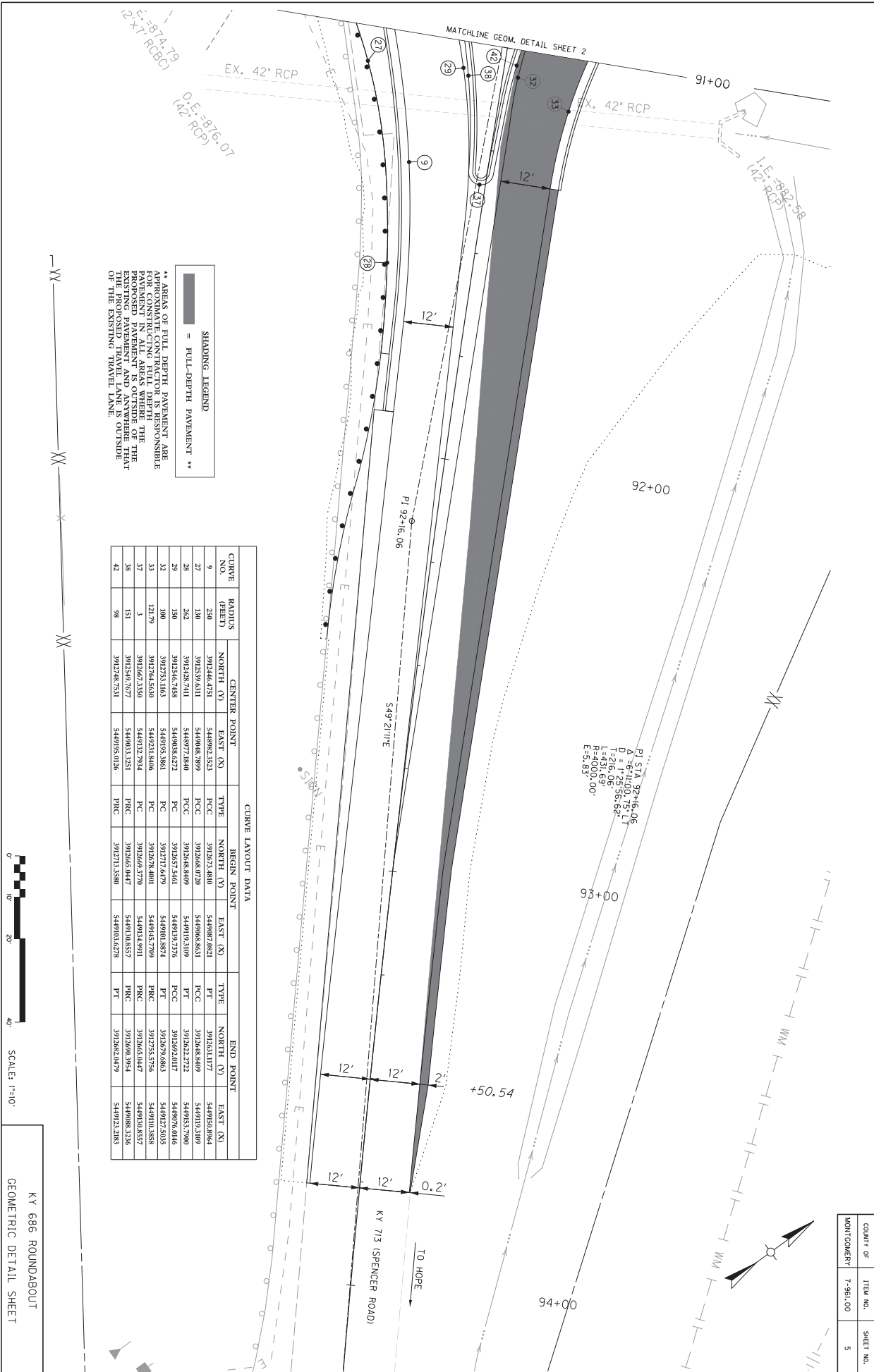
CURVE LAYOUT DATA

CURVE NO.	RADIUS (FEET)	CENTER POINT			TYPE	NORTH POINT			TYPE	END POINT		
		NORTH (Y)	EAST (X)			NORTH (Y)	EAST (X)			NORTH (Y)	EAST (X)	
14	105	391273.507	544887.249	PCC	391262.678	544896.219	PCC	391282.727	544892.054			
15	105	391273.507	544886.463	PCC	391278.727	544896.918	PT	391287.438	544892.718			
16	105.698	391266.439	544903.108	PC	391281.732	544898.163	PT	391280.249	544896.218			
54	988	391686.103	544927.943	PCC	391284.078	544892.886	PT	391286.775	544892.826			
58	275	391905.131	544979.529	PCC	391284.897	544904.254	PT	391283.504	544892.106			
70	1000	391686.103	544903.129	PCC	391283.103	544893.319	PT	391285.604	544892.579			
71	1000	391273.507	544903.129	PC	391277.530	544893.282	PT	391280.342	544892.106			
72	1044.98	391686.103	544903.129	PC	391284.662	544894.490	PT	391285.894	544892.597			
74	3	391282.1407	544894.929	PC	391281.493	544891.718	PT	391283.523	544894.228			
75	101	391278.727	544892.293	PC	391280.613	544891.187	PCC	391282.007	544891.188			
79	101	391290.1587	544903.420	PCC	391285.517	544892.678	PT	391288.814	544896.536			

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	4

KY 686 ROUNDABOUT
GEOMETRIC DETAIL SHEET

MATCHLINE GEOM. DETAIL SHEET 2



** AREAS OF FULL DEPTH PAVEMENT ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING AREA WITHIN THE PROPOSED PAVEMENT IS OUTSIDE OF THE EXISTING PAVEMENT AND AVOIDS THE TRAVEL LANE OF THE EXISTING TRAVEL LANE.

SHADING LEGEND
 [Shaded Box] = FULL-DEPTH PAVEMENT

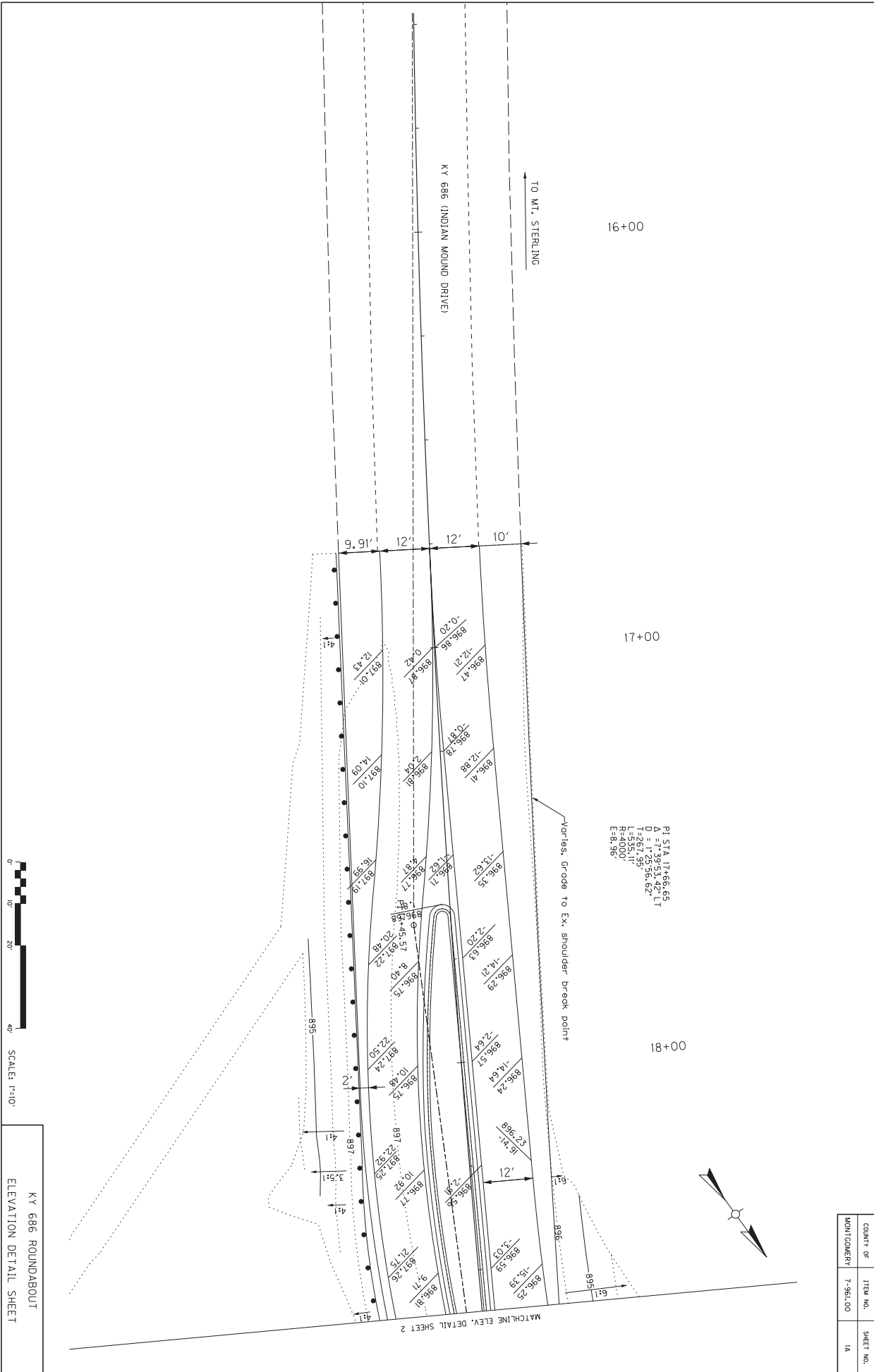
CURVE NO.	RADIUS (FEET)	CENTER POINT			TYPE	BEGIN POINT			TYPE	END POINT		
		NORTH (N)	EAST (E)	PC		NORTH (N)	EAST (E)	PC		NORTH (N)	EAST (E)	PT
9	250	391246.4751	5449882.5531	PC	3912671.4810	5449882.8821	PT	3912651.1177	5449893.8864			
27	130	391253.9151	5449878.2899	PC	3912668.0720	5449886.8611	PCC	3912648.8409	5449893.7006			
28	262	391238.2711	5449871.8540	PC	3912658.8409	5449910.5109	PT	3912622.2722	5449895.7006			
29	150	391256.2158	5449875.6272	PC	3912571.5461	5449910.3716	PCC	3912592.0117	5449897.6166			
32	100	391253.1163	5449875.8861	PC	3912578.6401	5449910.3716	PT	3912582.5756	5449907.5815			
33	121.79	391267.5510	5449871.8540	PC	3912620.3790	5449895.7709	PCC	3912605.3447	5449903.8577			
37	31	391267.2510	5449871.8540	PC	3912620.3790	5449895.7709	PCC	3912605.3447	5449903.8577			
38	151	391259.7072	5449875.5251	PC	3912608.3477	5449903.8577	PCC	3912590.3794	5449888.1326			
42	36	391278.2511	5449875.0126	PC	3912713.5580	5449903.6278	PT	3912682.1479	5449923.2185			

PI STA 92+16.06
 $\Delta = 6^\circ 41' 00.75''$
 $D = 1^\circ 25' 58.62''$
 $L = 216.06'$
 $R = 4000.00'$
 $E = 5.83'$



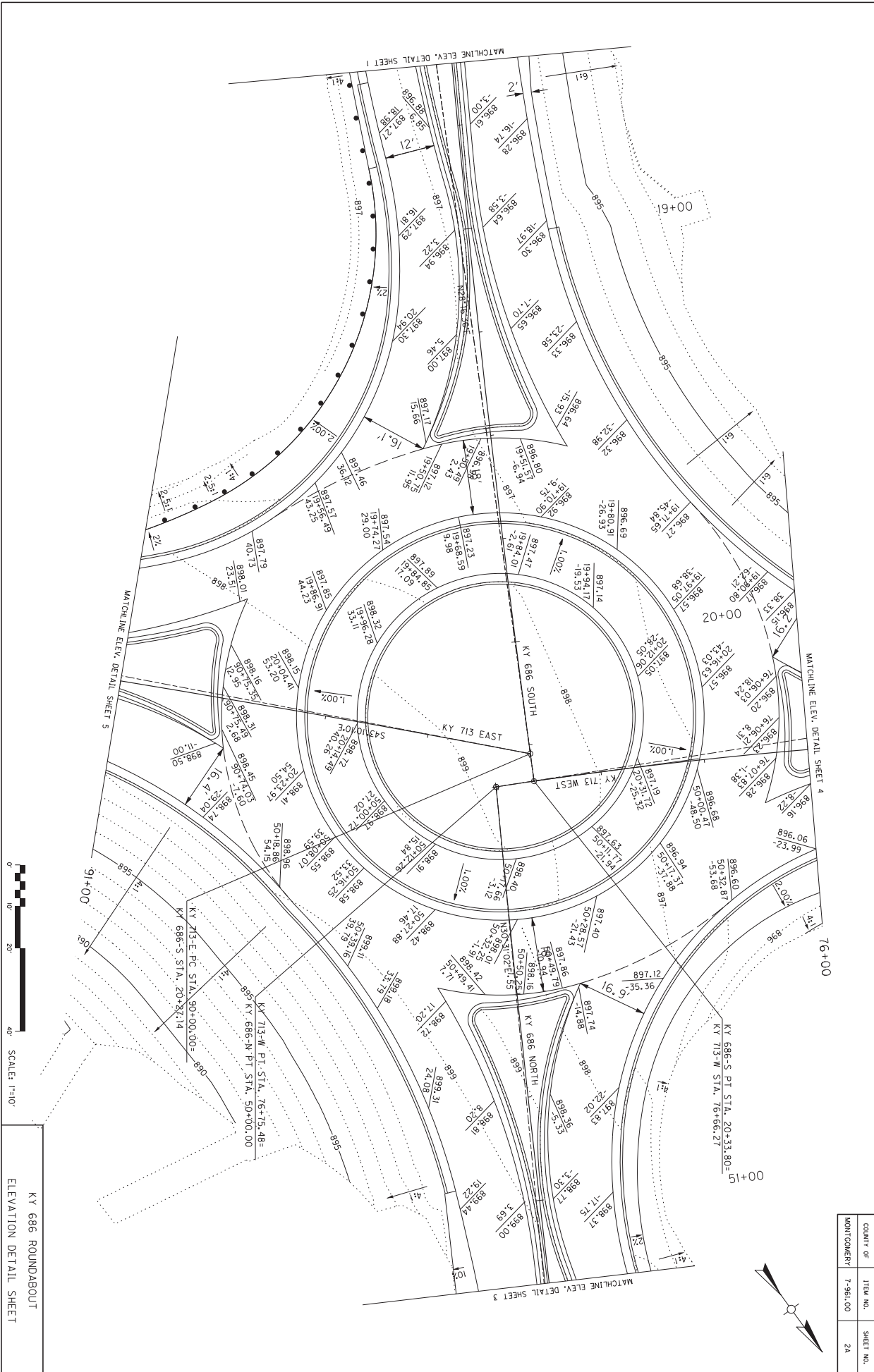
KY 686 ROUNDABOUT
 GEOMETRIC DETAIL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	5



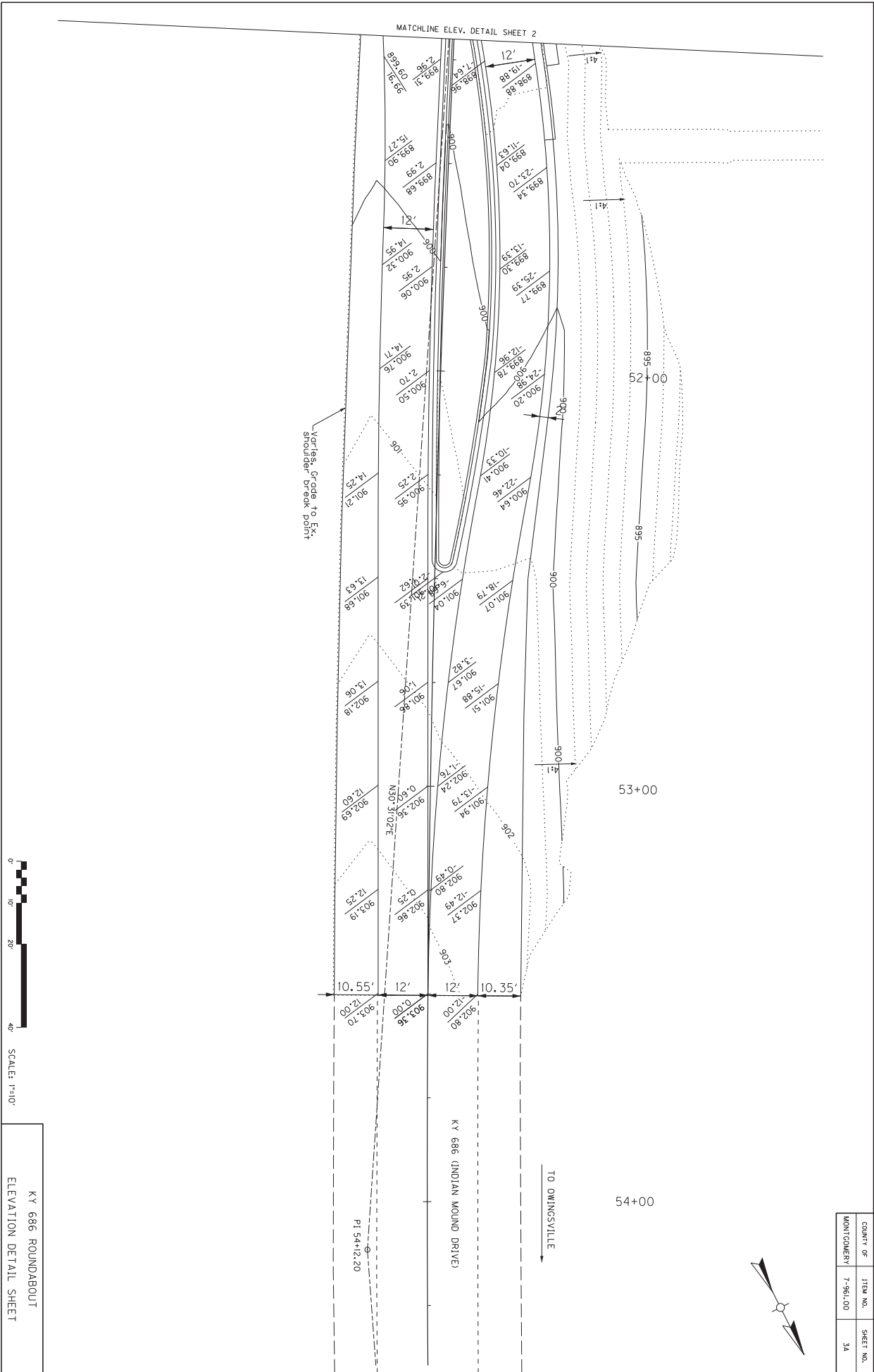
COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	1A

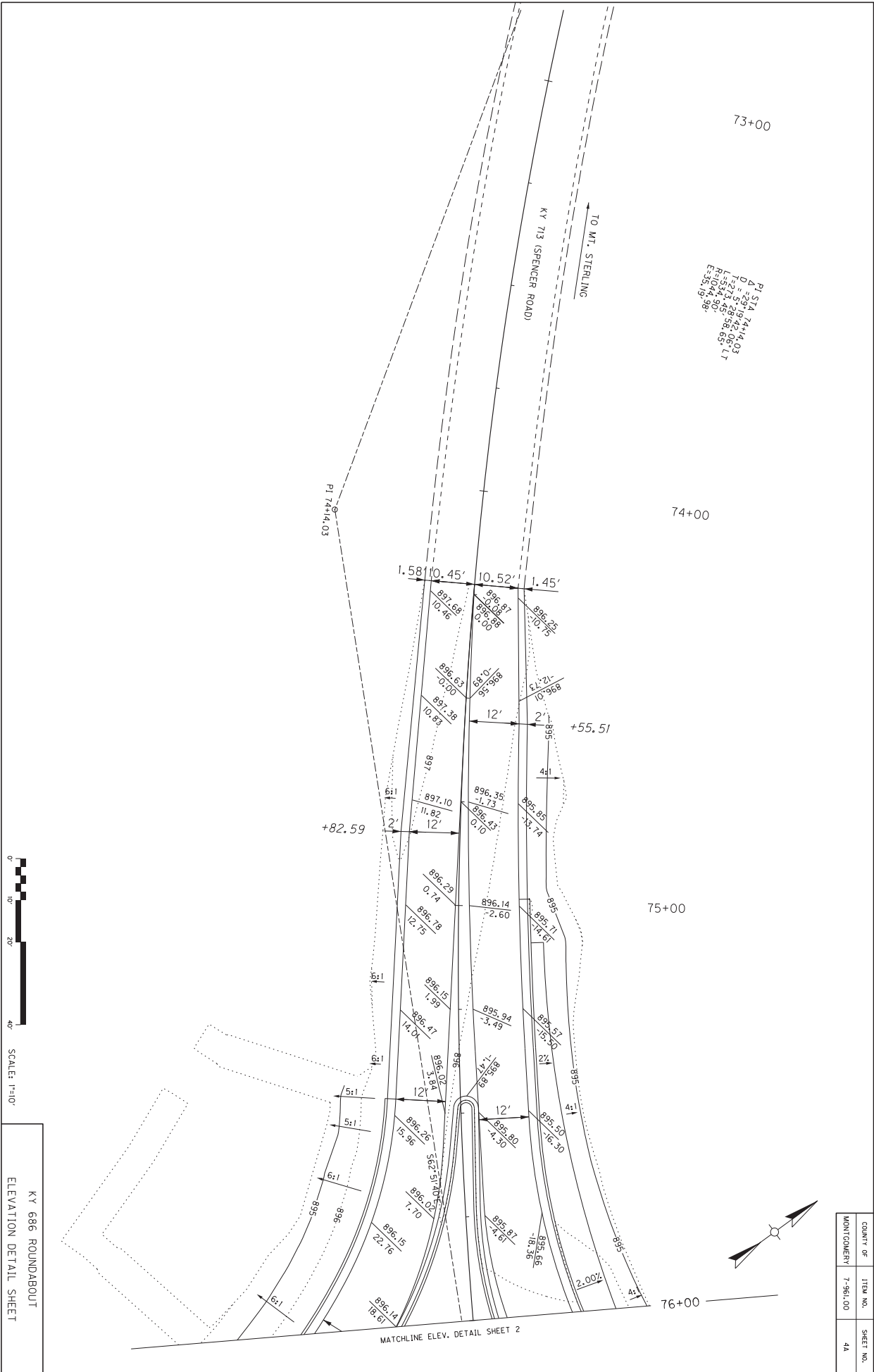
KY 686 ROUNDABOUT
ELEVATION DETAIL SHEET



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	2A

KY 686 ROUNDABOUT
ELEVATION DETAIL SHEET

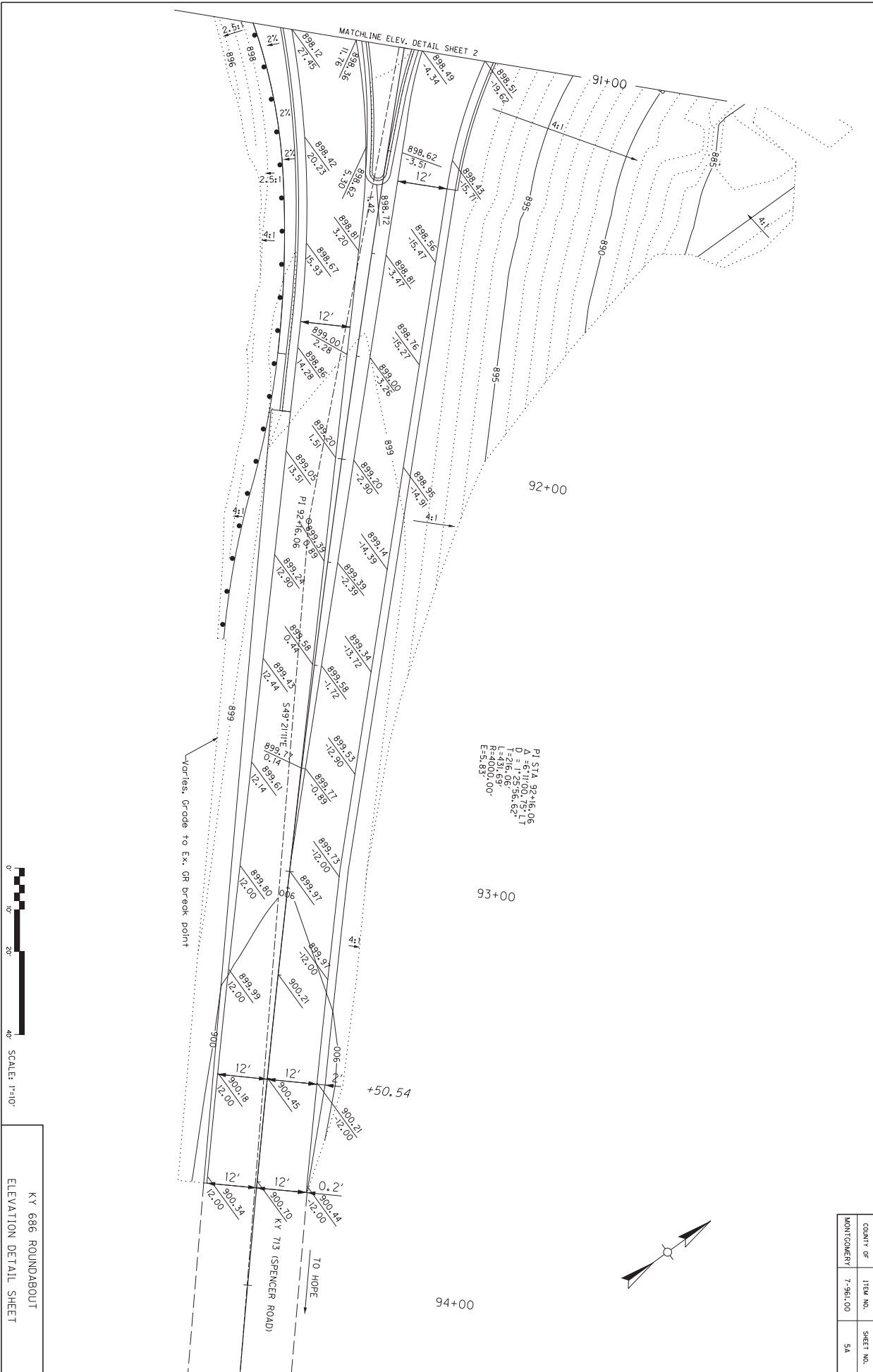




0'
 10'
 20'
 40'
 SCALE: 1"=10'

KY 686 ROUNDABOUT
 ELEVATION DETAIL SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	4A



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	5A



PHASE I

PHASE I - INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS DIRECTED BY PROJECT ENGINEER. SHIFT TRAFFIC AWAY FROM WORK AREAS AND UTILIZE EXISTING TRAFFIC LANES AS DRIVING SURFACE. MAINTAIN A MINIMUM CLEAR LANE WIDTH OF 10 FEET (9' TRAVEL LANE AND 1' SHOULDER) IN EACH DIRECTION.
COMPLETE WORK OUTSIDE OF THE EXISTING ROADWAY AS SHOWN, INCLUDING PAVING UP TO THE FINAL BASE COURSE IN PREPARATION OF FOLLOWING PHASES. DO NOT CONSTRUCT ANY PARTS OF THE SPLITTER ISLANDS.
A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO ALL EXISTING ENTRANCES. ALL ENTRANCE CONSTRUCTION WORK SHALL BE COORDINATED WITH THE APPROPRIATE PROPERTY OWNER.

