



CALL NO. 317

CONTRACT ID. 222964

DAVISS COUNTY

FED/STATE PROJECT NUMBER FE02 030 0231 B00164N 14.42

DESCRIPTION OWENSBORO - INDIANA STATE LINE ROAD (US 231)

WORK TYPE BRIDGE DECK RESTORATION & WATERPROOFING

PRIMARY COMPLETION DATE 7/31/2023

LETTING DATE: July 21,2022

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 21,2022. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

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

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PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 02

CONTRACT ID - 222964

FE02 030 0231 B00164N 14.42

COUNTY - DAVIESS

PCN - MB03002312203

FE02 030 0231 B00164N 14.42

OWENSBORO - INDIANA STATE LINE ROAD (US 231) BRIDGE 030B00164N OVER OHIO RIVER AT MP
14.42BRIDGE DECK RESTORATION & WATERPROOFING

GEOGRAPHIC COORDINATES LATITUDE 37:54:07.00 LONGITUDE 87:02:05.00

ADT

COMPLETION DATE(S):

COMPLETED BY 07/31/2023

APPLIES TO ENTIRE PROJECT

60 CALENDAR Days

APPLIES TO NORTHBOUND

60 CALENDAR Days

APPLIES TO SOUTHBOUND

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

April 30, 2018

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

**SPECIAL NOTES
DISTRICT NO. 2
BRIDGE DECK RESTORATION AND WATERPROOFING
DAVISS COUNTY
CID 222964**

FE02 030 0231 B00164N 14.42

Daviess County ~ US 231 over Ohio River

Geographic Coordinates

Latitude 37° 54' 07.00'' (37.9020)

Longitude -87° 02' 05.00'' (-87.0347)

Description

109'-2~110'-112' PCIB Spans, 273'-355'-275' WSPG Spans, 500'-1200'-500' Cable Stayed Spans, 500'-273' WSPG Spans, 3~137'-136' PCIB Spans. Drawing No. 22537

**SPECIAL NOTES FOR BRIDGE DECK
RESTORATION AND WATERPROOFING**

SPECIAL NOTE FOR TRAFFIC CONTROL

SPECIAL NOTE FOR USE OF THE HYDRODEMOLITION METHOD

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH
CONCRETE OVERLAYS

SPECIAL NOTE FOR JOINT TROUGH REPLACEMENT

SPECIAL NOTE FOR “CLEAN” Stay Cable Deck Anchorage Connection Clean and
Reseal.

SPECIAL NOTE FOR BRIDGE JOINT SEAL REPLACEMENT

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

SPECIAL NOTE FOR TRAFFIC CONTROL

**THIS PROJECT IS
CONTROLLED ACCESS BY
PERMIT HIGHWAY**

- 1. TRAFFIC CONTROL GENERAL.** Except as provided herein, maintain and control traffic in accordance with the 2019 Standard Specifications, the current edition of Standard Drawings, and the attached detail drawings.

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work.

Night work will be necessary on this project. The Contractor shall submit the method of lighting to the Engineer for approval prior to use.

- 2. SIGNS.** All signs used at night shall be either retroreflective with a material that has a smooth, sealed outer surface or illuminated to show the same shape and similar color both day and night. The requirement for sign illumination shall not be considered to be satisfied by street, highway, or strobe lighting. Just prior to erecting Traffic Control Devices, reduce the speed to 50 mph. Payment for the signs shall be at the square foot bid price for Signs. Setting, resetting, removing, covering, and relocating of the signs shall be incidental to the unit price bid for Signs.

Traffic control signs in addition to normal lane closure signing details in the drawings may be required by the Engineer. Signage for restricting width, reduced speed limit, and double fine work zones shall be furnished, relocated, and maintained by the Contractor. Setting, resetting, removing, covering, and relocating signs shall be incidental to the price bid for Signs.

Signs to be located along the bridge shall be clamped to the concrete bridge railing. No welding or drilling shall be permitted.

- 3. PRE-WORK SITE ACCESS.** As detailed in the Special Note for Contract Completion Date and Liquidated Damages on Bridge Repair Contractors, the Contractor will be permitted two days to set up a single lane closure to take measurements, view conditions, and/or other activities to gather necessary information to support the rehabilitation work. The Engineer will not charge time for these days. Schedule these closures with the Engineer at least one week prior to setting up the closures.
- 4. PROJECT PHASING & CONSTRUCTION PROCEDURES.** Portable Changeable Message Signs (PCMSs) are not anticipated on this project. The Department will provide and maintain PCMSs, if needed, at the time of construction.

The length of lane closures shall be only that needed for the diversion of traffic and shall be left in place only long enough to complete each phase of the work. Conform to the attached lane closures drawings, buffer zones, and taper lengths.

The phasing notes shown on the attached drawings are based upon the southbound closure being performed first. The Contractor may, with permission of the Engineer, perform the northbound closure first. The Contractor will be responsible for making necessary changes to the phasing at no additional cost to the Department.

For the full duration of the construction, the Contractor shall post a 50 mile per hour speed limit for the extents of the construction activities.

If the project is underway by Memorial Day, the Contractor is permitted to work on Memorial Day weekend. The Contractor is also permitted to work over the Fourth of July and Labor Day weekends.

Work must be completed and bridge fully open to traffic prior no later than 11:59 PM on July 31, 2023.

Upon approval immediately notify the following of the scheduled lane closures:

Daviess County Judge Executive
US Postal Service
Fire Departments (In KY and IN)
Ambulance Service
Kentucky and Indiana State Police Departments
Daviess County, KY and Spencer County, IN Police and Sheriff Departments

The Department will provide public notification.

5. **BARRICADES.** Contrary to Section 112.04.04 of the Standard Specifications, barricades used to protect removal areas and to close lanes will be incidental to "Maintain and Control Traffic".
6. **TRAFFIC COORDINATOR.** Designate an employee to be Traffic Coordinator. In addition to the requirements of Section 112.03.10, during any period when a lane closure is in place, the Traffic Coordinator shall arrange for personnel to be present on the project at all times to inspect the traffic control and to maintain the signing and devices. The project personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents. The Department will consider the cost of the Traffic Coordinator incidental to the price bid for Maintain and Control Traffic.
7. **PROTECTION BELOW THE STRUCTURE.** No material should be allowed to drop into the waterway below or on to the ground below the structure unless the area is blocked from public access, where applicable, and permission is given by the Engineer.
8. **PAVEMENT MARKERS.** Just prior to switching to two directional traffic on one side of the roadway, the Contractor shall remove the lenses from the existing pavement markers along the centerline and left edge of the roadway between the bridge abutments and the crossovers on both ends of the bridge per Section 112.03.10. The lenses shall be replaced with yellow lenses along the centerline of the roadway and white lenses along the left edge of the roadway for the duration that two directional traffic is present. The original colored lenses shall be reinstalled following resumption of the normal traffic pattern. This work shall be incidental to Maintain and Control Traffic.

9. **TUBULAR MARKERS.** Tubular markers shall be placed along the centerline of the roadway between the crossovers where two directional traffic is in place on one side of the existing roadway.

10. **MEASUREMENT**

- A. **Signs.** The Department will measure the quantity of Temporary Signs per Section 112.04.02 of the Standard Specifications.
- B. **Lane Closures.** Contrary to Section 112, lane closures of any type will not be measured for payment but are considered incidental to the bid item "Maintain and Control Traffic", Lump Sum.
- C. **Arrow Panels.** The Department will measure the quantity by each individual unit per Section 112.04.05 of the Standard Specifications.
- D. **Relocate Crash Cushion.** The Department will measure the number of individual times that a temporary crash cushion has to be moved and assembled at a new location between successive phases of the project.
- E. **Concrete Barrier Wall Type 9T.** The Department will measure the length of concrete barrier wall installed and accepted per Section 509.04.01.
- F. **Tubular Markers.** The Department will measure the quantity by each individual unit, including replacement unit per Section 112.04.03 of the Standard Specifications.
- G. **Pavement Striping.** The Department will measure the quantity of Permanent Pavement Striping north of End Bent 2 per Section 713.04.01 of the Standard Specifications.
- H. **Temporary Pavement Striping.** The Department will measure the quantity of Temporary Pavement Striping per Section 112.04.07 of the Standard Specifications.
- I. **Durable Pavement Markings.** The Department will measure the quantity of Durable Pavement Markings south of End Bent 2 per Section 714.04.02 of the Standard Specifications.
- J. **Crash Cushion Type VI Class BT TL3.** The Department will measure the quantity of temporary crash cushions per 112.04.12.
- K. **Maintain and Control Traffic.** The Department will measure the quantity by lump sum per Section 112.04.01 of the Standard Specifications. All materials and labor necessary to maintain and control traffic per this Note, the Standard Specifications, and the attached detail drawings that are not listed above shall be considered incidental to this item of work.

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

| <u>Code</u> | <u>Pay Item</u> | <u>Pay Unit</u> |
|-------------|-----------------------------------|-----------------|
| 02562 | Temporary Signs | Square Foot |
| 02650 | Maintain and Control Traffic | Lump Sum |
| 02775 | Arrow Panel | Each |
| 02898 | Relocate Crash Cushion | Each |
| 03171 | Concrete Barrier Wall Type 9T | Linear Foot |
| 03225 | Tubular Markers | Each |
| 06514 | Pave Striping – Perm Paint – 4 In | Linear Foot |
| 06550 | Pave Striping – Temp Rem Tape – W | Linear Foot |
| 06551 | Pave Striping – Temp Rem Tape – Y | Linear Foot |
| 06556 | Pave Striping – Dur Ty 1-6 In W | Linear Foot |
| 06657 | Pave Striping – Dur Ty 1-6 In Y | Linear Foot |
| 08903 | Crash Cushion Ty VI Class BT TL3 | Each |

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

SPECIAL NOTE FOR USE OF THE HYDRODEMOLITION METHOD

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of bridge surface deck preparation using hydrodemolition to provide a uniform depth, highly bondable surface and to remove all variable depth, unsound material. This item also includes the removal and disposal of all concrete and debris, vacuuming, shielding, water control, additional jack hammering, and all other aspects of work necessary to prepare the deck for the placement of the new latex modified concrete overlay.

II. EQUIPMENT.

- A. Sawing Equipment.** Sawing equipment shall be a concrete saw capable of sawing concrete to the specified depth.
- B. Mechanical Scarifying Equipment.** The scarifying equipment shall be a power operated mechanical scarifier capable of uniformly scarifying or removing the existing latex modified concrete or integral concrete wearing surface from the bridge deck to the depths required in this Note or as directed by the Engineer. The equipment shall be self-propelled with sufficient power, traction, and stability to maintain accurate depth of cut and slope. The equipment shall be capable of accurately and automatically establishing profile grades along each edge of the machine by referencing the existing bridge deck by means of a ski or matching shoe or from an independent grade control; in addition, it shall be equipped with an integral loading means to remove the material being cut from the bridge deck and to discharge the cuttings into a truck all in a single operation.
- C. Hydrodemolition Equipment.** The hydrodemolition equipment shall consist of a filtering and pumping unit operating with a self-propelled computerized robot that utilizes a high pressure water jet capable of removing concrete to the depth specified in this Note or as directed by the Engineer and be capable of removing rust and concrete particles from reinforcing steel. The equipment shall provide a rough and bondable surface and remove all unsound concrete during the initial pass. The minimum water usage shall be 43 gal/min operating at 13,000 psi minimum.
- D. Vacuum Cleanup Equipment.** The vacuum cleanup equipment shall be equipped with fugitive dust control devices and be capable of removing wet debris and water

all in the same pass. Provide equipment capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface.

- E. Hand Held Blast Cleaning Equipment.** Hand held blast shall be either sand or water as necessary to expose fine and coarse aggregates, thoroughly clean all exposed reinforcing steel, and remove any unsound concrete or laitance layers from the proposed concrete overlay surface. If sand blasting equipment is utilized, the equipment shall have oil traps. If water blasting equipment is utilized, the equipment must be capable of delivering a minimum of 5,000 psi.
- F. Power Driven Hand Tools.** Power driven hand tools and jackhammers will be permitted but shall not be heavier than the nominal 45 lb. class. Chipping hammers shall not be heavier than the nominal 15 lb. class. Only hand chipping tools shall be used when removing concrete within 1 in. of reinforcing steel. Mechanically driven tools shall be operated at a maximum angle of 45 degrees from the bridge deck surface.

III. CONSTRUCTION.

- A. General.** Perform hydrodemolition surface preparation over the entire top surface of the reinforced concrete bridge deck to provide a rough and bondable surface and to remove all unsound concrete during the initial hydrodemolition surface preparation pass. The use of hand chipping tools, either hand or mechanically driven, shall be limited to trim work and areas inaccessible or inconvenient for the hydrodemolition equipment.
- B. Description.** This work shall consist of furnishing the necessary labor, materials, and equipment to provide a rough and bondable surface in accordance with the Specifications and this Note and in reasonably close conformity with the grades, thickness, or sections shown on the attached detail drawings or as directed by the Engineer. This work shall include the removal of patches other than sound Portland cement concrete and all loose and unsound concrete by hydrodemolition; preparation of the sound existing concrete deck; removal, forming, and concrete for full depth repairs; blast cleaning or high pressure water cleaning the existing deck prior to placement of the modified concrete overlay; and all other operations necessary to complete this work according to these specifications and to the satisfaction of the Engineer.
- C. Preparation of Existing Deck.** No operations performed without reasonably available engineering controls that limit fugitive dust will be acceptable.

The Contractor shall be aware that there are federal, state, regional, and local government agencies that have requirements regarding the control of fugitive dust generated by concrete removal and blasting operations.

The Contractor is responsible for protecting traffic traveling adjacent to and under the work zone while removing bridge deck concrete.

Where the deck is sound for less than one third of its original depth, the concrete shall be removed full depth for limited areas as designated by the Engineer. Full depth repairs shall be completed as specified for Full Depth Repair.

- D. Removal of Existing Modified Concrete Overlays (Main Spans – Spans 8 to 10).** The existing latex modified concrete overlay on the original bridge deck surface to be prepared by hydrodemolition must be removed, and the bridge deck cleaned, prior to commencement of the hydrodemolition operation. The Contractor may utilize conventional scarifying equipment conforming to these specifications to remove the existing concrete overlay from the original bridge deck. Mechanical scarification shall be performed to between 1/8” and 1/4” above the original bridge deck surface (top of the precast concrete deck panels). Total surface hydrodemolition is used to provide a highly bondable surface and to remove partial depth deteriorated concrete. A depth of no more than 1/16” of the surface of the existing precast concrete panels shall be removed by hydrodemolition unless deteriorated concrete is encountered; ideally the hydrodemolition equipment will be calibrated to not remove any depth of the precast deck panels. If deteriorated concrete is encountered, notify the Engineer immediately.

Existing overlay material, which is sound and well bonded following both mechanical scarification and hydrodemolition shall be left in place.

If hydrodemolition extends to a depth more of more than 1/16” into the precast deck panels, hydrodemolition shall be immediately stopped and recalibrated to meet the removal limits described above.

- E. Bridge Decks with No Existing Concrete Overlay (Approach Spans – Spans 1 to 7 and 11 to 16).** The Contractor shall use mechanical scarification equipment conforming to these specifications prior to performing hydrodemolition on the original bridge deck surface without a concrete bridge deck overlay to remove 1 ½” of the existing deck surface. Total surface hydrodemolition is used to provide a highly bondable surface and to remove partial depth deteriorated concrete.

If the use of mechanical scarifying equipment results in the snagging of the top mat of steel reinforcement, the scarifying equipment shall be immediately stopped

and the depth of removal adjusted. Damaged or dislodged reinforcing steel shall be repaired or replaced at the Contractor's expense. Replacement shall include the removal of any additional concrete required to position the new reinforcing steel at the correct height and required lap splice lengths.

F. Concrete Removal by Hydrodemolition.

- i. **General.** The total surface area of the reinforced concrete bridge deck shall be completely prepared by hydrodemolition as necessary to provide a highly roughened and bondable surface prior to placement of the proposed bridge deck overlay while removing any deteriorated and unsound concrete in the initial pass. Unsound concrete is defined as existing bridge deck concrete that is deteriorated, spalled, or determined by the Engineer to be unsound.

With the use of hydrodemolition surface preparation, the requirement to provide a minimum ¼" clearance around all reinforcing bars that are more than ½" diameter exposed is waived, providing that the existing concrete is sound. The amount of steel exposed shall be kept to a minimum.

Damaged or dislodged reinforcing steel shall be repaired or replaced at the Contractor's expense. Replacement shall include the removal of any additional concrete required to position the new reinforcing steel at the correct height and to provide the required lap splice lengths as required.

- ii. **Calibration.** Prior to commencement of the hydrodemolition removal operation, the hydrodemolition equipment shall be calibrated on an existing sound concrete surface on the approach spans as designated by the Engineer. The calibration area shall be a minimum of 7 feet wide by 7 feet long to demonstrate the desired result of this specification.

Move the hydrodemolition equipment to a second area (7'x7') on the main spans as designated by the Engineer to demonstrate the desired result of this specification which is providing a highly rough and bondable surface and removing all unsound concrete during the initial pass is being achieved without removing more than a 1/16" depth of the precast concrete deck panels.

The Engineer shall verify the following settings:

1. Water pressure gauge (13,000 psi minimum)
2. Machine staging control (step)
3. Nozzle size

4. Nozzle speed (travel)
5. Depth of removal
6. Minimum water usage (43 gallons per minute)

During the hydrodemolition operations, any or all of the above settings may be modified in order to achieve removal of all unsound concrete and to provide a highly bondable surface. The settings may be changed by the Contractor to achieve total removal of unsound concrete, but the Engineer must be notified of all changes. The Engineer may change any or all of the settings in order to achieve the desired results with hydrodemolition. The removals and depth shall be verified, as necessary, and at least every 30 feet along the cutting path. The readings shall be documented and, if necessary, the equipment recalibrated to insure the hydrodemolition process achieves the desired results and removal of unsound concrete.

Calibration shall be required on each structure, each time hydrodemolition is performed, and as required to achieve the results specified by the plan.

- iii. **Debris and Fluid Containment.** Prior to commencement of the hydrodemolition operation, the Contractor shall submit a plan for approval to the Engineer for control and filtering of all water discharged during operation. The Contractor, at a minimum, shall block all drains on the deck and install aggregate dams every 150 feet; 6 inches high by 1 foot wide minimum, to strain runoff. The deck shall be used as a settlement basin within itself unless an alternate method of water control, satisfactory to the Engineer and meeting the environmental requirements of any associated Regulatory Agency, is required.

The Contractor shall provide shielding, as necessary, to insure containment of all dislodged concrete within the removal area in order to protect the public from flying debris both on and under the work site.

- G. **Cleaning.** Cleaning shall be performed with a vacuum system capable of removing wet debris and water all in the same pass. The vacuum equipment shall be capable of washing the deck with pressurized water prior to the vacuum operation to dislodge all debris and slurry from the deck surface. Cleaning shall be done in a timely manner, before debris and water is allowed to dry on the deck surface.
- H. **Resounding.** After the hydrodemolition operation has completed the removal, and the deck is cleaned and allowed to dry, the deck shall be resounded to assure that all unsound concrete deck material has been removed. The final sounding of the deck shall be done by the Engineer and shall be performed only when the entire

deck is completely dry. In no case shall the final sounding be made unless the deck is dry and frost-free. Final sounding shall consist of as many successive resoundings as required to ensure that all deteriorated and fractured concrete has been removed. Additional removal shall be performed with 45 lb. maximum weight jackhammers operated at an angle of not more than 45 degrees from horizontal. Aerosol spray paint for outlining and sounding chains shall be provided by the Contractor.

- I. **Full Depth Repair.** Where the deck on the approach spans is sound for less than one third of its original depth, the concrete shall be removed full depth except for limited areas as may be designated by the Engineer. Forms shall be provided to support concrete placed in full depth repair areas. The forms for areas of up to 4 square feet may be suspended from wires from the reinforcing steel. For areas greater than 4 square feet, the forms shall be suspended from the primary members of the superstructure or by shoring below. Areas of full depth repair shall have the concrete faces and reinforcing steel cleaned. Only those areas marked in the field by the Engineer as full depth repair will be paid for as full depth repair.

Full depth repairs are not anticipated on the main spans. If conditions warrant full depth repairs on the main spans, the Engineer will provide a method to perform the repairs.

- J. **Preparation Prior to Overlay Placement.** Vehicles other than approved construction equipment will not be permitted on those sections of the deck where hydrodemolition has begun. Contamination of the deck by construction equipment or from any other source shall be prevented.

IV. **MEASUREMENT.** See Section 606, the Special Note for Bridge Restoration and Waterproofing with Concrete Overlays, and the following:

- A. **Surface Preparation Using Hydrodemolition.** The Department will measure the quantity hydrodemolition as the actual deck area in square yards overlaid and shall include the costs of hydrodemolition, removal of the surface preparation debris, cleaning, any incidental materials, and all labor and equipment necessary to complete the work as described in this Note, in the attached detail drawings, and the Specifications.

