



CALL NO. 102

CONTRACT ID. 201005

JEFFERSON COUNTY

FED/STATE PROJECT NUMBER NHPP IM 2641(183)

DESCRIPTION I-264 AND I-64

WORK TYPE JPC PAVEMENT REPAIRS - DIAMOND GRINDING

PRIMARY COMPLETION DATE 12/31/2020

LETTING DATE: April 24,2020

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

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 15%

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

TABLE OF CONTENTS

PART I	SCOPE OF WORK <ul style="list-style-type: none">• PROJECT(S), COMPLETION DATE(S), & LIQUIDATED DAMAGES• CONTRACT NOTES• FEDERAL CONTRACT NOTES• ASPHALT MIXTURE• DGA BASE• DGA BASE FOR SHOULDERS• INCIDENTAL SURFACING• FUEL AND ASPHALT PAY ADJUSTMENT• ASPHALT PAVEMENT RIDE QUALITY CAT A• COMPACTION OPTION A• SPECIAL NOTE(S) APPLICABLE TO PROJECT• CONCRETE SLURRY• BRIDGE DEMOLITION, RENOVATION• ASBESTOS ABATEMENT REPORT• RIGHT OF WAY NOTES• UTILITY IMPACT & RAIL CERTIFICATION NOTES
PART II	SPECIFICATIONS AND STANDARD DRAWINGS <ul style="list-style-type: none">• SPECIFICATIONS REFERENCE• SUPPLEMENTAL SPECIFICATION• [SN-1I] PORTABLE CHANGEABLE SIGNS
PART III	EMPLOYMENT, WAGE AND RECORD REQUIREMENTS <ul style="list-style-type: none">• FEDERAL-AID CONSTRUCTION CONTRACTS - FHWA 1273• NONDISCRIMINATION OF EMPLOYEES• EXECUTIVE BRANCH CODE OF ETHICS• PROJECT WAGE RATES LOCALITY 3 / FEDERAL• NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EEO JEFFERSON
PART IV	INSURANCE
PART V	BID ITEMS

PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 201005
NHPP IM 2641(183)
COUNTY - JEFFERSON
PCN - DE05602642005
NHPP IM 2641(183)

I-264 AND I-64 ADDRESS PAVEMENT CONDITION ON I-64 FROM MP 0.0 - 0.828, AND I-264 FROM MP 0.0 - 12.7.
(COMBINES ITEM NO. 5-20015, 5-20018), A DISTANCE OF 013.50 MILES.JPC PAVEMENT REPAIRS - DIAMOND
GRINDING SYP NO. 05-20010.00.
GEOGRAPHIC COORDINATES LATITUDE 38:13:47.00 LONGITUDE 85:49:17.00

COMPLETION DATE(S):
COMPLETED BY 12/31/2020 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

April 30, 2018

FEDERAL CONTRACT NOTES

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

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

CIVIL RIGHTS ACT OF 1964

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

NOTICE TO ALL BIDDERS

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

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

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

SECOND TIER SUBCONTRACTS

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

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

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

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

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

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

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

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

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

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

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

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

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

PROMPT PAYMENT

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

CONTRACTOR REPORTING

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

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

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

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

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

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

DEFAULT OR DECERTIFICATION OF THE DBE

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

7/19/2019

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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

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

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

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

ASPHALT MIXTURE

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

DGA BASE

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

DGA BASE FOR SHOULDERS

Unless otherwise noted, the Department estimates the rate of application for DGA Base for Shoulders to be 115 lbs/sy per inch of depth. The Department will not measure necessary grading and/or shaping of existing shoulders prior to placing of DGA Base, but shall be incidental to the Contract unit price per ton for DGA Base.

Accept payment at the Contract unit price per ton as full compensation for all labor, materials, equipment, and incidentals for grading and/or shaping of existing shoulders and furnishing, placing, and compacting the DGA Base.

INCIDENTAL SURFACING

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

FUEL AND ASPHALT PAY ADJUSTMENT

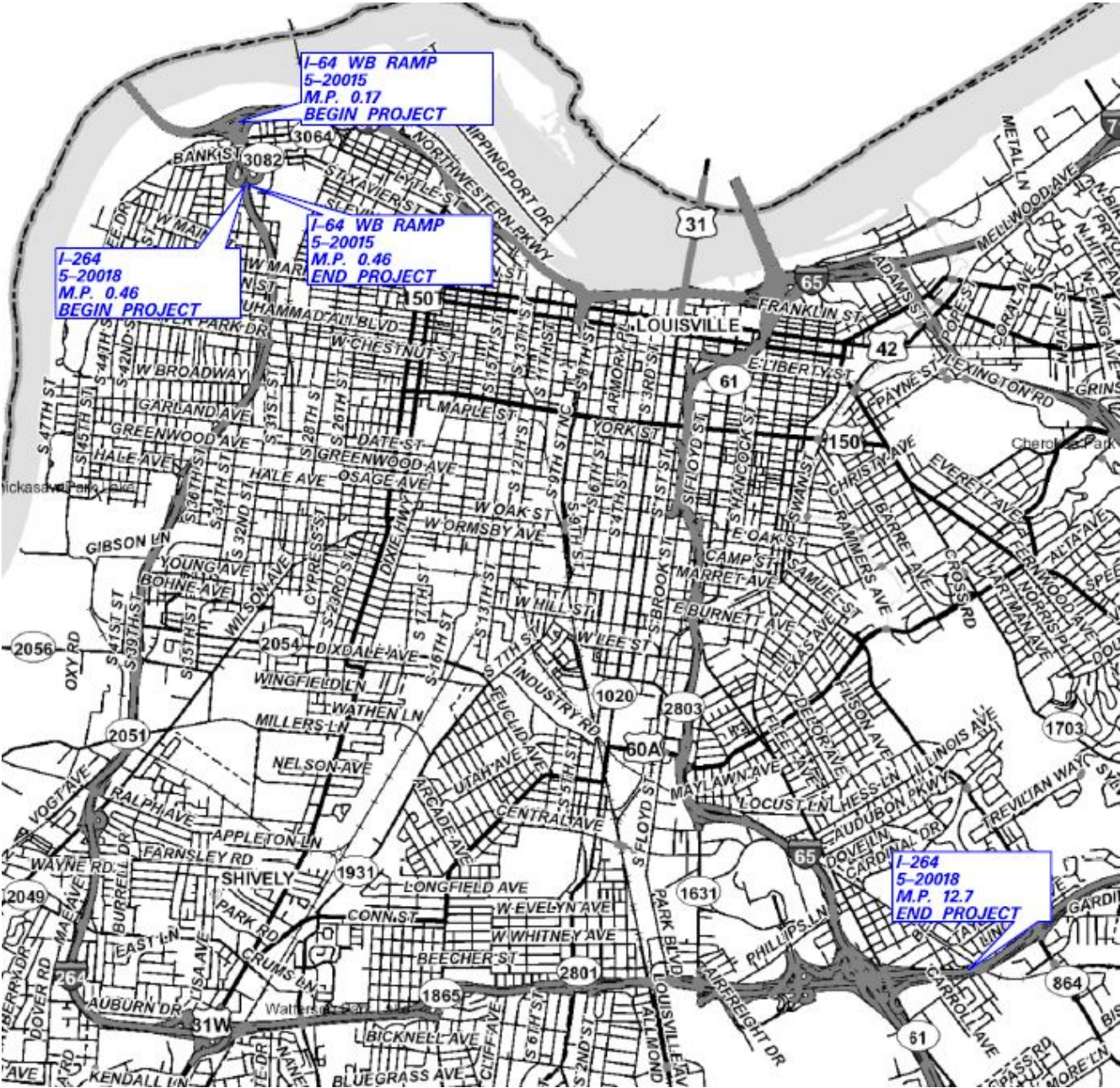
The Department has included the Contract items Asphalt Adjustment and Fuel Adjustment for possible future payments at an established Contract unit price of \$1.00. The Department will calculate actual adjustment quantities after work is completed. If existing Contract amount is insufficient to pay all items on the contract with the adjustments, the Department will establish additional monies with a change order.

ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

The Department will apply Pavement Rideability Requirements on this project in accordance with Section 410, Category A.

OPTION A

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.



COUNTY: JEFFERSON

ITEM NUMBERS: 5-20010.00, 5-20015.00, 5-20018.00 (Let as 5-20010.00)

PROJECT NUMBER: FD52 056 0064 000-001 & FD52 056 0264 000-013

CONSTRUCTION NUMBER: NHPP IM 2641 (183)

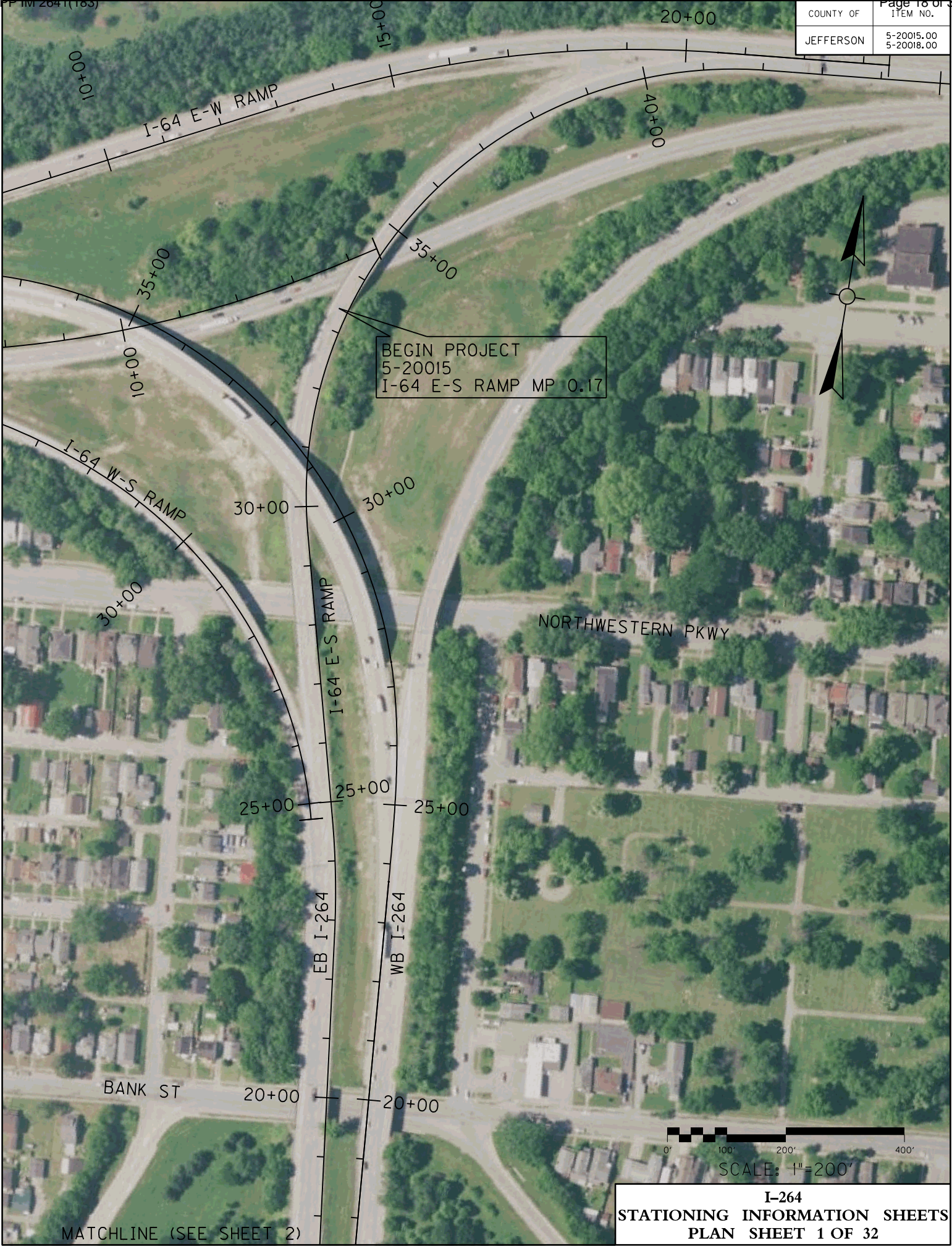
LETTING DATE: April 24, 2020

RECOMMENDED BY: _____ DATE: _____
Project Manager

PLAN APPROVED BY: _____ DATE: _____
State Highway Engineer

FHWA APPROVED BY: _____ DATE: _____

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE
(SEE SHEET 1)

END PROJECT
5-20015
I-264 MP 0.46

BEGIN PROJECT
5-20018
MP 0.46

15+00

15+00

12+00

480+00

10+00

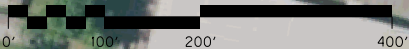
EB I-264

WB I-264

475+00

470+00

N 34TH ST



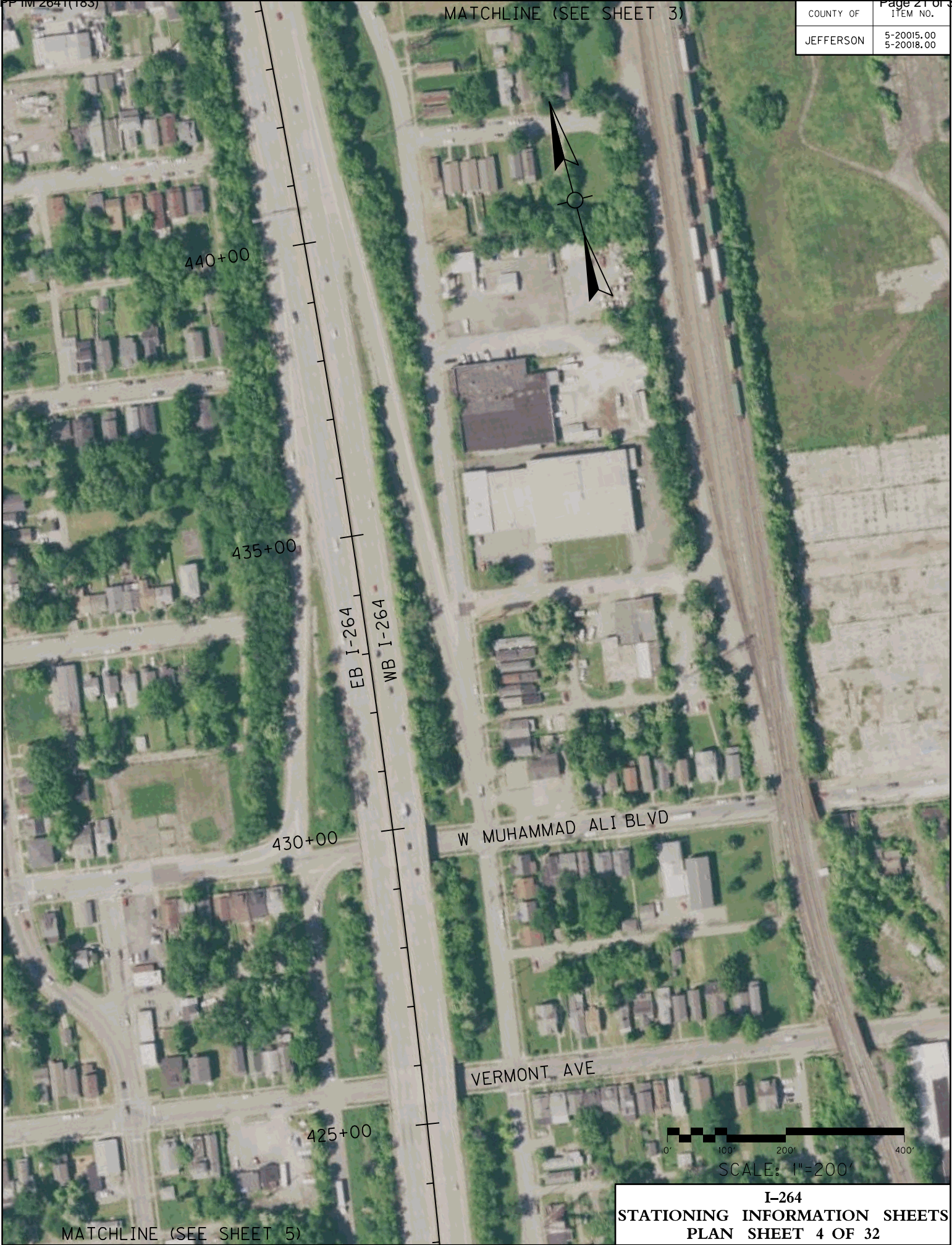
SCALE: 1"=200'

MATCHLINE (SEE SHEET 3)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 4)

RIVER PARK DR

420+00

415+00

410+00

405+00
W BROADWAY

MATCHLINE (SEE SHEET 6)

EB I-264
WB I-264



SCALE: 1"=200'

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 5)



MATCHLINE (SEE SHEET 7)

MATCHLINE (SEE SHEET 6)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



Greenwood Ave.

EB I-264
WB I-264

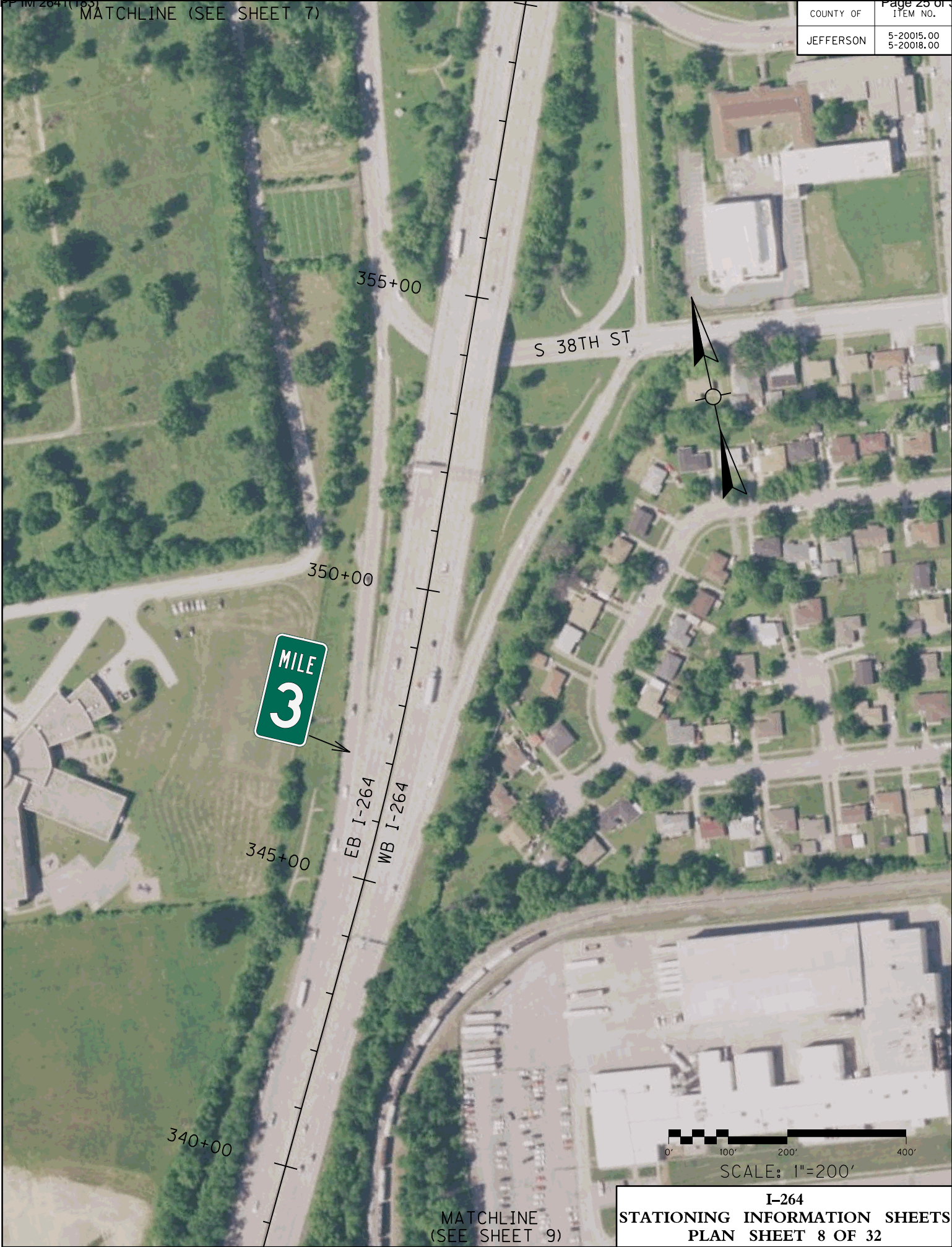


SCALE: 1"=200'

MATCHLINE
(SEE SHEET 8)

MATCHLINE (SEE SHEET 7)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE
(SEE SHEET 9)

MATCHLINE (SEE SHEET 8)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 9)

315+00

310+00

EB I-264
WB I-264

ALGONQUIN PKWY

305+00

300+00



SCALE: 1"=200'

MATCHLINE (SEE SHEET 11)

MATCHLINE (SEE SHEET 10)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



BELLS LN

295+00

290+00

EB I-264
WB I-264

285+00

280+00

275+00

MATCHLINE (SEE SHEET 12)



SCALE: 1"=200'

I-264
STATIONING INFORMATION SHEETS
PLAN SHEET 11 OF 32

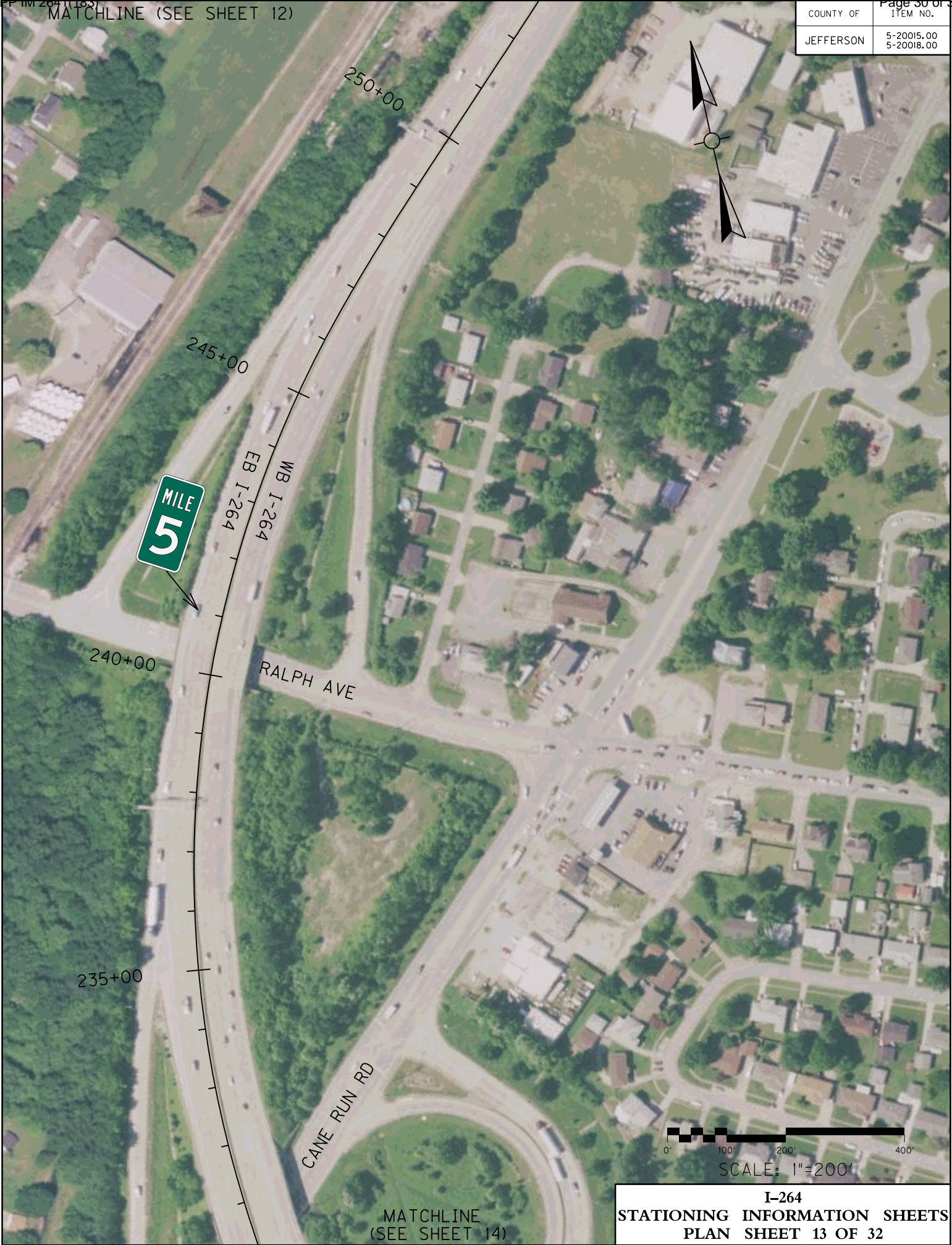
COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 11)

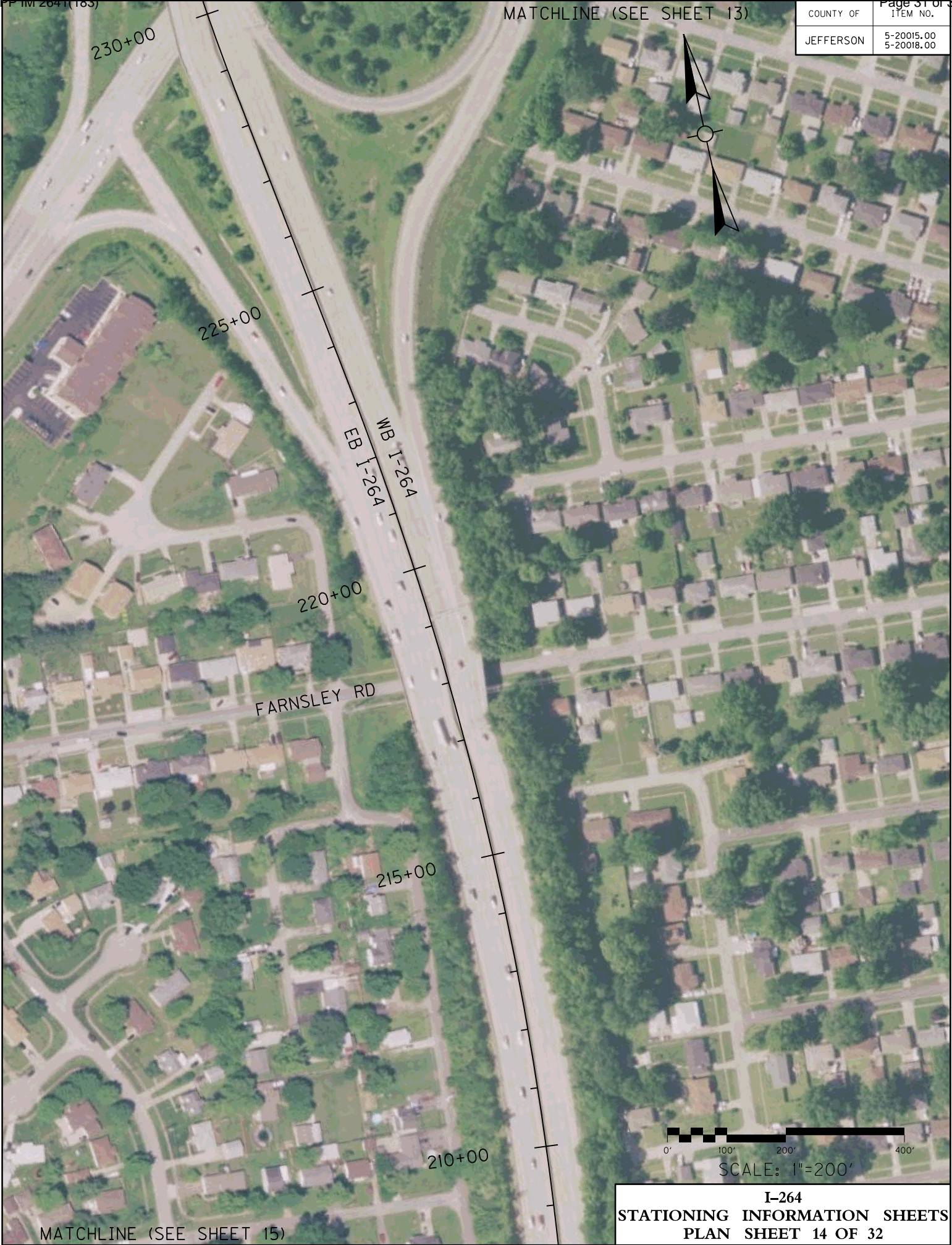


MATCHLINE
(SEE SHEET 13)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 14)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 16)

MATCHLINE (SEE SHEET 15)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 16)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 18)

I-264
STATIONING INFORMATION SHEETS
PLAN SHEET 17 OF 32

MATCHLINE (SEE SHEET 17)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



EQNBK 136+41.75
EQNAHD 135+68.83



SCALE: 1"=200'

I-264
STATIONING INFORMATION SHEETS
PLAN SHEET 18 OF 32

MATCHLINE
(SEE SHEET 19)

MATCHLINE (SEE SHEET 18)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



EONBK 119+79.36
EONAH 119+72.69



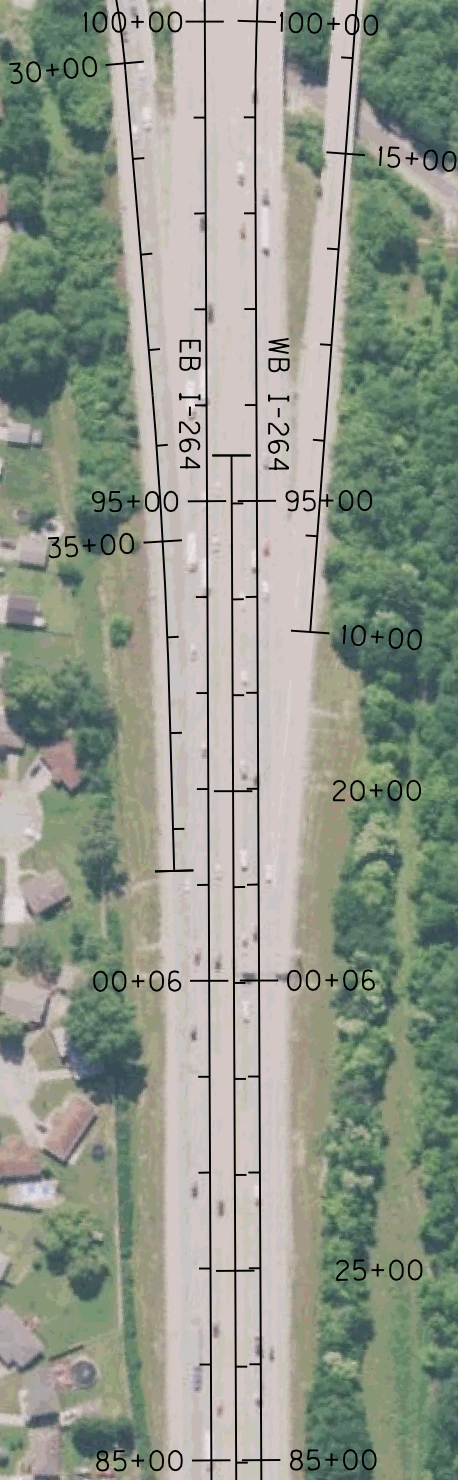
MATCHLINE
(SEE SHEET 20)



SCALE: 1"=200'

MATCHLINE (SEE SHEET 19)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



SCALE: 1"=200'



MATCHLINE (SEE SHEET 21)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 21)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 23)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 22)



MATCHLINE (SEE SHEET 24)

MATCHLINE (SEE SHEET 23)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



95+00

100+00

105+00

110+00

WB I-264
EB I-264



SCALE: 1"=200'

MATCHLINE (SEE SHEET 25)

