**CALL NO. 102**

**CONTRACT ID. 205165**

**HICKMAN COUNTY**

**FED/STATE PROJECT NUMBER STP BRZ 9030 (232)**

**DESCRIPTION CR 1011**

**WORK TYPE BRIDGE REPLACEMENT**

**PRIMARY COMPLETION DATE 2/1/2021**

**LETTING DATE: January 24,2020**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN STANDARD TIME January 24,2020. Bids will be publicly announced at 10:00 am EASTERN STANDARD TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

**DBE CERTIFICATION REQUIRED - 3%**

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

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# PART I

# SCOPE OF WORK

# ADMINISTRATIVE DISTRICT - 01

**CONTRACT ID - 205165**

**STP BRZ 9030 (232)**

**COUNTY - HICKMAN**

**PCN - BR05310111900**
**STP BRZ 9030 (232)**

CR 1011 (MP .025) ADDRESS DEFICIENCIES OF CR 1011 (BALTIMORE ROAD) BRIDGE OVER IC RR 053C00003N. (MP .305), A DISTANCE OF 0.06 MILES.BRIDGE REPLACEMENT SYP NO. 01-01156.00.

GEOGRAPHIC COORDINATES LATITUDE 36:40:40.00 LONGITUDE 88:49:08.00

**COMPLETION DATE(S):**

COMPLETED BY 02/01/2021 APPLIES TO ENTIRE CONTRACT

# 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.

# SPECIAL NOTE FOR RECIPROCAL PREFERENCE

## RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS

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

April 30, 2018

# 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 on federally assisted projects shall be permitted. However, in the case of DBE’s, second tier subcontracts will only be permitted where the other subcontractor is also a DBE. All second tier subcontracts shall have the consent of both the Contractor and the Engineer.

## 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 certainly 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:

- 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 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.

7/19/2019

**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.

**EXPEDITE PROJECT WORK ORDER**

The Contractor may request that the Department expedite the work order for this project to allow for maximization of time to complete the work. In order for the Department to accomplish this task, the Contractor may be required to "hand carry" all required project documentation to facilitate the process. Immediately UPON NOTIFICATION OF AWARD OF THE CONTRACT, deliver required project documentation to:

Division of Construction Procurement
200 Mero St.
Frankfort, KY 40602

**ASPHALT MIXTURE**

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

**DGA BASE**

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

**INCIDENTAL SURFACING**

The Department has included in the quantities of asphalt mixtures established in the proposal estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, curve widening, ramp gores and tapers, and road and street approaches, as applicable. Pave these areas to the limits as shown on Standard Drawing RPM-110-06 or as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, pave the crossroads to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. Surface or resurface these areas as directed by the Engineer. The Department will not measure placing and compacting for separate payment but shall be incidental to the Contract unit price for the asphalt mixtures.

**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 NOTE FOR TRAFFIC CONTROL ON BRIDGE REPAIR CONTRACTS

01-01156.00 Hickman 053C00003N

## I. TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the current standard specifications, section 112. The contractor will be responsible for developing and implementing the maintenance of traffic details with guidance through standard drawings and the MUTCD current editions. The developed traffic control plan must be approved by the Engineer prior to implementation. The contractor is expected to provide at a minimum the items listed in this note, however this note does not relieve the contractor of other items that may be necessary to comply with current standards. 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 new condition, at the beginning of the work and maintained in like new condition until completion of the work.

The contractor must notify the engineer and public information officer at least 14 calendar days prior to the beginning work. Please see the Special Note for Liquidated Damages for additional information.

## II. TRAFFIC COORDINATOR

Furnish a traffic coordinator as per section 112. The traffic coordinator shall inspect the project maintenance of traffic, at least three times daily, or as directed by the engineer, during the contractor's operations and at any time a bi-directional lane closure or road closure is in place. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents. The traffic coordinator shall report all incidents throughout the work zone to the engineer on the project. The contractor shall furnish the name and telephone number where the traffic coordinator can be contacted at all times.

## III. SIGNS

The contractor is responsible for all signage during construction. The contractor shall adhere to the standard drawings and manual on uniform traffic control devices (MUTCD) for guidance. If, at any time, the engineer requests a change in the maintenance of traffic signage, the contractor shall implement the change within 8 hours. Failure to implement these changes within the required eight hours will result in liquidated damages of $5,000 per day.

The contractor shall provide all detour signing needed for the bridge closure, if allowed in the contract documents. All signing required will be incidental to the lump sum bid item "Maintain and Control Traffic".

The department will not measure installation, maintenance, or removal for payment of any detour signage or standard construction signage, and will consider these incidental to "Maintain and Control Traffic"

Closure signs, detour signs, and bi-directional lane closure signs should be placed no sooner than two weeks prior to the closing of the bridge (when applicable) or placing lane closures. Wayfinding detour signs should be placed a maximum of 2 miles apart unless specified by the engineer. Signs shall be covered or removed within 24 hours of opening the bridge to traffic.

Road closed signs (when applicable) should be double signed and placed a minimum of 1500', 1000', and 500' in advance of the closure, in addition to signage required by the MUTCD and standard drawings.

## IV. TEMPORARY PAVEMENT STRIPING

For projects where road closures are allowed in the contract documents, it is not anticipated that temporary pavement striping will be needed since the bridge will be closed. However, if the contractor's means and methods allows for need for temporary striping, conflicting pavement marking will be covered with 6" black removable tape. However, for bi-directional lane closures or if the plans call for a diversion, temporary striping will be required per the plans and MUTCD. Contrary to the standard specifications, no direct payment will be made for any temporary striping, pavement striping removal, or any other temporary striping item. If temporary striping is used, the contractor shall replace any temporary striping that becomes damaged or fails to adhere to the pavement before dark on the day of the notification. Liquidated damages shall be assessed to the contractor at a rate of $500 per day for failing to replace temporary striping within this time limit.

## V. PROJECT PHASING & CONSTRUCTION PROCEDURES

Project phasing shall be as directed by the plans, special notes, and the approved Traffic Control Plan prepared by the contractor. Maintain traffic over the bridge as long as possible. Once work on the structure begins that impacts traffic, ensure work progresses to minimize the effected time to the public. All materials that must be made specific for the project should be ordered and made prior to closure of the bridge or implementation of bi-directional lane closures so that delivery does not delay progress of the work, unless approved by the Engineer. If the bridge is reopened prior to safety devices being in place, an approved protective barrier wall shall be placed in accordance to the standard drawings. Contrary to standard specifications, no direct payment would be made for the barrier wall and will be considered incidental to "Maintain and Control Traffic".

For projects which require an on-site diversion to be constructed to maintain traffic, the traffic control plan and project schedule prepared by the contractor shall include provisions such that traffic is not switched to the diversion until all materials that must be made specific for the project are ordered and made so that use of the diversion is minimized, unless approved by the Engineer.

## VI. PAVEMENT DROP-OFF

Less than two inches - no protection required. Warning signs should be placed in advance and throughout the drop-off area.
Two to four inches - plastic drums, vertical panels or barricades every 100 feet on tangent sections for speeds of 50 mph or greater. Cones may be used in place of plastic drums, panels and barricades during daylight hours. For tangent sections with speeds less than 50 mph and curves devices should be placed every 50 feet. Spacing of devices on tapered sections should be in accordance with the manual on uniform traffic control devices, current edition.

Greater than four inches - positive separation or wedge with 3:1 or flatter slope needed. If there is five feet or more distance between the edge of the pavement and the drop-off, then drums, panel, or barricades may be used. If the drop-off is greater than 12 inches, positive separation is strongly encouraged. If concrete barriers are used, special reflective devices or steady burn lights should be used for overnight installations.

For temporary conditions, drop-offs greater than four inches may be protected with plastic drums, vertical panels or barricades for short distances during daylight hours while work is being done in the drop-off area.

## VII. VARIABLE MESSAGE SIGNS AND TEMPORARY TRAFFIC SIGNALS

At the direction of the Engineer, the contractor is expected to provide up to four (4) message boards for use at locations determined by the Engineer. These message boards are expected to be in place one week prior to the closure of the roadway and remain in place for the duration of the closure. The message boards will be paid for as per the standard specifications.

For projects that involve the use of lane closures, all lane closures shall be bi-directional. The contractor shall provide temporary traffic signals and all labor, materials, and incidentals needed to maintain bi-directional traffic for the project. For short term bi-directional lane closures, the use of flaggers in lieu of temporary traffic signals may be acceptable if approved by the Engineer.

## VIII. BARRICADES

For projects which allow full closure, ensure a minimum of (4) type III barricades are used at each end of the bridge for a total of (8) type III barricades. Contrary to the standard specifications, no direct payment will be made for barricades but they will be included in the lump sum price for “Maintain and Control Traffic”.

## VIII. DETOUR AND ON SITE DIVERSIONS

For projects which allow a full closure of the bridge, or if necessary to detour trucks, the traffic control plan proposed by the contractor shall include a signed detour route for the road closure. The traffic control plan along with the proposed detour plan will be delivered to the engineer 7

days prior to the pre-construction meeting. The proposed detour route shall meet the following requirements:

1) Detour routes must remain at minimum on the same classification of roadway (i.e. AA, AAA, state, county, etc.) Unless written approval is obtained through the owner of the facility.
2) The contractor must coordinate with other projects along the detour route in order to avoid ongoing construction projects along those routes.
3) It may be determined that two detour routes would be needed if the first selected route cannot accommodate truck traffic. If this occurs, the contractor is expected to sign both detours per the standard drawings and MUTCD. Additional clarification signage between the detours may be needed at points where they diverge.
4) For projects that involve the use of bi-directional lane closures and the temporary lane width per the plans or as proposed by the contractor is less than 10 feet, the contractor shall be required to provide a signed detour for oversized vehicles.

The traffic control plan must be submitted and approved to allow for coordination of the public information officer with the closure notification. The public must be notified of the proposed detour route when they are notified of the closure, 2 weeks before closure. All time and expenses necessary for the development of the detour plan(s) will be incidental to the lump sum bid item “Maintain and Control Traffic”.

For projects with an on-site diversion included in the construction, the preparation of traffic control plans for a detour and implementation of a detour will not be required, unless specified in the plans.

## IX. PAYMENT

Unless listed as a bid item in the contract documents, payment will only be made for the following items:

1. Portable Changeable Message Boards - Each
2. Maintain and Control Traffic - Lump Sum

All other items needed to maintain traffic in accordance with these contract documents and the approved traffic control plan shall be considered incidental to Maintain and Control Traffic. These items include but are not limited to traffic signals, signs, barrier wall, crash cushions, temporary guardrail, temporary and permanent pavement striping, cones, barrels, flaggers, etc.

# SPECIAL NOTE FOR FOUNDATION PREPARATION

01-01156.00 Hickman 053C00003N

**Foundation Preparation**. For projects involving the removal and replacement of the asphalt and backfill behind the existing abutments and new abutments or end bents, the required excavation, geotextile fabric Class 1, 4" perforated pipe, and new Structural Granular Backfill as shown in Figure 1 as well as any excavation and grading needed to shape the bridge approaches to match the existing roadway template, will be paid for by the bid item for Foundation Preparation. See Special Provision 69 and the Standard Drawings regarding additional construction details as required.

Backfill material used behind newly constructed abutments on county routes may be constructed with Type III soil backfill. All existing abutments, abutments on state routes, and newly constructed or existing bents must be backfilled with material meeting Structural Granular Backfill specifications.

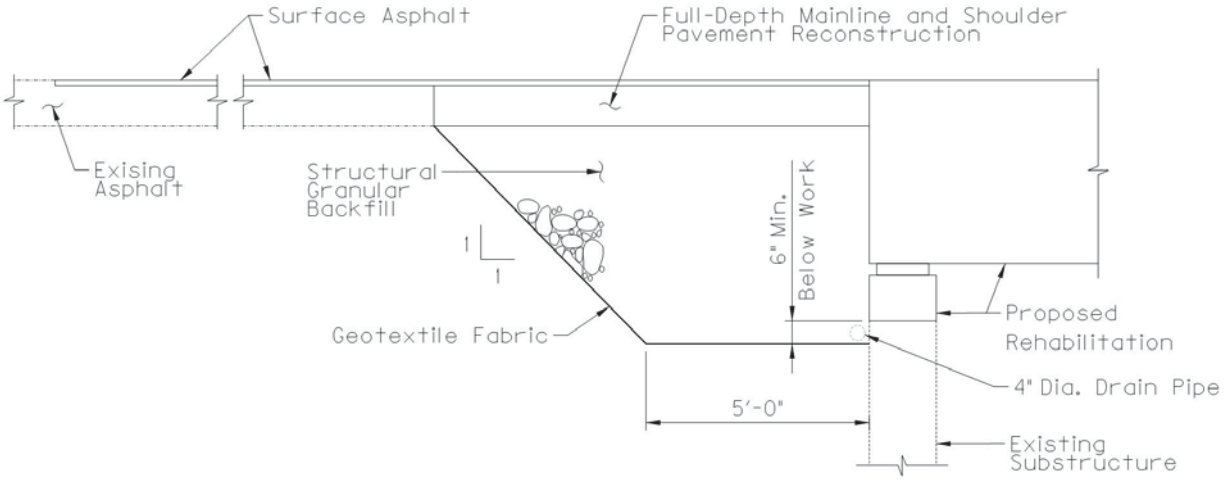


Figure 1: Detail showing proposed work for deck and superstructure replacements

## I. MEASUREMENT

A. Foundation Preparation: See Section 603.

## II. PAYMENT

A. Foundation Preparation: See Section 603. Payment for Structural Granular Backfill or Type III soil backfill to be incidental to Foundation Preparation.

# SPECIAL NOTE FOR CONCRETE SEALING

01-01156.00 Hickman 053C00003N

These Notes or designated portions thereof, apply where so indicated on the plans, proposals or bidding instruction.

**I. DESCRIPTION.** Perform all work in accordance with the Department's current Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications.

This work consists of:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Repair cracks as applicable in accordance with the Special Note for Epoxy Injection Crack Repair.
4. Repair delaminated or spalled areas as applicable in accordance with the Special Note for Concrete Patching.
5. Apply Ordinary Surface Finish
6. Prepare the surfaces to receive sealing.
7. Apply concrete sealing.
8. Any other work as specified as part of this contract.

**II. MATERIALS**.

**A. Sealer.** Use one of the following:

| **Product** | **Supplier** |
|---|---|
| Protectosil BHN | Evonik Industries |
| Protectosil 300 | Evonik Industries |
| TK-590-40 Tri-Silane 40% | TK Products |
| Certivex Penseal 244 O/W 80 | Vexcon |
| SW-244-100 DOT | Chemical Products Industries, Inc. |
| TK-590-1 MS Tri-Silane | TK Products |

**III. CONSTRUCTION.**

**A. Perform Concrete Repairs.** Repair concrete surface in accordance with the Special Note for Epoxy Injection Crack Repair and/or the Special Note for Concrete Patching Repair if included in the contract documents.

**B.** **Apply Ordinary Surface Finish.** In addition to new concrete, areas receiving epoxy injection, concrete patching, and other surface imperfections, including areas of minor cracking, should receive Ordinary Surface Finish in accordance with Section 601.03.18 of the Standard Specifications. Use mortar of the same cement and fine aggregate as the concrete patching, or as directed by the Engineer. Payment will be incidental to Concrete Sealing. Finish surface of bridge decks in accordance with Section 609 of the Standard Specifications.

**C.** **Areas to Receive Concrete Sealing:**

1. Every exposed surface above a point 6" below ground or fill line of abutments, wing walls, end bent and pier caps, pedestals, back walls, columns, and exposed footings.
2. All exposed surfaces of concrete deck, barrier walls, parapets, curbs, and plinths.
3. Prestressed Concrete I-Girders, Concrete Beams, and Spread Prestressed Concrete Box Beams: The underneath surfaces of slab overhangs outside of exterior concrete girders and to the exterior side and bottom of exterior concrete girders and beams.
4. Adjacent Prestressed Concrete Composite Box Beams: Full length of the exterior face of all exterior beams from the top of the box beam to 1'-0" underneath the beams.
5. Prestressed Non-Composite Box Beams: All faces of all beams, including surfaces to be covered with a waterproofing membrane, except take care to ensure that the grout pockets are not sealed.
6. If the contract documents include the Special Note for Concrete Coating, do not apply concrete sealer to the areas where Concrete Coating is specified.

**D.** **Cleaning the Concrete Surfaces to be sealed.** Dry clean the concrete to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the manufacturer of the sealant. Hold pressure washing wand a minimum of 45° from the surfaces with a maximum stand-off distance of 12 inches.

**E.** **Sealing the Concrete.** Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer's recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the concrete to dry 24 hours (after washing or rain event) before sealer application. The bridge deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the concrete must be rewashed. Divide the concrete into predefined areas of specific square footage to aid in determining usage. Comply with manufacturer's usage recommendation. Using a low-pressure pump, apply sealer and spread evenly with broom or squeegee; do not allow pooling to remain. When each predefined area is complete, measure the amount of sealer used to verify proper usage. After sealing,

follow manufacturer's recommended cure time before opening to traffic.

**F.** **Inspection:** Monitor all aspects of the project to assure compliance to this specification. Observe and document general conditions during the entirety of the project. Verify that each phase of work has been satisfactorily completed prior to beginning the next phase. Phases are described as follows:

1. Dry cleaning to remove loose debris, verify and document:
   a. All debris has been removed and disposed of properly.
2. Removal of hydrocarbons, verify and document:
   a. The manufacturer's recommended detergent is used for removal.
   b. Hydrocarbons have been satisfactorily removed.
3. Pressure washing, verify and document:
   a. Washing pressure at the wand.
   b. Tip size used.
   c. Wash angle and stand-off distance.
   d. The concrete is satisfactorily cleaned.
4. Sealer application, verify and document:
   a. Proper cure time for new concrete.
   b. Concrete surface is dry.
   c. Document time since washed.
   d. Was the bridge deck opened to traffic after washing?
   e. Document ambient temperature, surface temperature, relative humidity, and dew point.
   f. Application and distribution method.
   g. Coverage to be complete and even.
   h. Material is not allowed to remain pooled.
   i. Monitor material usage.
   j. No traffic on the bridge decks until proper cure time is allowed.

## IV. MEASUREMENT

**A.** **Concrete Sealing.** The Department will measure the quantity per square feet of each area sealed.

## V. PAYMENT

**A.** **Concrete Sealing.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Cleaning; (3) Sealing; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

# SPECIAL NOTE FOR EROSION PREVENTION AND SEDIMENT CONTROL

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When the total disturbed area for a project, including laydown and waste/borrow areas, is greater than 1 acre, the Contractor shall be responsible for filing the Kentucky Pollution Discharge Elimination System (KPDES) KYR10 permit Notice of Intent (NOI) with the Kentucky Division of Water (DOW). The contractor will be responsible for following the KPDES requirements of local Municipal Separate Storm Sewer System (MS4) programs with jurisdiction. Required NOI shall name the contractor as the Facility Operator and include the KYTC Contract ID Number (CID) for reference. For grouped contracts with more than one structure, each structure will be treated independently in regards to disturbed area unless another structure is within 0.25 miles of the structure. For structures within 0.25 miles of each other, the total disturbed area will be the sum of the combined disturbed areas. The Contractor shall be responsible for filing the KPDES permit Notice of Termination (NOT) with the Kentucky DOW and any local MS4 Program that has jurisdiction. The NOT shall be filed after the Engineer agrees the project is stabilized or the project has been formally accepted.

The Contractor shall perform all temporary erosion/sediment control functions including: providing a Best Management Practice (BMP) Plan, conducting required inspections, modifying the BMP plan documents as construction progresses and documenting the installation and maintenance of BMPs in conformance with the KPDES KYR10 permit effective on August 1, 2009 or a permit re-issued to replace that KYR10 permit. This work shall be conducted in conformance with the requirements of Section 213 of KYTC current Department of Highways, Standard Specifications for Road and Bridge Construction.

Regardless of the size of disturbed area, the contractor shall provide a BMP Plan to the KYTC Engineer and place erosion control devices as identified in the site-specific BMP Plan prior to beginning work. Should the contractor fail to create a BMP Plan or provide and maintain the necessary erosion control, Liquidated Damages will apply at the rate specified in the contract. If no rate is specified, Liquidated Damages will be applied at the rate specified in Section 108 of the Standard Specifications. The Contractor shall perform all final seeding and protection, in accordance with the plans and Section 212 of the KYTC current Department of Highways, Standard Specifications for Road and Bridge Construction.

Contrary to Section 213.03.03, paragraph 2, the Engineer shall conduct inspections as needed to verify compliance with Section 213 of KYTC current Department of Highways, Standard Specifications for Road and Bridge Construction. The Engineer's inspections shall be performed a minimum of once per month and within seven days after a storm of ½ inch or greater. Copies of the Engineer's inspections shall not be provided to the contractor unless improvements to the BMP's are required. The contractor shall initiate corrective action within 24 hours of any reported deficiency and complete the work within 5 days. The Engineer shall use Form TC 63-61 A for this report. Inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit. If corrections are not made within the 5 days specified, liquidated damages will apply at the rate specified in the Liquidated Damages note in the contract.

Contrary to Section 212. 05 and 213.05, unless listed in the proposal, bid items for temporary BMPs and items for permanent erosion control will not be measured for payment and will be replaced with one lump sum item for the services. Payment will be pro-rated based on the Project Schedule as submitted by the Contractor and as agreed to by the Engineer.

The contractor shall be responsible for applying "good engineering practices". The contractor may use any temporary BMPs and permanent BMPs that fall within the guidance of the current Standard Specifications, KYTC's Best Management Practices manual, and with the approval of the KYTC Engineer.

The contractor shall be responsible for the examination of the soils to be encountered and make his own independent determination of the temporary BMPs that will be required to accomplish effective erosion prevention and sediment control. The contractor shall provide the Engineer copies of all documents required by the KPDES permit at the time they are prepared.

# SPECIAL NOTE

## For Additional Environmental Commitments

01-01156.00 Hickman 053C00003N

IN ADDITION TO OTHER ENVIRONMENTAL COMMITMENTS LISTED IN THIS CONTRACT, THE FOLLOWING COMMITMENTS ALSO APPLY, AS THIS IS A FEDERALLY FUNDED UNDERTAKING AS DEFINED IN SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, 36 CFR 800.16(Z):

1) The KYTC has completed a Phase 1 archaeological survey for a site-specific area surrounding the bridge. The cleared area is shown as "Archaeologically Cleared Area" or "Environmentally Cleared Area" on the concept plans and/or the map attached to this note. Likewise, any areas that must be avoided have been labeled "Do Not Disturb."

   If the Contractor deems it necessary to use additional areas outside the SHPO-cleared area for any purposes—e.g., laydown yards, vehicle parking, parking cranes, delivering beams, borrow areas, waste areas, etc.—the Contractor must first get a written agreement with the landowner (assuming it is outside the right-of-way). Then the Contractor shall seek approval of the use of the site—whether within or outside the right-of-way—by both the KYTC Section Supervisor and the Bridging Kentucky Environmental Lead at BKY_Env@docs.e-builder.net. The Contractor shall provide a map of the area(s) to be used, including access points, and property-owner agreements. The BKY Environmental Team will complete initial field investigations for archaeological, historical, ecological, and other environmental clearances. If any potentially significant site or resources are found, the KYTC has the right to deny the use of the proposed site. The maps and property owner agreements are to be submitted at least ten (10) business days prior to the Preconstruction Conference, or sixty (60) days prior to the Contractors access to the site, for coordination and review by the KYTC District and Bridging Kentucky Team.

   A Liquidated Damage of $50,000 will be assessed whenever the Contractor has used any restricted areas. The fee will be assessed on a *per bridge* basis, whether the contract involves bridge bundles or a single bridge. In addition, all fines, fees, penalties, remediation costs, and other damages related to breaches of Threatened and Endangered Species Act Section 7, National Historic Preservation Act Section 106, Clean Water Act Sections 401 and 404, Kentucky General Permit for Stormwater Discharges KYR10, Environmental Protection Agency requirements, State Historic Preservation Office requirements, and other related permitting agencies will be paid by the Contractor, including all associated costs and burdens placed upon the Kentucky Transportation Cabinet.

2) In the event that human remains are encountered during project activities, all work should be immediately stopped in the area. The area should be cordoned off, and, in accordance with KRS 72.020, the county coroner and local law enforcement must be contacted immediately. Upon confirmation that the human remains are not of forensic interest, the unanticipated discovery must be reported to Nicolas Laracuente at the Kentucky Heritage Council at (502) 892-3614, George Crothers at the Office of State Archaeology at (859) 257-1944, and KYTC DEA archaeologists at (502) 564-7250.

For guidance regarding inadvertent discovery and treatment of human remains, refer to the KYTC's *Right of Way Guidance Manual* (Section ROW-1202), and the Advisory Council on Historic Preservation's (ACHP) *Policy Statement Regarding Treatment of Human Remains and Grave Goods* (adopted by ACHP February 23, 2007).

3) If, during the implementation of The Project, a previously unidentified historic/ archaeological property is discovered or a previously identified historic/archaeological property is affected in an unanticipated manner, the contractor shall (1) call KYTC DEA archaeologists at (502) 564-7250, (2) call SHPO archaeologists at (502) 892-3614, and (3) ensure that all work within a reasonable area of the discovery shall cease until such time as a treatment plan can be developed and implemented.

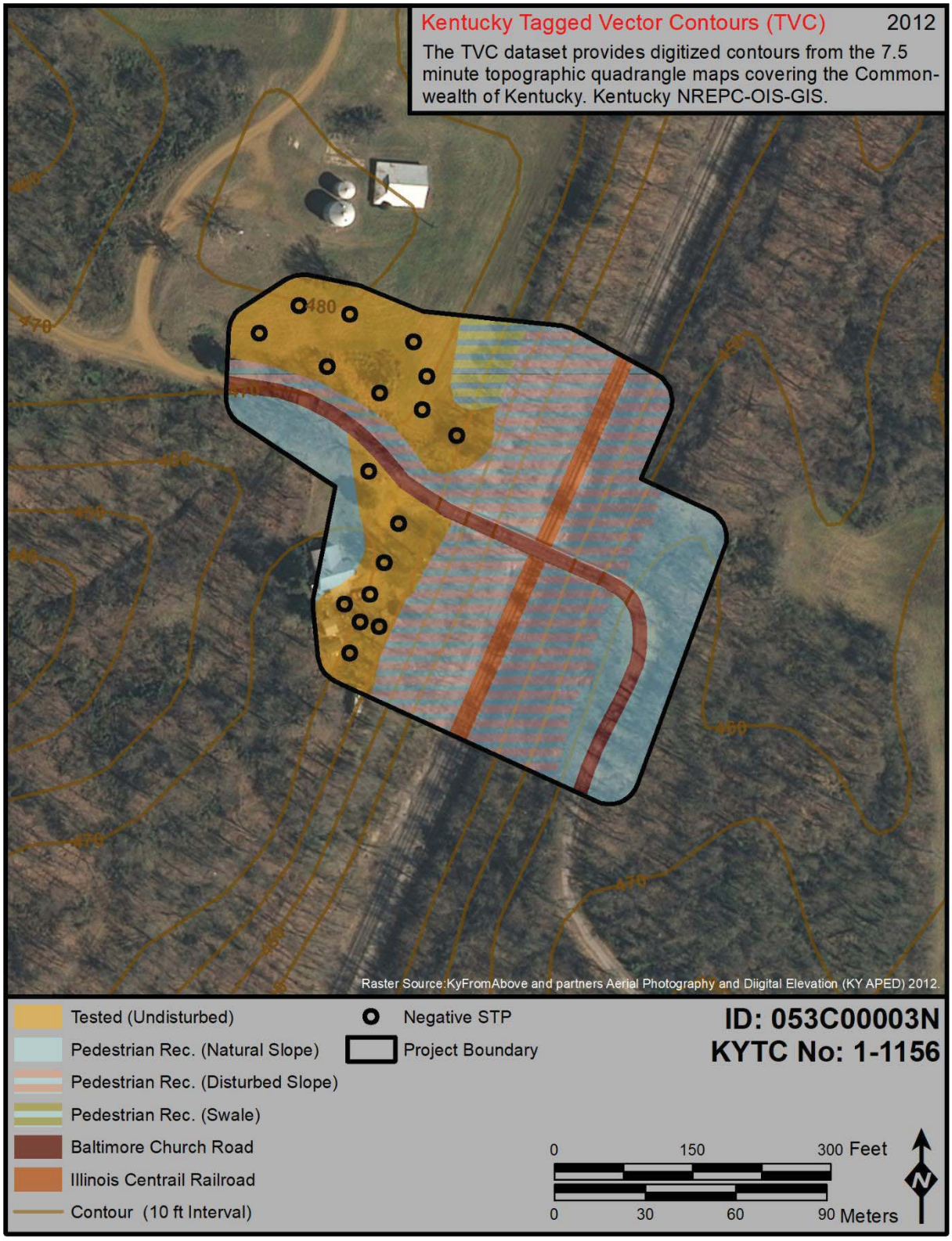



**Figure 16. Bridge 053C00003N (Item No. 1-1156) showing project area conditions and excavation units on aerial map.**

## 01-01156.00 HICKMAN COUNTY

## PLAN SHEETS

PLAN SHEETS WHICH ARE TO SCALE ARE AVAILABLE TO VIEW AND PRINT IN THE PROJECT-RELATED INFORMATION FOLDER FOR THIS LETTING AT THE CONSTRUCTION PROCUREMENT WEBSITE:

http://transportation.ky.gov/Construction-Procurement/Pages/default.aspx

# Kentucky Transportation Cabinet

# Highway District __ (1)

# And

# _____(2), Construction

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

# Groundwater protection plan

# For Highway Construction Activities



Revised 3/4/2016

# Project information

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

1. Owner – Kentucky Transportation Cabinet, District __ (1)

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) (1)

6. Latitude/Longitude (project mid-point) dd/mm/ss, dd/mm/ss (1)

7. County (project mid-point) (1)

8. Project start date (date work will begin): (2)

9. Projected completion date: (2)

# A. Site description:

1. Nature of Construction Activity (from letting project description) (1)

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

3. Projected volume of material to be moved (1)

4. Estimate of total project area (acres) (1)

5. Estimate of area to be disturbed (acres) (1)

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.(1)

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

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

9. Receiving water name (1)

10. TMDLs and Pollutants of Concern in Receiving Waters: (1 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)

# B. Sediment and Erosion Control Measures:

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

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

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

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

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

- Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
  - Leaving areas undisturbed when possible.
  - Silt basins to provide silt volume for large areas.
  - Silt Traps Type A for small areas.
  - Silt Traps Type C in front of existing 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 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. Probably changes include:
  - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.

- Permanent Seeding and Protection
- Placing Sod
- Planting trees and/or shrubs where they are included in the project

➢ BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : (1)

## C. Other Control Measures

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

2. Waste Materials

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

3. Hazardous Waste

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

4. Spill Prevention

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

➢ **Good Housekeeping:**

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

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

➢ **Hazardous Products:**

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

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

**The following product-specific practices will be followed onsite:**

➢ **Petroleum Products:**

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

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum

products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

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

- **Fertilizers:**

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

- **Paints:**

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

- **Concrete Truck Washout:**

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

- **Spill Control Practices**

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

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

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

## D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. (1)

## 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. (1)

## F. Inspections

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

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

## G. Non – Storm Water discharges

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

- Water from water line flushings.
- Water form cleaning concrete trucks and equipment.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater and rain water (from dewatering during excavation).

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

## H. Groundwater Protection Plan (3)

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

- Contractors statement: (3)

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

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

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

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

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

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

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

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

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

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

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

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

## Contractor and Resident Engineer Plan certification

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

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

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

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

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

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

# Sub-Contractor Certification

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

Subcontractor

Name:
Address:
Address:

Phone:

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

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

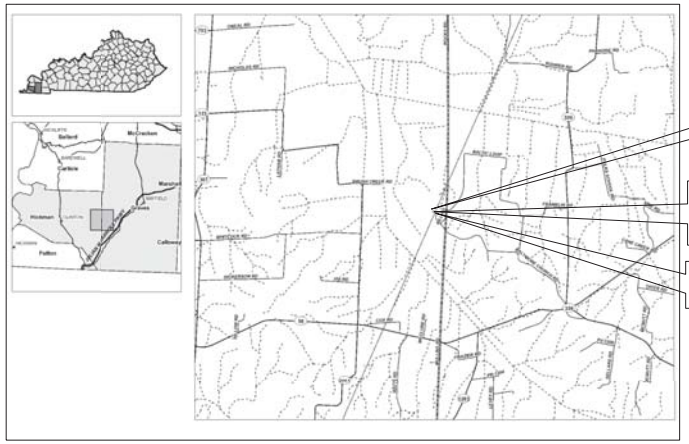
Signed _____title_____, _____
Typed or printed name[1] signature

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

| COUNTY OF | ITEM NO. | SHEET |
|---|---|---|
| HICKMAN | 1-1156 | R1 |

# TRANSPORTATION CABINET
# DEPARTMENT OF HIGHWAYS

## HICKMAN COUNTY
## BALTIMORE CHURCH ROAD OVER
## ILLINOIS CENTRAL (ICRR) RAILROAD
## STA. 50+00




### LOCATION MAP

0' 4000' 8000' 16000'

### INDEX OF SHEETS


| Sheet No. | Description |
|---|---|
| R1 | LAYOUT SHEET |
| R2 | TYP. SECTIONS, COORD. CONTROL, LEGEND |
| R3 | PLAN SHEET |
| R4 | PROFILE SHEET |
| R5 | RAILROAD PROFILE SHEET |
| S1 | GENERAL NOTES |
| S2 | GENERAL NOTES |
| S3 | LAYOUT |
| S4 | TYPICAL SECTION |
| S5 | PILE RECORD |
| S6 | ABUTMENTS |
| S7 | ABUTMENTS |
| S8 | FRAMING PLAN |
| S9 | STRUCTURAL STEEL DETAILS |
| S10 | CAMBER DIAGRAM |
| S11 | SUPERSTRUCTURE DETAILS |
| S12 | FENCE DETAILS |
| S13 | CONSTRUCTION ELEVATIONS |
| S14 | GRADING PLAN |
| X1-X13 | CROSS SECTIONS |


### SPECIAL NOTES

Traffic Control on Bridge Repair Contracts
Erosion Prevention and Sediment Control
Contract Completion Date and Liquidated Damages on Bridge Repair Contracts
Tree Clearing Restrictions
Concrete Sealing
Additional Environmental Commitments
Foundation Preparation

### SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

### SPECIFICATIONS

Current Standard Specifications for Road and Bridge Construction.