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	M07-1

KY 686 ROUNDABOUT
CONSTRUCTION PHASING
PHASE I



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	M01-2

PHASE II

PHASE II - INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS DIRECTED BY PROJECT ENGINEER. SHIFT TRAFFIC AWAY FROM WORK AREAS AND UTILIZE EXISTING TRAFFIC LANES AS DRIVING SURFACE. MAINTAIN A MINIMUM CLEAR LANE WIDTH OF 10 FEET (9' TRAVEL LANE AND 1' SHOULDER) IN EACH DIRECTION.
COMPLETE WORK OUTSIDE OF THE EXISTING ROADWAY AS SHOWN, INCLUDING PAVING UP TO THE FINAL BASE COURSE IN PREPARATION OF FOLLOWING PHASES. DO NOT CONSTRUCT ANY PARTS OF THE SPLITTER ISLANDS.
A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO ALL EXISTING ENTRANCES. ALL ENTRANCE CONSTRUCTION WORK SHALL BE COORDINATED WITH THE APPROPRIATE PROPERTY OWNER.

KY 686 ROUNDABOUT
CONSTRUCTION PHASING
PHASE 2

SCALE: 1"=50'



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	MOT-3

PHASE III

PHASE III - INSTALL TEMPORARY TRAFFIC CONTROL DEVICES AS DIRECTED BY PROJECT ENGINEER. SHIFT TRAFFIC AWAY FROM WORK AREAS AND UTILIZE EXISTING TRAFFIC LANES AS DRIVING SURFACE. MAINTAIN A MINIMUM CLEAR LANE WIDTH OF 10 FEET (9' TRAVEL LANE AND 1' SHOULDER) IN EACH DIRECTION.

CLOSE KY 713 TO TRAFFIC ON BOTH SIDES OF THE INTERSECTION. COMPLETE WORK OUTSIDE OF PREPARATION OF FOLLOWING PHASES. CONSTRUCT ONE SP LITTER ISLANDS ON KY 713 AND A CALENDAR DAYS DURING THE CONSTRUCTION OF PHASE III.

A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO ALL EXISTING ENTRANCES. ALL ENTRANCE CONSTRUCTION WORK SHALL BE COORDINATED WITH THE APPROPRIATE PROPERTY OWNER.

KY 686 ROUNDABOUT
CONSTRUCTION PHASING
PHASE 3

SCALE: 1"=50'



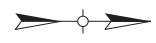
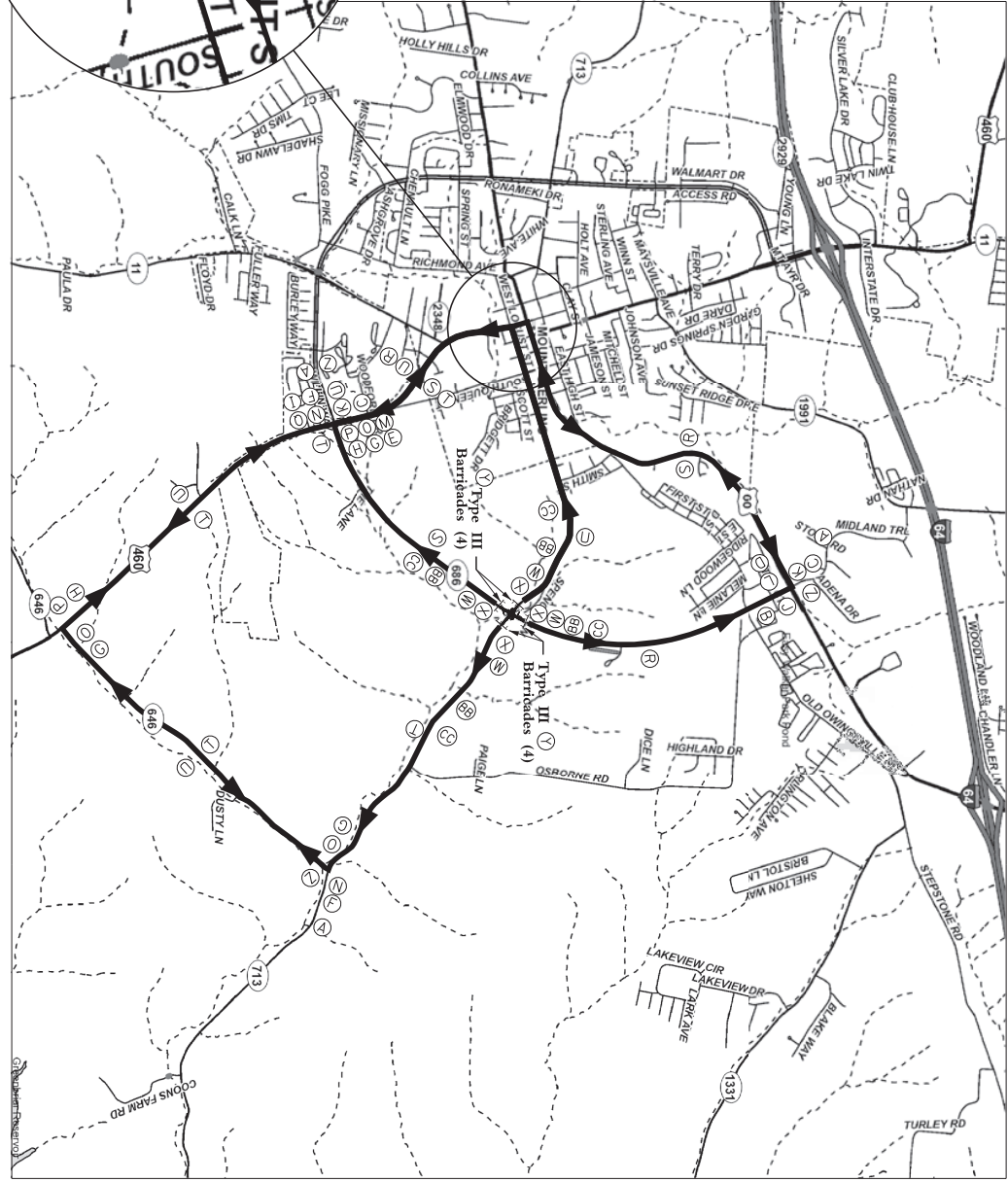
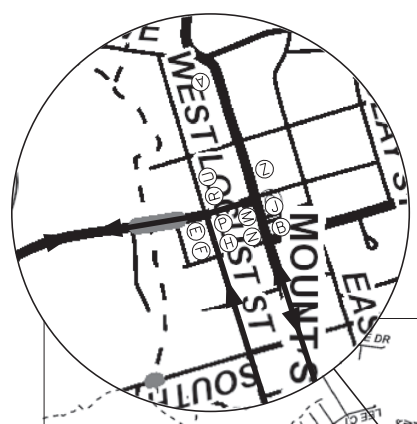
COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	MOT-4

PHASE IV

PHASE IV - CLOSE KY 686 AND KY 713 ON BOTH SIDES OF THE INTERSECTION. CONSTRUCT ALL REMAINING WORK ITEMS INCLUDING THE SPLITTER ISLANDS ON KY 686 AND THE CENTRAL ISLAND. ROAD CLOSURES OF KY 686 & KY 713 SHALL NOT EXCEED TEN (10) CALENDAR DAYS DURING THE CONSTRUCTION OF PHASE IV.
OVERLAY FINAL SURFACE COURSE OF ALL PAYEMENT TO FINAL GRADE AND INSTALL PERMANENT PAVEMENT MARKINGS AND SIGNS. AFTER ALL WORK IS COMPLETE, OPEN THE ROUNDABOUT TO TRAFFIC.
A STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED TO ALL EXISTING ENTRANCES. ALL ENTRANCE CONSTRUCTION WORK SHALL BE COORDINATED WITH THE APPROPRIATE PROPERTY OWNER.

KY 686 ROUNDABOUT
CONSTRUCTION PHASING
PHASE 4

Power InRoads v8.11.9.397 E-SHEET NAME: USER: backherms DATE PLOTTED: January 12, 2022 FILE NAME: P:\PR58966\CADD\ROADWAY PLANS\04 - MONTGOMERY KY 686\KY686.MOT_PHASE_04_DETOUTR.DGN



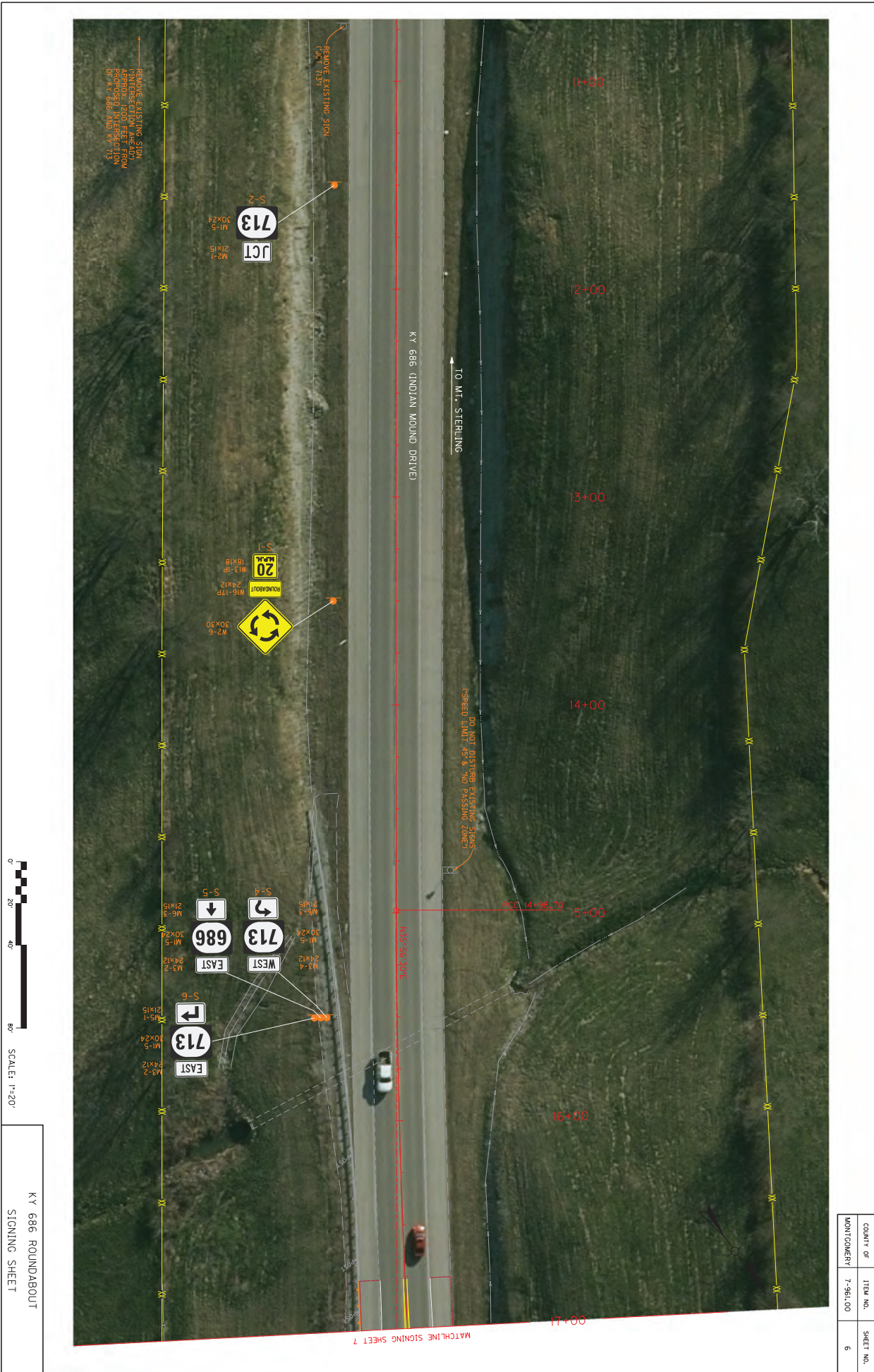
SIGN LEGEND

NOTES:

- AT 713 CLOSED HEAD TO JUNE 15, 2022
- AT 686 CLOSED HEAD TO JUNE 15, 2022
- AT 713 CLOSED HEAD TO JUNE 15, 2022
- AT 686 CLOSED HEAD TO JUNE 15, 2022
- AT 713 CLOSED HEAD TO JUNE 15, 2022
- AT 686 CLOSED HEAD TO JUNE 15, 2022
- AT 713 CLOSED HEAD TO JUNE 15, 2022
- AT 686 CLOSED HEAD TO JUNE 15, 2022

KY 686 ROUNDABOUT
 DETOUR PLAN
 PHASE 4

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	MOT-04



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	6

KY 686 ROUNDABOUT
SIGNING SHEET

SCALE: 1"=20'

REPLACE EXISTING SIGN
(INTERSECTION AHEAD)
APPROX. 1000 FEET FROM
TOP OF 686 AND KY 713

TO MT. STERLING

KY 686 (INDIAN MOUND DRIVE)

DO NOT DISTURB EXISTING SIGNS
(SPEED LIMIT 45 & NO PASSING ZONE)

REMOVE EXISTING SIGN
(C.C.T. 151)

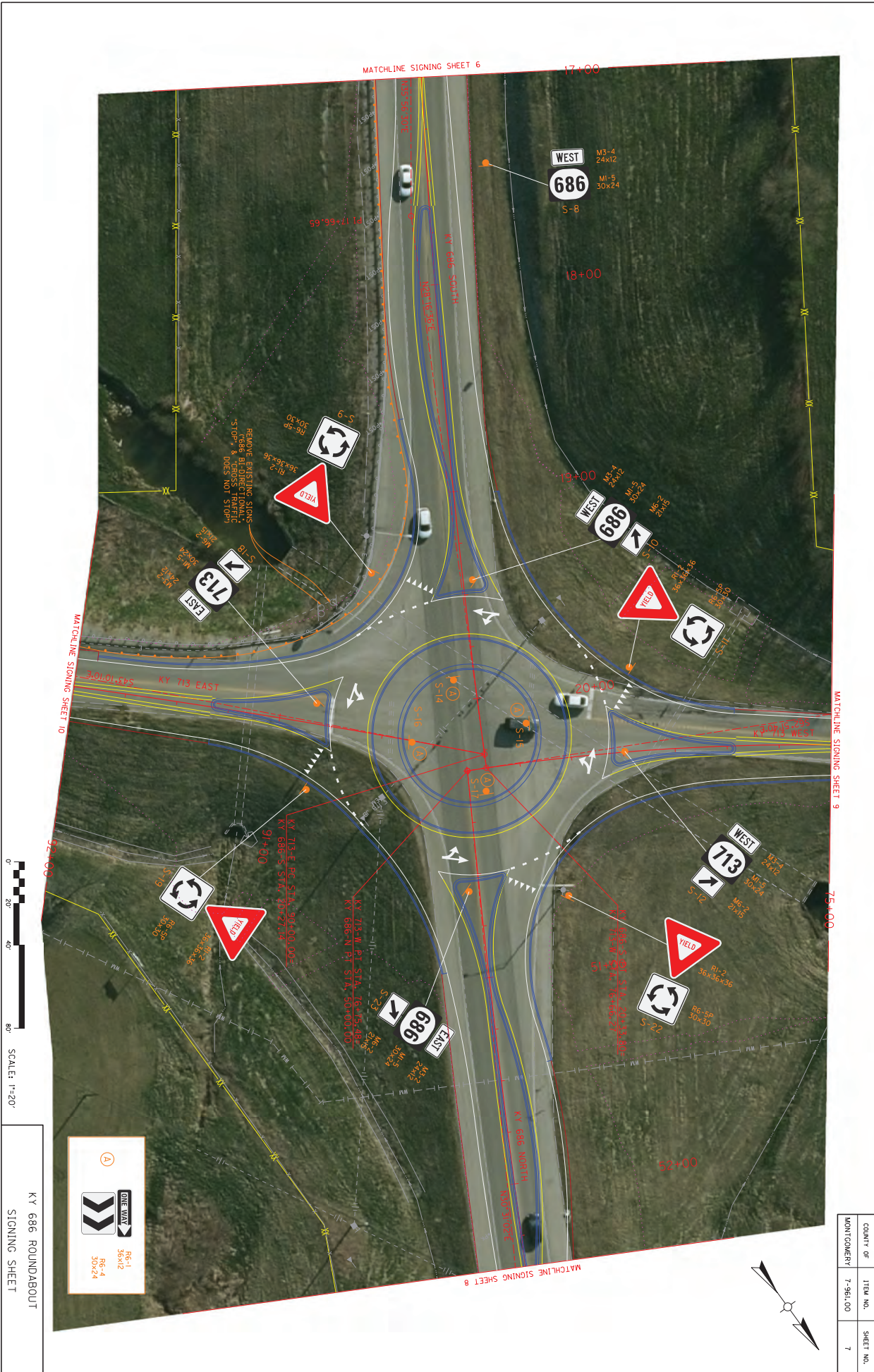
JCT
713
M2-1 21x15
M1-5 30x24
S-2

20
M3-1B 18x18
M16-17P
W2-6 30x30
S-1

686 EAST
713 WEST
713 EAST
M3-2 24x12
M1-5 30x24
M6-3 21x15
S-5
M3-2 24x12
M1-5 30x24
M5-1 21x15
S-6

M3-3 21x15
M1-5 30x24
M2-4 24x12

MATCHLINE SIGNING SHEET 7

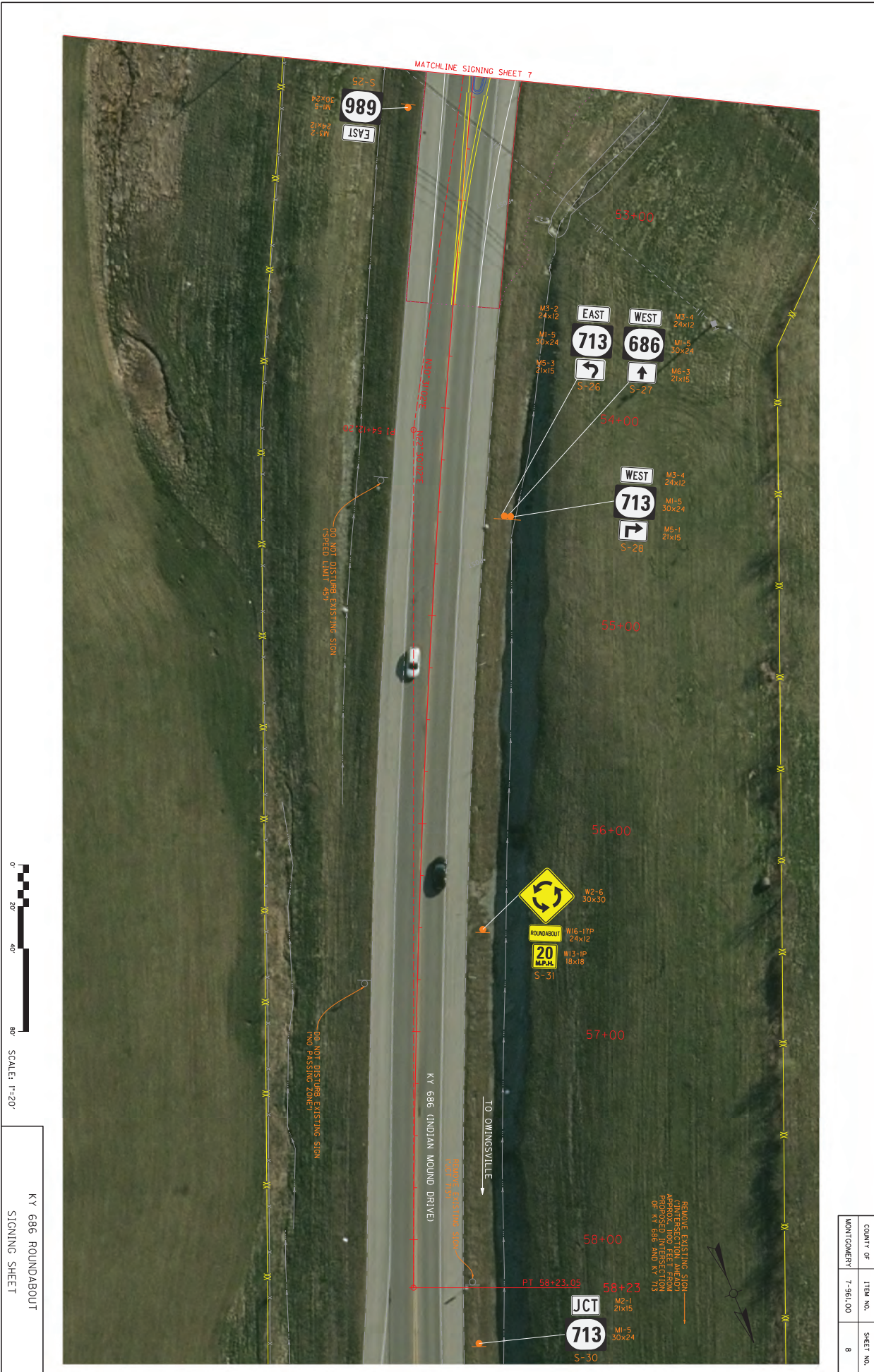


SCALE: 1"=20'

KY 686 ROUNDABOUT
SIGNING SHEET

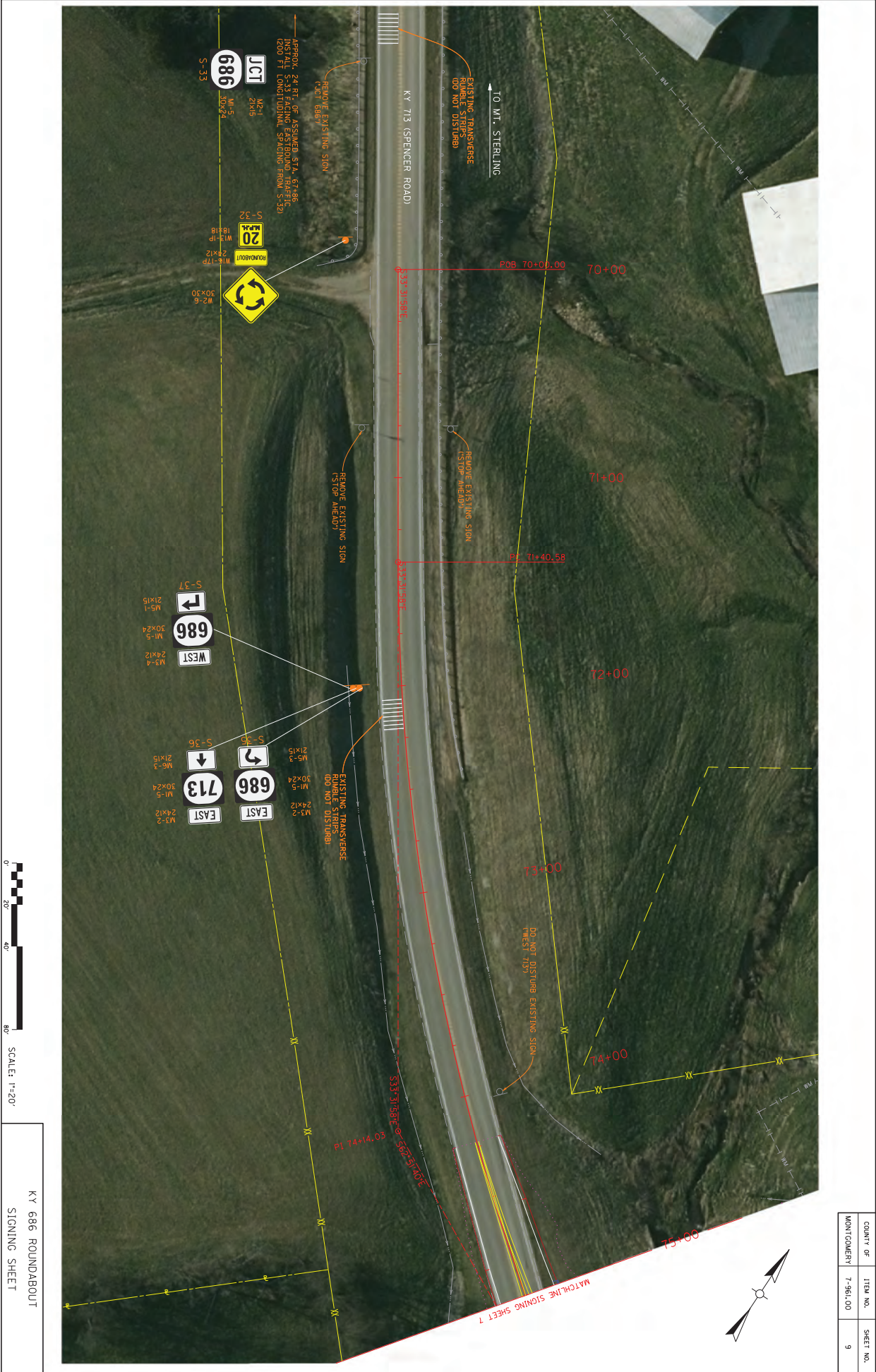
	R6-5P 30x30
	R6-4 30x42
	R6-5A 30x24

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	7



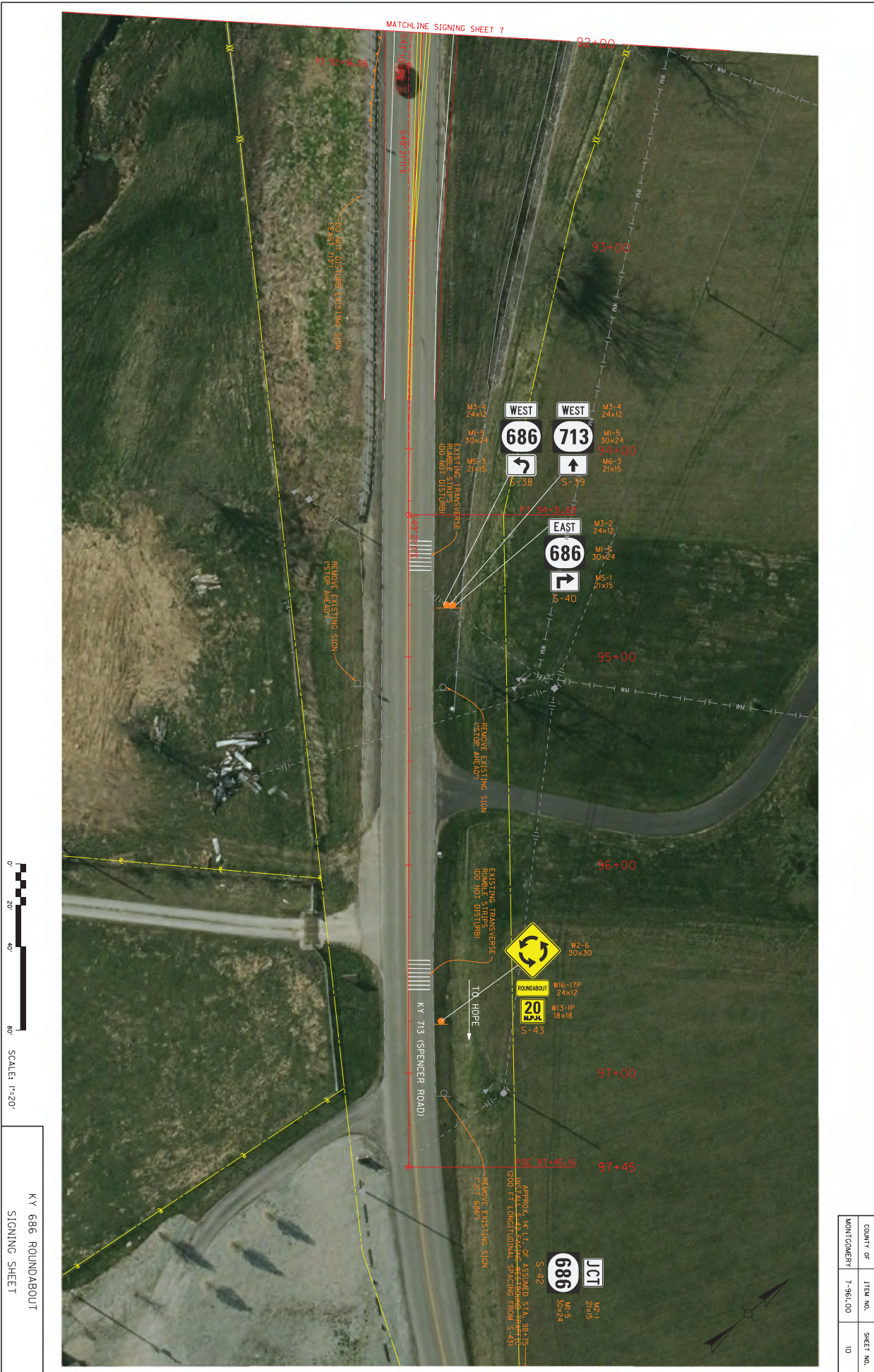
KY 686 ROUNDABOUT
SIGNING SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	8