MATCHLINE (SEE SHEET 24)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

115+00



120+00

125+00

EONBK 125+39.95
EONAH 126+40.89

WB I-264
EB I-264

130+00



MATCHLINE (SEE SHEET 26)



SCALE: 1"=200'

MATCHLINE (SEE SHEET 25)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



SOUTHERN PKWY

140+00

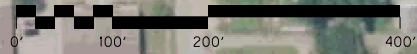
S 3RD ST

145+00

WB I-264
EB I-264

150+00

155+00



SCALE: 1"=200'

MATCHLINE (SEE SHEET 27)

MATCHLINE (SEE SHEET 26)

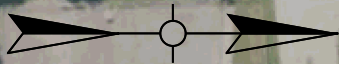
COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 28)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 27)



MILE
1
1

180+00

CRITTENDEN DR

185+00

WB I-264
EB I-264

190+00

195+00



SCALE: 1"=200'

MATCHLINE (SEE SHEET 29)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE (SEE SHEET 28)



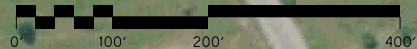
200+00

205+00

210+00

215+00

WB I-264
EB I-264



SCALE: 1"=200'

MATCHLINE (SEE SHEET 30)

FREEDOM WAY

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 30)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE (SEE SHEET 32)

MATCHLINE (SEE SHEET 31)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



265+00

270+00

275+00

280+00

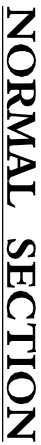
WB I-264
EB I-264

END PROJECT
5-20018
I-264 MP 12.7



SCALE: 1"=200'

STA. 482+00 to 138+00
STA. 16+50 to 83+00
STA. 184+00 to 257+00



NOT TO SCALE

STA. 83+00 to 184+00



NORMAL SECTION



SUPERRELEVATED SECTION



I-264
TYPICAL SECTIONS

STA. 257+00 to 276+35.74

NORMAL SECTION



SUPERRELEVATED SECTION



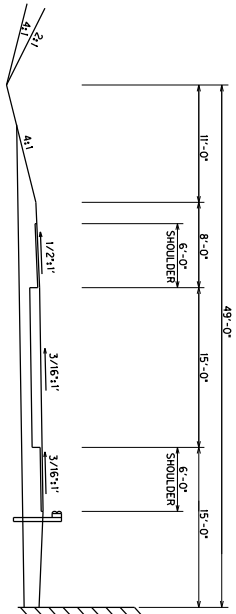
NOT TO SCALE

I-264
TYPICAL SECTIONS

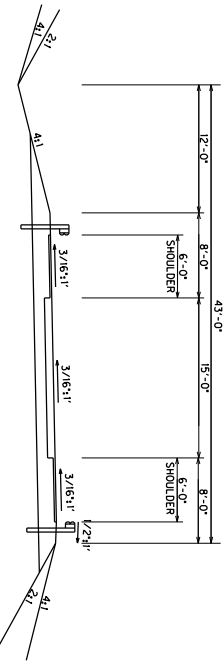
COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

TYPICAL SECTIONS 31W & I-264

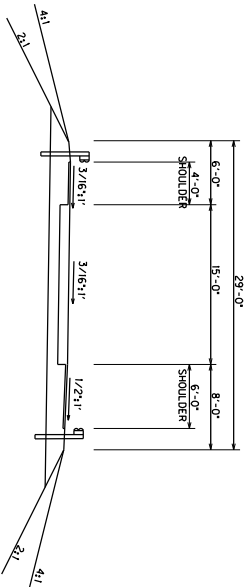
COUNTY OF	ITEM NO.
JEFFERSON	5-2005.00 5-2005.00



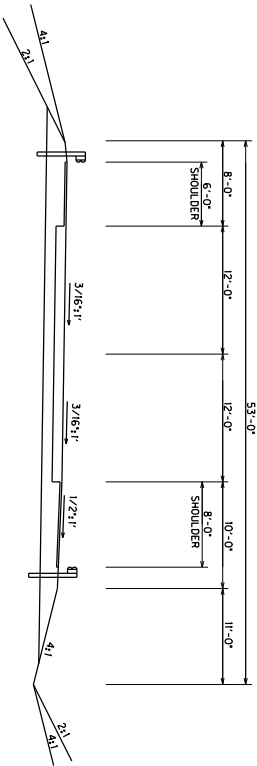
US 31W RAMP 1



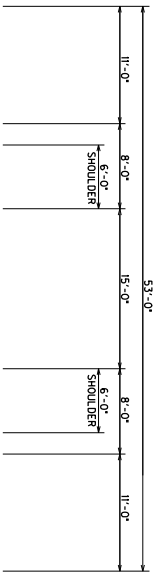
US 31W RAMP 2



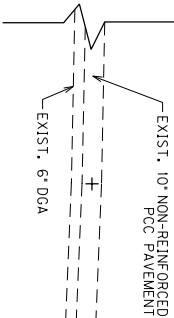
US 31W RAMP 3
US 31W RAMP 5



US 31W RAMP 4
US 31W RAMP 7



US 31W RAMP 8



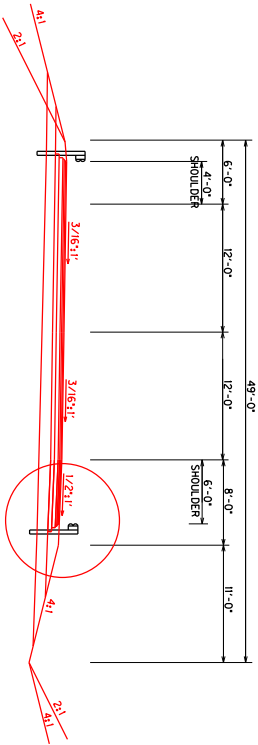
I-264
TYPICAL SECTIONS

NOT TO SCALE

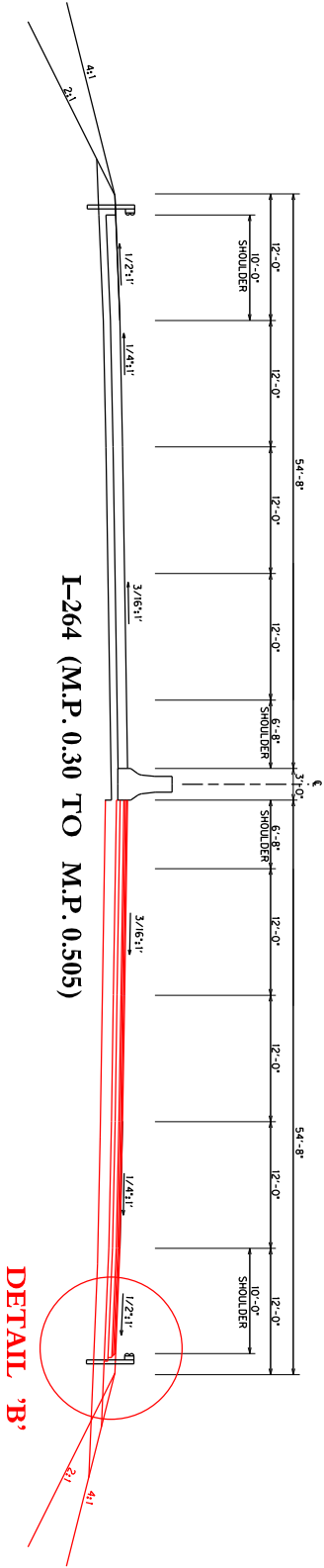
PROPOSED TYPICAL SECTIONS

Concrete Replacement

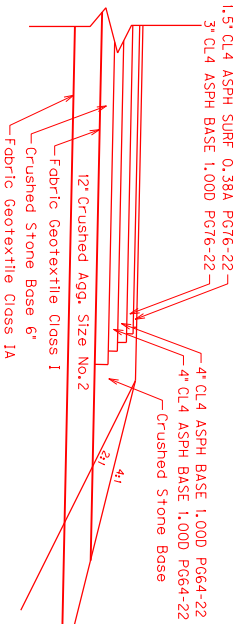
COUNTY OF	ITEM NO.
JEFFERSON	5-2005, 00 5-2005B, 00



DETAIL 'B'
I-264 (M.P. 0.17 TO M.P. 0.30)



DETAIL 'B'
I-264 (M.P. 0.30 TO M.P. 0.505)



DETAIL 'B'

PAVEMENT REHABILITATION

CONCRETE REPLACEMENT

ASPHALT SEAL
2 APPLICATIONS:
ASPHALT SEAL AGGREGATE - 20 LB/SY
ASPHALT SEAL COAT - 2.4 LB/SY

1.5" CL4 ASPH SURF 0.38A PG76-22
3" CL4 ASPH BASE 1,000 PG76-22
4" CL4 ASPH BASE 1,000 PG64-22
Crushed Stone Base 6"
12" Crushed Agg. Size No.2

NOT TO SCALE

I-264

TYPICAL SECTIONS

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7)
ITEM NOS: 5-20015.00, 5-20018.00
GENERAL SUMMARY

ITEM NUMBER	ITEM	NOTE	QUANTITY	UNIT
0001	DGA BASE	(1)	2,000	TON
0003	CRUSHED STONE BASE		4,915	TON
0078	CRUSHED AGGREGATE SIZE NO. 2	(8)	10,423	TON
0100	ASPHALT SEAL AGGREGATE		83	TON
0103	ASPHALT SEAL COAT		10	TON
0217	CL4 ASPH BASE 1.00D PG64-22		4,726	TON
0219	CL4 ASPH BASE 1.00D PG76-22		1,741	TON
0342	CL4 ASPH SURF 0.38A PG76-22		862	TON
0365	ASPHALT MATERIAL FOR TACK		9	TON
1000	PERFORATED PIPE - 4 IN		500	LF
1010	NON-PERFORATED PIPE - 4 IN		100	LF
1020	PERF PIPE HEADWALL TYPE 1 - 4 IN		2	EACH
1028	PERF PIPE HEADWALL TYPE 3 - 4 IN		2	EACH
1032	PERF PIPE HEADWALL TYPE 4 - 4 IN		2	EACH
1484	CURB BOX INLET TYPE B-T	(9)	2	EACH
1890	ISLAND HEADER CURB TYPE 1	(9)	100	LF
1982	DELINEATOR FOR GUARDRAIL M/W	(10)	529	EACH
2060	PCC PAVEMENT DIAMOND GRINDING		513,578	SQ YD
2200	ROADWAY EXCAVATION	(7)	6,000	CU YD
2363	GUARDRAIL CONNECTOR TO BRIDGE END TY A		4	EACH
2369	GUARDRAIL END TREATMENT TYPE 2A		1	EACH
2381	REMOVE GUARDRAIL		2,888	LF
2387	GUARDRAIL CONNECTOR TO BRIDGE END TY A-1		4	EACH
2058	REMOVE PCC PAVEMENT	(4)(2)	22,613	SQ YD
2069	JPC PAVEMENT - 10 IN	(2)	14,291	SQ YD
2110	PARTIAL DEPTH PATCHING	(2)	394	CU FT
2115	SAW-CLEAN-RESEAL TVERSE JOINT		308,030	LF
2116	SAW-CLEAN-RESEAL LONGIT JOINT		548,635	LF
2562	TEMPORARY SIGNS	(5)	4,600	SQ FT
2568	MOBILIZATION		1	LS
2569	DEMOBILIZATION		1	LS
2602	FABRIC-GEOTEXTILE CLASS 1		12,907	SQYD
2604	FABRIC-GEOTEXTILE CLASS 1A		15,106	SQYD
2650	MAINTAIN AND CONTROL TRAFFIC		1	LS
2671	PORTABLE CHANGEABLE MESSAGE SIGN	(5)	8	EACH
2704	SILT TRAP TYPE B		1	EACH
2707	CLEAN SILT TRAP TYPE B		1	EACH
2714	SHOULDERING	(3)	18,601	LF
2775	ARROW PANEL	(5)	6	EACH
5950	EROSION CONTROL BLANKET		4,135	SQYD
5963	INITIAL FERTILIZER		0.13	TON
5964	20-10-10 FERTILIZER		0.21	TON
5985	SEEDING AND PROTECTION		1,281	SQYD
6412	STEEL POST MILE MARKERS		24	EACH
6511	PAVE STRIPING-TEMP PAINT-6 IN		760,000	LF
6542	PAVE STRIPING-THERMO-6 IN W		2,241	LF
6543	PAVE STRIPING- THERMO-6 IN Y		1,622	LF
6546	PAVE STRIPING-THERMO-12 IN W		221	LF
6556	PAVE STRIPING-DUR TY 1-6 IN W		211,152	LF

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7) ITEM NOS: 5-20015.00, 5-20018.00 GENERAL SUMMARY				
ITEM NUMBER	ITEM	NOTE	QUANTITY	UNIT
6557	PAVE STRIPING-DUR TY 1-6 IN Y		135,253	LF
6560	PAVE STRIPING-DUR TY 1-12 IN W		36,176	LF
6592	PAVEMENT MARKER TYPE V-B W/R		4,978	EACH
6593	PAVEMENT MARKER TYPE V-B Y/R		1,836	EACH
6600	REMOVE PAVEMENT MARKER TYPE V		6,814	EACH
10020NS	FUEL ADJUSTMENT		9,794	DOLL
10030NS	ASPHALT ADJUSTMENT		13,208	DOLL
20314ED	MILLED RUMBLE STRIPS		1,700	LF
20366NN	REPLACE GRATE	(6)	4	EACH
20411ED	LAW ENFORCEMENT OFFICER		600	HOURS
20750ND	DOWEL BAR RETROFIT		130	EACH
21173EC	SAW-CLEAN-RESEAL RANDOM CRACKS		1,714	LF
21802EN	GUARDRAIL STEEL W BEAM S-FACE (7FT POST)		2,888	LF
(1)	Quantity to be used as directed by the Engineer			
(2)	Additional 10% was added to the total for continued pavement deterioration prior to construction.			
(3)	Shouldering required at the locations specified on the Guardrail summary to reshape shoulder slopes to allow for appropriate stormwater runoff.			
(4)	Includes 8322 SQ YD for replacing the concrete pavement at locations specified on full depth repair summary.			
(5)	Includes initial placement. Any relocation required will not be paid for directly, but will be considered incidental to maintain and control traffic.			
(6)	Replace missing grates along the EB curb box inlets located at approximatly I-264 Sta. 353+11, 426+44, 446+11, 463+47.			
(7)	Quantity includes 6000 CUYD of excavation between MP 0.17 to 0.505.			
(8)	Quantity includes 3793 Tons carried over from paving summary, 1122 Tons for slope construction from M.P. 0.17-0.505 and 500 tons to be used as directed by the Engineer.			
(9)	Quantity includes 50ft. to be installed for bridge drainage over Northwestern Pkwy apprx. mp. 0.27. Additionally 50ft. is to be installed for bridge drainage over Bank St. apprx. mp. 0.43. Exact locations are to be determined by the Engineer.			
(10)	Qantity includes 29 markers to be installed on the new guardrail, as well as 500 markers to be used as directed by the Engineer.			
NOTE:	Quantities from all summaries have been carried over and included in this General Summary.			

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
FULL DEPTH REPAIR SUMMARY

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
EASTBOUND I-264 SECTION 1										
41+05	41+35	31						X	34	10' WIDE
44+48	44+66	17						X	19	10' WIDE
81+00	81+23	23				X			31	12' WIDE
86+21	86+46	25		X	X	X	X		133	12' WIDE
87+06	87+28	21				X			28	12' WIDE
87+15	87+44	28			X				38	12' WIDE
87+37	87+62	25		X	X	X	X		156	14' WIDE
87+95	88+03	8				X			11	12' WIDE
88+20	88+28	8				X			11	12' WIDE
89+13	89+48	35			X				47	12' WIDE
94+86	95+14	27				X			36	12' WIDE
105+35	105+41	6			X	X			15	12' WIDE
113+28	113+63	35				X			46	12' WIDE
113+28	113+45	17					X		22	12' WIDE
113+88	114+22	34				X			45	12' WIDE
120+47	120+83	36				X			48	12' WIDE
124+18	124+59	41			X				55	12' WIDE
126+99	127+24	25			X				33	12' WIDE
130+58	130+83	25			X				34	12' WIDE
131+85	132+03	18				X			24	12' WIDE
132+98	133+23	25			X				33	12' WIDE
134+55	134+80	25				X			33	12' WIDE
135+14	135+42	28				X			37	12' WIDE
135+42	135+67	25		X	X	X			100	12' WIDE
137+81	139+06	125			X				166	12' WIDE
137+81	138+04	23				X			30	12' WIDE
138+21	139+06	85				X			113	12' WIDE
138+62	138+68	6		X					9	14' WIDE
139+95	141+20	125				X			167	12' WIDE
140+16	140+22	6			X				8	12' WIDE
140+37	141+20	83		X					129	14' WIDE
140+40	141+34	94			X				125	12' WIDE
141+09	141+34	25		X		X			67	12' WIDE
142+41	142+66	25		X	X	X			100	12' WIDE
143+86	144+10	24		X	X	X			112	14' WIDE
146+13	146+35	23				X			30	12' WIDE
163+45	163+70	25		X	X	X	X		133	12' WIDE
173+17	173+42	25		X	X	X	X		133	12' WIDE
181+62	181+87	25		X	X	X			100	12' WIDE
182+99	183+24	25		X	X	X			100	12' WIDE
EASTBOUND I-264 BIFURCATED SECTION										
82+08	82+14	6		X					9	14' WIDE
87+12	88+32	120			X				160	12' WIDE

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
FULL DEPTH REPAIR SUMMARY

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
97+03	98+54	151			X				201	12' WIDE
98+88	99+13	25		X	X	X			100	12' WIDE
101+08	101+33	25		X	X	X			100	12' WIDE
103+93	104+18	25		X	X	X			100	12' WIDE
104+95	105+20	25		X	X	X			100	12' WIDE
105+47	108+93	346			X				461	12' WIDE
110+12	110+86	74			X				99	12' WIDE
111+15	111+40	25		X	X	X	X		133	12' WIDE
112+84	113+09	25		X	X	X	X		133	12' WIDE
114+81	115+06	25		X	X	X	X		133	12' WIDE
116+63	116+88	25		X	X	X			100	12' WIDE
117+51	117+57	6				X			8	12' WIDE
118+26	118+56	29			X				19	6' WIDE
EASTBOUND I-264 SECTION 2										
152+81	153+06	25		X	X	X			100	12' WIDE
168+56	168+62	6			X				8	12' WIDE
189+49	189+55	6		X					8	12' WIDE
191+64	191+89	25		X	X	X			100	12' WIDE
210+98	211+28	30				X			40	12' WIDE
213+49	213+55	6				X			8	12' WIDE
216+35	216+41	6				X			8	12' WIDE
216+65	216+71	6				X			8	12' WIDE
216+94	217+00	6				X			8	12' WIDE
219+91	219+97	6				X			8	12' WIDE
228+60	228+66	6				X			8	12' WIDE
230+89	231+10	20			X				27	12' WIDE
231+27	231+52	25		X	X	X			100	12' WIDE
231+96	232+02	6			X				8	12' WIDE
238+97	239+03	6				X			8	12' WIDE
257+99	258+24	25				X			34	12' WIDE
284+78	284+84	6				X			8	12' WIDE
295+12	295+37	25		X	X	X			100	12' WIDE
313+46	313+71	25		X	X	X			100	12' WIDE
328+41	328+47	6				X			8	12' WIDE
333+17	333+23	6		X					8	12' WIDE
333+17	333+23	6			X				8	12' WIDE
352+36	352+66	30				X			41	12' WIDE
360+10	360+16	6		X					8	12' WIDE
360+10	360+16	6			X				8	12' WIDE
386+63	386+88	25		X	X	X			100	12' WIDE
388+68	388+74	6				X			8	12' WIDE
395+42	395+67	25		X	X	X			100	12' WIDE
396+14	396+41	27				X			35	12' WIDE
396+14	396+26	12			X				16	12' WIDE
396+98	397+23	25		X	X	X			100	12' WIDE

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
FULL DEPTH REPAIR SUMMARY

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
397+19	397+31	12				X			16	12' WIDE
398+12	398+18	6			X				8	12' WIDE
398+12	398+18	6				X			8	12' WIDE
398+12	398+18	6		X					8	12' WIDE
403+66	403+72	6				X			8	12' WIDE
406+51	406+57	6					X		8	12' WIDE
406+82	406+88	6					X		8	12' WIDE
406+82	406+88	6				X			8	12' WIDE
407+28	407+34	6				X			8	12' WIDE
430+10	430+35	25		X	X	X			100	12' WIDE
430+42	431+46	104				X			138	12' WIDE
443+91	443+97	6				X			8	12' WIDE
444+21	444+27	6				X			8	12' WIDE
445+64	445+89	25		X	X	X			100	12' WIDE
446+09	446+53	44				X			59	12' WIDE
460+23	460+47	25			X				33	12' WIDE
460+22	460+47	26		X					34	12' WIDE
463+88	464+13	25		X	X	X			100	12' WIDE
WESTBOUND I-264 SECTION 1										
22+26	22+32	6				X			8	12' WIDE
54+59	54+64	5			X				7	12' WIDE
85+96	86+21	25		X	X	X			100	12' WIDE
87+37	87+62	25		X	X	X			100	12' WIDE
112+99	113+05	6				X			8	12' WIDE
135+42	135+67	25		X	X	X	X		133	12' WIDE
137+82	138+07	25		X	X	X	X		133	12' WIDE
141+09	141+34	25		X	X	X	X		133	12' WIDE
142+41	142+66	25		X	X	X	X		133	12' WIDE
143+98	144+04	6				X			8	12' WIDE
154+72	155+04	32				X			42	12' WIDE
163+45	163+70	25		X	X	X	X	X	167	12' WIDE
173+17	173+42	25		X	X	X	X		133	12' WIDE
174+20	174+31	11				X			15	12' WIDE
181+62	181+87	25		X	X	X	X	X	167	12' WIDE
182+99	183+24	25		X	X	X	X	X	167	12' WIDE
186+00	186+33	33			X				44	12' WIDE
186+78	186+92	14			X				19	12' WIDE
228+43	228+49	6			X				8	12' WIDE
263+60	263+84	24			X				32	12' WIDE
263+60	263+84	24				X			32	12' WIDE
276+32	276+38	6					X		8	12' WIDE
WESTBOUND I-264 BIFURCATED SECTION										
98+60	98+85	25		X	X	X			100	12' WIDE
100+77	101+02	25		X	X	X			100	12' WIDE
104+00	104+25	25		X	X	X			100	12' WIDE

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
FULL DEPTH REPAIR SUMMARY

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
106+04	106+29	25		X	X	X			100	12' WIDE
109+52	109+77	25		X	X	X			100	12' WIDE
110+91	111+16	25		X	X	X			100	12' WIDE
118+30	118+55	25		X	X	X			100	12' WIDE
120+55	120+80	25		X	X	X			100	12' WIDE
WESTBOUND I-264 SECTION 2										
189+88	190+13	25		X	X	X			100	12' WIDE
236+18	236+24	6					X		8	12' WIDE
241+89	241+95	6			X				8	12' WIDE
267+07	267+92	85			X				113	12' WIDE
267+07	267+92	85				X			113	12' WIDE
267+77	267+83	6		X					8	12' WIDE
284+67	284+73	6			X				8	12' WIDE
285+25	285+50	25		X	X	X			100	12' WIDE
319+06	319+12	6				X			8	12' WIDE
319+06	319+35	29				X			39	12' WIDE
335+56	335+85	29				X			38	12' WIDE
386+09	386+54	46				X			61	12' WIDE
386+63	386+88	25		X	X	X			100	12' WIDE
396+45	396+94	48		X					64	12' WIDE
396+55	396+94	39			X				52	12' WIDE
396+55	396+94	39				X			52	12' WIDE
406+91	406+97	6			X				8	12' WIDE
406+92	407+05	13				X			18	12' WIDE
443+96	444+02	6				X			8	12' WIDE
459+62	459+98	36				X			47	12' WIDE
465+21	465+27	6			X				8	12' WIDE
465+21	465+27	6				X			8	12' WIDE
I-64 E-S RAMP										
12+22	13+17	95			X				127	12' WIDE
12+22	13+17	95		X					127	12' WIDE
13+42	14+94	153			X				203	12' WIDE
15+20	15+66	47			X				62	12' WIDE
30+19	30+37	18			X				24	12' WIDE
30+19	30+37	18						X	24	12' WIDE
33+06	33+43	37			X				50	12' WIDE
33+22	33+59	37		X					49	12' WIDE
33+22	33+59	37	X						49	12' WIDE
31W RAMP 1										
10+40	11+39	99		X					164	15' WIDE
12+37	12+43	6		X					10	15' WIDE
12+37	12+43	6			X				10	15' WIDE
13+37	13+43	6		X					10	15' WIDE
13+37	13+43	6			X				10	15' WIDE
14+14	14+20	6		X					10	15' WIDE

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
FULL DEPTH REPAIR SUMMARY

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
14+14	14+20	6			X				10	15' WIDE
17+90	19+40	150		X					250	15' WIDE
20+63	20+69	6			X				10	15' WIDE
21+14	21+20	6			X				10	15' WIDE
21+59	21+65	6			X				10	15' WIDE
22+17	22+23	6			X				10	15' WIDE
23+10	23+16	6			X				10	15' WIDE
31W RAMP 2										
17+45	17+51	6		X					10	15' WIDE
18+38	18+44	6		X					10	15' WIDE
18+72	18+78	6		X					10	15' WIDE
18+72	18+78	6			X				10	15' WIDE
18+89	18+95	6		X					10	15' WIDE
20+65	20+71	6			X				10	15' WIDE
21+19	21+25	6			X				10	15' WIDE
21+19	21+25	6		X					10	15' WIDE
21+40	21+46	6		X					10	15' WIDE
31W RAMP 3										
21+09	21+73	64		X					107	15' WIDE
21+09	22+51	142			X				237	15' WIDE
23+74	23+80	6		X					10	15' WIDE
23+74	23+80	6			X				10	15' WIDE
24+00	24+06	6		X					10	15' WIDE
24+00	24+06	6			X				10	15' WIDE
24+13	24+19	6		X					10	15' WIDE
24+13	24+19	6			X				10	15' WIDE
24+28	24+34	6		X					10	15' WIDE
24+49	24+55	6			X				10	15' WIDE
24+67	24+73	6		X					10	15' WIDE
24+67	24+73	6			X				10	15' WIDE
25+27	25+66	39		X					65	15' WIDE
26+30	26+33	3		X					5	15' WIDE
26+30	26+36	6			X				10	15' WIDE
26+97	27+03	6			X				10	15' WIDE
27+57	27+63	6		X					10	15' WIDE
27+57	27+63	6			X				10	15' WIDE
29+03	29+54	51		X					85	15' WIDE
29+03	29+54	51			X				85	15' WIDE
30+04	30+10	6		X					10	15' WIDE
30+04	30+10	6			X				10	15' WIDE
30+48	30+62	14		X					23	15' WIDE
30+48	30+62	14			X				23	15' WIDE
30+97	31+03	6		X					10	15' WIDE
31+51	31+57	6		X					10	15' WIDE

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
FULL DEPTH REPAIR SUMMARY

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
31+51	31+57	6			X				10	15' WIDE
31W RAMP 4										
10+03	10+09	6							8	12' WIDE
31W RAMP 5										
13+26	13+56	29		X					49	15' WIDE
13+26	13+56	29			X				49	15' WIDE
14+52	14+58	6		X					10	15' WIDE
14+68	14+74	6		X					10	15' WIDE
14+68	14+74	6			X				10	15' WIDE
15+01	15+07	6		X					10	15' WIDE
15+01	15+07	6			X				10	15' WIDE
15+95	16+01	6			X				10	15' WIDE
16+12	16+18	6		X					10	15' WIDE
17+06	17+12	6		X					10	15' WIDE
17+52	17+58	6		X					10	15' WIDE
18+37	18+43	6		X					10	15' WIDE
18+37	18+43	6			X				10	15' WIDE
19+60	19+76	16		X					27	15' WIDE
21+47	21+53	6		X					10	15' WIDE
21+89	22+05	16		X					26	15' WIDE
22+27	22+33	6		X					10	15' WIDE
22+27	22+33	6			X				10	15' WIDE
23+64	23+82	18		X					29	15' WIDE
24+28	24+34	6			X				10	15' WIDE
31W RAMP 6										
17+36	17+42	6		X					10	15' WIDE
17+36	17+42	6			X				10	15' WIDE
17+82	17+88	6		X					10	15' WIDE
17+82	17+88	6			X				10	15' WIDE
17+83	17+89	6		X					10	15' WIDE
17+83	17+89	6			X				10	15' WIDE
31W RAMP 7										
24+00	24+23	24				X			31	12' WIDE
23+94	24+23	29		X					39	12' WIDE
23+94	24+00	6			X				8	12' WIDE
24+89	24+95	6		X					8	12' WIDE
24+89	24+95	6			X				8	12' WIDE
24+89	24+95	6				X			8	12' WIDE
31W RAMP 8										
9+62	9+80	18		X					31	15' WIDE
10+31	11+30	100		X					166	15' WIDE
10+31	12+07	177			X				294	15' WIDE
11+54	11+60	6		X					10	15' WIDE
12+07	12+13	6		X					10	15' WIDE
13+10	13+16	6		X					10	15' WIDE

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

FULL DEPTH REPAIR SUMMARY

[illegible]