V. **PAYMENT.** The Department will make payment for the completed and accepted quantities per Section 606 and under the following bid item:

- A. Hydrodemolition.** The Department will make payment for the hydrodemolition under bid item #08550 "HYDRODEMOLITION" for the deck area prepared by hydrodemolition.

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

SPECIAL NOTE FOR BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, equipment, and all necessary incidental items; (2) Remove the existing overlay; (3) Complete full depth and partial depth repairs as directed by the Engineer; (4) Repair/replace damaged and corroded reinforcing bars; (5) Place new concrete overlay and epoxy-sand slurry in accordance with Section 606; and (6) Any other work specified as part of this contract.

All construction will be in accordance with Section 606 unless otherwise specified.

II. MATERIALS.

- A. Latex Concrete.** See Section 606.03.17.
- B. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- C. Epoxy-Sand Slurry.** See Section 606.03.10.

III. CONSTRUCTION.

- A. Remove Existing Overlay.** In addition to Section 606.03.03, remove the existing concrete overlay by mechanical scarification to the specified depth or as directed by the Engineer. Following scarification, perform hydrodemolition over the entire deck surface per the Special Note for Use of the Hydrodemolition Method.
- B. Partial Depth Slab Repair and Latex Overlay.** Remove areas determined to be unsound by the Engineer via hydrodemolition or via hand held jackhammers weighing less than 45 lbs. in accordance with Section 606.02.10 D. Repair/replace all damaged or severely corroded reinforcing bars prior to partial depth repair operation. The Department will not measure material removal and will consider this work incidental to the bid item "PARTIAL DEPTH PATCHING". Mix and place latex modified concrete overlay in accordance with Sections 606.03.08 and 606.03.17.

The latex modified concrete overlay shall be placed from gutterline to gutterline with no longitudinal joints permitted. Transverse construction joints are permitted on the approach spans as determined by the Contractor. One transverse construction joint is permitted on the main cable stayed spans, defined for this purpose as being from 5 feet south of the centerline of Pier A to 5 feet north of the centerline of Pier D.

- C. **Full Depth Patching.** See Section 606.03.05 the Special Note for the Use of the Hydrodemolition Method.
- D. **Surface Texturing.** Texture the concrete surface of the overlay in accordance with Section 609.03.10.
- E. **Epoxy-Sand Slurry.** Place epoxy-sand slurry per Section 606.03.10.

IV. **MEASUREMENT.** See Section 606 and the following:

- A. **Latex Modified Concrete for Overlay.** The Department will measure the quantity in cubic yards using the theoretical volume as follows for each bridge:

$$030B00164N \quad (4505' \times 32' \times 1.5") \times 2 \quad = \quad 1334.8 \text{ cu yd}$$

- B. **Latex Modified Concrete for Partial Depth Patching and Variable Thickness of Overlay.** The Department will measure the quantity in cubic yards by deducting the theoretical volume of bridge deck overlay (LMC) from the total volume (as indicated by the batch quantity tickets) of concrete required to obtain the finished grade shown on the plans or established by the Engineer.
- C. **Full Depth Patching.** The Department will measure the quantity of full depth patching in cubic yards, which shall include all labor, equipment, and material needed to complete this work.
- D. **Remove Existing Overlay.** The Department will measure the removal of the existing overlay in square yards, which shall include all labor, equipment, and material needed to complete this work.
- E. **Steel Reinforcement.** The Department will measure any reinforcing steel necessary for the partial or full depth patch in pounds, which shall include all labor, equipment, and material needed to complete this work.
- F. **Epoxy-Sand Slurry.** The Department will measure the quantity in square yards. The Department will measure the entire area covered, including the 12 inch width of the overlay and the 2 inch height on the face of the railing per the Standard Drawing.

V. **PAYMENT.** The Department will make payment for the completed and accepted quantities per Section 606 and under the following bid items:

- A. **Latex Modified Concrete for Overlay.** The Department will make payment for the latex modified concrete overlay under bid item #08534 "CONCRETE OVERLAY – LATEX" for the theoretical quantity.

- B. Latex Modified Concrete for Partial Depth Patching and Variable Thickness of Overlay.** The Department will make payment for the partial depth patching under bid item #24094EC "PARTIAL DEPTH PATCHING". Payment will be for the quantity per cubic yard complete in place.
- C. Full Depth Patching.** The Department will make payment for the Full Depth Patching under bid item #08526 "CONC CLASS M FULL DEPTH PATCH". Payment will be for the quantity per cubic yard complete in place.
- D. Remove Existing Overlay.** The Department will make payment for the removal of the existing overlay under the bid item #08510 "REM EPOXY BIT FOREIGN OVERLAY". Payment will be for the square yard complete.
- E. Steel Reinforcement.** The Department will make payment for steel reinforcement, if necessary, under bid item #08150 "STEEL REINFORCEMENT". Payment will be at the unit price per pound.
- F. Epoxy-Sand Slurry.** The Department will make payment for placement of epoxy-sand slurry under bid item #08504 "EPOXY-SAND SLURRY". Payment will be for the square yard in place.

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

SPECIAL NOTE FOR JOINT TROUGH REPLACEMENT

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, equipment, and all necessary incidental items; (2) Remove existing troughs below finger joints; (3) Remove debris from pier caps below finger joints and from steel catch basins and attached drain pipes at the ends of the finger joints; (4) Pressure wash bridge components below finger joints; (5) Install new troughs below finger joints; (6) Any other work specified as part of this contract.

II. MATERIALS.

- A. Finger joint troughs.** Troughs shall be 50 Durometer ¼" thick continuously reinforced 100 percent virgin chloroprene.
- B. Wash water.** Use clean potable water for all pressure washing.

III. CONSTRUCTION.

- A. Remove Existing Materials.** Prior to removing the troughs below the finger joints at Pier 4S and Pier 1N, fully remove all debris in the troughs. Remove the troughs. Remove debris on the bridge components below the torn portions of the troughs. Equipment for removing debris shall be determined by the Contractor, subject to the approval of the Engineer. The Contractor shall prevent any debris from entering any body of water, bridge drainage system, or traffic lanes. All debris removed and the joint troughs removed shall be disposed of in a suitable off-site disposal facility.

Remove debris from the steel catch basins and attached drain pipes at the ends of the joint troughs. Debris may be removed by a combination of shoveling, rodding, use of pressurized water, or any other method acceptable to the Engineer. All debris shall be collected and disposed of in a suitable off-site disposal facility. The Contractor shall prevent any debris from entering any body of water.

The existing 3" x 3/8" continuous plates as well as the washers and nuts that connect the troughs to the framing below the joints shall be retained and reused. Any materials damaged or lost in the removal and replacement process shall be replaced in-kind by the Contractor to the satisfaction of the Engineer at no expense to the Department.

- B. Pressure Washing.** Following debris removal from bridge components below the torn portions of the troughs, pressure wash the pier caps, structural steel, bearings, and any other components as directed by the Engineer to fully remove all remnants of debris from the finger joints. The equipment for pressure washing shall be operated at up to 4,000 psi with a 0 degree spinner tip and/or fan tips as determined by the Engineer at the working locations with a minimum flow rate of 3.5 gal/minute provided that the pressure does not damage any components of the structure. Pressure and flow rates shall be reduced to a level satisfactory to the Engineer should any damage occur due to pressure washing procedures. Pressure washing shall be operated at a distance of approximately 6 inches from and perpendicular to the surface. All pressure washing wands shall be equipped with a gauge to accurately determine the amount of pressure used. Pressure washing shall proceed from the top of the wash area to the bottom of the wash area. Wash water shall not flow over bridge components previously washed. Perform all pressure washing at temperatures above 40 degrees Fahrenheit.
- C. Joint Trough Installation.** Install new troughs below the existing finger joints. The troughs shall be the same length as the existing troughs and shall not rub against the catch basins at the ends of the troughs in either the open position or the closed position. Reuse existing plates, washers, and nuts or replace in-kind to the satisfaction of the Engineer at no additional cost to the Department.

IV. MEASUREMENT.

- A. Joint Trough Replacement.** The Department will measure the work detailed in this Note, including joint trough removal and replacement, debris removal, and pressure washing, at each individual pier where the work is performed.
- B. Clean Bridge Drains.** The Department will measure the number of individual steel catch basins and attached drain pipes at the ends of the finger joints troughs cleaned. A steel catch basin and the attached drain pipe will be measured as a single unit.

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

- A. Joint Trough Replacement.** The Department will make payment for joint trough replacement under bid item #25092EC "JOINT TROUGH REPLACEMENT". Payment will be for the quantity of piers at which the work is performed and accepted.
- B. Clean Bridge Drains.** The Department will make payment for cleaning catch basins and drain pipes at the ends of the finger joint troughs under bid item #03261 "CLEAN BRIDGE DRAINS". Payment will be for each catch basin and attached drain pipe cleaned.

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

**SPECIAL NOTE FOR “CLEAN”
Stay Cable Deck Anchorage Connection Clean and Reseal**

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway’s 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings.

This work consists of cleaning, lubricating, and sealing the 96 stay cable deck anchorage connections. All labor, materials, tools, and equipment shall be incidental to the bid item for “CLEAN”.
- II. CLEANING.** The Contractor shall clean and remove all loose material, including stratified rust from the stay cable deck anchorage connections with a wire brush or equivalent method to SSPC Level 2.
- III. LUBRICATING.** Apply grease lubricant a minimum of 6 (six) inches above and around the connection. The lubricant shall be ‘Never Seez – Mariner’s Choice’ produced by Bostik Inc., Mobil Centaur Moly NLGI Grades 1 or 2 produced by Mobil Oil, ‘Premalube #1 WG’ produced by Certified Labs, or an approved equivalent.
- IV. SEALING.** Remove any existing caulk and seal the perimeter of the stay cable deck anchorage connection interface with the concrete deck with a urethane caulk. Care should be taken to seal the entire interface such that water will not penetrate the interface. Removal of existing caulk shall be incidental to unit bid for “Clean”.
- V. MEASUREMENT.** The Department will measure each individual stay cable deck anchorage cleaned, resealed, and accepted.
- VI. PAYMENT.** The Department will make payment for the completed and accepted quantities per the Specifications and under the following bid items:

 - A. Clean.** The Department will make payment for cleaning and resealing stay cable deck anchorage connections under bid item #24662EC “CLEAN”. Payment will be for each individual stay cable deck anchorage connection cleaned, lubricated, resealed, and accepted.

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

SPECIAL NOTE FOR BRIDGE JOINT SEAL REPLACEMENT

- I. DESCRIPTION.** Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2019 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, equipment, and all necessary incidental items; (2) Remove debris from the strip seal glands that are to remain; (3) Remove existing bridge compression and pourable joint seals; (4) Prepare the existing armored edges; (5) Install new joint seals; (6) Any other work specified as part of this contract.

All construction will be in accordance with Section 606 unless otherwise specified.

It is recommended that this work be performed following completion of the new latex modified concrete overlay. If the Contractor chooses to perform this work prior to completion of the overlay, the Contractor shall replace or repair damaged joint seals to the satisfaction of the Engineer at no additional cost to the Department.

II. MATERIALS.

- A. Pre-compressed Horizontal Expansion Joint System.** See attached detail drawings and Section 807.
- B. Wash water.** Use clean potable water for all pressure washing.

III. CONSTRUCTION.

- A. Remove Debris.** Remove debris from the existing strip seal glands at End Bent 2. Equipment for removing debris shall be determined by the Contractor, subject to the approval of the Engineer. The Contractor shall prevent any debris from entering any body of water, bridge drainage system, or lanes carrying traffic. All debris removed shall be disposed of in a suitable off-site disposal facility. Strip seal glands damaged by debris removal operations shall be repaired or replaced by the Contractor at no additional cost to the Department.
- B. Remove Existing Materials.** Remove existing compression and pourable joint seals where indicated on the detail drawings. Joint seals are to be removed shortly before replacement; the Contractor may not remove joint seals prior to placing the new overlay and install new seals after completion of the overlay. Remove debris and/or expansion joint filler as directed by the Engineer. Clean and leave all steel armored edges in place. Damaged steel armored edges will be repaired or replaced as directed by the Engineer at no additional cost to the Department.

Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Joint Seal Replacement".

- C. Joint Preparation.** Prepare the existing armored edges per Section 606.03.11.
- D. Expansion Joint Seal System.** Install a watertight expansion joint seal system according to manufacturer's recommendations. Require the presence of a competent technical representative of the manufacturer during the installation of the expansion joint system to provide aid and instruction for the satisfactory installation of the system. Prepare and submit shop drawings showing the name of the manufacturer, pertinent dimensions, plan of the joint showing the location and details of field splices, and details of the expansion joint at railings. Submit a sample of material along with the shop drawings.

Furnish an expansion joint seal system comprised of three components:

- i. Cellular polyurethane foam impregnated with hydrophobic 100 percent acrylic, water-based emulsion, factory coated with highway-grade, low modulus, fuel resistant silicone.
- ii. Field-applied epoxy adhesive primer.
- iii. Field-injected silicone sealant bands.

Use an impregnation agent having proven non-migratory characteristics. Furnish a highway-grade, low modulus, fuel resistant silicone applied to the impregnated foam sealant at a width greater than maximum allowable joint extension and which when cured and compressed will form a bellows. Measure the opening of each joint (inside face of armored edge to inside face of armored edge) and record the temperature at the time of the measurements. Follow manufacturer recommendations for the width and depth of the seal based on this information as well as the lengths of the spans as shown in the attached detail drawings.

Field install the expansion joint foam seal into manufacturer's standard field-applied epoxy adhesive. Install the expansion joint seal system recessed from the surface such that when the field-applied injection band of silicone is installed between the substrates and the foam-and silicone-bellows, the system will be 1/2 inch down from the substrate surface.

Furnish material capable, as a dual seal, of movements of +50 percent, -50 percent (100 percent total) of nominal material size. Execute changes in plane and direction using factory-fabricated transition assemblies. Furnish transitions warranted to be watertight at inside and outside corners through the full movement capabilities of the product.

Certify in writing that the expansion joint seal system is free in composition of any waxes or asphalts, wax compounds or asphalt compounds. Also certify in writing that the expansion joint seal system is capable of withstanding 150°F for three hours while compressed down to the minimum of movement capability dimension of the basis-of-design product (-25 percent of nominal material size) without evidence of any bleeding of impregnation medium from the material and that the same material after the heat stability test will self-expand to the maximum of movement capability dimension of the basis-of-design product (+30 percent of nominal material size) within 24 hours at room temperature 68°F.

IV. MEASUREMENT. See Section 606 and the following:

- A. Debris Removal.** The Department will measure the quantity in linear feet of strip seal gland from gutterline to gutterline along the centerline of the joint. Debris removed on the strip seal glands within the concrete railings is incidental to this bid item.
- B. Joint Seal Replacement.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint. The length of joint seals installed within the concrete railings is incidental to this bid item. The Department will not differentiate between the size of the joint seals installed for measurement.

V. PAYMENT. The Department will make payment for the completed and accepted quantities per Section 606 and under the following bid items:

- A. Debris Removal.** The Department will make payment for debris removal from the strip seal glands under bid item #24543EC "Clean". Payment will be for the quantity of linear feet cleaned from gutterline to gutterline.
- B. Joint Seal Replacement.** The Department will make payment for joint seal replacement under bid item #23386EC "Joint Seal Replacement". Payment will be for the quantity of linear feet installed from gutterline to gutterline.

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

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

I. COMPLETION DATE. The Contractor has the option of selecting the starting date for this Contract. Once selected, notify the Department in writing of the date selected at least two weeks prior to beginning work. All work is to be completed by July 31, 2023. An allotted amount of time is assigned to each structure in this contract for completion of the bridge deck restoration work as shown below.

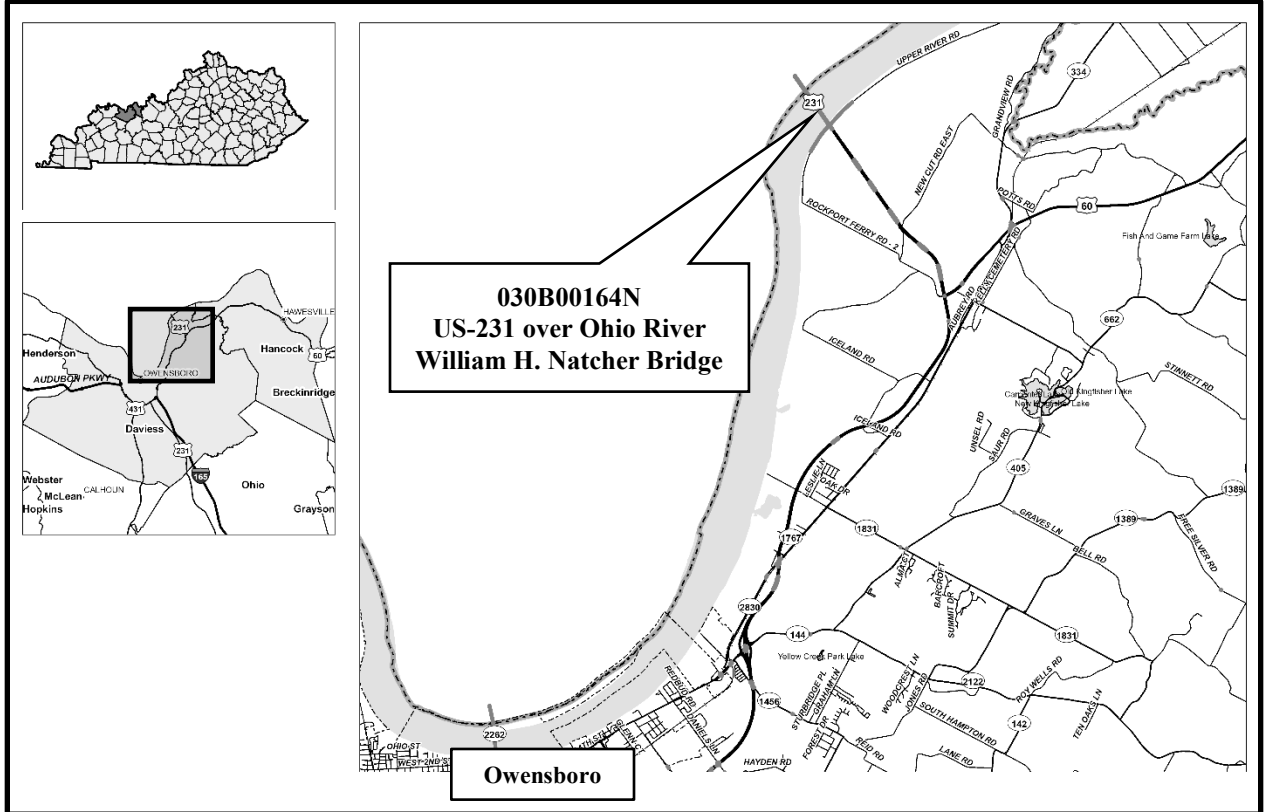
| <u>STRUCTURE</u> | <u>DIRECTION</u> | <u>ALLOTTED WORKING DAYS</u> | <u>COMPLETION DATE</u> |
|------------------|------------------|------------------------------|------------------------|
| 030B00164N | Northbound | 60 | July 31, 2023 |
| 030B00164N | Southbound | 60 | July 31, 2023 |

Contrary to Section 108.07.02, the Engineer will begin charging time when the Contractor starts work or sets up traffic control on the structure to begin work. Prior to the start of work, the Contractor will be permitted two days to set up a single lane closure to take measurements, view conditions, and/or other activities to gather necessary information to support the rehabilitation work. The Contractor may relocate the single lane closure as many times as desired within this timeframe so long as no more than one single lane closure is in place at any given time. The Engineer will not charge time for these days. Schedule these closures with the Engineer at least one week prior to setting up the closures.

II. LIQUIDATED DAMAGES. The Department will assess liquidated damages in accordance with the Transportation Cabinet, Department of Highway’s 2019 Standard Specifications for Road and Bridge Construction, Section 108.09, when either the allotted number of working days or the July 31, 2023 date is exceeded.

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.