2017 AASHTO LRFD Bridge Design Specifications with Current Interims.

### STANDARD DRAWINGS

| | |
|---|---|
| BHS-008-02 | Rail System Type 3 |
| BGX-006-10 | Stencils for Structures |
| BJE-001-13 | Neoprene Expansion Dams and Armored Edges |
| BPS-003-09 | HP12x53 Steel Pile |
| RBR-005-11 | Guardrail Components |
| RBR-010-06 | Guardrail Terminal Sections |
| RBR-016-05 | Timber Guardrail Posts |
| RBR-030-05 | Guardrail End Treatment Type 3 |
| RBR-032 | Guardrail End Treatment Type 3 Alternate Anchor |
| RDD-040-05 | Channel Lining Class II and III |
| RDI-040-01 | Erosion Control Blanket Slope Installation |
| RDI-041-01 | Erosion Control Blanket Channel Installation |
| RDX-210-03 | Temporary Silt Fence |
| RDX-220-05 | Silt Trap Type A |
| RDX-225-01 | Silt Trap Type B |
| RDX-230-01 | Silt Trap Type C |
| RGX-001-06 | Miscellaneous Standards |
| RGX-200-01 | One Point Proctor Family of Curves |

### ACTIVE SEPIAS

| | |
|---|---|
| SEPIA 009 | Treatment of Embankments at End Bents |
| SEPIA 010 | Treatment of Embankments at End Bents-Details |
| SEPIA 013 | Guardrail Connector to Bridge End Type A and A-1 Components |
| SEPIA 015 | Guardrail Connector to Bridge End Type A |
| SEPIA 024 | Typical Guardrail Installations |
| SEPIA 027 | Steel beam Guardrail "W" Beam |
| SEPIA 028 | Steel Guardrail Posts |
| SEPIA 031 | Guardrail End Treatment Type 7 Alternate Anchor |
| SEPIA 032 | Delineators for Guardrail |
| SEPIA 034 | Guardrail End Treatment Type 7 Alternate Anchor |
| SEPIA 060 | Curb and Gutter, Curbs, and Valley Curbs |

### DESIGN CRITERIA

CLASS OF HIGHWAY: RURAL LOCAL
TYPE OF TERRAIN: ROLLING
DESIGN SPEED:
REQUIRED NPSD:
REQUIRED PSD:
LEVEL OF SERVICE:
ADT PRESENT ( 2006 ): 11
ADT FUTURE ( ):
DHV:
D %:
T %:

### GEOGRAPHIC COORDINATES

LATITUDE 36 DEGREES 40 MINUTES 40 SECONDS NORTH
LONGITUDE 88 DEGREES 49 MINUTES 08 SECONDS WEST

### DESIGNED

% RESTRICTED SD:
LEVEL OF SERVICE:
MAX. DISTANCE W/O PASSING:

### BEFORE YOU DIG

The contractor is instructed to call 1-800-752-6007 to reach KY 811, the one-call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that owners of underground facilities are not required to be members of the KY 811 one-call Before-U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area.

| REVISION | DATE |
|---|---|
| | |

| REV. NO. | SHEETS REVISED | DATE |
|---|---|---|
| | | |

TABLE OF REVISIONS

EXISTING BRIDGE ID# 053C00003N

PREPARED BY
Stantec

BRIDGING KENTUCKY

STATE OF KENTUCKY * PROFESSIONAL ENGINEER *
ANTHONY S. LEWIS 22905 LICENSED
ROADWAY
SHEETS R1-R5, X1-13

STATE OF KENTUCKY * PROFESSIONAL ENGINEER *
ROBERT V. CATRON 32481 LICENSED
STRUCTURE
SHEETS S1-S14

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**
**COUNTY OF**
**HICKMAN**

ITEM NO. 1-1156
DRAWING NO.
PROJECT NUMBER:
LETTING DATE: DECEMBER 13, 2019

RECOMMENDED BY: _____ PROJECT MANAGER DATE:
PLAN APPROVED BY: _____ STATE HIGHWAY ENGINEER DATE:

FILE NAME: ...\d0179698\053C00003N_R1.dgn
USER: kaswold
DATE PLOTTED: 10/11/2019 2:16:09 PM
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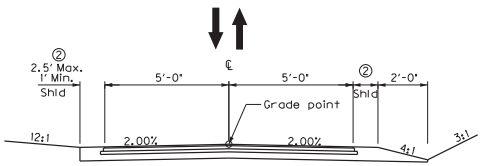
| COUNTY OF | ITEM NO. | SHEET |
|---|---|---|
| HICKMAN | 1-1156 | R2 |

## CONVENTIONAL SIGNS

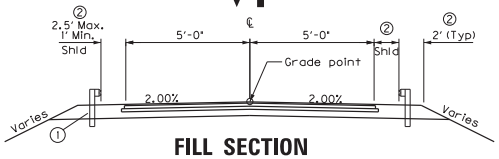
SURVEY LINE
GRADE LINE
GROUND LINE
COUNTY LINE
CORPORATE LIMITS
EXIST. PROPERTY LINE
EXIST. RIGHT OF WAY & PROPERTY LINE
PROPOSED RIGHT OF WAY
RIGHT OF WAY MONUMENT
BENCH MARK
EXISTING R/W MARKER
RIGHT OF WAY MONUMENT EXISTING/PROPOSED
UTILITY TEST HOLE
EXISTING ROAD
RAILROAD
FENCE (CONTROLLED ACCESS)
FENCE (EXCEPT STONE AND HEDGE)
TREE LINE
TREES
PIPE CULVERT
CULVERT
BRIDGE
BUILDINGS
GUARDRAIL

| | EXISTING | PROPOSED |
|---|---|---|
| LIGHTING POLE | | |
| POWER POLE | | |
| JOINT POWER & TELEPHONE POLE | | |
| TELEPHONE & TELEGRAPH POLE | | |
| ANCHOR, POWER OR TELEPHONE | | |
| STUB POWER | | |
| STUB TELEPHONE | | |
| WATER MAIN | WM | 6" WM |
| GAS MAIN | GM | GM |
| TELEPHONE DUCT | T | T |
| ELECTRIC DUCT | E | E |
| DIRECT BURIAL TV CABLE | TV | TV |
| SANITARY SEWER (WITH MANHOLE) | SAN | SAN |
| STORM SEWER (WITH MANHOLE) | STORM | STORM |
| DIRECT BURIAL ELECTRIC CABLE | E | E |
| DIRECT BURIAL TELEPHONE CABLE | T | T |
| OVERHEAD WIRE | | |
| TRAFFIC LIGHTS | | |
| ELECTRIC MANHOLE | EMH | EMH |
| TELEPHONE MANHOLE | TMH | TMH |

STONE FENCE
HEDGE FENCE
SWAMP OR MARSH
SPRINGS
SINKHOLE
QUARRY SITE
BLUE LINE STREAM
INTERMITTENT STREAM OR DITCH
LAKES OR PONDS
REGULATED FLOODWAY
NORTH POINT




**CUT SECTION**
**BALTIMORE CHURCH ROAD**




**FILL SECTION**
**BALTIMORE CHURCH ROAD**

Bridge Typical Section is shown on Structure drawings.

NOTES:

(1) DGA Base or other granular material approved by Engineer needed for shoulders outside of paved area.

(2) Width varies and the location to be determined by the field engineer.

NEW CONSTRUCTION
GRADE, DRAIN & SURFACING
- USING -

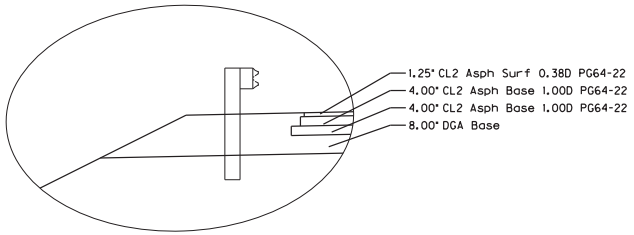
MAINLINE PAVEMENT

16.00" Base
- 8.00" DGA Base
- 4.00" CL2 Asph Base 1.00D PG64-22
- 4.00" CL2 Asph Base 1.00D PG64-22

1.25" Surface
- 1.25" CL2 Asph Surf 0.38D PG64-22

SHOULDERS

FULL DEPTH DGA




**DETAIL 'A'**

**Baltimore Church Road**
**HICKMAN COUNTY**
**Existing Bridge ID # 053C00003N**

Project Coordinates:
Coordinates for horizontal control were obtained by redundant GPS observations using Champion PRO GNSS receivers. On the NAD83 Kentucky State Plane Coordinate System, KY Single Zone, US Survey Feet utilizing the KYCORS RTN GPS Network on February 18, 2019. Coordinates shown are State Plane Coordinates, US Survey Feet. No project datum factor was calculated or used for this project.

Basis of Elevations:
Elevations were established by redundant GPS observations NAVD88 vertical datum, Geoid 12B utilizing the KYCORS RTN Network and were adjusted by closed differential level loop based on the elevation of CP#1 (Elev.:471.40')

## COORDINATE CONTROL POINTS

| POINT | DESCRIPTION | State Plane Coordinates | | | STATION | OFFSET |
|---|---|---|---|---|---|---|
| | | NORTH (Y) | EAST (X) | ELEV. (Z) | | |
| CP 1 | 5/8" REBAR & 1 1/2" ALUM CAP "BRIDGING KENTUCKY" | 3421125.795 | 4021204.906 | 471.40 | 48+63.94 | 14.33' LT. |
| CP 2 | 5/8" REBAR & 1 1/2" ALUM CAP "BRIDGING KENTUCKY" | 3421041.076 | 4021444.882 | 469.87 | 51+10.77 | 40.13' LT. |
| CP 3 | 5/8" REBAR & 1 1/2" ALUM CAP "BRIDGING KENTUCKY" | 3420835.368 | 4021385.078 | 469.98 | | |

## CENTERLINE CONTROL POINTS

| POINT | State Plane Coordinates | | STATION |
|---|---|---|---|
| | NORTH (Y) | EAST (X) | |
| POB/PC | 3421216.736 | 4021116.335 | 47+33.73 |
| PI | 3421199.751 | 4021144.922 | 47+66.98 |
| PT | 3421170.769 | 4021161.225 | 47+98.72 |
| PC | 3421127.417 | 4021185.610 | 48+48.46 |
| PI | 3421112.933 | 4021193.757 | 48+65.07 |
| PT | 3421106.207 | 4021208.953 | 48+80.54 |
| PC | 3421019.236 | 4021405.464 | 50+95.44 |
| PI | 3420998.323 | 4021452.718 | 51+47.12 |
| PT | 3420951.784 | 4021430.261 | 51+75.63 |
| POE | 3420867.631 | 4021389.653 | 52+69.07 |

## RIGHT OF WAY SUMMARY

| PARCEL NO. | OWNER(S) | TOTAL AREA OF TRACT | | PERMANENT R/W ACQUIRED | | EASEMENTS | | PORTION REMAINING | | SEWER SYSTEM TYPE | SEWER SYSTEM AFFECTED BY PROJECT | | BUILDINGS ACQUIRED NUMBER | | | | SOURCE OF TITLE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | PERMANENT | TEMPORARY | | | | | | | | | | | |
| | | ACRES | SQ. FT. | ACRES | SQ. FT. | SQ. FT. | SQ. FT. | ACRES | SQ. FT. | | YES | NO | C | R | F | S | | |
| P3 | ILLINOIS CENTRAL RAILROAD | 2.68 | | | | 15043 | 15471 | 2.68 | | | | 5 | | | | | DB 37, PG 363 | Source provided by RR<br>RR Parcel #14 |

TYPE SEWER SYSTEM
5. NOT APPLICABLE

NTS

PREPARED BY Stantec

BRIDGING KENTUCKY

TYP. SECTIONS, COORD. CONTROL, LEGEND
BALTIMORE CHURCH ROAD OVER
ILLINOIS CENTRAL (ICRR) RAILROAD

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| COUNTY OF | ITEM NO. | SHEET # |
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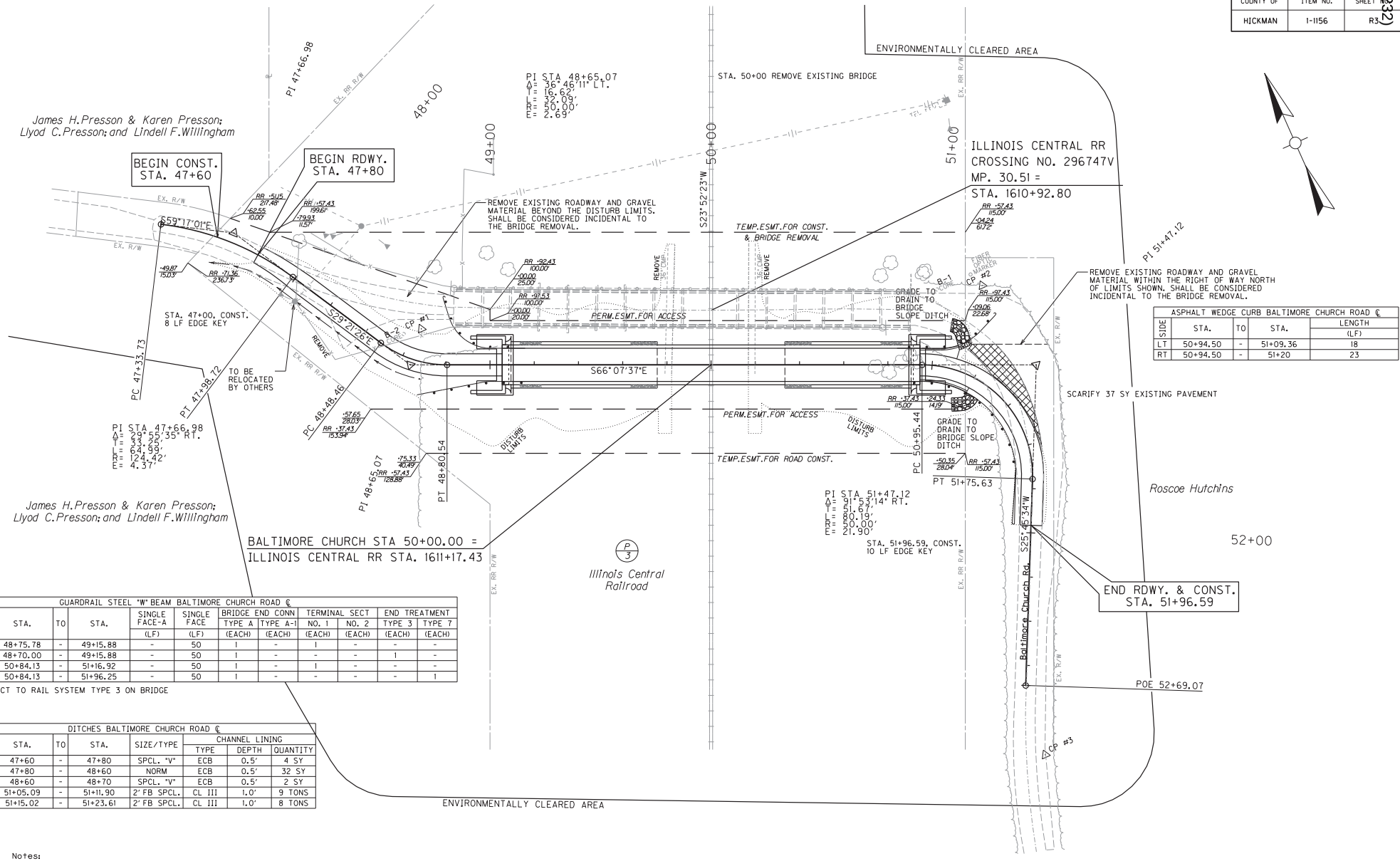
| HICKMAN | 1-1156 | R3 |




| ASPHALT WEDGE CURB BALTIMORE CHURCH ROAD ℄ | | | | |
|---|---|---|---|---|
| SIDE | STA. | TO | STA. | LENGTH (LF) |
| LT | 50+94.50 | - | 51+09.36 | 18 |
| RT | 50+94.50 | - | 51+20 | 23 |

| GUARDRAIL STEEL "W" BEAM BALTIMORE CHURCH ROAD ℄ | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SIDE | STA. | TO | STA. | SINGLE FACE-A (LF) | SINGLE FACE (LF) | BRIDGE END CONN TYPE A (EACH) | BRIDGE END CONN TYPE A-1 (EACH) | TERMINAL SECT NO. 1 (EACH) | TERMINAL SECT NO. 2 (EACH) | END TREATMENT TYPE 3 (EACH) | END TREATMENT TYPE 7 (EACH) |
| LT | 48+75.78 | - | 49+15.88 | - | 50 | 1 | - | 1 | - | - | - |
| RT | 48+70.00 | - | 49+15.88 | - | 50 | 1 | - | - | - | 1 | - |
| LT | 50+84.13 | - | 51+16.92 | - | 50 | 1 | - | 1 | - | - | - |
| RT | 50+84.13 | - | 51+96.25 | - | 50 | 1 | - | - | - | - | 1 |

CONNECT TO RAIL SYSTEM TYPE 3 ON BRIDGE

| DITCHES BALTIMORE CHURCH ROAD ℄ | | | | | | | |
|---|---|---|---|---|---|---|---|
| SIDE | STA. | TO | STA. | SIZE/TYPE | CHANNEL LINING TYPE | DEPTH | QUANTITY |
| RT | 47+60 | - | 47+80 | SPCL. "V" | ECB | 0.5' | 4 SY |
| RT | 47+80 | - | 48+60 | NORM | ECB | 0.5' | 32 SY |
| RT | 48+60 | - | 48+70 | SPCL. "V" | ECB | 0.5' | 2 SY |
| LT | 51+05.09 | - | 51+11.90 | 2' FB SPCL. | CL III | 1.0' | 9 TONS |
| RT | 51+15.02 | - | 51+23.61 | 2' FB SPCL. | CL III | 1.0' | 8 TONS |

Notes:

1. All material that was placed or had fallen into the Railroad R/W shall be removed by the Contractor at the end of the project and the area shall be restored to its preconstruction condition.

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

PREPARED BY Stantec

BRIDGING KENTUCKY

PLAN
BALTIMORE CHURCH ROAD OVER
ILLINOIS CENTRAL (ICRR) RAILROAD

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| COUNTY OF | ITEM NO. | SHEET |
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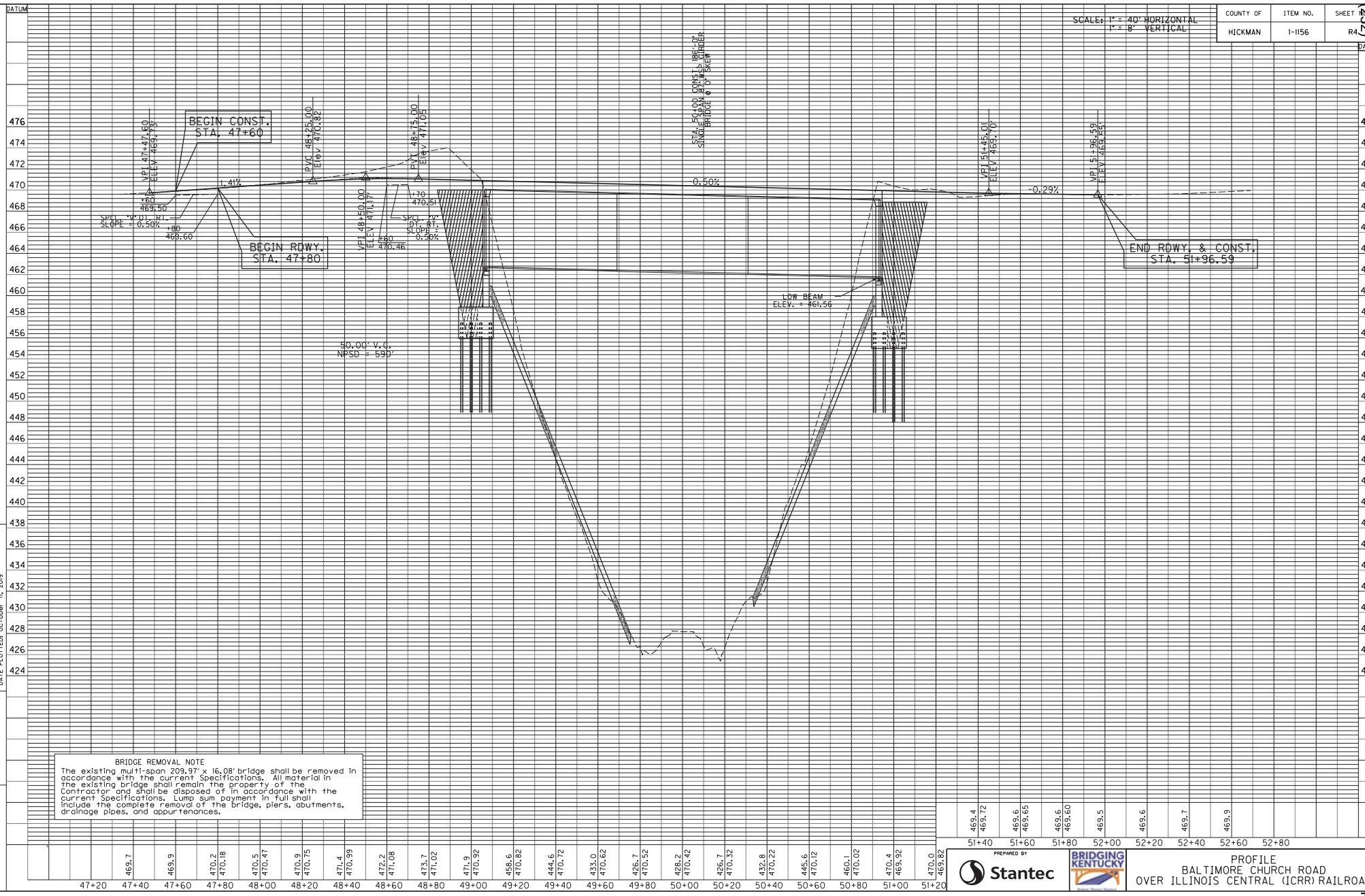
| HICKMAN | 1-1156 | R4 |

SCALE: 1" = 40' HORIZONTAL
1" = 8' VERTICAL




BRIDGE REMOVAL NOTE
The existing multi-span 209.97' x 16.08' bridge shall be removed in accordance with the current Specifications. All material in the existing bridge shall remain the property of the Contractor and shall be disposed of in accordance with the current Specifications. Lump sum payment in full shall include the complete removal of the bridge, piers, abutments, drainage pipes, and appurtenances.

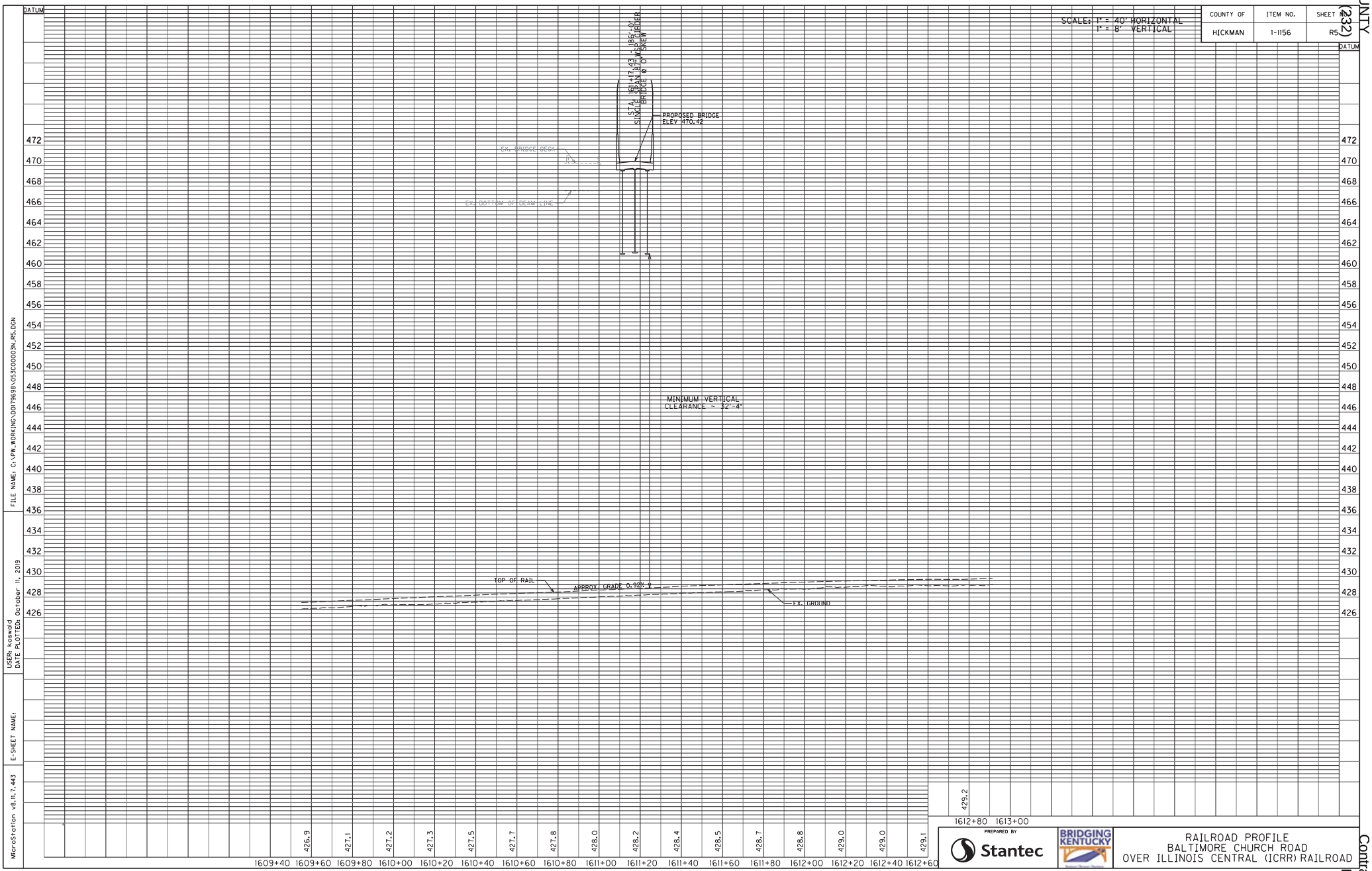
PREPARED BY
Stantec
BRIDGING KENTUCKY

PROFILE
BALTIMORE CHURCH ROAD
OVER ILLINOIS CENTRAL (ICRR) RAILROAD

FILE NAME: C:\PW_WORKING\D0179698\D53C00003N_R4.DGN
USER: kaswald
DATE PLOTTED: October 11, 2019
E-SHEET NAME:
MicroStation v8.11.7.443

| COUNTY OF | ITEM NO. | SHEET |
|---|---|---|
| HICKMAN | 1-1156 | R5 |

SCALE: 1" = 40' HORIZONTAL
1" = 8' VERTICAL




PREPARED BY
Stantec

BRIDGING KENTUCKY

RAILROAD PROFILE
BALTIMORE CHURCH ROAD
OVER ILLINOIS CENTRAL (ICRR) RAILROAD

FILE NAME: C:\PW_WORKING\D0179698\D53C00003N_R5.DGN
USER: kaswold
DATE PLOTTED: October 11, 2019
E-SHEET NAME:
MicroStation v8.11.7.443

# General Notes

Specifications: References to the specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction including any current supplemental specifications. All references to the AASHTO specifications are to the AASHTO LRFD Bridge Design Specifications, 8th edition with interims.

Design Load: This bridge is designed for KYHL-93 live load, (i.e. 1.25xAASHTO HL93 live load). This bridge is designed for a future wearing surface of 15 psf.

Design Method: All reinforced concrete members are designed to be equivalent or greater than the load and resistance factor design method as specified in the current AASHTO Specifications.

Materials Design Specifications:

| | |
|---|---|
| For Class "A" Reinforced Concrete | f'c = 3500 psi |
| For Class "AA" Reinforced Concrete | f'c = 4000 psi |
| For Steel Reinforcement | fy = 60000 psi |
| For Steel Piling (All Substructures) | fy = 50000 psi |
| AASHTO M270 Grade 36 Armored Edge | fy = 36000 psi |

Material Specifications: AASHTO Specifications or ASTM, current edition, as designated below shall govern the materials furnished.

| | |
|---|---|
| AASHTO M153 | Premolded Cork Filler, Type II |
| AASHTO M-31 | Deformed and Plain Billet-Steel for Concrete Reinforcement, Grade 60 |

Preformed Cork Expansion Joint Material: Preformed Cork Expansion Joint Material shall conform to subsection 807.04.02 (Type II) of the Kentucky Department of Highways Standard Specifications.

Concrete: Class "AA" Concrete is to be used throughout the superstructure and in the portions of the substructure above the tops of caps. Class "A" concrete is to be used in the substructure below the caps.

Reinforcement: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Any reinforcing bars designated by suffix "e" in the plans shall be epoxy coated in accordance with section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix "s" in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

Construction Identification: The names of the Prime Contractor and the Sub-Contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

Beveled Edges: All exposed edges shall be beveled ¾", unless otherwise shown.

Payment for Structural Steel: The lump sum bid for Structural Steel will be full payment for all Structural Steel, Fasteners, Welding, Welding Materials, Deck Drains, Inspection Access, and all Labor and Materials necessary to erect the bridge in accordance with the plans and specifications.

Slope Protection: Slope Protection at abutments shall be crushed aggregate in accordance with the plans and specifications. Geotextile Fabric, Class 1, shall be placed between the embankment and the slope protection in accordance with Standard Specifications 214 and 843. Payment for Geotextile Fabric, Class 1, shall be considered incidental to the unit price bid for Crushed Aggregate Slope Protection.

Completion of the Structure: The contractor is required to complete the structure in accordance with the plans and specifications. Material, labor, or construction operations not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include cofferdams, shoring, excavations, backfilling, removal of all or parts of existing structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

Shop Drawings: The fabricator shall submit all required shop plans, by email to SHOP_XXXXxxxxxN@docs.e-Builder.net, for review. These submissions shall depict the shop plans in .PDF format, as either 11"x17" or 22"x36" sheets. Designers will make review comments on these electronic submissions as needed and, if required, shall return them to the fabricator for corrections and resubmittal. Upon acceptable reconciliation of all comments, files shall be sent to the Bridging Kentucky Shop Plan Coordinator for distribution. Only plans submitted directly to the Shop Plan Coordinator will be distributed. Additionally, only plans electronically stamped "Distributed by The Bridging Kentucky Program Team" are to be used for fabrication. While this process does not require the submission of paper copies, the Engineer of Record reserves the right to require such copies on a case by case basis.
When any changes to the design plans are proposed, the shop drawings reflecting these changes shall be submitted through the process above.

Note: The designation in the email XXXXxxxxxN refers to the Bridge ID number which is located on the Title Sheet, RI of the Bridge Plans. Example: SHOP_042B00191N@docs.e-Builder.net

Utilities: The contractor shall be responsible for locating any and all existing utilities prior to excavation of material or installation of guardrail or other construction activities that may involve utilities (overhead or underground).

Verifying Field Conditions: The contractor shall field verify all dimensions before ordering material. New material that is unsuitable because of variations in the existing structure shall be replaced at the contractor's expense.

Dimensions: Dimensions are for a normal temperature of 60 degrees fahrenheit. Layout dimensions are horizontal dimensions.

Superstructure Slab: The superstructure slab shall be poured continuously from end to end of slab before the concrete is allowed to set.

Mastic Tape: Mastic Tape used to seal joints is to meet the requirements of ASTM C-877 Type I, II, or III. The joint is to be covered with 12" wide mastic tape. Prior to application, the joint surface shall be clean and free of dirt, debris, or deleterious material. Primer, if required by the tape manufacturer, shall be applied for a minimum width of 9" on each side of the joint.

Mastic Tape shall be either:

EZ-Wrap Rubber by Press-seal Casket Corporation,
Seal Wrap by Mar Mac Manufacturing Co. Inc.,
Cadilloc by The UP Rubber Co. Inc.
or approved equal.

Mastic Tape shall cover the joint continuously unless otherwise shown in the plans. Mastic Tape shall be spliced by taping a minimum of 6" and in accordance with the manufacturer's recommendations with the overlap running downhill.