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	9

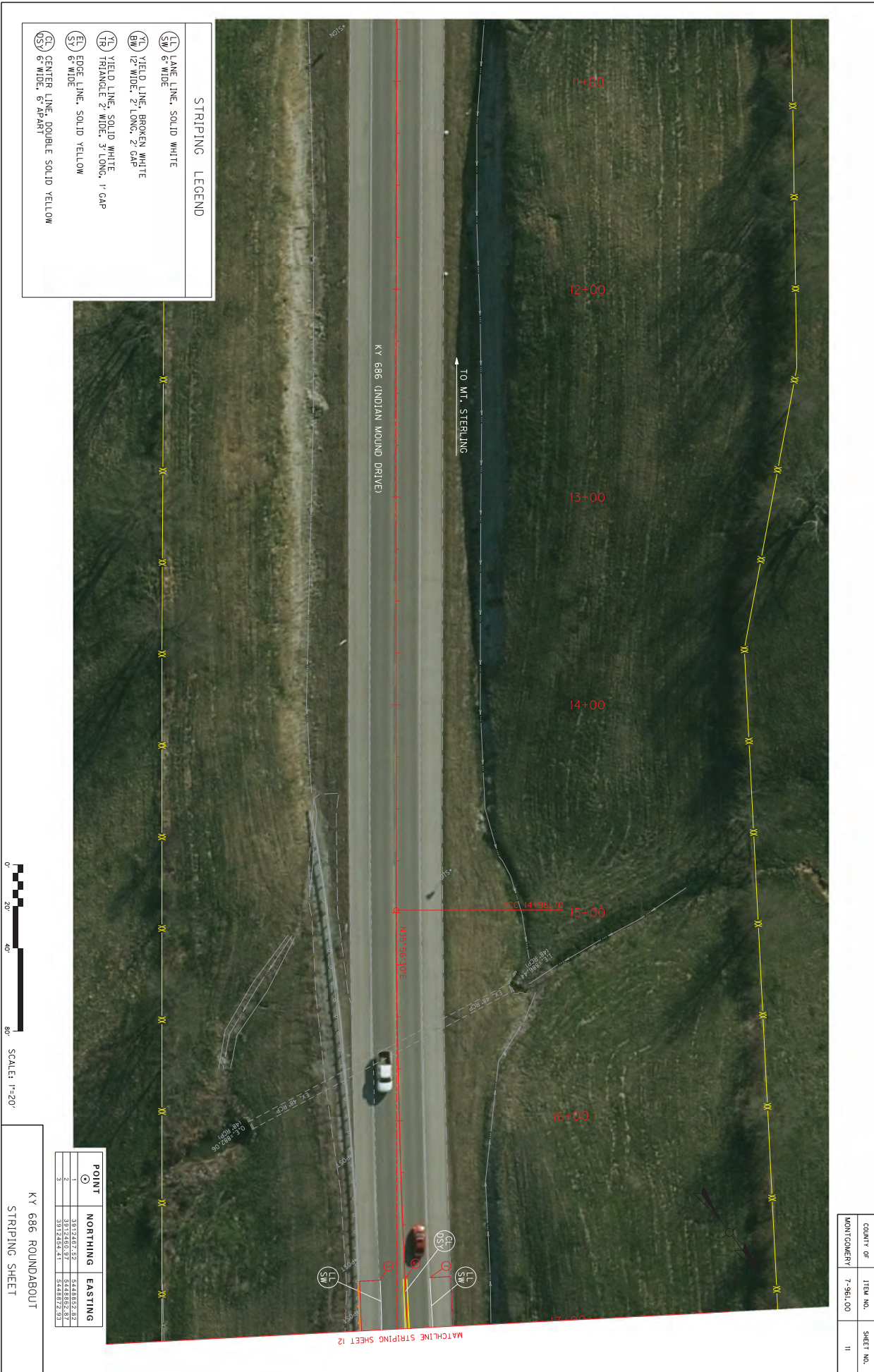
KY 686 ROUNDABOUT
SIGNING SHEET



0' 20' 40' 80'
SCALE: 1"=20'

KY 686 ROUNDABOUT
SIGNING SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	10



STRIPING LEGEND

	LANE LINE, SOLID WHITE 6' WIDE
	YIELD LINE, BROKEN WHITE 12' WIDE, 2' LONG, 2' GAP
	YIELD LINE, SOLID WHITE TRIANGLE 2' WIDE, 3' LONG, 1' GAP
	EDGE LINE, SOLID YELLOW 6' WIDE
	CENTER LINE, DOUBLE SOLID YELLOW 6' WIDE, 6' APART

POINT	NORTHING	EASTING
1	3812287.52	5443852.82
2	3812265.97	5443852.87
3	3812282.41	5443872.83



KY 686 ROUNDABOUT
STRIPING SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	11

STRIPING LEGEND

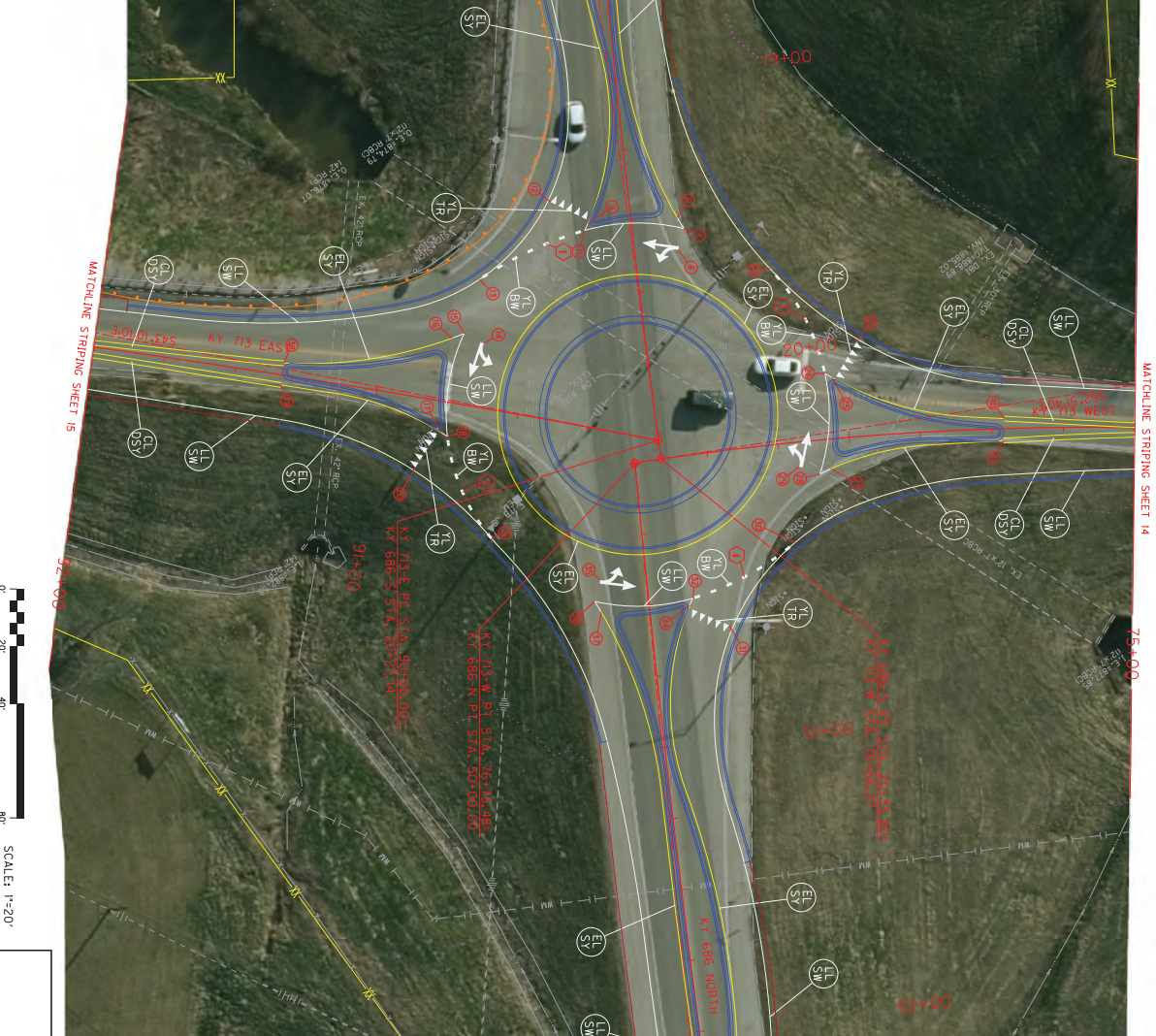
- TL LANE LINE, SOLID WHITE 6" WIDE
- TR YIELD LINE, BROKEN WHITE 12" WIDE, 2' LONG, 2' GAP
- TL YIELD LINE, SOLID WHITE TRIANGLE 2' WIDE, 3' LONG, 1' GAP
- EL EDGE LINE, SOLID YELLOW 6" WIDE
- CS CENTER LINE, DOUBLE SOLID YELLOW 6" WIDE, 6' APART

CURVE

RADIUS	CENTER COORDINATES
NORTH (Y)	EAST (X)
1 131.34'	3912811.11 5449063.57
2 99.03'	3912720.42 5449052.95
3 78.47'	3912746.02 5449054.08

POINT

POINT	NORTHING	EASTING
4	3912814.23	5448997.77
5	3912812.20	5448994.65
6	3912797.48	5448992.33
7	3912767.48	5448992.33
8	3912712.43	5448988.18
9	3912687.65	5448992.71
10	3912687.65	5448992.71
11	3912687.65	5448992.71
12	3912687.65	5448992.71
13	3912687.65	5448992.71
14	3912687.65	5448992.71
15	3912687.65	5448992.71
16	3912687.65	5448992.71
17	3912687.65	5448992.71
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35	3912687.65	5448992.71
36	3912687.65	5448992.71
37	3912687.65	5448992.71
38	3912687.65	5448992.71
39	3912687.65	5448992.71
40	3912687.65	5448992.71
41	3912687.65	5448992.71



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	12

KY 686 ROUNDABOUT
STRIPING SHEET

STRIPING LEGEND

	LANE LINE, SOLID WHITE 6' WIDE
	YIELD LINE, BROKEN WHITE 12' WIDE, 2' LONG, 2' GAP
	YIELD LINE, SOLID WHITE 1' LONG, 1' GAP
	EDGE LINE, SOLID YELLOW 6' WIDE
	CENTER LINE, DOUBLE SOLID YELLOW 6' WIDE, 6' APART



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	13

POINT	NORTHING	EASTING
42	3913083.84	5448170.04
43	3913083.920	5448171.722
45	3913070.56	5448223.116
46	3913085.19	5448233.84

KY 686 ROUNDABOUT
STRIPING SHEET

STRIPING LEGEND

	LA NE, SOLID WHITE 6' WIDE
	YIELD LINE, BROKEN WHITE 12' WIDE, 2' LONG, 2' GAP
	YIELD LINE, SOLID WHITE 12' WIDE, 2' LONG, 1' GAP
	EDGE LINE, SOLID YELLOW 6' WIDE
	CENTER LINE, DOUBLE SOLID YELLOW 6' WIDE, 6' APART



0' 20' 40' 80' SCALE: 1"=20'

POINT	NORTHING	EASTING
46	3917201.21	5424882.27
47	3917201.27	5424882.57
48	3917202.78	5424883.51

KY 686 ROUNDABOUT
STRIPING SHEET

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	14



STRIPING LEGEND

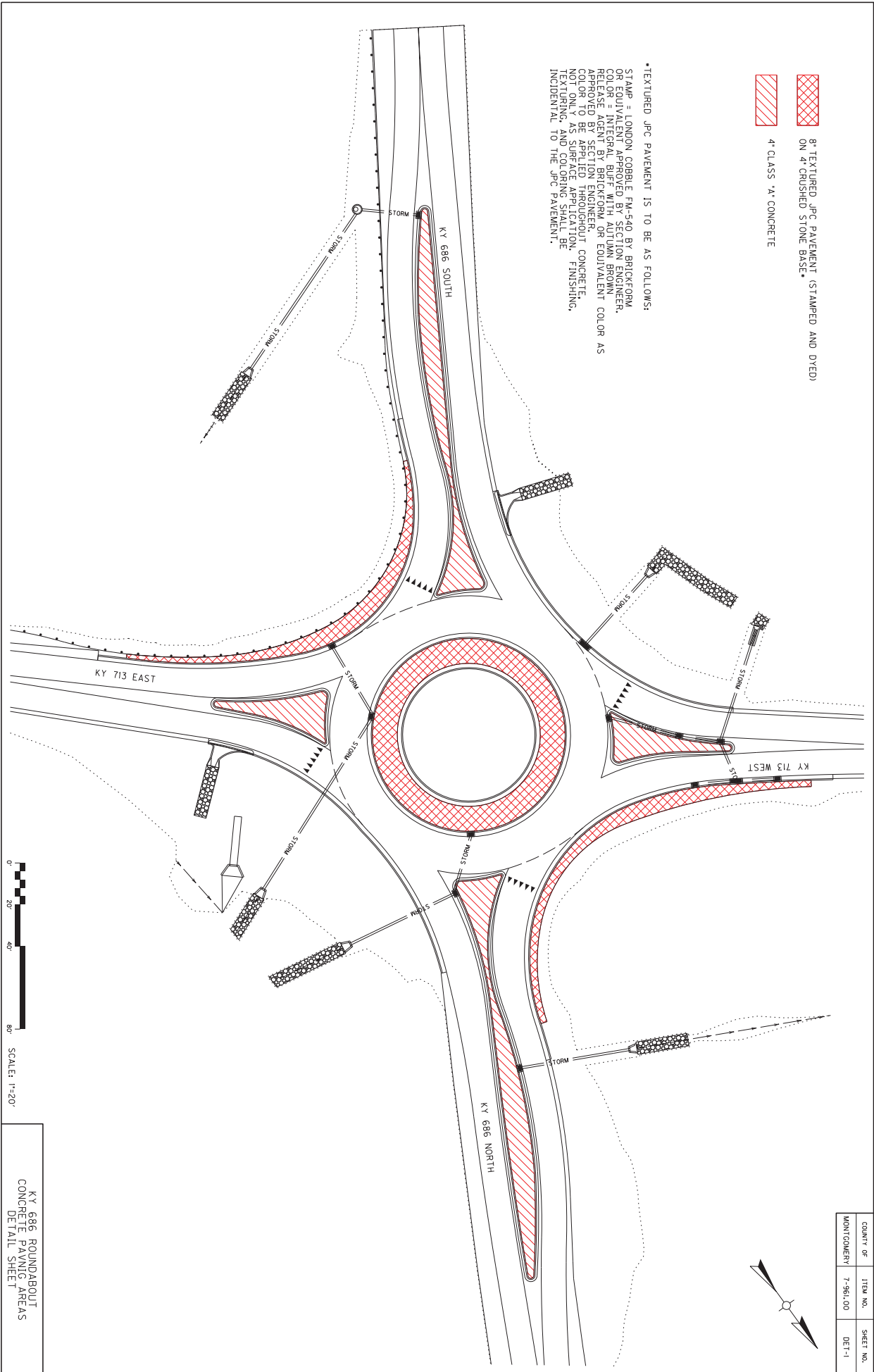
- ⊖ SW 6" WIDE
- ⊖ TL YIELD LINE, SOLID WHITE
- ⊖ TL YIELD LINE, BROKEN WHITE
- ⊖ BW 12" WIDE, 2' LONG, 2' GAP
- ⊖ TL YIELD LINE, SOLID WHITE
- ⊖ TR TRIANGLE 2' WIDE, 3' LONG, 1' GAP
- ⊖ EL EDGE LINE, SOLID YELLOW
- ⊖ SW 6" WIDE
- ⊖ CS CENTER LINE, DOUBLE SOLID YELLOW

POINT	NORTHING	EASTING
50	3317552.74	5442524.58
51	3317552.74	5442524.58
52	3317500.03	5442501.13
53	3317481.03	5442501.18



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	15

0' 20' 40' 80' SCALE: 1"=20'

KY 686 ROUNDABOUT
STRIPING SHEET



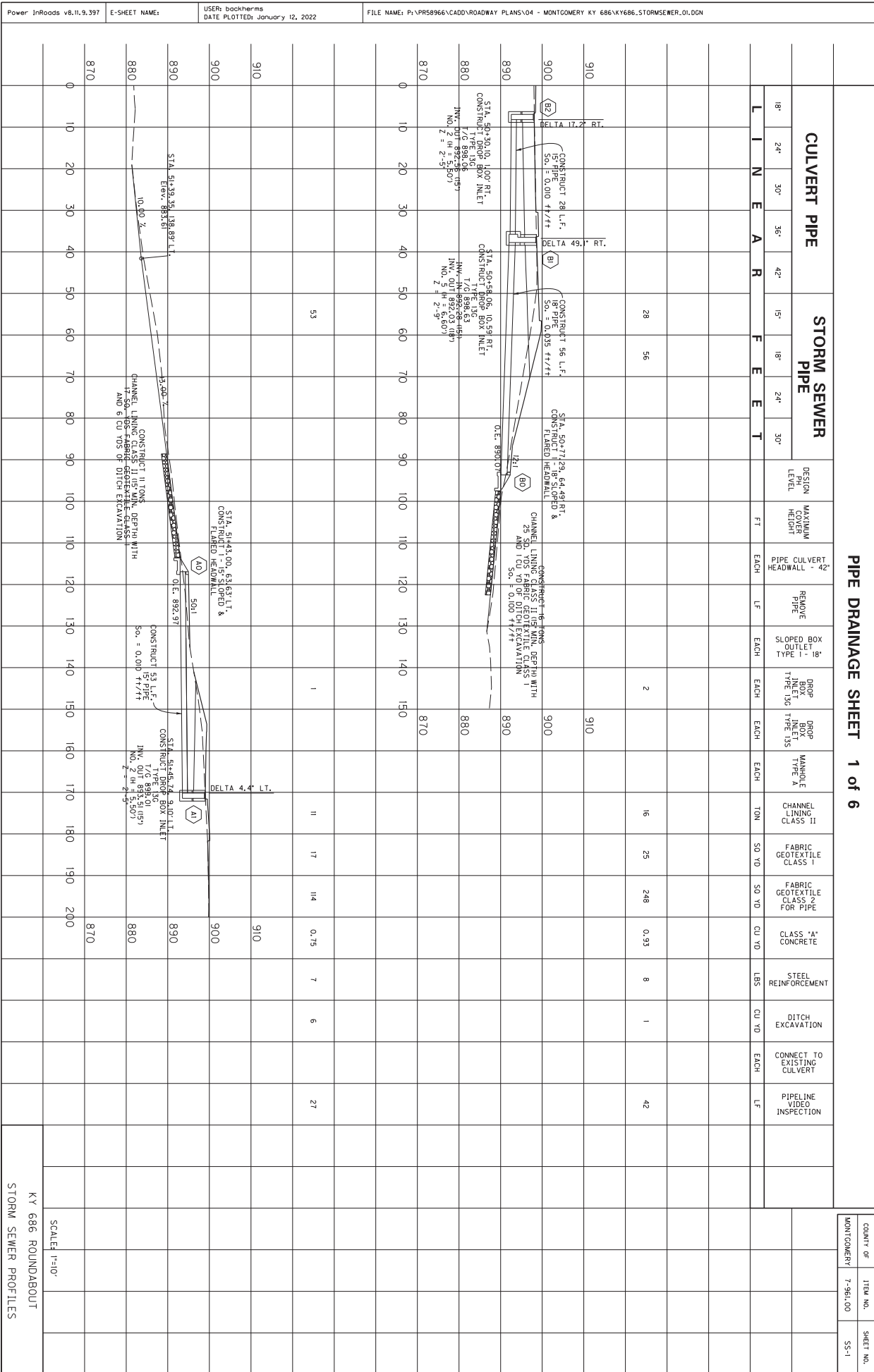
*TEXTURED JPC PAVEMENT IS TO BE AS FOLLOWS:
 STAMP = LONDON COBBLE FM-540 BY BRICKFORM
 OR EQUIVALENT APPROVED BY SECTION ENGINEER.
 COLOR = INTEGRAL BUFF WITH AUTUMN BROWN
 APPLIED TO THE SURFACE OF THE CONCRETE
 BEFORE SETTING. SECTION ENGINEER
 SHALL APPROVE SECTION ENGINEER
 COLOR TO BE APPLIED THROUGHOUT. FINISHING,
 TEXTURING, AND COLORING SHALL BE
 INCIDENTAL TO THE JPC PAVEMENT.