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
EASTBOUND I-264 SECTION 1										
32+44		X					1	0.28	0.28	
32+92		X					1	0.28	0.28	
33+13		X					1	0.28	0.28	
33+45			X							12
34+57			X				1	0.28	0.28	
34+59				X			2	0.28	0.56	
34+96				X			1	0.28	0.28	
35+41			X							12
37+45			X				1	0.28	0.28	
37+58			X				1	0.28	0.28	
38+05		X					1	0.28	0.28	
38+51		X					2	0.28	0.56	
39+13		X					1	0.28	0.28	
39+38		X					1	0.28	0.28	
39+59		X								12
39+62				X						12
40+41			X				1	0.28	0.28	
40+58		X					1	0.28	0.28	
40+89				X			2	0.28	0.56	
41+53			X				3	0.28	0.84	
41+65			X				3	0.28	0.84	
42+13						X	1	0.28	0.28	
42+56				X			2	0.28	0.56	
44+06		X					2	0.28	0.56	
44+44			X							12
45+14						X	1	0.28	0.28	
46+16				X			1	0.28	0.28	
47+19						X	1	0.28	0.28	
47+66		X					1	0.28	0.28	
47+79						X	1	0.28	0.28	
47+95				X			1	0.28	0.28	
48+25				X			1	0.28	0.28	
48+25						X	1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
48+56				X			1	0.28	0.28	
48+66				X						12
48+73			X				1	0.28	0.28	
48+98						X	2	0.28	0.56	
49+33						X	1	0.28	0.28	
49+45						X	1	0.28	0.28	
49+80		X								12
50+23		X								12
50+53						X	1	0.28	0.28	
50+78						X	1	0.28	0.28	
50+96						X	1	0.28	0.28	
51+07			X				1	0.28	0.28	
51+39						X	1	0.28	0.28	
51+55						X	1	0.28	0.28	
51+63			X							12
51+74						X	1	0.28	0.28	
51+99						X	1	0.28	0.28	
51+99				X			1	0.28	0.28	
52+34						X	1	0.28	0.28	
52+34		X					1	0.28	0.28	
52+46						X	2	0.28	0.56	
52+75				X			1	0.28	0.28	
53+09						X	2	0.28	0.56	
53+19						X	2	0.28	0.56	
53+35				X			1	0.28	0.28	
53+39			X							12
53+66						X	1	0.28	0.28	
53+95						X	1	0.28	0.28	
54+13				X			1	0.28	0.28	
54+25						X	1	0.28	0.28	
54+43			X							12
54+55				X			1	0.28	0.28	
54+85				X			1	0.28	0.28	
55+58						X	1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
55+58				X			1	0.28	0.28	
55+75						X	1	0.28	0.28	
56+05				X			1	0.28	0.28	
56+18				X			1	0.28	0.28	
56+53				X			1	0.28	0.28	
57+85				X			1	0.28	0.28	
59+88						X	1	0.28	0.28	
60+37				X			1	0.28	0.28	
61+40				X			1	0.28	0.28	
61+74				X			1	0.28	0.28	
62+00						X	1	0.28	0.28	
62+00			X				1	0.28	0.28	
62+17				X			1	0.28	0.28	
62+35						X	1	0.28	0.28	
62+60						X	1	0.28	0.28	
62+77				X			1	0.28	0.28	
62+77						X	1	0.28	0.28	
63+20						X	1	0.28	0.28	
63+37				X			1	0.28	0.28	
63+66				X			1	0.28	0.28	
63+80				X			1	0.28	0.28	
64+15						X	1	0.28	0.28	
64+15				X			1	0.28	0.28	
64+27			X				1	0.28	0.28	
64+27						X	1	0.28	0.28	
64+43			X				1	0.28	0.28	
65+47				X			1	0.28	0.28	
66+67						X	1	0.28	0.28	
66+96				X			1	0.28	0.28	
67+14			X				1	0.28	0.28	
67+39						X	1	0.28	0.28	
67+56				X			1	0.28	0.28	
68+17			X				1	0.28	0.28	
69+46				X			1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
69+64				X			1	0.28	0.28	
69+88				X			2	0.28	0.56	
70+21				X			1	0.28	0.28	
70+34				X			1	0.28	0.28	
71+61				X			1	0.28	0.28	
72+20			X				1	0.28	0.28	
72+66			X				2	0.28	0.56	
72+74			X				1	0.28	0.28	
73+31			X				1	0.28	0.28	
73+48			X				1	0.28	0.28	
73+48				X			1	0.28	0.28	
73+65				X			1	0.28	0.28	
74+90			X				1	0.28	0.28	
75+95				X			1	0.28	0.28	
76+52		X					1	0.28	0.28	
78+41			X				1	0.28	0.28	
78+48				X			1	0.28	0.28	
78+84				X			1	0.28	0.28	
79+70			X				1	0.28	0.28	
80+28		X					1	0.28	0.28	
80+45		X					1	0.28	0.28	
80+88		X					2	0.28	0.56	
81+48		X					1	0.28	0.28	
81+88		X					1	0.28	0.28	
84+01				X						12
84+38			X				2	0.28	0.56	
84+60			X				2	0.28	0.56	
85+12			X				1	0.28	0.28	
86+96						X				12
87+98			X				2	0.28	0.56	
88+71				X						12
88+87			X				2	0.28	0.56	
89+19		X					2	0.28	0.56	
89+48				X			1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
91+92				X			1	0.28	0.28	
93+67					X		1	0.28	0.28	
95+72		X					1	0.28	0.28	
97+61				X			2	0.28	0.56	
102+27				X			2	0.28	0.56	
103+98				X			1	0.28	0.28	
105+47		X					1	0.28	0.28	
105+47			X				1	0.28	0.28	
105+47				X			1	0.28	0.28	
105+60			X				1	0.28	0.28	
105+77			X				1	0.28	0.28	
106+55			X				1	0.28	0.28	
106+97		X					2	0.28	0.56	
107+27					X		1	0.28	0.28	
107+78				X			1	0.28	0.28	
108+09					X		1	0.28	0.28	
108+25					X		4	0.28	1.12	
108+32			X				1	0.28	0.28	
110+58					X		1	0.28	0.28	
110+70		X					1	0.28	0.28	
110+80				X			1	0.28	0.28	
111+05				X			2	0.28	0.56	
112+29			X							12
112+56			X				1	0.28	0.28	
113+63			X				1	0.28	0.28	
114+70				X						12
115+67			X				1	0.28	0.28	
116+02			X				1	0.28	0.28	
116+72		X					1	0.28	0.28	
116+86			X				1	0.28	0.28	
117+03			X				1	0.28	0.28	
117+42				X			2	0.28	0.56	
117+47			X				2	0.28	0.56	
117+63				X			1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
143+69			X				2	0.28	0.56	
144+47		X					2	0.28	0.56	
146+06		X					1	0.28	0.28	
146+92		X					1	0.28	0.28	
147+48			X							12
149+22		X					1	0.28	0.28	
149+21			X				1	0.28	0.28	
150+04		X					1	0.28	0.28	
150+80			X				2	0.28	0.56	
151+61		X					2	0.28	0.56	
152+42		X					1	0.28	0.28	
153+58			X				1	0.28	0.28	
154+00		X					1	0.28	0.28	
154+79		X					1	0.28	0.28	
156+36		X					1	0.28	0.28	
157+58				X			1	0.28	0.28	
159+58		X					1	0.28	0.28	
160+77				X			2	0.28	0.56	
161+20		X					1	0.28	0.28	
174+20		X					2	0.28	0.56	
175+06	X									10
176+04	X									10
176+81	X									10
177+08	X									10
177+38	X									10
177+54			X				4	0.28	1.12	
178+10		X					1	0.28	0.28	
178+61		X								10
178+62	X									10
179+20	X									10
179+21		X					1	0.28	0.28	
179+20			X				1	0.28	0.28	
179+40				X			1	0.28	0.28	
180+03		X					1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
183+36				X			1	0.28	0.28	
183+98		X					1	0.28	0.28	
184+48	X									6
184+52				X			1	0.28	0.28	
184+83				X			1	0.28	0.28	
185+00				X			3	0.28	0.84	
185+12				X			1	0.28	0.28	
185+24				X			1	0.28	0.28	
185+27	X									10
185+43				X			1	0.28	0.28	
185+43			X				1	0.28	0.28	
185+71				X			1	0.28	0.28	
185+85				X			1	0.28	0.28	
186+44			X				1	0.28	0.28	
186+62			X				1	0.28	0.28	
186+62				X			1	0.28	0.28	
187+05				X			1	0.28	0.28	
187+21				X			1	0.28	0.28	
187+38				X			1	0.28	0.28	
187+38			X				1	0.28	0.28	
187+68	X									10
188+25				X			1	0.28	0.28	
188+73				X			1	0.28	0.28	
189+45				X			1	0.28	0.28	
189+61				X			1	0.28	0.28	
189+61			X				1	0.28	0.28	
189+82			X				1	0.28	0.28	
189+81				X			1	0.28	0.28	
189+91				X			1	0.28	0.28	
189+91		X					1	0.28	0.28	
190+04			X				1	0.28	0.28	
190+41				X			1	0.28	0.28	
190+41			X				1	0.28	0.28	
190+64			X				1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
190+64				X			1	0.28	0.28	
190+84				X			1	0.28	0.28	
190+84			X				1	0.28	0.28	
191+01			X				1	0.28	0.28	
191+01				X			1	0.28	0.28	
191+24				X			2	0.28	0.56	
191+24			X				1	0.28	0.28	
191+24		X					1	0.28	0.28	
191+43			X				1	0.28	0.28	
191+43				X			1	0.28	0.28	
191+60			X				1	0.28	0.28	
194+40		X					1	0.28	0.28	
198+99			X				1	0.28	0.28	
199+39			X				1	0.28	0.28	
212+77				X			3	0.28	0.84	
226+07						X	1	0.28	0.28	
228+13		X					1	0.28	0.28	
235+93		X					1	0.28	0.28	
264+16		X					1	0.28	0.28	
265+95		X					1	0.28	0.28	
266+43		X					1	0.28	0.28	
267+16			X				2	0.28	0.56	
269+61			X				1	0.28	0.28	
271+88			X				2	0.28	0.56	
274+65					X					5
274+78					X		2	0.28	0.56	
274+89				X			2	0.28	0.56	
276+33				X			1	0.28	0.28	
276+47					X		2	0.28	0.56	
276+82					X		2	0.28	0.56	
277+45					X					10
277+83					X					10
277+97			X				1	0.28	0.28	
278+10					X		1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
278+25			X				1	0.28	0.28	
278+39					X					10
279+04			X				3	0.28	0.84	
279+74				X			2	0.28	0.56	
280+53				X			3	0.28	0.84	
280+64			X				2	0.28	0.56	
280+63		X					1	0.28	0.28	
EASTBOUND I-264 BIFURCATED SECTION										
80+63				X			1	0.28	0.28	
82+24				X			1	0.28	0.28	
83+05				X			1	0.28	0.28	
83+75				X			1	0.28	0.28	
84+72		X					1	0.28	0.28	
85+62		X					3	0.28	0.84	
88+76				X			1	0.28	0.28	
91+46			X				3	0.28	0.84	
92+27			X				3	0.28	0.84	
103+62				X			2	0.28	0.56	
106+36						X	1	0.28	0.28	
109+76			X				1	0.28	0.28	
114+59		X					1	0.28	0.28	
118+40				X			2	0.28	0.56	
128+21			X				2	0.28	0.56	
132+70						X	1	0.28	0.28	
134+94		X					1	0.28	0.28	
EASTBOUND I-264 SECTION 2										
146+79		X					1	0.28	0.28	
150+02			X				1	0.28	0.28	
150+02		X					1	0.28	0.28	
152+72		X					2	0.28	0.56	
153+69		X					1	0.28	0.28	
168+89				X						12
172+23				X			1	0.28	0.28	
189+22		X					2	0.28	0.56	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
189+52				X			2	0.28	0.56	
190+31		X					2	0.28	0.56	
192+19				X			1	0.28	0.28	
192+19				X			2	0.28	0.56	
192+48				X			1	0.28	0.28	
192+48		X					1	0.28	0.28	
192+80				X			2	0.28	0.56	
192+80			X				1	0.28	0.28	
214+42				X			1	0.28	0.28	
219+34				X			1	0.28	0.28	
219+64				X			1	0.28	0.28	
229+49				X						12
231+99				X			2	0.28	0.56	
236+08			X				2	0.28	0.56	
237+38				X			1	0.28	0.28	
238+27				X			1	0.28	0.28	
239+00			X				1	0.28	0.28	
239+29				X			1	0.28	0.28	
239+29			X				1	0.28	0.28	
241+61			X				1	0.28	0.28	
241+92		X					3	0.28	0.84	
241+92			X				1	0.28	0.28	
251+98				X			4	0.28	1.12	
253+70						X	1	0.28	0.28	
258+09			X				3	0.28	0.84	
258+39			X				1	0.28	0.28	
264+40			X				1	0.28	0.28	
267+69				X			4	0.28	1.12	
276+25			X				1	0.28	0.28	
284+91				X						12
285+11				X			1	0.28	0.28	
290+59			X				1	0.28	0.28	
293+40		X					3	0.28	0.84	
304+24		X					3	0.28	0.84	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
304+92				X						12
310+70			X				1	0.28	0.28	
313+90				X			1	0.28	0.28	
314+05				X			1	0.28	0.28	
314+20				X			1	0.28	0.28	
314+50				X			1	0.28	0.28	
316+75			X				1	0.28	0.28	
324+60				X			1	0.28	0.28	
325+07				X						10
325+77		X					1	0.28	0.28	
328+73				X			1	0.28	0.28	
329+03				X			1	0.28	0.28	
332+91				X			3	0.28	0.84	
332+91		X					3	0.28	0.84	
333+20				X			2	0.28	0.56	
352+36			X				3	0.28	0.84	
352+66	X						1	0.28	0.28	
352+95			X				1	0.28	0.28	
356+07				X			1	0.28	0.28	
363+97		X					2	0.28	0.56	
363+97				X			1	0.28	0.28	
365+38			X				1	0.28	0.28	
374+03		X					1	0.28	0.28	
374+41				X						12
376+18			X				1	0.28	0.28	
376+77				X			1	0.28	0.28	
376+77		X					1	0.28	0.28	
382+70	X						1	0.28	0.28	
383+58	X						1	0.28	0.28	
384+09			X				1	0.28	0.28	
386+08				X			1	0.28	0.28	
388+11				X			1	0.28	0.28	
388+71		X					3	0.28	0.84	
388+71	X						1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
395+14			X				2	0.28	0.56	
398+74				X			1	0.28	0.28	
404+31				X			2	0.28	0.56	
404+71			X							12
407+45			X							12
407+45				X						12
407+85			X							12
407+99			X							12
420+33				X			1	0.28	0.28	
420+62				X			1	0.28	0.28	
420+62		X					1	0.28	0.28	
420+93						X				4
422+52				X						4
422+84			X				1	0.28	0.28	
423+45		X					1	0.28	0.28	
426+84			X				1	0.28	0.28	
427+15		X					1	0.28	0.28	
428+39		X					1	0.28	0.28	
428+39				X			1	0.28	0.28	
428+69				X			1	0.28	0.28	
430+55						X				15
431+17		X					4	0.28	1.12	
432+15				X						12
433+42			X				1	0.28	0.28	
434+18			X				1	0.28	0.28	
434+42		X					1	0.28	0.28	
435+12				X			1	0.28	0.28	
435+72				X			1	0.28	0.28	
436+92		X					1	0.28	0.28	
437+67		X					1	0.28	0.28	
437+83		X					1	0.28	0.28	
441+87				X			1	0.28	0.28	
442+17				X			1	0.28	0.28	
442+32				X			1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
442+61				X			1	0.28	0.28	
443+23			X				1	0.28	0.28	
443+51				X			1	0.28	0.28	
443+80				X			1	0.28	0.28	
444+54				X			2	0.28	0.56	
444+61				X			1	0.28	0.28	
444+70				X			1	0.28	0.28	
444+70		X					1	0.28	0.28	
444+70			X				1	0.28	0.28	
445+83						X				20
446+67						X	2	0.28	0.56	
446+67		X					4	0.28	1.12	
446+67				X			2	0.28	0.56	
455+64				X			1	0.28	0.28	
459+32			X				1	0.28	0.28	
459+32		X					1	0.28	0.28	
459+85				X						12
460+49						X	1	0.28	0.28	
463+51			X				3	0.28	0.84	
463+91						X	1	0.28	0.28	
464+21				X						10
464+52				X			2	0.28	0.56	
464+52			X				2	0.28	0.56	
465+22		X					1	0.28	0.28	
471+08		X					1	0.28	0.28	
471+82		X					1	0.28	0.28	
472+85		X					1	0.28	0.28	
475+64			X				2	0.28	0.56	
476+83		X					1	0.28	0.28	
478+46		X					2	0.28	0.56	
479+06		X					1	0.28	0.28	
480+86	X						3	0.28	0.84	
WESTBOUND I-264 SECTION 1										
25+51			X				2	0.28	0.56	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
28+08				X			1	0.28	0.28	
28+08				X			1	0.28	0.28	
29+94	X						1	0.28	0.28	
30+04				X			1	0.28	0.28	
30+22				X			1	0.28	0.28	
30+40				X			2	0.28	0.56	
30+52						X	2	0.28	0.56	
30+66			X				1	0.28	0.28	
30+83			X				1	0.28	0.28	
31+42			X				1	0.28	0.28	
36+40		X					1	0.28	0.28	
36+93		X					2	0.28	0.56	
37+84			X				2	0.28	0.56	
38+19			X				4	0.28	1.12	
38+94		X					1	0.28	0.28	
39+82			X				3	0.28	0.84	
40+73		X					1	0.28	0.28	
41+91		X					1	0.28	0.28	
41+92	X						1	0.28	0.28	
42+41	X						1	0.28	0.28	
42+22		X					2	0.28	0.56	
42+52			X				3	0.28	0.84	
42+96				X			3	0.28	0.84	
42+98			X				3	0.28	0.84	
43+11		X					3	0.28	0.84	
43+24		X					1	0.28	0.28	
43+72		X					1	0.28	0.28	
48+30				X			1	0.28	0.28	
48+89			X				2	0.28	0.56	
52+39		X					1	0.28	0.28	
55+35						X	2	0.28	0.56	
55+73			X				1	0.28	0.28	
56+88			X				2	0.28	0.56	
56+97						X	1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
57+68			X				2	0.28	0.56	
58+23	X						1	0.28	0.28	
58+48			X				2	0.28	0.56	
59+02	X						1	0.28	0.28	
59+17			X				1	0.28	0.28	
59+31	X						1	0.28	0.28	
59+31			X				1	0.28	0.28	
59+43			X				1	0.28	0.28	
59+62	X						1	0.28	0.28	
59+79	X						1	0.28	0.28	
59+91		X					1	0.28	0.28	
59+91	X						1	0.28	0.28	
60+03	X						1	0.28	0.28	
60+39	X						1	0.28	0.28	
60+51		X					1	0.28	0.28	
60+64	X						1	0.28	0.28	
60+86			X				1	0.28	0.28	
60+98			X				1	0.28	0.28	
61+11		X					1	0.28	0.28	
61+22		X					1	0.28	0.28	
61+41	X						1	0.28	0.28	
61+42			X				1	0.28	0.28	
61+59			X				1	0.28	0.28	
61+69			X				1	0.28	0.28	
61+82			X				2	0.28	0.56	
62+00		X					2	0.28	0.56	
62+18		X					1	0.28	0.28	
62+31		X					1	0.28	0.28	
62+41				X			2	0.28	0.56	
62+47			X				2	0.28	0.56	
62+60			X				1	0.28	0.28	
62+77			X				1	0.28	0.28	
62+91		X					1	0.28	0.28	
63+20		X					1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
63+20			X				1	0.28	0.28	
64+09			X				1	0.28	0.28	
64+39		X					1	0.28	0.28	
64+39			X				1	0.28	0.28	
64+71		X					1	0.28	0.28	
64+72			X				1	0.28	0.28	
65+38				X			1	0.28	0.28	
65+58			X				1	0.28	0.28	
65+87					X		1	0.28	0.28	
66+02			X				2	0.28	0.56	
66+35					X		2	0.28	0.56	
66+50			X				1	0.28	0.28	
66+59					X		1	0.28	0.28	
66+94					X		1	0.28	0.28	
67+05					X		1	0.28	0.28	
67+42		X					2	0.28	0.56	
67+42		X					1	0.28	0.28	
67+82		X					1	0.28	0.28	
68+41			X				1	0.28	0.28	
68+61			X				1	0.28	0.28	
68+91			X				1	0.28	0.28	
69+38			X				1	0.28	0.28	
70+24			X				1	0.28	0.28	
70+59			X				1	0.28	0.28	
71+35			X				1	0.28	0.28	
71+44			X				1	0.28	0.28	
72+18		X					1	0.28	0.28	
72+41		X					1	0.28	0.28	
72+85		X					1	0.28	0.28	
73+64		X					1	0.28	0.28	
73+86				X			1	0.28	0.28	
74+07			X				1	0.28	0.28	
75+41			X				1	0.28	0.28	
76+41		X					1	0.28	0.28	
79+69			X				1	0.28	0.28	
80+26			X				1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
81+85			X				1	0.28	0.28	
82+23				X			1	0.28	0.28	
82+65				X			1	0.28	0.28	
84+11				X						10
84+26			X				1	0.28	0.28	
84+48		X					1	0.28	0.28	
85+51			X				1	0.28	0.28	
88+87	X									10
89+08	X									10
89+83			X				1	0.28	0.28	
90+69		X					1	0.28	0.28	
91+15		X					1	0.28	0.28	
93+19		X					1	0.28	0.28	
93+49		X					1	0.28	0.28	
93+61		X					1	0.28	0.28	
93+95			X				1	0.28	0.28	
94+93			X				1	0.28	0.28	
95+10		X					1	0.28	0.28	
95+23			X				1	0.28	0.28	
95+37		X					1	0.28	0.28	
95+52			X				1	0.28	0.28	
95+69			X				1	0.28	0.28	
95+82			X				1	0.28	0.28	
96+11		X					1	0.28	0.28	
96+14		X					1	0.28	0.28	
96+27		X					1	0.28	0.28	
96+41		X					1	0.28	0.28	
96+40			X				1	0.28	0.28	
97+27			X				1	0.28	0.28	
97+44		X					1	0.28	0.28	
97+44			X				2	0.28	0.56	
97+56			X				1	0.28	0.28	
97+68			X				1	0.28	0.28	
98+04					X		1	0.28	0.28	
98+13					X		1	0.28	0.28	
98+25				X			1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
99+19			X				1	0.28	0.28	
99+27		X					2	0.28	0.56	
100+02			X				1	0.28	0.28	
100+19			X				1	0.28	0.28	
100+49				X			2	0.28	0.56	
100+60				X			1	0.28	0.28	
100+79				X			1	0.28	0.28	
101+09			X				1	0.28	0.28	
101+39				X			2	0.28	0.56	
101+39			X				2	0.28	0.56	
101+70				X			2	0.28	0.56	
101+70				X			2	0.28	0.56	
101+70		X					2	0.28	0.56	
101+83		X					2	0.28	0.56	
101+92			X				1	0.28	0.28	
103+11				X			1	0.28	0.28	
103+90				X			1	0.28	0.28	
104+27			X				1	0.28	0.28	
104+48					X		1	0.28	0.28	
104+65					X		1	0.28	0.28	
104+79					X		1	0.28	0.28	
104+95					X					10
104+89					X		1	0.28	0.28	
105+86			X				1	0.28	0.28	
105+88		X					1	0.28	0.28	
106+44					X		1	0.28	0.28	
106+66				X			1	0.28	0.28	
107+47			X				1	0.28	0.28	
108+54		X					1	0.28	0.28	
110+36				X			2	0.28	0.56	
110+36				X			2	0.28	0.56	
111+53			X				1	0.28	0.28	
112+34			X				2	0.28	0.56	
112+34		X					1	0.28	0.28	
113+17		X					1	0.28	0.28	
113+70					X		1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
114+86	X						1	0.28	0.28	
116+12					X		1	0.28	0.28	
116+37					X		1	0.28	0.28	
116+55					X		2	0.28	0.56	
116+87			X				1	0.28	0.28	
117+15					X		1	0.28	0.28	
117+93					X		1	0.28	0.28	
118+06						X	3	0.28	0.84	
118+20		X					1	0.28	0.28	
118+35					X		1	0.28	0.28	
119+57			X				3	0.28	0.84	
119+90			X				1	0.28	0.28	
120+31				X			1	0.28	0.28	
120+92				X			1	0.28	0.28	
121+52				X			2	0.28	0.56	
121+77				X			2	0.28	0.56	
121+95				X			2	0.28	0.56	
122+12					X		1	0.28	0.28	
123+14				X			1	0.28	0.28	
123+73					X		1	0.28	0.28	
123+93		X					1	0.28	0.28	
123+92				X			1	0.28	0.28	
124+97				X			1	0.28	0.28	
126+45		X					1	0.28	0.28	
126+62		X					1	0.28	0.28	
126+62					X		1	0.28	0.28	
126+72					X		1	0.28	0.28	
126+86		X					1	0.28	0.28	
127+32					X		1	0.28	0.28	
128+63					X		1	0.28	0.28	
128+98			X				1	0.28	0.28	
129+23					X		1	0.28	0.28	
130+43			X				1	0.28	0.28	
132+63		X					1	0.28	0.28	
133+22		X					1	0.28	0.28	
133+35		X					1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
140+61			X				1	0.28	0.28	
147+06					X		1	0.28	0.28	
147+51			X				1	0.28	0.28	
148+31		X					1	0.28	0.28	
149+24			X				1	0.28	0.28	
149+75					X		1	0.28	0.28	
153+42				X			2	0.28	0.56	
155+38						X	2	0.28	0.56	
155+55					X		2	0.28	0.56	
158+91		X					1	0.28	0.28	
159+00		X					1	0.28	0.28	
160+92		X					1	0.28	0.28	
162+29				X			2	0.28	0.56	
175+08			X				1	0.28	0.28	
175+79			X				1	0.28	0.28	
175+79					X		2	0.28	0.56	
176+14		X					1	0.28	0.28	
176+25		X					1	0.28	0.28	
176+54				X			1	0.28	0.28	
176+70			X				1	0.28	0.28	
176+70		X					1	0.28	0.28	
177+11		X					1	0.28	0.28	
177+28		X					2	0.28	0.56	
177+51		X					1	0.28	0.28	
178+66				X			1	0.28	0.28	
179+23				X			2	0.28	0.56	
180+96					X		2	0.28	0.56	
181+99				X			2	0.28	0.56	
185+43		X					1	0.28	0.28	
187+37	X						4	0.28	1.12	
187+49	X						1	0.28	0.28	
187+66	X						1	0.28	0.28	
187+84	X						3	0.28	0.84	
187+84		X					1	0.28	0.28	
188+68		X					1	0.28	0.28	
189+03	X						1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
189+17	X						1	0.28	0.28	
189+29	X						1	0.28	0.28	
189+77	X						1	0.28	0.28	
189+88	X						1	0.28	0.28	
191+08	X						1	0.28	0.28	
191+27	X						1	0.28	0.28	
191+43	X						1	0.28	0.28	
192+02		X					1	0.28	0.28	
192+16		X					1	0.28	0.28	
202+90		X					1	0.28	0.28	
203+26		X					1	0.28	0.28	
203+98		X					1	0.28	0.28	
204+11		X					1	0.28	0.28	
205+02			X							10
205+29			X				3	0.28	0.84	
205+29		X					1	0.28	0.28	
206+40		X					1	0.28	0.28	
209+83			X				1	0.28	0.28	
214+59		X					1	0.28	0.28	
214+85			X				1	0.28	0.28	
215+79		X					1	0.28	0.28	
220+55					X		1	0.28	0.28	
220+68					X		1	0.28	0.28	
221+19			X				1	0.28	0.28	
222+99	X						1	0.28	0.28	
223+11			X				1	0.28	0.28	
223+24	X						1	0.28	0.28	
223+24			X				1	0.28	0.28	
223+59			X				1	0.28	0.28	
223+72			X				1	0.28	0.28	
223+97					X		2	0.28	0.56	
226+23			X				2	0.28	0.56	
226+42			X				1	0.28	0.28	
227+78			X				1	0.28	0.28	
228+03		X					1	0.28	0.28	
228+62			X				1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
228+80			X				1	0.28	0.28	
228+97			X				1	0.28	0.28	
229+11			X				1	0.28	0.28	
229+83		X					1	0.28	0.28	
231+37			X				1	0.28	0.28	
231+50			X				1	0.28	0.28	
232+12		X					1	0.28	0.28	
232+23		X					1	0.28	0.28	
235+19			X				1	0.28	0.28	
235+99			X				1	0.28	0.28	
236+31			X				1	0.28	0.28	
238+34		X					1	0.28	0.28	
238+46		X								10
243+17	X									10
252+11			X				1	0.28	0.28	
253+04		X					1	0.28	0.28	
253+04			X				1	0.28	0.28	
256+98			X							12
258+33		X					1	0.28	0.28	
258+77			X							12
259+16			X				1	0.28	0.28	
260+68			X				1	0.28	0.28	
263+78		X					3	0.28	0.84	
264+10		X					1	0.28	0.28	
265+20	X						1	0.28	0.28	
275+56				X			2	0.28	0.56	
275+83				X			2	0.28	0.56	
276+51					X					10
276+90					X					12
277+08					X					12
278+39						X	2	0.28	0.56	
WESTBOUND I-264 BIFURCATED SECTION										
100+89			X				1	0.28	0.28	
106+75				X			1	0.28	0.28	
108+59				X			1	0.28	0.28	
113+63		X					2	0.28	0.56	
115+83				X			1	0.28	0.28	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
120+59			X							10
122+71			X				3	0.28	0.84	
126+87			X				1	0.28	0.28	
128+02					X		1	0.28	0.28	
131+49				X			1	0.28	0.28	
WESTBOUND I-264 SECTION 2										
139+25			X				2	0.28	0.56	
140+90			X				1	0.28	0.28	
141+79			X				1	0.28	0.28	
142+53				X						12
145+08				X						3
145+83				X						3
148+54				X						3
148+69				X						3
150+04				X			1	0.28	0.28	
150+72						X				12
150+79				X			3	0.28	0.84	
153+07				X						12
153+21				X						12
154+12				X						12
169+06				X						12
169+37				X						12
171+87				X						12
176+42						X	1	0.28	0.28	
176+57				X						12
176+67						X				3
181+40				X			2	0.28	0.56	
182+74						X	1	0.28	0.28	
187+25				X						3
189+75				X			1	0.28	0.28	
201+56			X				2	0.28	0.56	
210+78				X			1	0.28	0.28	
213+84			X				1	0.28	0.28	
216+66			X				1	0.28	0.28	
228+97						X	1	0.28	0.28	
231+56			X				2	0.28	0.56	
232+00				X			2	0.28	0.56	

I-264 PAVEMENT REHABILITATION

JEFFERSON COUNTY

MILEPOST I-264 M.P. 0.46 - M.P. 12.7

ITEM NOS: 5-20015.00, 5-20018.00

PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
234+29					X		2	0.28	0.56	
241+23			X							12
246+99						X	1	0.28	0.28	
252+42					X		1	0.28	0.28	
253+03			X				1	0.28	0.28	
258+56			X				2	0.28	0.56	
276+45				X			2	0.28	0.56	
277+34				X			2	0.28	0.56	
279+61		X					1	0.28	0.28	
280+34				X			1	0.28	0.28	
284+41				X			1	0.28	0.28	
284+84						X				12
308+52						X				10
310+69						X	2	0.28	0.56	
314+16	X						1	0.28	0.28	
320+09			X				2	0.28	0.56	
321+16			X				1	0.28	0.28	
323+13			X				1	0.28	0.28	
333+45		X					3	0.28	0.84	
339+94				X			1	0.28	0.28	
341+21		X					2	0.28	0.56	
344+56			X				3	0.28	0.84	
352+65			X				1	0.28	0.28	
358+64			X				1	0.28	0.28	
374+20				X			1	0.28	0.28	
376+76			X				1	0.28	0.28	
377+07				X			3	0.28	0.84	
379+41			X				3	0.28	0.84	
379+62		X					1	0.28	0.28	
380+16			X				3	0.28	0.84	
381+49				X			2	0.28	0.56	
382+38			X				1	0.28	0.28	
383+11			X				3	0.28	0.84	
384+15			X				2	0.28	0.56	
384+74			X				1	0.28	0.28	
384+74			X				1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
386+09			X				3	0.28	0.84	
386+39			X				3	0.28	0.84	
387+16						X				12
406+33		X					2	0.28	0.56	
406+34				X			3	0.28	0.84	
411+93				X			1	0.28	0.28	
418+83		X					1	0.28	0.28	
419+42		X					1	0.28	0.28	
420+33		X					2	0.28	0.56	
420+62		X					1	0.28	0.28	
424+37		X					2	0.28	0.56	
424+38				X			2	0.28	0.56	
431+17		X					1	0.28	0.28	
437+05		X					2	0.28	0.56	
438+10		X					1	0.28	0.28	
438+10				X			1	0.28	0.28	
439+29				X			1	0.28	0.28	
439+45		X					1	0.28	0.28	
439+89		X					1	0.28	0.28	
439+89		X					1	0.28	0.28	
439+89		X					1	0.28	0.28	
441+54		X					2	0.28	0.56	
444+25				X			2	0.28	0.56	
446+07				X			1	0.28	0.28	
446+66		X					2	0.28	0.56	
451+35				X			1	0.28	0.28	
451+50		X					2	0.28	0.56	
452+69						X	3	0.28	0.84	
545+92				X			1	0.28	0.28	
464+37				X			2	0.28	0.56	
466+19		X					2	0.28	0.56	
473+51		X					2	0.28	0.56	
477+13				X			1	0.28	0.28	
480+88						X	3	0.28	0.84	
I-64 E-S RAMP										
13+12	X									12
30+26						X				6