**PROJECT LOCATION
DISTRICT 2
WILLIAM H. NATCHER BRIDGE
030B00164N
US-231 OVER OHIO RIVER
37.90197, -87.0346**



| Sheet No. | Title | Description |
|-----------|----------------------------------|-------------|
| M1 | Title Sheet | |
| M2 | General Notes | |
| M3 | Layout | |
| M4 | Typical Sections | |
| M5 | Joint Seal Replacement - Details | |
| M6 | Trough Replacement - Details | |
| M7 | Maintenance of Traffic Notes | |
| M8-M14 | Maintenance of Traffic | |

| SPECIAL NOTES | |
|---|--|
| Special Note for Contract Completion Date and Liquidated Damages on Bridge Repair Contracts | |
| Special Note for Bridge Restoration and Widening | |
| Special Note for Use of the Hydroablation Method | |
| Special Note for Bridge Joint Seal Replacement | |
| Special Note for Joint Trough Replacement | |
| Special Note for Clean | |
| Special Note for Traffic Control | |

| SPECIAL PROVISIONS | |
|---|--|
| 2019 Standard Specifications for Road and Bridge Construction | |
| 2002 AASHTO Standard Specifications for Highway Bridges | |

| STANDARD DRAWINGS | |
|-------------------|--|
| BOX-009-04 | Bridge Deck Slab Joint Mortarproffing with Concrete Overlays |
| TTC-115-03 | Lane Closure Multi-Lane Highway, Case I |
| TTC-145-03 | Median Crossover, Case II |
| TTC-146-03 | Median Crossover, Case II |
| TTC-160-02 | Temporary Pavement Marker Arrangements for Lane Closures |

| SPECIFICATIONS | |
|---|--|
| 2019 Standard Specifications for Road and Bridge Construction | |
| 2002 AASHTO Standard Specifications for Highway Bridges | |

| REVISION | DATE |
|------------------------|---------------|
| DESIGNED BY: S. Ribble | D. Richardson |
| DETAILED BY: S. Ribble | D. Richardson |

| | |
|----------------------|----------|
| DAVISS COUNTY | |
| OHIO RIVER | |
| TITLE SHEET | |
| ROUTE US 231 | CROSSING |

| | |
|-----------------------------------|----------------------|
| BURGESS & NIPLÉ | |
| Engineers & Architects - Planners | |
| SHEET NO. 001 | DATE: March 13, 2020 |

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

BRIDGE REPAIR PLANS FOR: DAVISS COUNTY 030B00164N US 231 OVER THE OHIO RIVER

ESTIMATE OF QUANTITIES

| BID ITEM CODE | DESCRIPTION | UNIT | QUANTITY |
|---------------|-------------------------------|------|----------|
| 02003 | RELOCATE TEMP CONC BARRIER | L.F. | 600 |
| 02502 | TEMPORARY SIGNS | S.F. | 765 |
| 02503 | MOBILIZATION | L.S. | 1 |
| 02504 | DEMOLITION | L.S. | 1 |
| 02505 | CONTROL TRAFFIC | L.S. | 1 |
| 02506 | MAINTAIN AND | L.S. | 1 |
| 02775 | ARROW PANEL | EACH | 2 |
| 02888 | RELOCATE CRASH CUSHION | EACH | 1 |
| 03171 | CONCRETE BARRIER WALL TYPE 9T | L.F. | 800 |
| 03225 | TUBULAR MARKERS | EACH | 182 |
| 03281 | CLEAN BRIDGE DRAINS | EACH | 4 |
| 04014 | PAVE STRIPING - PERM | L.F. | 6222 |
| 04015 | PAVE STRIPING - TEMP | L.F. | 20463 |
| 04016 | PAVE STRIPING - TEMP | L.F. | 20463 |
| 04017 | PAVE STRIPING - TEMP | L.F. | 38189 |
| 04018 | PAVE STRIPING - DUR | L.F. | 19180 |
| 04019 | PAVE STRIPING - DUR | L.F. | 19180 |
| 04020 | EPOXY SAND SLURRY | S.Y. | 1168 |
| 04021 | CONCRETE OVERLAY - LATEX | S.Y. | 3200546 |
| 04022 | FOREIGN OVERLAY | S.Y. | 3200546 |
| 04023 | REM EPOXY BIT | S.Y. | 3200546 |
| 04024 | HYDRODEMOLITION | S.Y. | 3200546 |
| 04025 | CRASH CUSHION TY VI | EACH | 1 |
| 04026 | JOINT SEAL REPLACEMENT | L.F. | 128 |
| 04027 | PARTIAL DEPTH PATCHING | C.Y. | 113.8 |
| 04028 | CLEAN | L.F. | 64 |
| 04029 | CLEAN | EACH | 96 |
| 04030 | JOINT TROUGH REPLACEMENT | EACH | 2 |

US 231 OVER THE OHIO RIVER

PROPOSED WORK: WILLIAM H. NATCHER BRIDGE REPAIR PLANS

SPECIFICATION NOTES

Refer 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 17th edition-2002 of the AASHTO Standard Specifications for Highway Bridges with Interims.

MATERIAL SPECIFICATION NOTES

MATERIALS: ASTM or AASHTO Specifications, current edition, as designated in the Special Notes and plan notes shall govern the materials furnished.

BONDING TO EXISTING CONCRETE USING STRUCTURAL ADHESIVES: Bond or proposed plastic concrete to existing hardened concrete at all locations using a two-part epoxy Resin or other approved Structural Adhesive as prescribed in Section 826 of the Specifications. Follow the manufacturer's recommended application instructions. This work and material is incidental to the unit price bid for the most applicable bid item.

REINFORCEMENT: Dimensions shown from the face of the concrete to bars are clear distances unless otherwise shown. Spacing of bars is from center to center unless otherwise noted. Bars designated with the suffix (B) shall be epoxy coated in accordance with Section 811.0 of the Standard Specifications. The cost for furnishing and installing reinforcement shall be incidental to the unit price bid for the most applicable bid item.

BEVELED EDGES: Bevel all concrete exposed edges 1/4", unless otherwise noted.

GENERAL SPECIFICATION NOTES

ON-SITE INSPECTION: Each contractor submitting a bid for this work shall make a thorough inspection of the bridge and the work site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can be expeditiously performed after a contract is awarded. A suitable method of bid pricing shall be established by the Engineer. The Engineer's permission to bid will be considered evidence of this inspection. No claims for additional work or claims from site conditions will not be honored by the Department of Highways.

INCIDENTAL ITEMS: The Contractor is required to complete the structure in accordance with the Specifications. Work incidental to the structure in the Special Notes specified are to be considered incidental to the contract.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include but not be limited to incidental materials, disposal of waste off the right-of-way, incidental labor, or anything else that may be required to complete the construction.

BRIDGE PLANS: A copy of the available existing bridge plans (Drawing Number 25537), will be made available to the successful bidder upon his written request to the Division of Structural Design. The completeness of these drawings is not the Contractor's responsibility. The Department of Highways for their accuracy.

FIELD VERIFICATION: The Contractor shall verify elevations and dimensions measurement prior to ordering materials or fabricating steelwork. Any discrepancies shall be brought to the attention of the Engineer. New material that is unsuitable because of variations in the existing structure shall be replaced at the Contractor's expense.

DAMAGE TO THE STRUCTURE: The Contractor is responsible for any and all damage to the existing structure during the construction should damage result from the Contractor's actions. After the completion of construction, the structure shall be returned to the original condition. The Contractor occupies in connection with the right-of-way and all ground the Contractor occupies in connection with the work of all rubbish, equipment, and excess materials. Place rubbish and all waste of whatever nature, other than hazardous materials, on either public or private property. The Contractor shall be responsible for the removal of all materials from the Department that does not present an unsightly appearance. Restore in an acceptable manner all property, both public and private, that was damaged in the prosecution of the work.

DIMENSIONS: Dimensions shown on these plans are taken from the drawings listed under "Bridge Plans" above and do not necessarily reflect revisions made during construction. All plan dimensions are for a normal temperature of 60°F. Layout dimensions are horizontal dimensions. Deck width is measured at the top of the concrete deck below the overlay.

SHOP DRAWINGS: The Contractor is to submit detailed shop drawings and material specifications for any details or materials that vary from these plans to the Specifications. Shop drawings shall be submitted to the Engineer for approval. Specifications. When any changes are proposed by the fabricator or supplier, the shop drawings reflecting these changes shall be submitted to the Department through the Contractor.

MAINTAINING TRAFFIC: Traffic shall be maintained at all times in accordance with the Special Note for Traffic Control.

UTILITY PROTECTION: If present, any active utility ducts and electrical conduit shall be protected and repaired at the Contractor's expense.

REMOVED MATERIAL: All existing steel, including bolts and other connection materials, shall be removed and disposed of by the Contractor. The Contractor is to ensure that the steel is not damaged during removal. All material removed shall become the property of the Contractor and shall be removed from the bridge site. The cost of removal shall be incidental to the most applicable bid items.

CONSTRUCTION SEQUENCE: The Contractor shall follow the construction and phasing sequences detailed in the plans and Special Notes. The Contractor may propose alternate construction sequences to the Engineer for approval no later than three working days prior to the start of work on a given work item.

SUPERSTRUCTURE NOTES

CLEANING EXISTING STEEL: All areas of existing steel that are to be in contact with new steel shall be cleaned of all dirt, rust, paint, and other foreign matter before installing the new steel. The cost of this cleaning is to be incidental to the unit price bid for the most appropriate bid item.

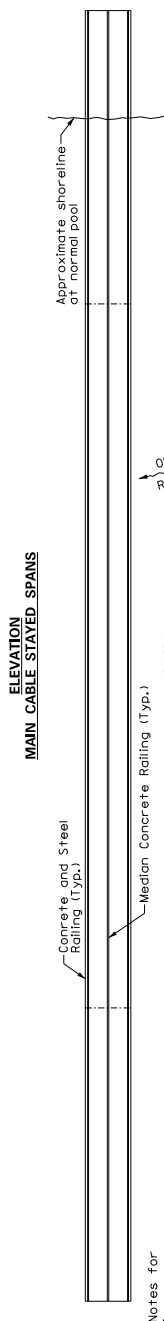
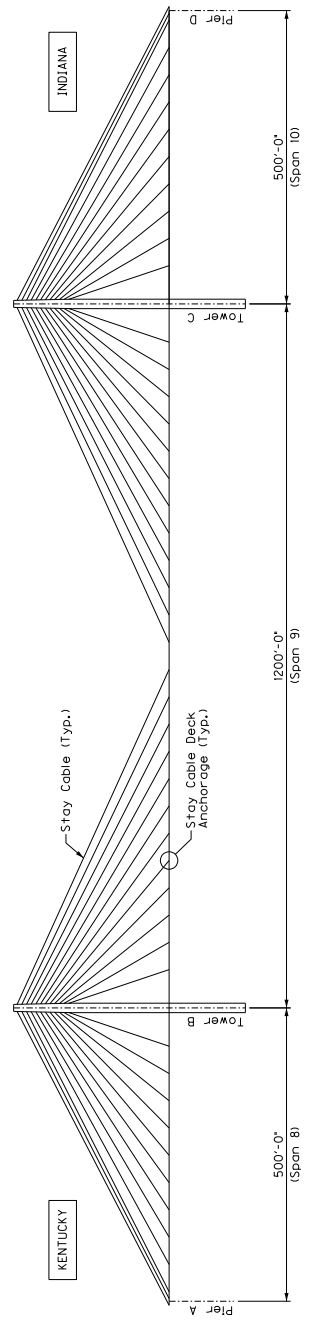
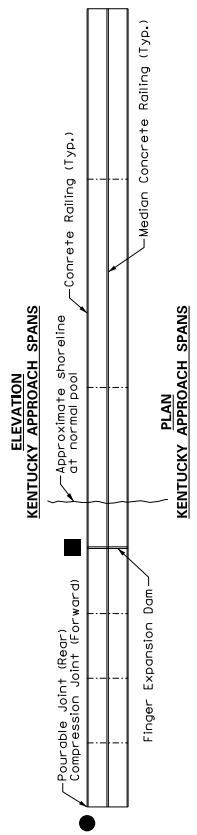
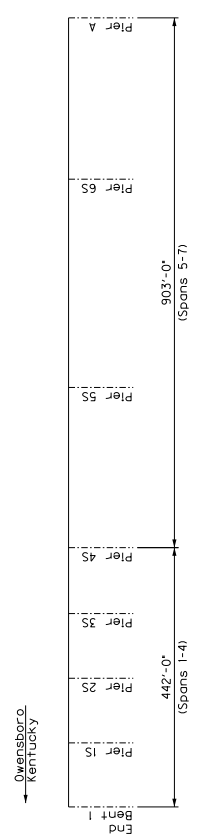
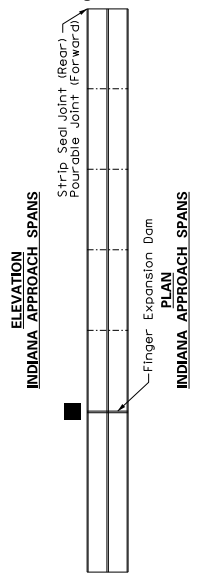
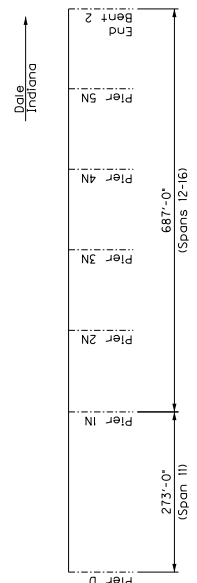
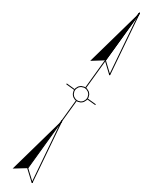
PROHIBITED FIELD WELDING: Except as noted in these plans and in the Special Notes, no welding of any nature shall be performed on the load carrying members of the bridge without the written consent of the Director, Division of Structural Design, and then only in the manner and at the locations designated in the authorization.

WELDING: No welding shall be permitted without written permission of the Engineer. All welding shall conform to Section 607.03.01 of the current AASHTO/AWS Specifications. The Contractor shall submit to the Engineer and additions as stated in the plans and special notes shall supersede the AASHTO/AWS Specifications. Welding procedures shall be submitted to the Engineer and approved prior to the start of fabrication and repairs. Work shall be completed by an AWS Certified welder. The cost of the welding and welding materials shall be incidental to the unit price bid for the most appropriate bid items.

RIVER NAVIGATION: Continuous maintenance of safety of river navigation work involving the installation or removal of structural elements beneath the bridge deck shall cease when there is approaching river traffic. This work shall not resume until the river traffic is clear of the bridge area. The Contractor must advise the Coast Guard of the Contractor's proposed schedule of work at least 10 days prior to the commencement of any field operations.

Commander
2nd Coast Guard District
1430 Olive Street
St. Louis, Missouri 63103
(314) 425-4601

| REVISION | DATE |
|--|------------------------|
| D. Richardson | CHECKED BY |
| D. Richardson | DESIGNED BY: S. Ribbie |
| D. Richardson | DETAILED BY: S. Ribbie |
| Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS | |
| DAVIES COUNTY | |
| CROSSING OHIO RIVER | |
| HIGHWAY US 231 | |
| GENERAL NOTES | |
| PREPARED BY BURGESS & NIPLÉ Engineers & Architects - Planners | |
| SHEET NO. 28289 | |

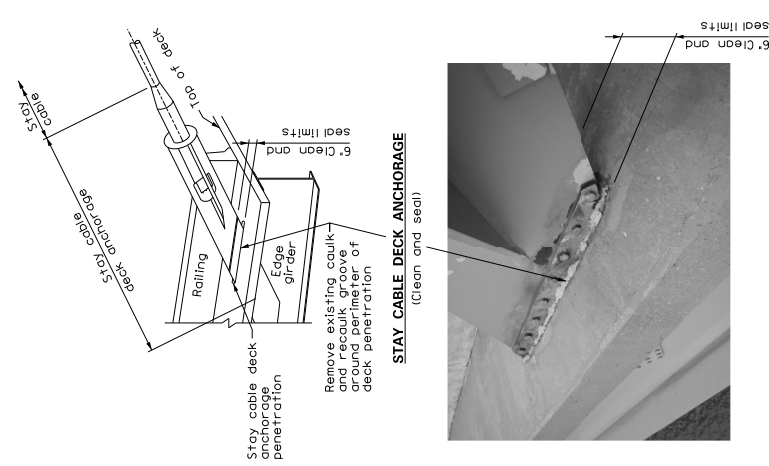
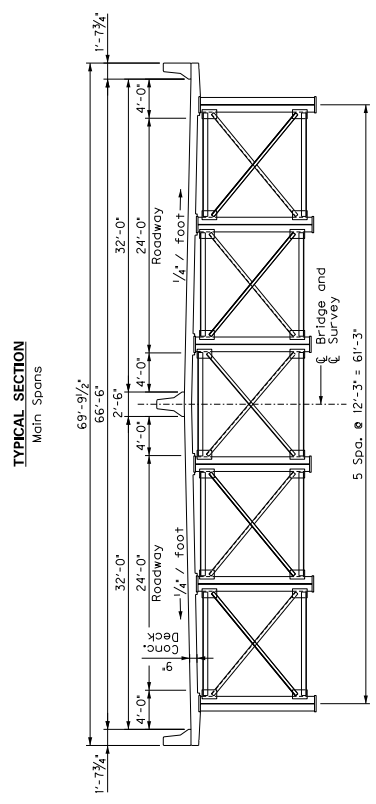
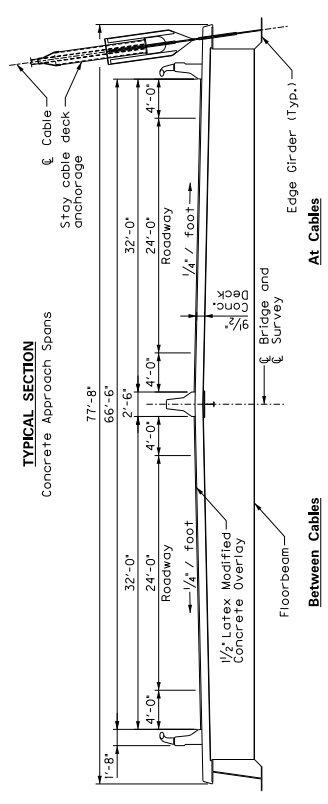
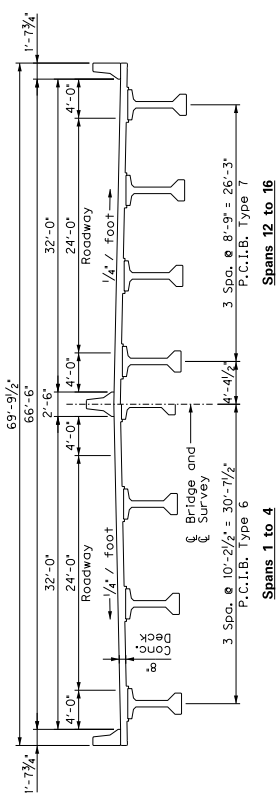


**ELEVATION
MAIN CABLE STAYED SPANS**
PLAN
MAIN CABLE STAYED SPANS
Cables not shown for clarity

LEGEND:
● : Replace compression and pourable joint seals. Remove debris from strip seal glands.
■ : Replace troughs below finger expansion dams and remove debris

- NOTES:**
- 1) See the general notes and Special Notes for additional material and construction specifications, construction procedures, and pay items.
 - 2) The Contractor shall field verify all relevant existing dimensions.
 - 3) Milling, hydrodemolition, and placement of the new overlay shall be from end bent to end bent and from face of railing to face of railing in both the northbound and southbound lanes. See the Special Notes.
 - 4) See Sheet M4 and the Special Note for Clean for stay cable deck anchorage connection at the deck level.
 - 5) See Sheet M5 and the Special Note for Bridge Joint Seal Replacement.
 - 6) See Sheet M6 and the Special Note for Joint Trough Replacement.

| DATE | REVISION | CHECKED BY | DATE |
|--|----------|---------------|-------|
| March 13, 2020 | | D. Richardson | |
| DESIGNED BY: S. Ribbie | | D. Richardson | |
| DETAILED BY: S. Ribbie | | D. Richardson | |
| Commonwealth of Kentucky | | | |
| DEPARTMENT OF HIGHWAYS | | | |
| COUNTY | | | |
| DAVISS | | | |
| CROSSING | | | |
| OHIO RIVER | | | |
| LAYOUT | | | |
| PREPARED BY | | | |
| BURGESS & NIPLÉ | | | |
| Engineers & Architects - Planners | | | |
| SHEET NO. | | | 28289 |
| DRAWING NO. | | | 28289 |

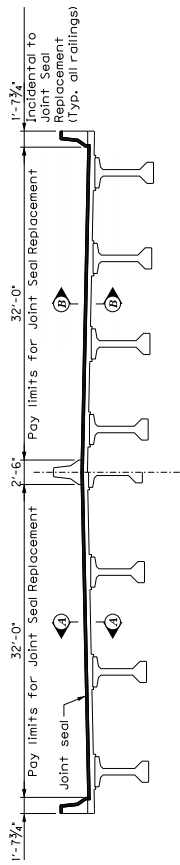


| REVISION | DATE |
|------------------------|---------------------------|
| DESIGNED BY: S. Ribbie | CHECKED BY: D. Richardson |
| DETAILED BY: S. Ribbie | D. Richardson |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY: **DAVISS**
 CROSSING: **OHIO RIVER**
 ROUTE: **US 231**
 PREPARED BY: **TYPICAL SECTIONS**
 SHEET NO.: **28289**
 DRAWING NO.: **BURGESS & NIPL**
 Engineers & Architects - Planners

NOTES:

- 1) See the general notes and the Special Note for Bridge Joint Seal Replacement for additional material and construction specifications, construction procedures, and pay items.
- 2) The Contractor shall field verify all relevant existing dimensions and member sizes.