-  8' TEXTURED JPC PAVEMENT (STAMPED AND DYED)
ON 4" CRUSHED STONE BASE*
-  4' CLASS 'A' CONCRETE

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	DET-1



KY 686 ROUNDABOUT
 CONCRETE PAVING AREAS
 DETAIL SHEET

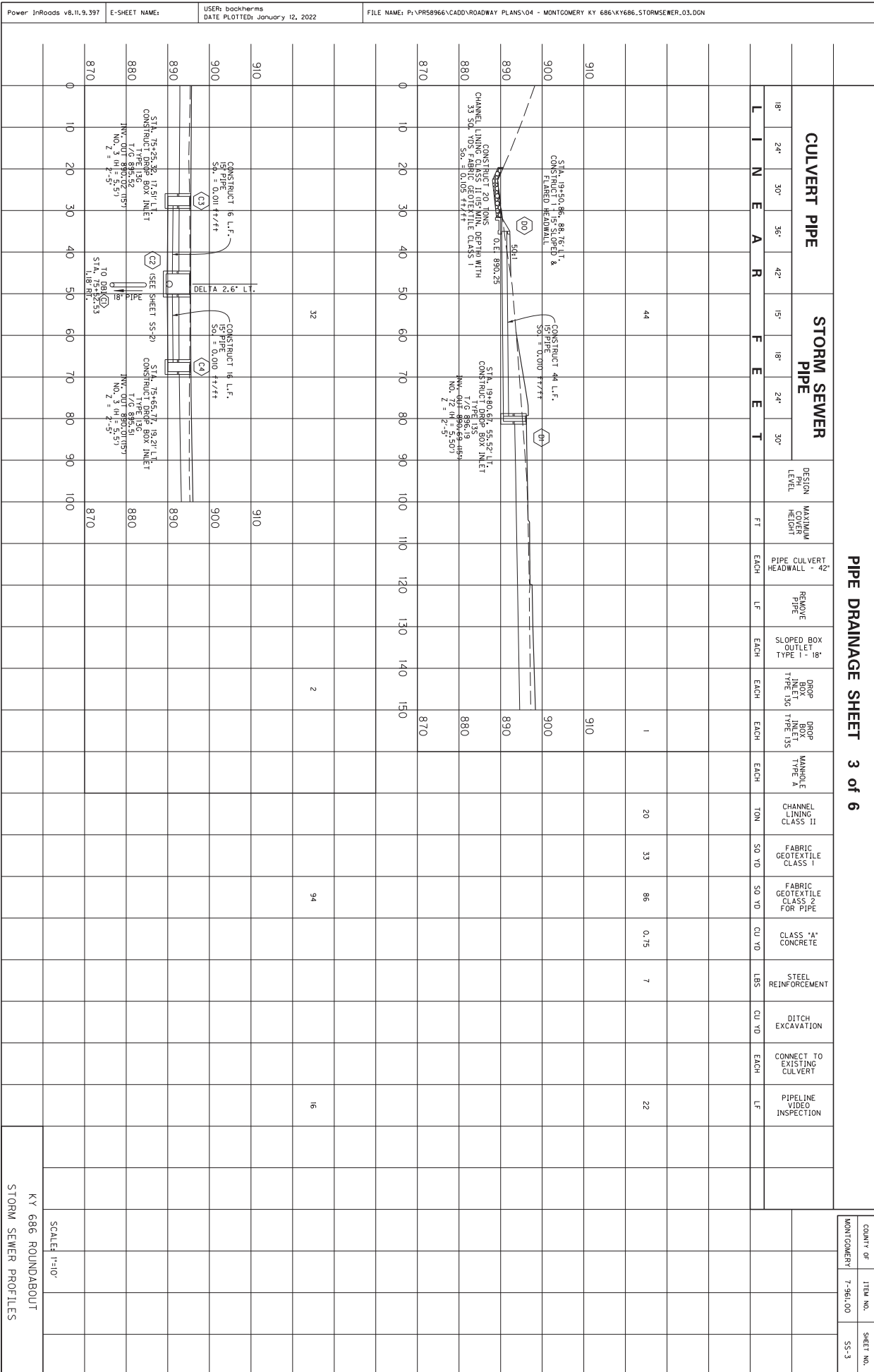


PIPE DRAINAGE SHEET 1 of 6

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	55-1

KY 686 ROUNDABOUT
STORM SEWER PROFILES

SCALE: 1"=10'

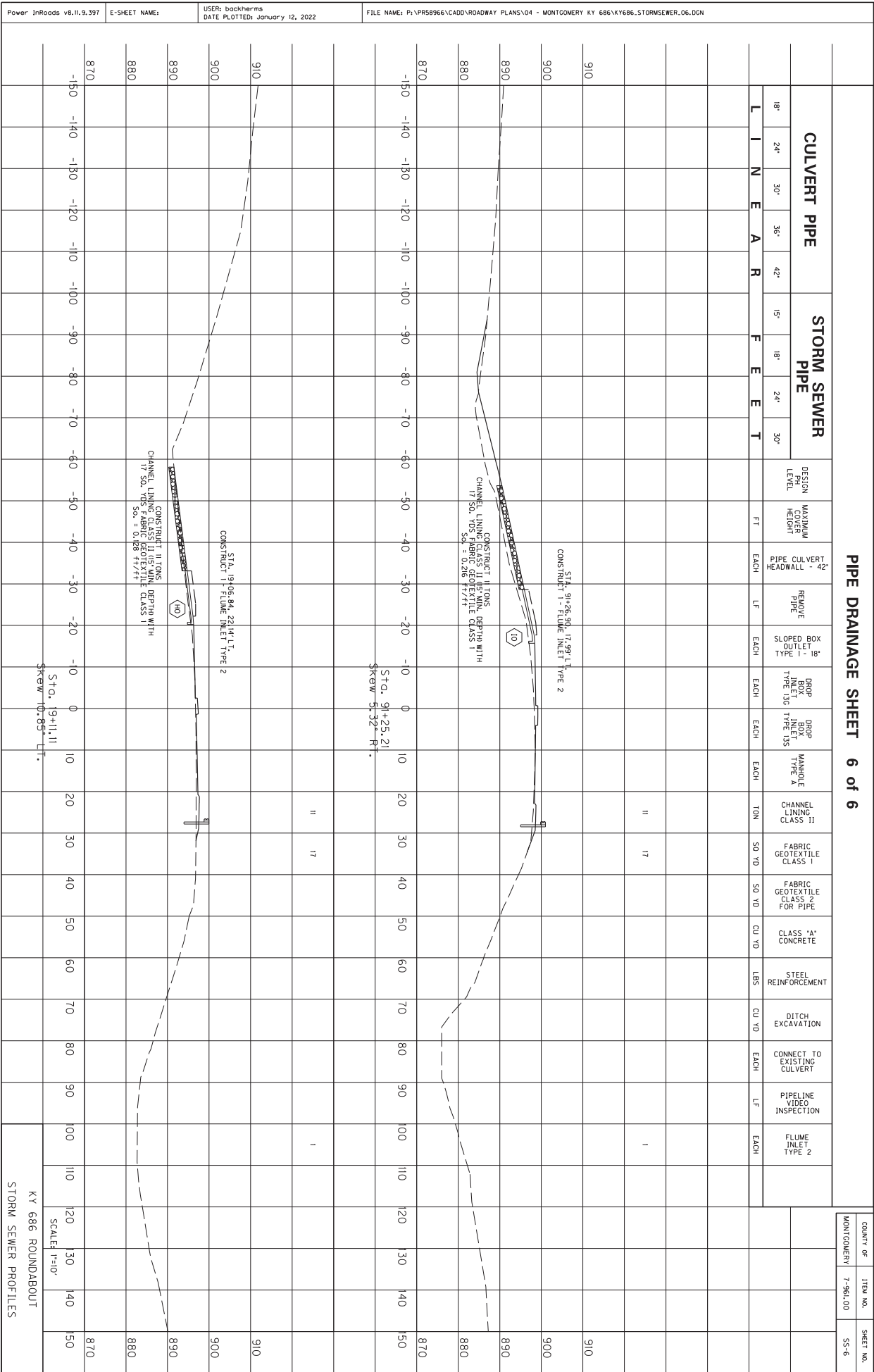


PIPE DRAINAGE SHEET 3 of 6

COUNTY OF MONTGOMERY
ITEM NO. 7-961.00
SHEET NO. 55-3

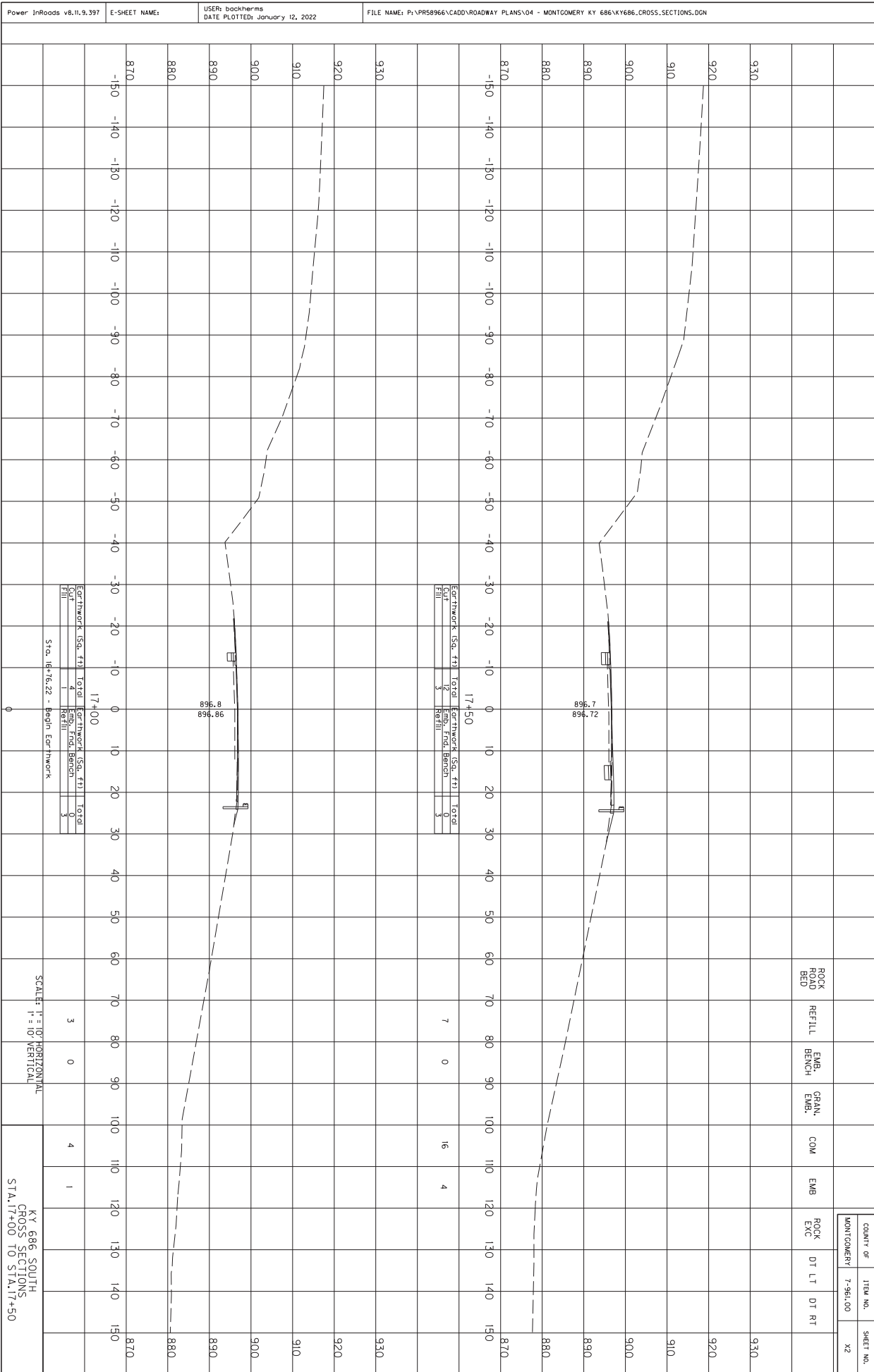
KY 686 ROUNDABOUT
STORM SEWER PROFILES

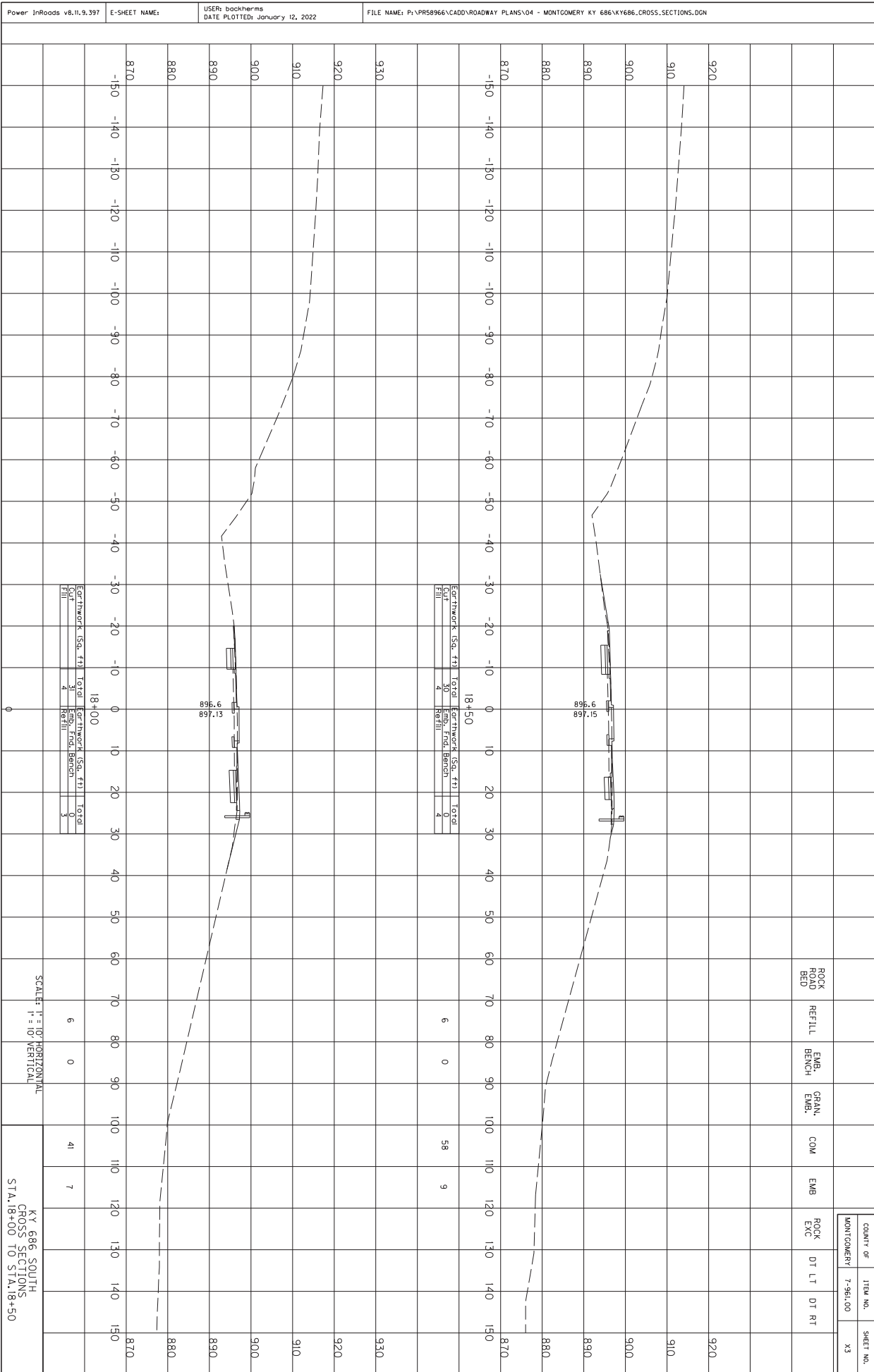
SCALE: 1"=10'



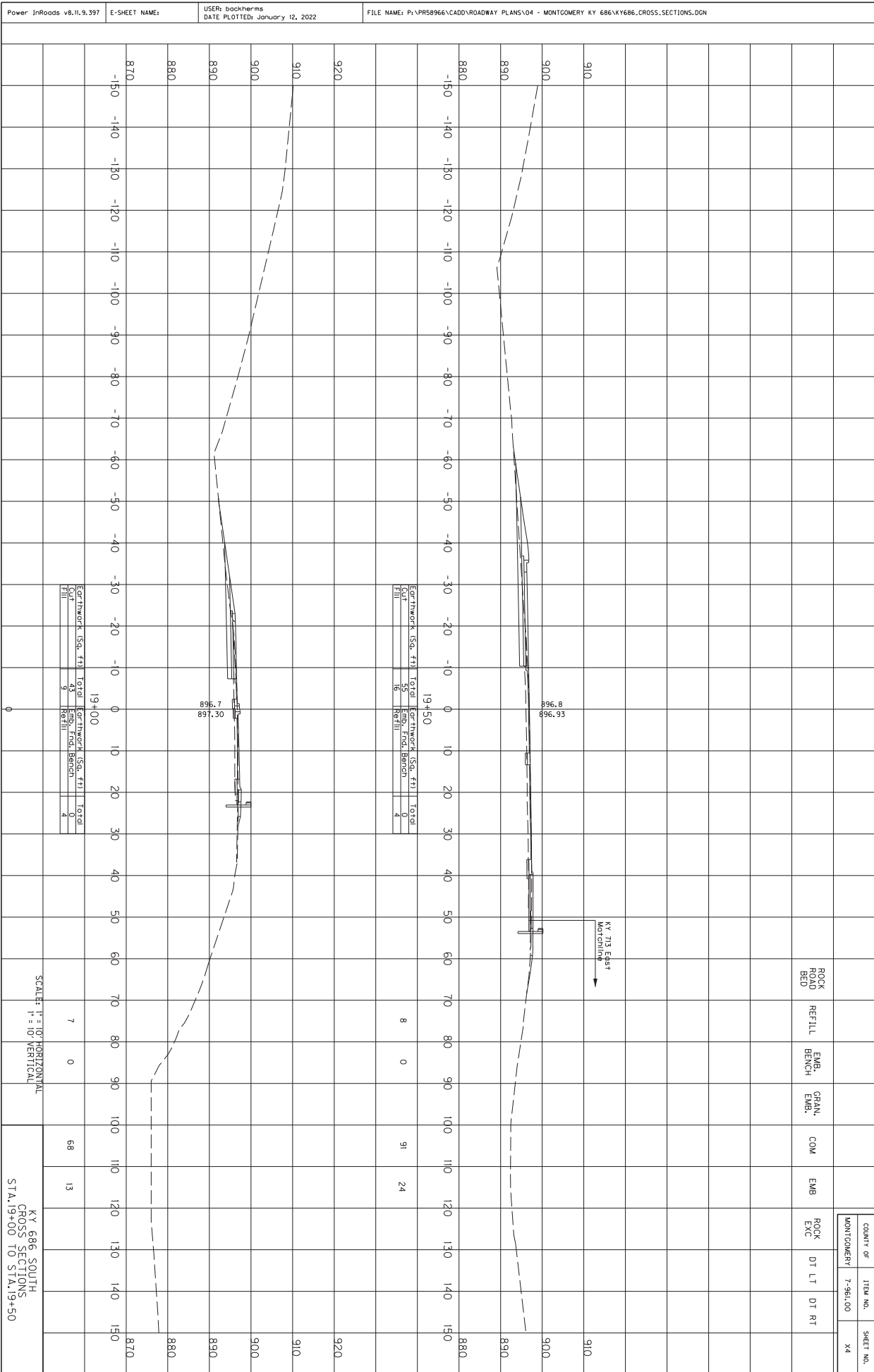
COUNTY OF MONTGOMERY
ITEM NO. 7-961.00
SHEET NO. 55-6

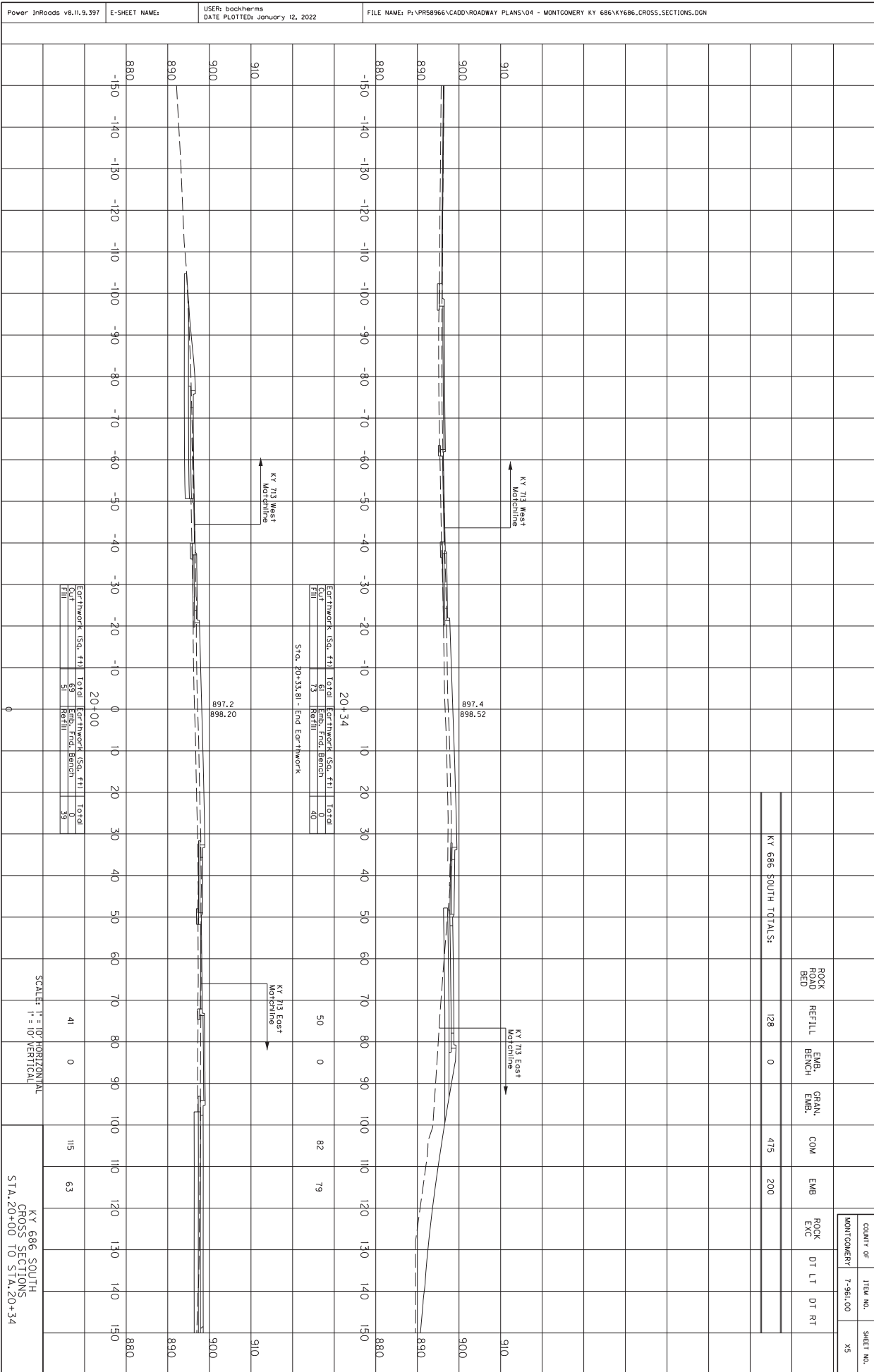
Power InRoads v8.11.9.397 E-SHEET NAME: USER: backherms DATE PLOTTED: January 12, 2022 FILE NAME: P:\PR58966\CADD\ROADWAY PLANS\04 - MONTGOMERY KY 686\KY686_STORMSEWER.06.DGN