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
US 31W										
6+33		X								3
6+43		X					3	0.28	0.84	
6+97		X								2
7+29		X					2	0.28	0.56	
7+30		X								2
7+41		X								2
7+58		X					2	0.28	0.56	
7+60			X				3	0.28	0.84	
7+91			X							15
8+39			X							15
8+59		X					1	0.28	0.28	
8+87			X							15
8+90		X								15
9+09			X				1	0.28	0.28	
9+25		X					2	0.28	0.56	
92+26		X								2
12+58				X			2	0.28	0.56	
12+58			X				2	0.28	0.56	
12+58		X					4	0.28	1.12	
12+58		X					4	0.28	1.12	
31+50			X				3	0.28	0.84	
US 31W RAMP 1										
11+88			X				1	0.28	0.28	
12+74			X							8
12+74		X								8
13+16		X								12
13+65			X							12
13+66		X								12
14+79			X							12
15+23		X					6	0.28	1.68	
15+39		X					2	0.28	0.56	
15+89			X				3	0.28	0.84	
16+67		X								15
16+64			X							15
17+10			X							20

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
17+07	X									3
18+08			X							15
18+08			X				2	0.28	0.56	
18+26			X							15
18+59			X							15
18+73			X							15
19+12			X							15
19+12			X				2	0.28	0.56	
19+66		X								15
20+15		X								2
20+15			X				2	0.28	0.56	
20+63		X								15
21+14		X								15
21+59		X								15
21+72		X								2
22+06		X								2
22+17		X								15
22+55		X								2
22+63		X								2
23+10		X								15
26+81		X					1	0.28	0.28	
28+49		X					1	0.28	0.28	
US 31W RAMP 2										
10+14			X				1	0.28	0.28	
10+30			X				1	0.28	0.28	
10+44			X				2	0.28	0.56	
10+59			X				1	0.28	0.28	
10+72			X				2	0.28	0.56	
11+02			X				3	0.28	0.84	
11+33			X				3	0.28	0.84	
11+78			X				1	0.28	0.28	
12+22			X				1	0.28	0.28	
12+37			X				1	0.28	0.28	
12+52			X				1	0.28	0.28	
12+67			X				1	0.28	0.28	
21+82			X				1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
13+12			X				1	0.28	0.28	
13+41			X				1	0.28	0.28	
13+72			X				1	0.28	0.28	
17+20		X								2
17+33						X				2
18+35			X				1	0.28	0.28	
18+81			X				1	0.28	0.28	
19+55			X				2	0.28	0.56	
20+44			X				1	0.28	0.28	
20+89			X				1	0.28	0.28	
21+04			X				1	0.28	0.28	
21+19			X				1	0.28	0.28	
US 31W RAMP 3										
21+91		X								12
21+91		X					1	0.28	0.28	
22+22		X								12
22+35		X								12
22+35		X					1	0.28	0.28	
22+51		X					1	0.28	0.28	
22+66		X								2
22+84		X								2
22+84		X					3	0.28	0.84	
23+00		X					2	0.28	0.56	
23+17		X								12
23+22		X								2
23+23		X					1	0.28	0.28	
23+36		X					1	0.28	0.28	
23+35			X				1	0.28	0.28	
23+35		X								2
23+50			X				4	0.28	1.12	
23+88		X								2
24+27			X							12
24+49		X					3	0.28	0.84	
25+47		X					2	0.28	0.56	
26+92		X					1	0.28	0.28	
27+88		X								2

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
28+85		X					1	0.28	0.28	
29+81			X				1	0.28	0.28	
30+30			X				3	0.28	0.84	
31+30			X				1	0.28	0.28	
32+27			X				2	0.28	0.56	
US 31W RAMP 4										
10+25			X				1	0.28	0.28	
10+43			X							12
10+54		X								2
10+67		X					3	0.28	0.84	
26+92			X				1	0.28	0.28	
31+06			X				1	0.28	0.28	
US 31W RAMP 5										
9+64		X					3	0.28	0.84	
11+38		X								2
12+22		X								15
12+27		X					2	0.28	0.56	
12+41		X					1	0.28	0.28	
12+69			X				2	0.28	0.56	
13+89		X								2
14+04		X					1	0.28	0.28	
14+37		X								2
14+84		X								2
15+17		X								2
15+70		X								2
15+69		X					2	0.28	0.56	
16+12			X							12
16+27		X								2
16+27			X				2	0.28	0.56	
16+27		X					2	0.28	0.56	
16+42		X					1	0.28	0.28	
16+89			X				2	0.28	0.56	
17+06			X							15
17+22		X								2
17+36		X					3	0.28	0.84	
17+53		X								15

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
17+83		X					1	0.28	0.28	
17+82			X				1	0.28	0.28	
18+07			X				1	0.28	0.28	
18+15		X						0.28	0	2
18+24			X				1	0.28	0.28	
18+61		X								2
18+72		X								2
18+72		X					1	0.28	0.28	
18+86		X					1	0.28	0.28	
19+15			X				1	0.28	0.28	
19+15		X								2
19+60			X							12
19+76			X							12
20+04		X								2
20+22		X								2
20+43		X					1	0.28	0.28	
20+66		X								2
20+66		X								2
20+78		X								2
21+17		X								2
21+32		X								2
21+47			X				3	0.28	0.84	
22+67		X								2
22+93			X				1	0.28	0.28	
23+44		X					1	0.28	0.28	
23+64			X				1	0.28	0.28	
23+82			X				1	0.28	0.28	
23+97		X								12
24+51		X								2
24+78		X					1	0.28	0.28	
24+78			X				1	0.28	0.28	
24+90			X							12
26+45			X				1	0.28	0.28	
26+51			X				1	0.28	0.28	
26+78			X				1	0.28	0.28	
26+78			X				1	0.28	0.28	

I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS

STATION	INSIDE SHOULDER	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHOULDER	APPROX. SURF. AREA (SQ FT)	DEPTH (FT)	PARTIAL DEPTH PATCHING (CU FT)	SAW-CLEAN-RESEAL RANDOM CRACKS (LF)
26+78		X					2	0.28	0.56	
27+41		X								4
28+11		X								4
28+28		X					3	0.28	0.84	
US 31W RAMP 6										
13+30		X								2
13+55			X				1	0.28	0.28	
13+71		X								2
14+05			X				5	0.28	1.4	
14+55			X				2	0.28	0.56	
14+75		X								2
15+05			X				2	0.28	0.56	
15+55			X				1	0.28	0.28	
15+85		X								2
16+06			X				3	0.28	0.84	
16+31		X								2
16+54			X				3	0.28	0.84	
16+91			X				1	0.28	0.28	
17+05		X					1	0.28	0.28	
17+21		X								2
20+69		X								2
20+87		X								2
20+87			X				1	0.28	0.28	
US 31W RAMP 7										
24+42			X				2	0.28	0.56	
24+42		X					2	0.28	0.56	
24+71			X							12
25+10				X						15
25+15		X								12
25+19				X						12
25+39		X					3	0.28	0.84	
25+39			X				2	0.28	0.56	
25+72				X						15
US 31W RAMP 8										
9+62			X							15
9+95		X								15

**I-264 PAVEMENT REHABILITATION
JEFFERSON COUNTY
MILEPOST I-264 M.P. 0.46 - M.P. 12.7
ITEM NOS: 5-20015.00, 5-20018.00
PARTIAL DEPTH PCC PAVEMENT REPAIRS**

[illegible]

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7) ITEM NOS: 5-20015.00, 5-20018.00 DIAMOND GRINDING SUMMARY					
DIRECTION	NUMBER OF LANES	BEGIN STATION	END STATION	LINEAR LANE-FEET	SQUARE YARDS
EASTBOUND I-264					
I-264 EB	3	138+00	151+29	1,329	5,319
I-264 EB	3	152+78	169+69	1,691	6,766
I-264 EB	3	171+22	190+16	1,895	7,582
I-264 EB	3	191+68	217+56	2,588	10,356
I-264 EB	3	218+57	229+83	1,126	4,505
I-264 EB	3	231+13	239+81	868	3,476
I-264 EB	3	240+85	259+50	1,865	7,462
I-264 EB	3	263+31	264+83	152	610
I-264 EB	3	266+57	285+62	1,906	7,625
I-264 EB	3	287+42	293+94	652	2,611
I-264 EB	3	295+05	305+21	1,016	4,066
I-264 EB	3	306+22	311+77	555	2,221
I-264 EB	3	313+46	329+47	1,602	6,409
I-264 EB	3	332+23	353+35	2,112	8,451
I-264 EB	3	354+95	360+89	594	2,379
I-264 EB	3	362+88	375+01	1,213	4,855
I-264 EB	3	375+96	386+91	1,095	4,384
I-264 EB	3	387+79	395+73	794	3,179
I-264 EB	3	396+94	404+82	788	3,156
I-264 EB	3	405+82	421+37	1,555	6,222
I-264 EB	3	422+10	425+44	334	1,339
I-264 EB	3	426+09	426+44	35	143
I-264 EB	3	430+10	445+01	1,491	5,967
I-264 EB	3	445+66	460+27	1,462	5,849
I-264 EB	3	463+78	471+64	787	3,149
I-264 EB	2	476+32	483+06	674	1,798
I-264 EB	2	14+19	15+67	148	396
I-264 EB (Bifurcated EB)	3	95+48	99+15	367	1,471
I-264 EB (Bifurcated EB)	3	101+10	104+18	308	1,234
I-264 EB (Bifurcated EB)	3	104+94	111+42	648	2,595
I-264 EB (Bifurcated EB)	3	112+86	115+06	220	883
I-264 EB (Bifurcated EB)	3	116+63	135+69	1,906	7,628
I-264 EB (Bifurcated EB)	3	136+42	138+00	158	636
I-264 EB	3	16+50	86+12	6,962	27,851
I-264 EB	4	87+28	119+35	3,207	17,107
I-264 EB	3	119+35	125+40	605	2,424
I-264 EB	3	126+41	135+66	926	3,705
I-264 EB	3	137+82	141+34	352	1,411
I-264 EB	3	142+41	154+48	1,206	4,828
I-264 EB	4	154+48	163+71	1,016	5,422
I-264 EB	3	173+19	181+89	870	3,483
I-264 EB	3	183+00	274+02	9,102	36,411
I-264 EB	5	274+02	277+00	298	1,989

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7) ITEM NOS: 5-20015.00, 5-20018.00 DIAMOND GRINDING SUMMARY					
DIRECTION	NUMBER OF LANES	BEGIN STATION	END STATION	LINEAR LANE-FEET	SQUARE YARDS
WESTBOUND I-264					
I-264 WB	3	138+00	151+29	1,329	5,319
I-264 WB	3	152+78	169+69	1,691	6,766
I-264 WB	3	171+22	190+16	1,895	7,582
I-264 WB	3	191+68	217+56	2,588	10,356
I-264 WB	3	218+57	229+83	1,126	4,505
I-264 WB	3	231+13	239+81	868	3,476
I-264 WB	3	240+85	259+50	1,865	7,462
I-264 WB	3	263+31	264+83	152	610
I-264 WB	3	266+57	285+62	1,906	7,625
I-264 WB	3	287+42	293+94	652	2,611
I-264 WB	3	295+05	305+21	1,016	4,066
I-264 WB	3	306+22	311+77	555	2,221
I-264 WB	3	313+46	329+47	1,602	6,409
I-264 WB	3	332+23	353+35	2,112	8,451
I-264 WB	3	354+95	360+89	594	2,379
I-264 WB	3	362+88	375+01	1,213	4,855
I-264 WB	3	375+96	386+91	1,095	4,384
I-264 WB	3	387+79	395+73	794	3,179
I-264 WB	3	396+94	404+82	788	3,156
I-264 WB	3	405+82	421+37	1,555	6,222
I-264 WB	3	422+10	425+44	334	1,339
I-264 WB	3	426+09	426+44	35	143
I-264 WB	3	430+10	445+01	1,491	5,967
I-264 WB	3	445+66	460+27	1,462	5,849
I-264 WB	3	463+78	471+61	784	3,137
I-264 WB	2	471+61	482+44	1,083	2,889
I-264 WB (Bifurcated WB)	3	95+48	98+87	340	1,362
I-264 WB (Bifurcated WB)	3	100+79	104+32	353	1,413
I-264 WB (Bifurcated WB)	3	106+00	109+77	377	1,512
I-264 WB (Bifurcated WB)	3	110+92	118+53	762	3,050
I-264 WB (Bifurcated WB)	3	120+59	135+69	1,510	6,042
I-264 WB (Bifurcated WB)	3	136+42	138+00	158	636
I-264 WB	3	16+50	86+12	6,962	27,851
I-264 WB	3	87+28	98+05	1,077	4,312
I-264 WB	4	98+05	125+40	2,735	14,589
I-264 WB	4	126+41	135+66	926	4,940
I-264 WB	4	137+82	141+34	352	1,881
I-264 WB	4	142+41	157+73	1,532	8,172
I-264 WB	5	157+73	163+71	1,016	6,777
I-264 WB	4	173+19	181+89	870	4,644
I-264 WB	3	183+00	258+01	7,501	30,005
I-264 WB	4	258+01	277+00	1,899	10,132

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7) ITEM NOS: 5-20015.00, 5-20018.00 DIAMOND GRINDING SUMMARY					
DIRECTION	NUMBER OF LANES	BEGIN STATION	END STATION	LINEAR LANE-FEET	SQUARE YARDS
US 31W & I-264 RAMPS					
RAMP 1	1	11+45	29+30	1,785	2,976
RAMP 2	1	10+00	14+78	478	798
RAMP 2	1	16+65	26+18	953	1,589
RAMP 3	1	17+70	32+84	1,514	2,524
RAMP 3	1	34+02	36+76	275	458
RAMP 4	3	10+00	17+70	770	3,084
RAMP 4	2	17+70	27+69	998	2,664
RAMP 4	2	29+98	35+70	571	1,526
RAMP 5	1	11+29	23+61	1,232	2,054
RAMP 6	1	10+00	23+84	1,384	2,308
RAMP 7	2	10+00	12+34	234	626
RAMP 7	2	13+51	23+17	966	2,579
RAMP 7	3	23+17	25+00	183	735
RAMP 8	1	7+52	19+72	1,220	2,034
RAMP 9	1	21+29	21+65	36	61
TOTAL PCC PAVEMENT DIAMOND GRINDING (SQYD)				513,578	
Note: Lanes are based on the number of concrete lanes and their widths, NOT the striped lanes.					
Note: Quantities are carried over to the General Summary					

BRIDGES (NOT INCLUDED)		
Bridges over Crittenden Dr	183+00	181+89
Bridge over Crittenden Dr & Old Park BLVD	173+19	163+71
Bridge over S 3rd St	142+41	141+34
Bridge over Southern PKWY	137+82	135+66
Bridge over Taylor BLVD	87+28	86+12
Bridge over Railroad (WB)	98+87	100+79
Bridge over US 31W Ramp 3 (WB)	104+32	106+00
Bridge over Dixie Hwy (WB)	109+77	110+92
Bridge over US 31W Ramp 8 (WB)	118+53	120+59
Bridge over Savage Dr	151+29	152+78
Bridge over Garrs Ln	169+69	171+22
Bridge over Grums Ln	190+16	191+68
Bridge over Farnsley Rd	217+56	218+57
Bridge over Cane Run Rd	229+83	231+13
Bridge over Ralph Ave	239+81	240+85
Bridge over Railroad	259+50	263+31
Bridge over Camp Ground Rd	264+83	266+57
Bridge over Railroad	285+62	287+42
Bridge over Bells Ln	293+94	295+05
Bridge over Algonquin PKWY	305+21	306+22
Bridge over Railroad	311+77	313+46

BRIDGES (NOT INCLUDED)		
Bridge over Gibson Ln	329+47	332+23
Bridge over S 38th St	353+35	354+95
Bridge over Virginia Ave	360+89	362+88
Bridge over Greenwood Ave	375+01	375+96
Bridge over Garland Ave	386+91	387+79
Bridge over Louis Coleman Jr Dr	395+73	396+94
Bridge over W Broadway	404+82	405+82
Bridge over River Park Dr	421+37	422+10
Bridge over Vermont Ave	425+44	426+09
Bridge over W Muhammad Ali BLVD	429+44	430+10
Bridge over W Market St	445+01	445+66
Bridge over Duncan St	460+27	463+78
Bridge over Railroad (EB)	99+15	101+10
Bridge over US 31W Ramp 3 (EB)	104+18	104+94
Bridge over Dixie Hwy (EB)	111+42	112+86
Bridge over US 31W Ramp 8 (EB)	115+06	116+63
Bridge over Railroad (Ramp 2)	14+78	16+65
Bridge over Dixie Hwy (Ramp 3)	32+84	34+02
Bridge over Dixie Hwy (Ramp 4)	27+69	29+98
Bridge over Dixie Hwy (Ramp 7)	12+34	13+51
Bridge over Dixie Hwy (Ramp 8)	19+72	21+29

STATION EQUATIONS	
Back	Ahead
125+39.95	126+40.89
135+68.83	136+41.75

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7) ITEM NOs: 5-20015.00, 5-20018.00 DOWEL BAR RETROFIT SUMMARY							
STATION	INSIDE SHLDR.	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR.	COMMENTS
US 31W RAMP 1							
11+61		X					15' WIDE
11+61			X				15' WIDE
11+73			X				15' WIDE
12+05		X					15' WIDE
12+05			X				15' WIDE
12+19			X				15' WIDE
12+19		X					15' WIDE
12+49		X					15' WIDE
12+50			X				15' WIDE
12+60			X				15' WIDE
13+04			X				15' WIDE
13+03		X					15' WIDE
13+22		X					15' WIDE
13+22			X				15' WIDE
13+51		X					15' WIDE
13+51			X				15' WIDE
13+74		X					15' WIDE
13+74			X				15' WIDE
13+99			X				15' WIDE
14+00		X					15' WIDE
14+26		X					15' WIDE
14+26			X				15' WIDE
14+53			X				15' WIDE
14+53		X					15' WIDE
14+54		X					15' WIDE
15+20			X				15' WIDE
15+20		X					15' WIDE
15+58		X					15' WIDE
15+58		X					15' WIDE
15+58			X				15' WIDE
15+72		X					15' WIDE
15+72		X					15' WIDE
16+19		X					15' WIDE
16+19		X					15' WIDE
16+64		X					15' WIDE
16+64			X				15' WIDE
17+07		X					15' WIDE
17+07			X				15' WIDE
17+66		X					15' WIDE
17+66			X				15' WIDE
17+76		X					15' WIDE
17+76			X				15' WIDE
US 31W RAMP 3							
26+90		X					15' WIDE
26+90			X				15' WIDE
27+08		X					15' WIDE
27+08			X				15' WIDE
27+19		X					15' WIDE

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. (0.24-0.46)(0.17-0.33)(0.46 - 12.7) ITEM NOs: 5-20015.00, 5-20018.00 DOWEL BAR RETROFIT SUMMARY							
STATION	INSIDE SHLDR.	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR.	COMMENTS
27+19			X				15' WIDE
27+68		X					15' WIDE
27+68			X				15' WIDE
30+97			X				15' WIDE
US 31W RAMP 5							
13+73		X					15' WIDE
13+73			X				15' WIDE
14+19		X					15' WIDE
14+19			X				15' WIDE
15+32		X					15' WIDE
15+32			X				15' WIDE
15+81		X					15' WIDE
15+81			X				15' WIDE
16+58		X					15' WIDE
16+58			X				15' WIDE
16+75		X					15' WIDE
16+75			X				15' WIDE
US 31W RAMP 6							
14+30		X					15' WIDE
14+30			X				15' WIDE
15+30		X					15' WIDE
15+30			X				15' WIDE
18+19		X					15' WIDE
18+19			X				15' WIDE
18+38		X					15' WIDE
18+38			X				15' WIDE
18+77		X					15' WIDE
18+77			X				15' WIDE
19+20		X					15' WIDE
19+20			X				15' WIDE
19+37		X					15' WIDE
19+37			X				15' WIDE
19+72		X					15' WIDE
19+72			X				15' WIDE
20+27		X					15' WIDE
20+27			X				15' WIDE
US 31W RAMP 7							
24+23			X				12' WIDE
24+70				X			12' WIDE
25+65		X					12' WIDE
25+65			X				12' WIDE
US 31W RAMP 8							
9+95			X				15' WIDE
10+14			X				15' WIDE
11+93		X					15' WIDE
13+51		X					15' WIDE
13+51			X				15' WIDE
14+23			X				15' WIDE
14+54		X					15' WIDE
14+54			X				15' WIDE

[illegible]

GUARDRAIL SUMMARY JEFFERSON COUNTY I-264 Mile Posts: 0.24-0.46, 0.17-0.33, 0.46-12.7 Item Numbers: 5-20015.00, 5-20018.00															
Location	SIDE	BEGIN Sta.	END Sta.	Units				GUARDRAIL CONNECTOR TO BRIDGE END TY A	GUARDRAIL END TREATMENT TYPE 2A	GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	REMOVE GUARDRAIL	GUARDRAIL STEEL W BEAM S-FACE (7FT POST)	SHOULDERING		COMMENTS
						LIN. FT.	LIN. FT.								
				EACH	EACH										
Item Number															
I-64 E-S RAMP	EB-RT	15+67	17+94	2363	2369	2387	1				2381	21802 EN	237.5	2714	Tie To Existing
I-64 E-S RAMP	EB-LT	15+67	19+56							1	400.0	400.0			Tie To Existing
I-64 E-S RAMP	EB-LT	20+23	26+53	1							637.5	637.5			Tie To Existing
I-64 E-S RAMP	EB-RT	20+23	27+74	1						1	762.5	762.5			
I-64 E-S RAMP	EB-RT	28+86	33+10	1						1	425.0	425.0			
I-64 E-S RAMP	EB-LT	28+86	33+10	1						1	425.0	425.0			Tie To Existing
I-264	EB	145+60	150+94										534		Shouldering Required
I-264	EB	240+89	246+27										538		Shouldering Required
I-264	EB	266+53	286+23										1970		Shouldering Required
I-264	EB	289+80	294+21										441		Shouldering Required
I-264	EB	306+22	311+77										555		Shouldering Required
I-264	EB	363+28	369+76										648		Shouldering Required
I-264	EB	375+57	386+51										1094		Shouldering Required
I-264	EB	387+46	396+50										904		Shouldering Required
I-264	EB	397+50	404+56										706		Shouldering Required
I-264	EB	405+65	411+99										634		Shouldering Required
I-264	EB	426+08	429+45										337		Shouldering Required
I-264	EB	430+12	445+06										1494		Shouldering Required
I-264	EB	449+31	460+65										1134		Shouldering Required
I-264	EB	462+95	482+30										1935		Shouldering Required
I-264	EB	27+16	38+78										1162		Shouldering Required
I-264	WB	120+28	122+84										257		Shouldering Required
I-264	WB	171+07	175+52										445		Shouldering Required
I-264	WB	194+58	196+01										143		Shouldering Required
I-264	WB	250+71	259+79										908		Shouldering Required
I-264	WB	263+35	265+13										178		Shouldering Required
I-264	WB	266+84	269+99										315		Shouldering Required
I-264	WB	306+19	311+70										551		Shouldering Required
I-264	WB	313+87	319+58										572		Shouldering Required
I-264	WB	332+54	336+46										392		Shouldering Required
I-264	WB	355+02	355+82										80		Shouldering Required
I-264	WB	388+98	390+74										176		Shouldering Required
I-264	WB	405+96	410+64										468		Shouldering Required
I-264	WB	464+55	464+85										30		Shouldering Required
PROJECT TOTAL				4	1	4					2888	2888		18601	

I-264 PAVEMENT REHABILITATION JEFFERSON COUNTY MILEPOST I-264 M.P. 0.46 - M.P. 12.7 ITEM NOS: 5-20015.00, 5-20018.00 PAVING SUMMARY			
PAVING AREAS			
ITEM		TOTAL	
EASTBOUND M.P. 0.17 TO M.P. 0.505			
DRIVING LANES		SQYD	
CL4 ASPH SURF 0.38A PG76-22 (1.5")		7881	
CL4 ASPH BASE 1.00D PG76-22 (3")		7881	
CL4 ASPH BASE 1.00D PG64-22 (4")		7881	
CL4 ASPH BASE 1.00D PG64-22 (4")		7881	
CRUSHED STONE BASE (6")		7881	
CRUSHED AGGREGATE SIZE NO 2 (12")		7881	
OUTSIDE SHOULDER			
CL4 ASPH SURF 0.38A PG76-22 (1.5")		1547	
CL4 ASPH BASE 1.00D PG76-22 (3")		1595	
CL4 ASPH BASE 1.00D PG64-22 (4")		1659	
CL4 ASPH BASE 1.00D PG64-22 (4")		1723	
CRUSHED STONE BASE (6")		1818	
CRUSHED AGGREGATE SIZE NO 2 (12")		4304	
INSIDE SHOULDER			
CL4 ASPH SURF 0.38A PG76-22 (1.5")		1025	
CL4 ASPH BASE 1.00D PG76-22 (3")		1073	
CL4 ASPH BASE 1.00D PG64-22 (4")		1136	
CL4 ASPH BASE 1.00D PG64-22 (4")		1200	
CRUSHED STONE BASE (6")		1296	
CRUSHED AGGREGATE SIZE NO 2 (12")		2921	
SLOPE CONSTRUCTION		CUYD	
CRUSHED STONE BASE		542	
PAVING SUMMARY			
CODE		UNITS	TOTAL
003	CRUSHED STONE BASE	TON	4915
078	CRUSHED AGGREGATE SIZE NO 2	TON	10423
217	CL4 ASPH BASE 1.00D PG64-22	TON	4726
219	CL4 ASPH BASE 1.00D PG76-22	TON	1741
342	CL4 ASPH SURF 0.38A PG76-22	TON	862
356	ASPHALT MATERIAL FOR TACK	TON	9
2602	FABRIC-GEOTEXTILE CLASS 1	SQYD	12907
2604	FABRIC-GEOTEXTILE CLASS 1A	SQYD	15106
NOTES			
ALL ASPHALT MIXTURES ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH			
CRUSHED STONE AND AGGREGATE WERE ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH			
PROPOSED SHOULDER CROSS SLOPE SHOULD BE 4% OR GREATER			

SPECIAL NOTES FOR JPC PAVEMENT
DIAMOND GRINDING REHABILITATION
JEFFERSON COUNTY
I-264

FD52 056 0064 000-001 & FD52 056 0264 000-013
Item No. 5-20015.00, 5-20018.00

THIS PROJECT IS A FULLY
CONTROLLED ACCESS HIGHWAY

1. There is a summary of full depth concrete repair locations. Because of continuing deterioration of the pavement, there is an additional quantity of repairs included in the bid total. The Engineer will determine the ultimate locations that will be repaired based upon the condition of the pavement at the time the repairs are accomplished. The repair locations listed may be lengthened, shortened, or eliminated completely if the conditions are such that modification of the locations would be deemed desirable by the Department. Any asphalt patches removed and their disposal will be incidental to the underlying "Remove PCC Pavement" bid item.
2. The dimensions shown on the typical section for pavement and shoulder widths and thickness are nominal or typical dimensions. The actual dimensions to be constructed or diamond ground may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless specified in the Proposal.
3. The contractor is to be advised of the locations of low wires on the project. These locations are approximate.

Caution: Other locations may exist. These and all other utilities should be avoided on this project. If any utility is impacted, it will be the contractor’s responsibility to contact the affected utility and cover any costs associated with the impact.

I-264 EASTBOUND DIRECTION

Sta. 38+79	Sta. 144+88	Sta. 295+92
Sta. 39+90	Sta. 152+07	Sta. 301+28
Sta. 58+90	Sta. 160+20	Sta. 307+70
Sta. 70+91	Sta. 162+45	Sta. 312+85
Sta. 86+96	Sta. 175+31	Sta. 319+87
Sta. 99+95	Sta. 190+82	Sta. 333+09
Sta. 104+95	Sta. 217+92	Sta. 352+08
Sta. 111+31	Sta. 221+06	Sta. 374+42
Sta. 117+08	Sta. 229+46	Sta. 388+31
Sta. 122+89	Sta. 237+88	Sta. 396+75
Sta. 127+20	Sta. 240+02	Sta. 416+67
Sta. 132+90	Sta. 250+02	Sta. 440+61
Sta. 133+83	Sta. 268+83	Sta. 465+82

I-264 WESTBOUND DIRECTION

Sta. 21+83	Sta. 160+52	Sta. 276+97
Sta. 36+91	Sta. 161+71	Sta. 284+26
Sta. 38+86	Sta. 171+37	Sta. 295+93
Sta. 41+65	Sta. 171+38	Sta. 301+29
Sta. 58+91	Sta. 174+11	Sta. 312+77
Sta. 62+88	Sta. 174+28	Sta. 317+64
Sta. 87+41	Sta. 181+77	Sta. 319+89
Sta. 99+12	Sta. 189+24	Sta. 344+07
Sta. 99+40	Sta. 190+63	Sta. 352+09
Sta. 100+61	Sta. 192+36	Sta. 376+00
Sta. 101+42	Sta. 217+77	Sta. 383+10
Sta. 109+72	Sta. 230+29	Sta. 395+52
Sta. 115+92	Sta. 239+91	Sta. 409+12
Sta. 127+23	Sta. 254+93	Sta. 416+66
Sta. 145+79	Sta. 264+40	Sta. 421+96
Sta. 152+39	Sta. 265+75	Sta. 441+72
Sta. 152+44	Sta. 269+56	Sta. 445+51
Sta. 157+38	Sta. 274+28	Sta. 451+46
Sta. 159+42	Sta. 274+31	Sta. 459+41
Sta. 160+18	Sta. 274+90	Sta. 470+49

-
4. Any delineator posts or roadway signs that are damaged during construction are to be replaced at the contractor's expense.
 5. All “green” milepost signs shall be replaced with this project. Payment for these signs will be made by “each” for the bid item “Steel Post Mile Marker”. The blue 2/10th mile marker signs, in the median, on the project are not to be disturbed. The contractor will be responsible for the replacement of these signs if damaged during construction.
 6. A quantity of “Shouldering” has been included to clear road debris from shoulder edges to allow water to sheet flow over the shoulder. Payment for this work shall be by “linear foot” of the bid item “Shouldering”. Payment for this work shall include all materials, labor and equipment necessary to remove all foreign debris from the shoulders and reshape the shoulders to “normal” condition as directed by the Engineer. Removing guardrail, DGA, Asphalt Seal Coat, and Asphalt Seal Aggregate will be paid separately from this item of work. Any other items of work necessary to complete this item of work as directed by the Engineer will be considered incidental to “Shouldering”.

7. Several locations on the project have significant erosion under the existing pavement or other structures. These and any other areas with similar erosion issues shall be filled with aggregate no.2. as directed by the Engineer. Payment for this work shall be per Ton of "Crushed Aggregate Size No.2". An approximate quantity has been set up for this project, but payment will be based on quantities measured in the field.
8. Delineators shall meet the requirements of Section 830 and 838 of the Standard Specifications. Delineators shall be placed in accordance with Section 3F of the M.U.T.C.D.
9. Existing pavement markers in the mainline concrete will be removed. Sawcut around marker prior to removal. A partial depth patch will be included to repair the pavement at the removal locations but will not be measured for payment. See "Special Note for Removing Existing Pavement Markers on Portland Cement Pavement".
10. The existing edge drain system is to be preserved. Care should be taken when the deteriorated concrete is removed and replaced, and edge drains damaged during these activities will be replaced at the contractor's expense. There is a small quantity of perforated pipe, non-perforated pipe and pipe headwalls for the installation of additional outlets to be used at the engineer's discretion. Payment will be based on each bit item "Perforated Pipe, Non-Perforated Pipe, Perf Pipe Headwall."
11. DGA, flowable fill, crushed aggregate No. 2 and geotextile fabric used to back the proposed perforated and non-perforated pipe trench will be incidental to the price of the 4" perforated and 4" non-perforated pipe and no additional pay will be permitted.
12. All pipe connections in the edge drain system will be rigid.
13. Any light poles, ITS Equipment, traffic cameras, etc. that are damaged during construction are to be replaced at the contractor's expense.
14. Type III Barricades must be used at Ramp closures to prevent traffic from entering the work zone. Payment is considered incidental to "Maintenance of Traffic."
15. Guardrail, End Treatments, and Terminal Sections to be replaced are listed by mileposts. Exact placement to be approved by the Engineer on construction.
16. Remove any existing guardrail with a shoulder closure in place. Do not leave the area unprotected. After the guardrail is removed, a shoulder closure shall remain in place until the guardrail is replaced in that area. The Contractor shall deliver existing salvaged guardrail system materials to the Central Sign Shop and Recycle Center in Frankfort, KY (502-564-8187) between the hours of 8:00AM and 3:00PM, Monday through Friday and shall be neatly stacked in accordance with section 719.03.07 of the standard specifications. Contractor, engineer, and Central Sign Shop and Recycle Center representative must all sign off on this sheet before payment may be made.