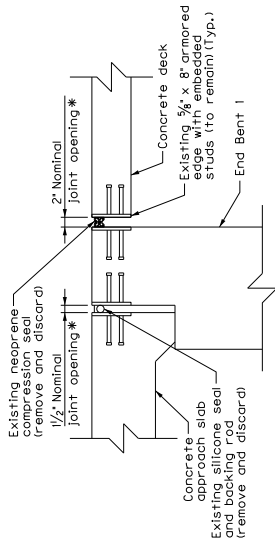


SPAN 1

SPAN 16

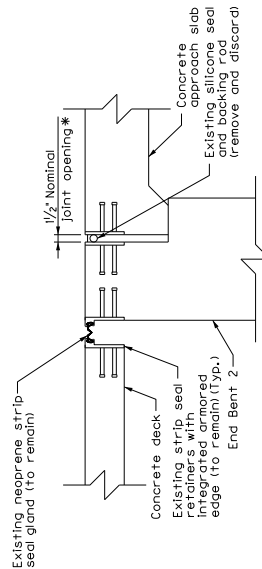
TYPICAL SECTION

Concrete Approach Spans



SECTION A - A - REMOVAL

At End Bent 1



SECTION B - B - REMOVAL

At End Bent 2



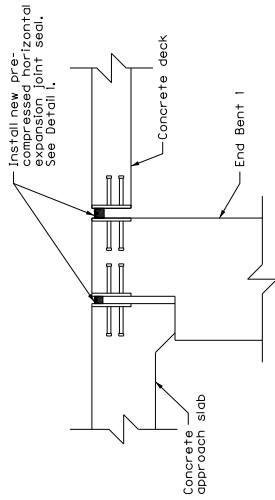
End Bent 1 Joints

Northbound lanes shown



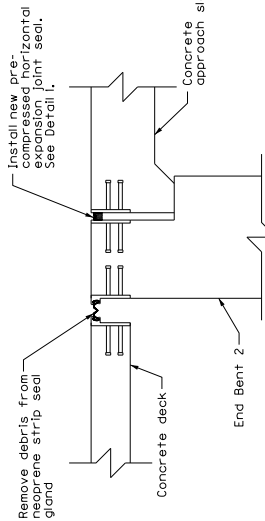
End Bent 2 Joints

Northbound lanes shown



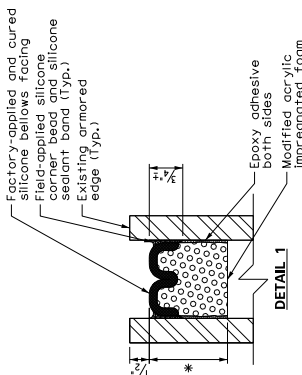
SECTION A - A - SEAL REPLACEMENT

At End Bent 1



SECTION B - B - SEAL REPLACEMENT AND DEBRIS REMOVAL

At End Bent 2



LEGEND:

* = The nominal joint openings are per the original design plans. The Contractor shall measure the actual joint openings and record the temperature at the time the replacement joint seals are installed. The width and depth of the replacement joint seals shall be per manufacturer's recommendations based upon this information. See the Special Note for Joint Seal Replacement.

| REVISION | DATE |
|---------------------------------------|------------------------|
| | CHECKED BY |
| | D. Richardson |
| | DETAILED BY: S. Ribbie |
| | D. Richardson |
| Commonwealth of Kentucky | |
| DEPARTMENT OF HIGHWAYS | |
| DAVISS COUNTY | |
| DAVISS | |
| ROUTE | CROSSING |
| US 231 | OHIO RIVER |
| JOINT SEAL REPLACEMENT DETAILS | |
| SHEET NO. | |
| PREPARED BY | |
| BURGESS & NIPLÉ | |
| Engineers & Architects - Planners | |
| ISSUANCE NO. | 28289 |

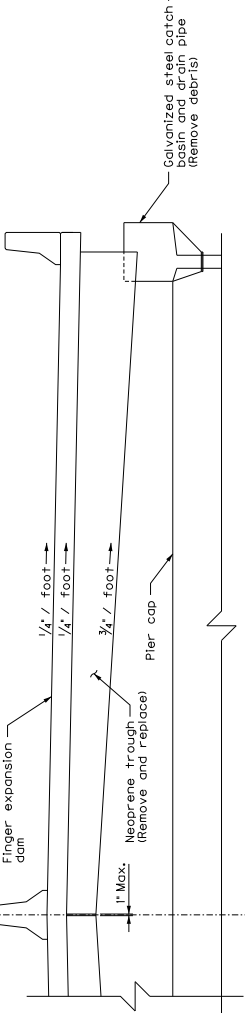
NOTES:

- 1) See the general notes and the Special Note for Joint Trough Replacement for additional material and construction specifications, construction procedures, and pay items.
- 2) The Contractor shall field verify all relevant existing dimensions and member sizes.



CATCH BASIN AND DRAIN PIPE

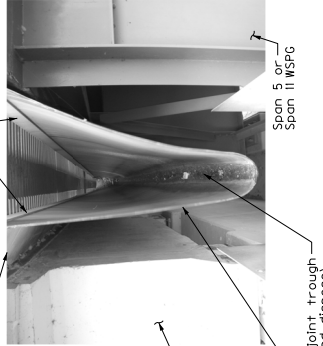
Remove debris



NEOPRENE TROUGH AND CATCH BASIN

AT Pier 4S and Pier 1N

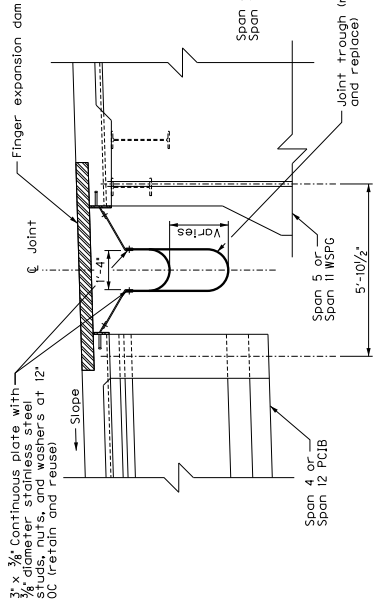
3" x 3/4" Continuous plate with 3/8" diameter stainless steel studs, nuts, and washers at 12" OC (retain and reuse)



Debris from torn neoprene trough (Typ.) (Remove and dispose)

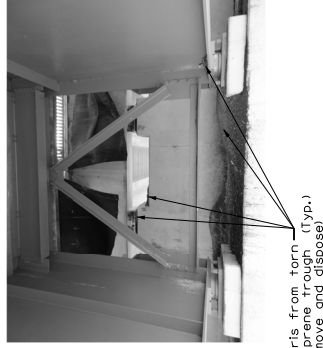
TROUGH BELOW FINGER EXPANSION DAM

Pier 4S shown; Pier 1N similar



SECTION AT FINGER EXPANSION DAM

AT Pier 4S and Pier 1N



BELOW TORN NEOPRENE TROUGH

Pier 1N shown; Pier 4S similar

| REVISION | DATE |
|-----------------------------------|---------------|
| March 13, 2020 | CHECKED BY |
| DESIGNED BY: S. Riebbie | D. Richardson |
| DETAILED BY: S. Riebbie | D. Richardson |
| Commonwealth of Kentucky | |
| DEPARTMENT OF HIGHWAYS | |
| DAVISS COUNTY | |
| OHIO RIVER | |
| TROUGH REPLACEMENT DETAILS | |
| DRAWN BY | |
| SHEET NO. | |
| BURGESS & NIPLÉ | |
| Engineers & Architects - Planners | |
| PROJ. NO. 28289 | |

TRAFFIC CONTROL GENERAL NOTES

- Except as provided herein, traffic shall be maintained in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), the Standard Specifications for Road and Bridge Construction, and the Standard Drawings, current editions.
- Except for the roadway and traffic control bid items listed, all items and work necessary for maintenance and control of traffic shall be paid for in the current Standard Specifications for Road and Bridge Construction unless otherwise provided for in these notes.
- The Contractor shall maintain a minimum of one 12 foot lane in each direction unless otherwise noted.
- Lane closures used on the project shall be in compliance with the Manual on Uniform Traffic Control Devices (MUTCD). Contrary to Section 112.04.04 of the Standard Specifications, all lane closures of any type will not be measured for payment, but are considered incidental to the bid item "Maintain and Control Traffic", Lump Sum.
- Contrary to Section 106.01 of the Standard Specifications, traffic control devices used on this project may be new or used but in like-new condition at the beginning of the work and maintained in like-new condition until completion of the work. Traffic Control Devices shall conform to the current Manual on Uniform Traffic Control Devices.
- Night work is required on this project. Obtain approval from the Engineer for any proposed method of construction lighting.
- Reduce the speed limit in work areas to 50 miles per hour. Installation and maintenance of speed limit and other construction signs is the responsibility of the Contractor. The Contractor shall be paid at the unit bid price for signs erected. Any relocation or covering of the signs shall be incidental to "Maintain and Control Traffic".
- Any lane closure or lane shift must be approved by the Engineer prior to the closure or lane shift. The Contractor must notify the Engineer at least five (5) days prior to any proposed lane closure or traffic pattern change.

SPECIAL NOTES

Signs
Traffic control signs in addition to those necessary to normal lane closure signing detailed on the Standard Drawings may be required by the Engineer. Additional signs needed for lane closures may include, but are not limited to, dual mounted
LEFT/RIGHT LANE CLOSED 1 MILE
LEFT/RIGHT LANE CLOSED 2 MILES
LEFT/RIGHT LANE CLOSED 3 MILES
SLOWED/STOPPED TRAFFIC AHEAD

All traffic control signs, including signage for reduced speed limits will be furnished, relocated as needed, and maintained by the Contractor. The Contractor will submit sign designs per MUTCD standards for the Engineer's approval prior to fabrication.

Contrary to Section 112 of the Standard Specifications, only long term signs (signs intended to be continuously in place for more than 3 days) will be measured for payment. Short term signs (signs intended to be left in place for less than 3 days) will not be measured for payment but will be incidental to "Maintain and Control Traffic".

Individual signs will be measured only once for payment, regardless of how many times they are moved or relocated. Replacements for damaged signs or signs directed to be replaced by the Engineer due to poor legibility or reflectivity, will not be measured for payment.

A quantity of signs has been included for detours, lane shifts, and Roadwork Ahead signs on entrance ramps to be paid only once no matter how many times they are moved or relocated. Signs to be located along the bridge shall be clamped to the concrete bridge railings. No signs or other traffic control devices shall be attached to the stay cables or stay cable connections.

Permanent Striping

Permanent striping from the south end of the project (approximately 3085 feet south of End Bent 1) through End Bent 2 shall be 6 inch durable, Type 1 fade per current KYTC policy. All striping in the work zone south of End Bent 1 shall be 4 inch paint. Striping in the work zone north of End Bent 1 shall be 4 inch paint, to match the existing striping per INDOT specifications. Permanent striping impacted by maintenance of traffic operations shall be replaced.

SPECIAL NOTES (cont.)

Channelizing Devices
Traffic drums (barrels) shall be used and will be incidental to "Maintain and Control Traffic" according to Section 112.04.01 of the Standard Specifications. Contrary to Section 112.04.04 of the Standard Specifications, barricades used to protect removal areas and to close lanes will be incidental to "Maintain and Control Traffic".
Advance Warning Arrow Boards (Panels)
The Contractor will provide Arrow Panels as indicated in the Maintenance of Traffic Plans. The Arrow Panels shall be unmounted traffic-worthy cartridges and meet the requirements as specified in the current Standard Drawings. Payment for the Arrow Panels will be based on a contract unit price of "Each" and will be "full compensation" for providing, placing, operating, relocating, and maintaining the Arrow Panels.
The Contractor will have available one reserve Arrow Panel to be placed into operation in the event of damage or mechanical/electrical failure. No direct payment shall be made for Arrow Panels that remain the property of the Contractor upon completion of the project.

Project Traffic Coordinator

Designate an employee to be the Project Traffic Coordinator (PTC). The designated PTC must be certified by the American Traffic Safety Services Association (ATSSA). The PTC will be responsible for the maintenance of traffic at a frequency determined by the Engineer during the Contractor's operations and at any time a temporary lane closure is in place. The PTC shall report all incidents throughout the work zone to the Engineer. The PTC shall be available to the Engineer at all times. The name and telephone number where the PTC can be contacted at all times.
During any period when a lane closure is in place, the PTC will arrange for traffic control personnel to be stationed at the project at all times to inspect the traffic control, and maintain the signing and devices.
The PTC must be equipped with a cellular phone and have the authority to immediately maintain and make changes in the traffic control as traffic conditions warrant. The PTC shall be available to the Engineer at all times. Payment for the PTC will be \$3,000 per day for any incidents that the PTC is not on the project while work is actively in progress or if he is unable to respond to a traffic control issue within 20 minutes of notice. Payment for the PTC will be considered incidental to the bid item "Maintain and Control Traffic".

PROJECT PHASING

No work will be permitted on any phase of this project without lane closures according to these drawings, the Standard Drawings, and the Special Note for Traffic Control. The Contractor has the option to choose the order of the closure phases. The Contractor shall be responsible for the timing of the southbound closure will be performed first. If the northbound closure is performed first, the appropriate portions of the phasing details shall be adjusted as needed.

Prior to starting either phase of work, the permanent median crossovers shall be constructed on both the north and south sides of the Ohio River. The plans for the crossovers have been prepared by KYTC.

Southbound Closure

Install temporary signing along both directions of US 231 on the Indiana and Kentucky approaches and along the bridge (see drawings).
Close the entrance ramp from SR 66 to southbound US 231.
Using a temporary closure, install temporary traffic barriers, temporary pavement markings, and any additional traffic control devices to allow closing of the southbound traffic lanes from the Indiana southbound entrance ramp to beyond the bridge abutment on the Kentucky approach (see drawings).
Shift southbound traffic to the existing left lane of the northbound traffic lanes through the construction zone using median crossovers.
Remove the existing deck overlay on the southbound traffic lanes from end bent to end bent.
Construct new latex modified concrete deck overlay on the southbound traffic lanes.
Place temporary and permanent striping, as is appropriate, and traffic control devices as needed to allow for transition to the next phase of the project.
Remove or relocate temporary traffic control devices, as is appropriate, and open the southbound lanes to normal traffic.
Remove or relocate temporary signing, as appropriate, from the bridge and US 231 roadway on the Indiana and Kentucky approaches.

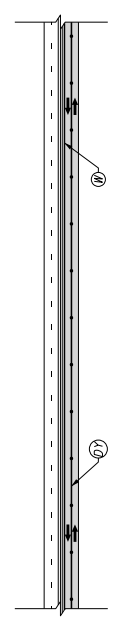
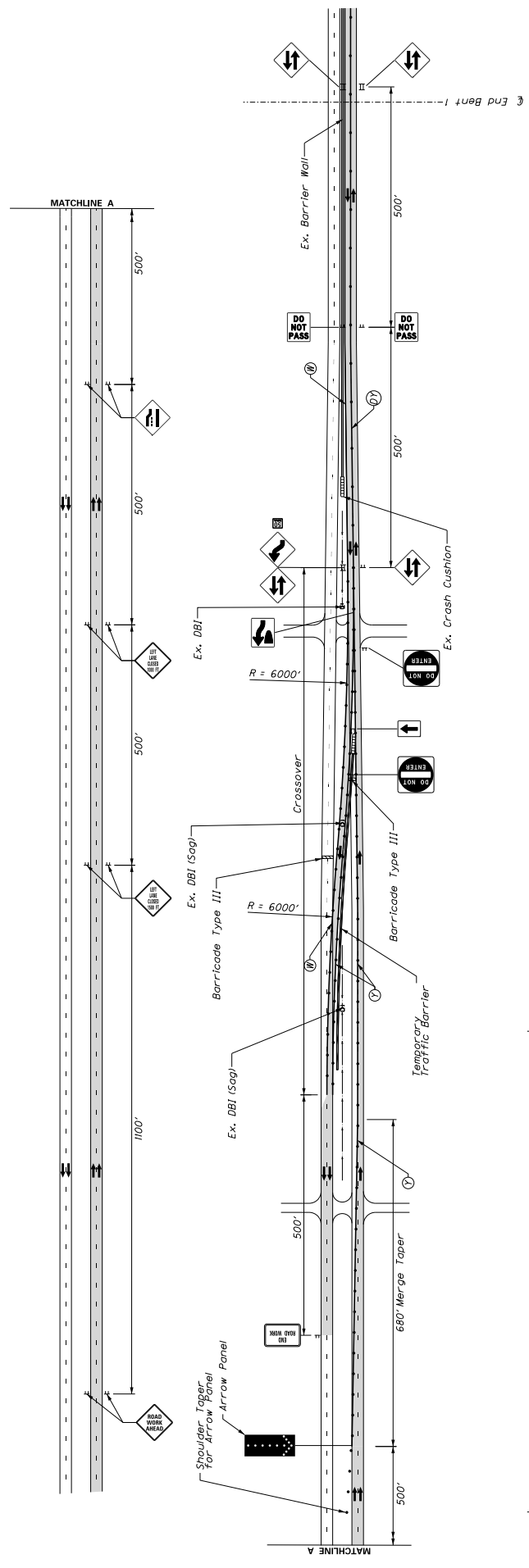
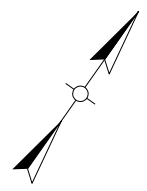
PROJECT PHASING (cont.)

Northbound Closure
Install temporary signing along both directions of US 231 on the Indiana and Kentucky approaches and along the bridge (see drawings).
Using a temporary closure, install temporary traffic barriers, temporary pavement markings, and any additional traffic control devices to allow closing of the northbound traffic lanes from the Kentucky approach (see drawings).
Shift northbound traffic to the existing left lane of the southbound traffic lanes through the construction zone using median crossovers.
Remove the existing deck overlay on the northbound traffic lanes from end bent to end bent.
Construct new latex modified concrete deck overlay on the northbound lanes and approaches.
Place remaining permanent striping on the bridge and approaches.
Remove any temporary traffic control devices and open the northbound lanes to normal traffic.
Remove temporary signing from the bridge and US 231 roadway on the Indiana and Kentucky approaches.

| DATE | REVISION | CHECKED BY |
|----------------|----------|---------------|
| March 13, 2020 | | D. Richardson |
| | | C. Villiger |

| | |
|--|-------------------------|
| COMMUNWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS | |
| COUNTY DAVISS | CROSSING OHIO RIVER |
| PROJECT MAINTENANCE OF TRAFFIC NOTES | |
| DRAWING NO. 28289 | SHEET NO. 117 |
| PREPARED BY BURGESS & NIPLÉ Engineers & Architects - Planners | |

KENTUCKY SIDE



TYPICAL MOT BETWEEN CROSSOVERS

SB CLOSURE - SOUTH APPROACH MOT

- LEGEND**
- ① Temporary Solid Double Yellow Line - 4 IN
 - ② Temporary Solid Yellow Edge Line - 4 IN
 - ③ Temporary Solid White Edge Line - 4 IN
 - ➔ Traffic Movement
 - ▬ Channelization
 - ▬ Traveled Way
 - ▬ Devices

| REVISION | DATE | CHECKED BY |
|----------------------------|------|---------------|
| DATE: March 13, 2020 | | D. Richardson |
| DESIGNED BY: C. Miller | | C. Miller |
| DETAILED BY: D. Richardson | | C. Miller |