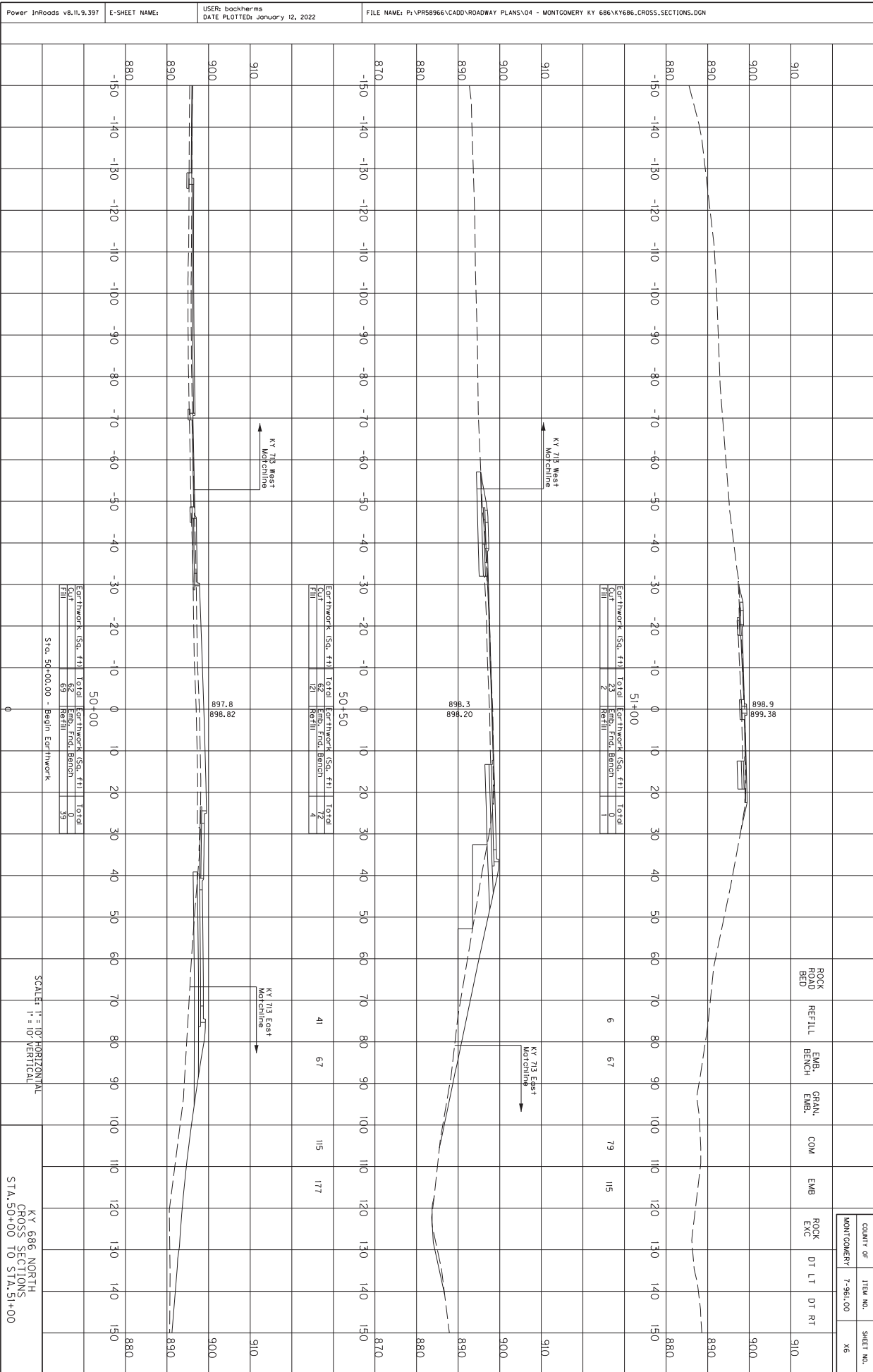


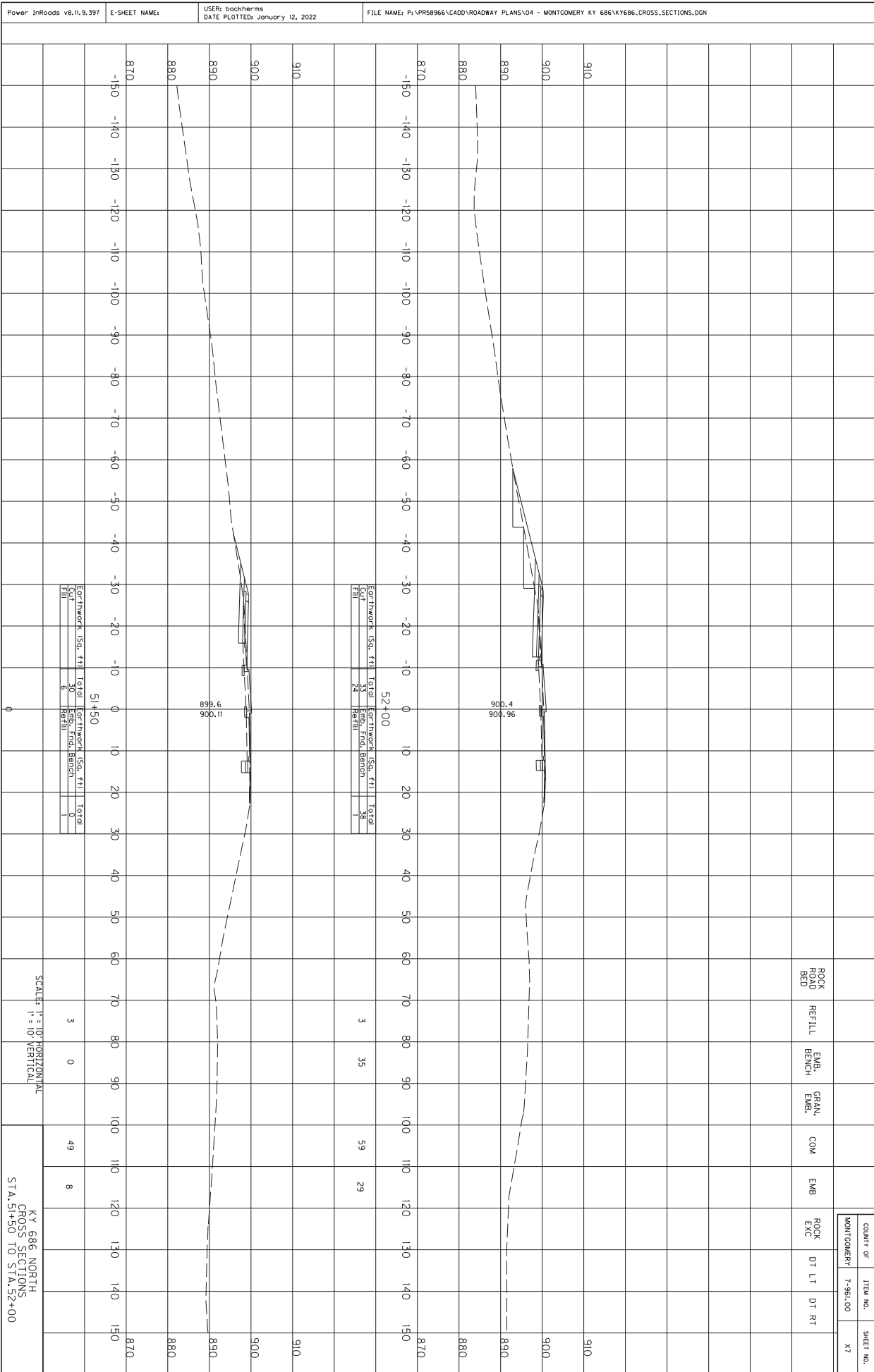


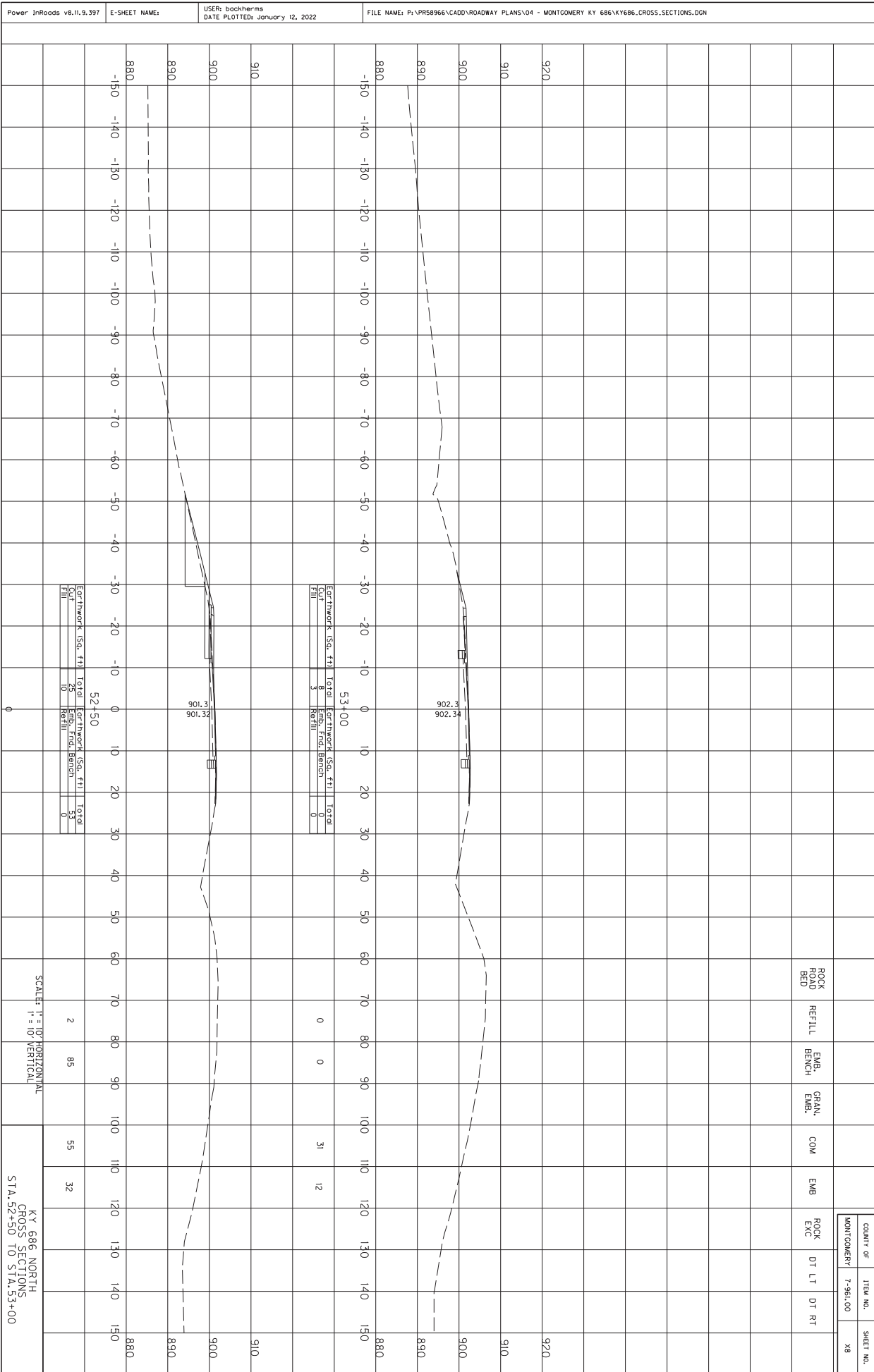
COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	X3







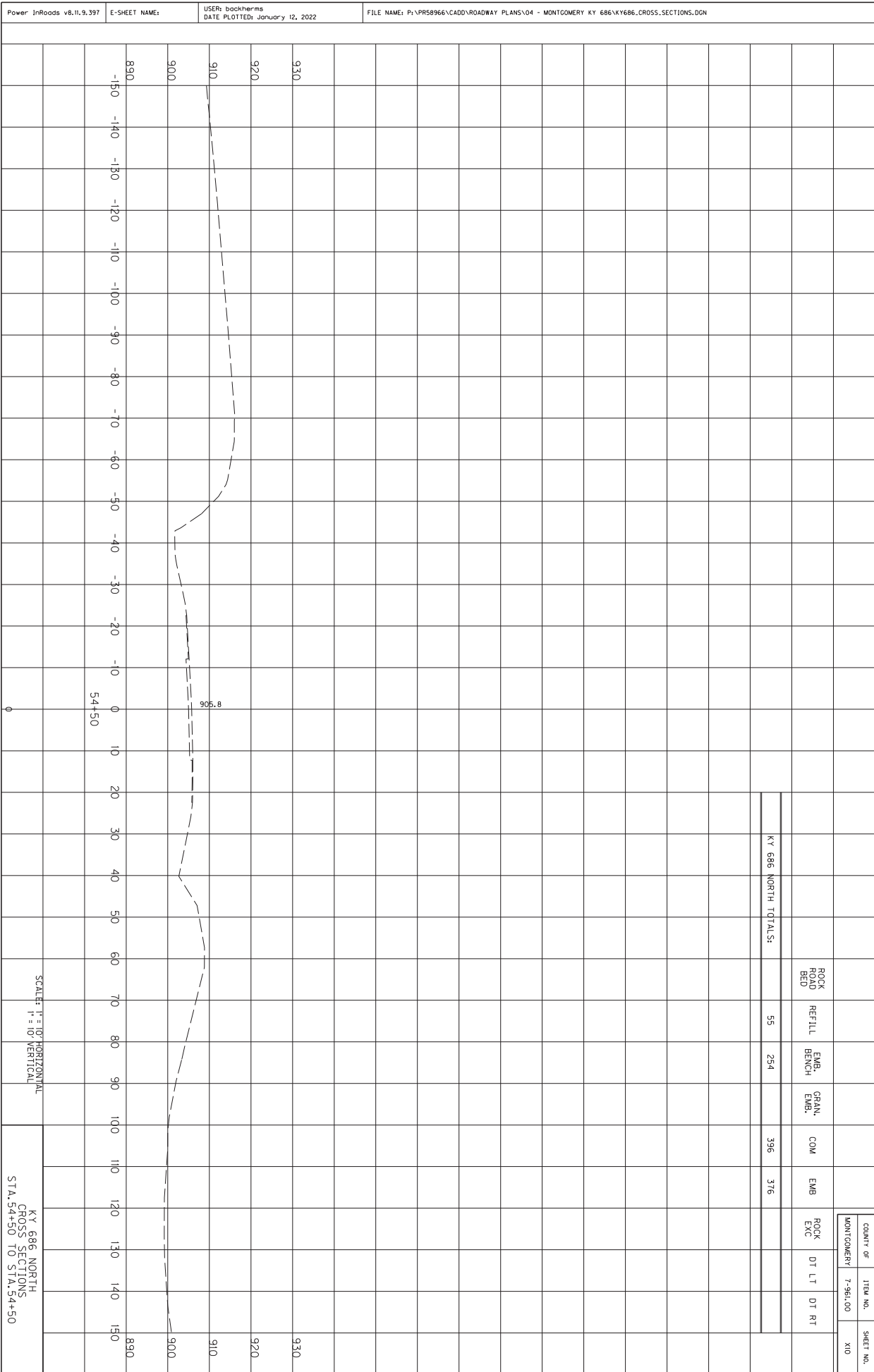


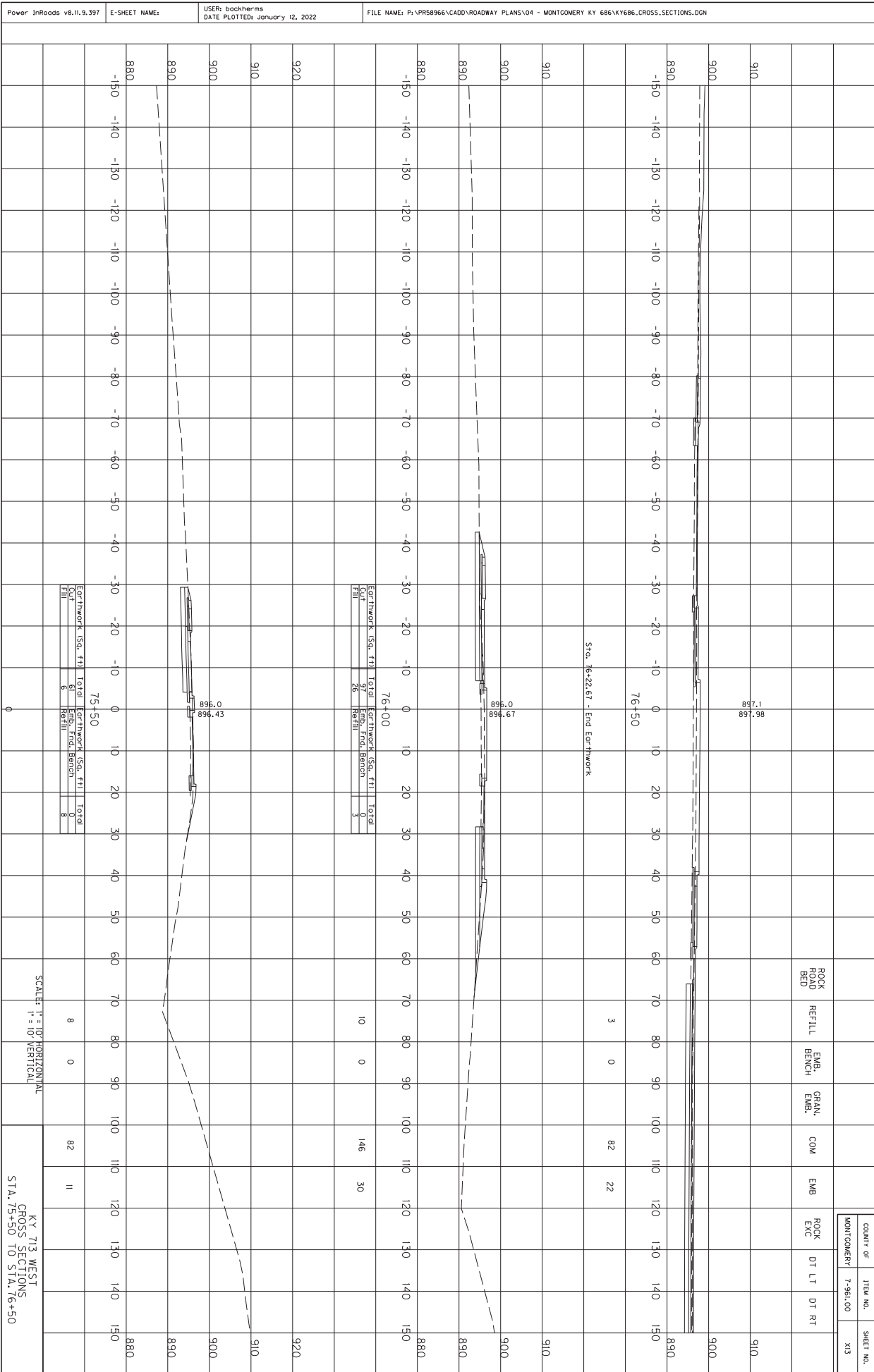


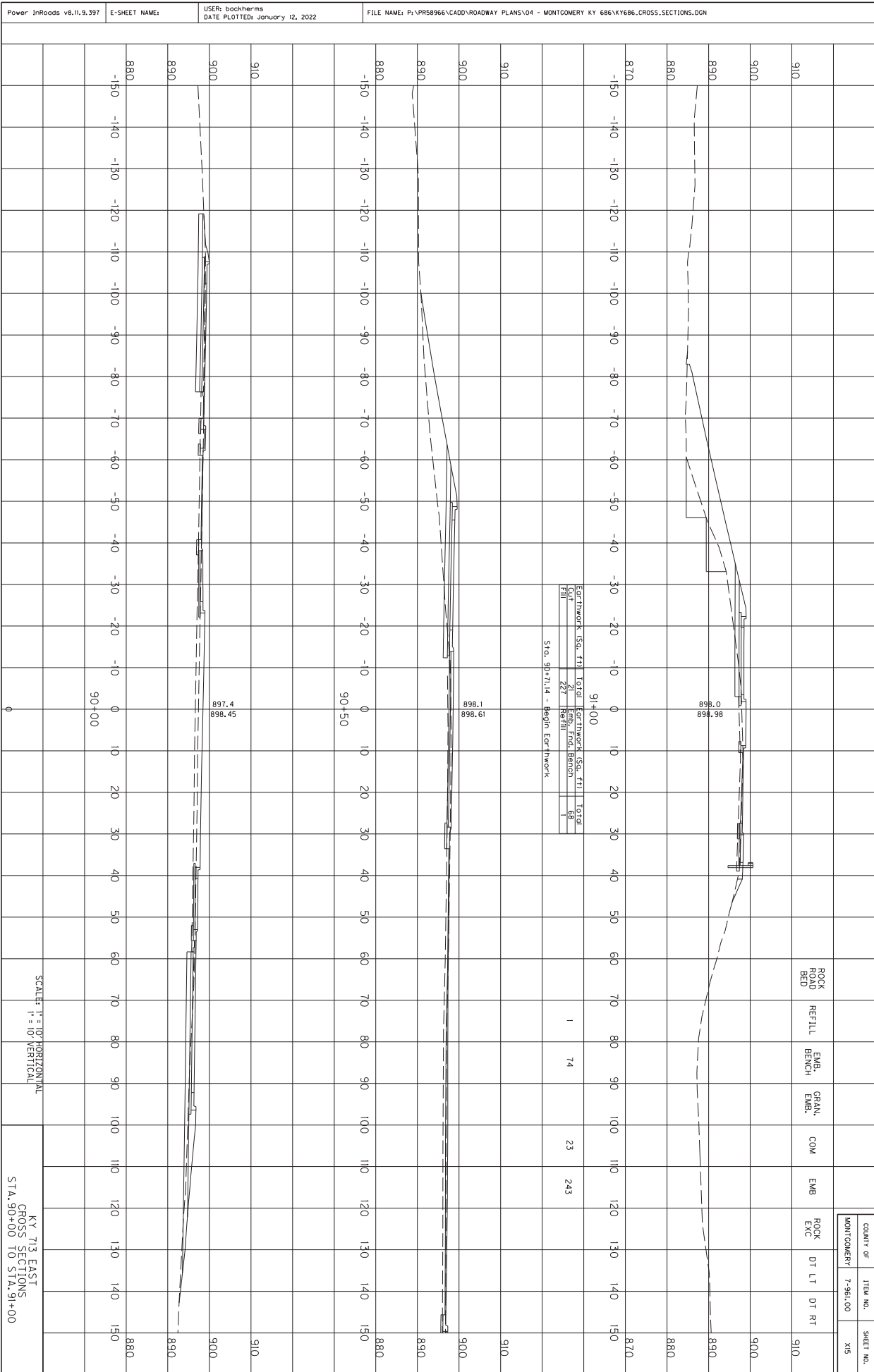
SCALE: H = 1" = 10' HORIZONTAL
V = 1" = 10' VERTICAL

KY 686 NORTH
CROSS SECTIONS
STA. 52+50 TO STA. 53+00

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	X8



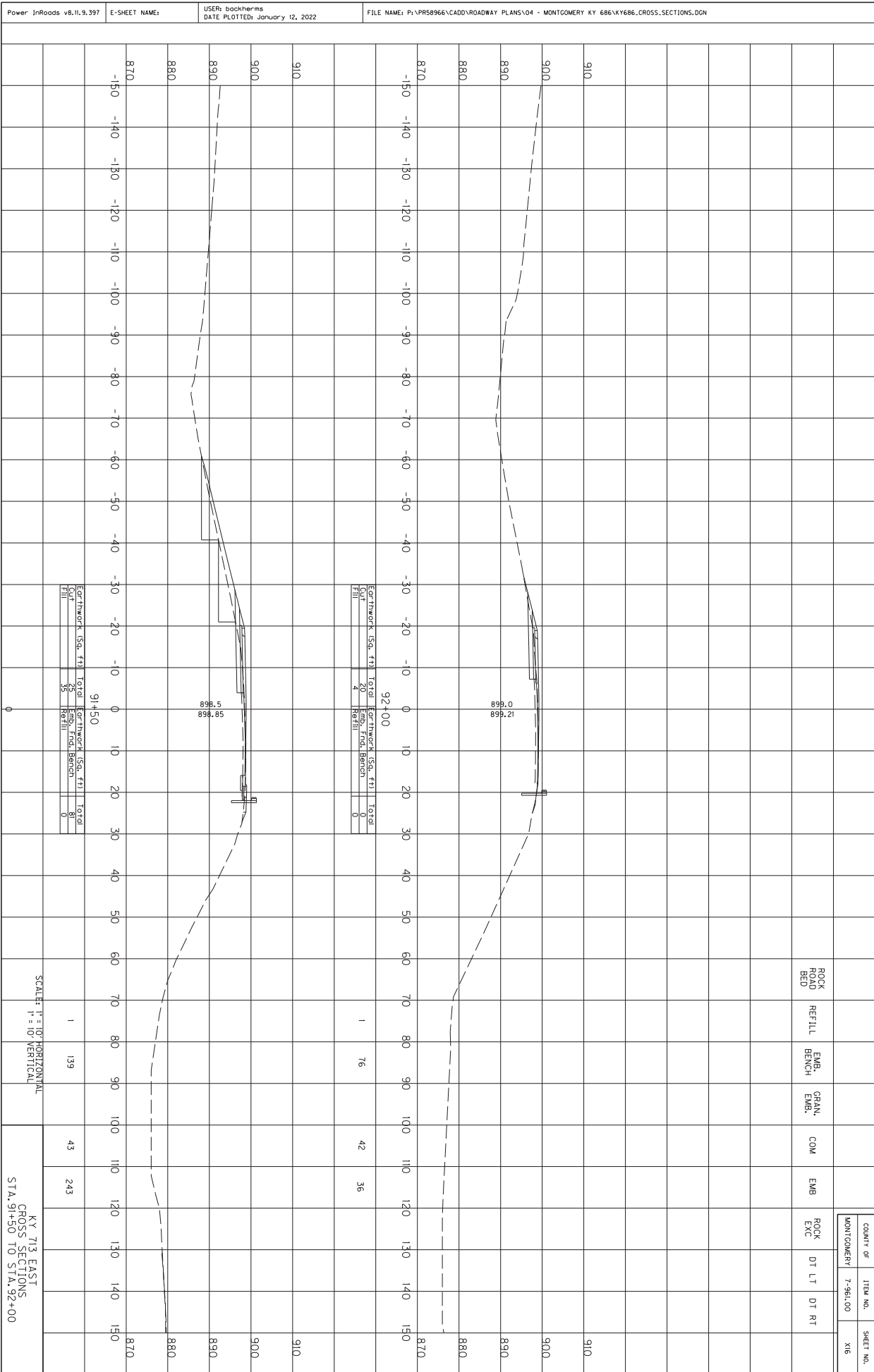




SCALE: H = 1" = 10' HORIZONTAL
V = 1" = 10' VERTICAL

KY 713 EAST
CROSS SECTIONS
STA. 90+00 TO STA. 91+00

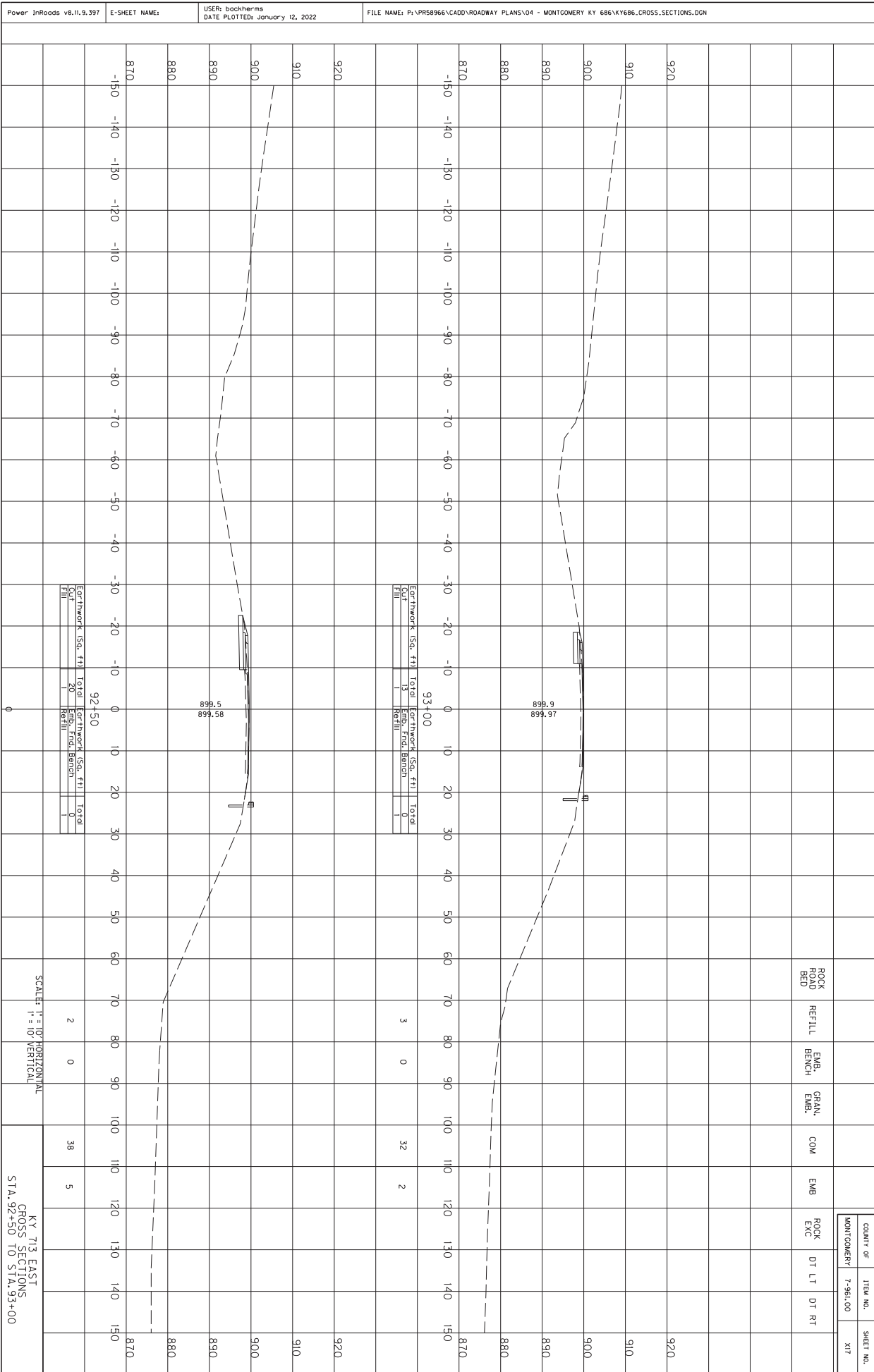
COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	X15

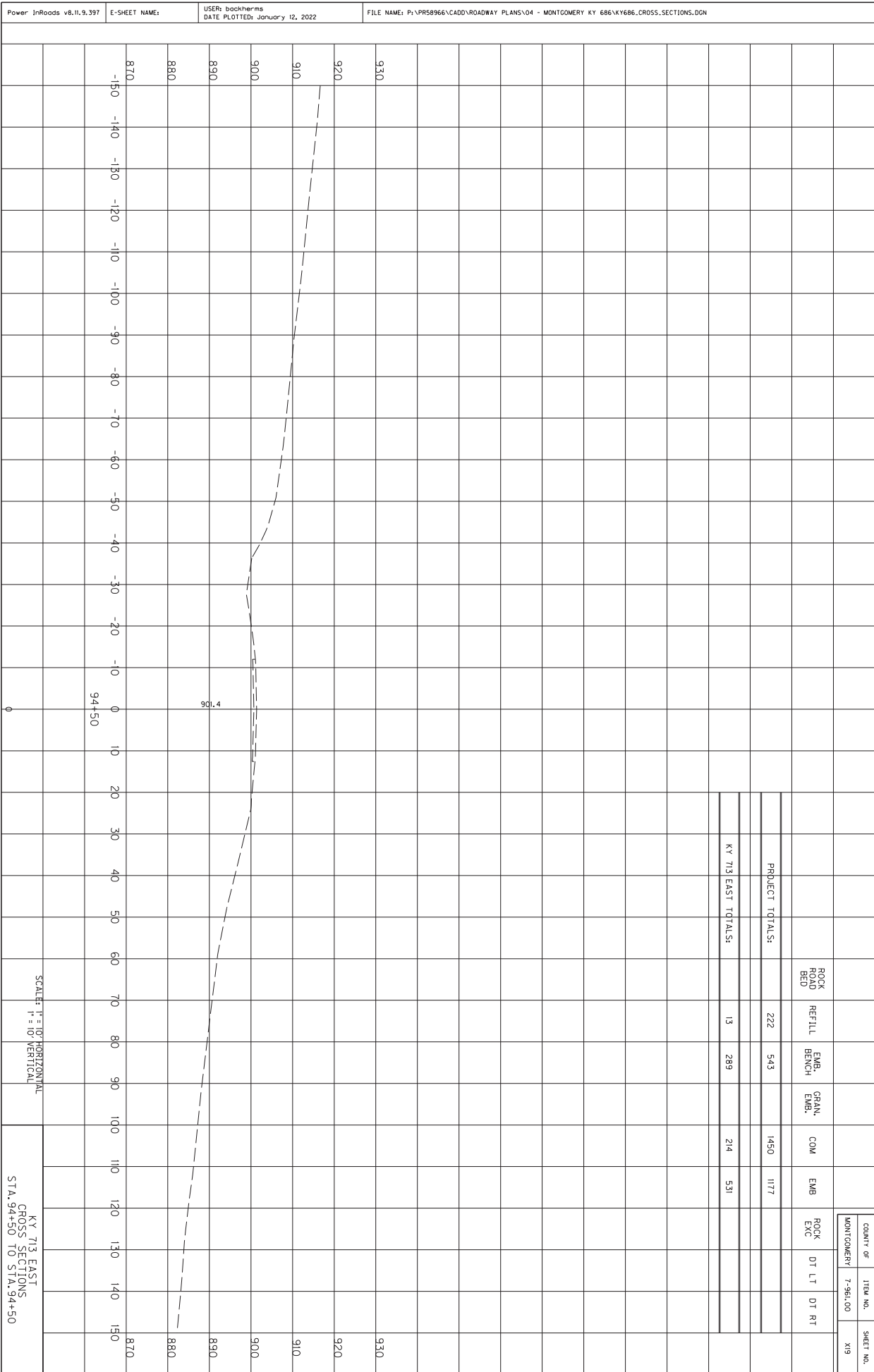


COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	X16

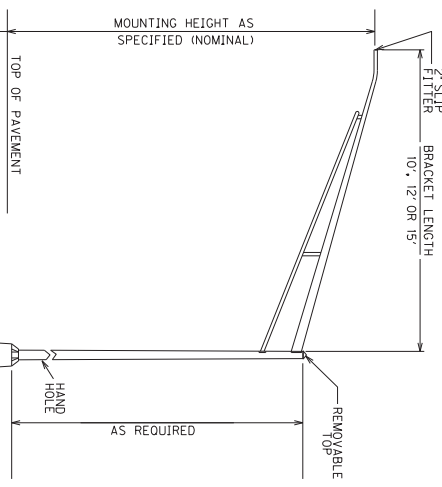
SCALE: H = 1" = 10' HORIZONTAL
V = 1" = 10' VERTICAL

KY 713 EAST
CROSS SECTIONS
STA. 91+50 TO STA. 92+00





Power In/Roads v8.11.9.397 E-SHEET NAME: T00200CL USER: jessica.goodwin DATE PLOTTED: January 7, 2022 FILE NAME: C:\USERS\JESSICA.GOODWIN\DESKTOP\MONTGOMERY\PLANS\T00200CL.DGN



DESIGN CRITERIA FOR LED LUMINAIRES FOR ROUNDABOUT

OVERALL ROUNDABOUT CRITERIA
 AVERAGE: NOT LESS THAN 0.82 FOOTCANDLES AND MORE THAN 1.10 FOOTCANDLES
 MINIMUM: NOT LESS THAN .20 FOOTCANDLES AVERAGE/MINIMUM: NOT MORE THAN 4.10+1
INTERIOR OF ROUNDABOUT CRITERIA
 ILLUMINANCE:
 AVERAGE: NOT LESS THAN 1.06 FOOTCANDLES AND MORE THAN 1.60 FOOTCANDLES
 MINIMUM: NOT LESS THAN .60 FOOTCANDLES AVERAGE/MINIMUM: NOT MORE THAN 1.77+1
ALL POLE LOCATIONS: ARM LENGTHS AND ORIENTATION OF LUMINAIRE (TO CURVE/ROAD) SHOULD BE MAINTAINED DUE TO UTILITIES/DRAINAGE/OBT-OF-WAY.