**TRAFFIC CONTROL PLAN
DIAMOND GRINDING REHABILITATION
JEFFERSON COUNTY
I-264
ITEM NO. 5-20015.00, 5-20018.00**

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY
--

TRAFFIC CONTROL GENERAL

Except as provided herein, maintain and control traffic in accordance with the 2019 Standard Specifications and the Standard Drawings, current editions. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic". All lane closures used on the Project will be in compliance with the appropriate Standard Drawings. Do NOT use cones for lane closures or shoulder closures.

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. Traffic Control Devices will conform to current MUTCD.

Reduce the speed limit in work areas to 45 miles per hour (Interchange ramps may be reduced to 35mph) and establish double fines for work zone speeding violations. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Notify the Engineer a minimum of 12 hours prior to using the double fine signs. At the beginning of the work zone, the "WARNING FINE DOUBLED IN WORK ZONE" signs will be dual mounted. At the end of the work zone, the "END DOUBLE FINE" signs will be dual mounted as well. Remove or cover the signs when the highway work zone does not have workers present for more than a two-hour period of time. All signs shall be placed as directed and/or approved by the Engineer. Payment for the signs will be at the unit bid price for "Signs" erected. Any relocation or covering of the signs will be incidental to "Maintain and Control Traffic".

Night work is required on this project. Obtain approval from the Engineer for the method of lighting prior to its use.

PROJECT PHASING & CONSTRUCTION PROCEDURES

No lane closures will be allowed during the following days:

May 22-25, 2020	Memorial Day Weekend
July 3-6, 2020	Independence Day Weekend
August 6-9, 2020	Street Rod Nationals
August 20-30, 2020	Kentucky State Fair
September 4-7, 2020	Labor Day Weekend
November 26-29, 2020	Thanksgiving Weekend
December 24-27, 2020	Christmas Weekend
December 31, 2020 - January 3, 2021	New Years Weekend

5:00 a.m. to 8:00 p.m. Monday - Friday

In the event construction extends past the specified contract completion date, additional dates restricting lane closures may apply; the Department will determine these dates.

Traffic may be reduced to one lane in each direction during the following times:

- Weeknights from 8 PM until 5 AM the following morning
- Weekends from 8 PM Friday night until 5 AM the following Monday morning

The existing traffic configuration must be maintained at all other times unless otherwise directed by the Engineer.

Use only one lane closure in each direction of travel at the same time during the hours specified. Lane closures may only be in the active work area. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Use a lane closure all times work is being performed in the lane or adjacent shoulder. Remove existing striping by water blasting. Remove edge lines throughout the project as directed and/or approved by the Engineer. Paint temporary edge lines through the lane closure. Payment for water blasting existing striping will be considered incidental to the bid item “Maintain and Control Traffic”.

Approximate full depth pavement repair locations are listed in the proposal. The Engineer will determine the exact location at the time of construction. Once removal of pavement at a particular repair location has begun, work continuously within the parameters outlined above to complete the work and eliminate the “hole”. Place Type III Barricades immediately in front of each pavement removal area, until the new JPC Pavement achieves 3000 PSI compressive strength. Payment for Type III Barricades will be considered incidental to the bid item “Maintain and Control Traffic”.

The Contractor will only be allowed to have traffic utilizing a portion of the shoulders as a driving lane while work is ongoing. If the Contractor suspends work for more than seven (7) consecutive days for any reason, traffic shall be placed back in the original lane configuration, with all lanes operational. These traffic shifts, due to non-working days, shall be considered incidental to the bid item, "Maintain and Control Traffic." The Department reserves the right to place traffic into its original configuration at any time.

Access to all ramps at interchanges on the project shall be maintained at all times unless otherwise noted or directed by the Engineer.

Note that Lane shifts are required throughout the project. See the Maintenance of Traffic Typical Sections for lane locations and widths. Stripe according to the MUTCD.

During the days and hours when a lane closure is allowed, implement the following procedures: Maintain traffic as specified in the phasing notes. Maintain at least 3 feet of lateral clearance between the traveled lanes and any drop off resulting from pavement removal. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods or if the project is not completed by the fixed completion date. Once pavement removal at a site has begun, full depth replacement must be completed within the time a lane closure is allowed.

The Contractor must notify the Engineer at least fourteen (14) days prior to beginning construction in either direction.

SHOULDER PREPARATION AND RESTORATION

Shoulders used as temporary roadways will be inspected by the Engineer and if deemed necessary by the Engineer, repaired with Asphalt Mixture for Level & Wedging (PG64-22), as directed, prior to opening to traffic. Patch and remove any foreign debris on the shoulders, as directed by the Engineer. Removal of failed materials and additional patching shall be performed by the Contractor, as directed by the Engineer, during the time the shoulder is used as a travel lane.

The stabilized shoulders are to be inspected and low spots refilled to the satisfaction of the Engineer prior to placing traffic on the shoulders. Daytime shoulder closures will be permitted to repair the stabilized shoulders. Install delineators for the existing guardrail and bridges before shifting traffic onto the shoulders. All work required for shoulder preparation and restoration is incidental to the bid item for "Maintain and Control Traffic".

PHASE I - JPC PAVEMENT REMOVAL AND REPLACEMENT, OUTSIDE LANES AND OUTSIDE SHOULDER

Utilize a lane closure and shift traffic to the inside lane and inside shoulder during removal and construction of the outside lane and shoulder. Remove the JPC pavement, prepare the subbase if necessary, pour the new JPC Pavement 10". Remove all existing Type V pavement markers in the outside lanes and patch the residual hole. Complete any other miscellaneous patching in the specified lane as directed by the Engineer. All work should be completed during the time allotted unless otherwise directed by the Engineer. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

PHASE II – JPC PAVEMENT REMOVAL AND REPLACEMENT, INSIDE LANE AND INSIDE SHOULDER

Utilize a lane closure and shift traffic to the outside lane and outside shoulder during removal and construction of the inside lane and inside shoulder. Remove the JPC pavement, prepare the subbase if necessary and pour the new JPC Pavement 10". Remove all existing Type V pavement markers in the inside lanes and patch the residual hole. Complete any other miscellaneous patching in the specified lanes as directed by the Engineer. All work should be completed during the time allotted. Please refer to the "Special Note for Fixed Completion Date and Liquidated Damages" for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

PHASE III – JPC PAVEMENT REMOVAL AND REPLACEMENT, LANE NO. 2 (THREE-LANE SEGMENTS ONLY)

Move one lane of traffic to the outside lane and outside shoulder in the existing three lane segments during removal and construction of the second lane from the inside (Lane 2) repair areas as directed by the Engineer. Remove the JPC pavement, prepare the subbase if necessary, pour the new JCP Pavement 10". Remove all existing pavement Type V markers in the specified lane and patch the residual hole for each marker. Complete any other miscellaneous patching in the specified lane as directed by the Engineer. Any remaining repairs in the two inside lanes and inside shoulder may be completed during this phase. All work should be completed during the time allotted unless otherwise directed by the Engineer.

Access to all ramps at interchanges within the project shall be maintained at all times during this phase.

PHASE IV – SAW AND SEAL JOINTS AND RANDOM CRACKS

Saw and seal the concrete pavement. Seal the joints between the mainline driving lanes and shoulders using appropriate lane configurations, as directed by the Engineer. Close one lane, only in the direction of work, using drums and flashing arrows in accordance with the Standard Drawings and these notes. The minimum allowable clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Lane closures will be permitted only during hours of actual operations. Lane closures will not be permitted during the days and hours specified. Lane closures will be shortened, reduced to a shoulder closure, or removed as appropriate, when the Contractor does not have active operations requiring a lane closure. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

PHASE V – DIAMOND GRIND

Diamond Grind the JPC Pavement the full lane width when strength is achieved using appropriate lane configurations. The clear lane width will be 11 feet; however, make provisions for the passage of wide loads up to 16 feet in width, with approval of the Engineer. Lane closures will be permitted only during hours of actual operations. Lane closures will be shortened, or removed as appropriate, when the Contractor does not have active operations requiring a lane closure. Limit the length of the lane closure to no more than can be completed during the specified time.

Diamond Grind the full lane width when strength is achieved. The diamond grind areas will not include bridge decks. However, areas around manhole lids and areas including signal loops shall be diamond grinded. Please refer to the “Special Note for Fixed Completion Date and Liquidated Damages” for damage rates per hour associated with failure to maintain the required number of lanes during the specified time periods.

PLACE PERMANENT STRIPING & PAVEMENT MARKERS

After all other work is completed, place permanent striping and pavement markers. Mobile operations may be utilized. In addition to newly paved areas, place permanent striping on bridge decks within the project limits. Place permanent striping in accordance with the current edition of the MUTCD.

LANE CLOSURES

Limit the lengths of lane closures to only that needed for actual operations in accordance with the phasing specified herein, or as directed by the Engineer. Contrary to Section 112, lane closures will **NOT** be measured for payment, but are considered incidental to “Maintain and Control Traffic”.

RAMP CLOSURES & DETOURS

All ramp access is to be maintained except when the ramp is closed. The contractor will be allowed to close each of the ramps listed for one weekend.

The following ramps will need to be closed to complete the proposed full depth repairs on the respective ramp:

31W / I-264 Interchange

SB 31W to WB I-264 Ent. Ramp (Ramp 1)	EB I-264 to NB 31W Exit Ramp (Ramp 5)
WB I-264 to NB 31W Exit Ramp (Ramp 2)	EB I-264 to SB 31W Exit Ramp (Ramp 6)
NB 31W to WB I-264 Ent. Ramp (Ramp 3)	SB 31W to EB I-264 Exit Ramp (Ramp 8)

Only one ramp closure will be allowed at any one time throughout the project with the Engineer’s approval. Ramp closures shall be completed on weekends during times of adjacent lane closures on the mainline. Once pavement removal at a ramp site has begun, all full depth pavement repairs, guardrail work, sawing and sealing all joints and random cracks, and repairing the DGA portion of the shoulders where specified for that particular ramp must be completed and restriped within the time a ramp closure is allowed. Liquidated Damages, at the rate specified per hour in the “Special Note for Fixed Completion Date and Liquidated Damages”, will be assessed for each hour beyond the specified time a ramp closure is permitted. Detour signing plan exhibits are attached for each ramp closure. The sign locations shown on the exhibits are approximate. The location and type of sign used shall be as directed or approved by the Engineer prior to any ramp closure. All messages to be used on Portable Changeable Message Signs shall be approved by the Engineer prior to any ramp or lane closure.

Contrary to Section 112, ramp/lane closures will **NOT** be measured for payment, but are considered incidental to “Maintain and Control Traffic”.

Detours will **NOT** be measured for payment, but are considered incidental to “Maintain and Control Traffic”.

RAMP CLOSURES, LANE CLOSURES AND LANE SHIFTS

All lane closures, lane shifts and tapers shall be in accordance with the current standard drawings or the Manual of Uniform Traffic Control Devices (MUTCD). Any ramp closure, lane closure or lane shift must be approved by the Engineer prior to the closure or lane shift. The Contractor must notify the Engineer as least five (5) days prior to any proposed closure or traffic pattern shift.

SIGNS

Additional traffic control signs in addition 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 TRUCKS USE LEFT/RIGHT LANE, LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILES, LEFT/RIGHT LANE CLOSED 3 MILES, SLOWED/STOPPED TRAFFIC AHEAD. Signage for reduced speed limits and double fine work zones will be furnished, relocated, and maintained by the Contractor.

Contrary to Section 112, Individual signs will be measured only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. 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, "Roadwork Ahead" signs on entrance ramps, and extra Double Fine signs and Speed Limit signs between interchanges to be paid only once, regardless of how many times they are moved or relocated.

FLASHING ARROWS

Flashing arrows will be paid for once, regardless of how many times they are moved or relocated. The Department **WILL NOT** take possession of the flashing arrows upon completion of the work.

PORTABLE CHANGEABLE MESSAGE SIGNS

Provide Portable Changeable Message Signs in advance of and within the project at locations to be determined by the Engineer. If work is in progress concurrently in both directions provide additional Portable Changeable Message Signs. Place Portable Changeable Message Signs one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens relocate or provide additional Portable Changeable Message Signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The locations designated may vary as the work progresses. The messages required to be provided will be designated by the Engineer. The Portable Changeable Message Signs will be in operation at all times. In the event of damage or mechanical/electrical failure, the Contractor will repair or replace the Portable Changeable Message Sign immediately. Portable Changeable Message Signs will be paid for once, regardless

of how many times they are moved or relocated. The Department **WILL NOT** take possession of the signs upon completion of the work.

TRUCK MOUNTED ATTENUATORS

Furnish and install MUTCD approved Truck Mounted Attenuators (TMA) in advance of work areas not protected by temporary concrete barrier wall, when workers are present less than 12 feet from traffic. If there is less than 500 feet between work sites, only a single TMA will be required at a location directed by the Engineer. Locate the TMAs at the individual work sites and move them as the work zone moves within the project limits. All details of the TMA installations will be approved by the Engineer. Truck Mounted Attenuators will not be measured for payment, but are incidental to "Maintain and Control Traffic". The Department will **NOT** take possession of the TMAs upon completion of the work.

PAVEMENT MARKINGS

If lane closures are in place during nighttime hours, remove or cover the lenses of raised pavement markers that do not conform to the traffic control scheme in use, or as directed by the Engineer. Replace or uncover lenses before a closed lane is reopened to traffic. No direct payment will be made for removing and replacing or covering and uncovering the lenses, but will be incidental to "Maintain and Control Traffic".

Place temporary striping in accordance with Section 112 and permanent striping in accordance with Section 714, except that:

1. Temporary and permanent striping will be 6" in width (ramp gore striping will be 12")
2. If the contractor's operations or phasing requires temporary markings which must be subsequently removed from the ultimate pavement, an approved removable lane tape will be used; however removable tape will be measured and paid as "Pavement Striping-Temporary Paint 6 Inch".
3. Edge lines will be required for temporary striping
4. Existing, temporary, or permanent striping will be in place before a lane is opened to traffic.
5. Place permanent striping on bridge decks and pavement within the project limits.
6. Permanent striping will be thermoplastic for asphalt surfaces and durable Type 1 tape for concrete surfaces.

Voids created from removing the raised pavement markers are to be filled prior to allowing traffic on them. The partial depth patching material is to be used to fill the voids. The patching material and all work involved in patching the voids created by removing the existing pavement markers are incidental to the pavement marker removal bid item. See 'Special Note For Removing Existing Type V Raised Pavement Markers On Portland Cement Pavement'.

PAVEMENT EDGE DROP-OFFS

Pavement edge drop-offs will be protected by a lane or shoulder closure. Lane closures will be protected with plastic drums or barricades, as shown on the Standard Drawings.

It may be necessary to saw cut or excavate small areas in an adjacent lane to allow room for forms to pour a new slab to the proper grade. Any hole will be filled temporarily with DGA when adjacent to traffic or there exists a possibility that a vehicle wheel may drop into the hole.

TRAFFIC COORDINATOR

The I-264 rehabilitation is classified as a Significant Project.

Designate an employee to be traffic coordinator. The designated Traffic Coordinator shall meet the requirements described in Section 112.03.12 of the Department's Standard Specifications. The Traffic Coordinator will inspect the project maintenance of traffic once every two hours during the Contractor's operations and at any time a lane closure is in place. The Traffic Coordinator will report all incidents throughout the work zone to the Engineer on the project. The Contractor will furnish the name and a telephone number where the Traffic Coordinator can be contacted at all times.

During any period when a lane closure is in place, the Traffic Coordinator will arrange for personnel to be present on the project at all times to inspect the traffic control, maintain the signing and devices, and relocate Portable Changeable Message Signs as queue lengths change. The personnel will have access on the project to a radio or telephone to be used in case of emergencies or accidents.

COORDINATION OF WORK

The Contractor is advised that other projects may be in progress within or in the near vicinity of this project. The traffic control of those projects may affect this project and the traffic control of this project may affect those projects. The Contractor will coordinate the work on this project with the work of the other contractors. In case of conflict, the Engineer will determine the relative priority to give to work phasing on the various projects.

CONTRACTOR'S AND CONTRACTOR'S EMPLOYEE'S VEHICLES

Do not use or allow employees to use median crossovers at any time except when inside lanes are closed for construction. In all other phases of construction, change vehicular direction of travel only at interchanges.

LAW ENFORCEMENT OFFICERS (LEO'S)

Police support shall be a unit consisting of an off-duty police officer from any police force agency having lawful jurisdiction and a police car equipped with externally mounted flashing blue lights. Officers may be asked to issue citations for traffic violations, but will be considered incidental to the contract unit bid price for "Law Enforcement Officer". No additional compensation will be provided. The officers will be placed at the discretion of the Engineer. Police support will be measured and paid on a per hour basis for each officer and police vehicle.

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS I-264

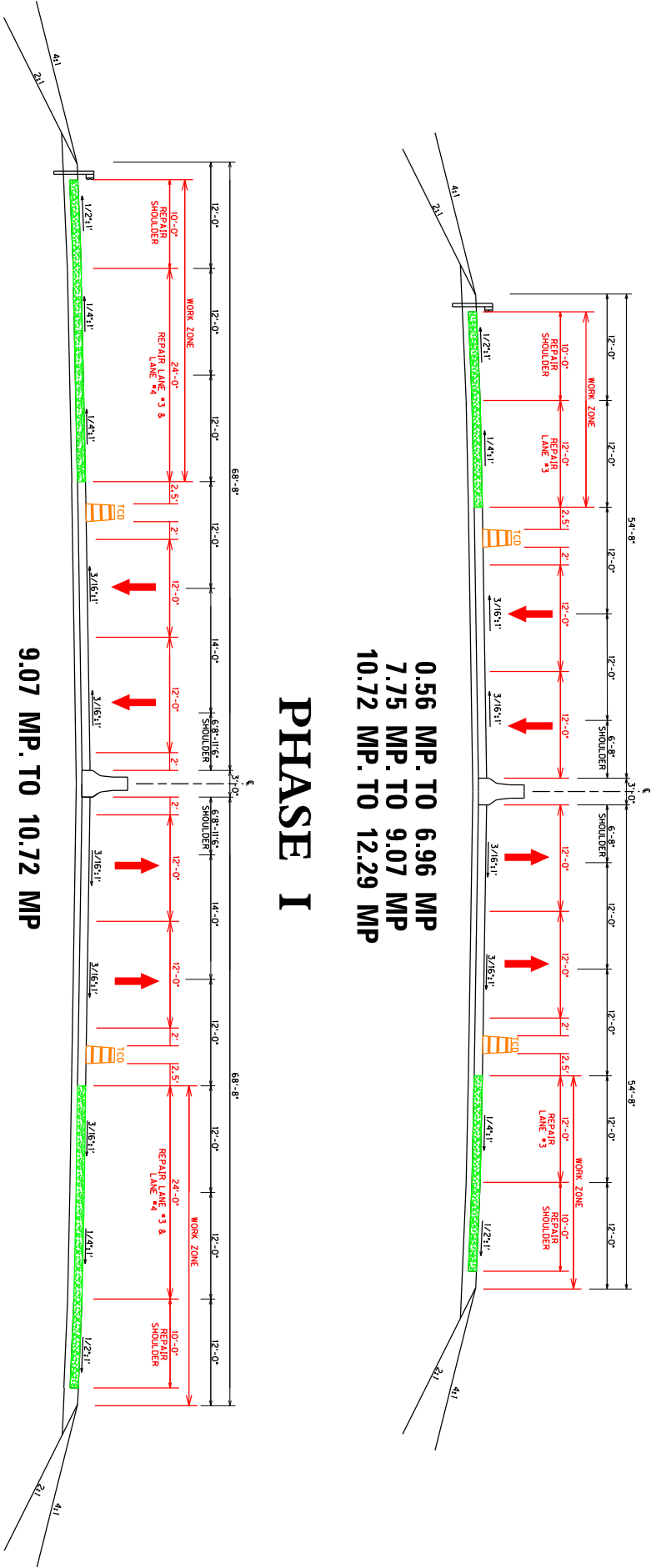
COUNTY OF	ITEM NO.
JEFFERSON	5-2005.00 5-2005.00

PHASE I

0.56 MP. TO 6.96 MP
7.75 MP. TO 9.07 MP
10.72 MP. TO 12.29 MP

PHASE I

9.07 MP. TO 10.72 MP



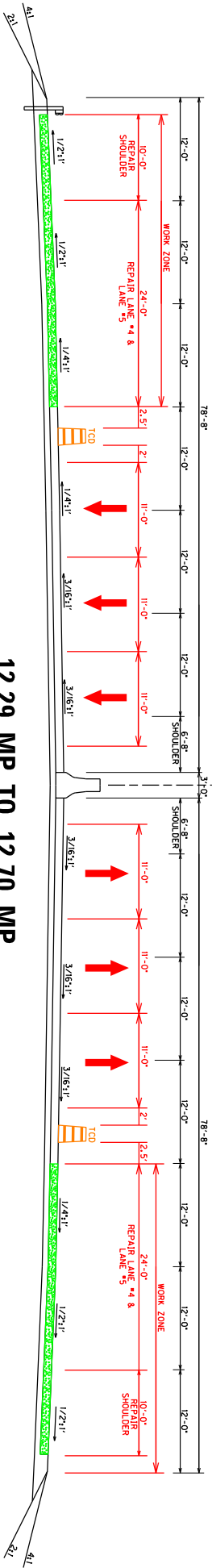
NOT TO SCALE

I-264
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
JEFFERSON	5-2005, 00 5-2008, 00

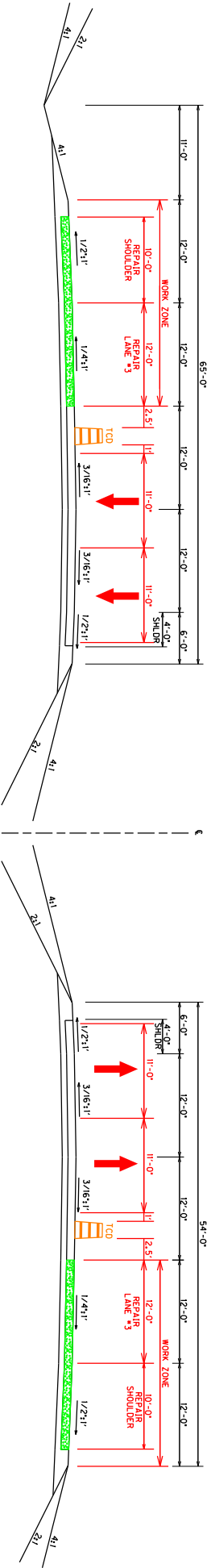
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS I-264

PHASE I



12.29 MP. TO 12.70 MP

PHASE I



6.96 MP. TO 7.77 MP

NOT TO SCALE

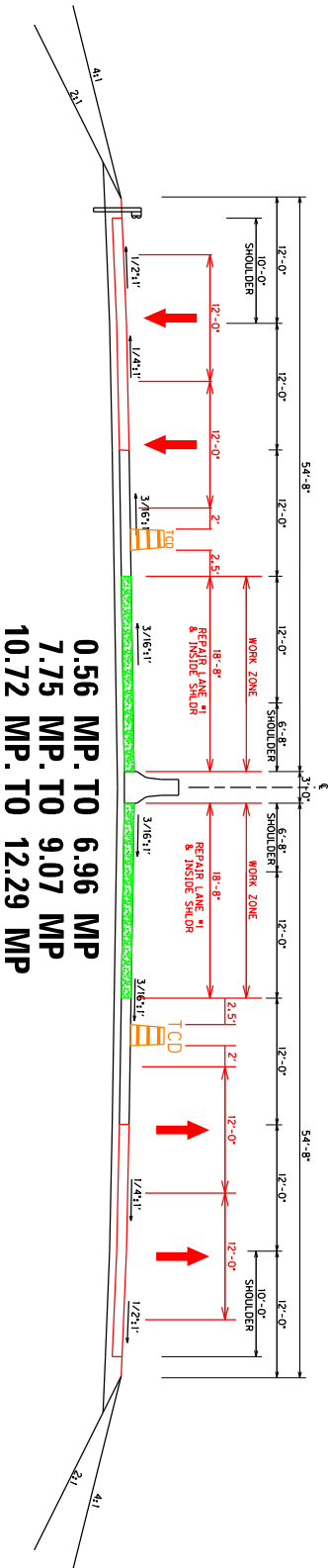
I-264
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
JEFFERSON	5.5005.00 5.5005.00

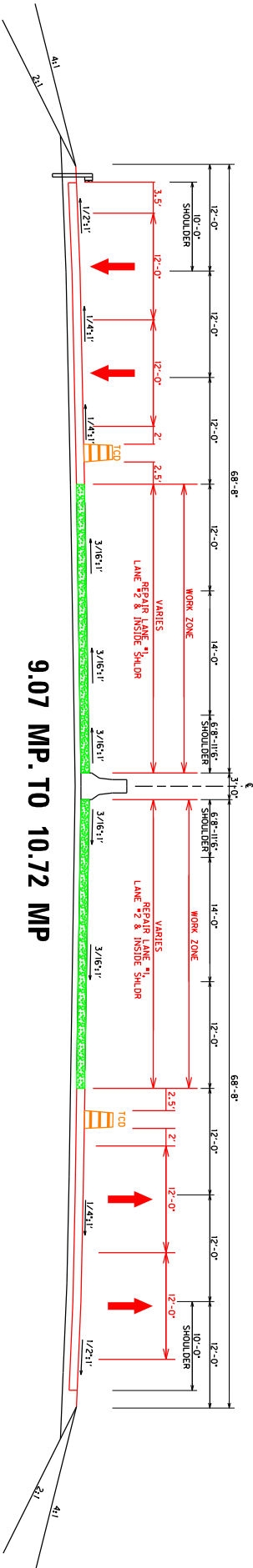
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

I-264

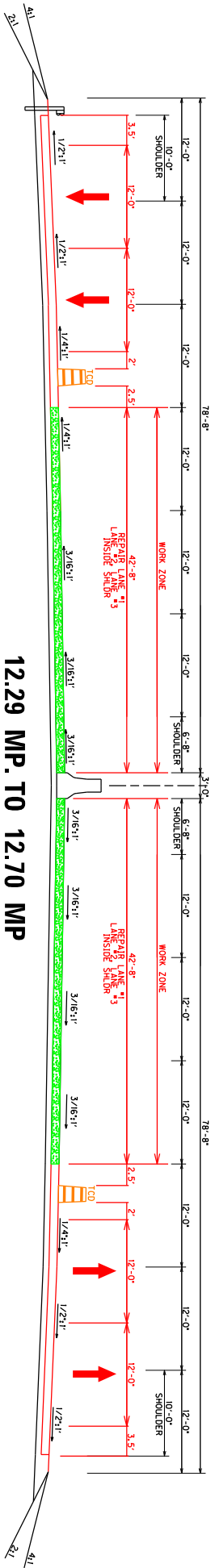
PHASE II



PHASE II



PHASE II



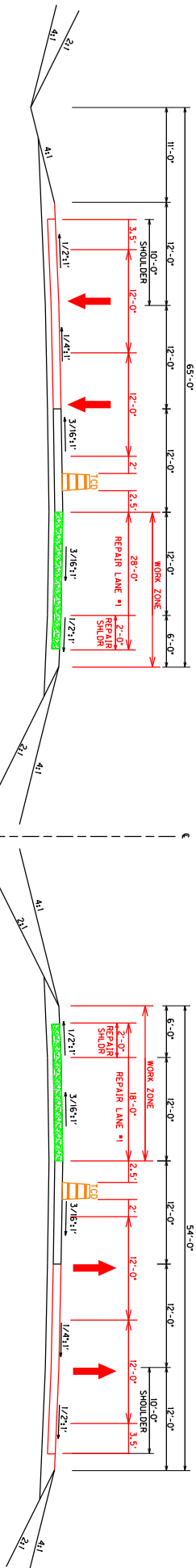
NOT TO SCALE

I-264
TYPICAL SECTIONS

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

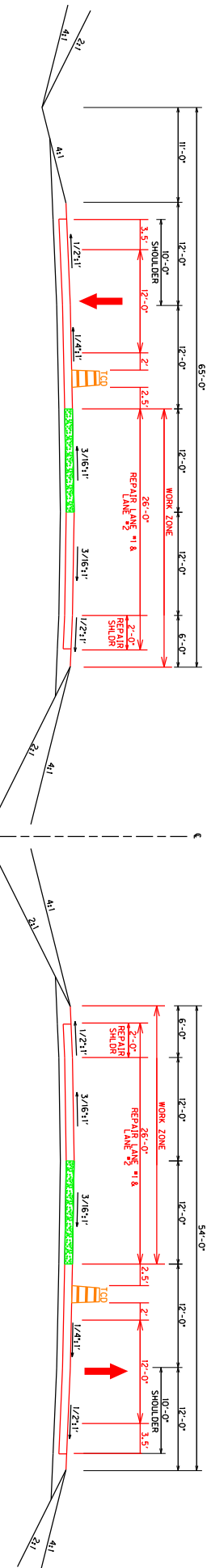
I-264

PHASE II



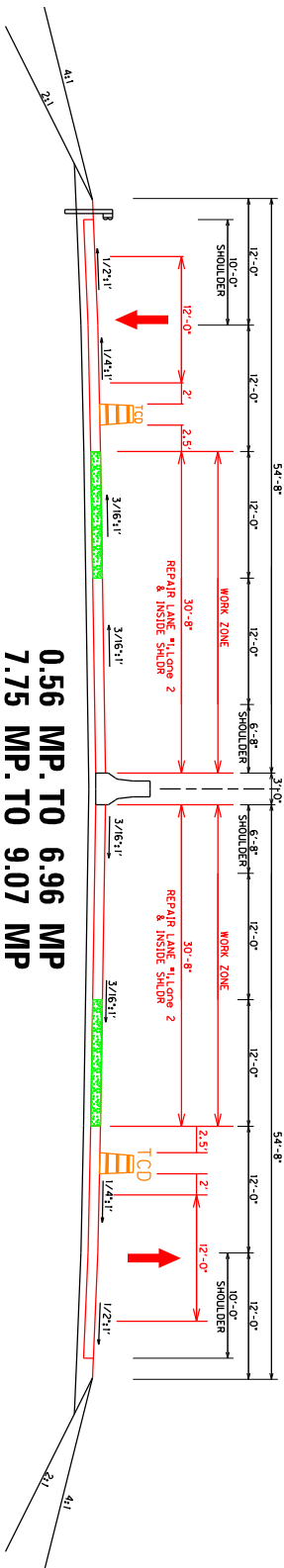
6.96 MP. T0 7.77 MP

PHASE III



6.96 MP. T0 7.77 MP

PHASE III

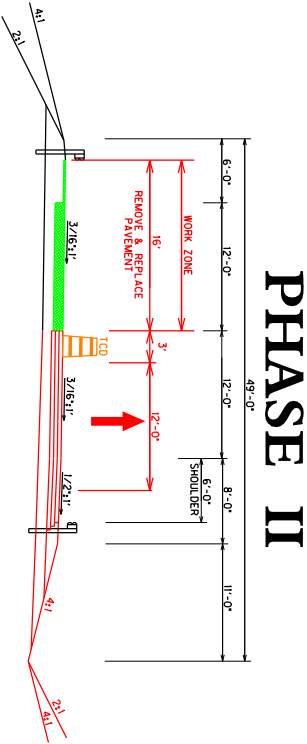
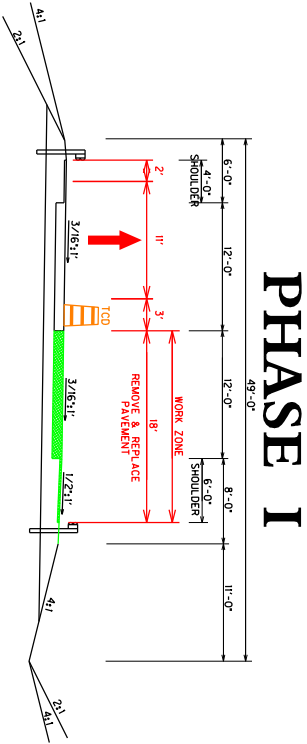