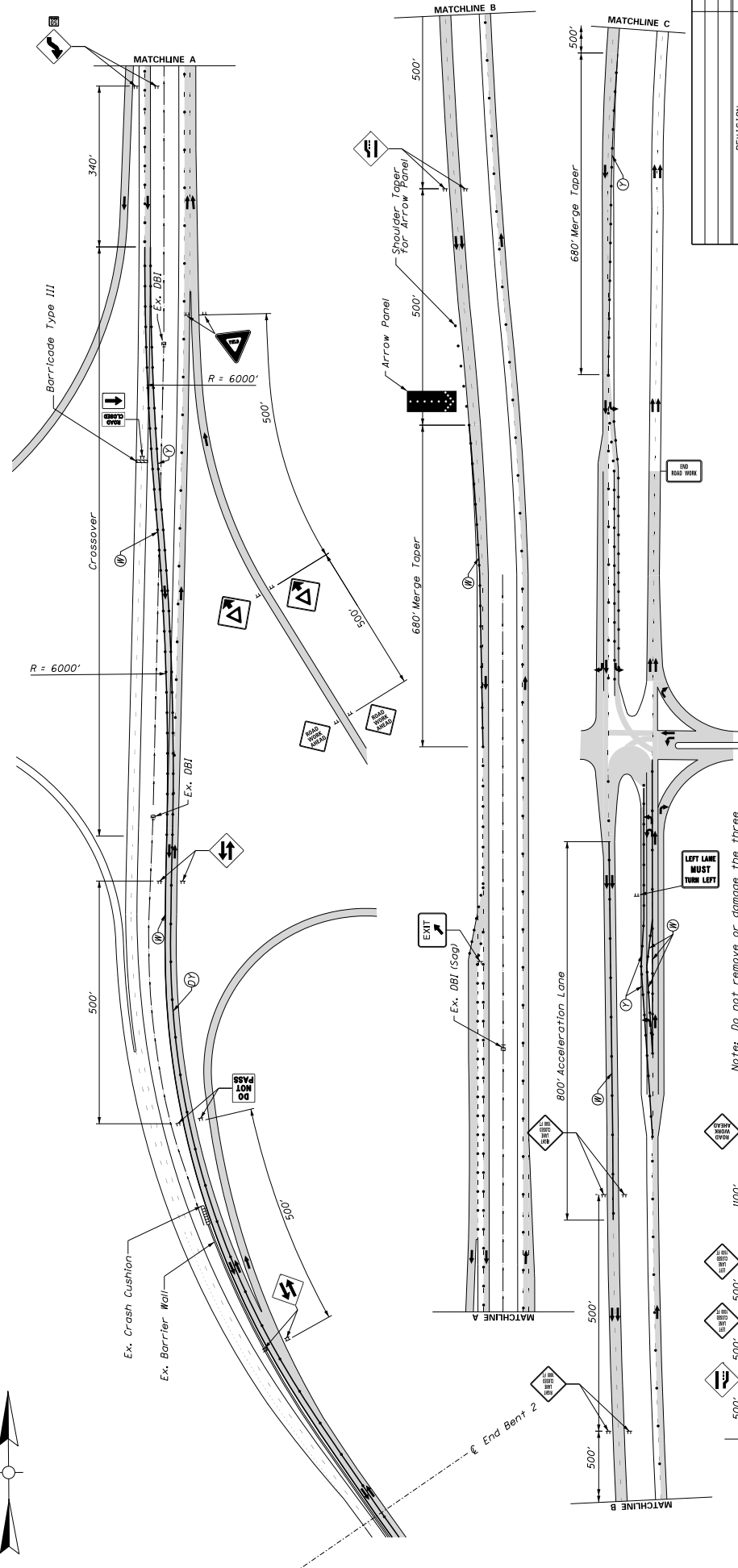
Commonwealth of Kentucky
 DEPARTMENT OF HIGHWAYS

COUNTY: **DAVISS**
 CROSSING: **OHIO RIVER**
 ROUTE: **US 231**

MAINTENANCE OF TRAFFIC
 PREPARED BY: **BURGESS & NIPLÉ**
 Engineers & Architects - Planners

SHEET NO.: **28289**
 CONTRACT NO.: **28289**

INDIANA SIDE



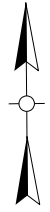
SB CLOSURE - NORTH APPROACH MOT

| | | |
|---|------------------------|---------------|
| DATE: March 15, 2020 | REVISION | CHECKED BY |
| DESIGNED BY: C. Miller | | D. Richardson |
| DETAILED BY: D. Richardson | | C. Miller |
| Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS | | |
| COUNTY DAVISS | | |
| ROUTE US 231 | CROSSING OHIO RIVER | |
| MAINTENANCE OF TRAFFIC PREPARED BY | | |
| BURGESS & NIPLÉ Engineers & Architects - Planners | | |
| SHEET NO. 199 | CONTRACT NO. 28289 | |

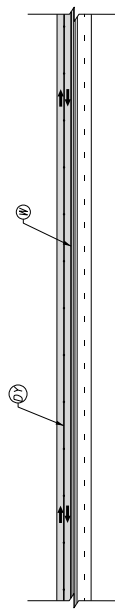
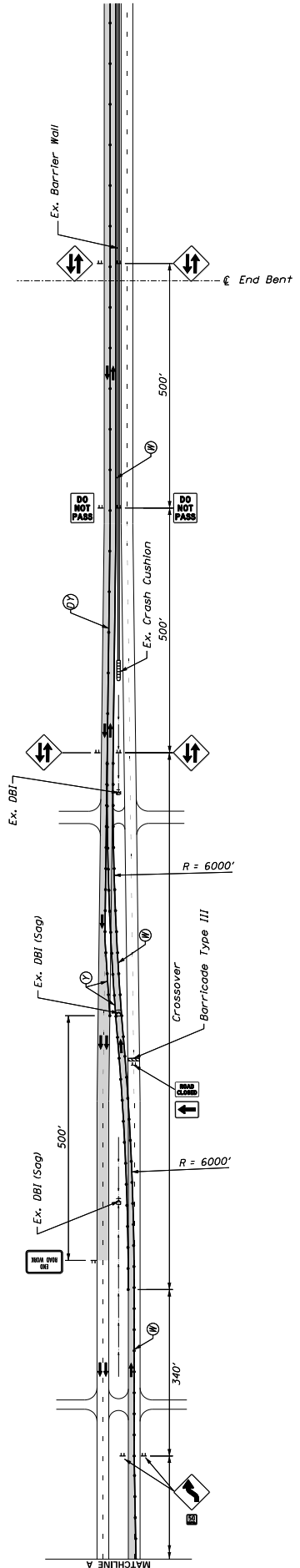
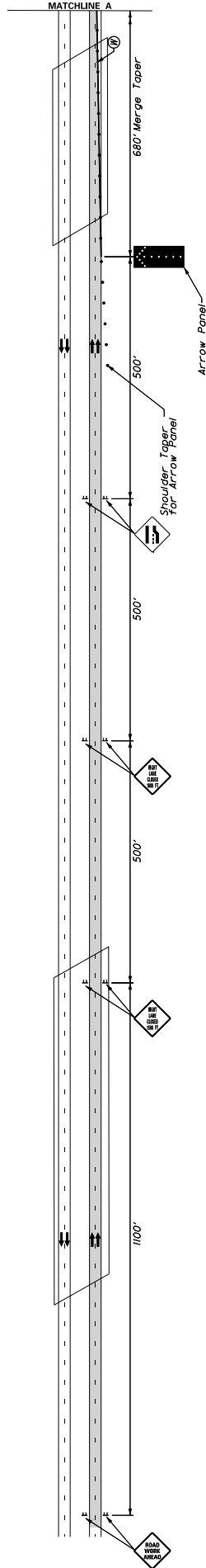
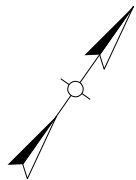
LEGEND

- ⑦ Temporary Solid Double Yellow Line - 4 IN
- ⑧ Temporary Solid Yellow Edge Line - 4 IN
- ⑨ Temporary Solid Yellow Edge Line - 4 IN
- ⑩ Temporary Solid White Edge Line - 4 IN
- ➔ Traffic Movement
- ▬ Channelization
- ▬ Devices
- ▬ Traveled Way

Note: Do not remove or damage the three left turn arrows or the one ONLY pavement markings in the northbound left turn lane.



KENTUCKY SIDE



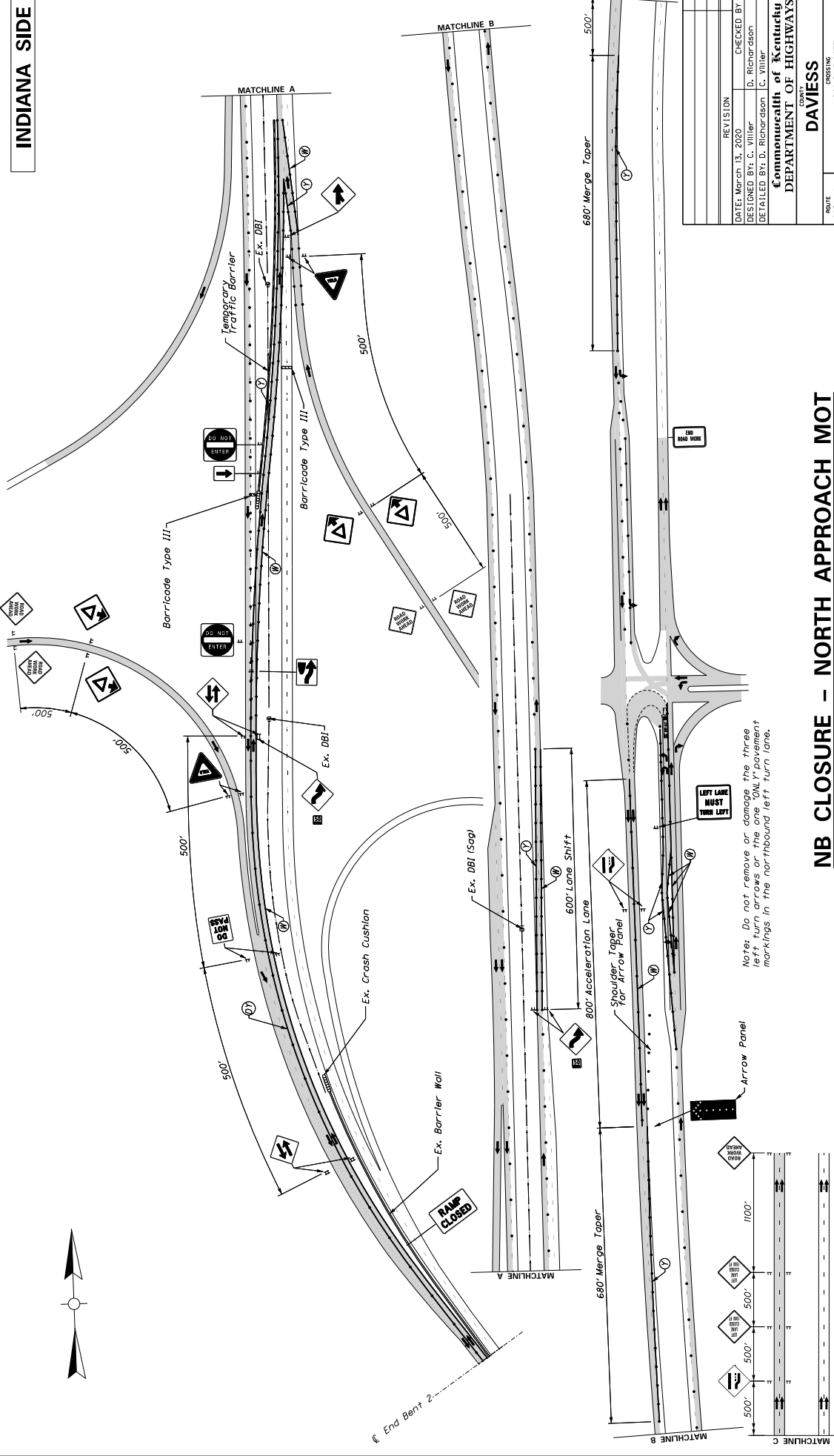
TYPICAL MOT BETWEEN CROSSOVERS

- ① Temporary Solid Double Yellow Line - 4 IN
- ② Temporary Solid Yellow Edge Line - 4 IN
- ③ Temporary Solid White Edge Line - 4 IN
- Traffic Movement
- Channelization
- ▭ Devices
- ▭ Traveled Way

NB CLOSURE - SOUTH APPROACH MOT

| | | |
|---|------------------------|------|
| DATE: March 13, 2020 | REVISION | DATE |
| DESIGNED BY: C. Miller | CHECKED BY | |
| DETAILED BY: D. Richardson | D. Richardson | |
| Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS | | |
| COUNTY DAVISS | | |
| ROUTE US 231 | CROSSING OHIO RIVER | |
| MAINTENANCE OF TRAFFIC PREPARED BY | | |
| BURGESS & NIPLÉ Engineers & Architects & Planners | | |
| SHEET NO. 28289 | CONTRACT NO. 28289 | |

INDIANA SIDE



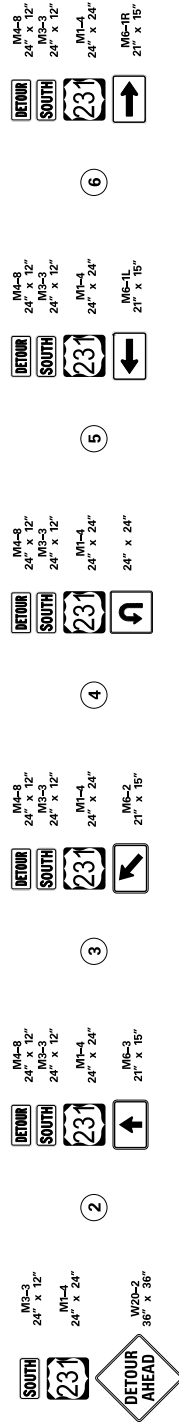
Note: Do not remove or damage the three left turn arrows or the one 'ONLY' pavement markings in the northbound left turn lane.

- LEGEND**
- ➔ Traffic Movement
 - ▬ Channelization
 - ⋯ Devices
 - ▬ Traveled Way

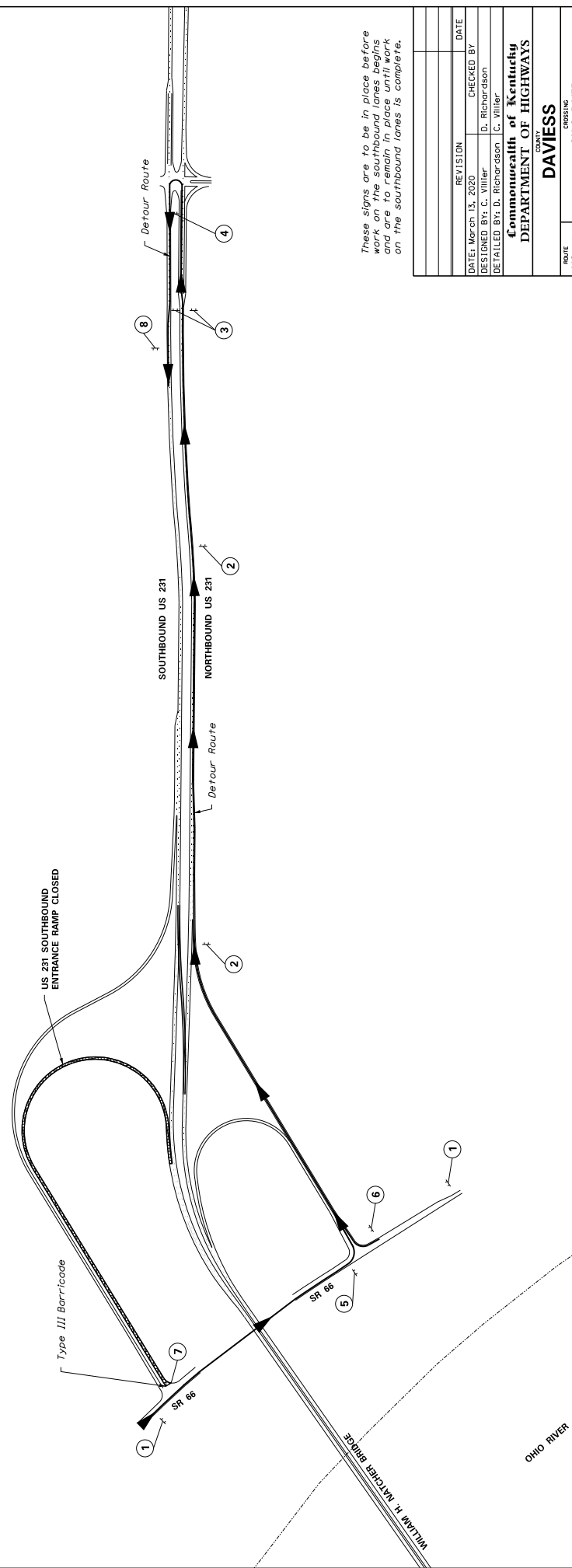
- ⑦ Temporary Solid Double Yellow Line - 4 IN
- ① Temporary Solid Yellow Edge Line - 4 IN
- ② Temporary Solid White Edge Line - 4 IN

| | |
|---|---------------------------------------|
| DATE: March 13, 2020 | CHECKED BY: D. Richardson |
| DESIGNED BY: C. Miller | DETAILED BY: D. Richardson, C. Miller |
| Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS | |
| COUNTY: DAVIESS CROSSING: OHIO RIVER | |
| ROUTE: US 231 | PROJECT NO.: MAINTENANCE OF TRAFFIC |
| PREPARED BY: BURGESS & NIPLÉ Engineers & Architects - Planners | |
| SHEET NO.: 28289 CONTRACT NO.: 222964 | |

NB CLOSURE - NORTH APPROACH MOT



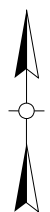
MOUNTED ON TYPE III BARRICADE

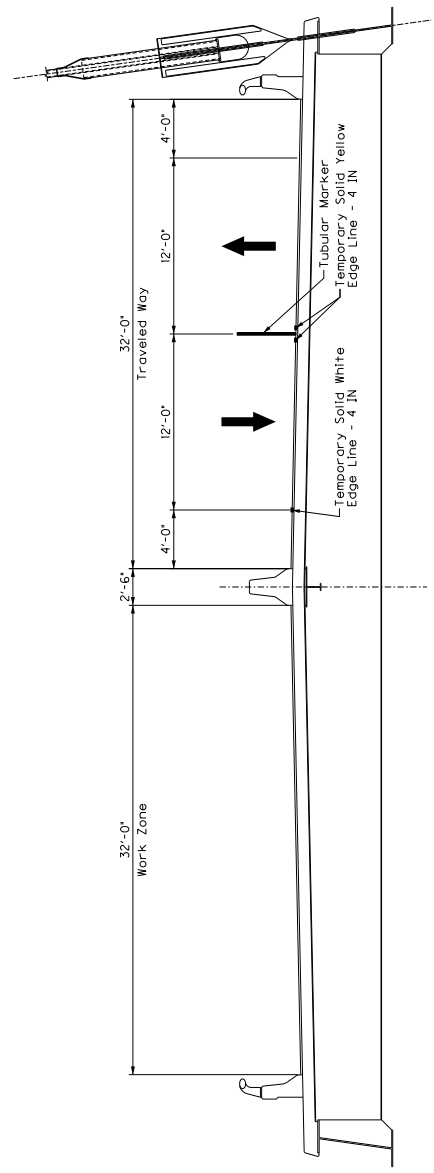


These signs are to be in place before work on the southbound lanes begins and are to remain in place until work on the southbound lanes is complete.

| REVISION | DATE |
|--|----------------------------|
| DATE: March 13, 2020 | CHECKED BY: D. Richardson |
| DESIGNED BY: C. Miller | DETAILED BY: D. Richardson |
| Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS COUNTY: DAVIESS ROUTE: US 231 CROSSING: OHIO RIVER PROJECTED BY: MAINTENANCE OF TRAFFIC | |
| SHEET NO. M12 CONTRACT NO. 28289 | |
| BURGESS & NIPLÉ Engineers & Architects & Planners | |

**DETOUR ROUTE FOR SB ENTRANCE RAMP CLOSURE
 (SB CLOSURE)**





Between Cables

At Cables

TYPICAL BRIDGE SECTION SHOWING TWO-WAY TRAFFIC
 Main Spans Shown
 Approach Spans Similar

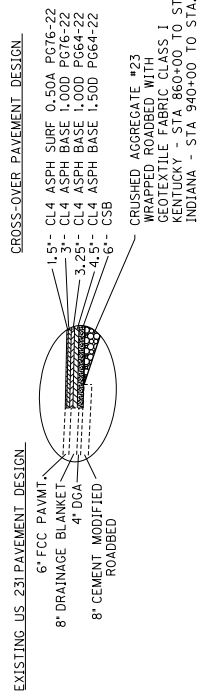
| REVISION | DATE |
|----------------------------|---------------|
| March 13, 2020 | CHECKED BY |
| D. Richardson | D. Richardson |
| Detailed by: D. Richardson | C. Miller |

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
 COUNTY: **DAVISS**
 CROSSING: **OHIO RIVER**
 ROUTE: **US 231**

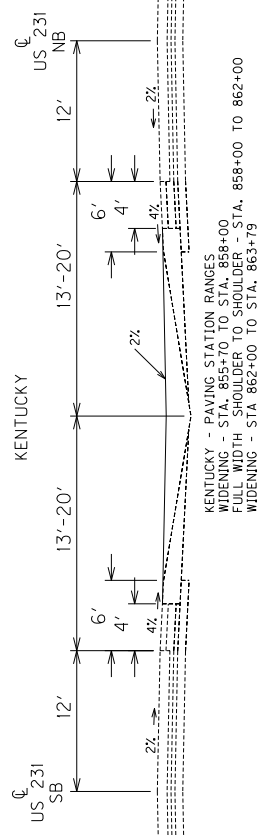
PREPARED BY: **MOT TYPICAL SECTION**

SHEET NO.: **28289**
 DRAWING NO.: **BURNESS & NIPLER**
 ENGINEERS & ARCHITECTS - PLANNERS

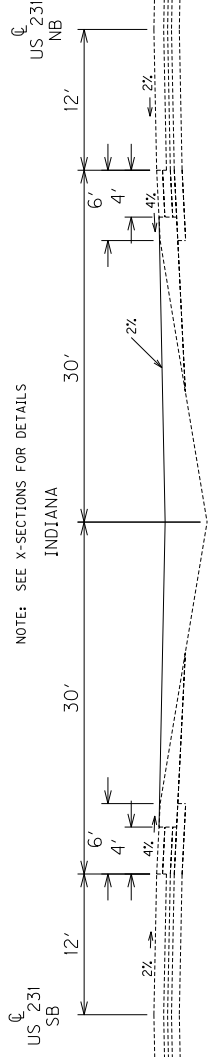
| | |
|-----------|--|
| COUNTY OF | |
| TIERING | |
| SHEET | |