LUMINAIRE DESIGN:
 TYPE II DISTRIBUTION
 TYPE G; CAN NOT EXCEED TO WATTS

LUMINAIRE DESIGNATION EXAMPLE
 SPECIAL NOTE:
 ALL LUMINAIRES SHALL HAVE THE NEMA LABEL INSTALL ON THE BOTTOM OF THE FIXTURE TO VERIFY THE WATTAGE. LABEL: C2
 DISTANCE FROM RIGHT EDGE OF POLE BASE TO LUMINAIRE EQUIVALENT LUMINAIRE NUMBER IN CIRCUIT CIRCUIT NUMBER

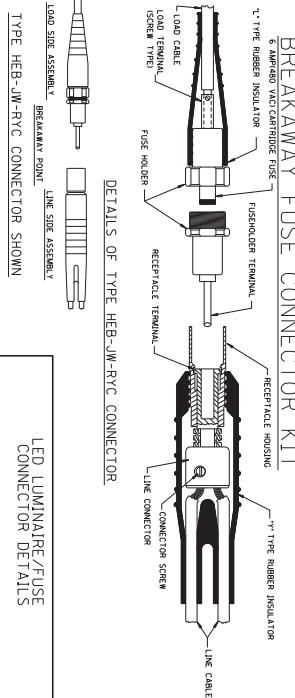
NOTE:
 ALL TYPE C LUMINAIRES ARE MOUNTED AT 40' LED LUMINAIRE 1/6/2017

LED Luminaire Specifications

- The following are the required Specifications for the LED Fixture:
- The Luminaire shall be listed by a National Recognized Testing Laboratory (NRTL) and shall be listed in the Department of Energy's Directory must be listed by OSHA in its scope of recognition. A list of recognized testing labs for products as required by this specification. A list of recognized testing labs for products sold in the United States may be found on the U.S. Department of Labor's web site: <http://www.osha-slc.gov/>
- The Luminaire shall be listed and labeled by a NRTL or CSA as being in compliance with the applicable UL listing for the luminaire.
- Protection devices shall be RoHS compliant.
- The housing shall have an Inter-national Electrotechnical Commission (IEC) 629 Ingress Protection (IP) rating of IP 65 or greater.
- Shielding shall be in compliance with the IEC 61347-2 Class A (200/min), EN6000-3-2, -3, -3, -4-4, -4-5.
- Shielding shall be tested according to the most current version of Illuminating Engineering Society of North America (IESNA) LM-79.
- Shielding shall be tested according to the most current version of Illuminating Engineering Society of North America (IESNA) LM-21.
- The luminaire shall have a diecast aluminum housing.
- The luminaire shall have a corrosion resistant finish with a polyester powder coat finish. The luminaire shall pass per ASTM D1654 after 5000 hours of testing per ASTM B117.
- All hardware on the exterior of the housing including cover and chromate top gooseneck shall be stainless steel, zinc or steel with zinc alloy electroplate and chromate top coat.
- The luminaire shall be easy to open when properly mounted and shall have a replacement that does not require tools (i.e., non-removable parts requiring replacement shall not require tools).
- The luminaire shall have a vibration rating of 3G per the American National Standard (ANSI) IEEE C136.31, Table 2 Roadway Lighting Luminaire Vibration for both normal applications and bridge and overpass applications.
- The luminaire shall be designed to allow water shedding.
- The luminaire shall be designed to allow for the use of a thermal management system.
- The luminaire shall have a label per ANSI C136.22 that states operating voltage and current range. The label must be clearly visible on the inside of the housing.
- The luminaire shall fully operate in a temperature range of -40 degrees C to 40 degrees C (40 to 104 degrees F).
- In retrofit applications, the LED luminaire shall not be more wattage than the original HPS fixture if you are replacing one for one. For the optimized proposal, we will allow the wattage to be greater than the original proposed luminaire.
- The luminaire shall have an integral power supply (electronic driver). The luminaire shall not have a manual, field-adjustable setting for current output.
- The luminaire shall have a power supply (electronic driver) that will operate on a 480 volt single phase of 60 hertz.
- The luminaire shall have a power supply (electronic driver) that has a power factor of .90 or greater on full load (electronic driver) that has total harmonic distortion of .02% or less of full load.
- The luminaire shall have power supply (electronic driver) output ripple of less than 10%.
- The luminaire shall have power supply (electronic driver) with a rated life of 77,000 hours with a luminaire operated at an ambient temperature of 25°C (77°F).
- The luminaire shall have an isolated power supply (electronic driver) output.
- The luminaire shall have a power supply (electronic driver) that has thermal overload protection.
- The luminaire shall have a power supply (electronic driver) that is self-venting and shall be protected and over load protected.
- The luminaire shall not use any active thermal output, such as in order to achieve a higher thermal performance.
- The luminaire shall have a power supply (electronic driver) that is terminated with quick disconnect wire harnesses for easy maintenance. Wire nut termination shall not be used.
- The luminaire shall have a terminal block for terminating wiring to the luminaire. The terminal block shall be a 3 station, tunnel lug terminal board that will accommodate #6 thru #18 AWG pole wire.
- ANSI/IEEE C62.41 shall have a surge protection that meets 10KV/5KA per ANSI/IEEE C62.41.
- ANSI/IEEE C62.41 shall have a life rating on all electrical components of 100,000 hours or greater when operated at full lumen output of 25 degrees C (77 degrees F) at 100,000 hours.
- All LED components shall be L70 rated when operated in a luminaire at 25 degrees C (77 degrees F) at 100,000 hours.
- Electrical components shall be protected per ANSI/IEEE standard C62.41, for Class C applications.
- Class C applications: operate in a temperature range -40 degrees C to 40 degrees C (-40 degrees F to 104 degrees F).
- The LED shall lose no more than a 15% optical intensity of initial delivered lumens due to thermal loading when operated at 25°C (77°F).

LED Luminaire Specifications (Continued)

- The LED shall deliver an average 80% of initial delivered lumens after 70,000 hours of operation when operated at 25°C (77°F).
- The LED shall have a rated life of 100,000 hours when operated at 40 °C.
- The luminaire shall have a minimum lumen output of 4000 with a variance of 250K, white, that conforms to LM-79. The Correlated Color Temperature (CCT) shall be 5000K with a variance of 250K, white, that conforms to LM-79 (H010 MAST ONLY).
- The minimum color rendering index (CRI) shall not be less than 70.
- The luminaire shall have a minimum CRI of 70.
- The optics system shall have a beam spread of 25 degrees or greater.
- The optics shall have an Illuminating Engineering Society of North America (IESNA) Backlight, Uplight and Glare (BUG) rating as follows:
 a. Backlight rating shall not exceed 3 (in almost all fixture backlight rating shall not exceed 5)
 b. Glare rating shall not exceed 9
 c. Light Loss Factor (LLF) shall be calculated for each fixture as follows:
 LLF = LLD x LDD
- Lamp Lumen Depreciation Factor (LLD) shall be the specified percentage of LED output at 25°C (77°F) from the LM-21 report. This LLD should be according to LM-80 and LM-21 reports. This report shall be submitted for verification.
- The LM-21 Report must show the driver current used for the submitted luminaire. The report can show a 10 year drive current to represent a worst case scenario.
- The Lumen Maintenance Life L₇₀ from the LM-21 Report must not be below 80% at 70,000 hours at 25°C (77°F).
- The manufacturer shall provide certified test laboratories IES photometrics which verify light levels. Product data sheet shall be accompanied by IES test report for the luminaire. The test report shall be submitted for verification.
- WARRANTY: The Manufacturer shall ensure that the LED luminaires have a minimum standard warranty of 10 years for all parts, materials, point finish, and shipping (both ways) required to repair or replace the luminaire. The warranty shall begin upon the date the luminaire is received. The warranty work shall be performed upon the date the luminaire is received. The warranty work shall cover all failures including:
 (1) Failure in luminaire LED, housing wiring, connections, and drivers.
 (2) Failure in luminaire LED, housing wiring, connections, and drivers.
 (3) Significant change in light output color.
 (4) Failure in luminaire LED, housing wiring, connections, and drivers.
 (5) Significant change in light output color.
 (6) Failure in luminaire LED, housing wiring, connections, and drivers.
 (7) Failure in luminaire LED, housing wiring, connections, and drivers.
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 (46) Failure in luminaire LED, housing wiring, connections, and drivers.
 (47) Failure in luminaire LED, housing wiring, connections, and drivers.
 (48) Failure in luminaire LED, housing wiring, connections, and drivers.
 (49) Failure in luminaire LED, housing wiring, connections, and drivers.
 (50) Failure in luminaire LED, housing wiring, connections, and drivers.
- MINIMUM REQUIRED SUBMITTALS:
 LED luminaire specification sheet.
 LM-79 Luminaire photometric report.
 The vendor must submit LM-79 in-situ test data to confirm thermal operating temperatures of the luminaire.
 LM-80 Lumen maintenance report.
 Luminaire maintenance report.
 Backlight, Uplight, Glare (BUG) rating of the luminaire.
 Written product warranty.
 Certified test lab IES photometric reports.
 Including intensity and chromaticity data.
 The luminaire shall be equipped with a shorting cap and a 7-pin photocoupler receptacle that meets ANSI 2013 standard C136.41



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	12

Power InRoads v8.11.9.397 E-SHEET NAME: T00300CL USER: jessica.goodwin DATE PLOTTED: January 7, 2022 FILE NAME: C:\USERS\JESSICA.GOODWIN\DESKTOP\MONTGOMERY\PLANS\T00300CL.DGN

STUB OF TRANSFORMER BASE
60°
4" MAX.
GROUND LINE

THE ANCHOR BOLTS AND CONDUITS SHALL NOT BE PROJECTED MORE THAN 4 INCHES ABOVE A GROUND LINE BETWEEN THE STRADDLING WHEELS OF A VEHICLE.

BREAKAWAY SUPPORT STUB HEIGHT MEASUREMENT

IF DUCTED CABLE INSTALLED BETWEEN POLE BASES:
INSTALL RIGID STEEL/DUCTED CABLE OR APPROVED EQUAL TO CONNECT THE RIGID STEEL TO DUCTED CABLE. RACEWAYS SHALL BE THE SAME SIZE AS THE DUCTED CABLE WHICH ATTACHES TO THE RIGID STEEL CONDUIT. TERMINATE IF DUCTED CABLE RIGID STEEL CONDUIT TWO TIMES THE SIZE OF THE DUCT AND RUN THE DUCT INSIDE THIS CONDUIT. THE SWEEP FOR THE CONDUIT SHALL BE INCREASED TO ADHERE TO THE BENDING RADIUS RECOMMENDED BY THE MANUFACTURER OF THE DUCT.

DUCTED CABLE INSTALLED THROUGH 3" CONDUIT CROSSINGS TO LUMINAIRE POLE BASE: INSTALL DUCTED CABLE INTO THE POLE BASE. THE DUCT SHOULD BE EXTENDED 1" ABOVE THE CONDUIT. THE CONDUIT SWEEP SHALL BE INCREASED TO ADHERE TO THE MANUFACTURER OF THE DUCTED CABLE TO PREVENT THE DUCTED CABLE FROM CRIMPING.

FROM GROUND LUG IN TRANSFORMER BASE OR POLE SHAFT
RIGID GROUNDING DETAIL
GROUNDING BUSHINGS
#4 SOLID BARE COPPER WIRE
TO GROUND LUG IN TRANSFORMER BASE OR POLE SHAFT
3/4" SCHEDULE 80 PVC CONDUIT (WITH BUSHING) FOR GROUND WIRE (EACH BASE)

GROUNDING REQUIREMENTS:
CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO TRANSFORMER BASE.

POLE/TRANSFORMER BASE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE TRANSFORMER BASE/POLE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING.

NOTES:
ALL CONDUITS USED FOR THE GROUNDING, SPACES AND CONDUCTORS THAT ARE INSTALLED IN THE POLE BASE ARE THIS INCLUDES PROVIDING A MINIMUM OF 24 INCHES OF CONDUIT FAST THE EDGE OF THE POLE BASE.

4-ANCHOR BOLTS
NO. 3 BARS
2 RIGID STEEL CONDUIT FOR SERVICE (WHERE REQUIRED)
3/4" SCHEDULE 80 PVC CONDUIT (WITH BUSHING) FOR GROUND A MINIMUM OF 24" FROM POLE BASE.
6-NO. 5 BARS

NOTE: PRECAST CONCRETE BASES ARE NOT ACCEPTABLE

FOUNDATION DETAIL

1/30/2020

GROUNDING DETAIL
BRONZE GROUND CLAMP
3/4" X 8" COPPERWELD GROUND ROD AND SHALL BE INSTALLED FROM THE EDGE OF POLE BASE.
#4 A.W.G. SOLID COPPER WIRE
GROUND LINE
6" MIN.
24"

3/4" SCHEDULE 80 PVC CONDUIT WITH EACH BASE AND SHALL BE A MIN OF 24" FROM THE EDGE OF THE POLE BASE.

CAST ALUMINUM TRANSFORMER BASE

NOTE: THE TRANSFORMER BASE DOOR SHALL HAVE A 3" GAP BETWEEN THE STICKER AND THE STICKER SHALL BE METAL CRAFT PLY 695 PREEM STYLE MARK LABEL WITH .007 THICKNESS, WITH UV WHITE .005 THICKNESS, KATALIN, AND RESISTIVE MOSEB ARBES. THE LABEL SHALL BE OR APPROVAL EQUAL TO THIS SHALL BE INCIDENTAL TO PROJECT.

CONCRETE BASES SHALL BE POURED LEVEL. NO MORE THAN A 3/8" GAP SHALL EXIST BETWEEN CONCRETE BASE AND TRANSFORMER BASE WHEN THE POLE IS FLOWED.

TYPICAL
17" MIN.
12" MIN.
15" MIN.
GROUNDING NUT OR LUG ON BASE FLANGE PLATE
STEEL PLATES (4)
CONNECTING BOLT
SPACER PLATES SHALL BE USED TO PREVENT OPENINGS ON TOP OF BASE.
THEFT DETERRENT DOOR OPENING LOCATE (TOP) ON SIDE AWAY FROM ON-COMING TRAFFIC

TRANSFORMER BASE DETAIL

SCALE: 1"=

SPECIAL NOTE FOR TRANSFORMER BASES:
FINISH AN ARE FLASH AND SHOCK HAZARD WARNING STICKER ON TRANSFORMER BASE WITH VOLTAGE (480 VOLTS)
LIMITED APPROX BONDARY (42 IN) MINIMUM CLOTHING ARE RATING CAT 2) SEE WFA 70E FOR ADDITIONAL PRE REQUIRED

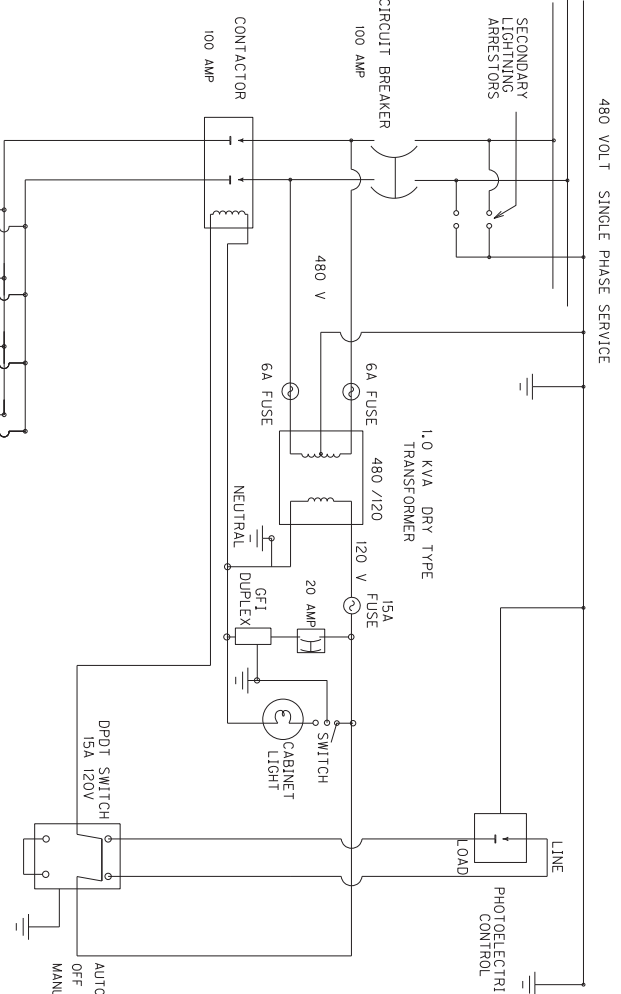
Power InRoads v8.11.9.397 E-SHEET NAME: T005005E USER: Jessica.goodwin DATE PLOTTED: January 7, 2022 FILE NAME: G:\USERS\JESSICA.GOODWIN\DESKTOP\MONTGOMERY\PLANS\T005005E.DGN

1/24/2020

NOTES:
CONTRACTOR SHALL INSTALL ALL LIGHTING CONTROL EQUIPMENT AS INDICATED.
CONCRETE SHALL BE CLASS A. CONCRETE SHALL BE POURED ON 12" OF POWER TAMPED DENSE GRADE ROCK. PAD SHALL BE 30" THICK WITH 18" ABOVE GRADE.
PAD SHALL BE OF SUFFICIENT SIZE TO ALLOW A MINIMUM 36" IN FRONT OF THE CABINET AND 12" MINIMUM CLEARANCE AROUND THE SIDES AND BACK OF THE CABINET.
CONCRETE SHALL BE SLOPED 1/8" PER FOOT TO PREVENT STANDING WATER. OUTSIDE EDGE SHALL HAVE A ONE INCH CHAMFER.

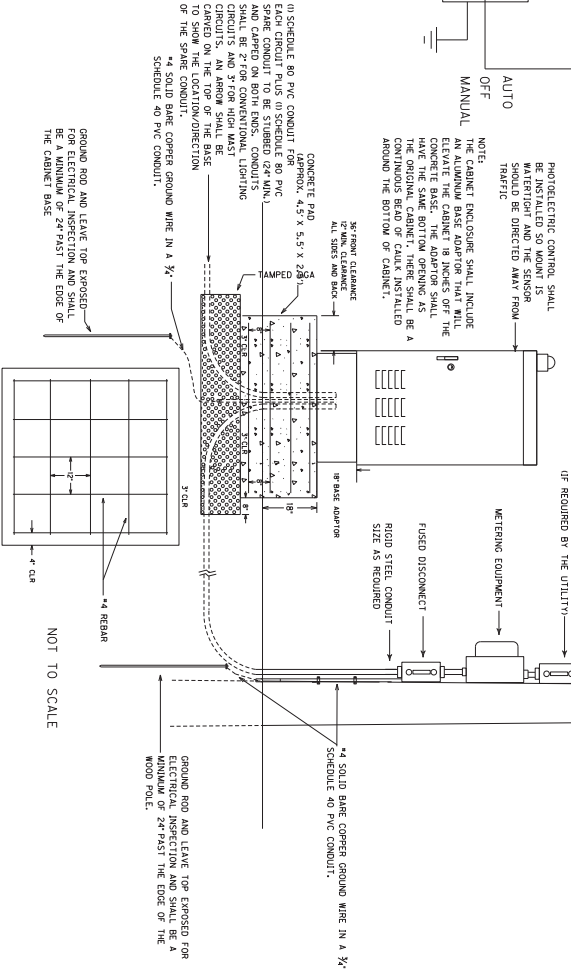
*4 REBAR SHALL BE COMPRISED OF RUNS AS SHOWN AND TIED AT EACH JOINT.
ALL CONSTRUCTION (TO INCLUDE EXCAVATION WORK AND MATERIALS (CONCRETE, STEEL REINFORCEMENT, ETC.) FOR THE CONCRETE AND STEEL SHALL BE SHOWN ON THE POLE FOR THE LIGHTING CONTROL EQUIPMENT BID ITEM.
ALL CONDUITS USED FOR GROUNDING, SPARE, AND SERVICE THAT ARE INSTALLED ON THE POLE AND/OR INTO THE CABINET ARE INCIDENTALS TO BID ITEM. THIS INCLUDES PROVIDING A MINIMUM OF 24" PAST THE EDGE OF THE CABINET BASE FOR THE SPARE.

CKT #1 15 AMP
CKT #2 15 AMP
CKT #3 15 AMP
CKT #4 SPARE



GROUNDING REQUIREMENTS:
CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO ANY DISCONNECT, CABINET OR POLE.
SERVICE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE DISCONNECT AND THEN TO EACH RIGID STEEL (R/S) GROUNDING BUSHING.
CABINET GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE CABINET GROUND BUS AND THEN TO EACH R/S GROUNDING BUSHING.

GROUNDING REQUIREMENTS:
CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO ANY DISCONNECT, CABINET OR POLE.
SERVICE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE DISCONNECT AND THEN TO EACH RIGID STEEL (R/S) GROUNDING BUSHING.
CABINET GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE CABINET GROUND BUS AND THEN TO EACH R/S GROUNDING BUSHING.



PHOTOELECTRIC CONTROL:
PHOTOELECTRIC CONTROL SHALL BE INSTALLED SO AS TO BE WATERPROOF AND THE SENSOR TYPICALLY BE DIRECTED AWAY FROM TRAFFIC.
NOTE: CABINET ENCLOSURE SHALL INCLUDE AN ALUMINUM BASE ADAPTOR THAT WILL ELEVATE THE CABINET 18 INCHES OFF THE CONCRETE BASE. THE ADAPTOR SHALL BE INSTALLED ON THE ORIGINAL CONCRETE CONTINUOUS BEAD OF CAULK INSTALLED AROUND THE BOTTOM OF CABINET.

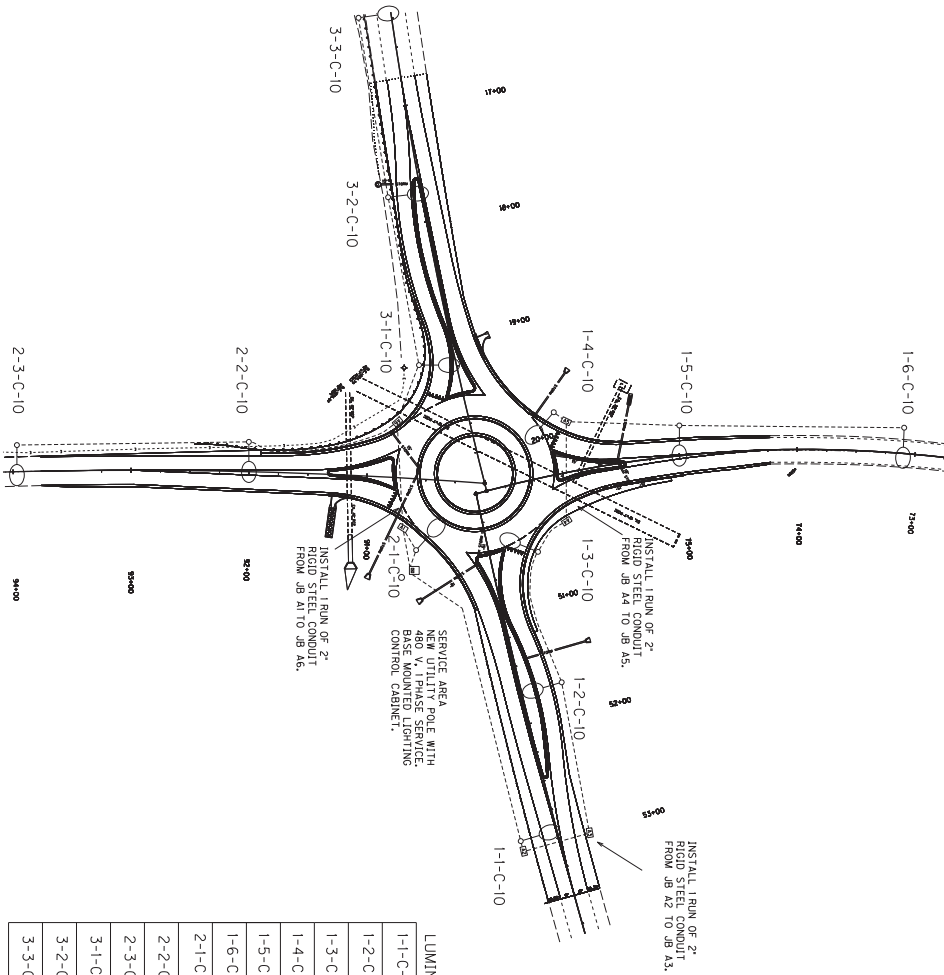
SPECIAL NOTE:
CONTRACTOR SHALL VERIFY SWITCH AND METER BASE SHALL BE UL LISTED FOR COMMERCIAL USE. DISCONNECTS (SAFETY SWITCH AND METER BASE SHALL BE STAINLESS STEEL ENCLOSURE TO RESIST CORROSION. CONTRACTOR SHALL CALCULATE THE MAXIMUM AVAILABLE FAULT CURRENT FOR THE SERVICE EQUIPMENT THAT IS INSTALLED. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE SWITCH SHALL BE UL LISTED AND THE DATE THAT THIS FAULT CURRENT IS CALCULATED. THE SWITCH SHALL BE 400 AMP AND 100% RATED FOR THE SERVICE EQUIPMENT. THE SWITCH SHALL BE 400 AMP AND 100% RATED FOR THE SERVICE EQUIPMENT. THE SWITCH SHALL BE 400 AMP AND 100% RATED FOR THE SERVICE EQUIPMENT. THE SWITCH SHALL BE 400 AMP AND 100% RATED FOR THE SERVICE EQUIPMENT.