The cost of labor, materials, and incidental items for furnishing and installing Mastic Tape shall be considered incidental to the unit price bid for concrete class 'AA' and no separate measurement of payment shall be made.

Temporary Supports: Temporary Supports or shoring will not be permitted under the beams when pouring the concrete deck slab or when taking "top of beam" elevations.

Armored Edge: Fabricate armored edge to match cross slope and parabolic crown at each end of bridge.

Stay-In-Place Metal Forms: Stay-In-Place Metal Forms may be used on bridge decks under the following additional conditions:

The valleys of forms shall be filled with trimmed styrofoam to eliminate increased dead load from concrete.

The welding shall be performed by a certified welder.

Elastomeric Bearing Pads: Elastomeric Bearing Pads shall conform to the AASHTO Standard Specifications for Highway Bridges, Division II, Section 18.

Bearings shall be Low Temperature Grade 3 with a shear modulus between 95 psi and 130 psi and shall be subjected to the load testing requirements corresponding to Design Method B.

Foundation Preparation: Foundation Preparation shall be in accordance with Section 603 of the Specifications.

Foundation excavations should be properly braced/shored to provide adequate safety to persons working in or around excavations. Bracing should be performed in accordance with applicable federal, state and local guidelines.

Temporary shoring, sheeting, cofferdams, and/or dewatering methods may be required to facilitate foundation construction. It should be anticipated that groundwater will be encountered at foundation locations within the flood plain.

Temporary shoring, bracing, sheeting, cofferdams and dewatering shall be included in the Lump Sum Bid for Foundation Preparation.

Structural Granular Backfill: Materials for Structural Granular Backfill shall be in accordance with Section 805 of the Specifications.

Contrary to the Specifications, Structural Granular Backfill will not be measured for payment but shall be included in the Lump Sum Bid for Foundation Preparation.

Concrete Sealer:
Apply concrete sealer in accordance with the Special Note for Concrete Sealing.

Piling: Piling shall be driven to the required nominal pile resistance as defined on the pile record sheet.

Test piles shall be driven where designated on the plans to determine the length of pile required.

All test piles shall be accurately located so that they may be used in the finished structure.

Contrary to the standard drawings for steel piling, mill test reports are not required to be notarized.

| REVISION | DATE |
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| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: D. Basham | R. Catron |

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**

COUNTY: **HICKMAN**

| ROUTE | CROSSING |
|---|---|
| BC Rd | IC (ICRR) RAILROAD |

***GENERAL NOTES***

| ITEM NUMBER | PREPARED BY | | SHEET NO. |
|---|---|---|---|
| 1-1156 | Stantec | BRIDGING KENTUCKY | S1 |
| | | | DRAWING NO. 28154 |

FILE NAME: ...\S01_General Notes_Hickman.dgn
USER: agrace
DATE PLOTTED: 10/9/2019 2:30:33 PM
E-SHEET NAME:
MicroStation v8.11.9.832

# General Notes

Material Specifications: AASHTO Specifications or ASTM, current edition, as designated below shall govern the materials furnished.

| Material: | AASHTO or ASTM Specifications: |
|---|---|
| High Strength Bolts, Nuts & Washers | F3125, Grade A325, Type 3 |
| Structural Steel | M270, Grade 50W |
| Shear Stud Connectors | M169, A108 G1015 |

The flange and web material, including splice plates, in longitudinal plate girders and all shapes and plates in cross-frames and diaphragms, shall meet the Longitudinal Charpy V-Notch Toughness Test applicable to Zone 2 in accordance with the following:

Grade 50W - (Up to 2 inches thickness) 15 ft-lbs at 40 degrees F
Grade 50W - (Over 2 inches thickness) 20 ft-lbs at 40 degrees F

Sampling and testing procedures shall be in accordance with AASHTO T243, current edition.

Shear Stud Connectors: The "Lump Sum Bid" for Shear Connectors shall be full payment for all shear connectors, welding and welding material, and materials necessary to field weld the shear connectors in place according to the plans and specifications.

Shear stud connectors shall extend at least 2 inches above the bottom of slab. Studs shall be welded in accordance with AWS Specifications.

Camber: Web plates shall be cut to provide for the camber of the girder. Provide for possible warpage due to extra heat in top flange by virtue of shear connectors. Girders which do not conform to plan camber and grade in the erected position shall be considered as requiring either an adjustment in depth of the concrete slab haunch over the steel supporting members or a reworking of the girder camber to meet the plan grade and slab thickness. However, in no case shall the shear connectors be allowed to penetrate the slab less than 2 inches.

High Strength Bolt Connections: Ensure all bolted connections are ASTM A325, 1" Diameter High Strength Bolts, Nuts, and Washers. Diameter of open holes are $1\frac{1}{16}$" Ø. All high strength bolted field connections are to be installed using "Direct Tension Indicators" (DTI's) in accordance with the standard specifications and ASTM F959. Installation details of the DTI's shall be shown on the Shop Plans.

Prohibited Field Welding: Except as shown on the plans, no welding of any nature shall be performed on the load carrying members of the bridge without the written consent of the bridge designer, and then only in the manner and at the locations designated in the authorization.

Welding Specifications: All welding and welding materials shall conform to the joint specification ANSI/AASHTO/AWS D1.5 Bridge Welding Code, Current Edition.

Welding Procedure: Qualification tests of all welding procedures shall be completed by the Contractor and approved by the Engineer prior to the final approval of the shop drawings, welding procedures, and start of the fabrication.

Mill Test Reports: Notarized mill test reports shall be furnished in triplicate to the Engineer showing that all material used in the structural steel conforms to the requirements of the specifications

Identification Marking of Steel Members: Steel Mill and Fabricator identification markings for steel plates, shapes, or fabricated members shall be by metal tags, soapstone, or some other readily removable material, or shall be marked in an area of the completed member which will be encased or covered with concrete. Marking methods and locations are subject to the approval of the Engineer.

Paint or wax based crayons shall not be used for marking.

Handling and Storing Steel Members: Steel members must not be gouged, scratched, dented, or allowed to rub against other members which would result in damage to the steel. Members shall be handled using softeners and slings instead of chokers and chains.

Members shall be stored in the fabrication shop or on the project site in such a manner as to be kept free and clean of all foreign substances such as grease, oil, mortar and concrete splatter, chalk and crayon marks, paint, and dirt. All storage must be above ground and sloped to allow free drainage of melted snow, rainwater, and dew.

If stored for periods longer than 3 months, the members must be placed on metal supports. For periods of storage up to 3 months, members may be placed on clean, untreated, wood timbers.

Plate girders shall be stored with the web in the upright position. Members may be stacked, provided metal supports seperate individual members, but shall not be nested together or bundled.

Treated lumber or timber shall not be allowed to come in contact with steel members.

Final Cleanup of Structural Steel Surfaces: Upon completion of all concrete curing operations, the Contractor shall clean all steel surfaces to remove all grease, oil, and concrete residue, dirt, and other foreign substances to the satisfaction of the Engineer.

Cleaning may be high pressure water, power or hand wire brushing, or by brush-off blast cleaning in accordance with SSPC-SP7. If detergents and cleaners are used, the cleaning shall be followed by a clean water rinse to remove all residues. All grease oil shall be removed prior to the clean water rinse by solvent cleaning.

The use of acid to remove stains is not permitted.

Right of Entry License Agreement: The contractor will be required to enter into the standard Right of Entry License Agreement with the Railroad.

Railroad Access: The contractor will need to arrange for a cable locate with the Railroad for Railroad Signal Cables. Railroad is not part of 811 call.

Any shoring adjacent to the track required during construction shall be designed for Cooper E90 loading.

Railroad flagman will be required during any operations on the Railroad right of way or if equipment being used can have the potential to foul the tracks.

Substructure Protection: The Contractor shall protect the Substructure from staining during construction. Any concrete staining will be removed prior to applying any concrete sealer.

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| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: R. Catron | D. Woods |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

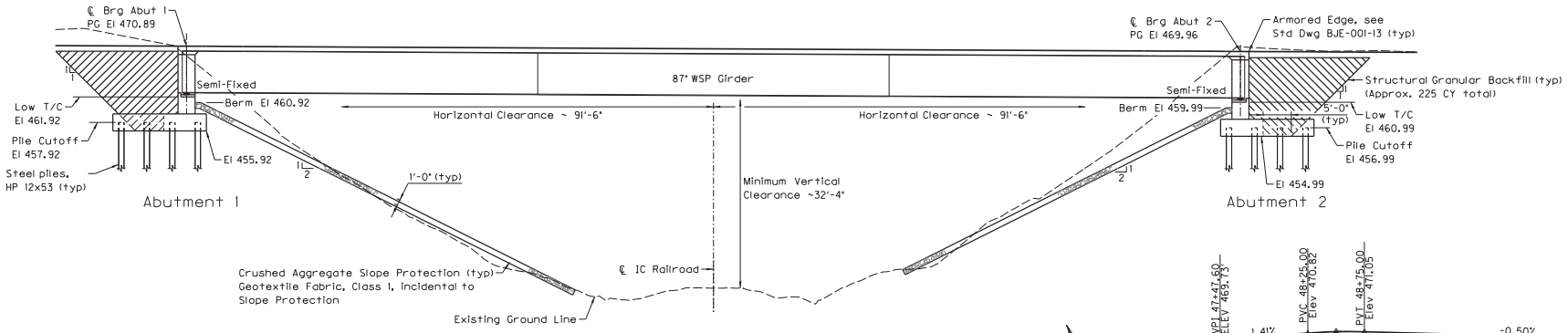
COUNTY: HICKMAN

| ROUTE | CROSSING |
|---|---|
| BC Rd | IC (ICRR) RAILROAD |

GENERAL NOTES

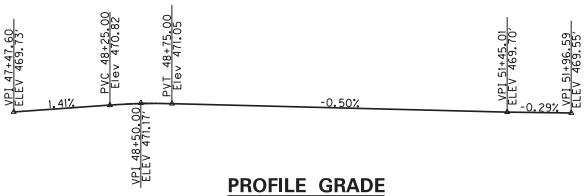
| ITEM NUMBER | PREPARED BY | | SHEET NO. |
|---|---|---|---|
| 1-1156 | Stantec | BRIDGING KENTUCKY | S2 |
| | | | DRAWING NO. 28154 |

USER: dgrace
DATE PLOTTED: 10/9/2019 2:37:05 PM
FILE NAME: ...\S02_Bridge Notes_Hickman
E-SHEET NAME:
MicroStation v8.11.9.832

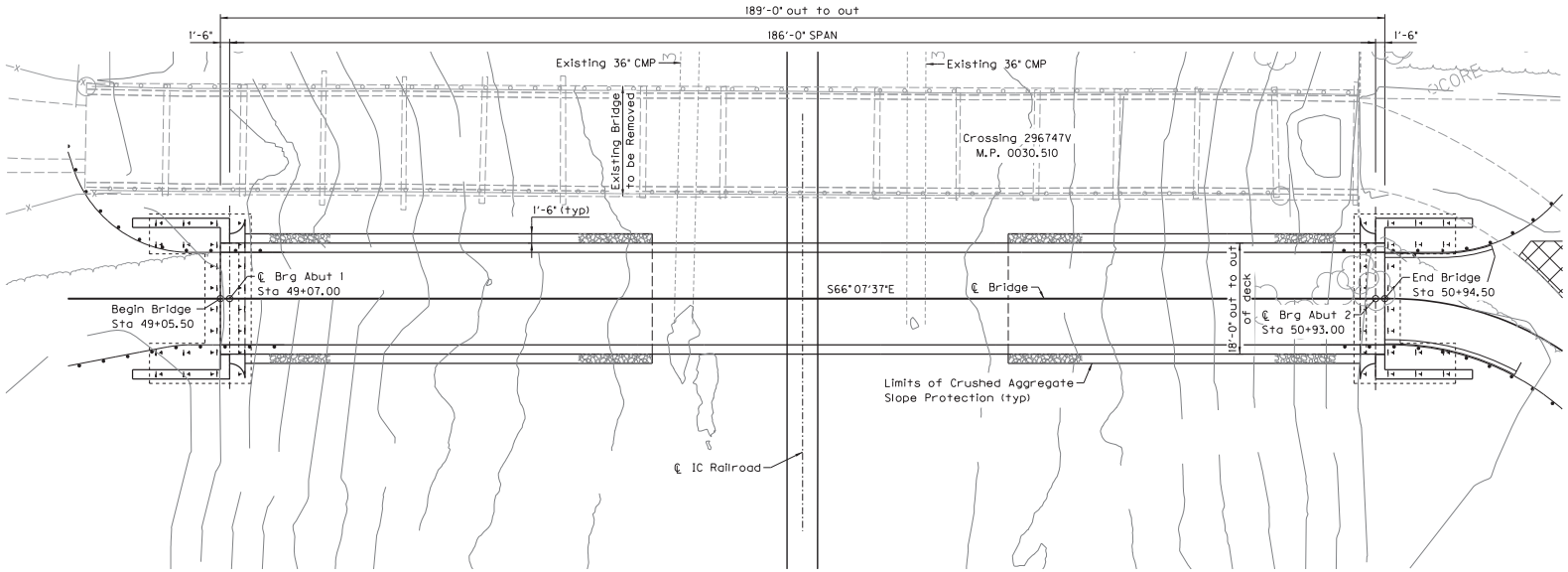



## PROFILE

186'-0" single span 87" WSP Girder
HL-93 (+25%) Live Load
0° Skew ~ 15'-0" Bridge Roadway Width




## PROFILE GRADE




## PLAN

| REVISION | DATE |
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| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: D. Basham | R. Catron |

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**

COUNTY: **HICKMAN**

ROUTE: **BC Rd** | CROSSING: **IC (ICRR) RAILROAD**

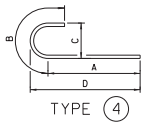
***LAYOUT***

| ITEM NUMBER | PREPARED BY | SHEET NO. |
|---|---|---|
| 1-1156 | Stantec | S3 |
| | BRIDGING KENTUCKY | DRAWING NO. 28154 |

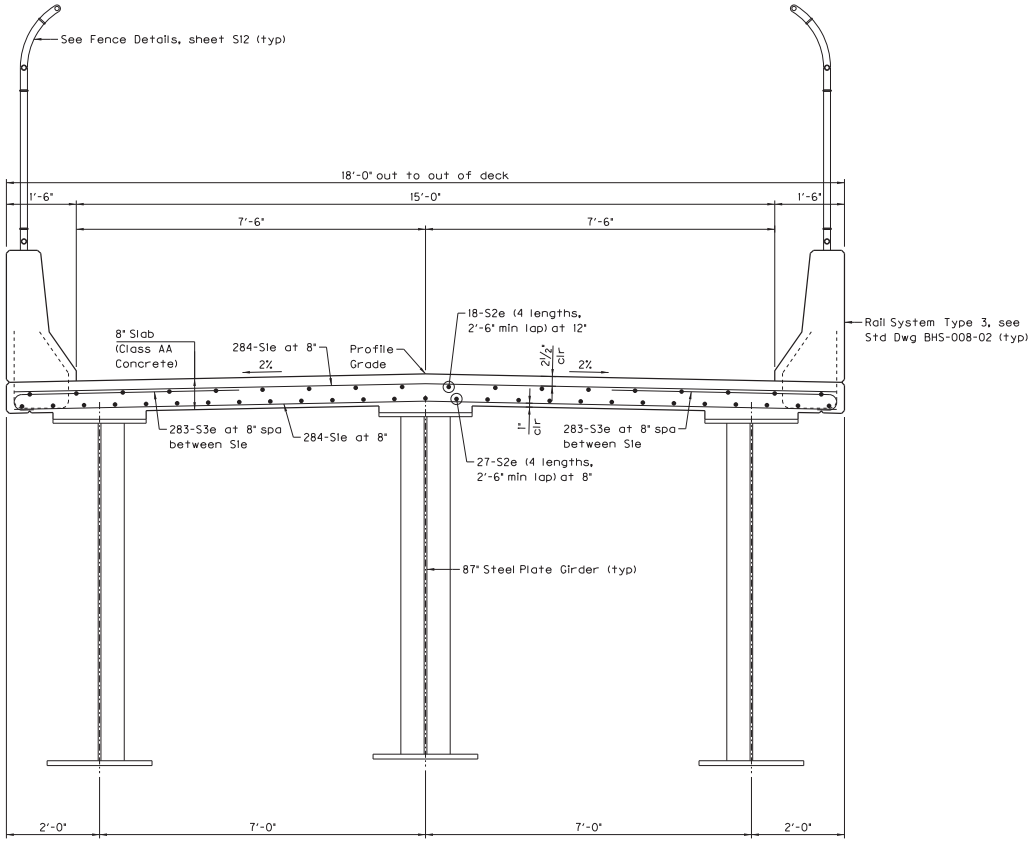
FILE NAME: ...\Drawing\S03_Layout_Hickman
USER: dgrace
DATE PLOTTED: 10/10/2019 3:04:01 PM
E-SHEET NAME:
MicroStation v8.11.9.832

## BILL OF REINFORCEMENT

| MARK | TYPE | SIZE | NUMBER | LENGTH FT. | LENGTH IN. | LOCATION | A FT. | A IN. | B FT. | B IN. | C FT. | C IN. | D FT. | D IN. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S1e | Str | 6 | 568 | 17 | 8 | Transv | | | | | | | | |
| S2e | Str | 5 | 180 | 49 | 2 | Long | | | | | | | | |
| S3e | 4 | 4 | 566 | 5 | 5 | Drop-in | 4 | 8 | 0 | 9 | 0 | 4 | 4 | 10 |



TYPE (4)




**TYPICAL SECTION**

| REVISION | DATE |
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| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: D. Basham | R. Catron |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

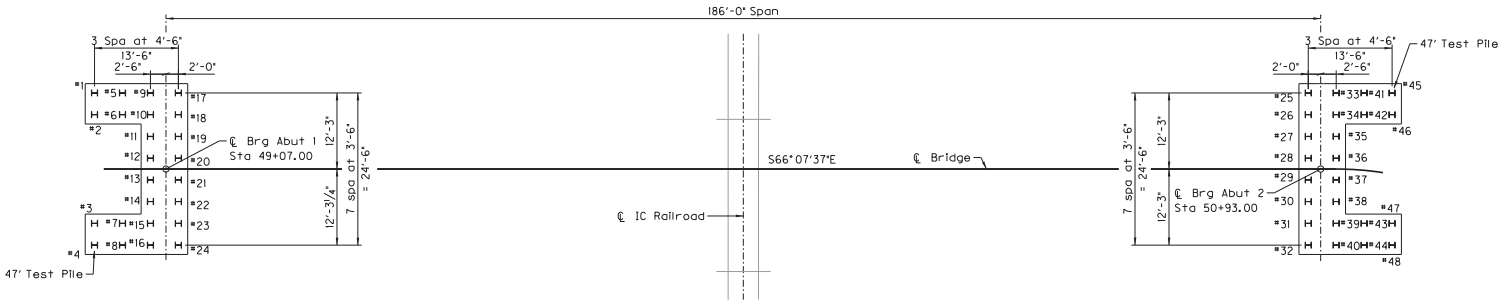
COUNTY: HICKMAN

ROUTE: BC Rd

CROSSING: IC (ICRR) RAILROAD

*TYPICAL SECTION*

| ITEM NUMBER | PREPARED BY | | SHEET NO. |
|---|---|---|---|
| 1-1156 | Stantec | BRIDGING KENTUCKY | S4 |
| | | | DRAWING NO. 28154 |




## PILE LAYOUT

## PILE RECORD FOR FRICTION PILES USING FHWA MODIFIED GATES METHOD

| Pile No. | Project Hammer Number | Pile Cut-off Elevation | Pile Length In Place | Estimated Pile Tip Elevation | Highest Allowable Pile Tip Elevation | Pile Tip Elevation As Driven | Design Factored Axial Load | | Required Nominal Axial Resistance | | Hammer Fuel Setting at EOD | Actual at EOD (Last 10 Blows) | | | | | *Calculated Nominal Axial Resistance (Rn) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Set | Actual No. of Blows | Blow Count (N) | Hammer Stroke (H) | Developed Hammer Energy (E) | |
| | | FEET | FEET | FEET | FEET | FEET | KIPS | TONS | KIPS | TONS | | INCH | | BLOWS PER INCH | FEET | FT-LBS | TONS |
| **ABUTMENT 1** | | | | | | | | | | | | | | | | | |
| 1 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 2 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 3 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 4 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 5 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 6 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 7 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 8 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 9 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 10 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 11 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 12 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 13 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 14 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 15 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 16 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 17 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 18 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 19 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 20 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 21 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 22 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 23 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 24 | | 457.92 | | 415.92 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| **ABUTMENT 2** | | | | | | | | | | | | | | | | | |
| 25 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 26 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 27 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 28 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
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| 32 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
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| 43 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 44 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 45 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 46 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 47 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |
| 48 | | 456.99 | | 414.99 | | | 91.0 | 45.5 | 228 | 114 | | | | | | | |

* The Modified Gates Formula is only applicable at the End of Drive (EOD) and may not be applied at Beginning of Restrike (BOR).

## Definitions of Terms

PILE CUT-OFF ELEVATION: Elevation of the top of pile in the finished structure.

PILE LENGTH IN PLACE: Actual pile length below the Pile Cut-Off Elevation in the finished structure.

PILE TIP ELEVATION AS DRIVEN: Actual Pile Tip elevation in the finished structure.

DESIGN FACTORED AXIAL LOAD: The design factored strength loads as estimated from structural design calculations.

REQUIRED NOMINAL AXIAL RESISTANCE: The total geotechnical axial resistance required by the pile to satisfy applicable design requirements. This is arrived at by dividing the Design Factored Axial Load by the resistance factor, $\phi = 0.40$, plus any other applicable considerations such as scour, embankment layers, etc. Note that dynamic formulas, including the FHWA Modified Gates Formula, should not be used when the required nominal axial resistance exceeds 600 kips.

END OF DRIVING (EOD): When the pile was driven to tip elevation.

HAMMER STROKE (H): The length of the free-fall of the ram for a gravity, diesel or single-acting steam or compressed air hammer.

DEVELOPED HAMMER ENERGY (E): This is the energy of the ram impact for a given blow. If a direct energy reading is not taken, "E" can be assumed to be the ram weight (in pounds) times the hammer stroke (in feet). (E=WH) ft-lbs.

SET: Amount of downward veritical displacement in the pile over the last 10 blows.

BLOW COUNT (N): Number of hammer blows per inch at the end of initial driving to be taken as 10 blows divided by the Set in inches.

FHWA MODIFIED GATES FORMULA: Calculated Nominal Pile Resistance $Rn = 0.875\ E \log (10N) - 50$ Resulting value is in tons. The Modified Gates Formula is only applicable at the End of Drive (EOD) and may not be applied at Beginning of Restrike (BOR).

## Driving Criteria

Drive piles until the Calculated Nominal Pile Resistance (Rn) is equal to the Required Nominal Pile Resistance at End of Driving (EOD).

Hammer fuel setting shall be adjusted so that the blow count at the end of driving ranges from 3 to 10 blows per inch.

If the Calculated Nominal Pile Resistance (Rn) is achieved at an elevation higher than the Highest Allowable Pile Tip Elevation, continue driving until the Highest Allowable Pile Tip Elevation is reached. If the pile cannot be advanced to the Minimum Point of Pile Elevation or if the pile is being driven "significantly" past the Estimated Pile Tip Elevation, consult the Central Office Division of Construction.

A single acting diesel hammer with a rated energies of 20.0 foot-kips to 40.6 foot-kips is recommended to adequately drive the piles without encountering excessive blow counts or overstressing the piles. The use of hammers other than single acting diesel may require different rated energies. The Contractor shall submit the proposed pile driving system to the Engineer for approval prior to the installation of the first pile. Approval of the pile driving system by the Engineer will be subject to satisfactory field performance of the pile driving procedure.

| Project Hammer Number | Hammer Manufacturer and Model | Weight of Ram W Lbs. | Maximum Rated Energy Ft-Lbs |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

## Field Data

For each pile, the Project Engineer shall record all applicable data in the Pile Record for Friction Piles Sheet.

Submit this record to:

Kentucky Transportation Cabinet
Director, Division of Structural Design
3rd Floor East
200 Mero Street
Frankfort, KY 40622

This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 12x53 in accordance with BPS-003, c.e.

| REVISION | DATE |
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|---|---|
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: S. Parsons | R. Catron |

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**

COUNTY: **HICKMAN**

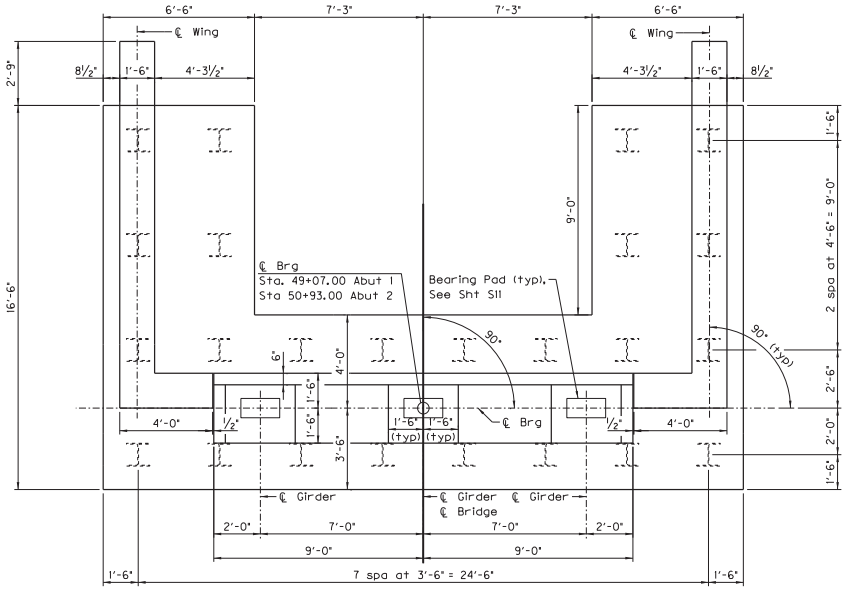
ROUTE: **BC RD** | CROSSING: **IC (ICRR) RAILROAD**

***PILE RECORD***

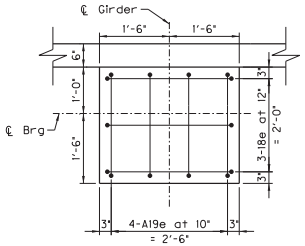
| ITEM NUMBER | PREPARED BY | SHEET NO. | DRAWING NO. |
|---|---|---|---|
| 1-1156 | Stantec | 55 | 28154 |

BRIDGING KENTUCKY

FILE NAME: ...\S05_PileRecord_Hickman_BC_Rd.dgn
USER: dgrace
DATE PLOTTED: 10/11/2019 1:07:34 PM
E-SHEET NAME:
MicroStation v8.11.9.832




**PLAN**




**DETAIL "A"**

(Plan view of pedestal)

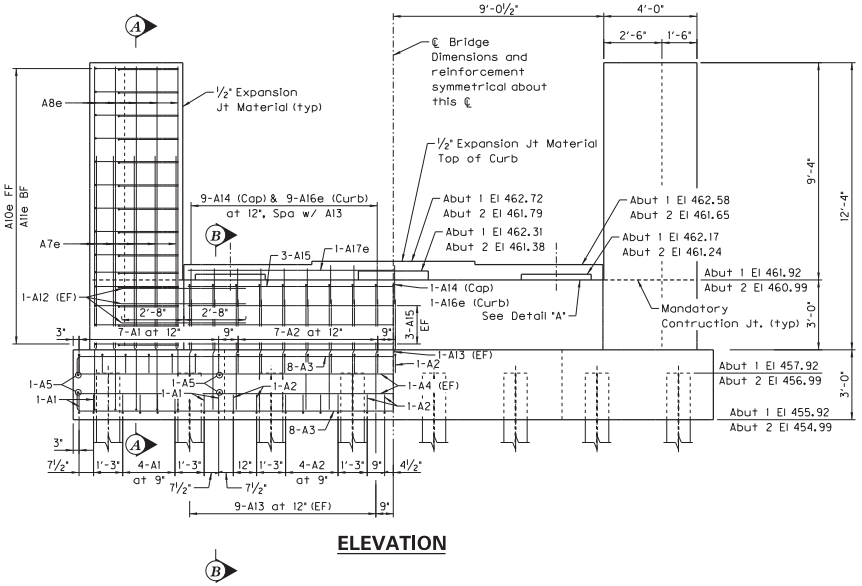
Note:

Elevations given at ℄ Brg.

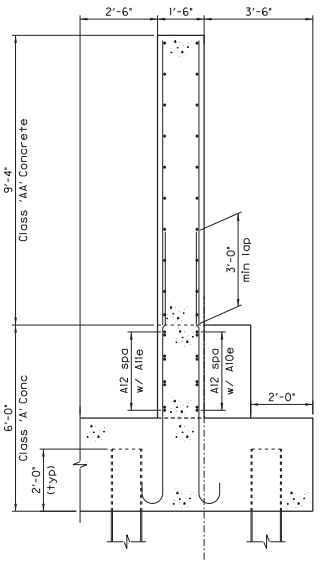
Slope top of cap 1" to promote drainage. Top of pedestals shall be level.

Use 2" minimum clearance for all reinforcement unless otherwise noted.

See Sht S7 for Wing Details and Bill of Reinforcement.