NOTE: SEE X-SECTIONS FOR DETAILS



KENTUCKY - PAVING STATION RANGES
 WIDENING - STA. 858+00 TO STA. 868+00
 FULL WIDTH SHOULDER TO SHOULDER - STA. 858+00 TO 862+00
 WIDENING - STA. 862+00 TO STA. 863+79



NOTE: SEE X-SECTIONS FOR DETAILS

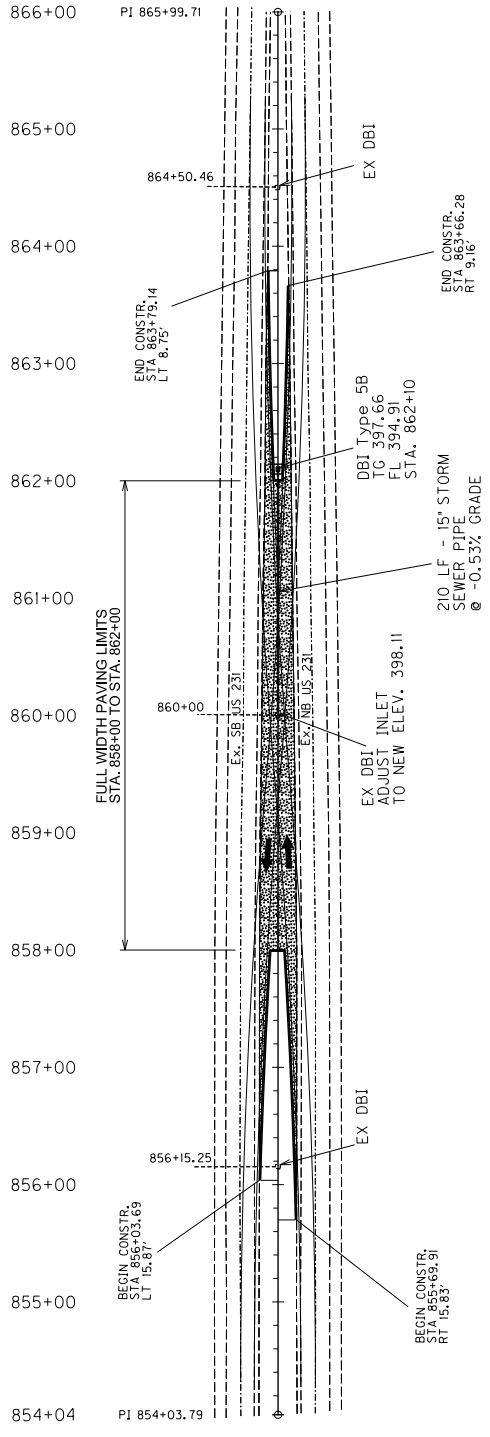
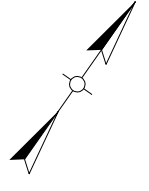
INDIANA - PAVING STATION RANGES
 WIDENING - STA. 936+51 TO STA. 940+00
 FULL WIDTH SHOULDER TO SHOULDER - STA. 940+00 TO 943+00
 WIDENING - STA. 943+00 TO STA. 947+33



TYPICAL SECTIONS

SCALE: 1" = 5'

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| COUNTY OF | SHEET |
| ITEM NO. | |

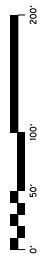
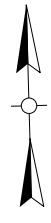
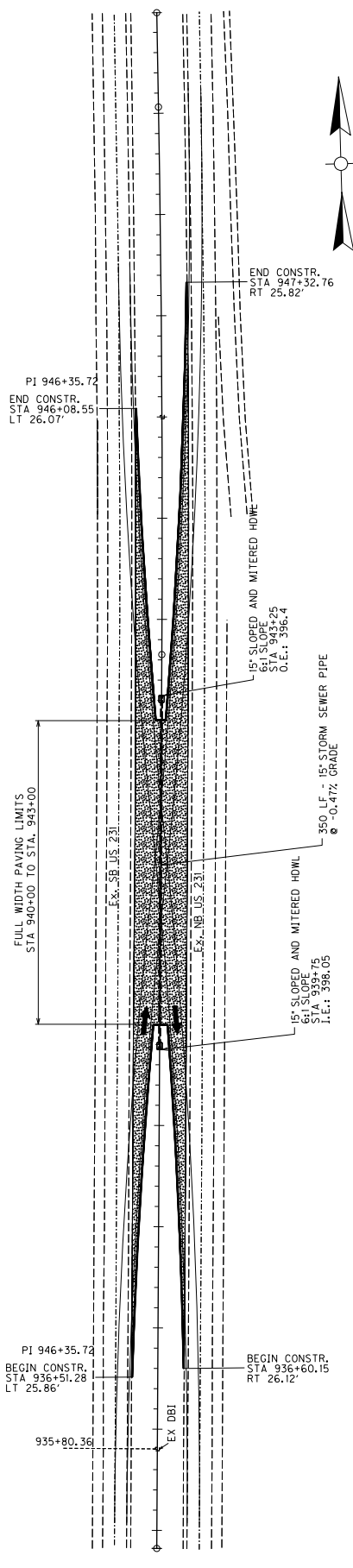


PLAN SHEET
 KENTUCKY SIDE

SCALE: 1" = 50'

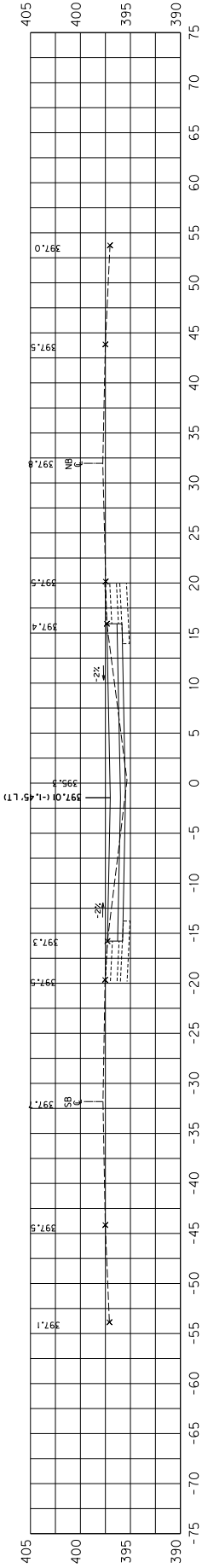
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| COUNTY OF | |

949+99
 949+00
 948+00
 947+00
 946+00
 945+00
 944+00
 943+00
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 937+00
 936+00
 935+00
 934+82



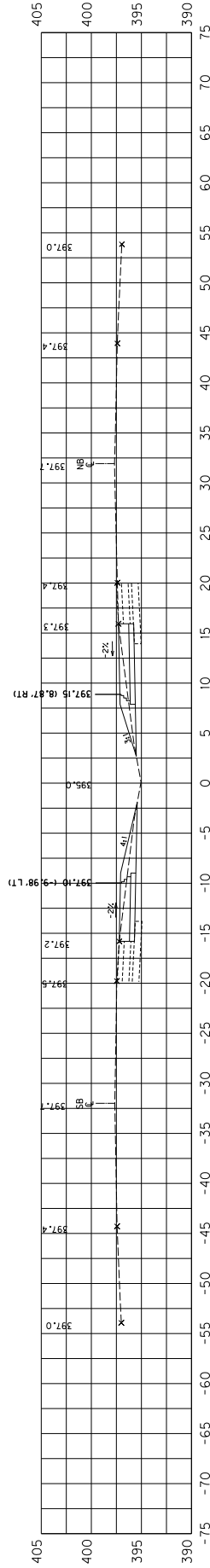
PLAN SHEET
 INDIANA SIDE
 SCALE: 1" = 50'

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| COUNTY OF | ITEM NO. | SHEET |
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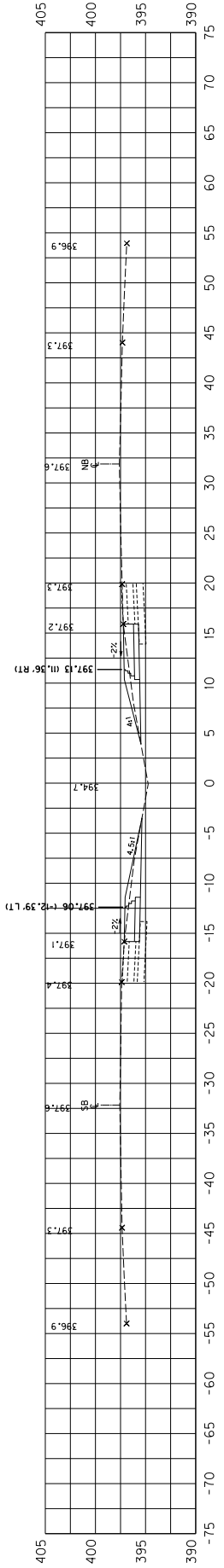


858+00

NOTE: BEGIN FULL WIDTH PAVING



857+50



857+00

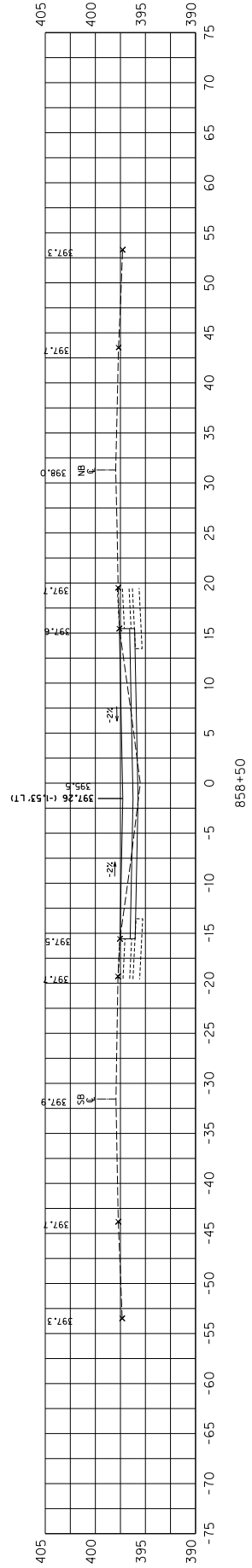
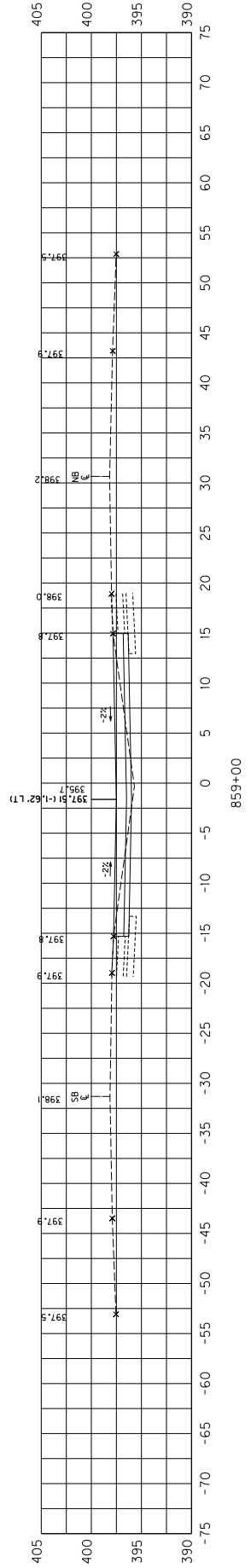
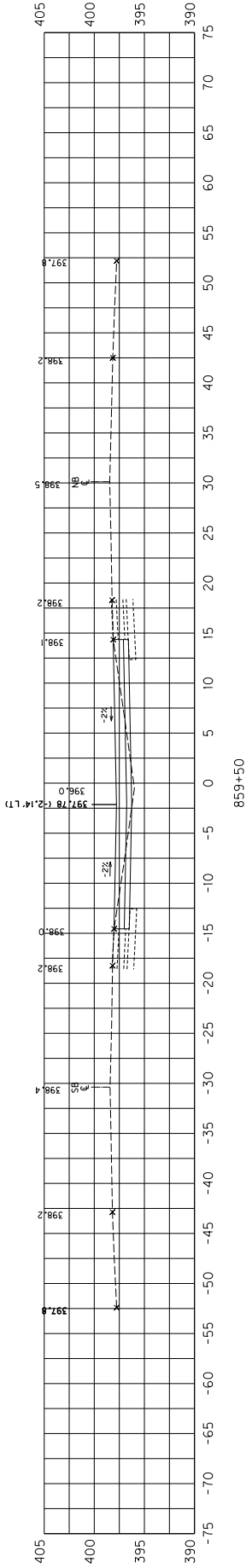
SCALE: H=5' V=10' HORIZ.
 V=5' VERT.

KENTUCKY
 STA. 857+00 TO STA. 858+00

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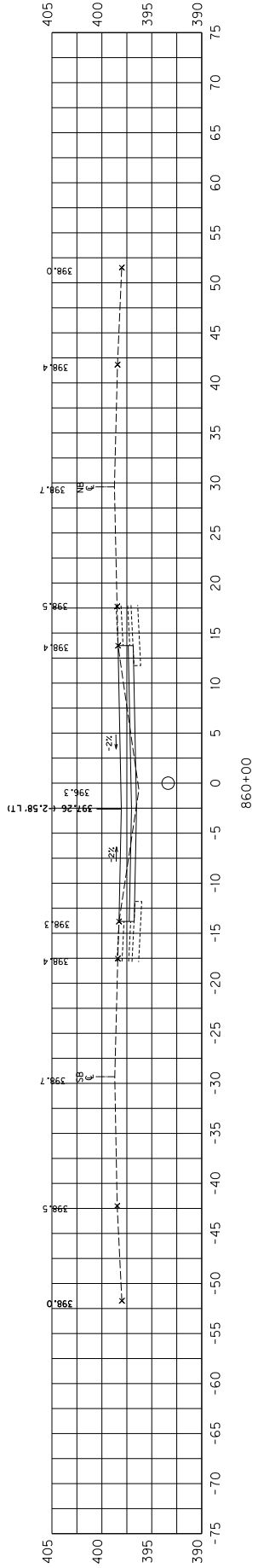
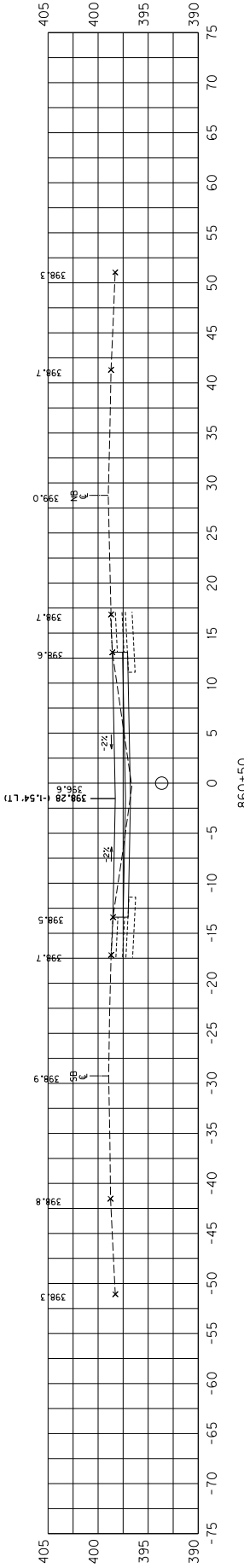
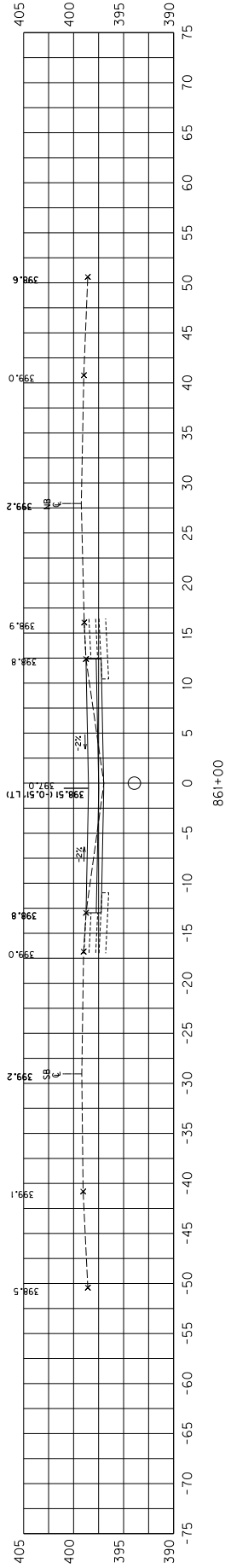
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SCALE: HORIZ.
 1"=50'
 VERT.
 1"=5'

KENTUCKY
 STA. 858+50 TO STA. 859+50

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| COUNTY OF | ITEM NO. | SHEET |
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 CHECKED BY _____ DATE _____
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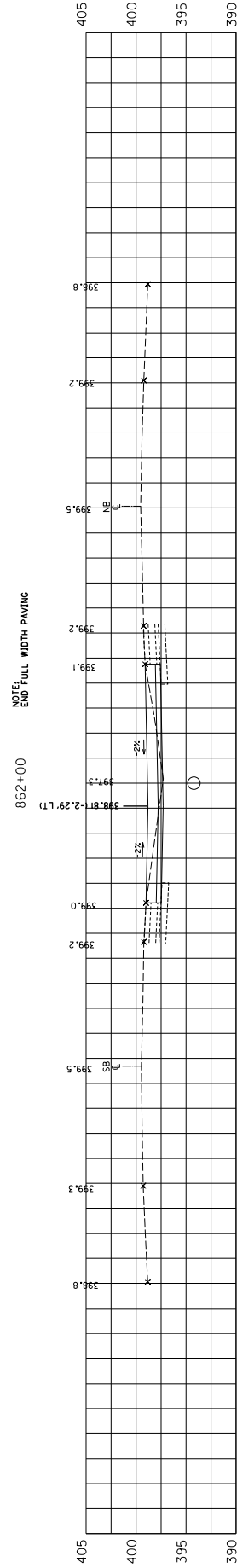
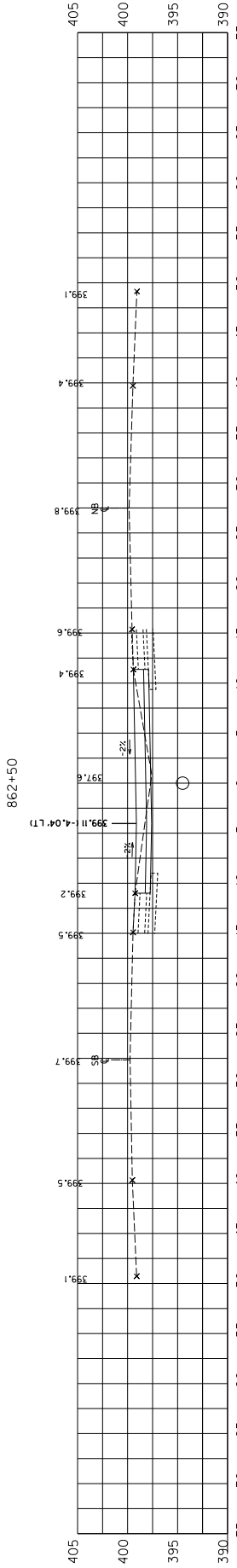
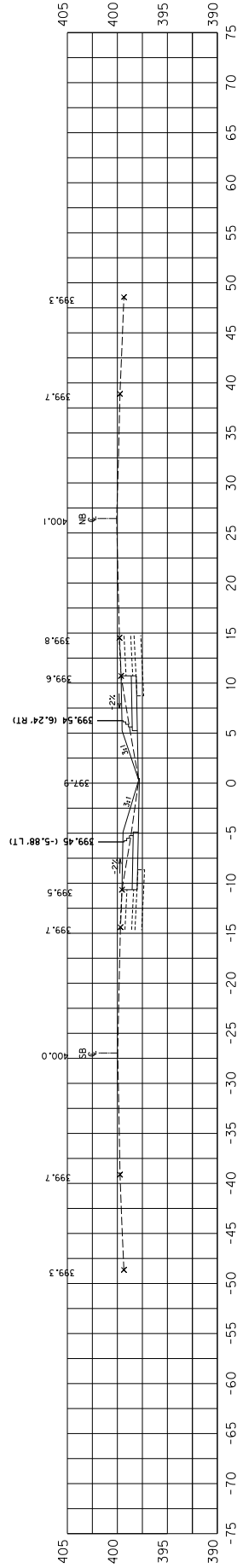


SCALE: H=5' HORIZ.
 V=5' VERT.