35' CLASS 4 WOOD POLE
ANCHOR AS REQUIRED
SERVICE WIRES SHALL BE STAMPED SUNLIGHT RESISTANT
RIGID STEEL CONDUIT SIZE AS REQUIRED

COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7-961.00	15

BASE MOUNTED SERVICE DETAIL
NOT TO SCALE

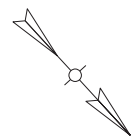
Power InRoads v8.11.9.397 E-SHEET NAME: T000005G USER: jessica.goodwin DATE PLOTTED: January 1, 2001 FILE NAME: C:\USERS\JESSICA.GOODWIN\DESKTOP\MONTGOMERY\PLANS\T000005G.DGN



LUMINAIRES	STATIONS/ COORDINATES	ALIGNMENT	WIRE SIZE
1-1-C-10	S19.50+94.91 S21.23 RT.	686 NORTH	3-#10 AWG
1-2-C-10	S19.51+72.44 S5.15 LT.	686 NORTH	3-#10 AWG
1-3-C-10	S19.50+59.69 S1.19 LT.	686 NORTH	3-#10 AWG
1-4-C-10	S19.75+97.19 S21.42 RT.	713 WEST	3-#10 AWG
1-5-C-10	S19.74+97.32 S25.66 RT.	713 WEST	3-#10 AWG
1-6-C-10	S19.73+11.33 S1.11 RT.	713 WEST	3-#10 AWG
2-1-C-10	S19.50+35.32 S31.78 RT.	686 NORTH	3-#10 AWG
2-2-C-10	S19.92+00.98 S21.74 RT.	713 EAST	3-#10 AWG
2-3-C-10	S19.93+96.12 S23.31 RT.	713 EAST	3-#10 AWG
3-1-C-10	S19.19+16.70 S1.83 RT.	686 SOUTH	3-#10 AWG
3-2-C-10	S19.17+73.89 S7.89 RT.	686 SOUTH	3-#10 AWG
3-3-C-10	S19.16+20.67 S6.57 RT.	686 SOUTH	3-#10 AWG

CONVENTIONAL LIGHTING:
ALL POLES SHALL HAVE A #12 AWG GREEN GROUND WIRE RUN FROM BOTTOM OF POLE TO THE LUMINAIRE FOR GROUNDING. ALL POLES SHALL HAVE A #12 AWG GREEN WIRE THE SAME SIZE AS THE CIRCUIT WIRE RUN FROM POLE TO POLE FOR GROUNDING. GROUNDING WIRES SHALL BE CONNECTED TO GROUNDING LUGS ON CONDUITS OR ON THE POLE/TRANSFORMER BASE.
POLE HEIGHTS, ARM LENGTHS AND STRUTS ARE DERIVED AS STATED ON LUMINAIRE DESIGNATION. EXAMPLE: ON LUMINAIRE/FUSE CONNECTOR DETAIL SHEET.
POLES SHALL BE PLACED AS CLOSE TO STATIONS AS STATED ON PLANS TO PROVIDE PROPER ILLUMINATION. IF ANY POLE NEEDS TO BE MOVED FROM THE STATION INDICATED, C.O. TRAFFIC SHALL BE CONTACTED AT 502-394-5020.





GENERAL CONVENTIONAL NOTES:
ALL SPLICES NOTED ON THIS PLAN SHALL BE APPROVED BY CENTRAL OFFICE TRAFFIC ENGINEER. ALL SPLICES SHALL BE APPROVED BY THE TRAFFIC ENGINEER. ALL SPLICES SHALL BE INCIDENTAL TO THE WIRE AND CABLE BEING INSTALLED.



COUNTY OF	ITEM NO.	SHEET NO.
MONTGOMERY	7481.00	T8

Scale 1" = 50'

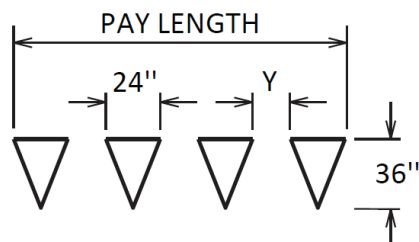
LEGEND

-  BASE MOUNTED CABINET
-  JUNCTION BOXES - TYPE A (AS DESIGNATED)
- 1 1/2" PVC SCHEDULE 80 CONDUIT (UNLESS OTHERWISE NOTED)
-  LUMINAIRE POLE
-  NEW 35 FT. WOOD SERVICE POLE

LIGHTING PLAN FOR
KY 686 @ KY 713 ROUNDABOUT

YIELD BAR PAVEMENT MARKING DETAIL

YIELD BAR DETAILS



NOTE: SPACING (Y) BETWEEN
 TRIANGLES SHOULD BE 3" - 12"

Triangles should be evenly spaced. The spacing (Y) between triangles will depend on the width of the lane the yield bar is for. Unless otherwise directed by the Engineer, space the triangles according to the lane width as follows:

<u>Lane Width</u>	<u># of Triangles</u>	<u>Spacing (Y)</u>
9'	4	4"
10'	4	8"
11'	5	3"
12'	5	6"

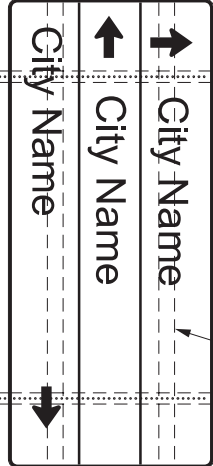
Refer to Section 717 of the Standard Specifications for Road and Bridge Construction, current edition, for more information concerning Material and Construction specifications.

The Department will measure Yield Bars in Linear Feet. The measurement will include the void space between triangles. See Section 717.04 for additional measurement information.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
22520EN	Pave Marking-Thermo Yield Bar-36 Inch	Linear Foot

COUNTY OF	ITEM NO.	SHEET NO.



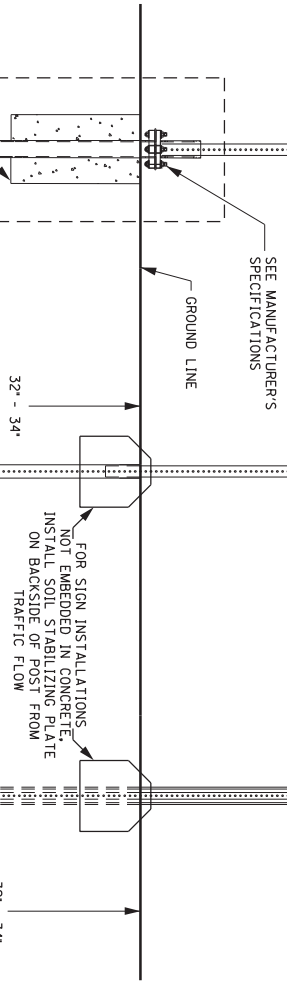
SEE SHEETING SIGN DETAIL SHEET 2 OF 2 FOR BRACING REQUIREMENTS

NOTE: SEE SIGN DETAIL SHEETS FOR QUANTITY, LENGTH, SIZE AND GAUGE OF TYPE I POSTS

PLAN VIEW
NOT TO SCALE

PLAN VIEW
NOT TO SCALE

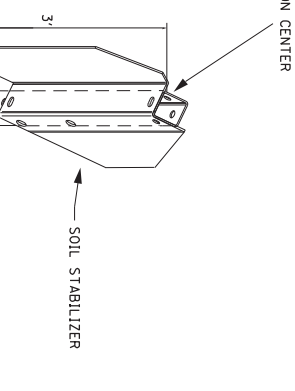
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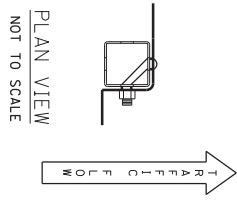
TYPE J
SQUARE TUBING POST
WITH TYPE "D" SUPPORT

TYPE J
SQUARE TUBING POST
WITH SOIL STABILIZER

TYPE II
CHANNEL POST
WITH SOIL STABILIZER



SOIL STABILIZER DETAIL

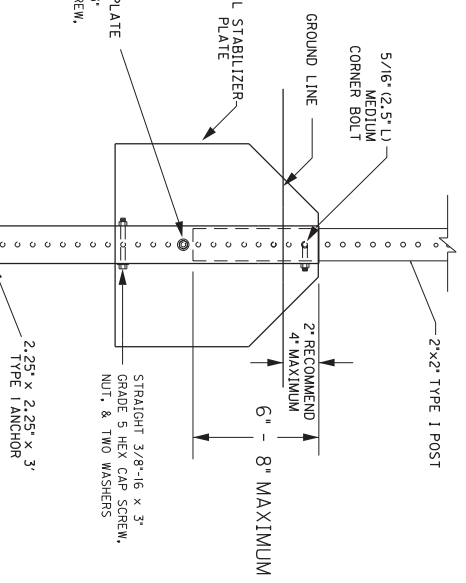


PLAN VIEW
NOT TO SCALE

ADDED HOLE IN SOIL PLATE
STRAIGHT 3/8"-16 x 3"
GRADE 5 HEX CAP SCREW,
NUT, & TWO WASHERS

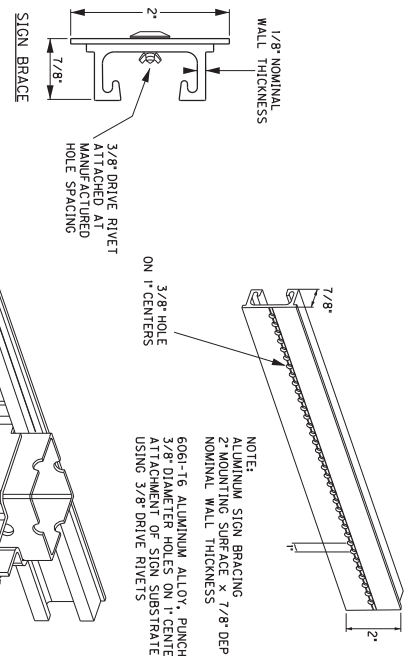
SOIL STABILIZER DETAIL
FOR TYPE I POST

PLAN VIEW
NOT TO SCALE

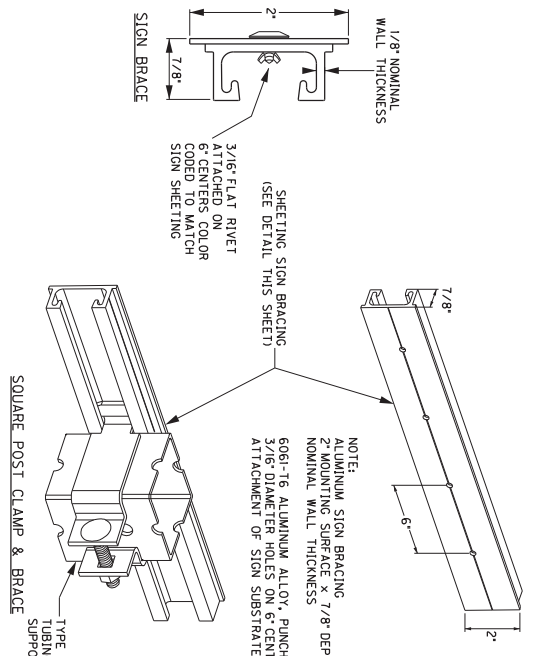


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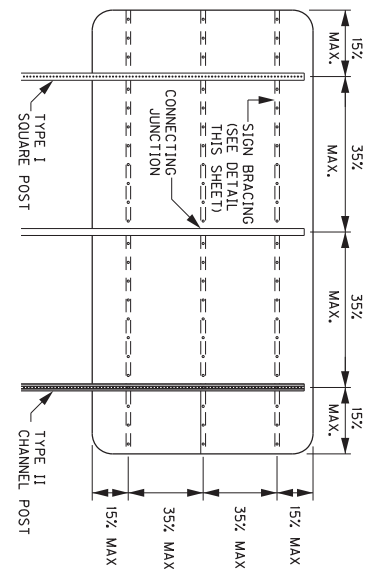
SHEETING SIGN DETAIL
SHEET 1 OF 2



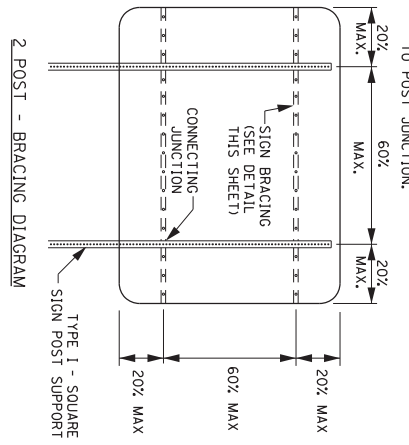
FOR ATTACHMENT OF SIGNS LESS THAN 72" IN WIDTH USING MANUFACTURED 3/8" HOLES ACCORDING TO 2004 STANDARD HIGHWAY SIGNS BLANK STANDARDS POST 7-1 THRU 7-6



FOR ATTACHMENT OF SIGNS GREATER THAN, OR EQUAL TO, 72" IN WIDTH, RIVETS SHALL BE COLOR CODED TO MATCH SHEETING IN ORDER TO MINIMIZE GLARE FROM RIVETS



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.

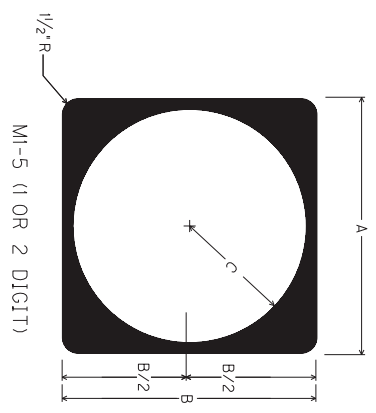
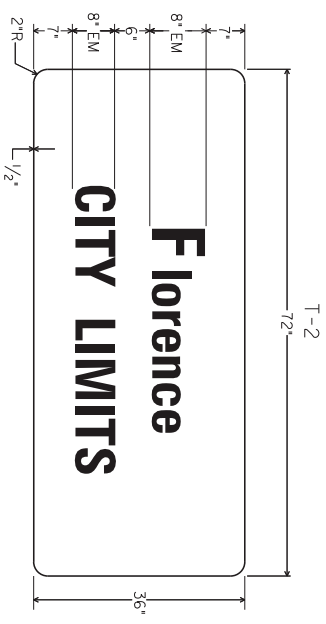
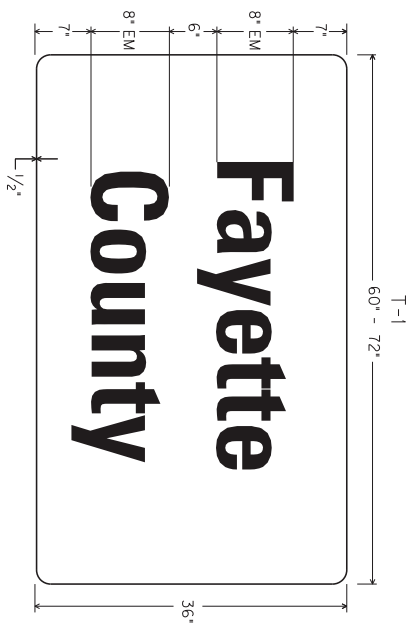


NOTE:
USE OF SIGN BRACING NOT SHOWN ON THIS SHEET MAY BE PERMITTED BY PROJECT ENGINEER AND/OR DISTRICT TRAFFIC ENGINEER.

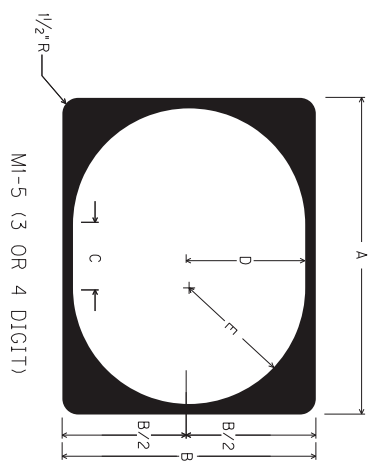
NOT TO SCALE
SHEETING SIGN DETAIL
SHEET 2 OF 2

COUNTY OF	ITEM NO.	SHEET NO.

COUNTY OF	ITEM NO.	SHEET NO.



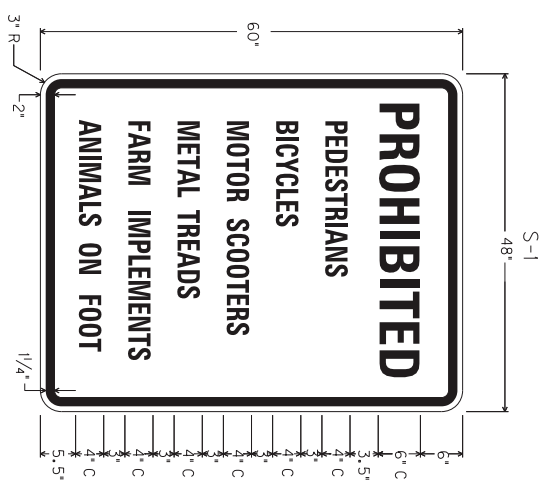
	A	B	C	FONT
CONVENTIONAL	24"	24"	11"	12D
EXPRESSWAY/ FREEWAY	36"	36"	17"	18D



	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

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

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____

Contractor: _____

Section Engineer: _____

District & County: _____

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QTY LEAVING PROJECT</u>	<u>QTY RECEIVED@BB YARD</u>
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: _____

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 TURF REINFORCING MAT

1.0 DESCRIPTION. Install turf reinforcement mat at locations specified in the Contract or as the Engineer directs. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

2.0 MATERIALS.

2.1 Turf Reinforcement Mat (TRM). Use a Turf Reinforcement Mat defined as permanent rolled erosion control product composed of non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a three-dimensional matrix of sufficient thickness and from the Department's List of Approved Materials. Mats must be 100% UV stabilized materials. For TRMs containing degradable components, all physical property values must be obtained on the non-degradable portion of the matting exclusively. Ensure product labels clearly show the manufacturer or supplier name, style name, and roll number. Ensure labeling, shipment and storage follows ASTM D-4873. The Department will require manufacturer to provide TRMs that are machine constructed web of mechanically or melt bonded nondegradable fibers entangled to form a three dimensional matrix. The Department will require all long term performance property values in table below to be based on non degradable portion of the matting alone. Approved methods include polymer welding, thermal or polymer fusion, or placement of fibers between two high strength biaxially oriented nets mechanically bound by parallel stitching with polyolefin thread. Ensure that mats designated in the plans as Type 4 mats, are not to be manufactured from discontinuous or loosely held together by stitching or glued netting or composites. Type 4 mats shall be composed of geosynthetic matrix that exhibits a very high interlock and reinforcement capacities with both soil and root systems and with high tensile modulus. The Department will require manufacturer to use materials chemically and biologically inert to the natural soil environments conditions. Ensure the blanket is smolder resistant without the use of chemical additives. When stored, maintain the protective wrapping and elevate the mats off the ground to protect them from damage. The Department will not specify these materials for use in heavily acidic coal seam areas or other areas with soil problems that would severally limit vegetation growth.

- A) Dimensions. Ensure TRMs are furnished in strips with a minimum width of 4 feet and length of 50 feet.
- B) Weight. Ensure that all mat types have a minimum mass per unit area of 7 ounces per square yard according to ASTM D 6566.
- C) Performance Testing: The Department will require AASHTO's NTPEP index testing. The Department will also require the manufacturer to perform internal MARV testing at a Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) accredited laboratory for tensile strength, tensile elongation, mass per unit area, and thickness once every 24,000 yds of production or whatever rate is required to ensure 97.7% confidence under ASTM D4439& 4354. The Department will require Full scale testing for slope and channel applications shear stress shall be done under ASTM D 6459, ASTM D 6460-07 procedures.

2.2 Classifications

The basis for selection of the type of mat required will be based on the long term shear stress level of the mat of the channel in question or the degree of slope to protect and will be designated in the contract. The Type 4 mats are to be used at structural backfills protecting critical

structures, utility cuts, areas where vehicles may be expected to traverse the mat, channels with large heavy drift, and where higher factors of safety, very steep slopes and/or durability concerns are needed as determined by project team and designer and will be specified in the plans by designer.

Turf Reinforcement Matting					
Properties ¹	Type 1	Type 2	Type 3	Type 4	Test Method
Minimum tensile Strength lbs/ft	125	150	175	3000 by 1500	ASTM D6818 ²
UV stability (minimum % tensile retention)	80	80	80	90	ASTM D4355 ³ (1000-hr exposure)
Minimum thickness (inches)	0.25	0.25	0.25	0.40	ASTM D6525
Slopes applications	2H:1V or flatter	1.5H:1V or flatter	1H:1V or flatter	1 H: 1V or greater	
Shear stress lbs/ft ² Channel applications	6.0 ⁴	8.0 ⁴	10.0 ⁴	12.0 ⁴	ASTM D6459 ASTM D6460-07

¹ For TRMs containing degradable components, all physical property values must be obtained on the non-degradable portion of the matting alone.

²Minimum Average Roll Values for tensile strength of sample material machine direction.

³Tensile Strength percentage retained after stated 1000 hr duration of exposure under ASTM D4355 testing. Based on nondegradable components exclusively.

⁴Maximum permissible shear design values based on short-term (0.5 hr) vegetated data obtained by full scale flume testing ASTM D6459, D6460-07. Based on nondegradable components exclusively. Testing will be done at Independent Hydraulics Facility such as Colorado State University hydraulics laboratory, Utah State University hydraulics laboratory, Texas Transportation Institute (TTI) hydraulics and erosion control laboratory.

2.3 Quality Assurance Sampling, Testing, and Acceptance

- A) Provide TRM listed on the Department’s List of Approved Materials. Prior to inclusion on the LAM, the manufacturer of TRM must meet the physical and performance criteria as outlined in the specification and submit a Letter Certifying compliance of the product under the above ASTM testing procedures and including a copy of report from Full Scale Independent Hydraulics Facility that Fully Vegetated Shear Stress meets shear stress requirements tested under D6459 and D6460-07.
- B) Contractors will provide a Letter of Certification from Manufacturer stating the product name, manufacturer, and that the product MARV product unit testing results meets Department criteria. Provide Letters once per project and for each product.
- C) Acceptance shall be in accordance with ASTM D-4759 based on testing performed by a Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP) accredited laboratory using Procedure A of ASTM D-4354.

Current mats meeting the above criteria are shown on the Department's List of Approved Materials.

2.4 Fasteners. When the mat manufacturer does not specify a specific fastener, use steel wire U-shaped staples with a minimum diameter of 0.09 inches (11 gauge), a minimum width of one inch and a minimum length of 12 inches. Use a heavier gauge when working in rocky or clay soils and longer lengths in sandy soils as directed by Engineer or Manufacturer's Representative. Provide staples with colored tops when requested by the Engineer.

3.0 CONSTRUCTION. When requested by the Engineer, provide a Manufacturer's Representative on-site to oversee and approve the initial installation of the mat. When requested by the Engineer, provide a letter from the Manufacturer approving the installation. When there is a conflict between the Department's criteria and the Manufacturer's criteria, construct using the more restrictive. The Engineer and Manufacturer's Representative must approve all alternate installation methods prior to execution. Construct according to the Manufacturer's recommendations and the following as minimum installation technique:

3.1 Site Preparation. Grade areas to be treated with matting and compact. Remove large rocks, soil clods, vegetation, roots, and other sharp objects that could keep the mat from intimate contact with subgrade. Prepare seedbed by loosening the top 2 to 3 inch of soil.

3.2 Installation. Install mats according to Standard Drawing Sepias "Turf Mat Channel Installation" and "Turf Mat Slope Installation." Install mats at the specified elevation and alignment. Anchor the mats with staples with a minimum length of 12 inches. Use longer anchors for installations in sandy, loose, or wet soils as directed by the Engineer or Manufacturer's Representative. The mat should be in direct contact with the soil surface.

4.0 MEASUREMENT. The Department will measure the quantity of Turf Reinforcement Mat by the square yard of surface covered. The Department will not measure preparation of the bed, providing a Manufacturer's Representative, topsoil, or seeding for payment and will consider them incidental to the Turf Reinforcement Mat. The Department will not measure any reworking of slopes or channels for payment as it is considered corrective work and incidental to the Turf Reinforcement Mat. Seeding and protection will be an incidental item.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
23274EN11F	Turf Reinforcement Mat 1	Square Yard
23275EN11F	Turf Reinforcement Mat 2	Square Yard
23276EN11F	Turf Reinforcement Mat 3	Square Yard
23277EN11F	Turf Reinforcement Mat 4	Square Yard

June 15, 2012

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:

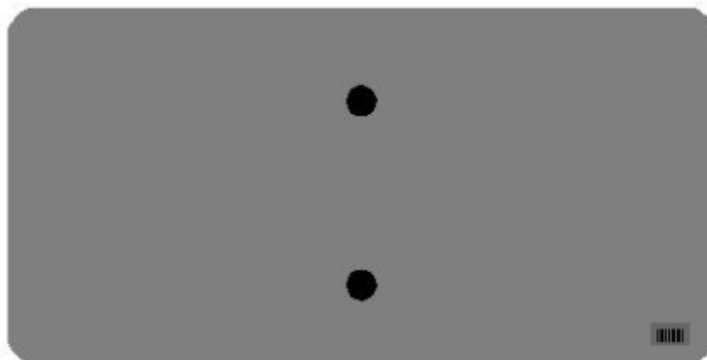
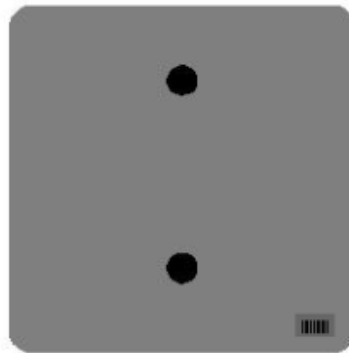
<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24631EC	Barcode Sign Inventory	Each

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.