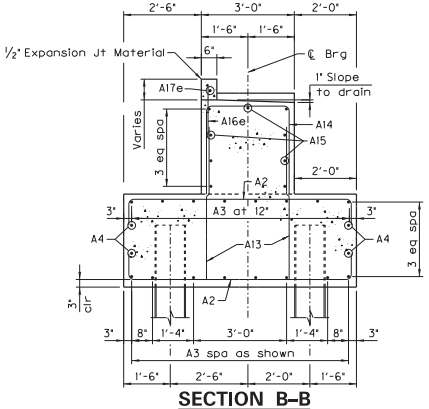



**ELEVATION**




**SECTION A–A**

Note:
See Section B-B for footing reinforcement. See Sht S7 for wing reinforcement




**SECTION B–B**

| | |
|---|---|
| REVISION | DATE |
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: S. Parsons | R. Catron |

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**

COUNTY: **HICKMAN**

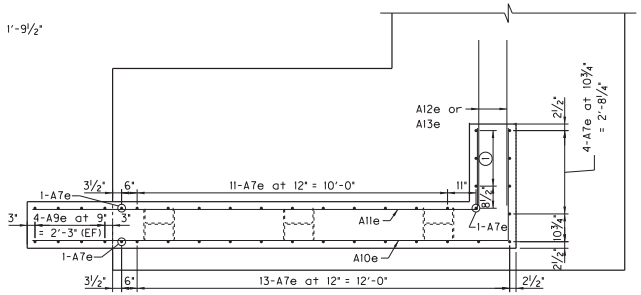
ROUTE: **BC RD** | CROSSING: **IC (ICRR) RAILROAD**

***ABUTMENTS***

| ITEM NUMBER | PREPARED BY | SHEET NO. |
|---|---|---|
| 1–1156 | Stantec | S6 |
| | BRIDGING KENTUCKY | DRAWING NO. 28154 |

Notation:

① 3-A7E at 10¾" = 1'-9½"

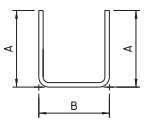



## SECTION D–D

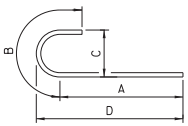
(A8e bars not shown for clarity, See Elevation for Spacing)

## BILL OF REINFORCEMENT

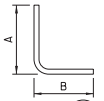
| MARK | TYPE | SIZE | NUMBER | LENGTH FT. | LENGTH IN. | LOCATION | A FT. | A IN. | B FT. | B IN. | C FT. | C IN. | D FT. | D IN. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A1 | 2 | 5 | 30 | 17 | 10 | Footing | 0 | 10 | 16 | 2 | | | | |
| A2 | 2 | 5 | 32 | 8 | 10 | Footing | 0 | 10 | 7 | 2 | | | | |
| A3 | 2 | 5 | 16 | 28 | 10 | Footing | 0 | 10 | 27 | 2 | | | | |
| A4 | Str | 5 | 4 | 27 | 2 | Footing | | | | | | | | |
| A5 | Str | 5 | 8 | 16 | 2 | Footing | | | | | | | | |
| A6 | 2 | 5 | 36 | 7 | 10 | Footing | 0 | 10 | 6 | 2 | | | | |
| A7e | 4 | 8 | 68 | 9 | 5 | Footing,Wing | 8 | 0 | 1 | 5 | 0 | 8 | 8 | 4 |
| A8e | Str | 8 | 68 | 12 | 1 | Wing | | | | | | | | |
| A9e | Str | 8 | 16 | 12 | 0 | Wing | | | | | | | | |
| A10e | 5 | 5 | 28 | 18 | 11 | Wing | 15 | 4 | 3 | 7 | | | | |
| A11e | 5 | 5 | 28 | 16 | 11 | Wing | 14 | 4 | 2 | 7 | | | | |
| A12e | Str | 5 | 12 | 5 | 4 | Wing,Cap | | | | | | | | |
| A13 | Str | 5 | 38 | 5 | 7 | Footing,Cap | | | | | | | | |
| A14 | 2 | 5 | 19 | 8 | 0 | Cap | 2 | 8 | 2 | 8 | | | | |
| A15 | Str | 5 | 9 | 17 | 8 | Cap | | | | | | | | |
| A16e | Str | 5 | 19 | 2 | 6 | Curb | | | | | | | | |
| A17e | Str | 5 | 1 | 17 | 8 | Curb | | | | | | | | |
| A18e | 2 | 5 | 9 | 6 | 0 | Pedestal | 1 | 8 | 2 | 8 | | | | |
| A19e | 2 | 5 | 12 | 5 | 6 | Pedestal | 1 | 8 | 2 | 2 | | | | |



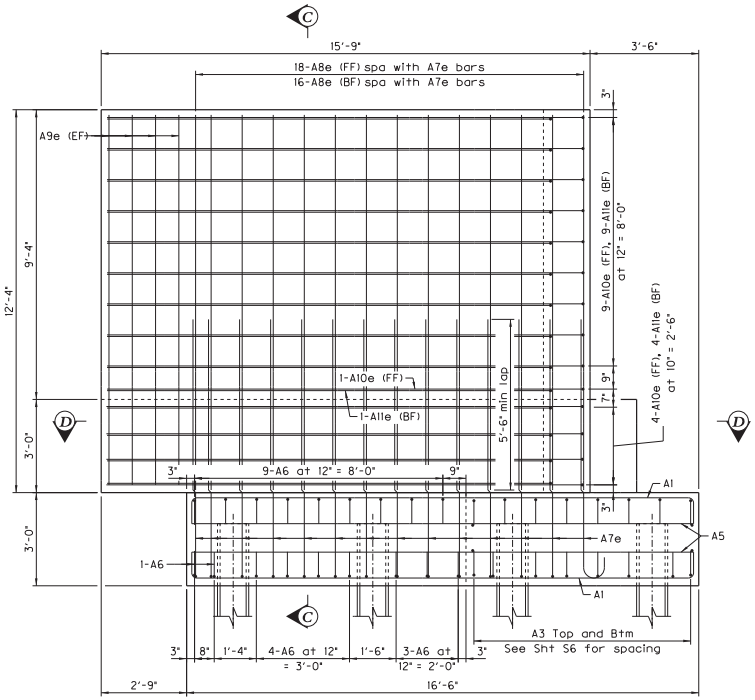

TYPE (2)



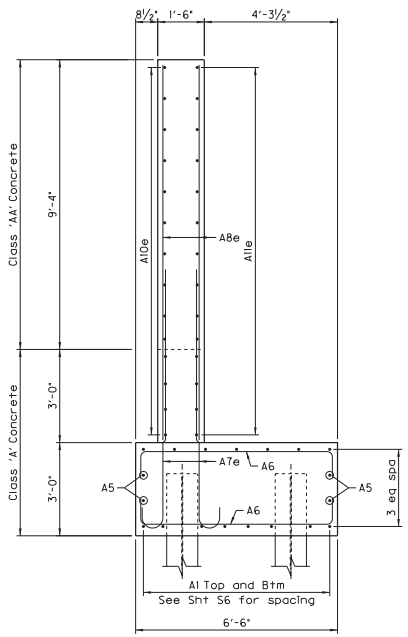

TYPE (4)




TYPE (5)




## WING ELEVATION




## SECTION C–C

| REVISION | DATE |
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|---|---|
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: R. Catron | D. Woods |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: HICKMAN

ROUTE: BC RD

CROSSING: IC (ICRR) RAILROAD

***ABUTMENTS***

| ITEM NUMBER |
|---|
| 1–1156 |

PREPARED BY: Stantec

BRIDGING KENTUCKY

SHEET NO. S7

DRAWING NO. 28154

USER: dgrace
DATE PLOTTED: 10/10/2019 5:54:02 PM
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E-SHEET NAME:
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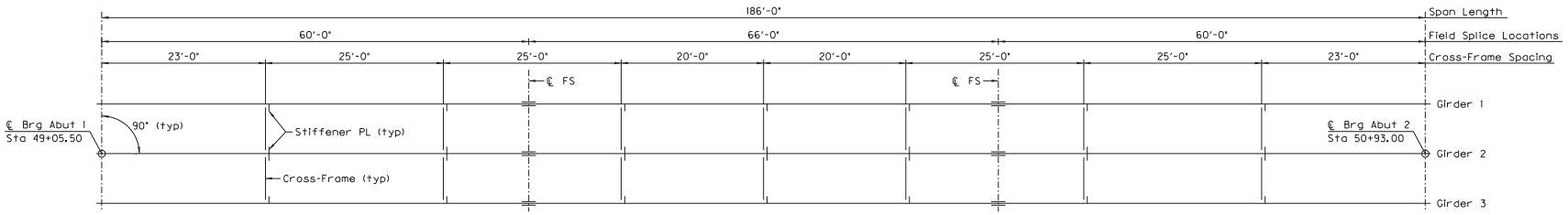
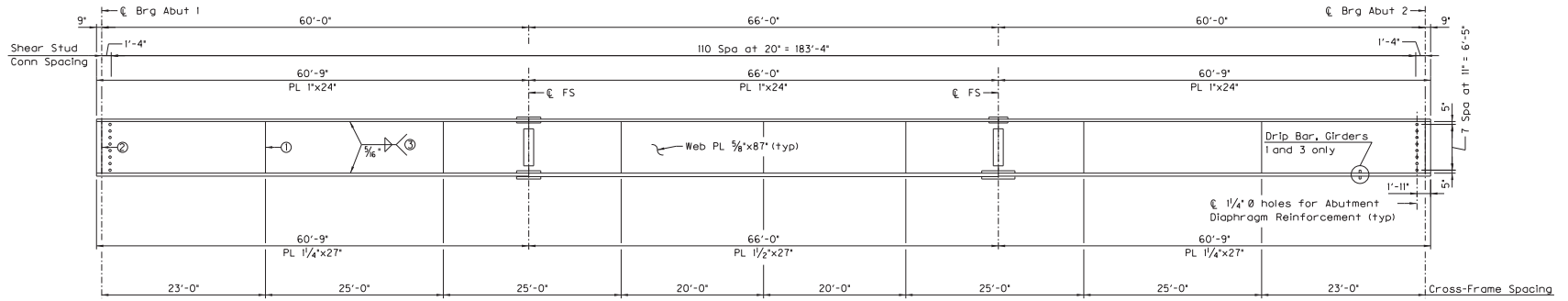



## FRAMING PLAN



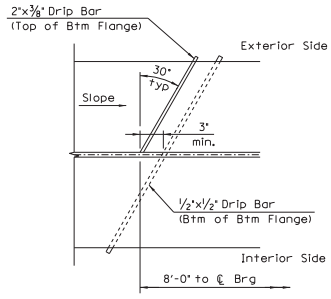

## GIRDER ELEVATION

Notations:

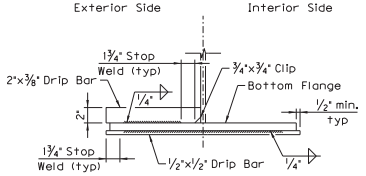
① PL 6"x½" Transverse Stiffener (typ). Interior side of web for Girders 1 and 3. Both sides of web for Girder 2

② PL 10"x⅞" Bearing Stiffener each side of web (typ)

③ Single pass, submerged arc fillet weld in the flat position. Parts to be assembled with the edge of web plate tight against flange before welding.

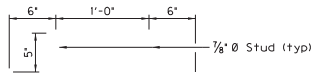



Plan




Section A-A

## DRIP BAR DETAILS




## SHEAR STUD DETAILS

Use ⅞" Ø Granular or Solid Flux Filled Head studs. Automatically end weld.

Do not install shear studs on flange splice plates. Reduce spacing of those adjacent to the splice plates to 6" and provide the same total number shown in the girder elevation.

Note:

All steel to be M270 Grade 50W unless otherwise noted.

Dimensions shown are horizontal along ℄ Girder Web.

End of girders and bearing stiffeners are to be vertical at full dead load at 60 degrees F. All intermediate cross-frame connection plates shall be normal to the flanges.

All flange and web material, including splice plates, and all shapes and plates in cross-frames and diaphragms shall meet the Longitudinal Charpy V-Notch Toughness Test applicable to Zone 2. See General Notes.

For Field Splice, Cross-Frame, and Stiffener Details, see Sheet S9.

| REVISION | DATE |
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| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: S. Parsons | R. Catron |

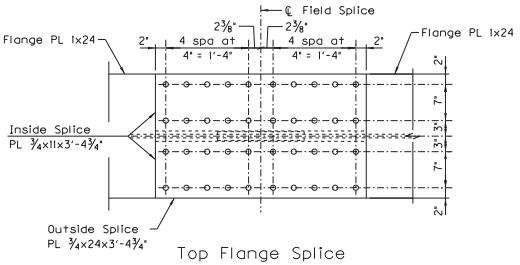
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: HICKMAN

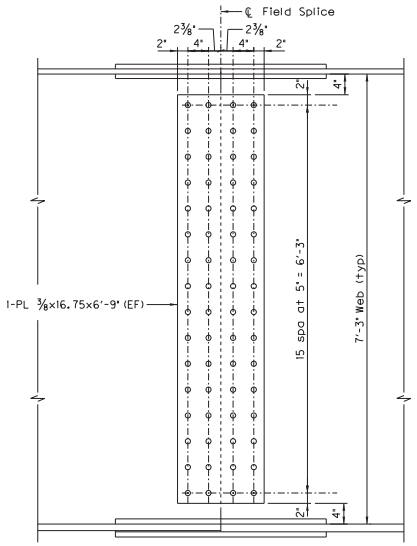
| ROUTE | CROSSING |
|---|---|
| BC RD | IC (ICRR) RAILROAD |

**FRAMING PLAN**

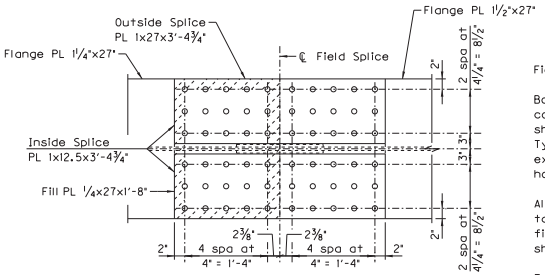
| ITEM NUMBER | PREPARED BY | | SHEET NO. |
|---|---|---|---|
| 1-1156 | Stantec | BRIDGING KENTUCKY | S8 |
| | | | DRAWING NO. 28154 |




Top Flange Splice

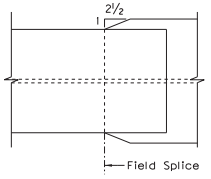



Web Splice

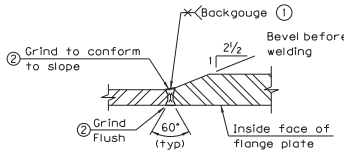



Bottom Flange Splice

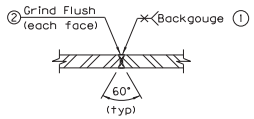
## FIELD SPLICE DETAILS




## FLANGE TRANSITION DETAIL




## FLANGE SPLICE




## WEB SPLICE

Web splices shall be a minimum of 2'-0" clear of shop flange splices, cross-frame connections, and web stiffener plates.

Notations:

① AWS Prequalified, full penetration, fully automatic, submerged arc groove weld.

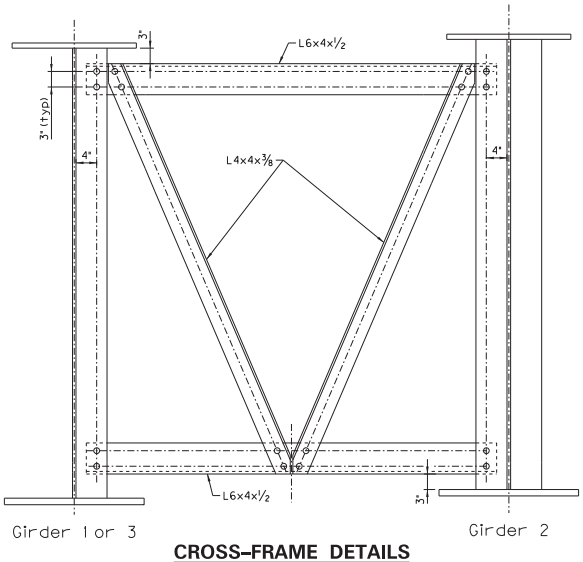
② All grinding shall be parallel to the direction of stress.

Field Splice Notes:

Bolted field splices are design as a slip critical connection with a Class 'A' Coefficient. All bolts shall be 1" Ø A325 Weathering High Strength Friction Type unless otherwise noted. Bolt threads are to be excluded from the shear planes. Provide 1⅛" Ø holes for bolts.

All parts of each splice shall be completely assembled taking into account their relative position in the finished structure due to grade and camber. Sections shall be match marked while so assembled.

To facilitate installation, flange splice bolts nearest to the girder web should be installed prior to the bolts in the top and bottom rows of the web splice.



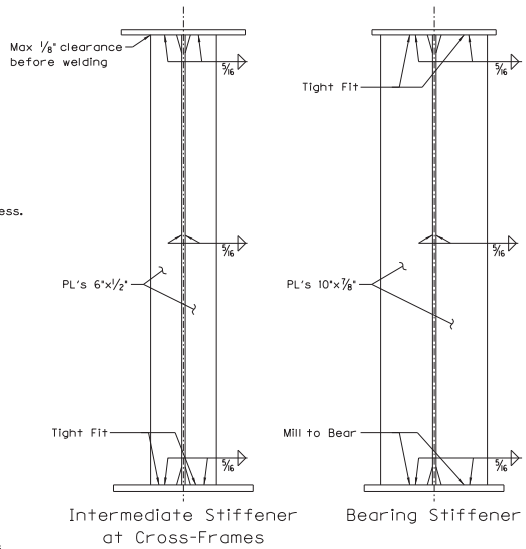

## CROSS-FRAME DETAILS

Cross-Frame Notes:

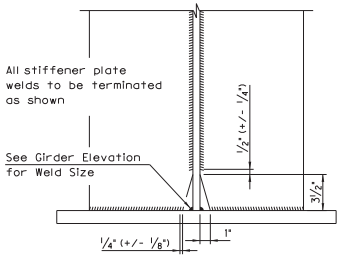
Detail the girders and bracing such that the girder webs are plumb in the full deadload position (not including FWS).

All holes for bolted connection shall be drilled full size or subpunched and reamed to size.

All bolts shall be 1" Ø A-325 Weathering High Strength Friction Type unless otherwise noted. Bolt threads are to be excluded from the shear planes. Provide 1⅛" holes for bolts.




## STIFFENER DETAILS




## WELD TERMINATION DETAIL

| REVISION | DATE |
|---|---|
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|---|---|
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: R. Catron | D. Woods |

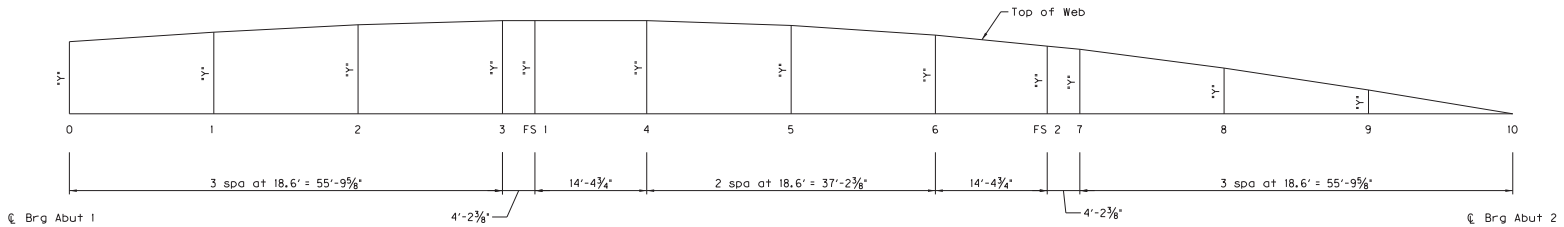
Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: HICKMAN

| ROUTE | CROSSING |
|---|---|
| BC RD | IC (ICRR) RAILROAD |

**STRUCTURAL STEEL DETAILS**

| ITEM NUMBER | PREPARED BY | SHEET NO. |
|---|---|---|
| 1-1156 | Stantec | S9 |
| | BRIDGING KENTUCKY | DRAWING NO. 28154 |




## CAMBER DIAGRAM

(Camber Dimensions = Deadload + Profile Grade)

| CAMBER DIAGRAMTABLE | | | |
|---|---|---|---|
| | "Y" VALUES IN FEET | | |
| LOCATION | GIRDER 1 | GIRDER 2 | GIRDER 3 |
| 0 | 0.930 | 0930 | 0.930 |
| 1 | 1.052 | 1052 | 1.052 |
| 2 | 1.148 | 1148 | 1.148 |
| 3 | 1.202 | 1202 | 1.202 |
| FS 1 | 1.201 | 1201 | 1.201 |
| 4 | 1.201 | 1201 | 1.201 |
| 5 | 1.139 | 1139 | 1.139 |
| 6 | 1.015 | 1015 | 1.015 |
| FS 2 | 0.873 | 0873 | 0.873 |
| 7 | 0.831 | 0831 | 0.831 |
| 8 | 0.590 | 0590 | 0.590 |
| 9 | 0.308 | 0308 | 0.308 |
| 10 | 0.000 | 0000 | 0.000 |

| REVISION | DATE |
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| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: R. Catron | D. Woods |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: HICKMAN

ROUTE: BC Rd

CROSSING: IC (ICRR) RAILROAD

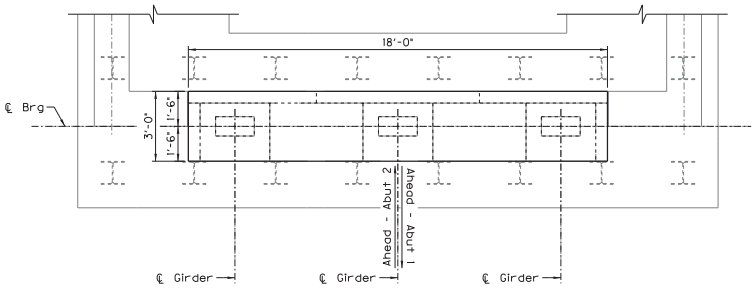
**CAMBER DIAGRAM**

| ITEM NUMBER | PREPARED BY | | SHEET NO. |
|---|---|---|---|
| 1-1156 | Stantec | BRIDGING KENTUCKY | S10 |
| | | | DRAWING NO. 28154 |

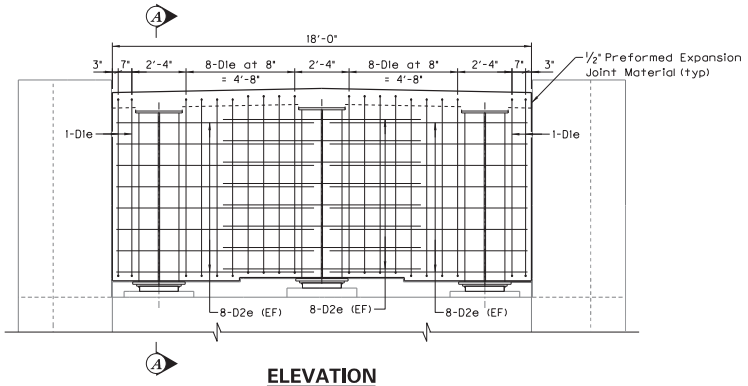
MicroStation v8.11.9.832 | E-SHEET NAME: | USER: dgrace DATE PLOTTED: 10/9/2019 3:45:20 PM | FILE NAME: ...\S10_Camber Diagram_Hickman

## BILL OF REINFORCEMENT

| MARK | TYPE | SIZE | NUMBER ABUT 1 | NUMBER ABUT 2 | LENGTH FT. | LENGTH IN. | LOCATION |
|---|---|---|---|---|---|---|---|
| D1e | 14s | 5 | 20 | 20 | 21 | 8 | Abutment Diaphragm |
| D2e | Str | 5 | 48 | 48 | 8 | 6 | Abutment Diaphragm |

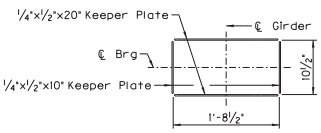



**PLAN**

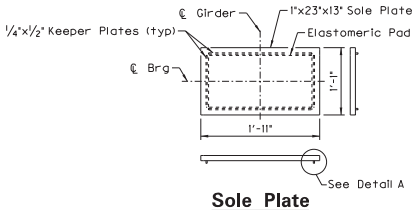



**ELEVATION**

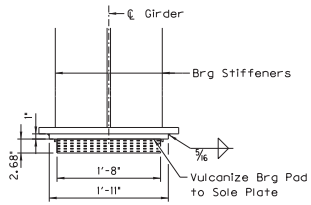
(Looking Back - Abut 1
Looking Ahead - Abut 2)



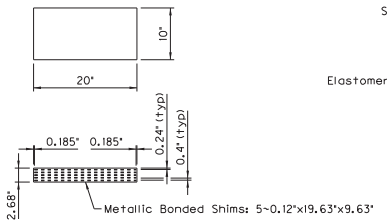

**Keeper Bar Details**



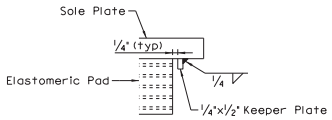

**Sole Plate**



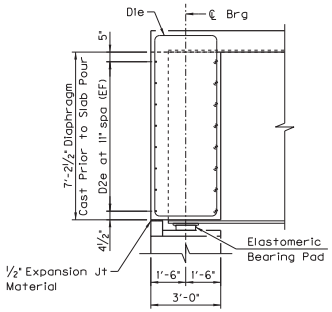

**Bearing Elevation**



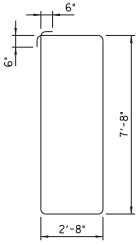

**Elastomeric Bearing Pad**




**Detail "A"**

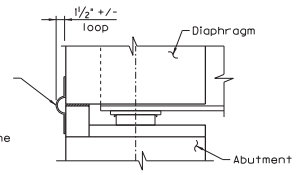



**Section A–A**




Type 14s

12" wide Mastic Tape to waterproof the joint between abutment and diaphragm. The tape shall be looped as shown to allow for movement without damage to the tape. See the General Notes.




**JOINT WATERPROOFING DETAIL**

| REVISION | DATE |
|---|---|
| | |
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|---|---|
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: R. Catron | D. Woods |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: HICKMAN

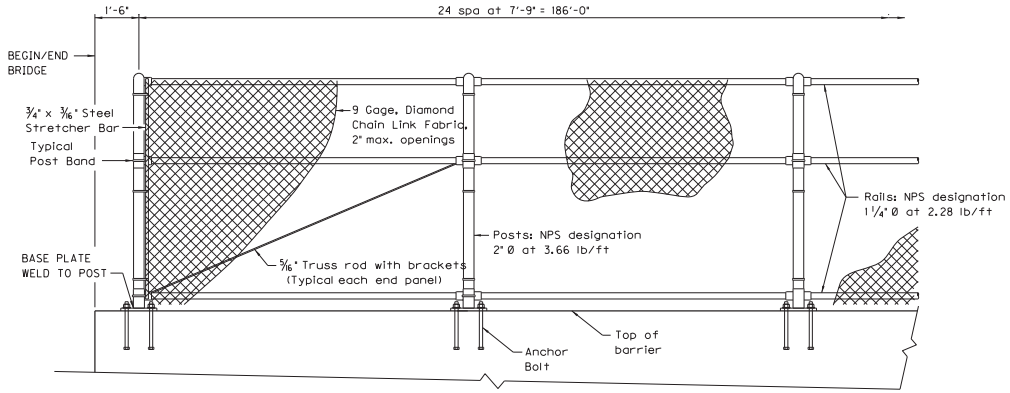
ROUTE: BC Rd | CROSSING: IC (ICRR) RAILROAD

**SUPERSTRUCTURE DETAILS**

| ITEM NUMBER | PREPARED BY | SHEET NO. | DRAWING NO. |
|---|---|---|---|
| 1-1156 | Stantec | S11 | 28154 |

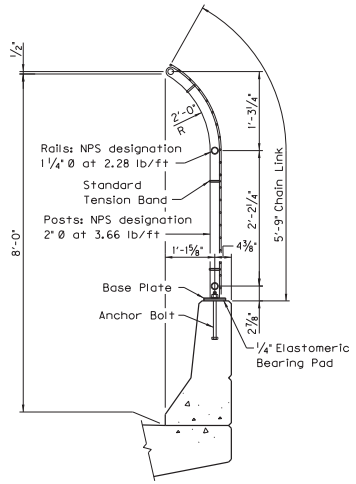
BRIDGING KENTUCKY

MicroStation v8.11.9.832 | E-SHEET NAME: | USER: dgrace DATE PLOTTED: 10/9/2019 4:03:48 PM | FILE NAME: ...\S11_Superstructure Details




## PART FENCE ELEVATION

Showing Fascia




## FENCE SECTION

## NOTES

Specifications:
Unless otherwise noted, vinyl coat all materials used in the fabrication of the protective fence in accordance with AASHTO standard specification M181.

Posts:
Ensure fence posts are NPS designation, 2" dia. at 3.66 pounds per foot, Grade I. Fence posts shall be set normal to the roadway grade.

Rails:
Ensure fence rails are NPS designation, 1" dia. at 2.28 pounds per foot, Grade I.

Base Plates:
Ensure base plates conform to AASHTO M183 or SAE M1020 and are galvanized in accordance with ASTM A153. Apply a vinyl finish coat on all exposed surfaces of the base plates after the posts are in place.

Finishing:
All exposed sharp edges shall be rounded. All rough-cut ends and edges shall be ground or filed smooth.

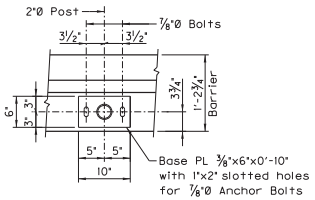
Anchor Bolts:
Anchor bolts to be cast in place or may be drilled in place, using a polyester resin set system. All parts of the assembly shall be galvanized in accordance with ASTM A513.

Elastomeric Bearing Pads:
Elastomeric bearing pads ¼" thick shall be placed under each base plate. The pad shall cover the entire contact area between the plate and the concrete barrier and shall be neatly trimmed.

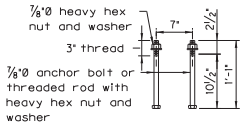
Chain Link Fabric:
Use polyvinyl chloride (pvc) coated steel fence type IV with the coating color to be dark green with the size of the fence being in accordance with section 817 of the specifications. Tie the fabric to the posts and rails at 2 foot centers maximum.

Damage Coating:
After the installation of the chain link fabric, clean any damaged areas of the fence components by washing with mineral spirit solvent sufficient to remove any contaminants. After cleaning, apply a vinyl washing primer to the surfaces with a dry film thickness of 0.3 mil to 0.5 mil before the final vinyl finish coat is applied.

Cost:
Cost of anchor bolts, anchor plates, fence posts, rails, chain link fabric, hardware and elastomeric bearing pads shall be included in the unit price bid for Protective Fence.




## BASE PLATE DETAIL




## ANCHOR BOLT DETAIL

| REVISION | DATE |
|---|---|
| | |
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|---|---|
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: S. Parsons | R. Catron |

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**

COUNTY: **HICKMAN**

| ROUTE | CROSSING |
|---|---|
| BC RD | IC (ICRR) RAILROAD |

***FENCE DETAILS***

| ITEM NUMBER | PREPARED BY | | SHEET NO. |
|---|---|---|---|
| 1-1156 | Stantec | BRIDGING KENTUCKY | S12 |
| | | | DRAWING NO. 28154 |

MicroStation v8.11.9.832
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USER: dgrace
DATE PLOTTED: 10/9/2019 4:10:37 PM
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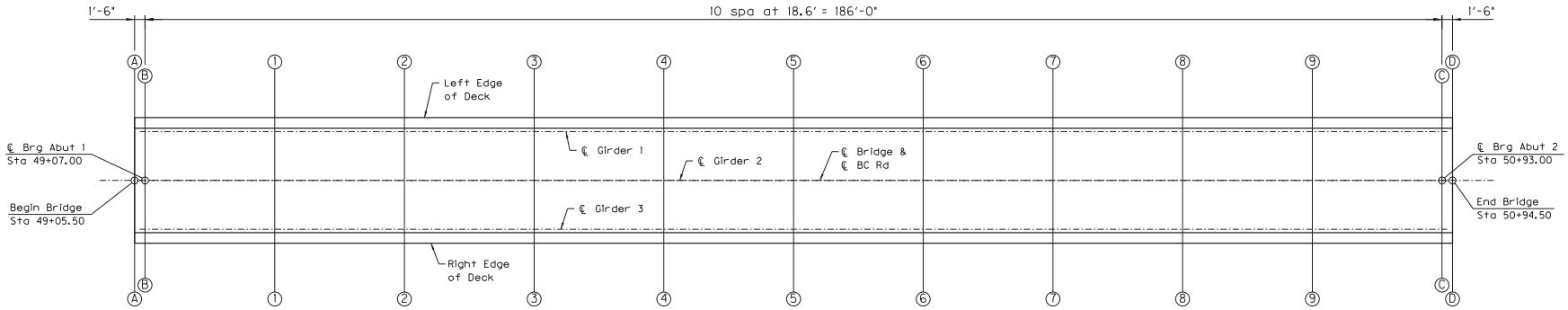
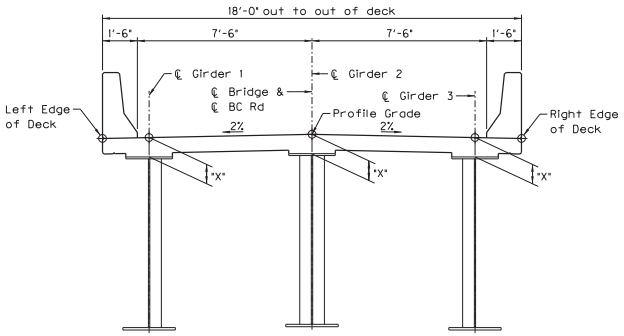



## TYPICAL SECTION

(Looking Ahead)

⊕ - Indicates point where construction elevations are given

## CONSTRUCTION ELEVATIONS

Notes:

Take elevations on top of girder at points indicated. Read elevations to three decimals and enter readings in the table under "Top of Girder" elevations.

Compute dimension "X" as follows:
"Constr Elev" minus "Top of Girder" equals dimension "X"
Construction elevations include camber due to weight of concrete slab and barrier. Measuring of dimension "X" gives the final check on girder tolerances for camber, damage, and errors in erection that produce reverse cambers, sags, and unsightly fascia girders.

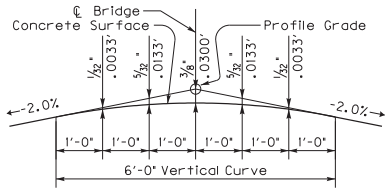
For setting templates, measure dimension "X" above top of girder for top of template. Do not set template by elevations.

Temporary supports or shoring will not be permitted under the girders when pouring the concrete floor slab or when taking "Top of Girder" elevations.

Construct barrier to roadway grade. Do not add camber to barrier.