KENTUCKY
 STA. 860+00 TO STA. 861+00

USER: sssUSERS
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| COUNTY OF | ITEM NO. | SHEET |
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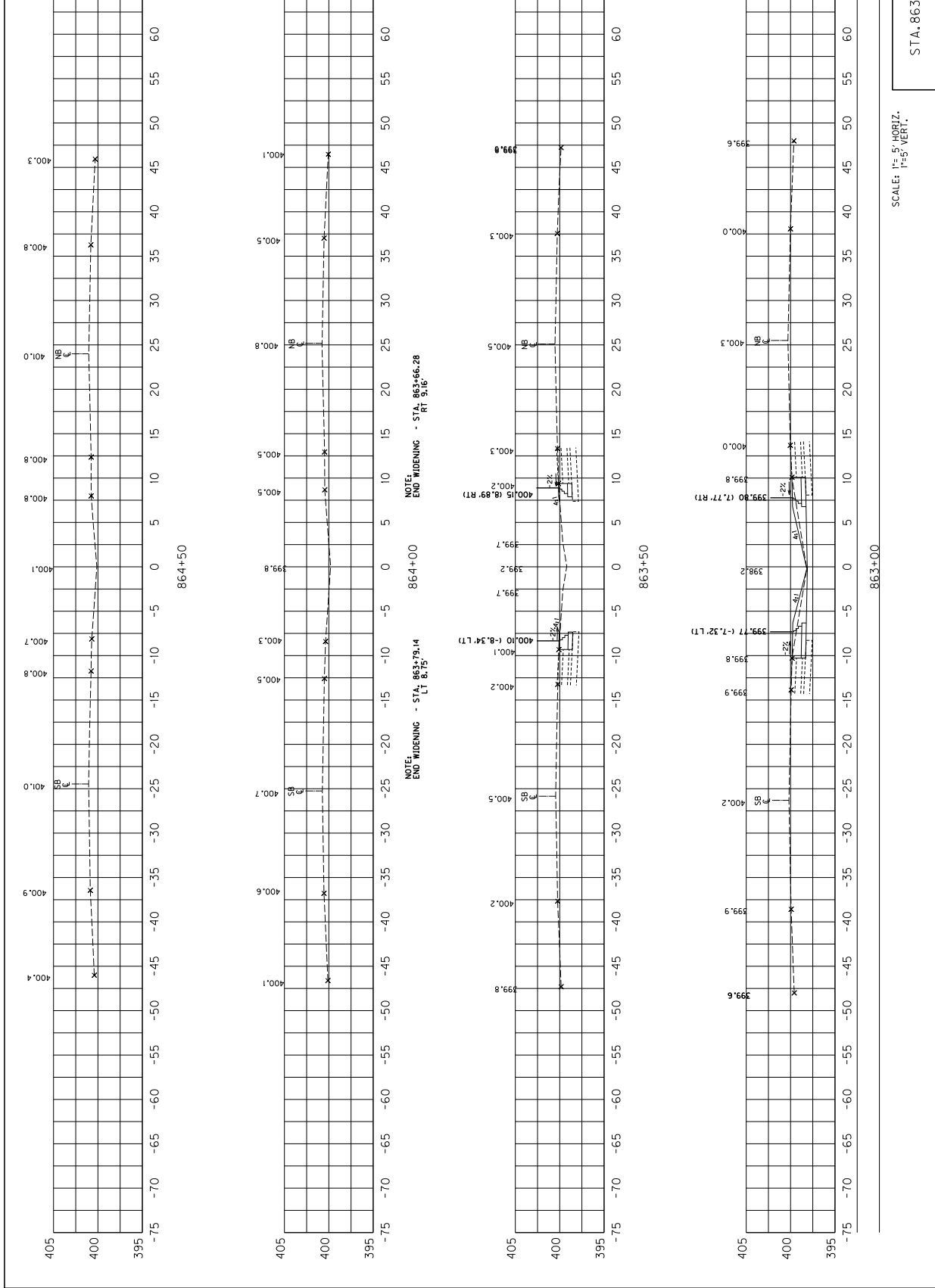
SCALE: 1"=5' HORIZ.
 1"=5' VERT.

KENTUCKY
 STA. 861+50 TO STA. 862+50

PREPARED BY _____ DATE _____
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| COUNTY OF | ITEM NO. | SHEET |
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| | | 395 |



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SCALE: 1"=5' HORIZ.
1"=5' VERT.

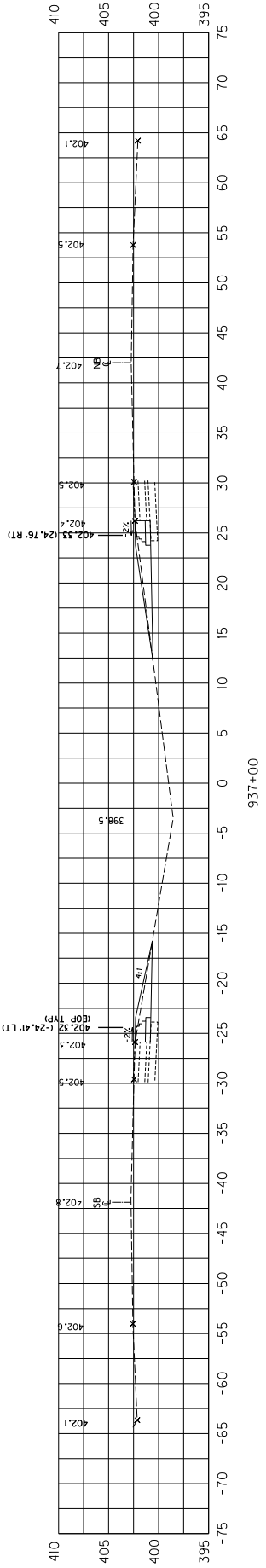
KENTUCKY
STA. 863+00 TO STA. 864+50

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| COUNTY OF | ITEM NO. | SHEET |
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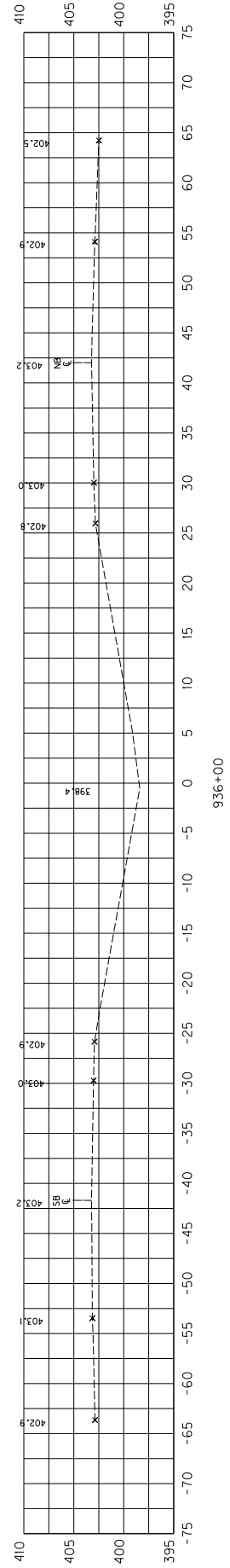
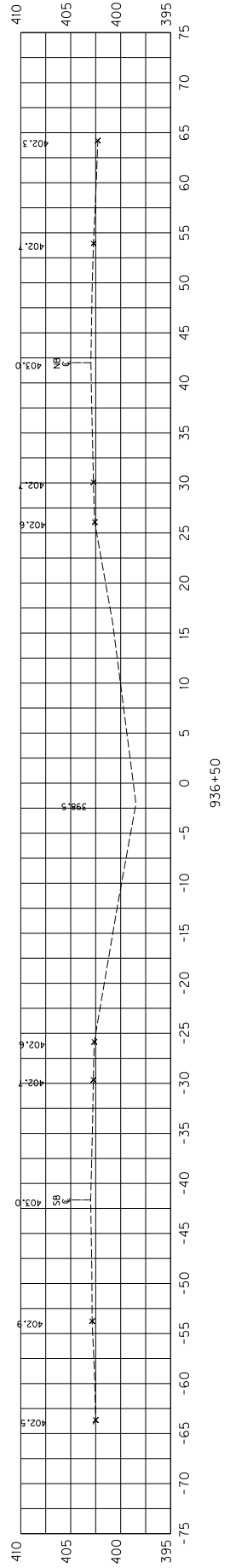
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NOTE: BEGIN WIDENING - STA. 936+60.15
RT 25.86'

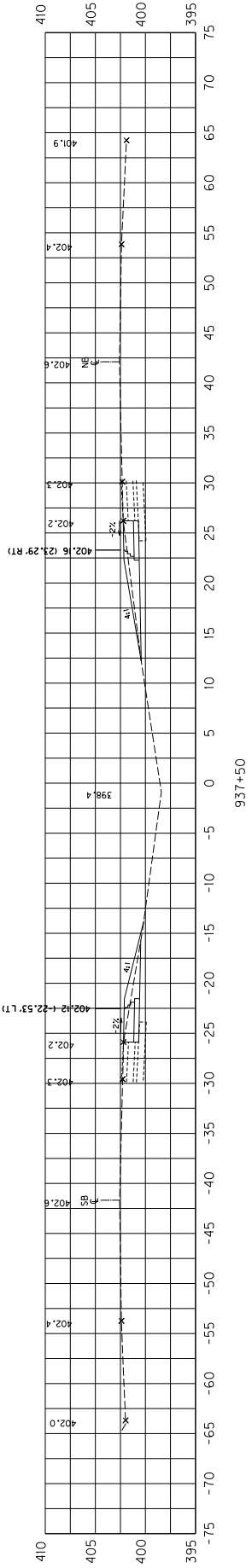
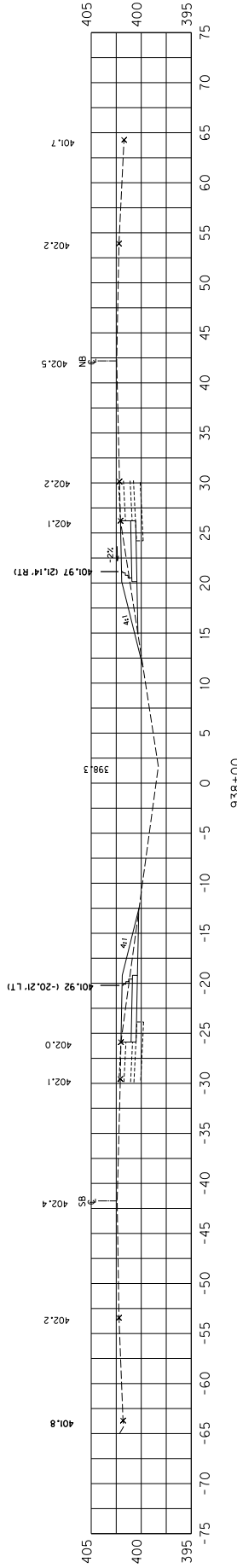
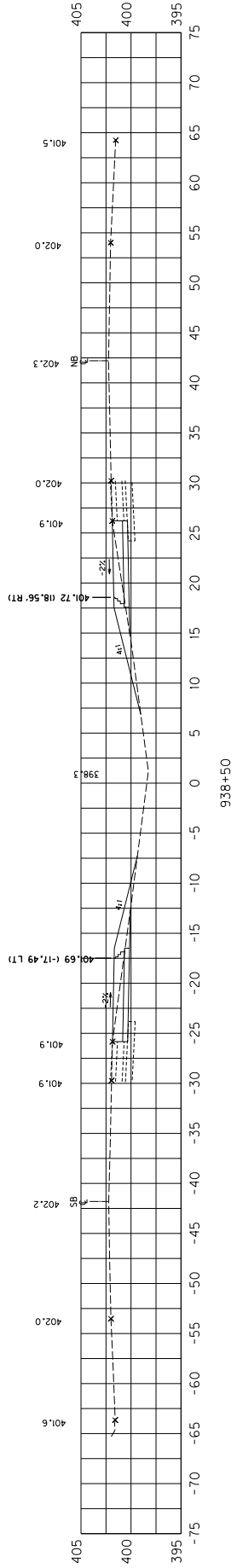
NOTE: BEGIN WIDENING - STA. 936+51.28
LT 25.86'



SCALE: 1"=5' HORIZ.
1"=5' VERT.

INDIANA
STA. 936+00 TO STA. 937+00

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| COUNTY OF | ITEM NO. | SHEET |
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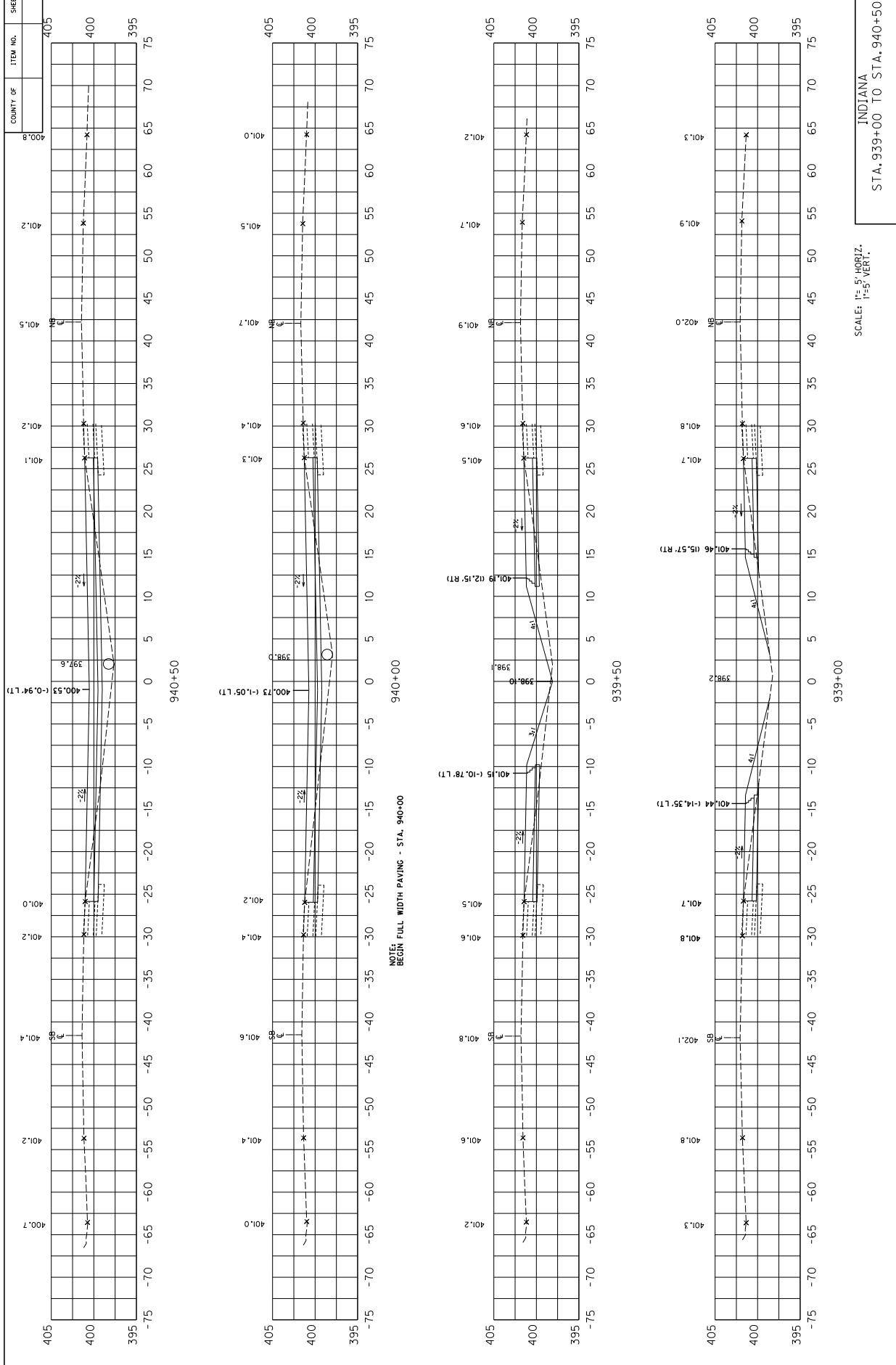


SCALE: 1"=5' HORIZ.
 1"=5' VERT.

INDIANA
 STA. 937+50 TO STA. 938+50

PREPARED BY _____ DATE _____
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NOTE:
BEGIN FULL WIDTH PAVING - STA. 940+00

SCALE: 1"=5' HORIZ.
1"=5' VERT.