0.56	MP. TO	6.96	MP
7.75	MP. TO	9.07	MP
10.72	MP. TO	12.29	MP

NOT TO SCALE

MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS
Concrete Replacement
I-264 (M.P. 0.17 TO M.P. 0.30)

COUNTY OF	ITEM NO.
JEFFERSON	5-2005.00 5-2005.00



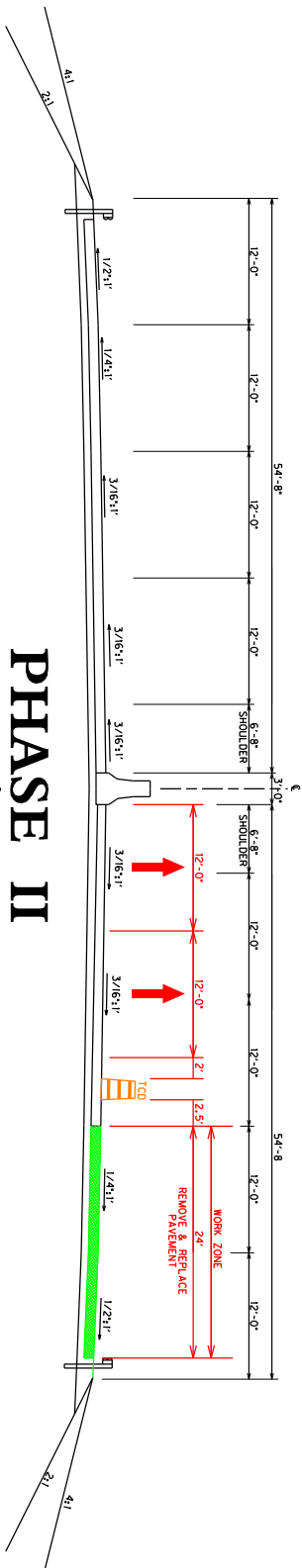
- 1.5" CL4 ASPH SURF 0.38A PG76-22
- 3" CL4 ASPH BASE 1,000 PG76-22
- 12" Crushed Agg. Size No.2
- 4" CL4 ASPH BASE 1,000 PG64-22
- 4" CL4 ASPH BASE 1,000 PG64-22
- Crushed Stone Base
- Crushed Stone Base 6"
- Fabric Geotextile Class 1
- Fabric Geotextile Class 1A

NOT TO SCALE

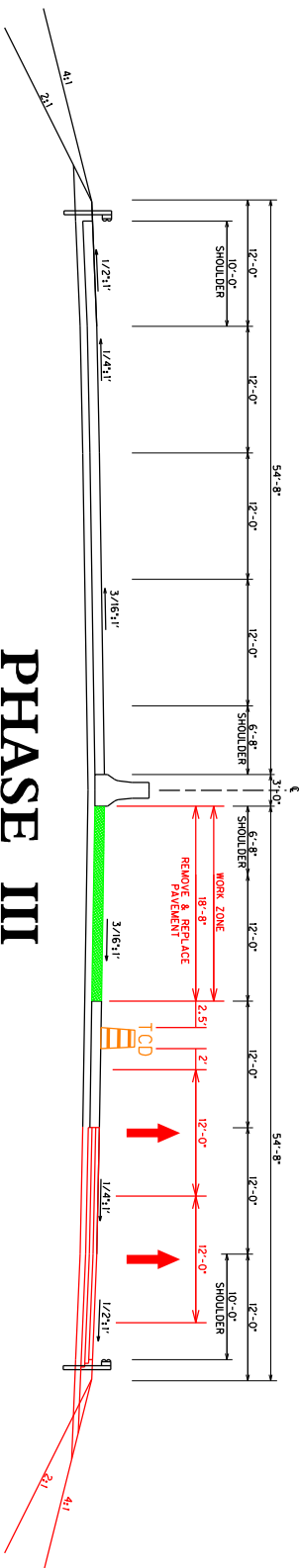
I-264
TYPICAL SECTIONS

**MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS
Concrete Replacement
I-264 (M.P. 0.30 TO M.P. 0.505)**

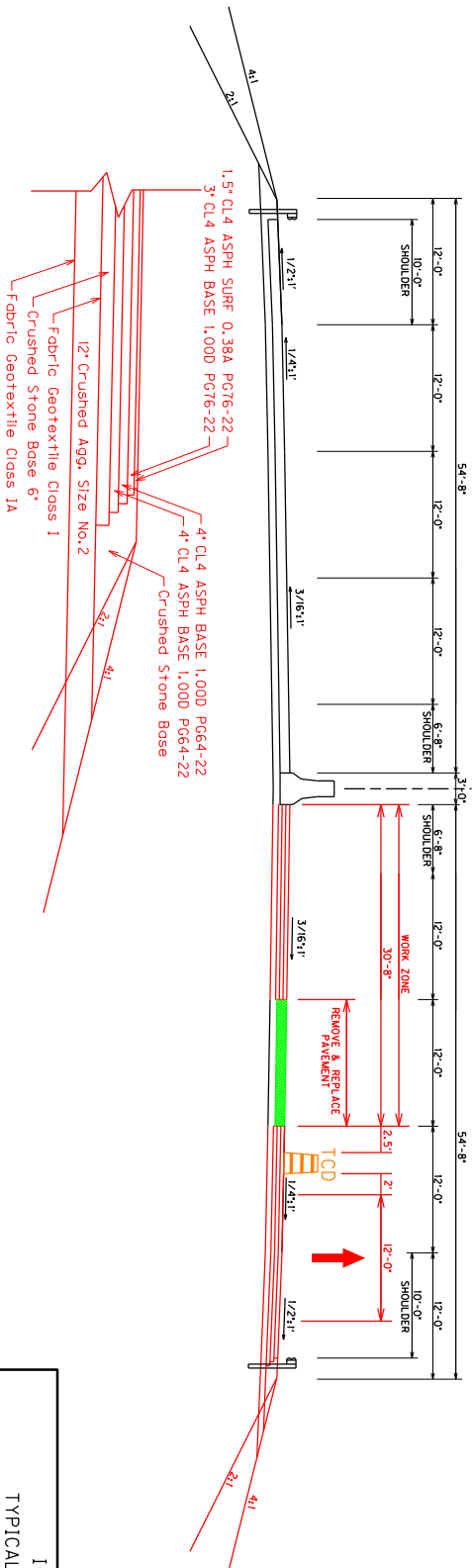
PHASE I



PHASE II



PHASE III



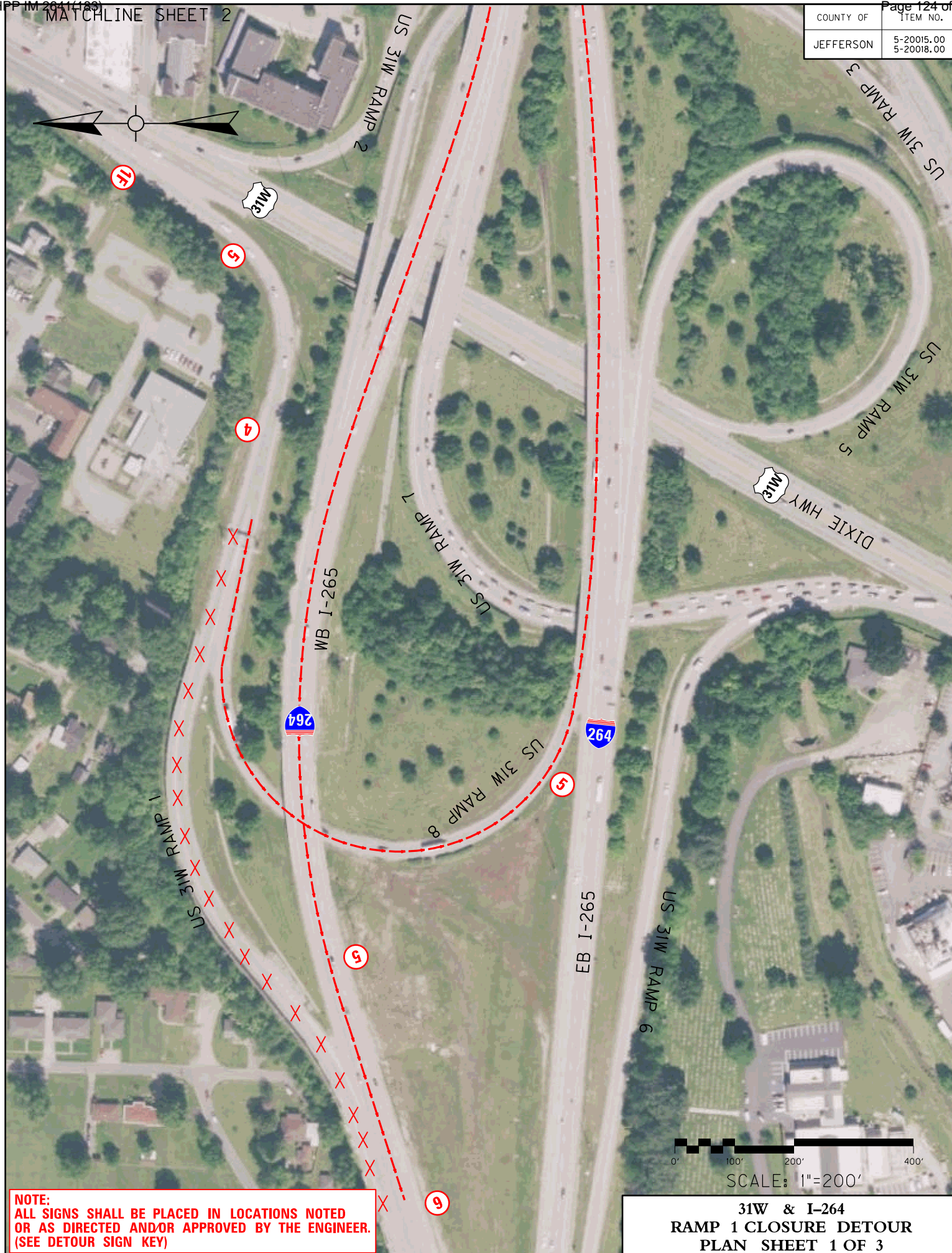
NOT TO SCALE

I-264
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

26414183)
MATCHLINE SHEET 2

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



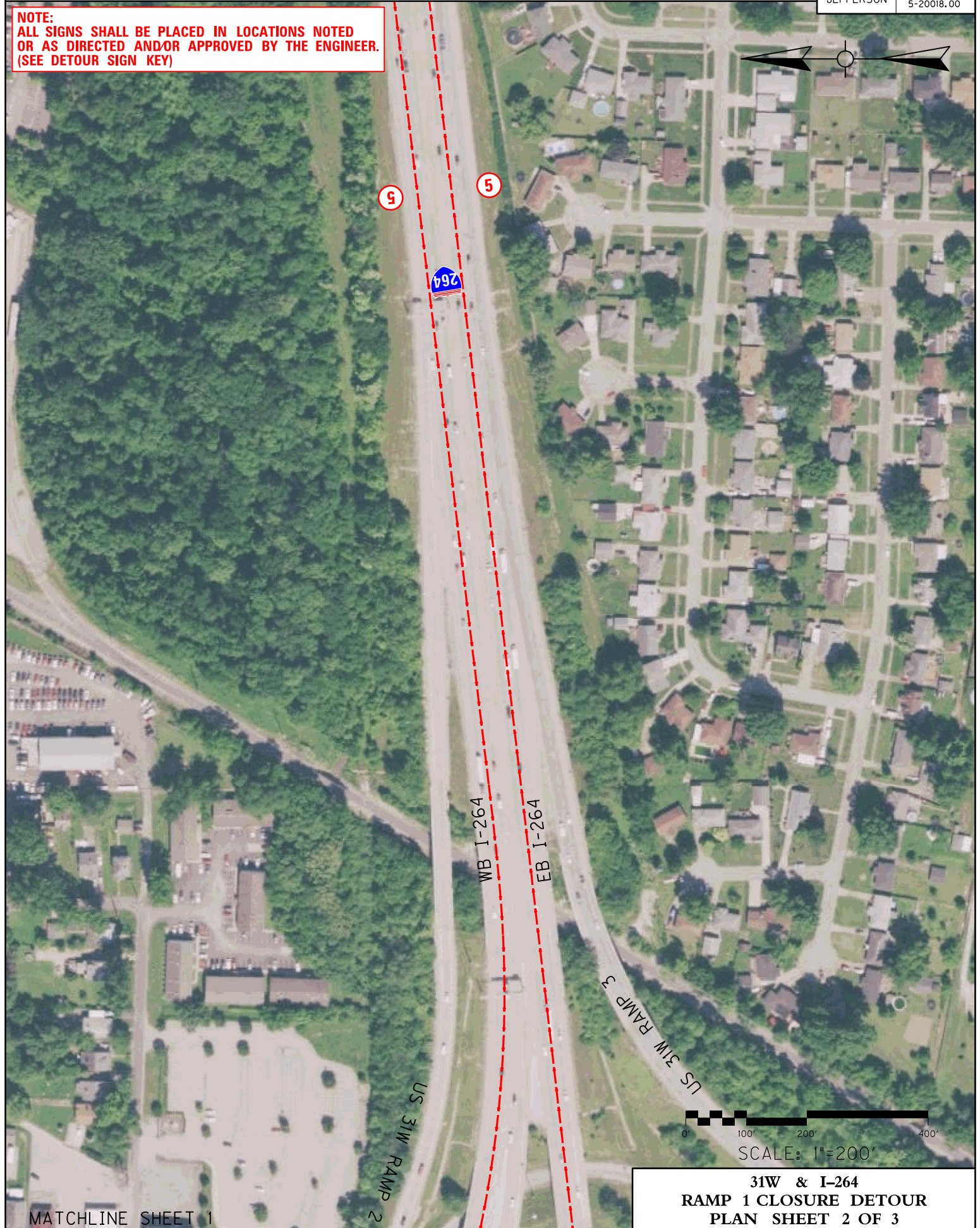
NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

31W & I-264
RAMP 1 CLOSURE DETOUR
PLAN SHEET 1 OF 3

APPROX. 4050 FT. → MATCHLINE SHEET 3

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



31W & I-264
RAMP 1 CLOSURE DETOUR
PLAN SHEET 2 OF 3

MATCHLINE SHEET 2 ←

APPROX. 4050 FT. →

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

31W & I-264
RAMP 1 CLOSURE DETOUR
PLAN SHEET 3 OF 3

MATCHLINE SHEET 2

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

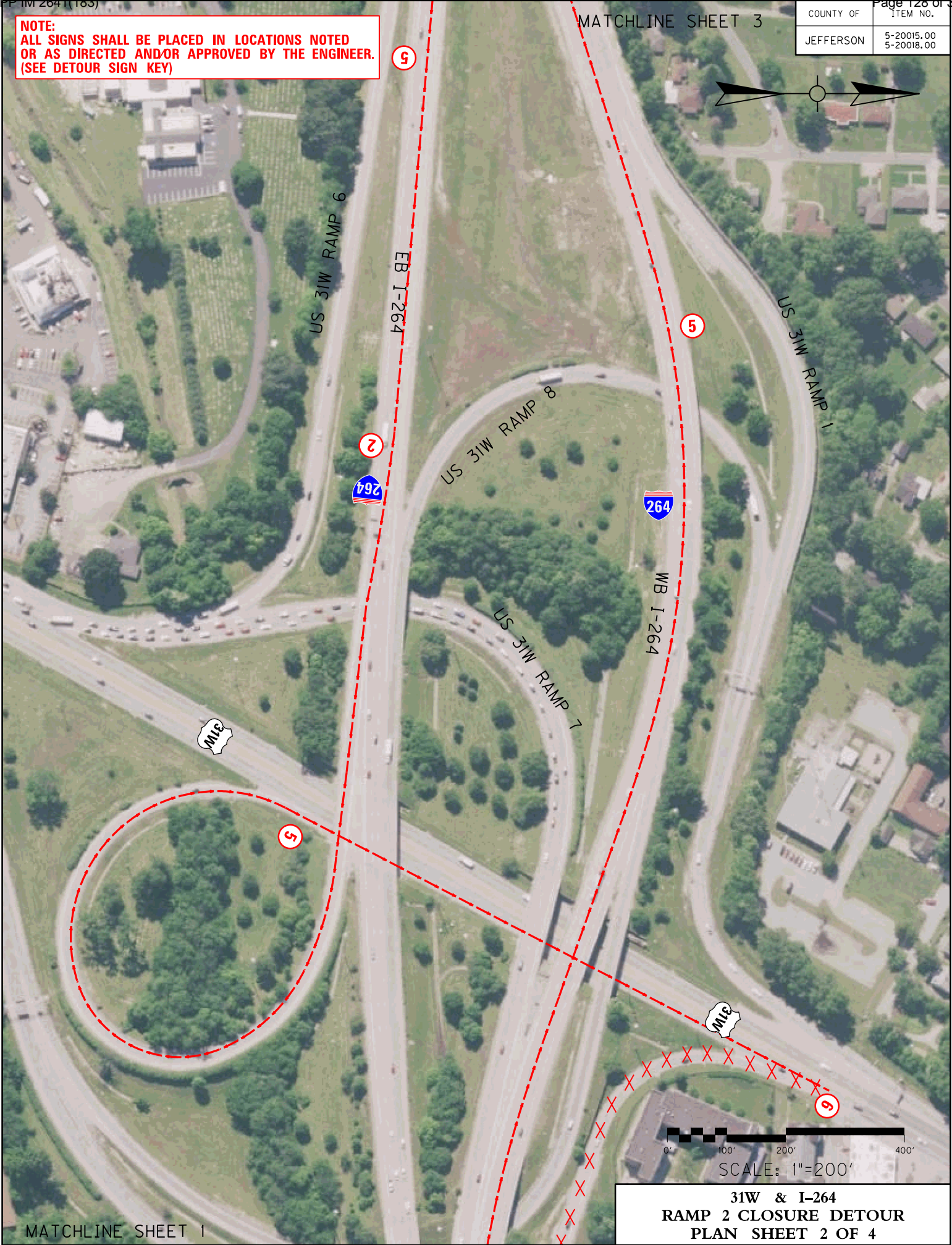


NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

31W & I-264
RAMP 2 CLOSURE DETOUR
PLAN SHEET 1 OF 4

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



SCALE: 1"=200'

31W & I-264
RAMP 2 CLOSURE DETOUR
PLAN SHEET 2 OF 4

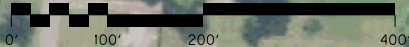
MATCHLINE SHEET 4 ← APPROX. 6800 FT. →

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



EB I-264
WB I-264



SCALE: 1"=200'

MATCHLINE SHEET 2

31W & I-264
RAMP 2 CLOSURE DETOUR
PLAN SHEET 3 OF 4

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



FARNSLEY RD

WB I-264
EB I-264

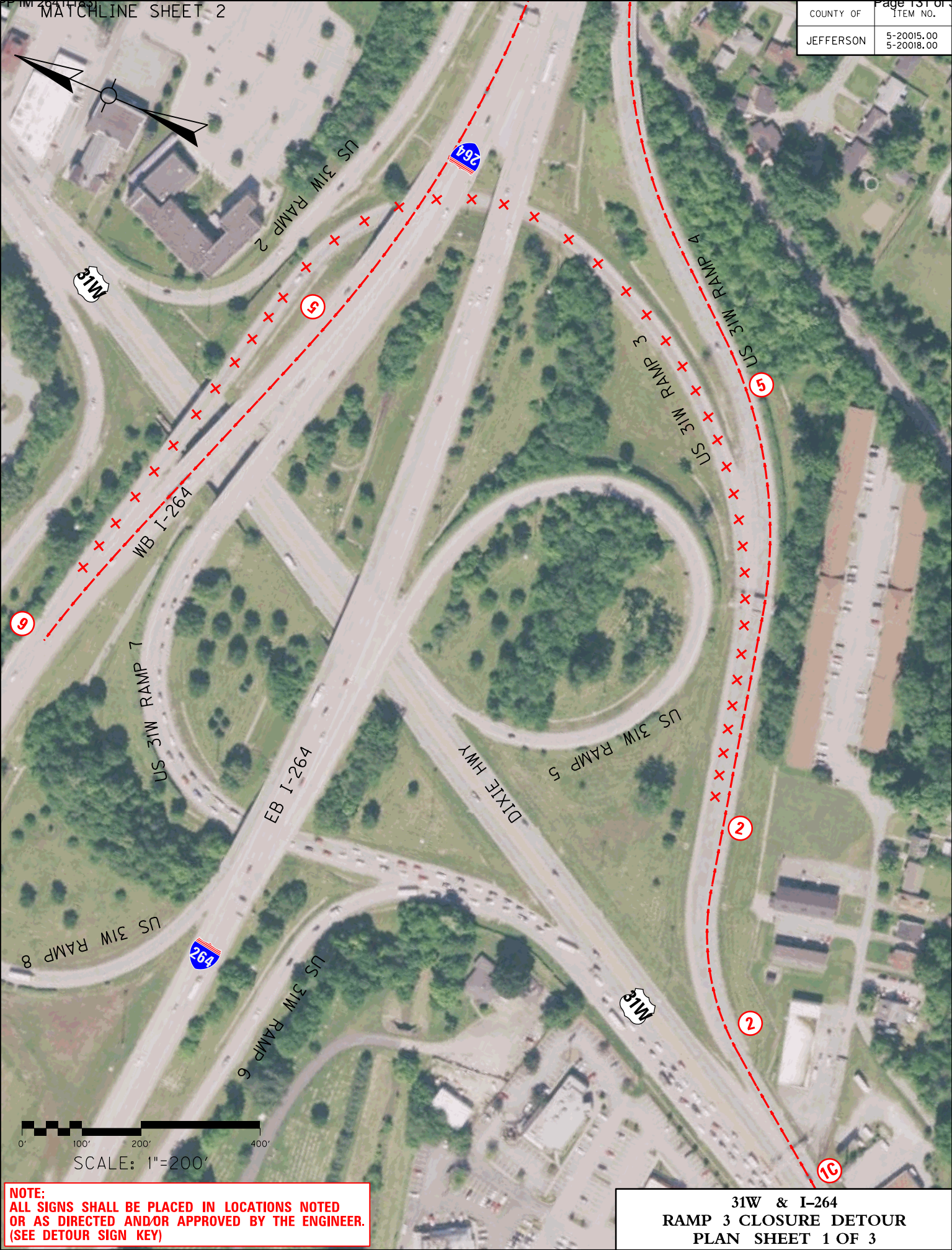
CANE RUN RD



SCALE: 1"=200'

31W & I-264
RAMP 2 CLOSURE DETOUR
PLAN SHEET 4 OF 4

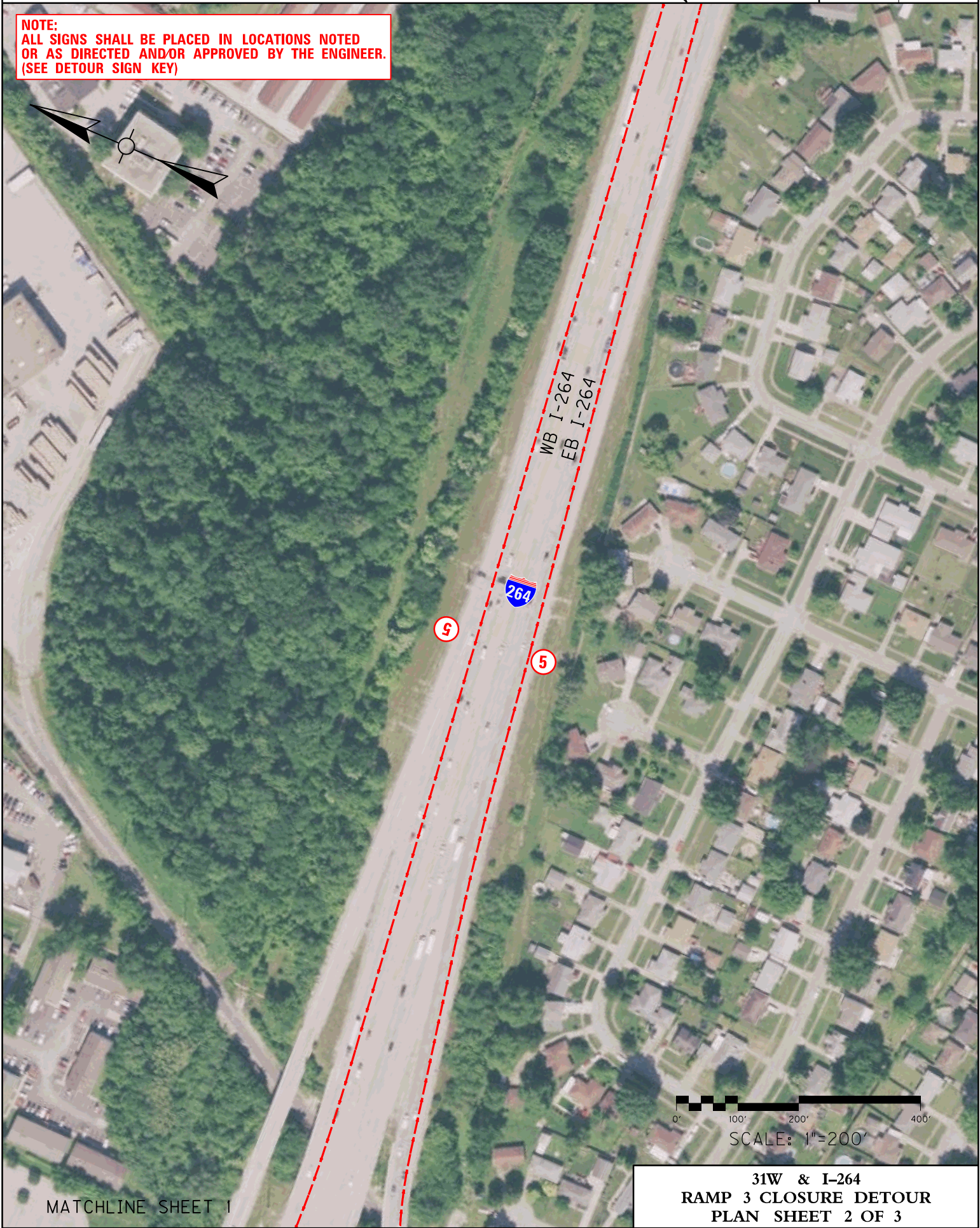
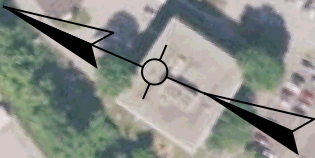
COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



MATCHLINE SHEET 3 ← APPROX. 3750 FT. →

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



MATCHLINE SHEET 1

31W & I-264
RAMP 3 CLOSURE DETOUR
PLAN SHEET 2 OF 3

MATCHLINE SHEET 2 ← APPROX. 3750 FT. →

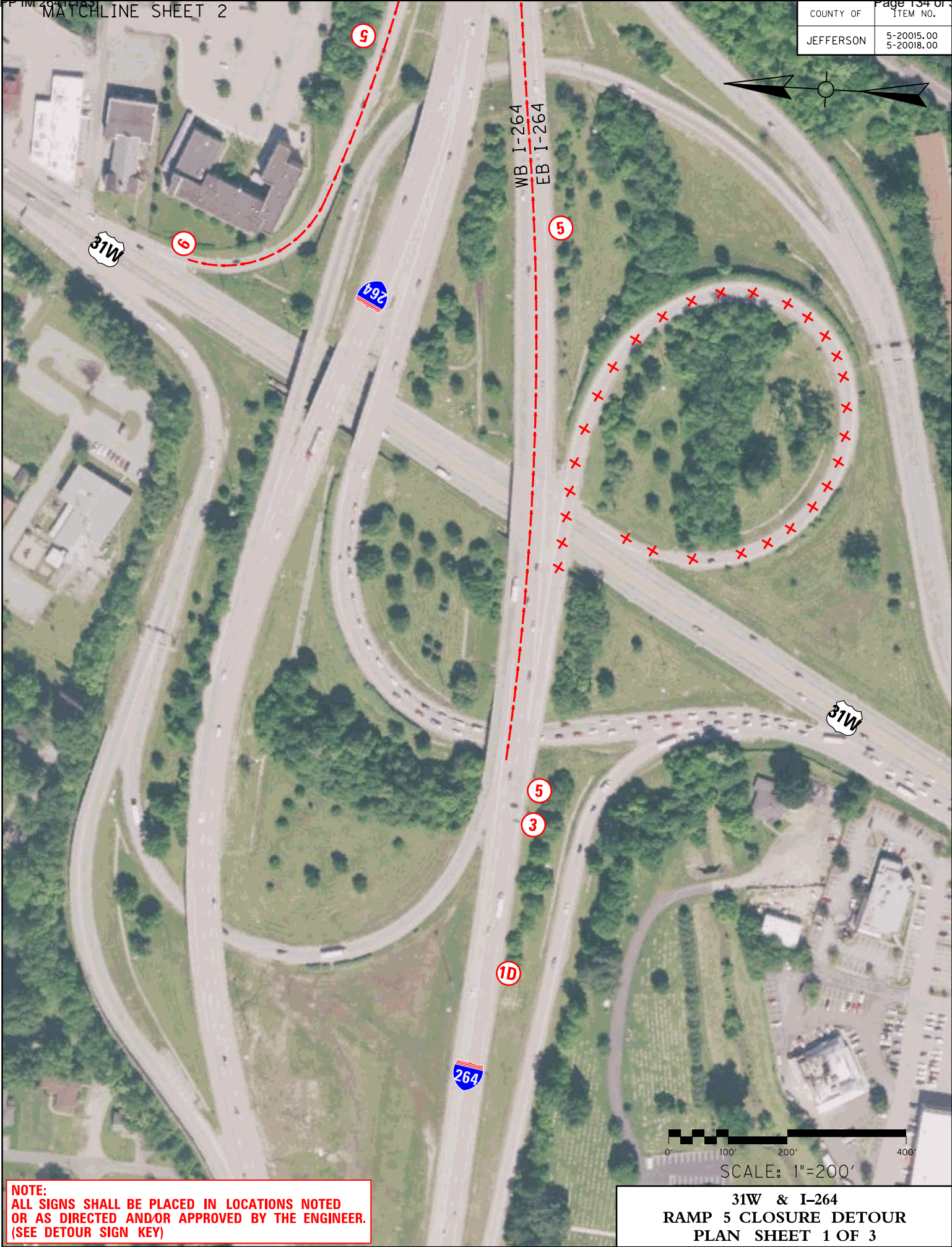
COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



MATCHLINE SHEET 2

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

0' 100' 200' 400'