TABLE OF ELEVATIONS

| Line | Left Edge of Deck | Girder 1 | | | Girder 2 & Profile Grade | | | Girder 3 | | | Right Edge of Deck |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Contr. Elev. | Top of Girder | Dim. "X" | Contr. Elev. | Top of Girder | Dim. "X" | Contr. Elev. | Top of Girder | Dim. "X" | |
| A | 470.718 | 470.758 | | | 470.898 | | | 470.758 | | | 470.718 |
| B | 470.710 | 470.750 | | | 470.890 | | | 470.750 | | | 470.710 |
| 1 | 470.762 | 470.802 | | | 470.943 | | | 470.802 | | | 470.762 |
| 2 | 470.798 | 470.838 | | | 470.978 | | | 470.838 | | | 470.798 |
| 3 | 470.804 | 470.844 | | | 470.984 | | | 470.844 | | | 470.804 |
| 4 | 470.774 | 470.814 | | | 470.954 | | | 470.814 | | | 470.774 |
| 5 | 470.702 | 470.742 | | | 470.882 | | | 470.742 | | | 470.702 |
| 6 | 470.588 | 470.628 | | | 470.768 | | | 470.628 | | | 470.588 |
| 7 | 470.433 | 470.473 | | | 470.613 | | | 470.473 | | | 470.433 |
| 8 | 470.240 | 470.280 | | | 470.420 | | | 470.280 | | | 470.240 |
| 9 | 470.018 | 470.058 | | | 470.199 | | | 470.058 | | | 470.018 |
| C | 469.780 | 469.820 | | | 469.960 | | | 469.820 | | | 469.780 |
| D | 469.773 | 469.813 | | | 469.953 | | | 469.813 | | | 469.773 |




## PARABOLIC CROWN

| REVISION | DATE |
|---|---|
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|---|---|
| DATE: December 13, 2019 | CHECKED BY |
| DESIGNED BY: R. Catron | M. Sturdevant |
| DETAILED BY: R. Catron | D. Woods |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: HICKMAN

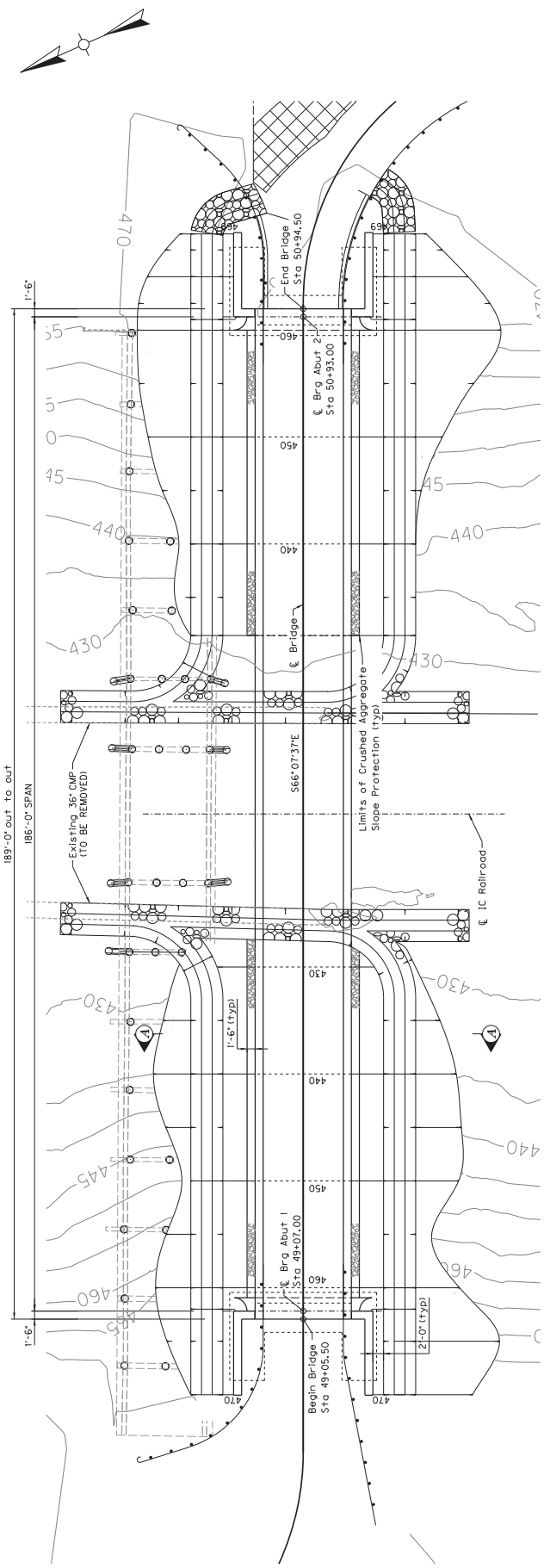
ROUTE: BC Rd

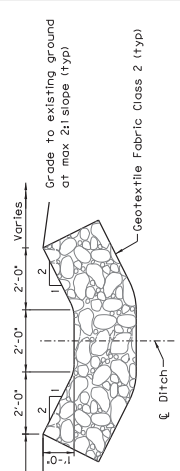
CROSSING: IC (ICRR) RAILROAD

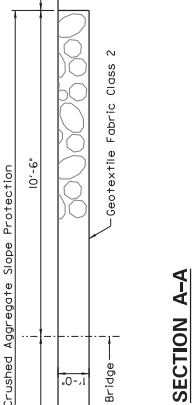
**CONSTRUCTION ELEVATIONS**

| ITEM NUMBER | PREPARED BY | SHEET NO. | DRAWING NO. |
|---|---|---|---|
| 1-1156 | Stantec | S13 | 28154 |

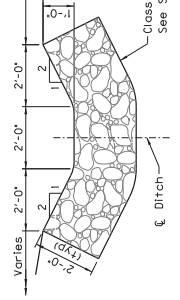
BRIDGING KENTUCKY




SECTION A-A




Note: Geotextile Fabric Class 2 shall be incidental to Class III Channel Lining or Crushed Aggregate Slope Protection as applicable.

| ITEM NUMBER |
|---|
| 1-1156 |

| REVISION | DATE |
|---|---|
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| | CHECKED BY |
|---|---|
| DATE: December 13, 2019 | |
| DESIGNED BY: R. Catron | D. Woods |
| DETAILED BY: R. Catron | D. Woods |

**Commonwealth of Kentucky**
**DEPARTMENT OF HIGHWAYS**

COUNTY: **HICKMAN**

ROUTE: **BC Rd** | CROSSING: **IC (ICRR) RAILROAD**

***GRADING PLAN***

PREPARED BY: Stantec

BRIDGING KENTUCKY

SHEET NO. S14
DRAWING NO. 28154

| MicroStation V8.11.9.832 | E-SHEET NAME: | USER: ggrace<br>DATE PLOTTED: 10/11/2019 2:49:58 PM | FILE NAME: ...\S14_Grading Plan_Hickman |
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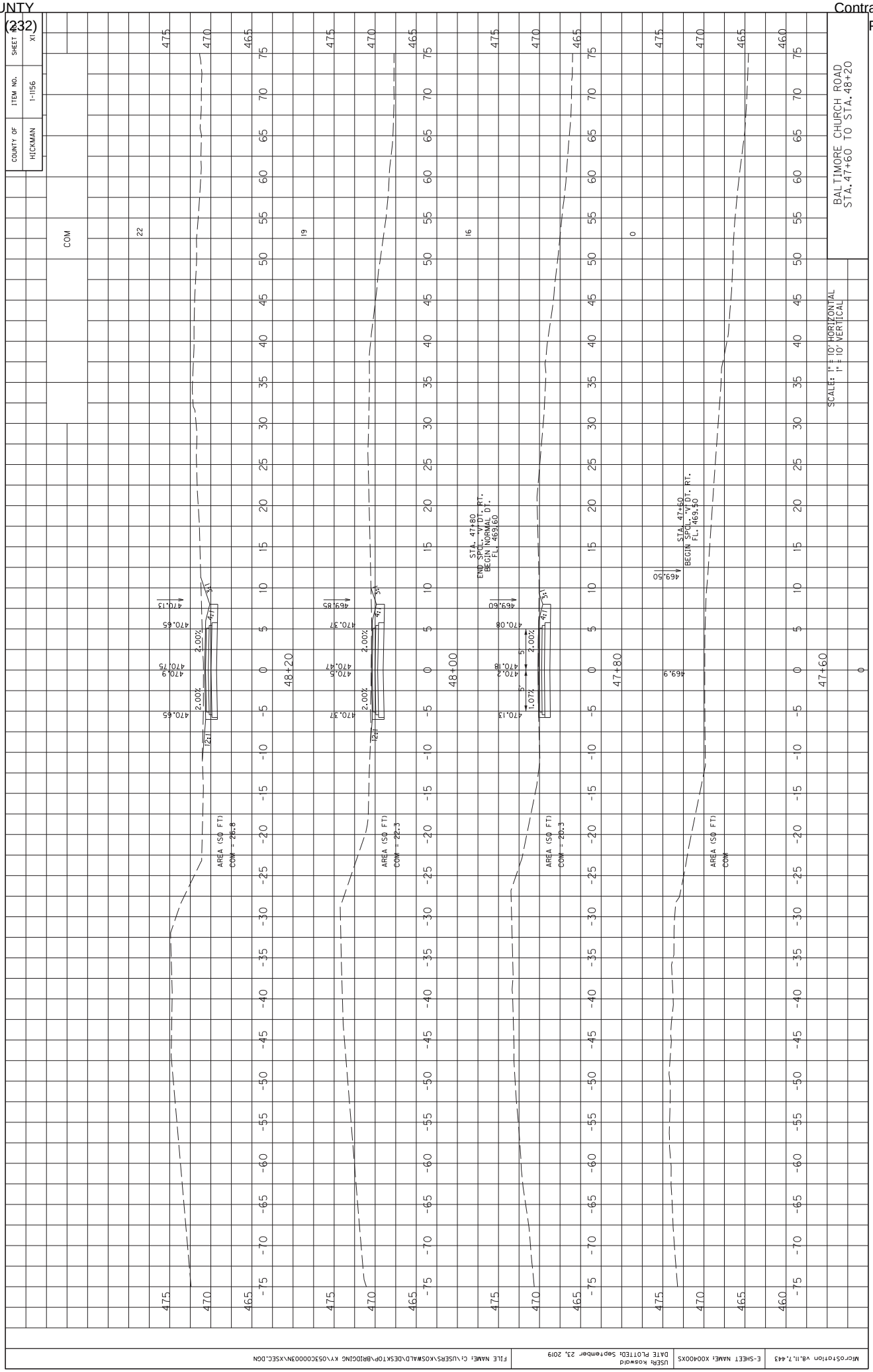
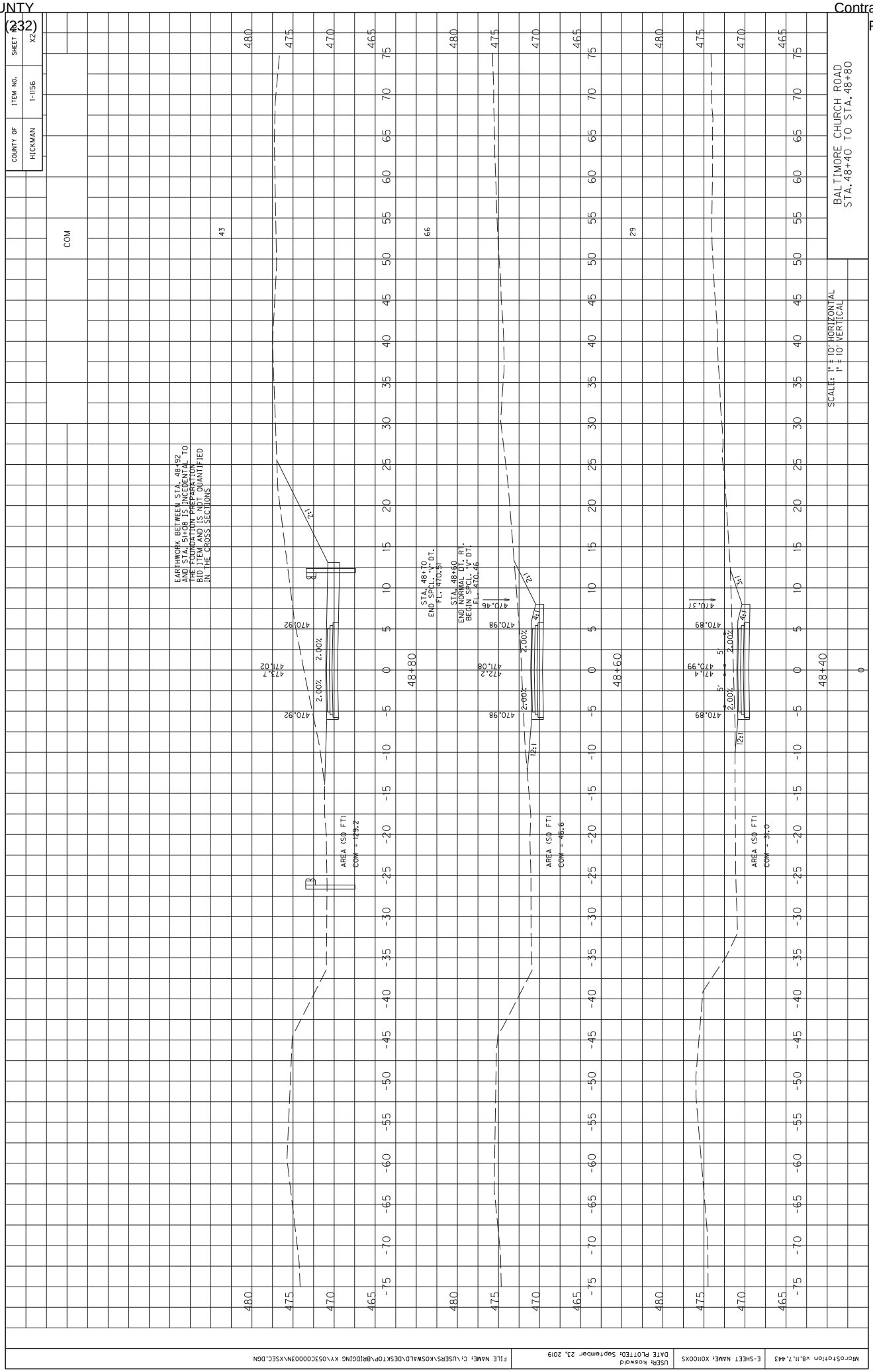
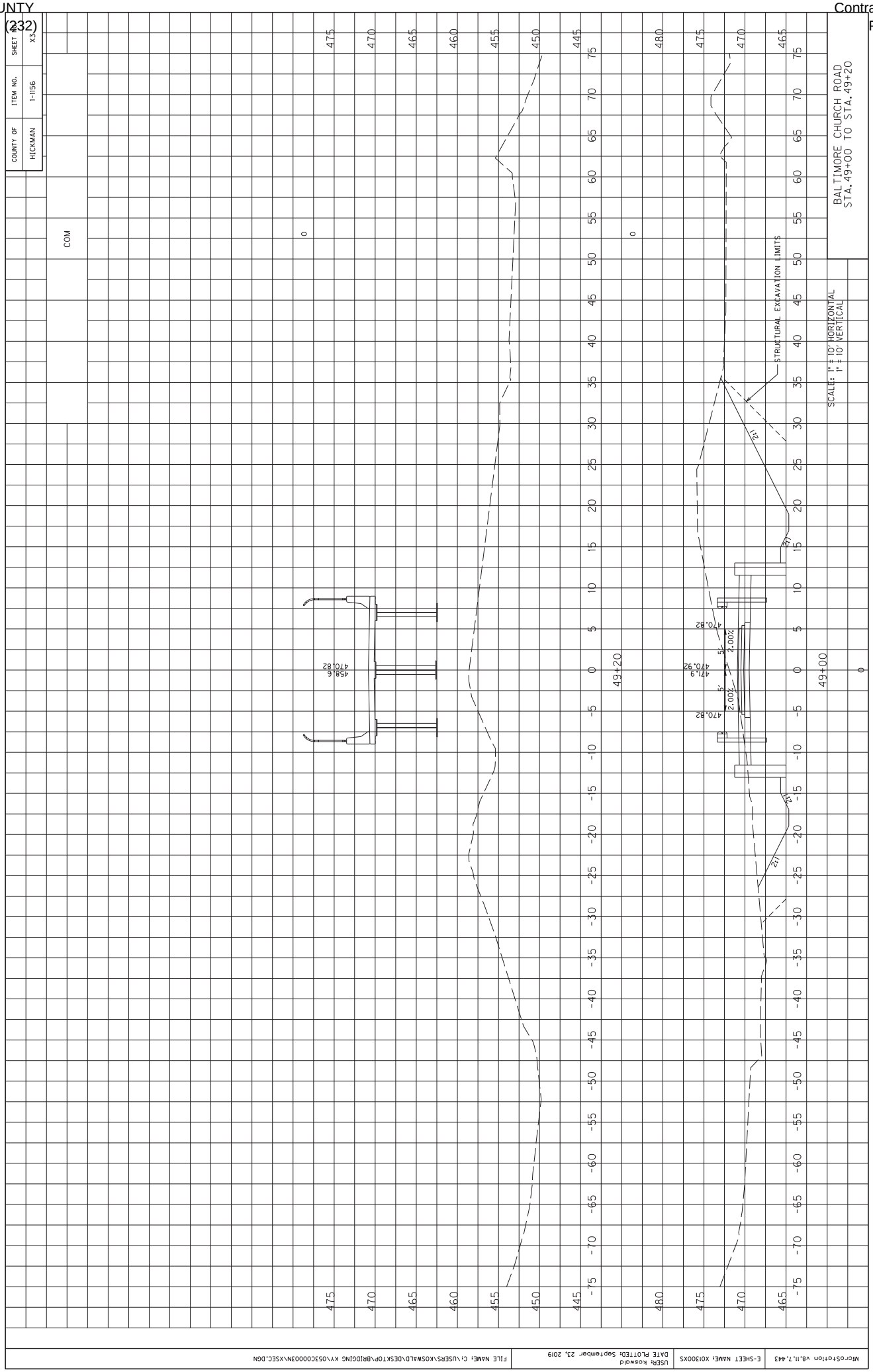

COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET XI
BALTIMORE CHURCH ROAD
STA. 47+60 TO STA. 48+20
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
STA. 47+80
END SPCL. VT DT. RT.
BEGIN NORMAL DT.
EL. 469.60
STA. 47+60
BEGIN SPCL. VT DT. RT.
EL. 469.50
AREA (SQ FT)
COM = 26.8
AREA (SQ FT)
COM = 22.3
AREA (SQ FT)
COM = 20.3
AREA (SQ FT)
COM
2.00%
1.07%
3:1
4:1
12:1
FILE NAME: C:\USERS\KOSWALD\DESKTOP\BRIDGING KY\053C00003N\XSEC.DGN
USER: Koswald
DATE PLOTTED: September 23, 2019
E-SHEET NAME: X004003XS
Microstation V8.11.7.443


COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET # X2
BALTIMORE CHURCH ROAD
STA. 48+40 TO STA. 48+80
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
EARTHWORK BETWEEN STA. 48+92 AND STA. 51+08 IS INCIDENTAL TO THE CONSTRUCTION OPERATION. NO BID ITEM AND IS NOT QUANTIFIED IN THE CROSS SECTIONS
STA. 48+10 END SPCL. "V" DT. EL. 470.51
STA. 48+60 END NORMAL CL. RT. BEGIN SPCL. "V" DT. EL. 470.46
AREA (SQ FT) COM = 129.2
AREA (SQ FT) COM = 46.6
AREA (SQ FT) COM = 31.0
48+80
48+60
48+40
2.00%
12:1
5:1
5'
470.92
473.7
471.02
470.98
472.2
471.08
470.46
470.89
471.4
471.99
470.37
43
66
29


COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET X3
BALTIMORE CHURCH ROAD
STA. 49+00 TO STA. 49+20
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
STRUCTURAL EXCAVATION LIMITS
COM
458.6
470.82
471.9
470.92
2.00%
5%
49+20
49+00
FILE NAME: C:\USERS\KOSWALD\DESKTOP\BRIDGING KY\053C00003N\XSEC.DGN
USER: Koswald
DATE PLOTTED: September 23, 2019
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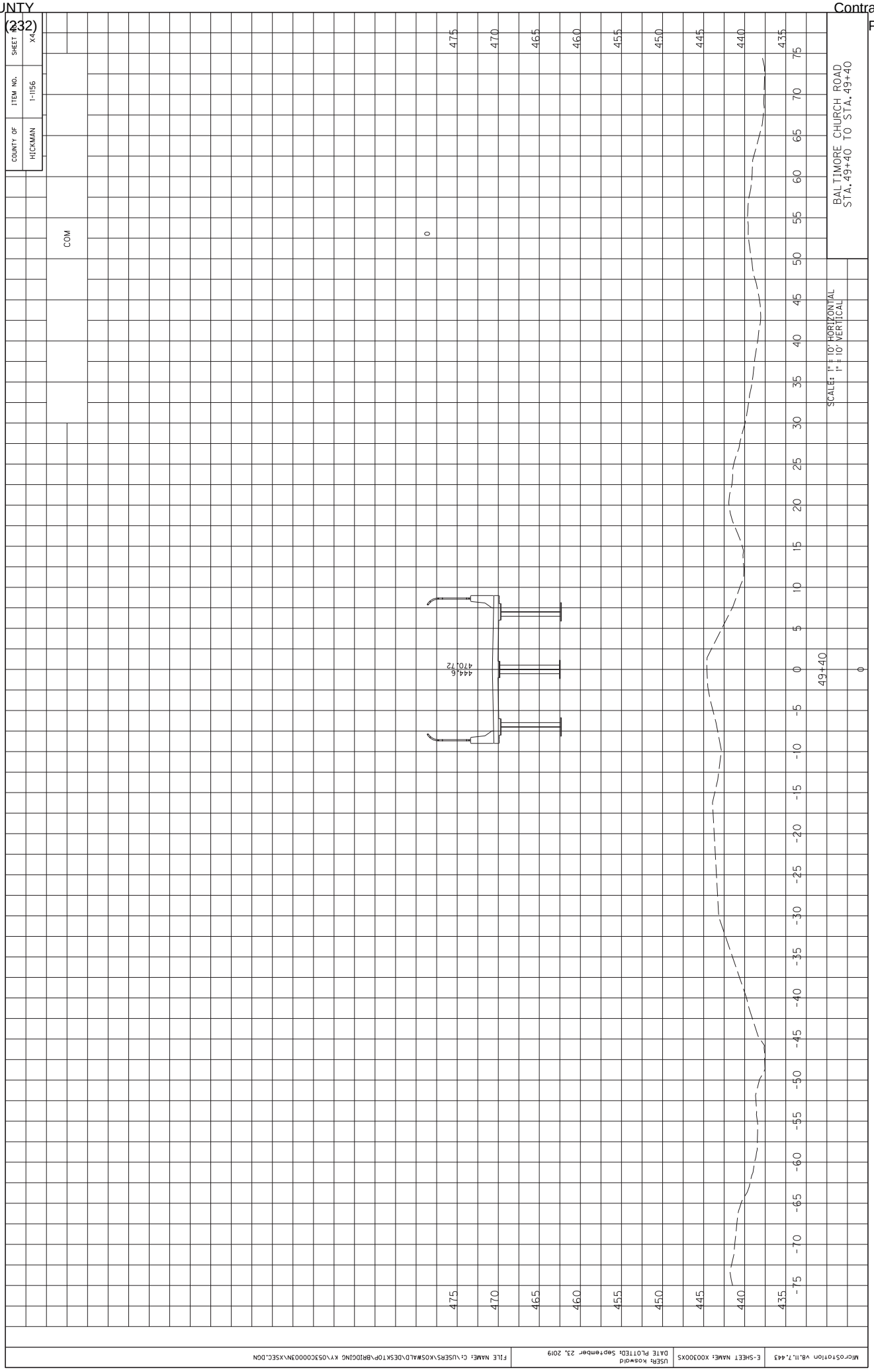
Microstation V8.11.7.443


COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET NO. X4
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STA. 49+40 TO STA. 49+40
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
0
49+40
0
475
470
465
460
455
450
445
440
435
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
-75
444.6
470.72
MicroStation V8.11.7.443
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USER: Roswald
DATE PLOTTED: September 23, 2019
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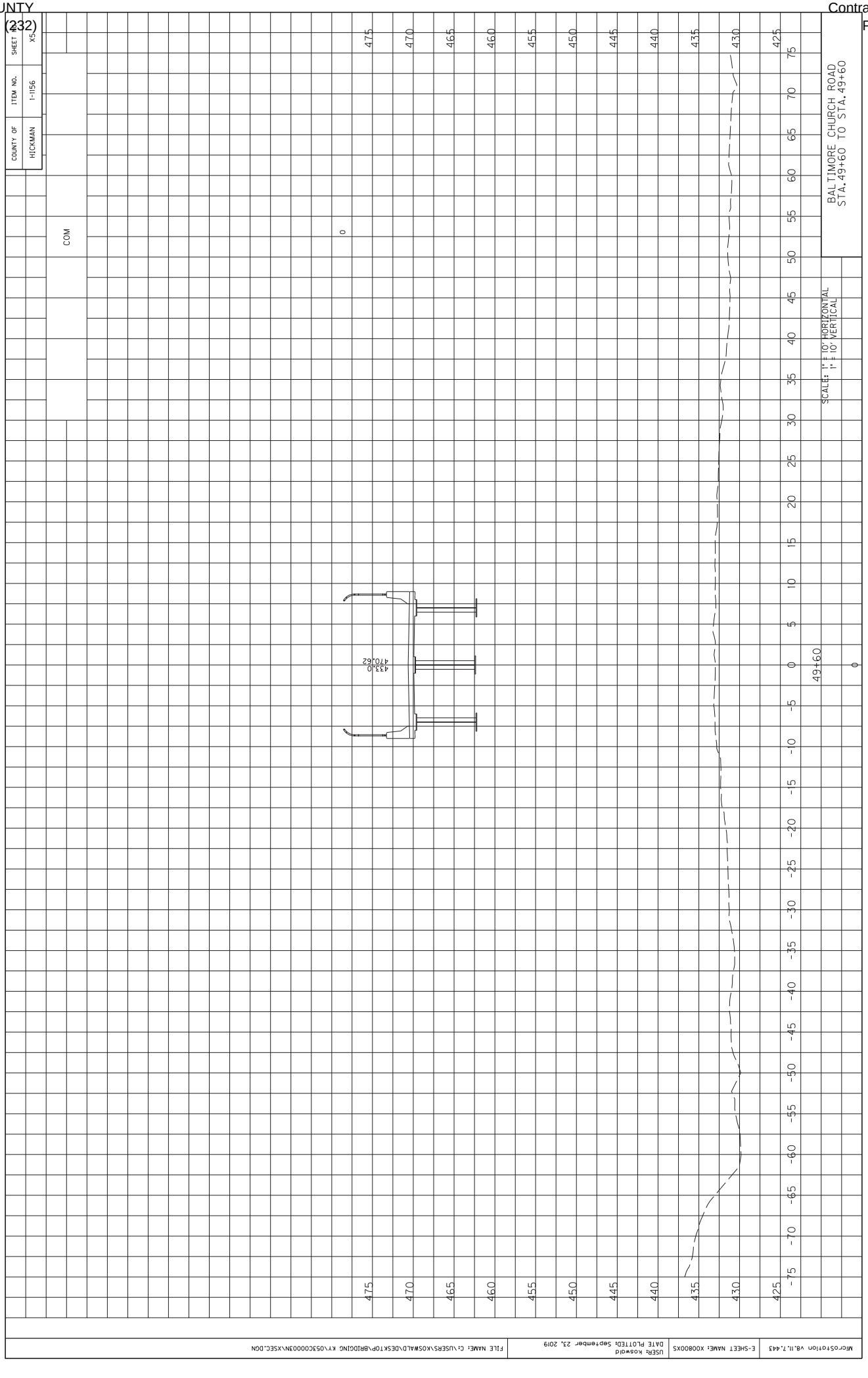
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET X5
BALTIMORE CHURCH ROAD
STA. 49+60 TO STA. 49+60
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
0
433.0
470.62
49+60
0
475 470 465 460 455 450 445 440 435 430 425
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75
MicroStation V8.11.7.443
E-SHEET NAME: X0080XS
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DATE PLOTTED: September 23, 2019
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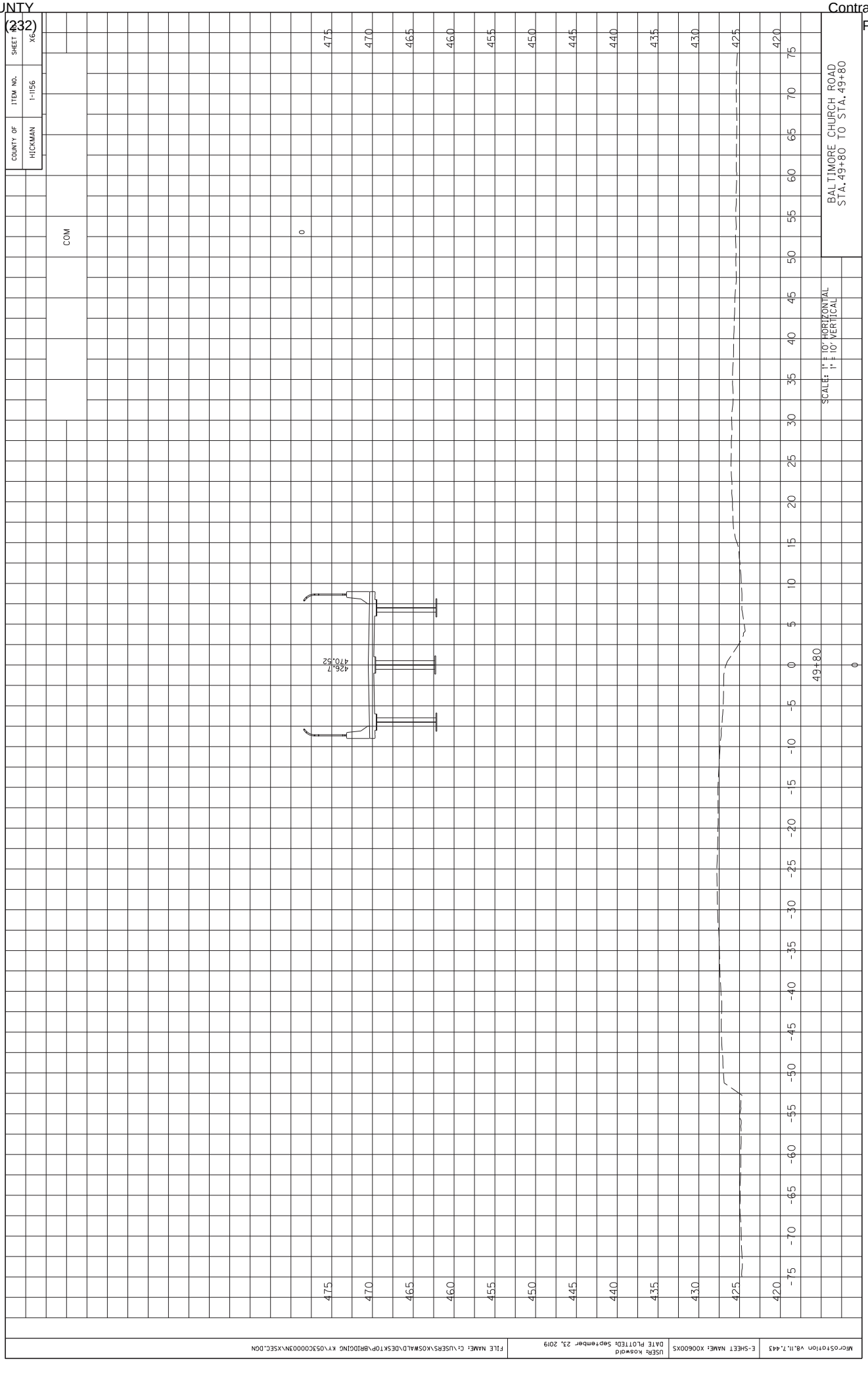
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET X6
BALTIMORE CHURCH ROAD
STA. 49+80 TO STA. 49+80
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
0
426.17
470.52
49+80
0
475 470 465 460 455 450 445 440 435 430 425 420
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75
Microstation V8.11.7.443
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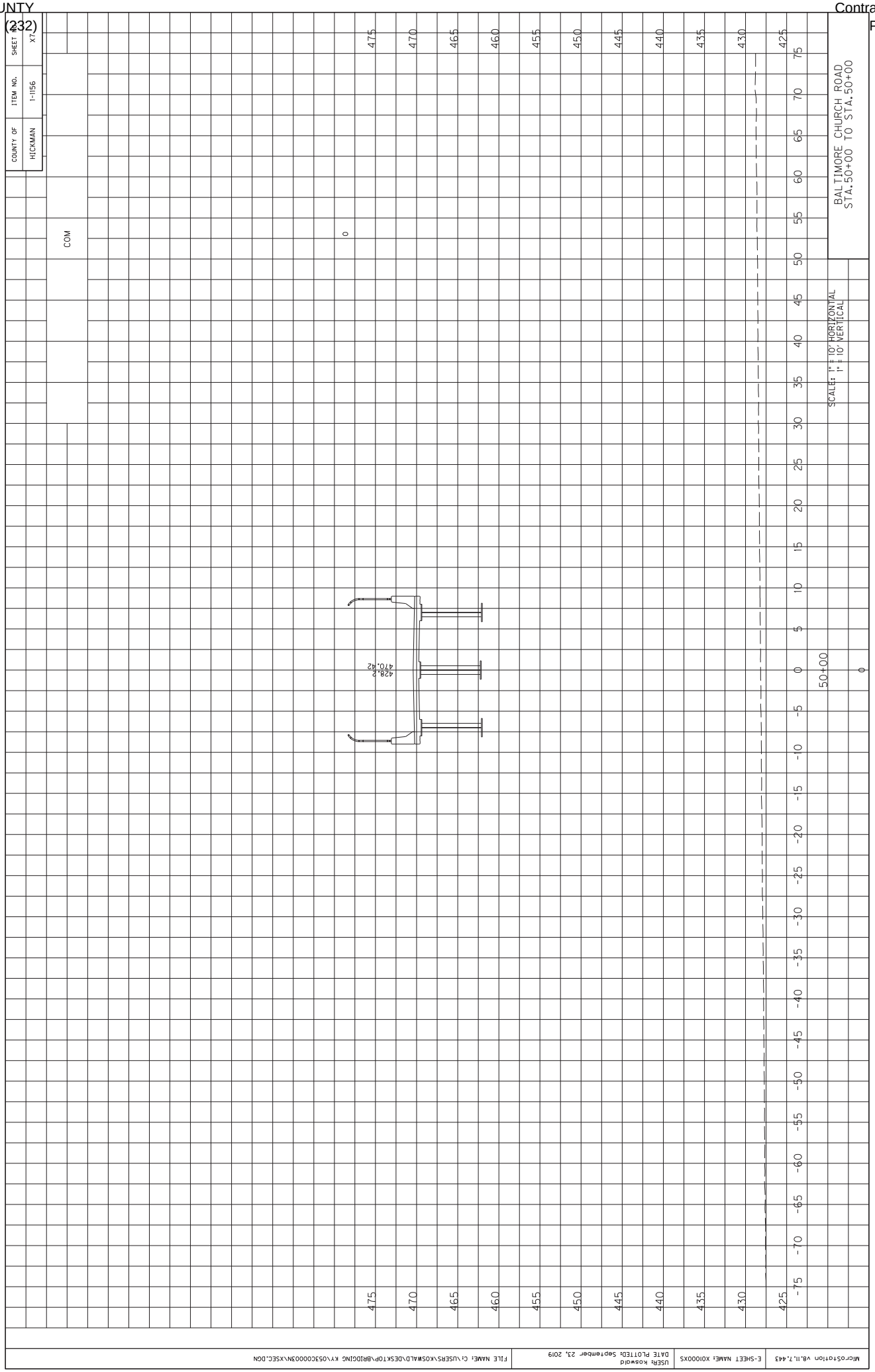
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET X7
COM
BALTIMORE CHURCH ROAD
STA.50+00 TO STA.50+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
50+00
0
475 470 465 460 455 450 445 440 435 430 425
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75
428.2
470.42
MicroStation V8.11.7.443
E-SHEET NAME: X01000XS
USER: Roswald
DATE PLOTTED: September 23, 2019
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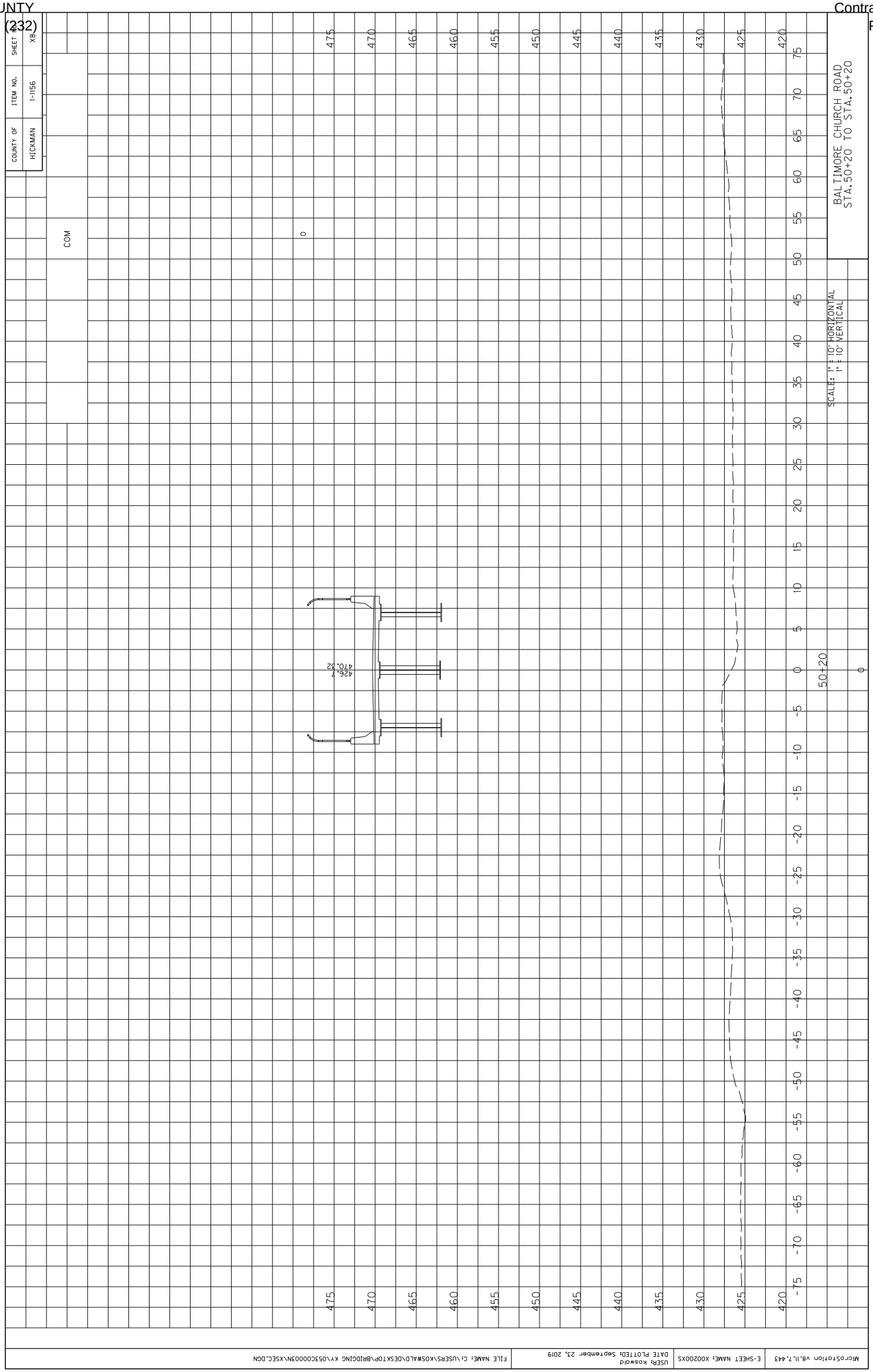
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET # X8
BALTIMORE CHURCH ROAD
STA.50+20 TO STA.50+20
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
0
426.7
470.32
50+20
0
475 470 465 460 455 450 445 440 435 430 425 420
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75
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USER: Roswald
DATE PLOTTED: September 23, 2019
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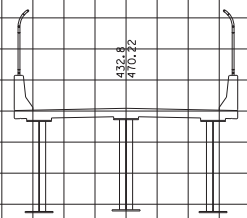
| COUNTY OF | ITEM NO. | SHEET |
|---|---|---|
| HICKMAN | 1-1156 | X9 |