INDIANA
STA. 939+00 TO STA. 940+50

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| COUNTY OF | ITEM NO. | SHEET |
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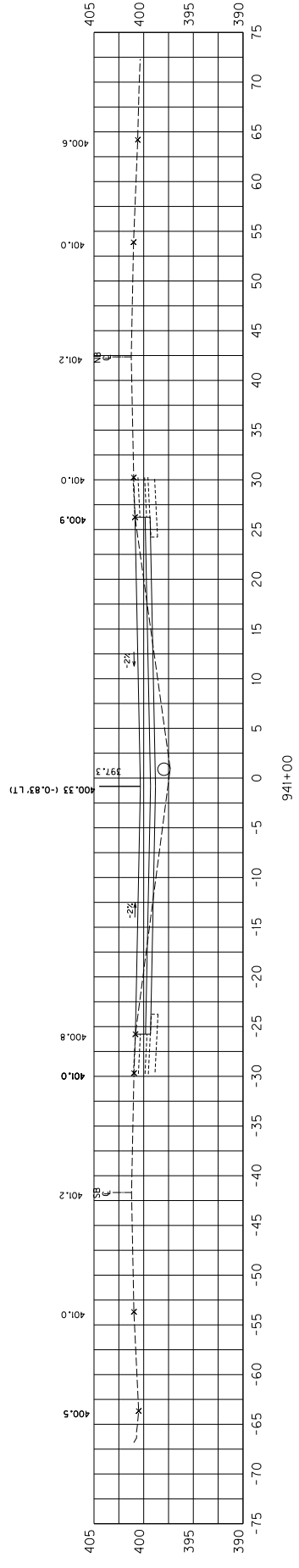
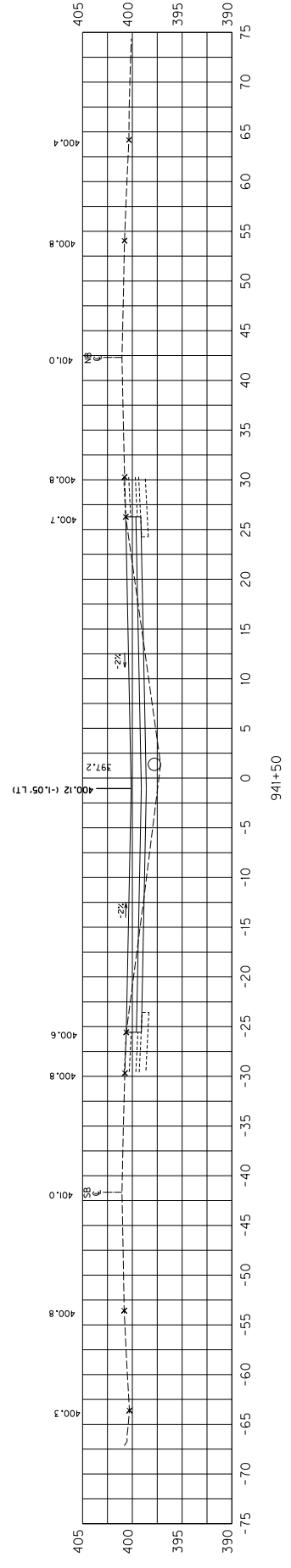
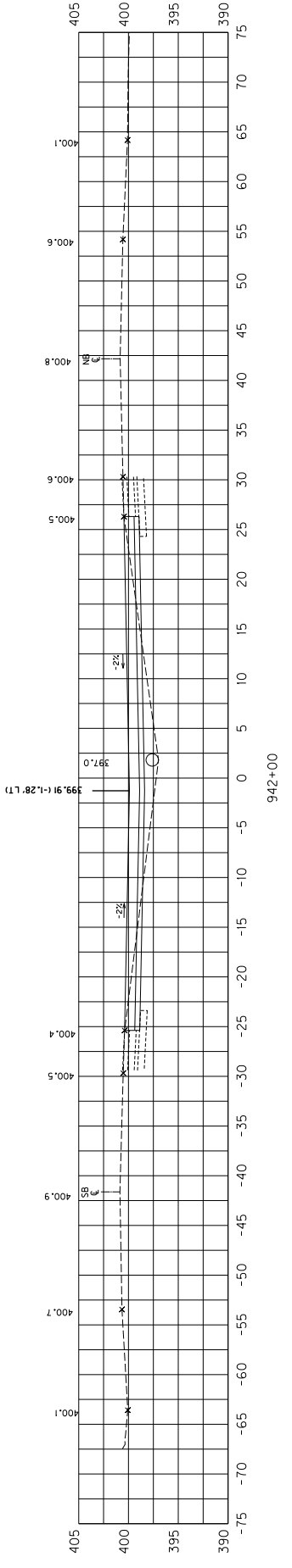
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| COUNTY OF | ITEM NO. | SHEET |
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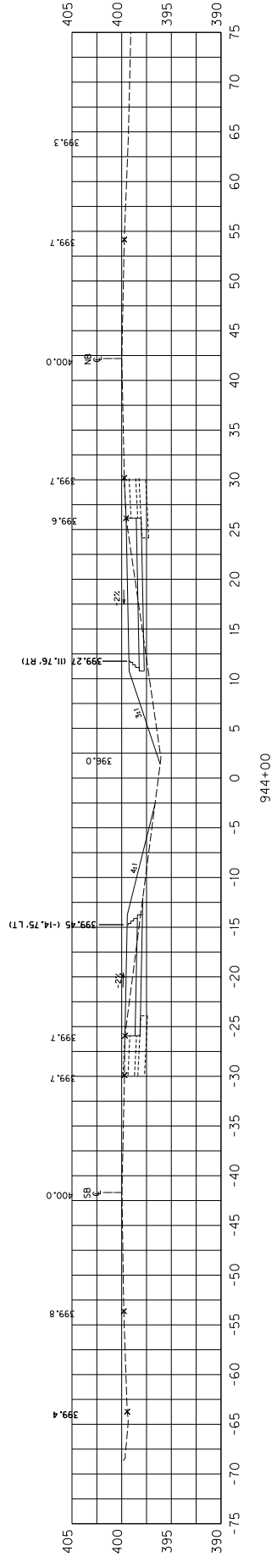
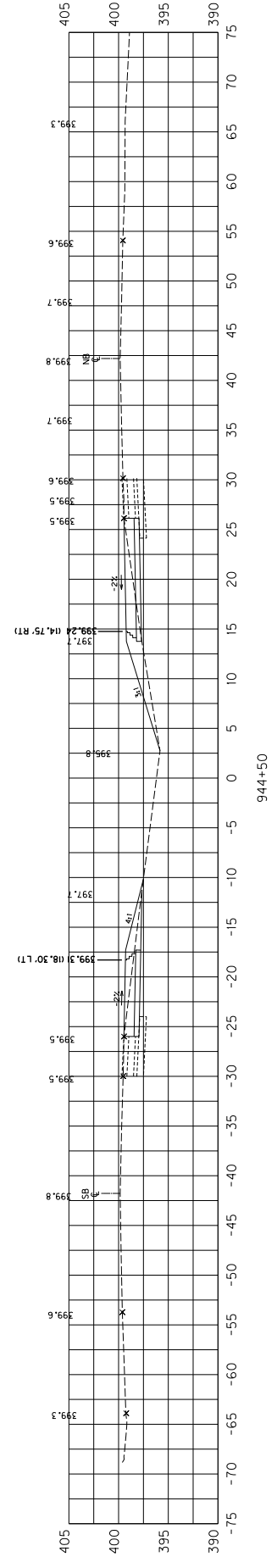
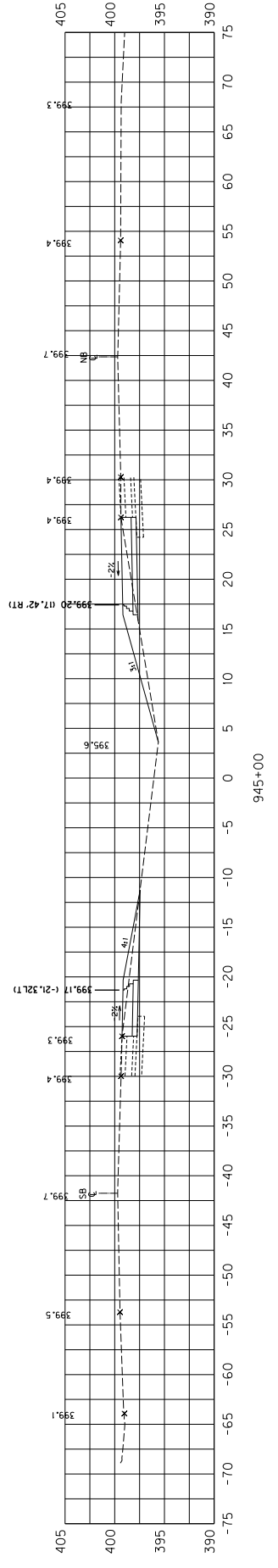
SCALE: 1" = 5' HORIZ.
 1" = 5' VERT.

INDIANA
 STA. 941+00 TO STA. 942+00

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| COUNTY OF | ITEM NO. | SHEET |
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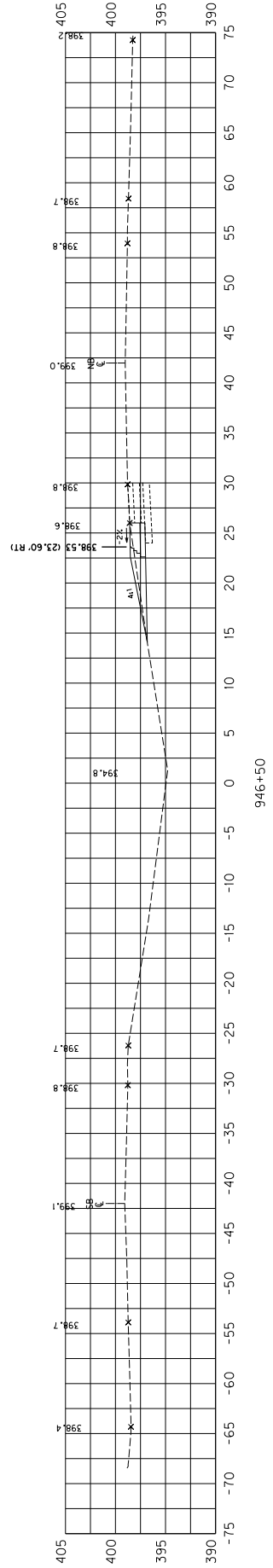
SCALE: 1" = 5' HORIZ.
 1" = 5' VERT.

INDIANA
 STA. 944+00 TO STA. 945+00

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| COUNTY OF | ITEM NO. | SHEET |
| | | |

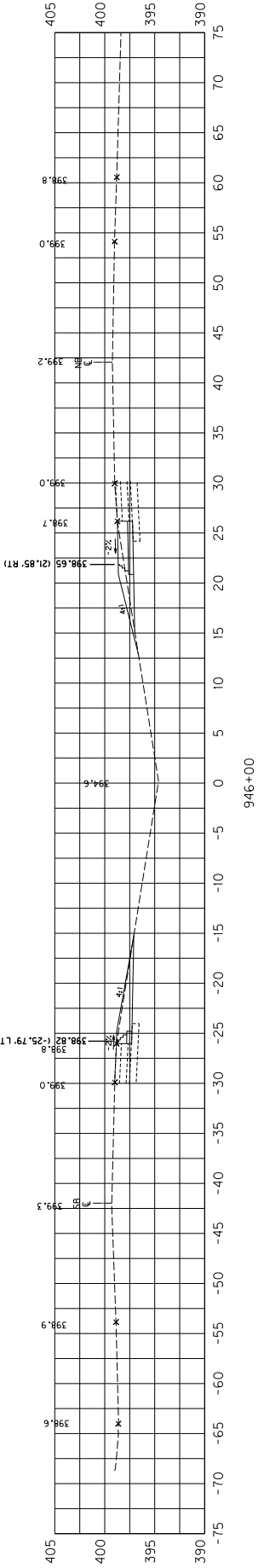
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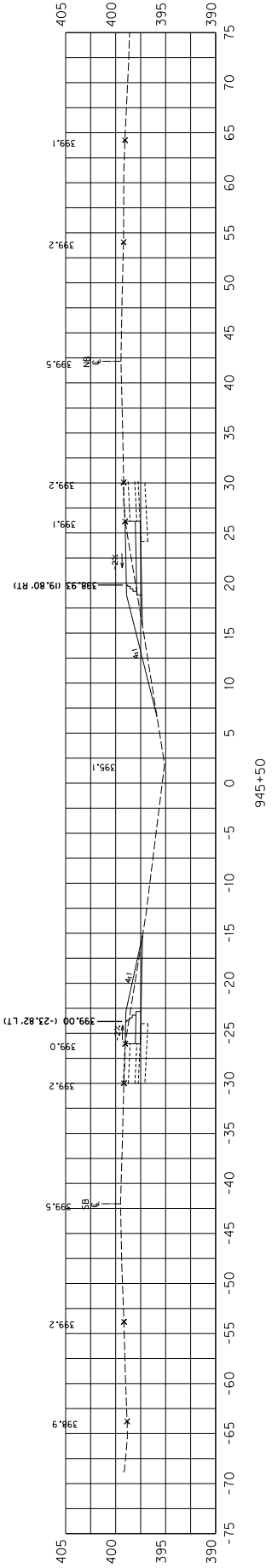


946+50

NOTE:
 END WIDENING - STA. 946+08.55
 LT 26.07'



946+00



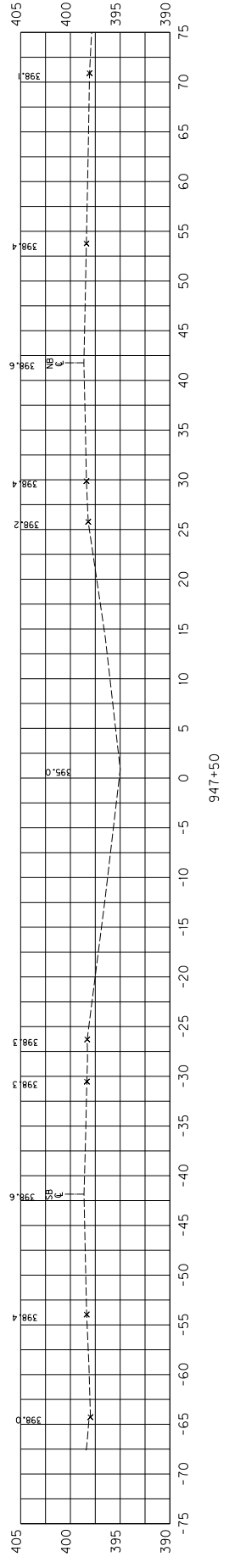
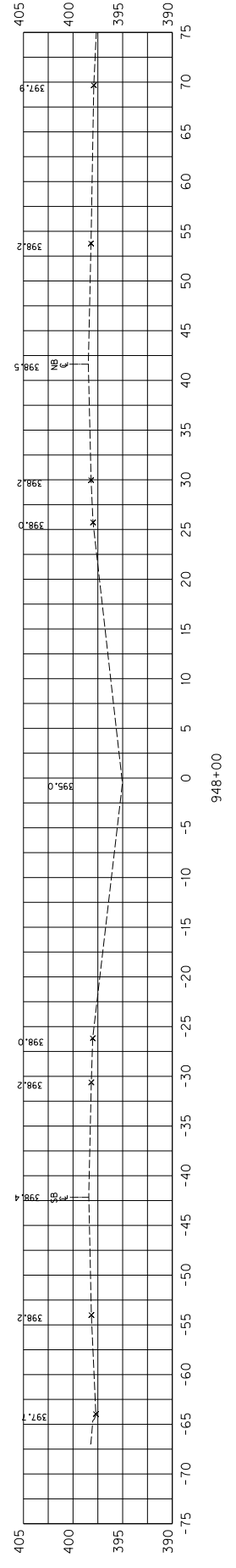
945+50

SCALE: H=5' HORIZ.
 V=5' VERT.

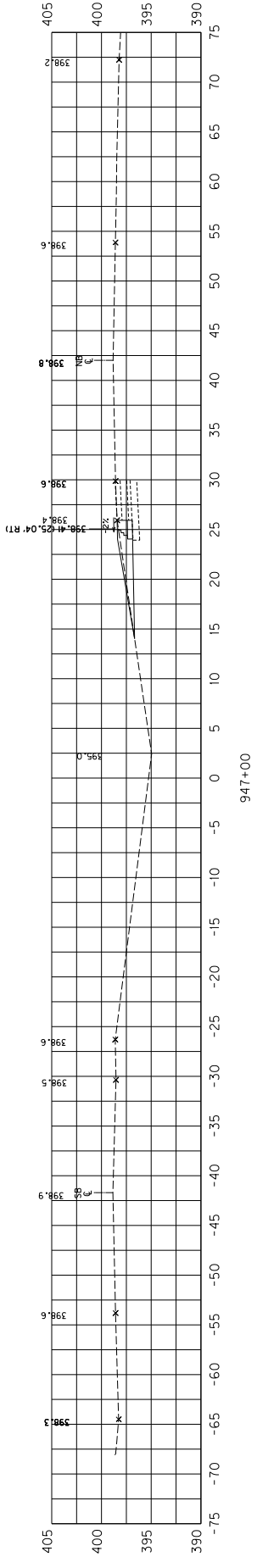
INDIANA
 STA. 945+50 TO STA. 946+50

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| COUNTY OF | DAVISS |
| ITEM NO. | 14.42 |
| SHEET | 65 |

PREPARED BY _____ DATE _____
 CHECKED BY _____ DATE _____
 APPROVED BY _____ DATE _____



NOTE:
 END WIDENING - STA. 947+22.76
 RT 25.42



SCALE: H=5' V=10'
 H=5' V=10'

INDIANA
 STA. 947+00 TO STA. 948+00

USER: sssusfcs888
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PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020*.

SUPPLEMENTAL SPECIFICATIONS

The contractor shall use the Supplemental Specifications that are effective at the time of letting.
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

**TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS**

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

- I. Application
- 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.

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

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.

EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

Kentucky Equal Employment Opportunity Act of 1978

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

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

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

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

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

EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

FEDERAL MINIMUM WAGE

\$7.25

 PER HOUR

BEGINNING JULY 24, 2009

OVERTIME PAY At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

CHILD LABOR An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

No more than

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

TIP CREDIT Employers of “tipped employees” must pay a cash wage of at least \$2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee’s tips combined with the employer’s cash wage of at least \$2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

ENFORCEMENT The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to \$1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to \$11,000 for each employee who is the subject of a violation of the Act’s child labor provisions. In addition, a civil money penalty of up to \$50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to \$100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid \$4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:



1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627



WWW.WAGEHOUR.DOL.GOV

PART IV
INSURANCE

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

PART V
BID ITEMS

PROPOSAL BID ITEMS

222964

Page 1 of 2

Report Date 6/16/22

Section: 0001 - BRIDGES

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|--|-----------|------|-----------|----|--------|
| 0010 | 03261 | | CLEAN BRIDGE DRAINS HOPPERS ADN DRAIN PIPES FOR FINGERS | 4.00 | EACH | | \$ | |
| 0020 | 06514 | | PAVE STRIPING-PERM PAINT-4 IN | 6,222.00 | LF | | \$ | |
| 0030 | 08504 | | EPOXY SAND SLURRY | 1,168.00 | SQYD | | \$ | |
| 0040 | 08510 | | REM EPOXY BIT FOREIGN OVERLAY | 32,035.60 | SQYD | | \$ | |
| 0050 | 08534 | | CONCRETE OVERLAY-LATEX | 1,334.80 | CUYD | | \$ | |
| 0060 | 08550 | | HYDRODEMOLITION | 32,035.60 | SQYD | | \$ | |
| 0070 | 23386EC | | JOINT SEAL REPLACEMENT | 128.00 | LF | | \$ | |
| 0080 | 24094EC | | PARTIAL DEPTH PATCHING | 113.80 | CUYD | | \$ | |
| 0090 | 24543EC | | CLEAN CLEAN STRIP SEAL GLANDS | 64.00 | LF | | \$ | |
| 0100 | 24662EC | | CLEAN CLEAN AND RESEAL CABLES | 96.00 | EACH | | \$ | |
| 0110 | 25092EC | | JOINT TROUGH REPLACEMENT | 2.00 | EACH | | \$ | |

Section: 0002 - ROADWAY

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|------------|-----|--|----------|------|-----------|----|--------|
| 0120 | 00003 | | CRUSHED STONE BASE | 2,994.00 | TON | | \$ | |
| 0130 | 00080 | | CRUSHED AGGREGATE SIZE NO 23 | 427.00 | TON | | \$ | |
| 0140 | 00208 | | CL4 ASPH BASE 1.50D PG64-22 | 1,557.00 | TON | | \$ | |
| 0150 | 00217 | | CL4 ASPH BASE 1.00D PG64-22 | 1,114.00 | TON | | \$ | |
| 0160 | 00219 | | CL4 ASPH BASE 1.00D PG76-22 | 1,010.00 | TON | | \$ | |
| 0170 | 00335 | | CL4 ASPH SURF 0.50A PG76-22 | 501.00 | TON | | \$ | |
| 0180 | 00521 | | STORM SEWER PIPE-15 IN | 560.00 | LF | | \$ | |
| 0190 | 01505 | | DROP BOX INLET TYPE 5B | 1.00 | EACH | | \$ | |
| 0200 | 01719 | | ADJUST INLET | 1.00 | EACH | | \$ | |
| 0210 | 02200 | | ROADWAY EXCAVATION | 1,224.00 | CUYD | | \$ | |
| 0220 | 02242 | | WATER | 29.00 | MGAL | | \$ | |
| 0230 | 02602 | | FABRIC-GEOTEXTILE CLASS 1 | 2,633.00 | SQYD | | \$ | |
| 0240 | 02726 | | STAKING | 1.00 | LS | | \$ | |
| 0250 | 03225 | | TUBULAR MARKERS | 770.00 | EACH | | \$ | |
| 0260 | 05952 | | TEMP MULCH | 8,768.00 | SQYD | | \$ | |
| 0270 | 05953 | | TEMP SEEDING AND PROTECTION | 8,768.00 | SQYD | | \$ | |
| 0280 | 05963 | | INITIAL FERTILIZER | .40 | TON | | \$ | |
| 0290 | 05964 | | MAINTENANCE FERTILIZER | .60 | TON | | \$ | |
| 0300 | 05985 | | SEEDING AND PROTECTION | 3,777.00 | SQYD | | \$ | |
| 0310 | 05992 | | AGRICULTURAL LIMESTONE | 6.00 | TON | | \$ | |
| 0320 | 24575ES610 | | HEADWALL SLOPED AND MITERED CONCRETE FOR 15- INCH PIPE | 2.00 | EACH | | \$ | |
| 0330 | 24970EC | | ASPHALT MATERIAL FOR TACK NON- TRACKING | 11.00 | TON | | \$ | |

Section: 0003 - MAINTENANCE OF TRAFFIC

PROPOSAL BID ITEMS

222964

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Report Date 6/16/22

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|----------------------------------|-----------|------|-----------|----|--------|
| 0340 | 02003 | | RELOCATE TEMP CONC BARRIER | 660.00 | LF | | \$ | |
| 0350 | 02562 | | TEMPORARY SIGNS | 765.00 | SQFT | | \$ | |
| 0360 | 02650 | | MAINTAIN & CONTROL TRAFFIC | 1.00 | LS | | \$ | |
| 0370 | 02775 | | ARROW PANEL | 2.00 | EACH | | \$ | |
| 0380 | 02898 | | RELOCATE CRASH CUSHION | 1.00 | EACH | | \$ | |
| 0390 | 03171 | | CONCRETE BARRIER WALL TYPE 9T | 860.00 | LF | | \$ | |
| 0400 | 06550 | | PAVE STRIPING-TEMP REM TAPE-W | 23,063.00 | LF | | \$ | |
| 0410 | 06551 | | PAVE STRIPING-TEMP REM TAPE-Y | 38,189.00 | LF | | \$ | |
| 0420 | 06556 | | PAVE STRIPING-DUR TY 1-6 IN W | 19,000.00 | LF | | \$ | |
| 0430 | 06557 | | PAVE STRIPING-DUR TY 1-6 IN Y | 15,180.00 | LF | | \$ | |
| 0440 | 08903 | | CRASH CUSHION TY VI CLASS BT TL3 | 1.00 | EACH | | \$ | |

Section: 0004 - DEMOB

| LINE | BID CODE | ALT | DESCRIPTION | QUANTITY | UNIT | UNIT PRIC | FP | AMOUNT |
|------|----------|-----|----------------|----------|------|-----------|----|--------|
| 0450 | 02568 | | MOBILIZATION | 1.00 | LS | | \$ | |
| 0460 | 02569 | | DEMOBILIZATION | 1.00 | LS | | \$ | |