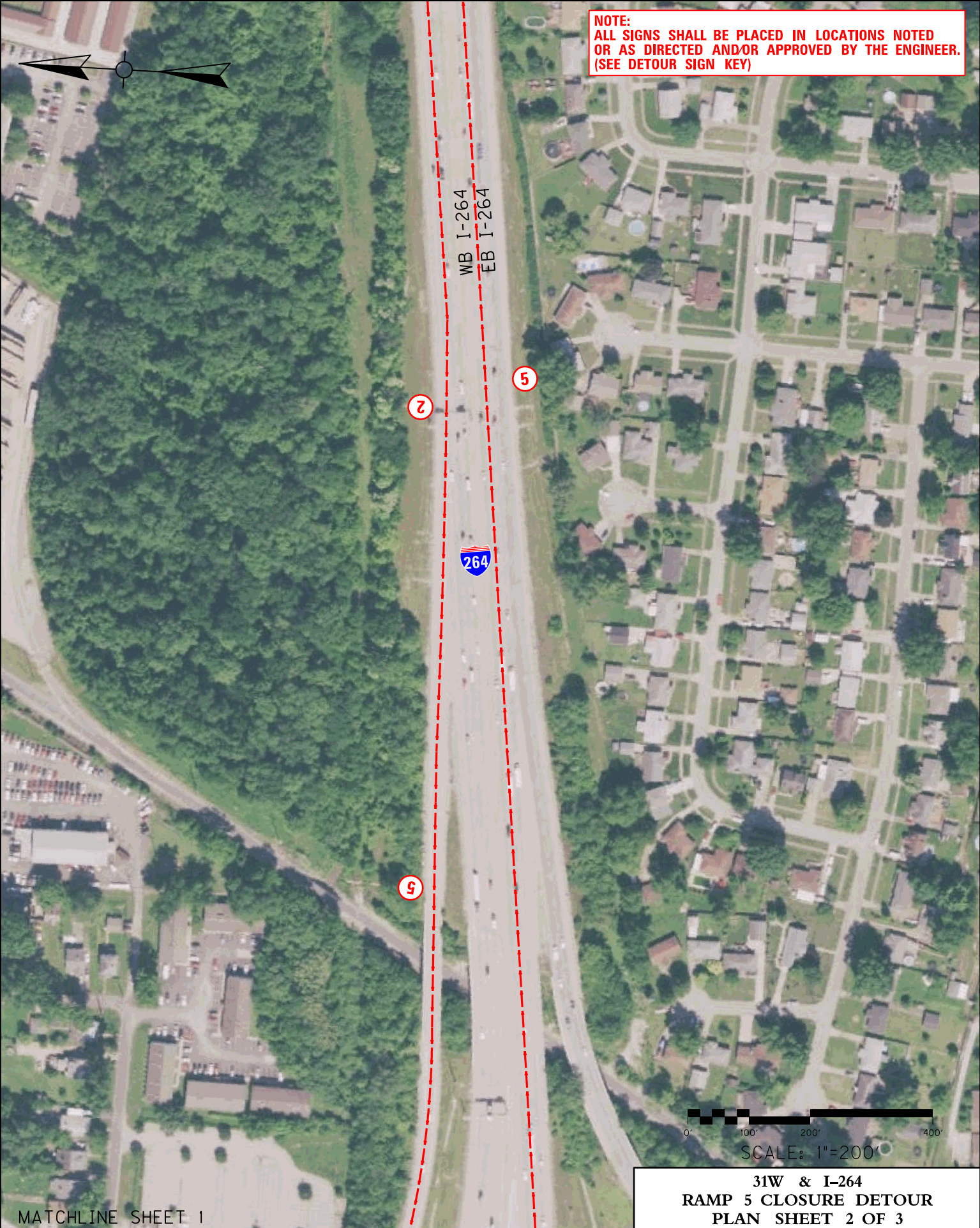
SCALE: 1"=200'

31W & I-264
RAMP 5 CLOSURE DETOUR
PLAN SHEET 1 OF 3

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

MATCHLINE SHEET 3 ← APPROX. 4000 FT. →

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



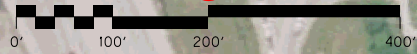
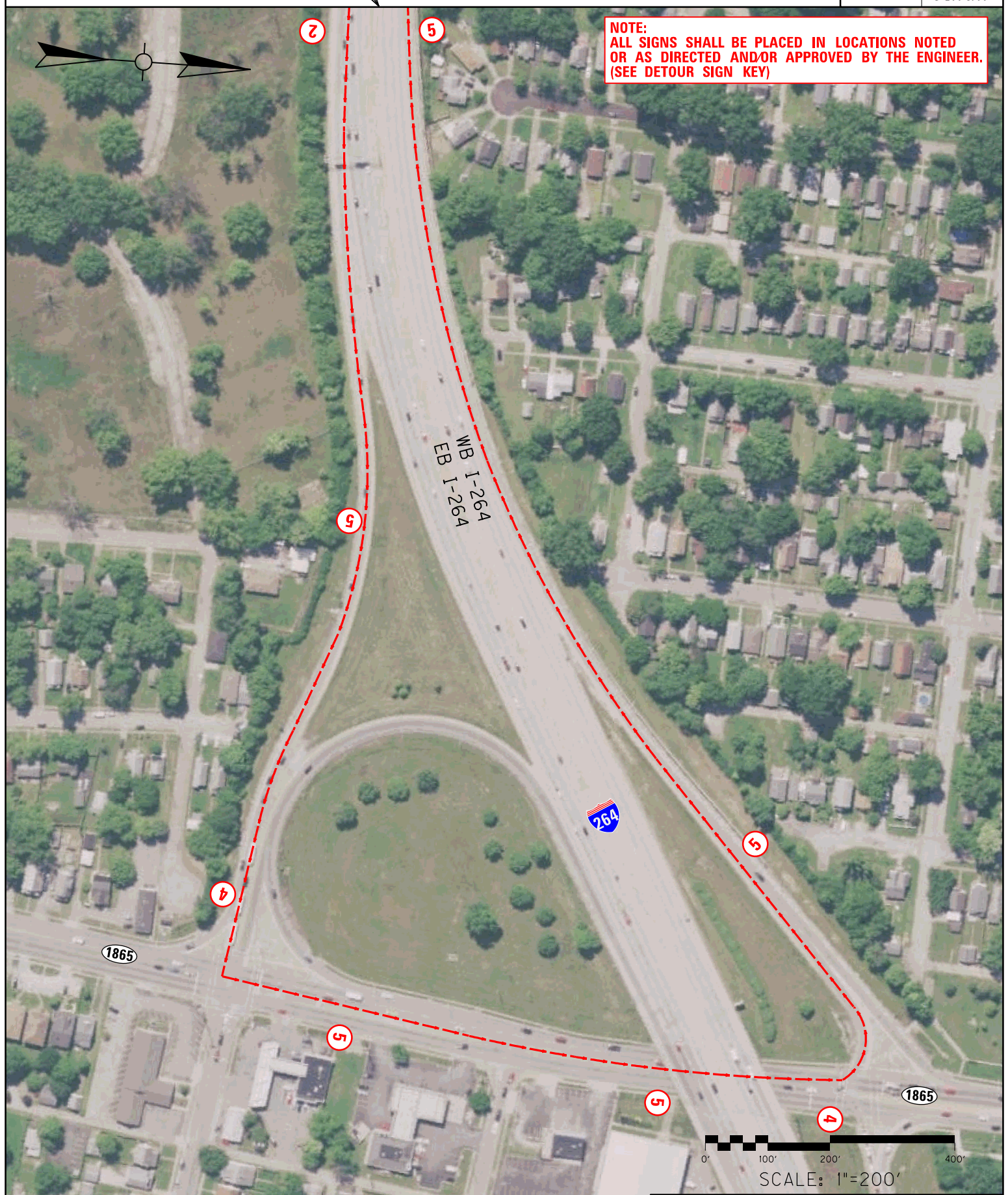
MATCHLINE SHEET 1

31W & I-264
RAMP 5 CLOSURE DETOUR
PLAN SHEET 2 OF 3

MATCHLINE SHEET 2 ← APPROX. 4000 FT. →

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

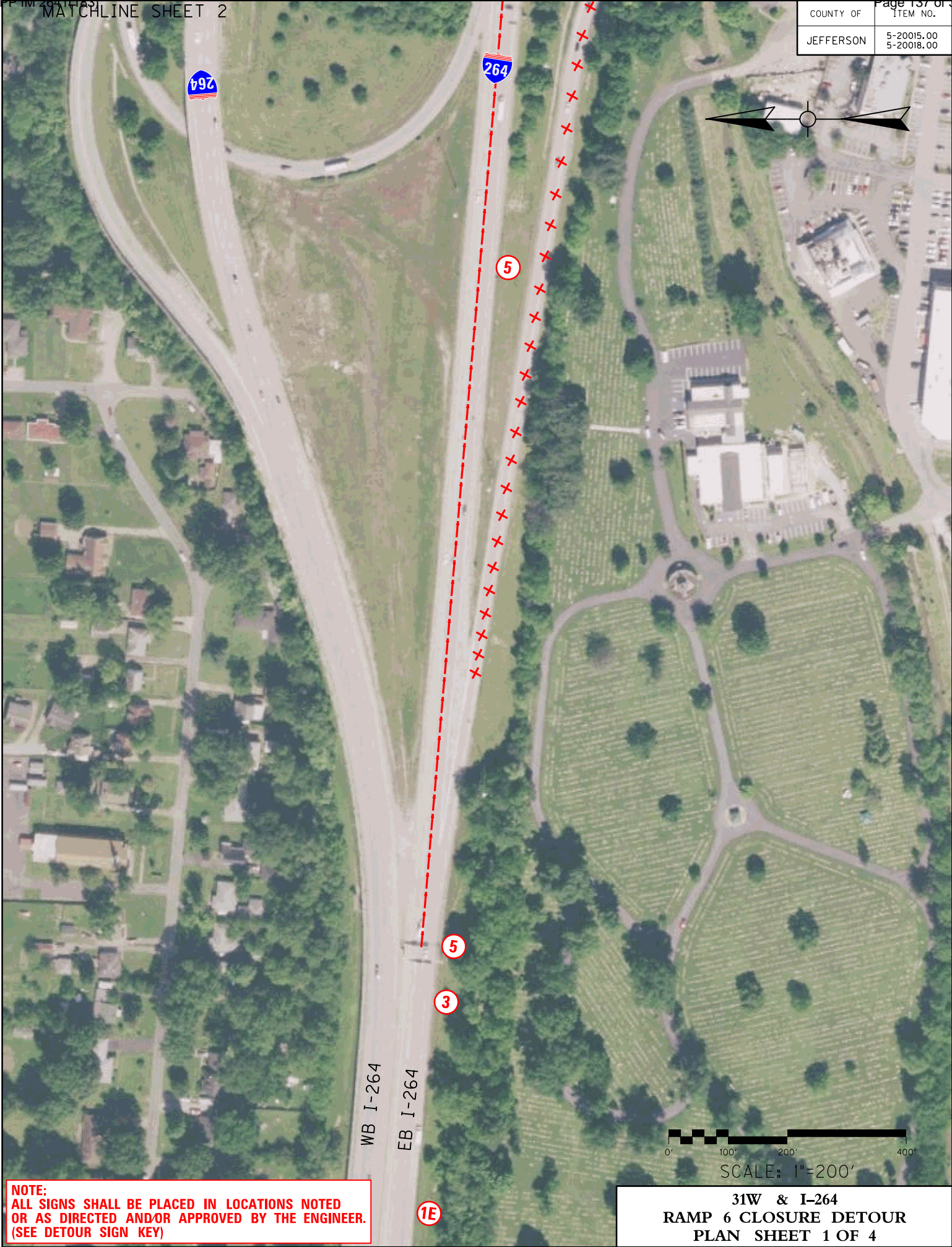


SCALE: 1"=200'

31W & I-264
RAMP 5 CLOSURE DETOUR
PLAN SHEET 3 OF 3

MATCHLINE SHEET 2

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



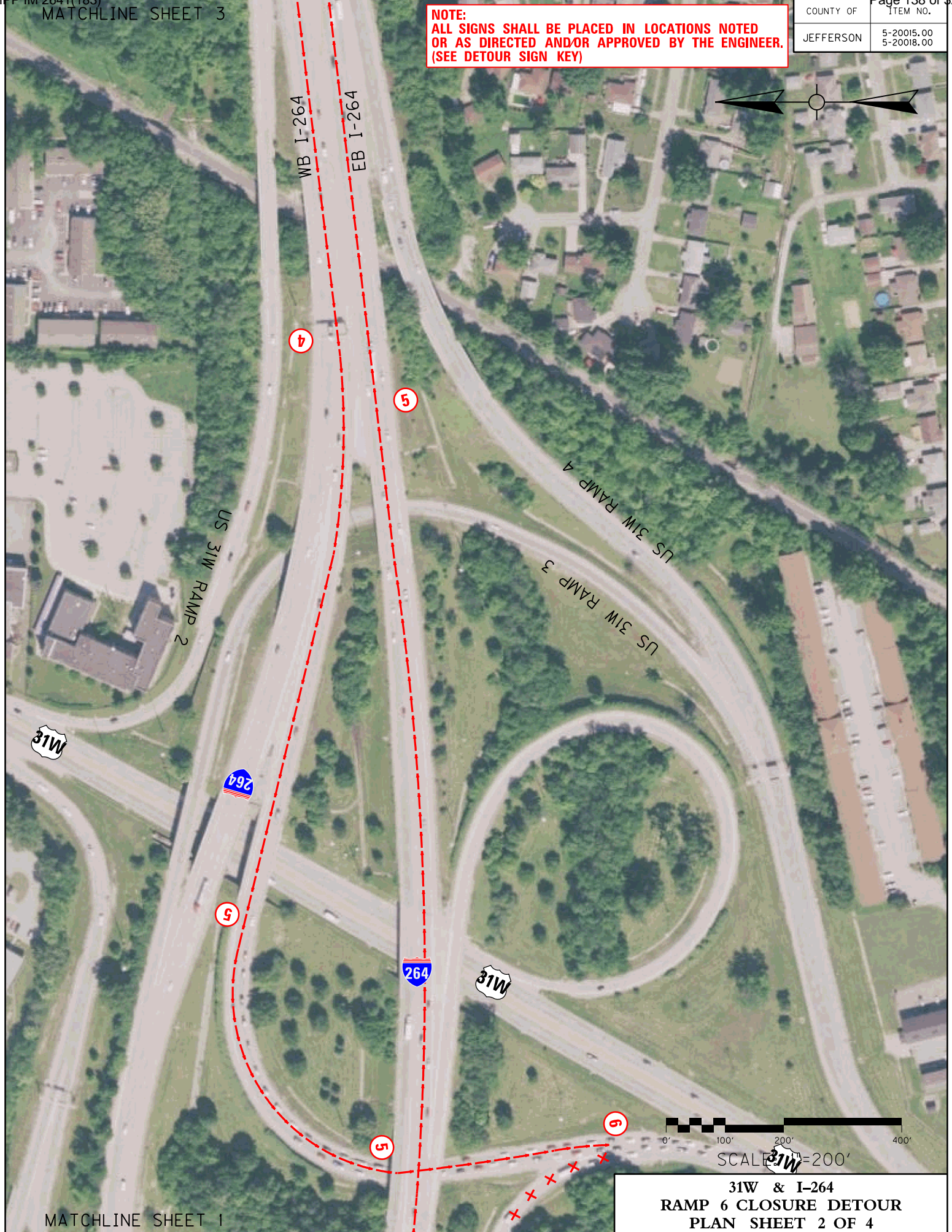
NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

31W & I-264
RAMP 6 CLOSURE DETOUR
PLAN SHEET 1 OF 4

MATCHLINE SHEET 3

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



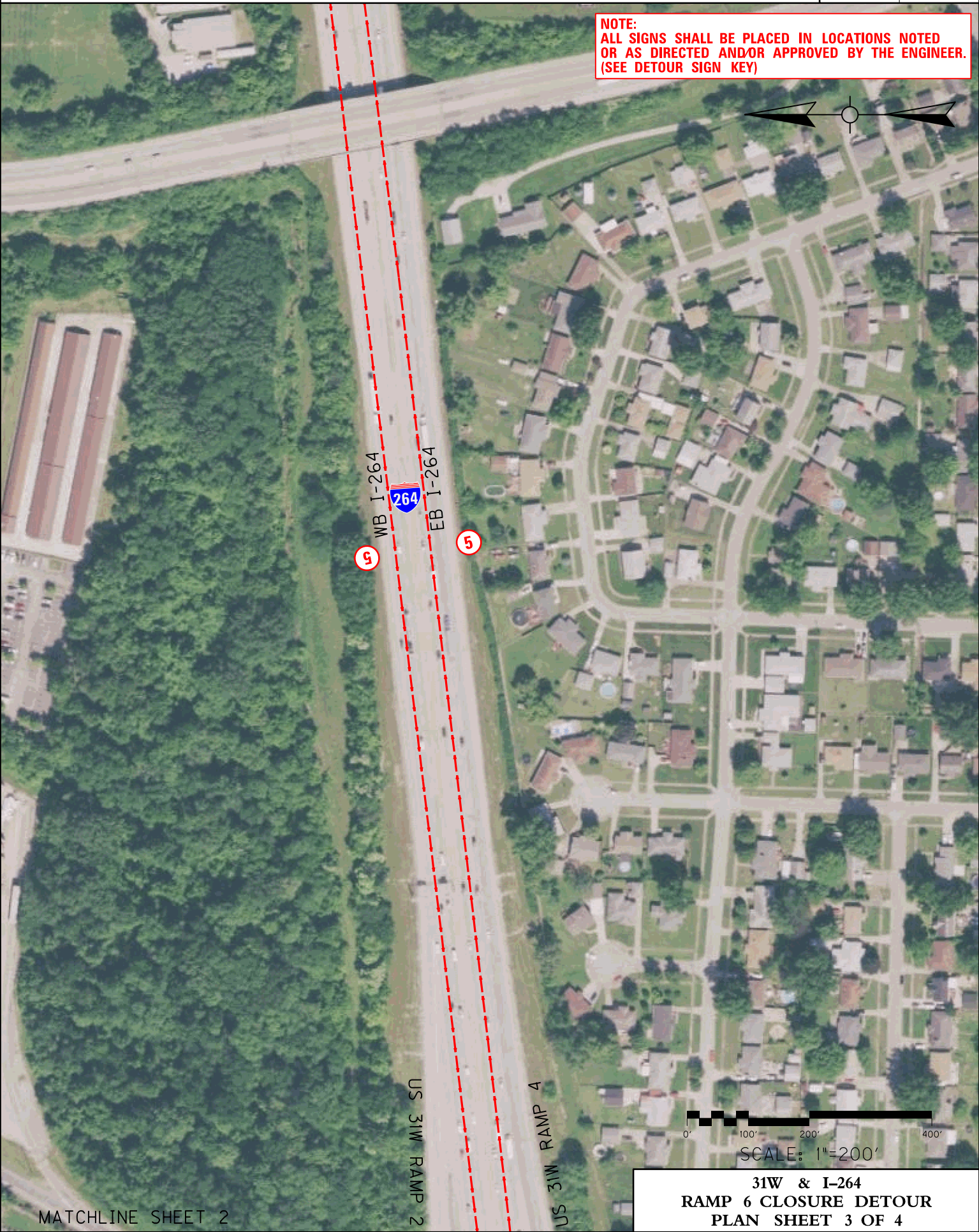
MATCHLINE SHEET 1

31W & I-264
RAMP 6 CLOSURE DETOUR
PLAN SHEET 2 OF 4

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

APPROX. 3200 FT. MATCHLINE SHEET 4

NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

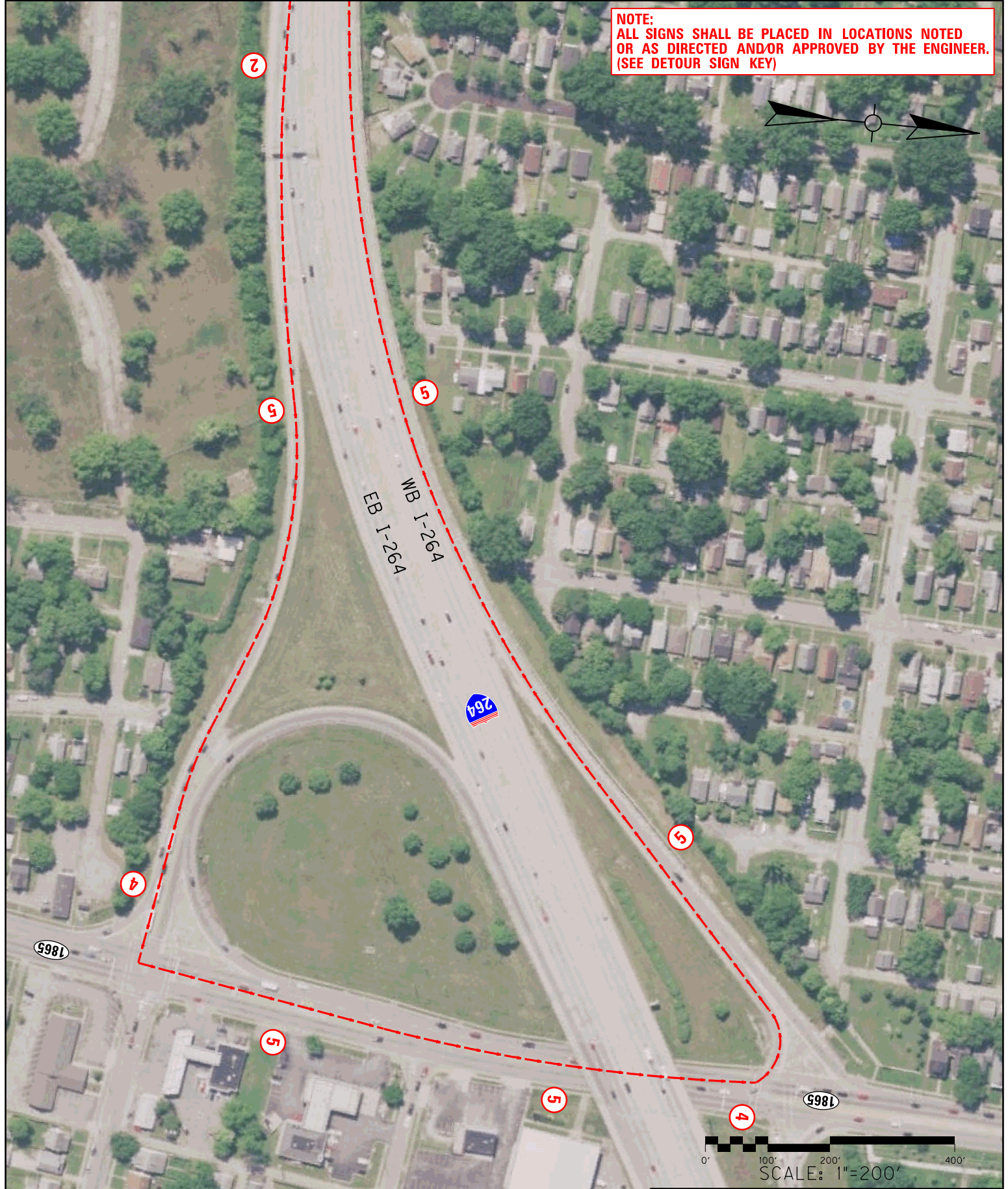


31W & I-264
RAMP 6 CLOSURE DETOUR
PLAN SHEET 3 OF 4

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

APPROX. 3200 FT. MATCHLINE SHEET 3

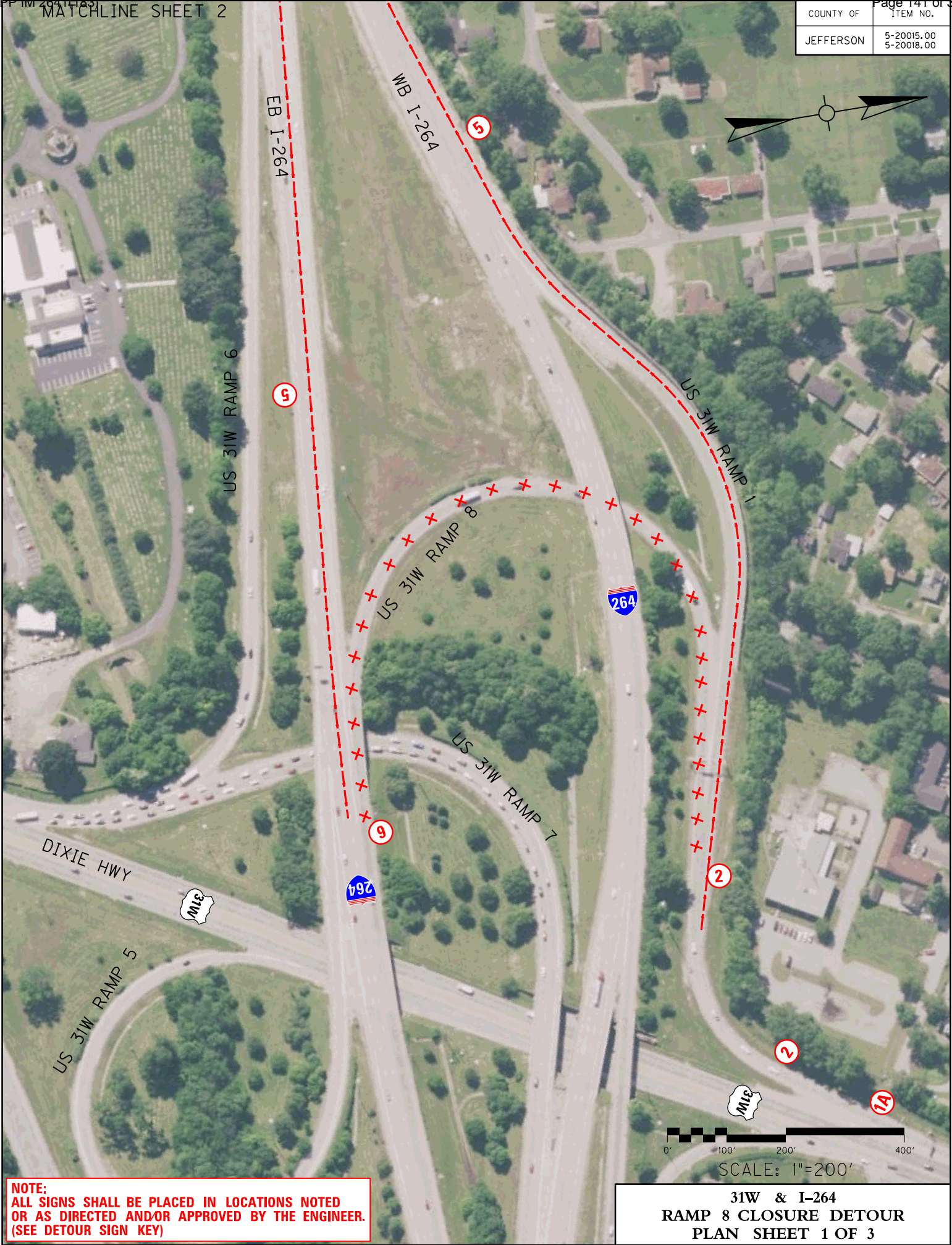
NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)



31W & I-264
RAMP 6 CLOSURE DETOUR
PLAN SHEET 4 OF 4

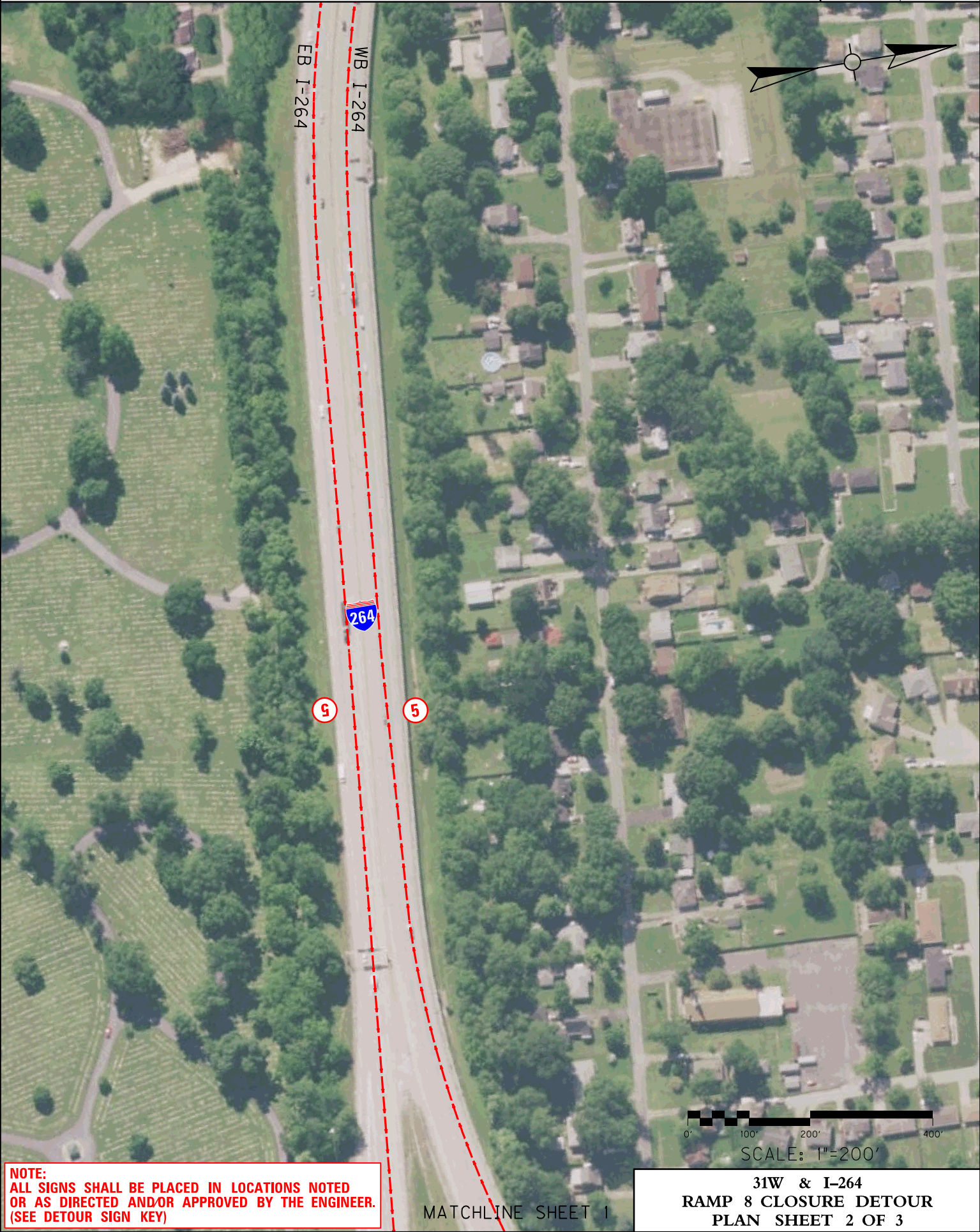
MATCHLINE SHEET 2

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

APPROX. 6550 FT. MATCHLINE SHEET 3



MATCHLINE SHEET 2 ← APPROX. 6550 FT. →

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00



NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED
OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER.
(SEE DETOUR SIGN KEY)