COM

0




475 470 465 460 455 450 445 440 435 430

-75 -70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

50+40

0

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

BALTIMORE CHURCH ROAD
STA.50+40 TO STA.50+40

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USER: kaswold
DATE PLOTTED: September 23, 2019
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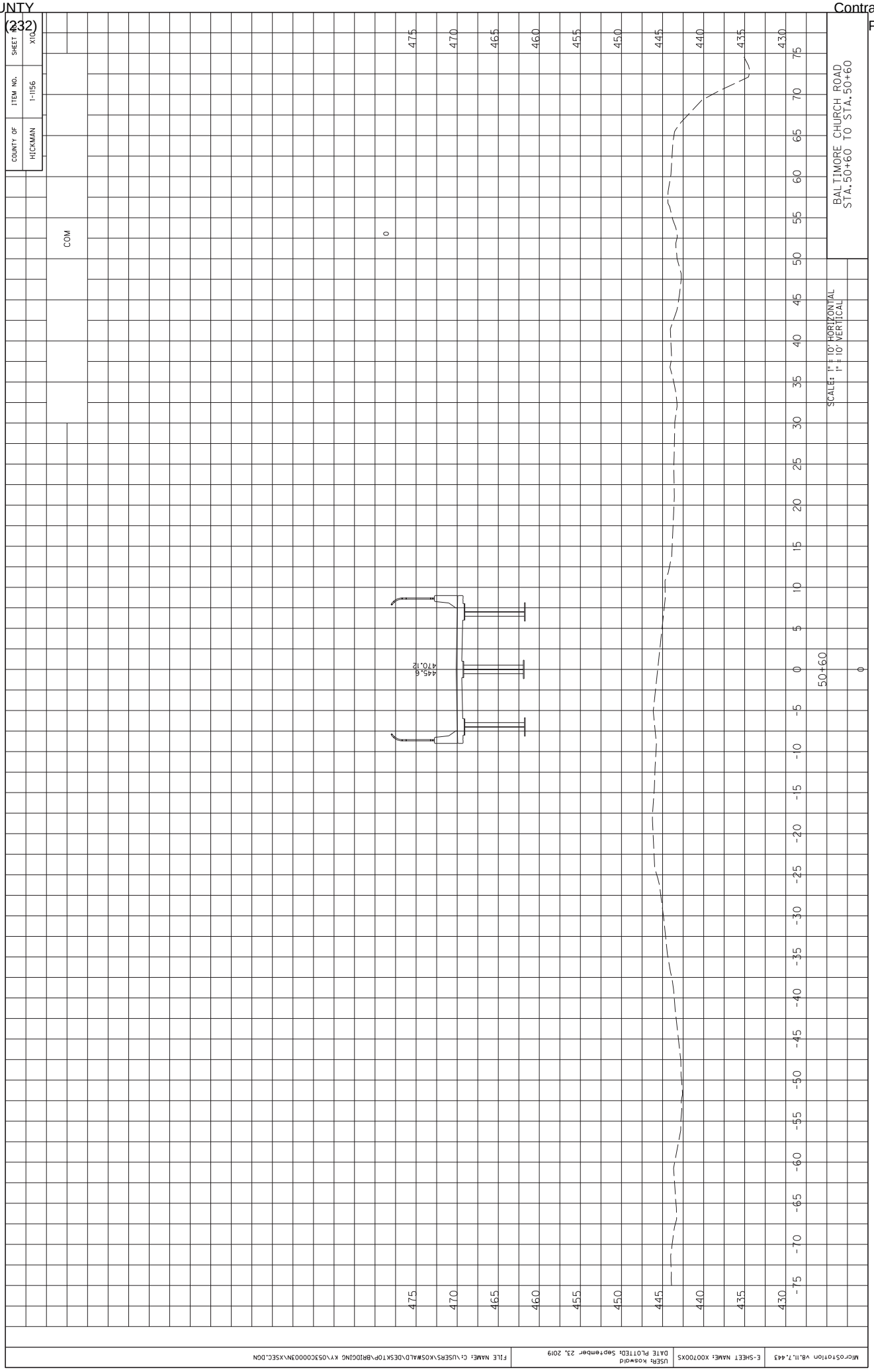
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET X10
COM
BALTIMORE CHURCH ROAD
STA.50+60 TO STA.50+60
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
445.6
470.12
50+60
0
475 470 465 460 455 450 445 440 435 430
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75
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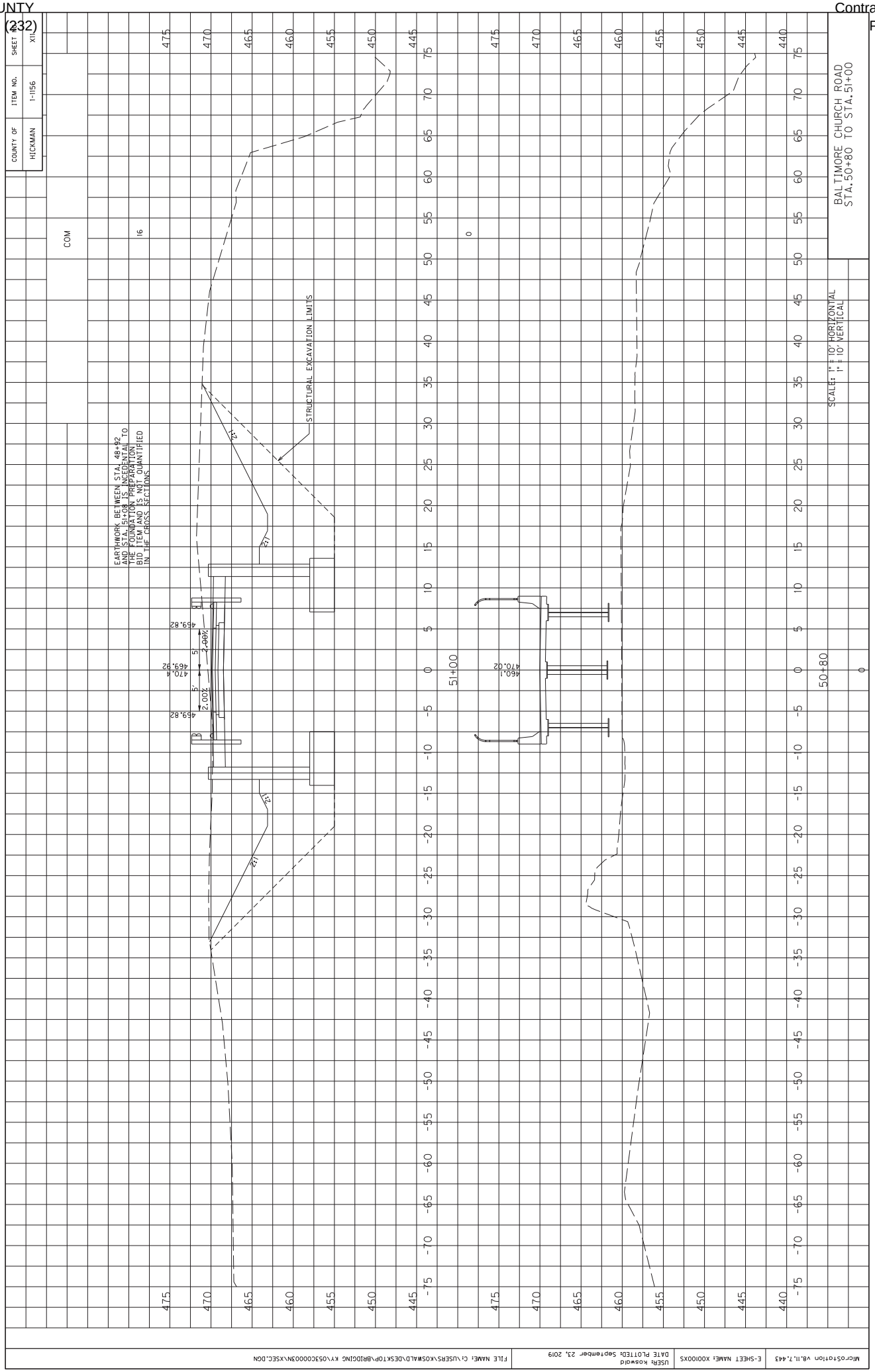
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET XII
BALTIMORE CHURCH ROAD
STA.50+80 TO STA.51+00
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
EARTHWORK BETWEEN STA. 48+92 AND STA. 51+08 IS INCIDENTAL TO THE FOUNDATION PREPARATION BID ITEM AND IS NOT QUANTIFIED IN THE CROSS SECTIONS.
STRUCTURAL EXCAVATION LIMITS
2:1
1:2
459.82
470.46
469.92
2.00'
5'
460.11
470.02
51+00
50+80
FILE NAME: C:\USERS\KOSWALD\DESKTOP\BRIDGING KY\053C00003N\XSEC.DGN
USER: Koswald
DATE PLOTTED: September 23, 2019
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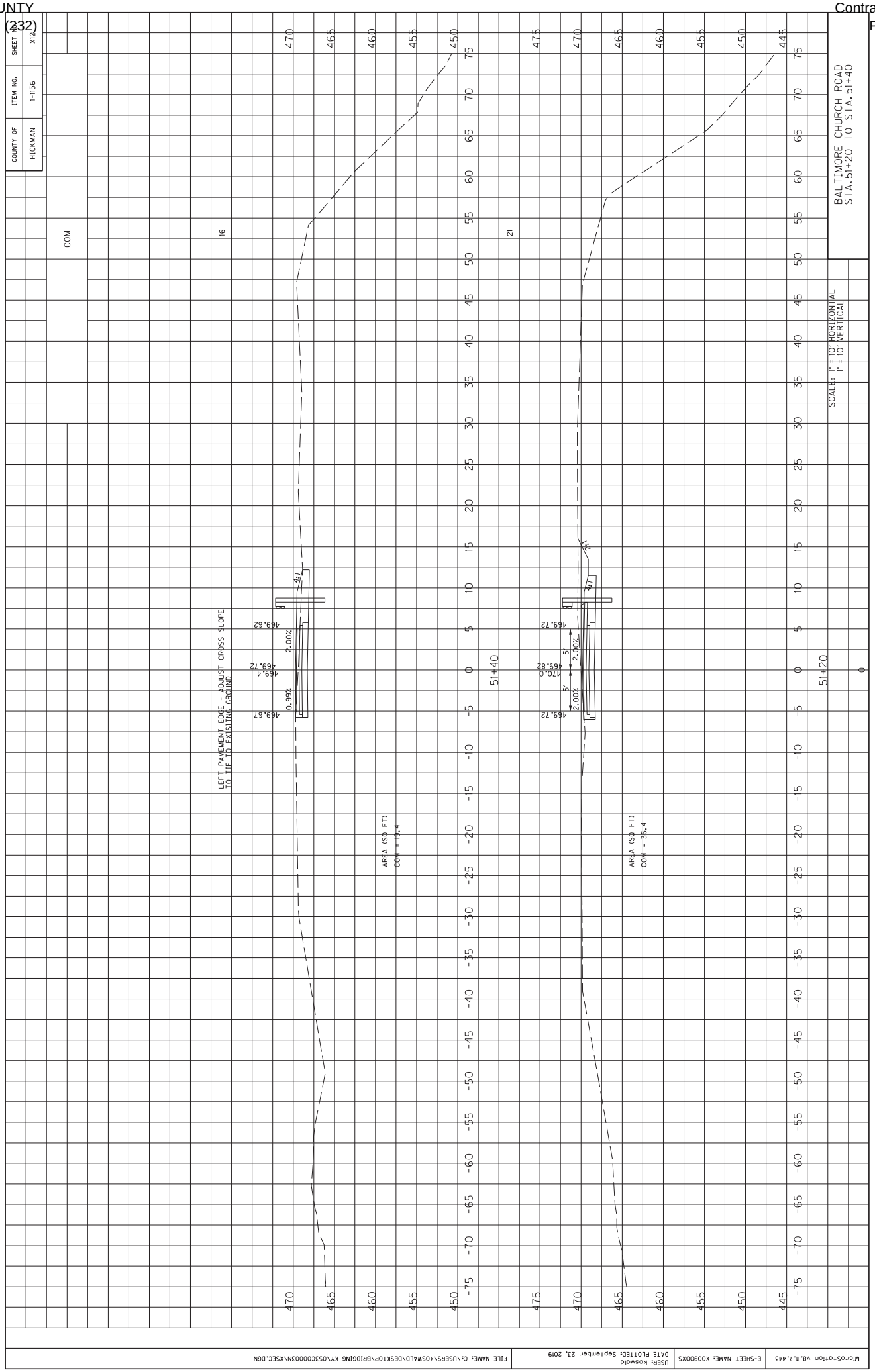
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET X12
BALTIMORE CHURCH ROAD
STA.51+20 TO STA.51+40
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
16
21
51+40
51+20
LEFT PAVEMENT EDGE - ADJUST CROSS SLOPE TO TIE TO EXISTING GROUND
469.62
2.00%
469.4
469.72
0.99%
469.67
469.72
2.00%
5'
470.0
469.82
2.00%
5'
469.72
AREA (SQ FT)
COM = 19.4
AREA (SQ FT)
COM = 36.4
4:1
4:1
4:1
MicroStation V8.11.7.443
E-SHEET NAME: X009003XS
USER: Rosworld
DATE PLOTTED: September 23, 2019
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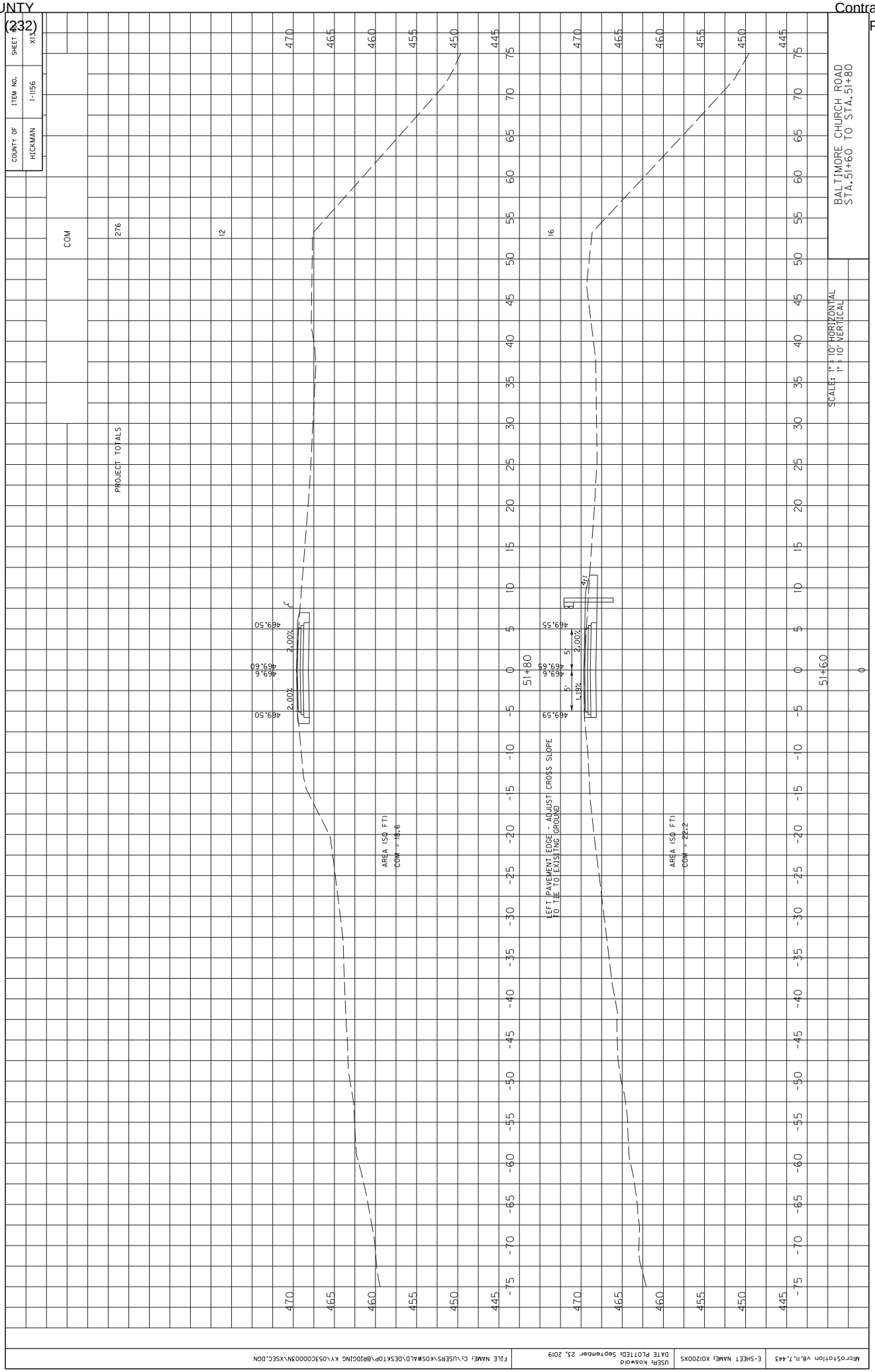
COUNTY OF HICKMAN
ITEM NO. 1-1156
SHEET NO. X13
BALTIMORE CHURCH ROAD
STA.51+60 TO STA.51+80
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
COM
276
PROJECT TOTALS
12
16
51+80
51+60
469.50
469.60
469.55
469.65
469.59
2.00%
1.18%
5'
4:1
AREA (SQ FT)
COM = 10.6
AREA (SQ FT)
COM = 28.2
LEFT PAVEMENT EDGE - ADJUST CROSS SLOPE
TO TIE TO EXISTING GROUND
MicroStation V8.11.7.443
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USER: Roswald
DATE PLOTTED: September 23, 2019
FILE NAME: c:\USERS\KOSWALD\DESKTOP\BRIDGING KY\053C00003N\XSEC.DGN

# SPECIAL NOTE FOR CONTRACT COMPLETION DATE AND LIQUIDATED DAMAGES ON BRIDGE REPAIR CONTRACTS

01-01156.00 Hickman 053C00003N

## I. COMPLETION DATE.

Upon Notice to Proceed, the Contractor has the option of selecting the Begin Work date. Once selected, notify the Department in writing of the date selected at least two weeks prior to beginning work and provide a proposed project schedule. All work is to be completed by the specified contract completion date. The Contractor is allotted 90 calendar days once work begins to complete all work to safely open the new structure with no lane closures and remove the existing structure. At a minimum, prior to opening to traffic, all strength requirements and curing for materials used shall be completed per Division 600 of the Standard Specifications.

The Engineer will begin charging calendar days for a structure on the day the Contractor begins work, with the exception of placement of signs, regardless of holidays or seasonal weather limitations.

## II. LIQUIDATED DAMAGES.

Liquidated damages will be assessed to the Contractor in accordance with the Transportation Cabinet, Department of Highway's current Standard Specifications for Road and Bridge Construction, Section 112.03.15A, when work extends beyond the allotted number of calendar days. Liquidated Damages will be assessed per the Standard Specification Section 108.09 when the contract time extends beyond the contract date.

Contrary to the Standard Specifications, liquidated damages will be assessed to the Contractor during the months of December, January, February and March when the contract time has expired on any individual bridge. Contract time will be charged during these months. All construction must be completed in accordance with the weather limitations specified in Section 606 and/or Section 601 as applicable. No extension of Contract time will be granted due to inclement weather or temperature limitations that occur due to starting work on the Contract or a structure late in the construction season.

# *SPECIAL NOTE*

## Tree Clearing Restriction

DUE TO THE RECOVEREY PLAN FOR ENDANGERED BATS, NO TREE CLEARING IS PERMITTED FROM JUNE 1 THROUGH JULY 31.

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

## Special Note for Bridge Demolition, Renovation and Asbestos Abatement

If the project includes any bridge demolition or renovation, the successful bidder is required to notify Kentucky Division for Air Quality (KDAQ) via filing of form (DEP 7036) a minimum of 10 days prior to commencement of any bridge demolition or renovation work.

Any available information regarding possible asbestos containing materials (ACM) on or within bridges to be affected by the project has been included in the bid documents. These are to be included with the Contractor's notification filed with the KDAQ. If not included in the bid documents, the Department will provide that information to the successful bidder for inclusion in the KDAQ notice as soon as possible. If there are no documents stating otherwise, the bidders should assume there are no asbestos containing materials that will in any way affect the work.

# Asbestos Inspection Report

To: Tom Springer, QK4, Inc.

Date: January 14, 2019

Conducted By: Jason Boston, LFI, Inc.
Kentucky Accredited Asbestos Inspector #57253

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## Project and Structure Identification

Project: Hickman County: Item No. 1-1156

Structure ID: #053C00003N

Structure Location: Baltimore Church Road Over Ic (Nor) Railroad, Hickman County, Kentucky

Sample Description: Mastic in deck joints

Inspection Date: January 4, 2019

## Results and Recommendations

The asbestos inspection was performed in accordance with current United States Environmental Protection Agency (US EPA) regulations, specifically 40 CFR Part 61, Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP) revision, final rule effective November 20, 1990.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition (DEP7036 Form) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

No suspect asbestos containing (ACM) were observed.

**Commonwealth of Kentucky**
**Department for Environmental Protection**
**Division for Air Quality**

**Jason P Boston**

*Has met the requirements of 401 KAR 58:005 and is accredited as an:*

**Asbestos Inspector**

| | |
|---|---|
| Agency Interest Id: | **148138** |
| License Number: | **57253** |
| Issue Date: | 10/17/2018 |
| Expiration Date: | 07/02/2019 |

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

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

# RIGHT OF WAY CERTIFICATION

| ☒ Original | ☐ Re-Certification | RIGHT OF WAY CERTIFICATION | |
|---|---|---|---|
| **ITEM #** | **COUNTY** | **PROJECT # (STATE)** | **PROJECT # (FEDERAL)** |
| 01-1156 | Hickman | 1100 FD04 121 9414001R | |
| **PROJECT DESCRIPTION** | | | |

Bridging Kentucky - 053C00003N - Baltimore Church Road over Illinois Central (ICRR) Railroad (replacement)

☐ **No Additional Right of Way Required**

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

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

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

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

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

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

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

| Total Number of Parcels on Project | 1 | **EXCEPTION (S) Parcel #** | **ANTICIPATED DATE OF POSSESSION WITH EXPLANATION** |
|---|---|---|---|
| **Number of Parcels That Have Been Acquired** | | | |
| Signed Deed | 1 | | |
| Condemnation | 0 | | |
| Signed ROE | 0 | | |

**Notes/ Comments (Use Additional Sheet if necessary)**
**Acquisition complete**

| LPA RW Project Manager | | Right of Way Supervisor | |
|---|---|---|---|
| Printed Name | | Printed Name | Mark Askin, PE |
| Signature | | Signature | Askin, Mark — Digitally signed by Askin, Mark DN: cn=Askin, Mark, c=US, o=Strand Associates, Inc., ou=Louisville, email=mark.askin@strand.com Date: 2019.12.20 07:45:20 -05'00' |
| Date | | Date | 12/20/19 |
| **Right of Way Director** | | **FHWA** | |
| Printed Name | Dean M. Loy | Printed Name | |
| Signature | DM Loy — Digitally signed by DM Loy Date: 2019.12.20 07:51:39 -05'00' | Signature | |
| Date | | Date | |

# UTILITIES AND RAIL CERTIFICATION NOTE

**Hickman County**
**Mile point: 0.250 TO 0.305**
**BRIDGE OVER IC RR ON BALTIMORE RD (CR 1011) 0.3 MI NW OF HICKMAN/GRAVES CO LINE**
**053C00003N**
**ITEM NUMBER: 01-1156.00**

## PROJECT NOTES ON UTILITIES

For all projects under 2000 Linear feet which require a normal excavation locate request pursuant to KRS 367.4901-4917, the awarded contractor shall field mark the proposed excavation or construction boundaries of the project (also called white lining) using the procedure set forth in KRS 367.4909(9)(k). For all projects over 2000 linear feet, which are defined as a "Large Project" in KRS 367.4903(18), the awarded contractor shall initially mark the first 2000 linear feet minimally of proposed excavation or construction boundaries of the project to be worked using the procedure set forth in KRS 367.4909(9)(k). This temporary field locating of the project excavation boundary shall take place prior to submitting an excavation location request to the underground utility protection Kentucky Contact Center. For large projects, the awarded contractor shall work with the impacted utilities to determine when additional white lining of the remainder of the project site will take place. This provision shall not alter or relieve the awarded contractor from complying with requirements of KRS 367.4905 to 367.4917 in their entirety.

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, West KY RECC will be relocating existing overhead lines and poles. 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.

**NOTE: DO NOT DISTURB THE FOLLOWING FACILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS**

# UTILITIES AND RAIL CERTIFICATION NOTE

**Hickman County**
**Mile point: 0.250 TO 0.305**
**BRIDGE OVER IC RR ON BALTIMORE RD (CR 1011) 0.3 MI NW OF HICKMAN/GRAVES CO LINE**
**053C00003N**
**ITEM NUMBER: 01-1156.00**

West Kentucky RECC - Electric

West Kentucky & Tennessee Telecommunications Coop - Telephone

AT&T - Telephone

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

**THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION**

Not Applicable

**THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT**

Not Applicable

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

# UTILITIES AND RAIL CERTIFICATION NOTE

**Hickman County**
**Mile point: 0.250 TO 0.305**
**BRIDGE OVER IC RR ON BALTIMORE RD (CR 1011) 0.3 MI NW OF HICKMAN/GRAVES CO LINE**
**053C00003N**
**ITEM NUMBER: 01-1156.00**

Not Applicable

**RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED**

**No Rail Involvement** **x**☐ Rail **Involved** ☐ Rail **Adjacent**

See specimen proposal for special notes pertaining to coordination with railroad.

# UTILITIES AND RAIL CERTIFICATION NOTE

**Hickman County**
**Mile point: 0.250 TO 0.305**
**BRIDGE OVER IC RR ON BALTIMORE RD (CR 1011) 0.3 MI NW OF HICKMAN/GRAVES CO LINE**
**053C00003N**
**ITEM NUMBER: 01-1156.00**

## AREA FACILITY OWNER CONTACT LIST

| Facility Owner | Address | Contact Name | Phone | Email |
|---|---|---|---|---|
| AT&T - Telephone | 810 Kentucky Avenue Paducah KY 42003 | Alan Shelby | 2704445048 | as7168@att.com |
| West Kentucky & Tennessee Telecommunications Coop - Telephone | 100 WK&T Technology Drive Hickory KY 42051 | Tim Merrick | 2708561878 | tmerrick.wk@wk.net |
| West Kentucky RECC - Electric | 1218 West Broadway Mayfield KY 42006 | Milton Jones | 2707051295 | mjones@wkrecc.com |

July 12, 2019

Mr. John Moss, PE
Bridging Kentucky Area Team Leader
Stantec
10509 Timberwood Circle, Ste. 100
Louisville KY 40223

RE: Geotechnical Exploration
Hickman County, Kentucky
Baltimore Church Road over IC (NOR) Railroad
Bridge No. 053C00003N

Dear Mr. Moss:

## 1 INTRODUCTION

The abbreviated geotechnical engineering report for this structure has been completed. The project is a part of the Bridging Kentucky Program. The project is to replace the existing bridge at Baltimore Church Road over IC (NOR) Railroad in Hickman County, Kentucky.

## 2 GEOLOGY

The structure is in the Dublin Geologic Quadrangle (GQ-972) in Hickman County, Kentucky. The geologic mapping indicates the soils at this site are of the Tertiary-aged Jackson Formation, which consists primarily of sand, clay and silt. The sand is described as gray to orange, very fine to coarse grained and is commonly silty and clayey. The clay is gray to brown, silty and sandy and dominantly composed of kaolinite. Chert gravel of the Quaternary-aged Continental deposits were encountered near elevation 432 feet in Boring B-1.

Domestic Water Well No. 00015344 is located approximately 0.1 miles southeast of the bridge.