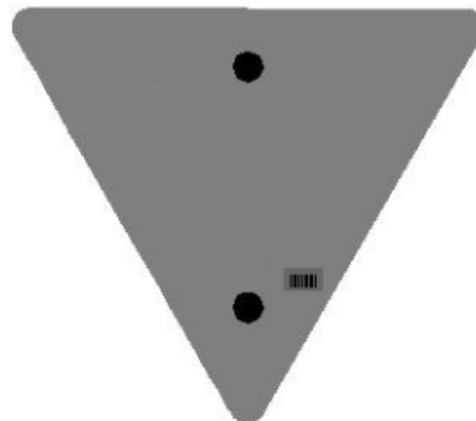
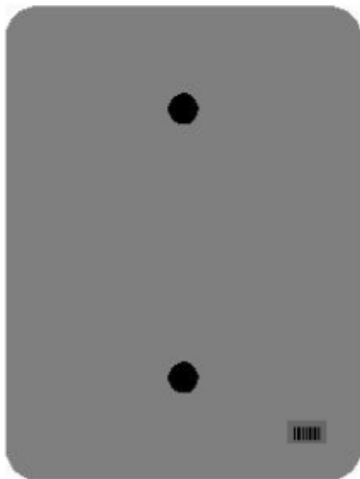
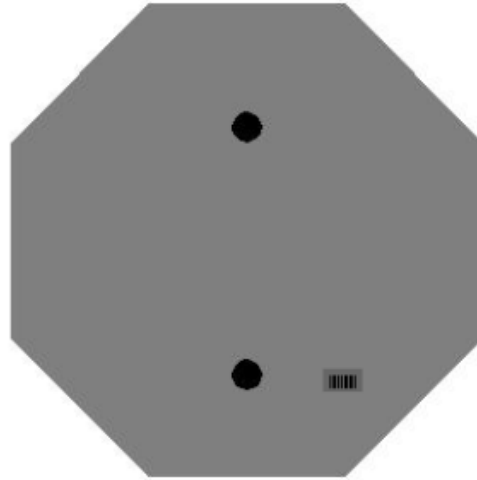
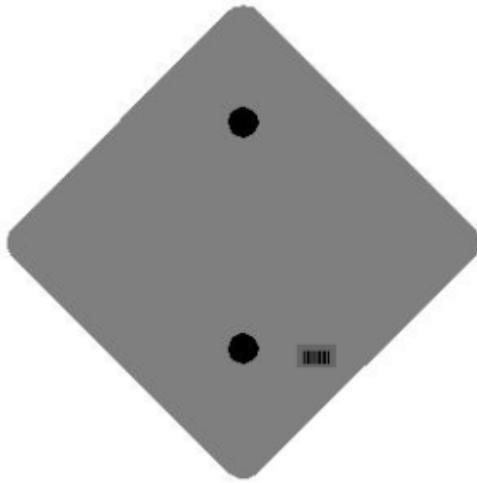
One Sign Post



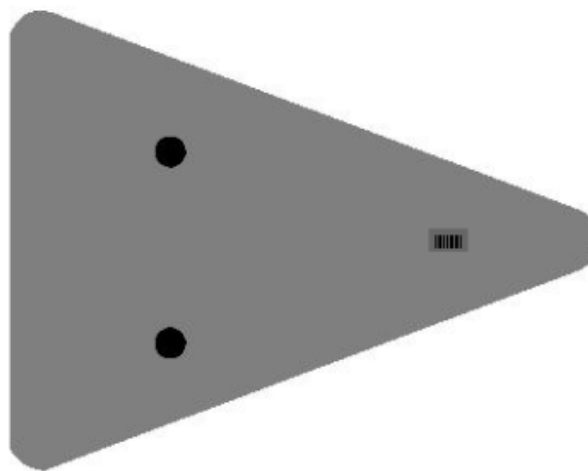
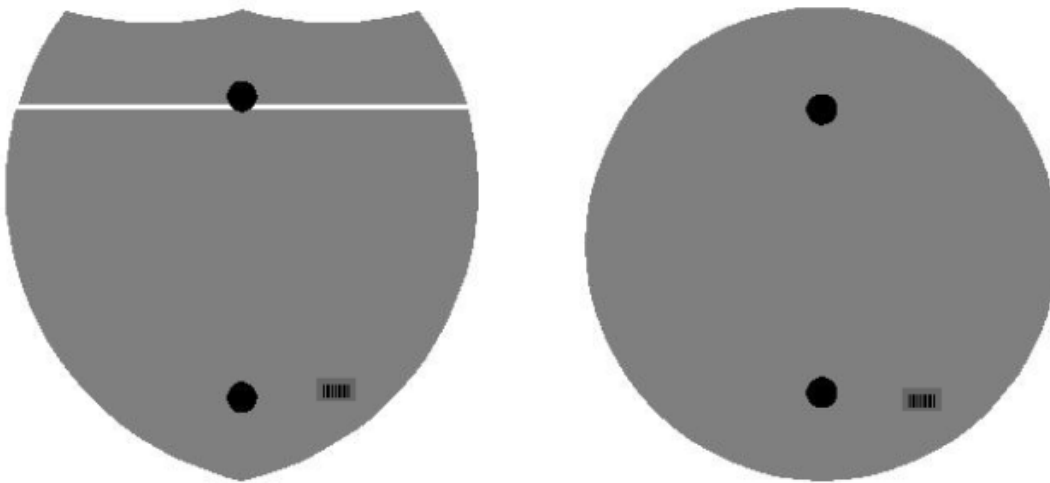
↑
2" Wide Post



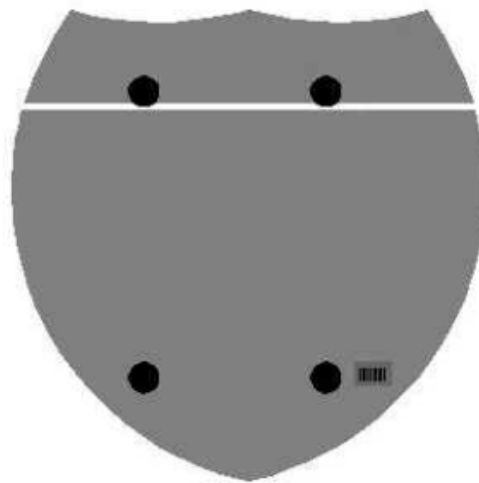
One Sign Post



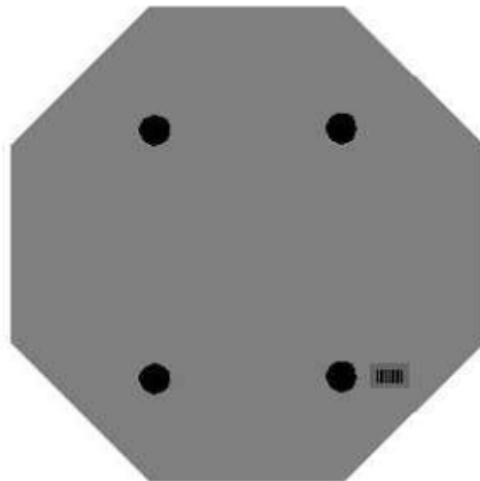
One Sign Post



Double Sign Post



Interstate
Shield

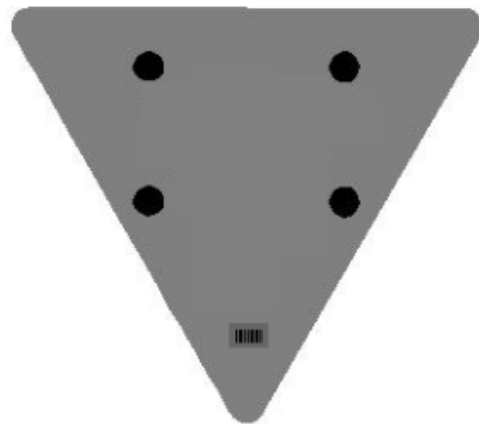


48" Stop

2 Post Signs



↑
2" Wide Post



SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

1. DESCRIPTION. This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.
2. MATERIALS, EQUIPMENT, AND PERSONNEL.

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ° F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.
5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s) ASTM D 3236	4.0-10.0	3.5-10.5	3.0-3.4 10.6-11.0	2.5-2.9 11.1-11.5	2.0-2.4 11.6-12.0	≤1.9 ≥ 12.1
Cone Penetration, 77 ° F ASTM D 5329	60-100	57-103	54-56 104-106	51-53 107-109	48-50 110-112	≤ 47 ≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code
20071EC

Pay Item
Joint Adhesive

Pay Unit
Linear Foot

May 7, 2014

2020 STANDARD DRAWINGS THAT APPLY

ROADWAY

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONS.....	RBI-001-12
TYPICAL GUARDRAIL INSTALLATIONS.....	RBI-002-07

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL (W-BEAM).....	RBR-001-13
GUARDRAIL COMPONENTS.....	RBR-005-11
STEEL GUARDRAIL POSTS.....	RBR-015-06
GUARDRAIL SYSTEM TRANSITION.....	RBR-018
DELINEATORS FOR GUARDRAIL.....	RBR-005-01

~ DRAINAGE ~

BOX INLETS AND OUTLETS

DROP BOXES

DROP BOX INLET TYPE 13 (DETAIL SHEET).....	RDB-013-07
DROP BOX INLET TYPE 13 AND TYPE 16 (FRAME & GRATE DETAILS).....	RDB-014-06
DROP BOX INLET TYPE 13 (DETAIL & BAR CHART FOR LID).....	RDB-015-04
DROP BOX INLET TYPE 13 (PIPE CHAMBER - GRADE CONDITION).....	RDB-016-03
DROP BOX INLET TYPE 13 (PIPE CHAMBER - SAG CONDITION).....	RDB-017-03
DROP BOX INLET TYPE 13 (ADDITIONAL STEEL - RISER).....	RDB-018-04
DROP BOX INLET TYPE 13 (ADDITIONAL STEEL - CHAMBER).....	RDB-019-04

SLOPED BOXES

SLOPED BOX OUTLET TYPE 1.....	RDB-100-05
GRATES FOR SLOPED BOX OUTLET TYPE 1.....	RDB-101-05

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS

FLUME INLET TYPE 2.....	RDD-021-07
CHANNEL LINING CLASS II AND III.....	RDD-040-05

PIPE AND BOX CULVERT HEADWALLS

SLOPED & FLARED HEADWALLS FOR 12" TO 27" PIPE.....	RDH-020-03
PIPE CULVERT HEADWALLS 0° SKEW.....	RDH-110-02
DIMENSIONS & QUANTITIES 30" - 108" HEADWALLS CIRCULAR PIPE 0° SKEW.....	RDH-210-03
BILL OF REINFORCEMENT 30" TO 90" DIAMETER CIRCULAR PIPE HEADWALLS 0° SKEW.....	RDH-310-04

TYPICAL DRAINAGE INSTALLATIONS

CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12" - 24" PIPE).....	RDI-001-10
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (27" - 42" PIPE).....	RDI-002-05
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
PIPE BEDDING, TRENCH CONDITION.....	RDI-025-06
PIPE BEDDING, TRENCH CONDITION, REINFORCED CONC. PIPE.....	RDI-026-01
COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE.....	RDI-035-02
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....	RDI-041-01

Standard Drawings That Apply
Page 2 of 2

MANHOLES

MANHOLE TYPE A	RDM-001-07
MANHOLE STEPS.....	RDM-055
FRAME AND LID TYPE 1	RDM-100-03

MISCELLANEOUS DRAINAGE

TEMPORARY SILT FENCE.....	RDX-210-03
TEMPORARY SILT FENCE WITH WOVEN WIRE FENCE FABRIC.....	RDX-215-01
SILT TRAP - TYPE A	RDX-220-05
SILT TRAP - TYPE B.....	RDX-225-01
SILT TRAP - TYPE C.....	RDX-230-01

~ GENERAL ~

MISCELLANEOUS STANDARDS

MISCELLANEOUS STANDARDS	RGX-001-06
TYPICAL EMBANKMENT FOUNDATION BENCHES	RGX-010-04
TYPE D BREAKAWAY SIGN SUPPORT	RGX-065-02

~ PAVEMENT ~

MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.

CURB AND GUTTER, CURBS AND VALLEY GUTTER.....	RPM-100-11
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TRAFFIC

~ PERMANENT ~

RUMBLE STRIPS

SHOULDER & EDGELINE RUMBLE STRIPS PLACEMENT DETAILS	TPR-115
EDGELINE RUMBLE STRIP DETAILS TWO LANE ROADWAYS	TPR-120

~ TEMPORARY ~

STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE II	TTS-105-02
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PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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

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

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

ATTACHMENTS

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

II. NONDISCRIMINATION

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

I. GENERAL

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

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

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

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

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

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

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

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

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

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

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

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

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

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

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

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

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

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

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

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

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

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

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

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

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

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

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

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

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

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

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

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

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

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

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

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

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

2. Withholding

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

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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

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

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

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

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

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

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

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

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

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

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

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

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

10. Certification of eligibility.

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

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

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

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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

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

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

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

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

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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

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

1. Instructions for Certification – First Tier Participants:

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

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

2. Instructions for Certification - Lower Tier Participants:

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

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

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

this transaction originated may pursue available remedies, including suspension and/or debarment.

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

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

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

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

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

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

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

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

* * * * *

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

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS**

**EMPLOYMENT REQUIREMENTS
RELATING TO
NONDISCRIMINATION OF EMPLOYEES
(APPLICABLE TO FEDERAL-AID SYSTEM CONTRACTS)**

**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 administering agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*)

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, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

General Decision Number: KY20220038 01/07/2022

Superseded General Decision Number: KY20210038

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

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

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022, Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022, Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

Modification Number

0

Publication Date

01/07/2022

KY20220038 Mod 0 - 01/07/2022

BRIN0004-003 06/01/2021

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 29.57	15.10

BRKY0001-005 06/01/2021

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE,
MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE
COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 29.57	15.10

BRKY0002-006 06/01/2021

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.87	15.87

BRKY0007-004 06/01/2021

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 32.03	20.05

BRKY0017-004 06/01/2021

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 30.87	15.87

CARP0064-001 04/01/2020

	Rates	Fringes
CARPENTER.....	\$ 29.81	19.96
Diver.....	\$ 45.09	19.96
PILEDRIVERMAN.....	\$ 30.06	19.96

ELEC0212-008 06/07/2021

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 32.32	19.85

ELEC0212-014 11/25/2019

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	12.09

ELEC0317-012 06/01/2021

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen).....	\$ 35.10	27.47

ELEC0369-007 05/31/2021

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL,
CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY,
JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER,
MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT,
SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 33.85	18.72

* **ELEC0575-002** 11/29/2021

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.00	19.76

ENGI0181-018 07/01/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 34.80	17.85
GROUP 2.....	\$ 31.94	17.85
GROUP 3.....	\$ 32.39	17.85
GROUP 4.....	\$ 31.62	17.85

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

IRON0044-009 06/01/2021

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,
BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);
NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);
SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 29.75	21.60
Structural.....	\$ 31.32	21.60

IRON0070-006 06/01/2021

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN,
 GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON,
 MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER,
 TRIMBLE, WASHINGTON & WOODFORD
 BOURBON (Southern two-thirds, including Townships of Austerlity,
 Centerville, Clintonville, Elizabeth, Hutchison, Littlerock,
 North Middletown & Paris);
 CARROLL (Western two-thirds, including Townships of Carrollton,
 Easterday, English, Locust, Louis, Prestonville & Worthville);
 CLARK (Western two-thirds, including Townships of Becknerville,
 Flanagan, Ford, Pine Grove, Winchester & Wyandotte);
 OWEN (Eastern eighth, including Townships of Glenmary, Gratz,
 Monterey, Perry Park & Tacketts Mill);
 SCOTT (Southern third, including Townships of Georgetown, Great
 Crossing, Newtown, Stamplng Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 31.09	23.75

IRON0769-007 06/01/2021

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN
CLARK (Eastern third, including townships of Bloomingdale,
Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);
FLEMING (Townships of Beechburg, Colfax, Elizaville,
Flemingsburg, Flemingsburg Junction, Foxport, Grange City,
Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton,
Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains,
Ringos Mills, Tilton & Wallingford);
MASON (Eastern third, including Townships of Helena, Marshall,
Orangeburg, Plumville & Springdale);
NICHOLAS (Eastern eighth, including the Township of Moorefield
Sprout)

	Rates	Fringes
IRONWORKER		
ZONE 1.....	\$ 33.00	27.29
ZONE 2.....	\$ 33.40	27.29
ZONE 3.....	\$ 35.00	27.29

ZONE 1 - (no base rate increase) Up to 10 mile radius of
Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile
radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius &
over of Union Hall, 1643 Greenup Ave, Ashland, KY.

LABO0189-003 07/01/2021

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT,
 FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON,
 JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS,
 OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.51	16.22
GROUP 2.....	\$ 23.76	16.22
GROUP 3.....	\$ 23.81	16.22
GROUP 4.....	\$ 24.41	16.22

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-008 07/01/2021

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE,
 MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE &
 WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.51	16.22
GROUP 2.....	\$ 23.76	16.22
GROUP 3.....	\$ 23.81	16.22
GROUP 4.....	\$ 24.41	16.22

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

LABO0189-009 07/01/2021

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.51	16.22
GROUP 2.....	\$ 23.76	16.22
GROUP 3.....	\$ 23.81	16.22
GROUP 4.....	\$ 24.41	16.22

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,
 HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
 ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender and/or Containment Builder..\$	18.90	5.90
Brush & Roller.....\$	21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....\$	22.30	5.90
Sandblasting & Waterblasting.....\$	22.05	5.90
Spray.....\$	21.80	5.90

PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder.....\$	20.73	9.06
Brush & Roller.....\$	23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....\$	24.39	9.06
Sandblasting & Water Blasting.....\$	24.14	9.06
Spray.....\$	23.89	9.06

PAIN0118-004 06/01/2018

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN,
 HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY,
 SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller.....\$	22.00	12.52
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....\$	23.00	12.52

PAIN1072-003 12/01/2018

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams;		
Tension Towers & Energized		
Substations.....	\$ 33.33	18.50
Power Generating Facilities.	\$ 30.09	18.50

PLUM0248-003 06/01/2021

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 38.00	21.60

PLUM0392-007 06/01/2018

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 32.01	19.67

PLUM0502-003 08/01/2021

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 38.07	20.78

SUKY2010-160 10/08/2001

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 16.57	7.34
GROUP 2.....	\$ 16.68	7.34
GROUP 3.....	\$ 16.86	7.34
GROUP 4.....	\$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment & Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame when used in transporting materials; Ross Carrier; Forklift when used to transport building materials; & Pavement Breaker

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

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

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Division National Office Branch of Wage Surveys. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

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

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END OF GENERAL DECISION

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
7.0%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609**

4. As used in this Notice, and in the contract resulting from this solicitation, the "**covered area**" is Montgomery County.

PART IV
INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V
BID ITEMS

PROPOSAL BID ITEMS

224413

Page 1 of 3

Report Date 1/28/22

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	1,189.00	TON		\$	
0020	00078		CRUSHED AGGREGATE SIZE NO 2	1,832.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	13.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	2.00	TON		\$	
0050	00190		LEVELING & WEDGING PG64-22	129.00	TON		\$	
0060	00212		CL2 ASPH BASE 1.00D PG64-22	644.00	TON		\$	
0070	00307		CL2 ASPH SURF 0.38B PG64-22	409.00	TON		\$	
0080	01810		STANDARD CURB AND GUTTER	537.00	LF		\$	
0090	01811		STANDARD CURB AND GUTTER MOD	1,107.00	LF		\$	
0100	01825		ISLAND CURB AND GUTTER	779.00	LF		\$	
0110	02084		JPC PAVEMENT-8 IN	563.00	SQYD		\$	
0120	02091		REMOVE PAVEMENT	65.00	SQYD		\$	
0130	02585		EDGE KEY	138.00	LF		\$	
0140	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0150	02677		ASPHALT PAVE MILLING & TEXTURING	285.00	TON		\$	
0160	02696		SHOULDER RUMBLE STRIPS	631.00	LF		\$	
0170	06511		PAVE STRIPING-TEMP PAINT-6 IN	11,759.00	LF		\$	
0180	06515		PAVE STRIPING-PERM PAINT-6 IN	6,671.00	LF		\$	
0190	06531		PAVE STRIPING REMOVAL-6 IN	10,601.00	LF		\$	
0200	06546		PAVE STRIPING-THERMO-12 IN W	41.00	LF		\$	
0210	06575		PAVE MARKING-THERMO COMB ARROW	4.00	EACH		\$	
0220	20071EC		JOINT ADHESIVE	5,856.00	LF		\$	
0230	20550ND		SAWCUT PAVEMENT	5,698.00	LF		\$	
0240	21289ED		LONGITUDINAL EDGE KEY	1,471.00	LF		\$	
0250	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	1.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0260	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	10.00	EACH		\$	
0270	02014		BARRICADE-TYPE III	12.00	EACH		\$	
0280	02159		TEMP DITCH	669.00	LF		\$	
0290	02160		CLEAN TEMP DITCH	335.00	LF		\$	
0300	02230		EMBANKMENT IN PLACE	1,942.00	CUYD		\$	
0310	02242		WATER	254.00	MGAL		\$	
0320	02351		GUARDRAIL-STEEL W BEAM-S FACE	472.00	LF		\$	
0330	02381		REMOVE GUARDRAIL	460.00	LF		\$	
0340	02483		CHANNEL LINING CLASS II	92.00	TON		\$	
0350	02545		CLEARING AND GRUBBING (3.22 AC)	1.00	LS		\$	
0360	02562		TEMPORARY SIGNS	1,400.00	SQFT		\$	
0370	02602		FABRIC-GEOTEXTILE CLASS 1	145.00	SQYD		\$	
0380	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0390	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		\$	
0400	02701		TEMP SILT FENCE	669.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	02703		SILT TRAP TYPE A	4.00	EACH		\$	
0420	02704		SILT TRAP TYPE B	4.00	EACH		\$	
0430	02705		SILT TRAP TYPE C	4.00	EACH		\$	
0440	02706		CLEAN SILT TRAP TYPE A	4.00	EACH		\$	
0450	02707		CLEAN SILT TRAP TYPE B	4.00	EACH		\$	
0460	02708		CLEAN SILT TRAP TYPE C	4.00	EACH		\$	
0470	02726		STAKING	1.00	LS		\$	
0480	05952		TEMP MULCH	10,398.00	SQYD		\$	
0490	05953		TEMP SEEDING AND PROTECTION	7,799.00	SQYD		\$	
0500	05963		INITIAL FERTILIZER	.50	TON		\$	
0510	05964		MAINTENANCE FERTILIZER	.30	TON		\$	
0520	05985		SEEDING AND PROTECTION	8,834.00	SQYD		\$	
0530	05989		SPECIAL SEEDING CROWN VETCH	41.00	SQYD		\$	
0540	05990		SODDING	354.00	SQYD		\$	
0550	05992		AGRICULTURAL LIMESTONE	5.50	TON		\$	
0560	06406		SBM ALUM SHEET SIGNS .080 IN	311.35	SQFT		\$	
0570	06410		STEEL POST TYPE 1	425.00	LF		\$	
0580	06490		CLASS A CONCRETE FOR SIGNS	3.00	CUYD		\$	
0590	08100		CONCRETE-CLASS A	48.00	CUYD		\$	
0600	21373ND		REMOVE SIGN	12.00	EACH		\$	
0610	21596ND		GMSS TYPE D	16.00	EACH		\$	
0620	23274EN11F		TURF REINFORCEMENT MAT 1	185.00	SQYD		\$	
0630	23745EC		YIELD LINES	20.00	EACH		\$	
0640	24631EC		BARCODE SIGN INVENTORY	90.00	EACH		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0650	00469		CULVERT PIPE-42 IN	24.00	LF		\$	
0660	00521		STORM SEWER PIPE-15 IN	345.00	LF		\$	
0670	00522		STORM SEWER PIPE-18 IN	240.00	LF		\$	
0680	01202		PIPE CULVERT HEADWALL-15 IN	3.00	EACH		\$	
0690	01204		PIPE CULVERT HEADWALL-18 IN	2.00	EACH		\$	
0700	01214		PIPE CULVERT HEADWALL-42 IN	1.00	EACH		\$	
0710	01310		REMOVE PIPE	4.00	LF		\$	
0720	01433		SLOPED BOX OUTLET TYPE 1-18 IN	1.00	EACH		\$	
0730	01559		DROP BOX INLET TYPE 13G	11.00	EACH		\$	
0740	01568		DROP BOX INLET TYPE 13S	2.00	EACH		\$	
0750	01691		FLUME INLET TYPE 2	2.00	EACH		\$	
0760	01756		MANHOLE TYPE A	1.00	EACH		\$	
0770	02603		FABRIC-GEOTEXTILE CLASS 2	5,576.00	SQYD		\$	
0780	02607		FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	1,647.00	SQYD	\$2.00	\$	\$3,294.00
0790	23793EC		CONNECT TO EXIST CULVERT	1.00	EACH		\$	
0800	24814EC		PIPELINE INSPECTION	530.00	LF		\$	

Section: 0004 - LIGHTING

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0810	04701		POLE 40 FT MTG HT	12.00	EACH		\$	
0820	04723		BRACKET 10 FT	12.00	EACH		\$	
0830	04740		POLE BASE	12.00	EACH		\$	
0840	04750		TRANSFORMER BASE	12.00	EACH		\$	
0850	04761		LIGHTING CONTROL EQUIPMENT	1.00	EACH		\$	
0860	04780		FUSED CONNECTOR KIT	24.00	EACH		\$	
0870	04795		CONDUIT-2 IN	250.00	LF		\$	
0880	04820		TRENCHING AND BACKFILLING	1,675.00	LF		\$	
0890	04832		WIRE-NO. 12	1,900.00	LF		\$	
0900	04940		REMOVE LIGHTING	1.00	LS		\$	
0910	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	6.00	EACH		\$	
0920	21543EN		BORE AND JACK CONDUIT	250.00	LF		\$	
0930	23778EC		WIRE-NO. 10	6,100.00	LF		\$	
0940	24589ED		LED LUMINAIRE	12.00	EACH		\$	
0950	24900EC		PVC CONDUIT-1 1/4 IN-SCHEDULE 80	1,675.00	LF		\$	
0960	24955ED		REMOVE SIGNAL EQUIPMENT	1.00	EACH		\$	

Section: 0005 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0970	02569		DEMOBILIZATION	1.00	LS		\$	