## 3 DRILLING AND SAMPLING

Two soil test borings were completed at this location. Soil samples were obtained to a depth of approximately 39.8 and 80.5 feet. Auger refusal was encountered in Boring B-2. Rock coring was advanced beyond auger refusal to a depth of 54.8 feet in B-2. The material recovered was primarily gray clay and refusal was found to have been encountered on a dense layer of chert gravel. Boring B-1 was advanced through the dense layer of gravel and continued to a depth of 80.5 feet before termination.

The borings “as drilled” latitudes and longitudes in decimal degrees were surveyed as a part of the Bridging Kentucky Program and are included in Table 1. Table 1 provides a summary of the location, elevation, and depth of the borings drilled for the proposed bridge.

**Table 1: Bridge over IC (NOR) Railroad – Summary of Borings**

| Hole No. | Latitude | Longitude | Surface Elevation (ft.) MSL | Refusal | | Begin Core | | Bottom of Hole | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Depth (ft.) | Elevation (ft.) MSL | Depth (ft.) | Elevation (ft.) MSL | Depth (ft.) | Elevation (ft.) MSL |
| B-1 | 36.677761 | -88.818528 | 470.2 | 80.5 | 389.7 | N/A | N/A | 80.5 | 389.7 |
| B-2 | 36.677958 | -88.819317 | 471.5 | 39.8 | 431.7 | 39.8 | 431.7 | 54.8 | 416.7 |

## 4 GROUNDWATER CONDITIONS

Groundwater was not encountered at this bridge. To accurately determine the long-term groundwater level, as well as the seasonal and precipitation induced fluctuations of the groundwater level, it is necessary to install piezometers in the borings, and monitor them for an extended length of time. During excavation the groundwater table will produce seepage durations and rates that will vary depending on the recent precipitation and the hydraulic conductivity of the material.

## 5 LABORATORY TESTING

The laboratory testing indicates that the soil samples at this location were a mixture of sands, silts and clay. USCS classifications indicate that the subsurface material is primarily comprised of CL and SP-SM. AASHTO classifications indicate that the material is A-2-4, A-4, A-6 and A-7-6 with group indices ranging from 0 to 29.

## 6 ENGINEERING ANALYSIS AND RECOMMENDATIONS

**6.1** **End Bent and Piers**– Use **12x53, 50-ksi steel friction H-piles**. Pile capacities are shown are on the attached capacity tables. Instructions for using the tables are included on the attachment. Capacities may be linearly interpolated between the five-foot intervals presented in the tables. If the base of pile cap varies from the elevation used for the capacity table's base of pile cap by more than five feet, contact this office for re-evaluation of the capacities.

Drivability analyses and anticipated blow per increment (bpi) values indicate that the piles may refuse at elevation 433 feet. We recommend designing pile tip elevations to bear on this dense layer with total factored axial resistance values of 77 kips per the Pile Capacity table included at the end of this report.

**6.2** **Pile Testing–** Field verification of pile capacity should be performed using FHWA Modified Gates Formula instead of the formulas provided in the Standard Specifications. The field verification values using the Modified Gates Formula are provided under the Static Analysis Method columns.

**6.3** **Minimum Pile Length–** We recommend that the designer indicate on the plans the minimum pile lengths or tip elevations required to satisfy lateral stability requirements. Since final pile lengths or tip elevations will be adjusted in the field based on field verification of axial capacity, this information will be used during construction to help

ensure that adequate pile embedment is obtained, and pile lengths are not based on axial capacity alone.

**6.4** **Settlement at End Bents**– A settlement analysis was not required due to the relatively small amount of new fill that will be added.

**6.5** **Wave Equation Analysis**– Drivability analyses were performed for the 12x53 steel friction H-piles at this location. These analyses indicate that a single acting diesel hammer with rated energies of 20.0 foot-kips to 40.6 foot-kips is recommended to adequately drive the 12x53 steel H-piles without encountering excessive blow counts or overstressing the piles. The use of hammers other than single acting diesel may require different energy ranges.

Drivability analyses were performed assuming continuous driving. If interruptions in driving individual piles should occur, difficulties in continuing the installation process will likely occur due to pile "set" characteristics.

Drivability analyses and anticipated blow per increment (bpi) values indicate that the piles may refuse at **elevation 433 feet**. We recommend designing pile tip elevations to bear on this dense layer with total factored axial resistance values of **77 kips** per the Pile Capacity table included at the end of this report.

**6.6** **Embankment Stability**– Due to the minimal amount of new fill, no embankment stability analyses were deemed necessary.

## 7 PLAN NOTES

Add the following plan notes as necessary at the appropriate locations in the plans.

**7.1** A single acting diesel hammer with rated energies of 20.0 foot-kips to 40.6 foot-kips is recommended to adequately drive the 12x53 steel H-piles without encountering excessive blow counts or overstressing the piles. The use of hammers other than single acting diesel may require different rated energies. The Contractor shall submit the proposed pile driving system to the Department for approval prior to the installation of the first pile. Approval of the pile driving system by the Engineer will be subject to satisfactory field performance of the pile driving procedures.

**7.2** Foundation excavations should be properly braced/shored to provide adequate safety to people working in or around the excavations. Bracing should be performed in accordance with applicable federal, state and local guidelines.

**7.3** Temporary shoring, sheeting, cofferdams, and/or dewatering methods may be required to facilitate foundation construction. It should be anticipated that groundwater will be encountered at foundation locations with the flood plain.

The designer should feel free to contact AEI at 270-651-7220 for further recommendations or if any questions arise pertaining to this project.

Sincerely,

*AMERICAN ENGINEERS, INC.*

Jackson Daugherty, EIT, PMP
Geotechnical Engineer

Dennis Mitchell, PE, PMP
Director of Federal Geotechnical Services

Attachments:

- Boring Layout
- Typed Boring Logs
- Laboratory Data
- Pile Capacity Tables


LEGEND

◎ SOIL BORING WITH STANDARD PENETRATION TESTS AND UNDISTURBED SHELBY TUBES

◉ SOIL BORING WITH STANDARD PENETRATION TESTS AND ROCK CORE

BRIDGING KENTUCKY
Restore | Renew | Replace

| | | | |
|---|---|---|---|
| GRAPHIC SCALE: NTS | | BRIDGING KENTUCKY | |
| DATE: 05/14/2019 | | BRIDGE: 053C0003N | PAGE NO. - |
| DRAWN BY: JC | CKD. BY: JD | SHEET: BALTIMORE CHURCH ROAD OVER IC (NOR) RAILROAD | FIG. NO. - |
| AEI JOB NO.: 218-158 | | | |
| FILE NAME: | | | |

PLOT DATE: 5/14/2019 11:32:12 AM USER: JACKSON DAUGHERTY
T:\GEOTECH SUPPORT\KYTC\218-158 BRIDGING KY PROGRAM\GEOTECH\ROUND 1 BRIDGES\REPORTS\HICKMAN 053C0003N\REPORT\SUPPORT INFO\HICKMAN 003N LAYOUT.DGN

Drilling Firm: American Engineers (Glasgow)
For: Division of Structural Design
Geotechnical Branch

# DRILLER'S SUBSURFACE LOG

Printed: 6/3/19



| Project ID: ***053C00003N*** Item Number: ***1-1156*** | ***Hickman - Baltimore Church Road IC (NOR) Railroad*** | Project Type: ***Structure County Bridge*** Project Manager: ***Dennis Mitchell*** |
|---|---|---|

| | | | |
|---|---|---|---|
| Hole Number ***B-1*** | Immediate Water Depth ***(04/30/19)*** | Start Date ***04/30/2019*** | Hole Type ***sample*** |
| Surface Elevation ***470.2'*** | Static Water Depth ***NA*** | End Date ***04/30/2019*** | Rig_Number |
| Total Depth ***80.5'*** | Driller ***Thompson, Adam*** | Latitude(83) ***36.677761*** | |
| Location ***+ ' Lt.*** | | Longitude(83) ***-88.818528*** | |

| Lithology Elevation | Lithology Depth | Description (Overburden / Rock Core) | Sample No. / Std/Ky RQD | Depth (ft) / Run (ft) | Rec. (ft) / Rec (ft) | SPT Blows / Rec (%) | Sample Type / SDI (JS) | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | Medium stiff to hard, brown, moist, silty lean clay (A-4 (9), CL). | 1 | 0.0-1.5 | 1.3 | 4-5-6 | SPT | |
| | | | 2 | 2.0-3.5 | 1.4 | 4-4-6 | SPT | |
| | | | 3 | 4.0-5.5 | 1.5 | 3-3-5 | SPT | |
| | | | 4 | 7.0-8.5 | 1.5 | 5-8-12 | SPT | |
| | | | 5 | 9.0-10.5 | 1.5 | 10-15-18 | SPT | |
| 456.2 | 14.0 | | | | | | | |
| | | Hard to very stiff, red, moist, sandy lean clay (A-6 (3), CL). | 6 | 14.0-15.5 | 1.5 | 33-34-44/0.50' | SPT | |
| | | | 7 | 19.0-20.5 | 1.5 | 9-10-10 | SPT | |
| | | | 8 | 24.0-25.5 | 1.5 | 9-16-20 | SPT | |
| | | | 9 | 29.0-30.5 | 1.5 | 8-17-19 | SPT | |
| 436.2 | 34.0 | | | | | | | |
| | | Dense to medium dense, gray to red, moist, poorly graded sand with silt (A-2-4 (0), SP-SM). | 10 | 34.0-35.5 | 1.5 | 6-16-22 | SPT | |
| | | | 11 | 39.0-40.5 | 1.4 | 6-12-14 | SPT | **augered through very dense gravelly layer @ 40-41.3** |
| 426.2 | 44.0 | | | | | | | |
| | | Very soft to very stiff, gray, moist to wet, lean clay (A-7-6 (29), CL). | 12 | 44.0-45.5 | 1.5 | 3-4-5 | SPT | |
| | | | 13 | 49.0-51.0 | 2.0 | | ST | |

Drilling Firm: American Engineers (Glasgow)
For: Division of Structural Design
Geotechnical Branch

# DRILLER'S SUBSURFACE LOG

Printed: 6/3/19



| Project ID: ***053C00003N*** Item Number: ***1-1156*** | ***Hickman - Baltimore Church Road IC (NOR) Railroad*** | Project Type: ***Structure County Bridge*** Project Manager: ***Dennis Mitchell*** |
|---|---|---|

| | | | |
|---|---|---|---|
| Hole Number ***B-1*** | Immediate Water Depth ***(04/30/19)*** | Start Date ***04/30/2019*** | Hole Type ***sample*** |
| Surface Elevation ***470.2'*** | Static Water Depth ***NA*** | End Date ***04/30/2019*** | Rig_Number |
| Total Depth ***80.5'*** | Driller ***Thompson, Adam*** | Latitude(83) ***36.677761*** | |
| Location ***+ ' Lt.*** | | Longitude(83) ***-88.818528*** | |

| Lithology Elevation | Lithology Depth | Description (Overburden / Rock Core) | Sample No. / Std/Ky RQD | Depth (ft) / Run (ft) | Rec. (ft) / Rec (ft) | SPT Blows / Rec (%) | Sample Type / SDI (JS) | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | 13 | 49.0-51.0 | 2.0 | | ST | |
| 55 | | | 14 | 54.0-55.5 | 1.5 | 0-0-0 | SPT | 55 |
| 60 | | | 15 | 59.0-60.5 | 1.5 | 1-3-5 | SPT | 60 |
| 65 | | Very soft to very stiff, gray, moist to wet, lean clay (A-7-6 (29), CL). | 16 | 64.0-65.5 | 1.5 | 3-5-8 | SPT | 65 |
| 70 | | | 17 | 69.0-70.5 | 1.5 | 3-4-6 | SPT | 70 |
| 75 | | | 18 | 74.0-75.5 | 1.5 | 2-4-6 | SPT | 75 |
| 80 389.7 | 80.5 | | 19 | 79.0-80.5 | 1.5 | 5-9-16 | SPT | 80 |
| 85 | | (Bottom of Hole 80.5') (No Refusal) | | | | | | 85 |
| 90 | | | | | | | | 90 |
| 95 | | | | | | | | 95 |
| 100 | | | | | | | | 100 |

Drilling Firm: American Engineers (Glasgow)
For: Division of Structural Design
Geotechnical Branch

# DRILLER'S SUBSURFACE LOG

Printed: 6/3/19



| Project ID: ***053C00003N*** Item Number: ***1-1156*** | ***Hickman - Baltimore Church Road IC (NOR) Railroad*** | Project Type: ***Structure County Bridge*** Project Manager: ***Dennis Mitchell*** |
|---|---|---|

| | | | |
|---|---|---|---|
| Hole Number ***B-2*** | Immediate Water Depth ***(04/30/19)*** | Start Date ***04/30/2019*** | Hole Type ***core and sample*** |
| Surface Elevation ***471.5'*** | Static Water Depth ***NA*** | End Date ***04/30/2019*** | Rig_Number |
| Total Depth ***54.8'*** | Driller ***Thompson, Adam*** | Latitude(83) ***36.677958*** | |
| Location ***+ ' Lt.*** | | Longitude(83) ***-88.819317*** | |

| Lithology Elevation | Lithology Depth | Description | Sample No. | Depth (ft) | Rec. (ft) | SPT Blows | Sample Type | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | Overburden | | | | | | |
| | | | Std/Ky RQD | Run (ft) | Rec (ft) | Rec (%) | SDI (JS) | |
| | | Medium stiff to very stiff, brown, moist, silty lean clay (A-4, CL). | 1 | 0.0-1.5 | 1.0 | 4-6-6 | SPT | |
| | | | 2 | 2.0-3.5 | 1.0 | 2-2-3 | SPT | |
| 5 | | | 3 | 4.0-5.5 | 1.5 | 3-4-5 | SPT | 5 |
| | | | 4 | 7.0-8.5 | 1.5 | 7-8-10 | SPT | |
| 462.5 | 9.0 | | | | | | | |
| 10 | | Dense to very dense, gray to red, moist, poorly graded sand with silt (A-2-4, SP-SM). | 5 | 9.0-10.5 | 1.5 | 16-22-26 | SPT | 10 |
| 15 | | | 6 | 14.0-15.5 | 1.5 | 17-22-24 | SPT | 15 |
| 20 | | | 7 | 19.0-20.5 | 1.5 | 11-23-26 | SPT | 20 |
| 25 | | | 8 | 24.0-25.5 | 1.5 | 9-16-19 | SPT | 25 |
| 30 | | | 9 | 29.0-30.5 | 1.4 | 10-23-36 | SPT | 30 |
| 35 | | | 10 | 34.0-35.5 | 1.5 | 10-19-33 | SPT | 35 |
| 40 431.7 | 39.8 | (Begin Core) | 11 | 39.0-39.8 | 0.8 | 6-50/0.30' | SPT | **1.3" very dense chert gravel @ 39.8** 40 |
| 45 | | Dark gray clay, (auger refusal on dense gravel. cored through clay). | 46 / 0 | 5.0 | 5.0 | 100 | | 44.8 45 |
| 50 | | | 100 / 0 | 5.0 | 5.0 | 100 | | 49.8 50 |

Drilling Firm: American Engineers (Glasgow)
For: Division of Structural Design
Geotechnical Branch

# DRILLER'S SUBSURFACE LOG

Printed: 6/3/19



| Project ID: ***053C00003N*** Item Number: ***1-1156*** | ***Hickman - Baltimore Church Road IC (NOR) Railroad*** | Project Type: ***Structure County Bridge*** Project Manager: ***Dennis Mitchell*** |
|---|---|---|

| | | | |
|---|---|---|---|
| Hole Number ***B-2*** | Immediate Water Depth ***(04/30/19)*** | Start Date ***04/30/2019*** | Hole Type ***core and sample*** |
| Surface Elevation ***471.5'*** | Static Water Depth ***NA*** | End Date ***04/30/2019*** | Rig_Number |
| Total Depth ***54.8'*** | Driller ***Thompson, Adam*** | Latitude(83) ***36.677958*** | |
| Location ***+ ' Lt.*** | | Longitude(83) ***-88.819317*** | |

| Lithology Elevation | Lithology Depth | Description (Overburden / Rock Core) | Sample No. / Std/Ky RQD | Depth (ft) / Run (ft) | Rec. (ft) / Rec (ft) | SPT Blows / Rec (%) | Sample Type / SDI (JS) | Remarks |
|---|---|---|---|---|---|---|---|---|
| 416.7 | 54.8 | Dark gray clay, (auger refusal on dense gravel. cored through clay). | 40 / 0 | 5.0 | 5.0 | 100 | | 54.8 |
| | | (Bottom of Hole 54.8') | | | | | | |

Project ID: 053C00003N
Location: Hickman
Item No: 1-1156

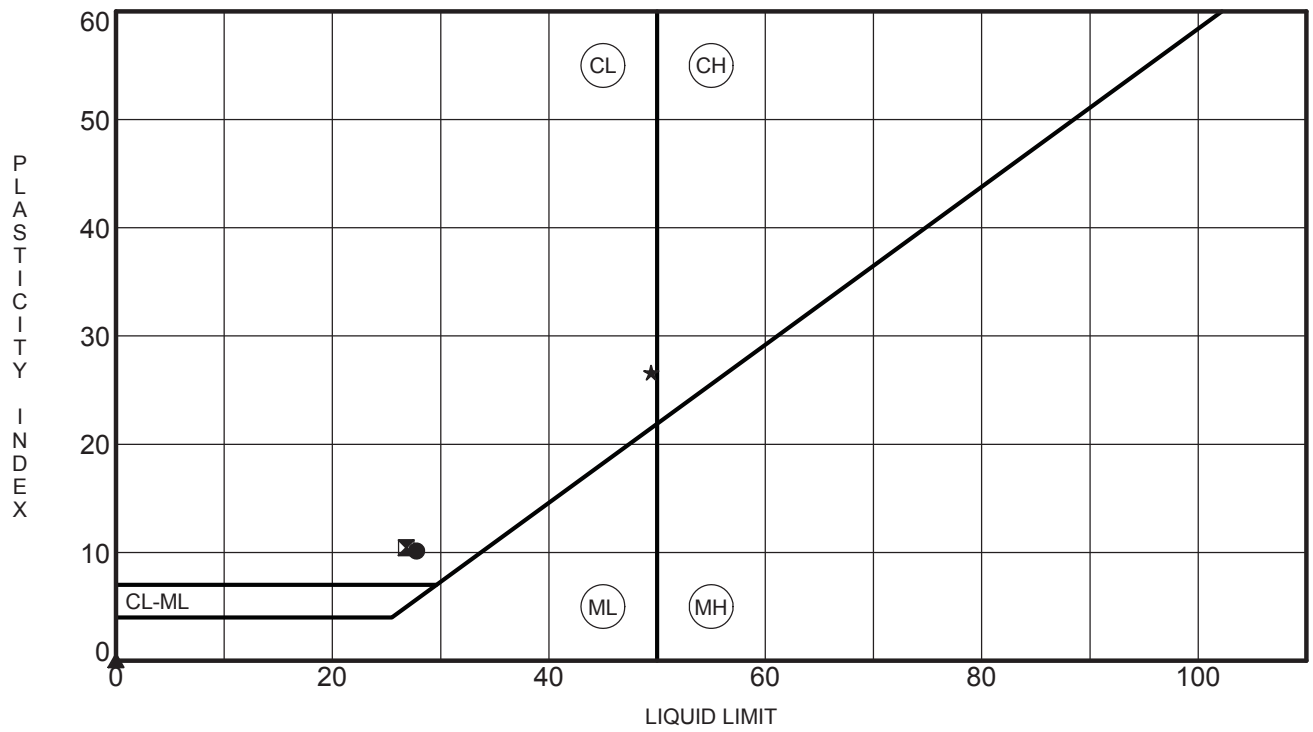
| Hole | Sample Type | Depth | Liquid Limit | Plastic Limit | PI | D50 | %<#200 Sieve | AASHTO | Classif-ication | Water Content (%) | Dry Density (pcf) | CBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-1 | SPT | 0 | | | | | | | | 7.5 | | |
| B-1 | SPT | 2 | | | | | | | | 22.0 | | |
| B-1 | SPT | 4 | 28 | 18 | 10 | 0.009 | 98 | A-4 (9) | CL | 24.3 | | |
| B-1 | SPT | 7 | | | | | | | | 21.9 | | |
| B-1 | SPT | 9 | | | | | | | | 9.0 | | |
| B-1 | SPT | 14 | 27 | 16 | 11 | 0.065 | 51 | A-6 (3) | CL | 6.7 | | |
| B-1 | SPT | 19 | | | | | | | | 12.6 | | |
| B-1 | SPT | 24 | | | | | | | | 5.4 | | |
| B-1 | SPT | 29 | | | | | | | | 6.0 | | |
| B-1 | SPT | 34 | 0 | 0 | 0 | 0.167 | 11 | A-2-4 (0) | SP-SM | 6.5 | | |
| B-1 | SPT | 39 | | | | | | | | 16.4 | | |
| B-1 | SPT | 44 | | | | | | | | 17.3 | | |
| B-1 | ST | 49 | | | | | | | | | | |
| B-1 | SPT | 54 | 49 | 23 | 26 | 0.003 | 99 | A-7-6 (29) | CL | 34.6 | | |
| B-1 | SPT | 59 | | | | | | | | 34.5 | | |
| B-1 | SPT | 64 | | | | | | | | 32.3 | | |
| B-1 | SPT | 69 | | | | | | | | 43.8 | | |
| B-1 | SPT | 74 | | | | | | | | 35.4 | | |
| B-1 | SPT | 79 | | | | | | | | | | |
| B-2 | SPT | 0 | | | | | | | | 20.5 | | |
| B-2 | SPT | 2 | | | | | | | | 25.7 | | |
| B-2 | SPT | 4 | | | | | | | | 22.3 | | |
| B-2 | SPT | 7 | | | | | | | | 11.8 | | |
| B-2 | SPT | 9 | | | | | | | | 9.9 | | |
| B-2 | SPT | 14 | | | | | | | | 6.3 | | |
| B-2 | SPT | 19 | | | | | | | | 10.3 | | |
| B-2 | SPT | 24 | | | | | | | | 7.0 | | |
| B-2 | SPT | 29 | | | | | | | | 8.2 | | |
| B-2 | SPT | 34 | | | | | | | | 7.7 | | |
| B-2 | SPT | 39 | | | | | | | | 9.5 | | |

Total Jars: 0
Total SPT: 0
Total ST: 0
Total Cut Bags: 0
Total Fill Bags: 0

Drilling Firm: American Engineers (Glasgow)
For: Division of Structural Design
Geotechnical Branch

# ATTERBERG LIMITS' RESULTS 

| Project ID: ***053C00003N*** | ***Hickman - Baltimore Church Road IC (NOR) Railroad*** | Project Type: ***Structure County Bridge*** |
|---|---|---|
| Item Number: ***1-1156*** | | Project Manager: ***Dennis Mitchell*** |

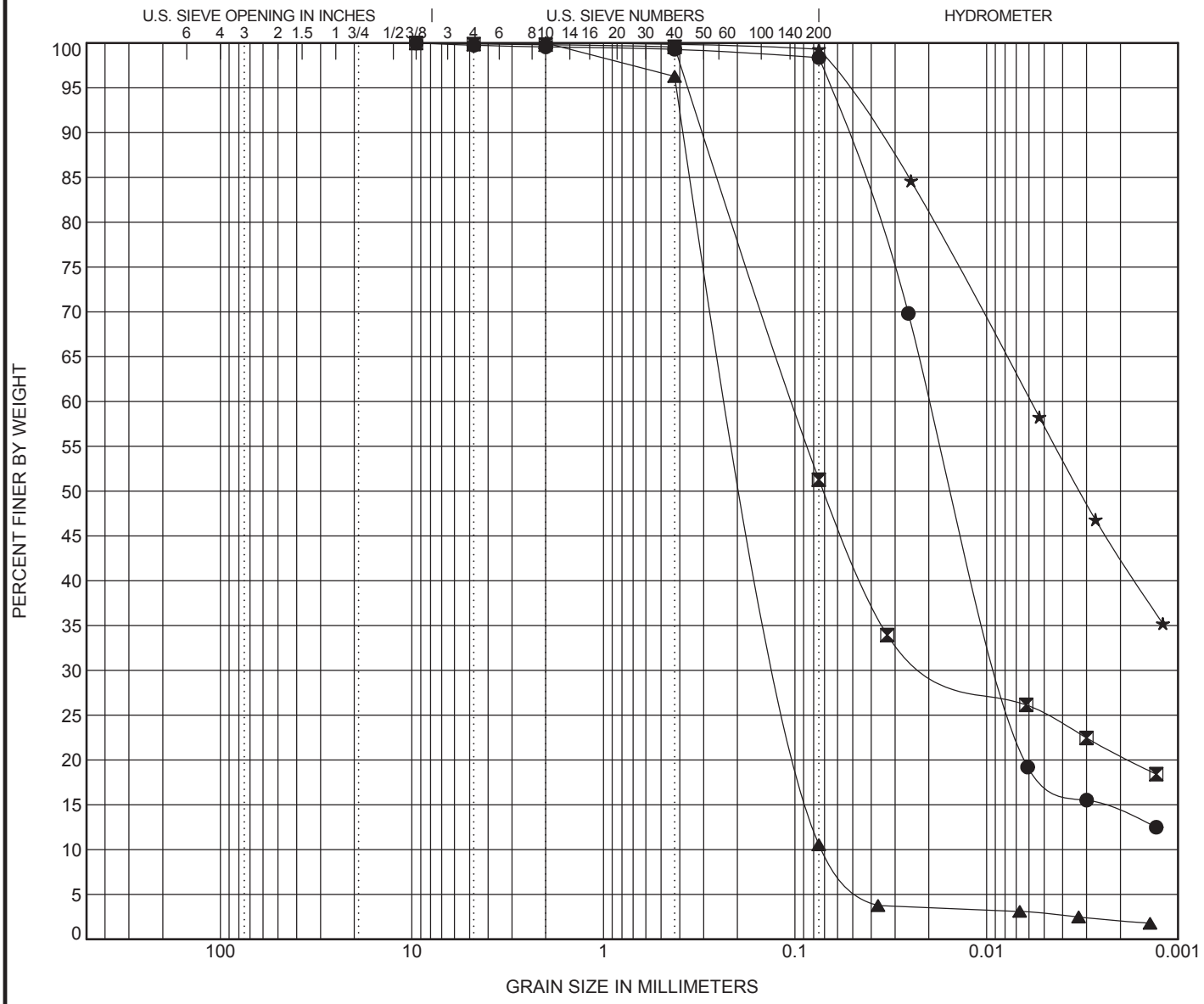



| | Specimen Identification | | LL | PL | PI | Fines | Classification |
|---|---|---|---|---|---|---|---|
| ● | **B-1** | **4.0** | **28** | **18** | **10** | **98** | **LEAN CLAY(CL)** |
| ⊠ | **B-1** | **14.0** | **27** | **16** | **11** | **51** | **SANDY LEAN CLAY(CL)** |
| ▲ | **B-1** | **34.0** | **NP** | **NP** | **NP** | **11** | **POORLY GRADED SAND with SILT(SP-SM)** |
| ★ | **B-1** | **54.0** | **49** | **23** | **26** | **99** | **LEAN CLAY(CL)** |

# GRAIN SIZE DISTRIBUTION



| | | |
|---|---|---|
| Project ID: ***053C00003N*** | ***Hickman - Baltimore Church Road*** | Project Type: ***Structure County Bridge*** |
| Item Number: ***1-1156*** | ***IC (NOR) Railroad*** | Project Manager: ***Dennis Mitchell*** |




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

| | Specimen Identification | | Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|---|
| ● | **B-1** | **4.0** | **LEAN CLAY(CL)** | **28** | **18** | **10** | | |
| ⊠ | **B-1** | **14.0** | **SANDY LEAN CLAY(CL)** | **27** | **16** | **11** | | |
| ▲ | **B-1** | **34.0** | **POORLY GRADED SAND with SILT(SP-SM)** | **NP** | **NP** | **NP** | **0.85** | **2.88** |
| ★ | **B-1** | **54.0** | **LEAN CLAY(CL)** | **49** | **23** | **26** | | |
| | | | | | | | | |

| | Specimen Identification | | D100 | D60 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|---|
| ● | **B-1** | **4.0** | **9.5** | **0.019** | **0.008** | | **0.3** | **1.4** | **84.3** | **14.1** |
| ⊠ | **B-1** | **14.0** | **9.5** | **0.103** | **0.014** | | **0.1** | **48.6** | **30.8** | **20.5** |
| ▲ | **B-1** | **34.0** | **2** | **0.204** | **0.111** | **0.071** | **0.0** | **89.5** | **8.5** | **2.1** |
| ★ | **B-1** | **54.0** | **2** | **0.006** | | | **0.0** | **0.7** | **56.8** | **42.5** |
| | | | | | | | | | | |

County: Hickman
Location: Baltimore Church Road over IC (NOR) Railroad
Bridge No. 053C00003N

LRFD Pile Capacities (For Friction Piles)
**12X53 H-Piles @ End Bents**

Base of Pile Cap Assumed

463 top of boring
454.5 base of pile cap

Groundwater EL. N/A

| Depth Below Pile Cap | Approximate Elevation (ft) | Soil Type | Nominal Side Resistance kips | Nominal Side Resistance tons | Nominal End Bearing kips | Nominal End Bearing tons | **Static Analysis Method** $\phi R_n$ **for Design:** Total Factored Geotechnical Axial Resistance Static Analysis Method kips | **Static Analysis Method** $\phi R_n$ **for Design:** Total Factored Geotechnical Axial Resistance Static Analysis Method tons | **Field Verification Values:** FHWA Modified Gates Formula Calculated Resistance kips | **Field Verification Values:** FHWA Modified Gates Formula Calculated Resistance tons | **Uplift** $\phi R_n$ **for Design:** Total Factored Geotechnical Uplift Resistance Static Analysis Method kips | **Uplift** $\phi R_n$ **for Design:** Total Factored Geotechnical Uplift Resistance Static Analysis Method tons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | cohesionless | 0.0 | 0.0 | 2.1 | 1.1 | 0.9 | 0.5 | 2.4 | 1.2 | 0.0 | 0.0 |
| 15 | 439.5 | cohesionless | 48.0 | 24.0 | 64.9 | 32.5 | 50.8 | 25.4 | 127.0 | 63.5 | 16.8 | 8.4 |
| 20 | 434.5 | cohesionless | 85.3 | 42.7 | 45.1 | 22.6 | 58.7 | 29.3 | 146.7 | 73.4 | 29.9 | 14.9 |
| 21.5 | 433 | cohesionless | 109.2 | 54.6 | 61.7 | 30.9 | 76.9 | 38.5 | 192.3 | 96.1 | 38.2 | 19.1 |
| 25 | 429.5 | cohesive | 121.4 | 60.7 | 18.0 | 9.0 | 59.7 | 29.9 | 149.3 | 74.6 | 41.3 | 20.6 |
| 30 | 424.5 | cohesive | 151.2 | 75.6 | 18.0 | 9.0 | 70.1 | 35.1 | 175.4 | 87.7 | 48.7 | 24.4 |
| 35 | 419.5 | cohesive | 180.9 | 90.5 | 18.0 | 9.0 | 80.5 | 40.3 | 201.3 | 100.7 | 56.1 | 28.1 |
| 40 | 414.5 | cohesive | 210.6 | 105.3 | 18.0 | 9.0 | 90.9 | 45.5 | 227.3 | 113.7 | 63.6 | 31.8 |
| 45 | 409.5 | cohesive | 240.3 | 120.2 | 18.0 | 9.0 | 101.3 | 50.7 | 253.3 | 126.7 | 71.0 | 35.5 |
| 50 | 404.5 | cohesive | 270.0 | 135.0 | 18.0 | 9.0 | 111.7 | 55.9 | 279.3 | 139.7 | 78.4 | 39.2 |
| 55 | 399.5 | cohesive | 299.7 | 149.9 | 18.0 | 9.0 | 122.1 | 61.1 | 305.3 | 152.6 | 85.8 | 42.9 |
| 60 | 394.5 | cohesive | 329.4 | 164.7 | 18.0 | 9.0 | 132.5 | 66.3 | 331.3 | 165.6 | 93.3 | 46.6 |
| 65 | 389.5 | cohesive | 359.2 | 179.6 | 18.0 | 9.0 | 142.9 | 71.5 | 357.4 | 178.7 | 100.7 | 50.4 |

**All Capacities are for a single pile.**

Factors

| | Static Analysis Method | Modified Gates Method |
|---|---|---|
| **Axial Capacity** | | |
| Skin Friction and End Bearing in Clays, α method, Tomlinson | 0.35 | 0.4 |
| Skin Friction and End Bearing in Sands, Nordlund | 0.45 | 0.4 |
| **Uplift Resistance** | | |
| Clays, α method, Tomlinson | 0.25 | |
| Sands, Nordlund | 0.35 | |

| | |
|---|---|
| Side Resistance in Scourable Layers | 0 |
| Side Friction in Embankment | 0 |
| End Bearing in Embankment | 0 |

# GUARDRAIL DELIVERY VERIFICATION SHEET

**Contract Id: _____** **Contractor: _____**

**Section Engineer: _____** **District & County: _____**

| DESCRIPTION | UNIT | QTY LEAVING PROJECT | QTY RECEIVED@BB YARD |
|---|---|---|---|
| GUARDRAIL (Includes End treatments & crash cushions) | LF | _____ | _____ |
| STEEL POSTS | EACH | _____ | _____ |
| STEEL BLOCKS | EACH | _____ | _____ |
| WOOD OFFSET BLOCKS | EACH | _____ | _____ |
| BACK UP PLATES | EACH | _____ | _____ |
| CRASH CUSHION | EACH | _____ | _____ |
| NUTS, BOLTS, WASHERS | BAG/BCKT | _____ | _____ |
| DAMAGED RAIL TO MAINT. FACILITY | LF | _____ | _____ |
| DAMAGED POSTS TO MAINT. FACILITY | EACH | _____ | _____ |

****Required Signatures before Leaving Project Site***

Printed Section Engineer's Representative_____ & Date_____

Signature Section Engineer's Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

****Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)***

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

# 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 2016.*

# 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

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## SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

This Special Note will apply when indicated on the plans or in the proposal.

**1.0 DESCRIPTION.** Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

**2.0 MATERIALS.**

**2.1 General.** Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

**2.2 Sign and Controls.** All signs must:

1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
3) Provide a controller consisting of:
   a) Keyboard or keypad.
   b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
   c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
   d) Logic circuitry to control the sequence of messages and flash rate.
4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
11) Provide a photocell control to provide automatic dimming.

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12) Allow an on-off flashing sequence at an adjustable rate.
13) Provide a sight to aim the message.
14) Provide a LED display color of approximately 590 nm amber.
15) Provide a controller that is password protected.
16) Provide a security device that prevents unauthorized individuals from accessing the controller.
17) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

/KEEP/RIGHT/⇒⇒⇒/
/KEEP/LEFT/⇐⇐⇐/
/LOOSE/GRAVEL/AHEAD/
/RD WORK/NEXT/**MILES/
/TWO WAY/TRAFFIC/AHEAD/
/PAINT/CREW/AHEAD/
/REDUCE/SPEED/**MPH/
/BRIDGE/WORK/***0 FT/
/MAX/SPEED/**MPH/
/SURVEY/PARTY/AHEAD/
/MIN/SPEED/**MPH/
/ICY/BRIDGE/AHEAD/ /ONE LANE/BRIDGE/AHEAD/
/ROUGH/ROAD/AHEAD/
/MERGING/TRAFFIC/AHEAD/
/NEXT/***/MILES/
/HEAVY/TRAFFIC/AHEAD/
/SPEED/LIMIT/**MPH/
/BUMP/AHEAD/
/TWO/WAY/TRAFFIC/

*Insert numerals as directed by the Engineer.
Add other messages during the project when required by the Engineer.

**2.3 Power.**

1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. Provide direct wiring for operation of the sign or arrow board from an external power source to provide energy backup for 21 days without sunlight and an on-board system charger with the ability to recharge completely discharged batteries in 24 hours.

**3.0 CONSTRUCTION.** Furnish and operate the variable message signs as designated on the plans or by the Engineer. Ensure the bottom of the message panel is a minimum of 7 feet above the roadway in urban areas and 5 feet above in rural areas when operating. Use Class I, II, or III signs on roads with a speed limit less than 55 mph. Use Class I or II signs on roads with speed limits 55 mph or greater.

Maintain the sign in proper working order, including repair of any damage done by others, until completion of the project. When the sign becomes inoperative, immediately repair or replace the sign. Repetitive problems with the same unit will be cause for rejection and replacement.

Use only project related messages and messages directed by the Engineer, unnecessary messages lessen the impact of the sign. Ensure the message is displayed in either one or 2 phases with each phase having no more than 3 lines of text. When no message is needed, but it is necessary to know if the sign is operable, flash only a pixel.

When the sign is not needed, move it outside the clear zone or where the Engineer directs. Variable Message Signs are the property of the Contractor and shall be removed from the project when no longer needed. The Department will not assume ownership of these signs.

**4.0 MEASUREMENT.** The final quantity of Variable Message Sign will be

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the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

**5.0 PAYMENT.** The Department will pay for the Variable Message Signs at the unit price each. The Department will not pay for signs replaced due to damage or rejection. Payment is full compensation for furnishing all materials, labor, equipment, and service necessary to, operate, move, repair, and maintain or replace the variable message signs. The Department will make payment for the completed and accepted quantities under the following:

| Code | Pay Item | Pay Unit |
|---|---|---|
| 02671 | Portable Changeable Message Sign | Each |

Effective June 15, 2012

**SPECIAL PROVISION FOR EMBANKMENT AT BRIDGE END BENT STRUCTURES**

This Special Provision will apply when indicated on the plans or in the proposal. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, Current Edition.

**1.0 DESCRIPTION.** Construct a soil, granular, or rock embankment with soil, granular or cohesive pile core and place structure granular backfill, as the Plans require. Construct the embankment according to the requirements of this Special Provision, the Plans, Standard Drawing RGX 100 and 105, and the Standard Specifications, Current Edition.

**2.0 MATERIALS.**

**2.1 Granular Embankment.** Conform to Subsection 805.10. When Granular Embankment materials are erodible or unstable according to Subsection 805.03.04, use the Special Construction Methods found in 3.2 of the Special Provision.

**2.2 Rock Embankment.** Provide durable rock from roadway excavation that consists principally of Unweathered Limestone, Durable Shale (SDI equal to or greater than 95 according to KM 64-513), or Durable Sandstone.

**2.3 Pile Core.** Provide a pile core in the area of the embankments where deep foundations are to be installed unless otherwise specified. The Pile Core is the zone indicated on Standard Drawings RGX 100 and 105 designated as Pile Core. Material control of the pile core area during embankment construction is always required. Proper Pile Core construction is required for installation of foundation elements such as drilled or driven piles or drilled shafts. The type of material used to construct the pile core is as directed in the plans or below. Typically, the pile core area will be constructed from the same material used to construct the surrounding embankment. Pile Core can be classified as one of three types:

**A) Pile Core -** Conform to Section 206 of the Standard Specifications. Provide pile core material consisting of the same material as the adjacent embankment except the material in the pile core area shall be free of boulders or particle sizes larger than 4 inches in any dimension or any other obstructions that may hinder pile driving operations. If the pile core material hinders pile driving operations, take the appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

**B) Granular Pile Core.** Granular pile core is required only when specified in the plans. Select a gradation of durable rock to facilitate pile driving that conforms to Subsection 805.11. If granular pile core material hinders pile driving operations, take appropriate means necessary to reach the required pile tip elevation, at no expense to the Department.

**C) Cohesive Pile Core.** Cohesive Pile Core is required only when specified in the plans. Conform to Section 206 of the Standard Specifications and use soil with at least 50 percent passing a No. 4 sieve having a minimum Plasticity Index (PI) of 10. In addition, keep the cohesive pile core free of boulders, larger than 4 inches in any dimension, or any other obstructions, which would interfere with drilling operations. If cohesive pile core material interferes with drilling operations, take appropriate means necessary to maintain

excavation stability, at no expense to the Department.

**2.4 Structure Granular Backfill.** Conform to Subsection 805.11

**2.5 Geotextile Fabric.** Conform to Type I or Type IV in Section 214 and 843.

**3.0 CONSTRUCTION.**

**3.1 General.** Construct roadway embankments at end bents according to Section 206 and in accordance with the Special Provision, the Plans, and Standard Drawings for the full embankment section. In some instances, granular or rock embankment will be required for embankment construction for stability purposes, but this special provision does not prevent the use of soil when appropriate. Refer to the plans for specific details regarding material requirements for embankment construction.

Place and compact the pile core and structure granular backfill according to the applicable density requirements for the project. If the embankment and pile core are dissimilar materials (i.e., a granular pile core is used with a soil embankment or a cohesive pile core is used with a granular embankment), a Geotextile Fabric, Type IV, will be required between the pile core and embankment in accordance with Sections 214 and 843 of the Standard Specifications.

When granular or rock embankment is required for embankment construction, conform to the general requirements of Subsection 206.03.02 B. In addition, place the material in no greater than 2-foot loose lifts and compact with a vibrating smooth wheel roller capable of producing a minimum centrifugal force of 15 tons. Apply these requirements to the full width of the embankment for a distance of half the embankment height or 50 feet, whichever is greater, as shown on Standard Drawing RGX-105.

When using granular pile core, install 8-inch perforated underdrain pipe at or near the elevation of the original ground in the approximate locations depicted on the standard drawing, and as the Engineer directs, to ensure positive drainage of the embankment. Wrap the perforated pipe with a fabric of a type recommended by the pipe manufacturer.

After constructing the embankment, excavate for the end bent cap, drive piling, install shafts or other foundation elements, place the mortar bed, construct the end bent, and complete the embankment to finish grade according to the construction sequence shown on the Plans or Standard Drawings and as specified hereinafter.

Certain projects may require widening of existing embankments and the removal of substructures. Construct embankment according to the plans. Substructure removal shall be completed according to the plans and Section 203. Excavation may be required at the existing embankment in order to place the structure granular backfill as shown in the Standard Drawings.

After piles are driven or shafts installed (see design drawings), slope the bottom of the excavation towards the ends of the trench as noted on the plans for drainage. Using a separate pour, place concrete mortar, or any class concrete, to provide a base for forming and placing the cap. Place side forms for the end bent after the mortar has set sufficiently to support workmen and forms without being disturbed.

Install 4-inch perforated pipe in accordance with the plans and Standard Drawings. In the event slope protection extends above the elevation of the perforated pipe, extend the pipe through the slope protection.

After placing the end bent cap and achieving required concrete cylinder strengths, remove adjacent forms and fill the excavation with compacted structure granular backfill material (maximum 1’ loose lifts) to the level of the berm prior to placing beams for the bridge. Place Type IV geotextile fabric between embankment material and structure granular backfill. After completing the end bent backwall, or after completing the span end

wall, place the compacted structure granular backfill (maximum 1' loose lifts) to subgrade elevation. If the original excavation is enlarged, fill the entire volume with compacted structure granular backfill (maximum 1' loose lifts) at no expense to the Department. Do not place backfill before removing adjacent form work. Place structure granular backfill material in trench ditches at the ends of the excavation. Place Geotextile Fabric, Type IV over the surface of the compacted structure granular backfill prior to placing aggregate base course.

Tamp the backfill with hand tampers, pneumatic tampers, or other means approved by the Engineer. Thoroughly compact the backfill under the overhanging portions of the structure to ensure that the backfill is in intimate contact with the sides of the structure.

Do not apply seeding, sodding, or other vegetation to the exposed granular embankment.

**3.2 Special Construction Methods.** Erodible or unstable materials may erode even when protected by riprap or channel lining; use the special construction method described below when using these materials.

Use fine aggregates or friable sandstone granular embankment at "dry land" structures only. Do not use them at stream crossings or locations subject to flood waters.

For erodible or unstable materials having 50 percent or more passing the No. 4 sieve, protect with geotextile fabric. Extend the fabric from the original ground to the top of slope over the entire area of the embankment slopes on each side of, and in front of, the end bent. Cover the fabric with at least 12 inches of non-erodible material.

For erodible or unstable materials having less than 50 percent passing a No. 4 sieve, cover with at least 12 inches of non-erodible material.

Where erodible or unstable granular embankment will be protected by riprap or channel lining, place Type IV geotextile fabric between the embankment and the specified slope protection.

**4.0 MEASUREMENT.**

**4.1 Granular Embankment**. The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure for payment any Granular Embankment that is not called for in the plans.

The Department will not measure for payment any special construction caused by using erodible or unstable materials and will consider it incidental to the Granular Embankment regardless of whether the erodible or unstable material was specified or permitted.

**4.2 Rock Embankment.** The Department will not measure for payment any rock embankment and will consider it incidental to roadway excavation or embankment in place, as applicable. Rock embankments will be constructed using granular embankment on projects where there is no available rock present within the excavation limits of the project.

**4.3 Pile Core.** Pile core will be measured and paid under roadway excavation or embankment in place, as applicable. The Department will not measure the pile core for separate payment. The Department will not measure for payment the 8-inch perforated underdrain pipe and will consider it incidental to the Pile Core.

**4.4 Structure Granular Backfill.** The Department will measure the quantity in cubic yards using the plan quantity, increased or decreased by authorized adjustments as specified in Section 204. The Department will not measure any additional material required for backfill outside the limits shown on the Plans and Standard Drawings for payment and will

consider it incidental to the work.

The Department will not measure for payment the 4-inch perforated underdrain pipe and will consider it incidental to the Structure Granular Backfill.

**4.5 Geotextile Fabric.** The Department will not measure the quantity of fabric used for separating dissimilar materials when constructing the embankment and pile core and will consider it incidental to embankment construction.

The Department will not measure for payment the Geotextile Fabric used to separate the Structure Granular Backfill from the embankment and aggregate base course and will consider it incidental to Structure Granular Backfill.

The Department will not measure for payment the Geotextile Fabric required for construction with erodible or unstable materials and will consider it incidental to embankment construction.

**4.6 End Bent.** The Department will measure the quantities according to the Contract. The Department will not measure furnishing and placing the 2-inch mortar or concrete bed for payment and will consider it incidental to the end bent construction.

**4.7 Structure Excavation.** The Department will not measure structure excavation on new embankments for payment and will consider it incidental to the Structure Granular Backfill or Concrete as applicable.

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

| Code | Pay Item | Pay Unit |
|---|---|---|
| 02223 | Granular Embankment | Cubic Yards |
| 02231 | Structure Granular Backfill | Cubic Yards |

The Department will consider payment as full compensation for all work required in this provision.

September 16, 2016

# 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

ATTACHMENTS

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

## I. GENERAL

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

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

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

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

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

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

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

## II. NONDISCRIMINATION

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**6. Training and Promotion:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**III. NONSEGREGATED FACILITIES**

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

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

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

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

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

**1. Minimum wages**

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

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

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

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

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

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

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

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

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

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

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

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

**2. Withholding**

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

**3. Payrolls and basic records**

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

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

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

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

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

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

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

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

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

**4. Apprentices and trainees**

a. Apprentices (programs of the USDOL).

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

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

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

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

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

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

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

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

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

**10. Certification of eligibility.**

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

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

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

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

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

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

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

**VI. SUBLETTING OR ASSIGNING THE CONTRACT**

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

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

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

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

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

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

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

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

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

**VII. SAFETY: ACCIDENT PREVENTION**

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

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

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

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

**VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

* * * * *

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# 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 administrating 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).

# TRANSPORTATION CABINET
# DEPARTMENT OF HIGHWAYS

## LABOR AND WAGE REQUIREMENTS
## APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS

I. Application
II. Nondiscrimination of Employees (KRS 344)

### I. APPLICATION

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

### II. NONDISCRIMINATION OF EMPLOYEES

AN ACT OF THE KENTUCKY
GENERAL ASSEMBLY TO PREVENT
DISCRIMINATION IN EMPLOYMENT
KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

# EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

a) The date of leaving office or termination of employment; or
b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

## Kentucky Equal Employment Opportunity Act of 1978

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address: **https://www.eProcurement.ky.gov**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **finance.contractcompliance@ky.gov** or by phone at 502-564-2874.

"General Decision Number: KY20190040 10/04/2019

Superseded General Decision Number: KY20180102

State: Kentucky

Construction Type: Highway

Counties: Allen, Ballard, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Edmonson, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Simpson, Todd, Trigg, Union, Warren and Webster 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: Under Executive Order (EO) 13658, an hourly minimum wage of $10.60 for calendar year 2019 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, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth

in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---|---|
| 0 | 01/04/2019 |
| 1 | 02/01/2019 |
| 2 | 02/15/2019 |
| 3 | 05/17/2019 |
| 4 | 09/27/2019 |
| 5 | 10/04/2019 |

BRIN0004-002 06/01/2017

BALLARD, BUTLER, CALDWELL, CARLISLE, CRITTENDEN, DAVIESS, EDMONSON, FULTON, GRAVES, HANCOCK, HENDERSON, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN, MCLEAN, MUHLENBERG, OHIO, UNION, and WEBSTER COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | | |
| Ballard, Caldwell, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall, and McCracken Counties | $ 30.50 | 15.16 |
| Butler, Edmonson, Hopkins, Muhlenberg, and Ohio Counties | $ 26.80 | 12.38 |
| Daviess, Hancock, | | |

Henderson, McLean, Union,
and Webster Counties.....$ 30.00 15.16

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BRTN0004-005 06/01/2017

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 26.80 | 12.38 |

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CARP0357-002 04/01/2019

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 29.25 | 19.23 |
| Diver | $ 44.25 | 19.23 |
| PILEDRIVERMAN | $ 29.50 | 19.23 |

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ELEC0369-006 05/28/2019

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 32.44 | 17.22 |

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* ELEC0429-001 06/01/2019

ALLEN & SIMPSON COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 27.24 | 13.21 |

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* ELEC0816-002 06/01/2019

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON (Except a 5 mile radius of City Hall in Fulton), GRAVES,

HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 33.74 | 25.5%+7.05 |

Cable spicers receive $.25 per hour additional.

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ELEC1701-003 06/01/2018

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO, UNION & WEBSTER COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 31.04 | 15.74 |

Cable spicers receive $.25 per hour additional.

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ELEC1925-002 01/01/2019

FULTON COUNTY (Up to a 5 mile radius of City Hall in Fulton):

| | Rates | Fringes |
|---|---|---|
| CABLE SPLICER | $ 25.80 | 12.16 |
| ELECTRICIAN | $ 25.20 | 13.74 |

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ENGI0181-017 07/01/2019

| | Rates | Fringes |
|---|---|---|
| POWER EQUIPMENT OPERATOR | | |
| GROUP 1 | $ 33.30 | 16.50 |
| GROUP 2 | $ 30.44 | 16.50 |
| GROUP 3 | $ 30.89 | 16.50 |
| GROUP 4 | $ 30.12 | 16.50 |

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 Conrete 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 equals or exceeds 150 ft. - $1.00 above 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.

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IRON0070-005 06/01/2019

BUTLER COUNTY (Eastern eighth, including the Townships of Decker, Lee & Tilford);
EDMONSON COUNTY (Northern three-fourths, including the Townships of Asphalt, Bee Spring, Brownsville, Grassland, Huff, Kyrock, Lindseyville, Mammoth Cave, Ollie, Prosperity, Rhoda, Sunfish & Sweden)

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | | |
| Structural; Ornamental; Reinforcing; Precast Concrete Erectors | $ 29.68 | 22.75 |

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IRON0103-004 08/01/2018

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, OHIO, UNION & WEBSTER COUNTIES

BUTLER COUNTY (Townships of Aberdeen, Bancock, Casey, Dexterville, Dunbar, Elfie, Gilstrap, Huntsville, Logansport, Monford, Morgantown, Provo, Rochester, South Hill & Welchs Creek);
CALDWELL COUNTY (Northeastern third, including the Township of Creswell);
CHRISTIAN COUNTY (Northern third, including the Townships of Apex, Crofton, Kelly, Mannington & Wynns);
CRITTENDEN COUNTY (Northeastern half, including the Townships of Grove, Mattoon, Repton, Shady Grove & Tribune);
MUHLENBERG COUNTY (Townships of Bavier, Beech Creek Junction, Benton, Brennen, Browder, Central City, Cleaton, Depoy, Drakesboro, Eunis, Graham, Hillside, Luzerne, Lynn City, Martwick, McNary, Millport, Moorman, Nelson, Paradise, Powderly, South Carrollton, Tarina & Weir)

| | Rates | Fringes |
|---|---|---|
| Ironworkers: | $ 28.66 | 22.435 |

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IRON0492-003 05/01/2018

ALLEN, LOGAN, SIMPSON, TODD & WARREN COUNTIES
BUTLER COUNTY (Southern third, including the Townships of Boston, Berrys Lick, Dimple, Jetson, Quality, Sharer, Sugar Grove & Woodbury);
CHRISTIAN COUNTY (Eastern two-thirds, including the Townships of Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);
EDMONSON COUNTY (Southern fourth, including the Townships of Chalybeate & Rocky Hill);
MUHLENBERG COUNTY (Southern eighth, including the Townships of Dunnior, Penrod & Rosewood)

| | Rates | Fringes |
|---|---|---|
| Ironworkers: | $ 26.11 | 14.02 |

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IRON0782-006 05/01/2018

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN,
LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES
CALDWELL COUNTY (Southwestern two-thirds, including the
Townships of Cedar Bluff, Cider, Claxton, Cobb, Crowtown,
Dulaney, Farmersville, Fredonia, McGowan, Otter Pond &
Princeton);
CHRISTIAN COUNTY (Western third, Excluding the Townships of
Apex, Crofton, Kelly, Mannington, Wynns, Bennettstown, Casky,
Herndon, Hopkinsville, Howell, Masonville, Pembroke &
Thompsonville);
CRITTENDEN COUNTY (Southwestern half, including the Townships
of Crayne, Dycusburg, Frances, Marion, Mexico, Midway,
Sheridan & Told)

| | Rates | Fringes |
|---|---|---|
| Ironworkers: | | |
| Projects with a total contract cost of $20,000,000.00 or above | $ 28.79 | 24.17 |
| All Other Work | $ 27.20 | 22.75 |

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LABO0189-005 07/01/2018

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN,
LIVINGSTON, LYON, MARSHALL & MCCRACKEN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 23.07 | 14.21 |
| GROUP 2 | $ 23.32 | 14.21 |
| GROUP 3 | $ 23.37 | 14.21 |
| GROUP 4 | $ 23.97 | 14.21 |

LABORER 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; Bushammer; 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; Blaster; 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

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LABO0189-006 07/01/2018

ALLEN, BUTLER, CALDWELL, CHRISTIAN, DAVIESS, EDMONSON, HANCOCK,

HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, SIMPSON, TODD, TRIGG & WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 23.07 | 14.21 |
| GROUP 2 | $ 23.32 | 14.21 |
| GROUP 3 | $ 23.37 | 14.21 |
| GROUP 4 | $ 23.97 | 14.21 |

LABORER 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; Bushammer; 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; Blaster; 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

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LABO0561-001 07/01/2018

CRITTENDEN, HENDERSON, UNION & WEBSTER COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 22.71 | 15.00 |
| GROUP 2 | $ 22.96 | 15.00 |
| GROUP 3 | $ 23.01 | 15.00 |
| GROUP 4 | $ 23.61 | 15.00 |

LABORER 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; Bushammer; 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; Blaster; 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

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PAIN0032-002 09/01/2018

BALLARD COUNTY

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Bridges | $ 33.56 | 16.13 |
| All Other Work | $ 31.86 | 16.13 |

Spray, Blast, Steam, High & Hazardous (Including Lead Abatement) and All Epoxy - $1.00 Premium

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PAIN0118-003 06/01/2014

EDMONSON COUNTY:

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush & Roller | $ 18.50 | 11.97 |
| Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning | $ 19.50 | 11.97 |

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PAIN0156-006 04/01/2015

DAVIESS, HANCOCK, HENDERSON, MCLEAN, OHIO, UNION & WEBSTER COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| BRIDGES | | |
| GROUP 1 | $ 27.60 | 12.85 |
| GROUP 2 | $ 27.85 | 12.85 |
| GROUP 3 | $ 28.60 | 12.85 |
| GROUP 4 | $ 29.60 | 12.85 |
| ALL OTHER WORK: | | |
| GROUP 1 | $ 26.45 | 12.85 |
| GROUP 2 | $ 26.70 | 12.85 |
| GROUP 3 | $ 27.45 | 12.85 |
| GROUP 4 | $ 28.45 | 12.85 |

PAINTER CLASSIFICATIONS

GROUP 1 - Brush & Roller

GROUP 2 - Plasterers

GROUP 3 - Spray; Sandblast; Power Tools; Waterblast; Steamcleaning; Brush & Roller of Mastics, Creosotes, Kwinch Koate & Coal Tar Epoxy

GROUP 4 - Spray of Mastics, Creosotes, Kwinch Koate & Coal Tar Epoxy

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PAIN0500-002 06/01/2018

CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Bridges | $ 27.75 | 13.60 |
| All Other Work | $ 21.50 | 13.60 |

Waterblasting units with 3500 PSI and above - $.50 premium
Spraypainting and all abrasive blasting - $1.00 premium
Work 40 ft. and above ground level - $1.00 premium

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PLUM0184-002 07/01/2018

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN and TRIGG COUNTIES

| | Rates | Fringes |
|---|---|---|
| Plumber; Steamfitter | $ 35.06 | 18.18 |

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PLUM0502-004 08/01/2019

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

| | Rates | Fringes |
|---|---|---|
| Plumber; Steamfitter | $ 35.77 | 20.78 |

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PLUM0633-002 07/01/2017

DAVIESS, HANCOCK, HENDERSON, HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, TODD, UNION & WEBSTER COUNTIES:

| | Rates | Fringes |
|---|---|---|
| PLUMBER/PIPEFITTER | $ 31.47 | 16.80 |

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TEAM0089-003 04/01/2019

ALLEN, BUTLER, EDMONSON, LOGAN, SIMPSON & WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Truck drivers: | | |
| Zone 1: | | |
| Group 1 | $ 20.82 | 21.96 |
| Group 2 | $ 21.00 | 21.96 |
| Group 3 | $ 21.08 | 21.96 |
| Group 4 | $ 21.10 | 21.96 |

GROUP 1 - Greaser; Tire Changer

GROUP 2 - Truck Mechanic; Single Axle Dump; Flat Bed; All Terrain Vehicles when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors

GROUP 3 - Mixer All Types

GROUP 4 - Winch and A-Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker; Euclid and Other Heavy Earth Moving Equipment; Low Boy; Articulator Cat; Five Axle Vehicle

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TEAM0215-003 04/01/2019

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO & WEBSTER COUNTIES

| | Rates | Fringes |
|---|---|---|
| TRUCK DRIVER | | |
| Group 1 | $ 22.45 | 21.96 |
| Group 2 | $ 22.68 | 21.96 |
| Group 3 | $ 22.75 | 21.96 |
| Group 4 | $ 22.76 | 21.96 |

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Driver of Distributors; Mixer All Types

GROUP 4: Euclid and other heavy earth moving equipment; Low Boy; Articulator Cat; 5 Axle Vehicle; Winch and A- Frame when used in transporting materials; Ross Carrier; Fork Lift when used to transport building materials; Driver on Pavement Breaker

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TEAM0236-001 04/01/2019

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN,TODD & TRIGG COUNTIES

| | Rates | Fringes |
|---|---|---|
| TRUCK DRIVER | | |
| Group 1 | $ 20.82 | 21.96 |
| Group 2 | $ 21.00 | 21.96 |
| Group 3 | $ 21.00 | 21.96 |
| Group 4 | $ 20.10 | 21.96 |
| Group 5 | $ 21.08 | 21.96 |

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when used to haul materials; Semi Trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Drivers of Distributors

GROUP 4: Euclid and other heavy earth moving equipment; Low Boy; Articulator Cat; Five Axle Vehicle; Winch and A-Frame when used in transporting materials; Ross Carrier

GROUP 5: Mixer All Types

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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)).

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that

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

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

Union Average Rate Identifiers

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

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

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WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

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

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

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

Administrative Review Board

U.S. Department of Labor

200 Constitution Avenue, N.W.

Washington, DC 20210

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

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END OF GENERAL DECISION"

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

# EMPLOYEE RIGHTS
## UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

## FEDERAL MINIMUM WAGE
# $7.25 PER HOUR
**BEGINNING JULY 24, 2009**

**OVERTIME PAY**

At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

**CHILD LABOR**

An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

***No more than***
- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

**TIP CREDIT**

Employers of "tipped employees" must pay a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

**ENFORCEMENT**

The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to $1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to $11,000 for each employee who is the subject of a violation of the Act's child labor provisions. In addition, a civil money penalty of up to $50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to $100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

**ADDITIONAL INFORMATION**

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid $4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:

**1-866-4-USWAGE**

(1-866-487-9243) TTY: 1-877-889-5627

WHD U.S. Wage and Hour Division

**WWW.WAGEHOUR.DOL.GOV**

U.S. Department of Labor | Wage and Hour Division

WHD Publication 1088 (Revised July 2009)

**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 |
|---|---|
| 5.2% | 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 Hickman County.

# PART IV

# INSURANCE

# INSURANCE
## (Railroad Involvement)

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

1) Commercial General Liability-Occurrence form – not less than $2,000,000 General aggregate, $2,000,000 Products & Completed Aggregate, $1,000,000 Personal & Advertising, $1,000,000 each occurrence.

2) Automobile Liability- $1,000,000 per accident

3) Employers Liability:

   a) $100,000 Each Accident Bodily Injury
   b) $500,000 Policy limit Bodily Injury by Disease
   c) $100,000 Each Employee Bodily Injury by Disease

4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
   a) "policy contains no deductible clauses."
   b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."

5) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

6) RAILROAD PROTECTIVE LIABILITY INSURANCE. The policy shall name the railroad as the Named Insured and the limit of liability shall be not less than $5,000,000 combined single limit for Bodily Injury and Property Damage per occurrence, subject to a $10,000,000 aggregate limit per annual policy period. If the project involves a rail facility where passenger trains operate, the insurance limits required that are not less than a combined single limit of $5,000,000 each occurrence and $10,000,000 in the aggregate applying separately to each annual period. The original of this policy must be submitted for the railroad’s approval and filing prior to the commencement of work on this project.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

# PART V

# BID ITEMS

205165

# PROPOSAL BID ITEMS



**Report Date** 1/2/20

## Section: 0001 - BRIDGE - 053C00003N

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|---|---|---|---|---|---|---|---|---|
| 0010 | 00001 | | DGA BASE | 224.00 | TON | | $ | |
| 0020 | 00100 | | ASPHALT SEAL AGGREGATE | 1.30 | TON | | $ | |
| 0030 | 00103 | | ASPHALT SEAL COAT | 11.00 | TON | | $ | |
| 0040 | 00212 | | CL2 ASPH BASE 1.00D PG64-22 | 121.00 | TON | | $ | |
| 0050 | 00301 | | CL2 ASPH SURF 0.38D PG64-22 | 19.00 | TON | | $ | |
| 0060 | 01897 | | ASPHALT WEDGE CURB | 41.00 | LF | | $ | |
| 0070 | 01987 | | DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE | 5.00 | EACH | | $ | |
| 0080 | 02200 | | ROADWAY EXCAVATION | 276.00 | CUYD | | $ | |
| 0090 | 02274 | | FENCE-6 FT CHAIN LINK | 378.00 | LF | | $ | |
| 0100 | 02351 | | GUARDRAIL-STEEL W BEAM-S FACE | 200.00 | LF | | $ | |
| 0110 | 02360 | | GUARDRAIL TERMINAL SECTION NO 1 | 2.00 | EACH | | $ | |
| 0120 | 02363 | | GUARDRAIL CONNECTOR TO BRIDGE END TY A | 4.00 | EACH | | $ | |
| 0130 | 02371 | | GUARDRAIL END TREATMENT TYPE 7 | 1.00 | EACH | | $ | |
| 0140 | 02373 | | GUARDRAIL END TREATMENT TYPE 3 | 1.00 | EACH | | $ | |
| 0150 | 02399 | | EXTRA LENGTH GUARDRAIL POST | 32.00 | EACH | | $ | |
| 0160 | 02484 | | CHANNEL LINING CLASS III | 405.00 | TON | | $ | |
| 0170 | 02545 | | CLEARING AND GRUBBING Less than 1 acre | 1.00 | LS | | $ | |
| 0180 | 02650 | | MAINTAIN & CONTROL TRAFFIC | 1.00 | LS | | $ | |
| 0190 | 02671 | | PORTABLE CHANGEABLE MESSAGE SIGN | 1.00 | EACH | | $ | |
| 0200 | 02678 | | SCARIFYING PAVEMENT | 37.00 | SQYD | | $ | |
| 0210 | 02726 | | STAKING | 1.00 | LS | | $ | |
| 0220 | 02731 | | REMOVE STRUCTURE | 1.00 | LS | | $ | |
| 0230 | 03299 | | ARMORED EDGE FOR CONCRETE | 36.00 | LF | | $ | |
| 0240 | 08003 | | FOUNDATION PREPARATION | 1.00 | LS | | $ | |
| 0250 | 08020 | | CRUSHED AGGREGATE SLOPE PROT | 155.00 | TON | | $ | |
| 0260 | 08033 | | TEST PILES | 94.00 | LF | | $ | |
| 0270 | 08046 | | PILES-STEEL HP12X53 | 1,932.00 | LF | | $ | |
| 0280 | 08100 | | CONCRETE-CLASS A | 90.00 | CUYD | | $ | |
| 0290 | 08104 | | CONCRETE-CLASS AA | 160.00 | CUYD | | $ | |
| 0300 | 08150 | | STEEL REINFORCEMENT | 4,800.00 | LB | | $ | |
| 0310 | 08151 | | STEEL REINFORCEMENT-EPOXY COATED | 39,550.00 | LB | | $ | |
| 0320 | 08160 | | STRUCTURAL STEEL Approx. 238,550 lbs | 1.00 | LS | | $ | |
| 0330 | 21415ND | | EROSION CONTROL | 1.00 | LS | | $ | |
| 0340 | 21532ED | | RAIL SYSTEM TYPE III | 378.00 | LF | | $ | |
| 0350 | 23378EC | | CONCRETE SEALING | 6,500.00 | SQFT | | $ | |
| 0360 | 23380EC | | BEARING PADS | 6.00 | EACH | | $ | |

## Section: 0002 - MOBILIZATION &/OR DEMOBILIZATION

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|---|---|---|---|---|---|---|---|---|
| 0370 | 02568 | | MOBILIZATION | 1.00 | LS | | $ | |
| 0380 | 02569 | | DEMOBILIZATION | 1.00 | LS | | $ | |