31W & I-264
RAMP 8 CLOSURE DETOUR
PLAN SHEET 3 OF 3

COUNTY OF	ITEM NO.
JEFFERSON	5-20015.00 5-20018.00

DETOUR SIGNS KEY

PORTABLE CHANGEABLE MESSAGE SIGNS

1A SB 31W
TO EB 1-264
CLOSED
FOLLOW
DETOUR

1B WB 1-264
TO NB 31W
CLOSED
FOLLOW
DETOUR

1C NB 31W
TO WB 1-264
CLOSED
FOLLOW
DETOUR

1D EB 1-264
TO NB 31W
CLOSED
FOLLOW
DETOUR

1E EB 1-264
TO SB 31W
CLOSED
FOLLOW
DETOUR

1F SB 31W
TO WB 1-264
CLOSED
FOLLOW
DETOUR

2
M4-9
DETOUR
[Right Arrow]

4
M4-9
DETOUR
[Left Arrow]

6
M4-8A
END
DETOUR

3
ES-2A
EXIT
CLOSED

5
M4-9
DETOUR
[Down Arrow]

REFERENCES

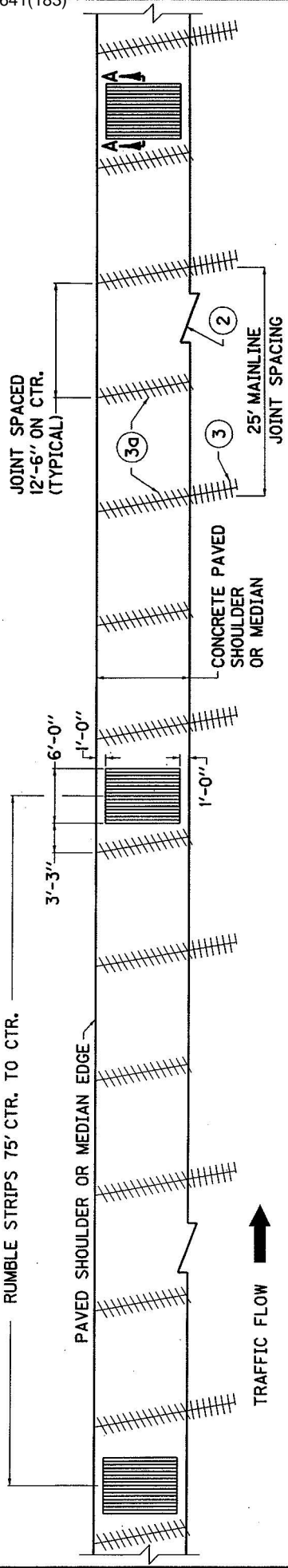
- 1. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019.
- 2. FHWA Manual on Uniform Traffic Control Devices (MUTCD), latest edition.
- 3. Active Sepia Drawings
 - Sepia 1 Treatment of Open Sinkholes
 - Sepia 5 Shoulder and Edge line Rumble Strip Details
 - Sepia 8 Rumble Strip Details Multi-Lane Roadways and Ramps
 - Sepia 12 Guardrail Transition from Normal Shoulder to Narrow Bridge
 - Sepia 13 Guardrail Connector to Bridge End Type A and A-1 Components
 - Sepia 15 Guardrail Connector to Bridge End Type A
 - Sepia 16 Guardrail Connector to Bridge End Type A-1
 - Sepia 17 Guardrail Connector to Concrete Median Barrier End
 - Sepia 21 Crash Cushion Type VI-BT
 - Sepia 24 Typical Guardrail Installations
 - Sepia 25 Installation of Guardrail End Treatment Type 1
 - Sepia 26 Concrete Median Barrier Fixed-Form or Slip-Form
 - Sepia 27 Steel Beam Guardrail “W” Beam
 - Sepia 28 Steel Guardrail Posts
 - Sepia 29 Guardrail End Treatment Type 1
 - Sepia 30 Guardrail End Treatment Type 4A
 - Sepia 32 Delineators for Guardrail
 - Sepia 37 Guardrail and Bridge End Drainage for Single Structures
 - Sepia 38 Guardrail End Treatment Type 2A
 - Sepia 39 Typical Entrance Ramp Markings
 - Sepia 40 Typical Exit Ramp Markings
 - Sepia 41 Typical Exit Ramp Markings
 - Sepia 45 Typical Markings for Gore Areas
 - Sepia 46 Typical Markings for Islands and Medians
 - Sepia 60 Curb and Gutter, Curbs and Valley Gutter
- 4. Kentucky Department of Highways Standard Drawings, current editions, as applicable:
 - RBC-002 Guardrail Connector to Bridge End Type A Components
 - RBI-001 Typical Guardrail Installations
 - RBI-002 Typical Guardrail Installations
 - RBI-006 Guardrail Installation at Sign Supports
 - RBM-020 Delineators for Concrete Barriers
 - RBR-005 Guardrail Components
 - RBR-015 Steel Guardrail Posts
 - RBR-055 Delineators for Guardrail
 - RDD-040 Channel Lining Class II and III

TDI-040	Erosion Control Blanket Slope Installation
TDI-041	Erosion Control Blanket Channel Installation
RDP-001	Perforated Pipe Types and Cover Heights
RDP-005	Perforated Pipe for Subgrade Drainage on Two-Lane and Multi-Lane Roads
RDP-010	Perforated Pipe Headwalls
RDX-050	Subgrade Drainage Concrete Pavement
RDX-210	Temporary Silt Fence
RDX-225	Silt Trap Type B
RGS-001	Curve Widening and Superelevation Transitions
RGS-002	Superelevation for Multilane Pavement
RGX-001	Miscellaneous Standards Part I
RGX-200	One Point Procter Family of Curves
RPM-145	Rumble Strips Type 3
RPN-001*	Jointed Plain Concrete Pavement for Shoulders and Medians
RPN-010	Pavement Transitions & Joint Details for Jointed Plain Concrete Pavement at Bridge Ends
RPN-015*	Jointed Plain Concrete Pavement
RPN-020	Concrete Pavement Joints Types and Spacing
RPS-010	Concrete Pavement Joint Details
RPS-020*	Expansion and Contraction Joint Load Transfer Assemblies
RPS-030*	Concrete Pavement Joints Types and Spacing
RPS-031	Concrete Pavement Joints Types and Spacing
RPS-035	Concrete Pavement Joints Types and Spacing
RPS-036	Concrete Pavement Joints Types and Spacing
RPS-037	Concrete Pavement Joints Types and Spacing
RPS-038	Concrete Pavement Joints Types and Spacing
RPS-039	Concrete Pavement Joints Types and Spacing
RPX-001	Station Markings Concrete Pavement
RPX-010	Preformed Compression Joint Seal for Concrete Pavement
RPX-015	Hot-Poured Elastic Joint Seals for Concrete Pavement
RPX-020	Silicone Rubber Seals for Concrete Pavement
TPM-105	Pavement Marker Arrangements Multi-Lane Roadways
TPM-125	Pavement Marker Arrangement Exit Gore and Off-Ramp
TPM-126	Pavement Marker Arrangement For Parallel Deceleration Lane
TPM-130	Pavement Marker Arrangement On-Ramp with Tapered Acceleration Lane
TPM-135	Pavement Marker Arrangement On-Ramp with Parallel Acceleration Lane
TPM-170	Flexible Delineator Post Arrangements for Horizontal Curves
TPM-171	Flexible Delineator Post Arrangements for Inter. Ramps and Crossovers
TTC-115	Lane Closure Multi-Lane Highway Case I
TTC-120	Lane Closure Multi-Lane Highway Case II
TTC-125	Double Lane Closure
TTC-135	Shoulder Closure
TTC-155	Temporary Pavement Marker Arrangements for Construction Zones
TTC-160	Temporary Pavement Marker Arrangements for Lane Closures
TTD-120	Double Fines Zone Signs
TTD-125	Pavement Condition Warning Signs

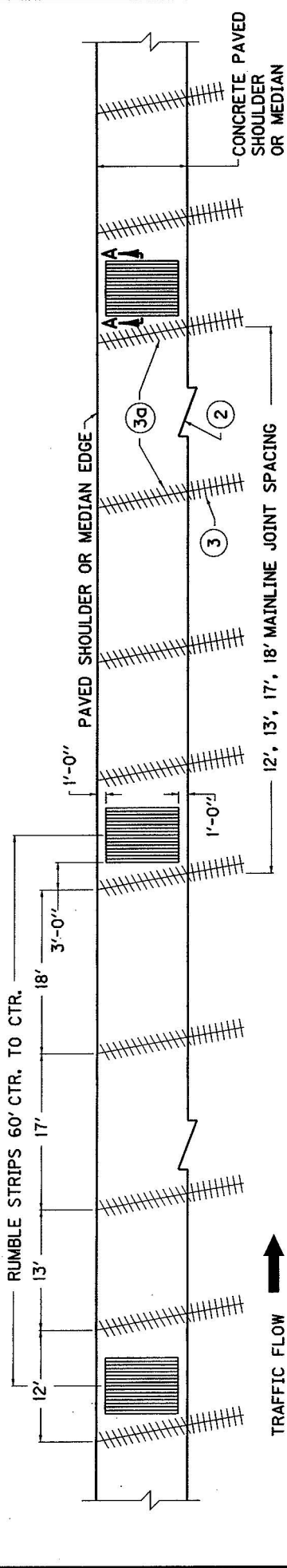
- TTS-110 Mobile Operation for Paint Striping Case III
- TTS-115 Mobile Operation for Paint Striping Case IV
- TTS-120 Mobile Operation for Durable Striping Case I
- TTS-125 Mobile Operation for Durable Striping Case II
- * - Older “Standard Drawings” showing skewed joints have been included for reference.

5. Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Edition of 2019 - Supplemental Specifications, as applicable:

- Special Note 9Y Material Transfer Vehicle
- Special Note 1I Portable Changeable Message Signs
- Special Note Guardrail Verification Sheet
- Special Note Note for Modified Full Depth Concrete Pavement Repair *attached*
- Special Note Typical Section Dimensions *attached*
- Special Note Before You Dig *attached*
- Special Note Fixed Completion Date and Liquidated Damages *attached*
- Special Note Concrete Pavement Joint and Random Crack Sealing *attached*
- Special Note Polymer Modified Partial Depth Patching *attached*
- Special Note Removing Existing Pavement Markers on Portland Cement Pavement *attached*
- Special Note Dowel Bar Retrofit *attached*
- Special Note Class 1A Geotextile Fabrics used in Structural Pavement Designs *attached*
- Special Note Concrete Slurry *attached*
- Special Note Material, Installation and Bid Item Notes for Permanent Traffic Data Acquisition Stations *attached*
- Special Note Bridge Repair Items *attached*



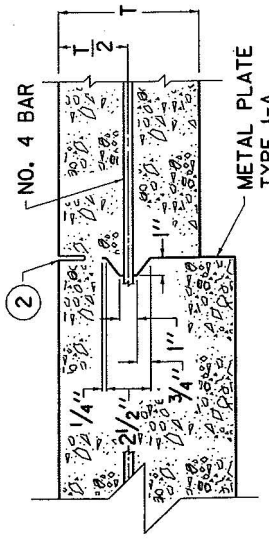
NON-REINFORCED CONCRETE PAVED SHOULDER OR MEDIAN WITH STANDARD REINFORCED CONCRETE MAINLINE



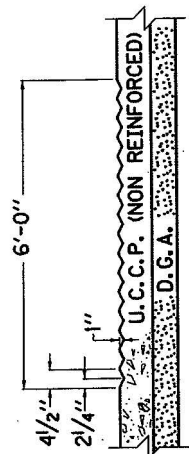
NON-REINFORCED CONCRETE PAVED SHOULDER OR MEDIAN WITH NON-REINFORCED CONCRETE MAINLINE

NOTES

1. THE COST OF CONSTRUCTING RUMBLE STRIPS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR NON-REINFORCED CONCRETE PAVEMENT.
2. (2) (3) (3a) SEE CUR. STD. DWG. RPS-010 FOR JOINT SYMBOLS AND DETAILS.
3. AFTER FINAL FINISHING OF THE PAVEMENT, CORRUGATIONS FOR RUMBLE STRIPS SHALL BE FORMED AT THE INTERVALS SHOWN INTO THE PLASTIC CONCRETE.
4. THE CORRUGATIONS SHALL BE ROUNDED RATHER THAN PEAKED, WITH THE TOP FLUSH WITH THE SHOULDER OR MEDIAN SLOPE.
5. THE TROUGH SHALL BE TAILED OUT, SO AS TO PROVIDE POSITIVE DRAINAGE.

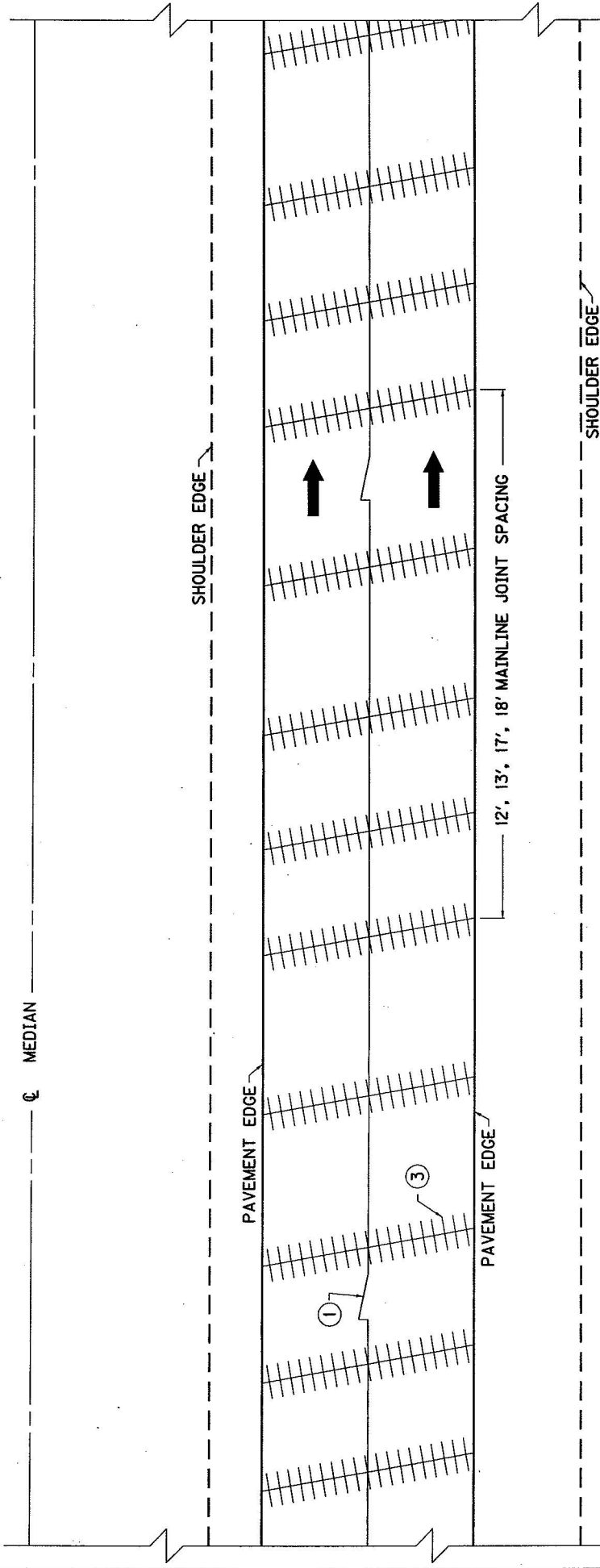


JOINT DETAIL



SECTION A-A

KENTUCKY DEPARTMENT OF HIGHWAYS	NON-REINFORCED CONCRETE PAVEMENT FOR SHOULDERS & MEDIANS STANDARD DRAWING NO. RPN-001-04	SUBMITTED	DIRECTOR	DIVISION OF DESIGN	DATE
		APPROVED	STATE HIGHWAY ENGINEER	DATE	

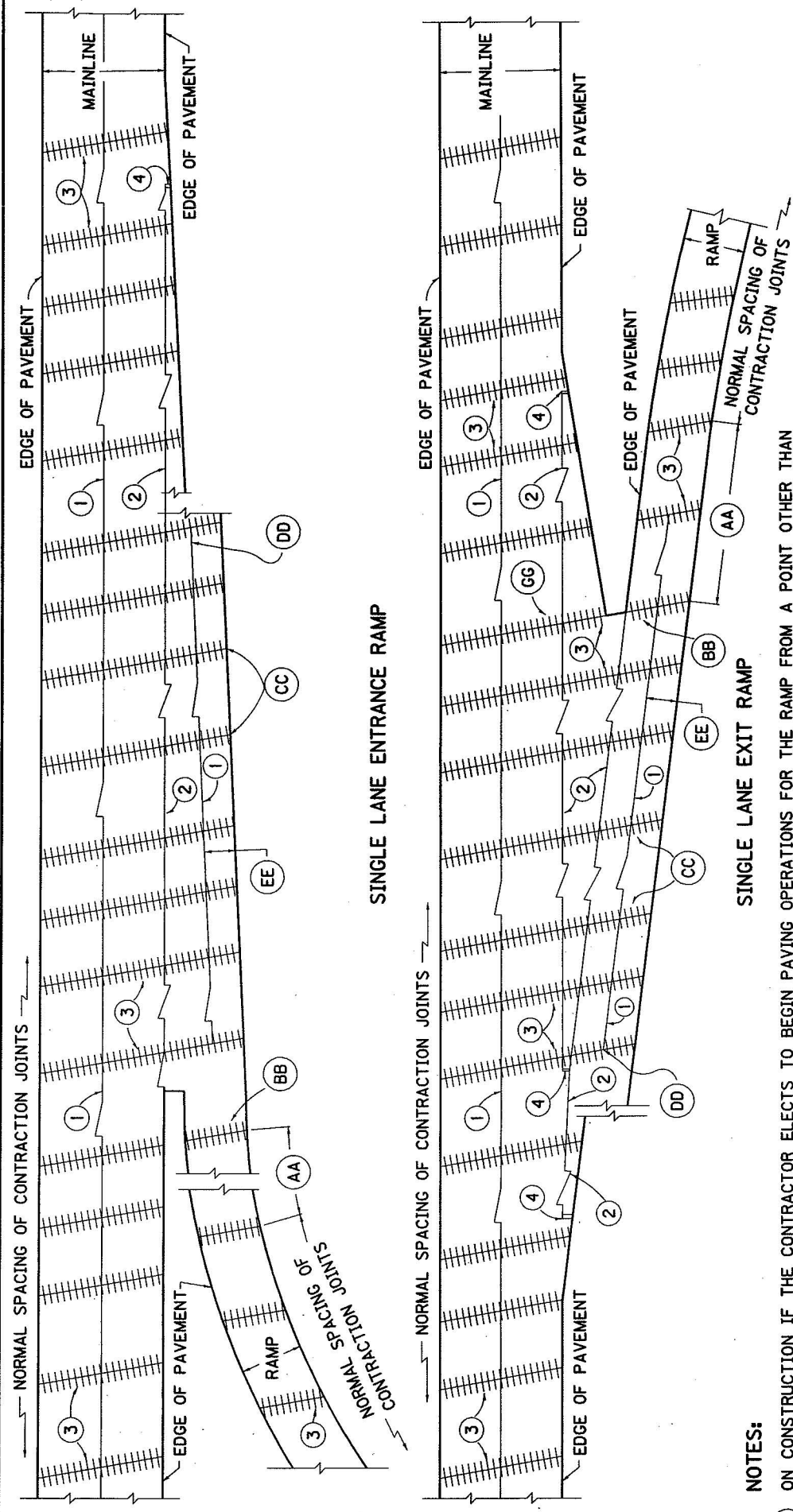


PLAN VIEW

NOTES

- JOINTS**
- TRANSVERSE CONTRACTION JOINTS SHALL BE SPACED AS FOLLOWS: 12', 13', 17', 18' AND SHALL BE SAWED TO A MINIMUM DEPTH OF ONE FOURTH OF THE PAVEMENT THICKNESS OR 1/4". ALL TRANSVERSE CONTRACTION AND TRANSVERSE EXPANSION JOINTS SHALL REQUIRE LOAD TRANSFER ASSEMBLIES AS DETAILED ON THE PLANS OR STANDARD DRAWINGS.
- JOINT SPACING AND TYPE, AT BRIDGE ENDS, SHALL BE REQUIRED AS SHOWN ON THE PLANS OR CURRENT STANDARD DRAWING RPS-010.
- TRANSVERSE CONTRACTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 501.03.16, EXCEPT THEY SHALL BE NO CLOSER THAN 5'-0" TO ANY TRANSVERSE CONTRACTION JOINT OR EXPANSION JOINT.
- 1 3 SEE CURRENT STANDARD DRAWING RPS-010 FOR JOINT SYMBOLS AND DETAILS.
- THIS DRAWING DEPICTS JOINTS SKEWED TO THE CENTERLINE OF THE ROADWAY, HOWEVER JOINTS AT RIGHT ANGLES TO THE CENTERLINE SHALL BE SPACED IN THE SAME MANNER.

KENTUCKY DEPARTMENT OF HIGHWAYS	
NON-REINFORCED CONCRETE PAVEMENT	
STANDARD DRAWING NO. RPN-015-03	
SUBMITTED	DATE
DIRECTOR DIVISION OF DESIGN	DATE
APPROVED	STATE HIGHWAY INSPECTOR



NOTES:

ON CONSTRUCTION IF THE CONTRACTOR ELECTS TO BEGIN PAVING OPERATIONS FOR THE RAMP FROM A POINT OTHER THAN THAT WHICH IS IMMEDIATELY OPPOSITE THE MAINLINE PAVEMENT THEN THIS DISTANCE SHALL BE EQUALLY DIVIDED WHEN IT BECOMES GREATER THAN 20 FEET AND LESS THAN 40 FEET.

THIS CONTRACTION JOINT IN THE RAMP SHALL ALWAYS BE OPPOSITE THE CONTRACTION JOINT IN THE MAINLINE PAVEMENT.

ALL CONTRACTION JOINTS IN THE RAMP IMMEDIATELY OPPOSITE THE MAINLINE PAVEMENT SHALL BE A CONTINUATION OF THE JOINTS IN THE MAINLINE PAVEMENT.

LONGITUDINAL SAWED JOINT SHALL END AT THE NEAREST CONTRACTION JOINT, WHERE THE OVERALL WIDTH OF THE RAMP IS A MAXIMUM OF 16 FEET.

THIS DISTANCE SHALL BE EQUAL TO $\frac{1}{2}$ THE NORMAL RAMP SECTION.

LONGITUDINAL SAWED JOINTS AT CENTERLINE SHALL BE REQUIRED FOR ALL RAMPS AND LOOP WIDTHS GREATER THAN 16 FEET.

THIS CONTRACTION JOINT SHALL ALWAYS BE PLACED OPPOSITE THE NOSE OF THE RAMP. THE TWO CONTRACTION JOINTS IMMEDIATELY PRECEDING THIS JOINT, DEPENDING ON THE DIRECTION OF PAVING OPERATIONS, SHALL BE EQUALLY DIVIDED, PROVIDED THE SPACING DOES NOT EXCEED THE NORMAL SPACING. SHOULD SPACING BE GREATER THAN NORMAL, AN EXTRA JOINT SHALL BE ADDED AND THE DISTANCE EQUALLY DIVIDED. THE JOINT IMMEDIATELY FOLLOWING THE JOINT THAT IS PLACED OPPOSITE THE RAMP NOSE SHALL BE NORMALLY SPACED.

SEE CURRENT STANDARD DRAWING RPS-010 FOR JOINT SYMBOLS AND DETAILS.

II. NORMAL SPACING OF CONTRACTION JOINTS INDICATED ON THIS DRAWING ARE TO BE IN ACCORDANCE WITH SPACING INDICATED ON CURRENT STANDARD DRAWING RPN-015.

KENTUCKY	
DEPARTMENT OF HIGHWAYS	
CONCRETE	
PAVEMENT JOINTS	
TYPES AND SPACING	
STANDARD DRAWING NO. RPS-030-04	
SUBMITTED	DIRECTOR
APPROVED	STATE HIGHWAY ENGINEER
DATE	DATE

September 16, 2019

MODIFIED SPECIAL NOTE FOR FULL DEPTH CONCRETE PAVEMENT REPAIR

This Special Note applies to full depth repairs of concrete pavement. Section references herein are to the Department's Standard Specifications for Road and Bridge Construction, current edition.

1.0 DESCRIPTION. Remove and replace concrete pavement. Comply with the applicable Standard Drawings and the Standard Specifications except as specifically superseded herein.

2.0 MATERIALS AND EQUIPMENT.

2.1 JPC Pavement. Test concrete materials according to section 601.03.03. Conform to 501, 502, and 601 except that the concrete must achieve 3000 psi in accordance with Section 4.4 of this note. The Engineer may allow pavement to be opened to traffic at less than 3,000 psi subject to the deductions described in Section 4.4 of this note.

2.2 Dowel Bars and Sleeves. Conform to 811. Contrary to the Standard drawings, 1.5-inch diameter dowel bars will be accepted for 13-inch JPC Pavement and 1.5-inch diameter dowel bars will be required for 10-inch JPC Pavement.

2.3 Tie Bars. Conform to Section 811. Use epoxy coated tie bars in longitudinal and transverse joints.

2.4 Joint Sealants. Conform to Subsection 807.03.01 or 807.03.05.

2.5 Grout Adhesives and Epoxy Resin Systems. Conform to Section 826.

2.6 Dense Graded Aggregate (DGA) and Crushed Stone Base (CSB). Conform to Section 805.

2.7 Geotextile Fabric. Conform to Section 843 and Special Note for Class 1A Geotextile Fabrics.

2.8 Drills. Drill holes using a gang drill, capable of drilling a minimum of four simultaneously. Misalignment of holes shall not exceed 1/4 inch in the vertical or oblique plane.

2.9 Hammers. Only use chisel point hammers weighing less than 40 pounds to remove deteriorated concrete.

3.0 CONSTRUCTION.

3.1 Removal of Existing Pavement. Remove existing pavement to the extent the Contract specifies or as the Engineer directs. The minimum length of patches measured along centerline is 3 feet on each side of an existing joint.

When working with pavements with non-skewed transverse joints, if it is necessary to remove existing pavement closer than 6 feet to a transverse joint, remove the pavement 3 feet beyond that joint .

When working with pavements with skewed transverse joints, if it is necessary to remove existing pavement closer than 3 feet to a transverse joint, remove the pavement 3 feet beyond that joint.

Details of configurations of pavement and joints for various situations are

depicted in the drawings herein.

When small areas of removal and replacement are performed at bridge ends, maintain or reconstruct existing expansion joints at their existing location. When the Engineer determines extensive full width removal and replacement is required, construct new expansion joints at the locations shown on Standard Drawing No. RPN-010.

In the removal operation, make a full depth saw cut longitudinally along the centerline joint and shoulder joint and transversely along the area marked for removal. To prevent damage to the subbase, do not allow the saw to penetrate more than $\frac{1}{2}$ " into the subbase. The Engineer may direct or approve additional cuts within the removal area in order to prevent damage to adjacent pavement remaining in place. Do not overcut beyond the limits of the removal area. Prevent saw slurry from entering existing joints and cracks. To avoid pumping and erosion beneath the slab, do not allow traffic on sawed pavement, unless directed by the Engineer.

Lift out the deteriorated concrete vertically with lift pins. If approved by the Engineer, use other methods that do not damage the base, shoulder, or sides of pavement that is to be left in place. If any damage does occur, saw cut and remove damaged section and if necessary use an acceptable alternative method for the removal process. Any additional costs associated with repair shall be the contractor's responsibility. Do not damage the pavement base during these operations.

Dispose of all removed pavement, cuttings, debris, and other waste off the right-of-way at approved sites obtained by the Contractor at no additional cost to the Department. The Contractor will be responsible for obtaining any necessary permits for this work.

3.2 Pavement Replacement. Do not damage the pavement base during these operations.

3.2.1 Preparation of Base. Compact the new and existing aggregate base to the Engineer's satisfaction. The Engineer will accept compaction by either visual inspection or by nuclear gauge. When the Engineer deems it necessary to stabilize the existing base or replace unsuitable materials, excluding bridge ends, use additional DGA to the depth deemed necessary by the Engineer. Underlay the DGA with FABRIC-GEOTEXTILE CLASS 1A. Flowable fill and cement stabilization may be used as an alternative to stabilize the existing base or to replace unsuitable materials when a plan for such is presented to and approved by the Engineer. At bridge ends, treat existing base and subgrade as the Contract specifies. During compaction, wet the base as the Engineer directs. Compact areas not accessible to compaction equipment by hand tamping.

3.2.2 Underdrains. Construct, or repair damage to, pavement edge drains according to Section 704. If underdrains are placed omitting areas to be patched, construct additional lateral drains as necessary to provide outlets for the installed underdrain until performing the pavement replacement and completing the underdrain system. Provide drainage for any undercut or base repair areas.

3.2.3 Pavement Replacement. Using load transfer assemblies for dowel joints drill into the existing slab according to the details shown herein and on the Standard Drawings.

Use plain epoxy coated dowels of the size specified on the standard drawings based on the pavement thickness for contraction and expansion joints.

Drill holes for dowel bars and tie bars into the face of the existing slab, at a

diameter as specified in the following. Drill the dowel bar holes and tie bar holes to a depth equal to 1/2 the length of the bars. Anchor tie bars into the existing pavement using an epoxy resin. Anchor dowel bars into the existing pavement using either an epoxy resin or an adhesive grout. For tie bars and dowel bars where an epoxy resin is to be used drill the holes 1/8 inch larger than the bar diameter. For dowel bars where an adhesive grout product is to be used, drill holes 1/4 inch larger than the bar diameter. Use a clear or opaque grout retention disk in both grout and epoxy applications. Operate the equipment to prevent damage to the pavement being drilled. Obtain the Engineer's approval of the drilling procedure. Install load transfer assemblies according to the Standard Drawings and Standard Specifications.

When indicated herein or in the Standard Drawings, use 1 inch deformed tie bars that are 18 inches long placed 30 inches on center starting and ending 20 inches inside the edges of the repair area in the longitudinal joint. Use 1 inch deformed tie bars, or plain epoxy coated dowel bars sized in accordance with the Standard Drawings that are 18 inches long beginning 12 inches inside of each edge and on 12-inch centers in transverse construction joints.

Install the dowels and tie bars according to Section 511 unless contradicted here. Ensure the holes are dry and free of dust and debris. Use a nozzle to insert the grout or epoxy starting at the back of the drilled hole to allow for full coating of the dowel or tie bar. After placement, use a bond breaker on the section of the dowel bar that is protruding from the hole.

Mix, place, finish, and cure concrete according to Section 501 with the exception that the Department will allow truck mixing, 2-bag mixers, and hand finishing.

When required, use a form on the side of the slab at longitudinal joints. When the adjacent traffic lane is not closed to traffic or the drop-off is not protected, temporarily fill the space between the form and the adjacent pavement with DGA. After placing the slab, remove the DGA and form. Fill the hole with concrete and thoroughly consolidate by rodding, spading, and sufficient vibration to form a dense homogeneous mass. Use a form on the side of the slab adjacent to shoulders. Excavate and backfill as shown on Section F'-F'.

For patches less than 25 feet in length, use a bond breaker and do not install tie bars at the longitudinal joint. Bond breakers should not exceed 1/8 inch in thickness, e.g. tarpaper.

When resurfacing is required, a float finish is satisfactory. Otherwise, broom finish or, when the adjacent surface has a grooved finish, texture the surface according to Subsection 501.03.13 H). Finish the surface, including joints, to meet a surface tolerance of 1/8 inch in 10 feet that will be verified by straightedge. Cure the pavement and apply curing membranes according to 501.03.15.

Keep all pavement surfaces adjacent to this operation reasonably clean of excess grout and other materials at all times. Maintain all original longitudinal joints. Place transverse joints according to the details shown herein and on the Standard Drawings.

3.3 Joint Sealing. Seal all new or partially new joints with hot-poured elastic joint sealant according to Subsection 501.03.18.

4.0 MEASUREMENT.

4.1 Remove JPC Pavement. The Department will measure the quantity in square yards of surface area. The Department will not measure removal of underlying

base material for payment and will consider it incidental to Remove JPC Pavement.

No separate payment will be made for the disposal of waste from the project or obtaining the necessary permits but will be incidental to the other items of the work.

4.2 DGA or CSB. The Department will measure the quantity used to stabilize the existing base or to replace unsuitable material in tons. The Department will not measure removal of existing base material or underlying material for payment and will consider incidental to DGA or CSB. The quantity of DGA used for the drop-off protection shall be incidental to this work and will not be measured for payment.

4.3 JPC Pavement Non-Reinforced. The Department will measure according to 501.04.01. The Department will not measure dowels, tie bars, or joint sealing for payment and will consider it incidental to Non-Reinforced JPC Pavement.

JPC Pavement will be paid according to section 5.0 below and according to the following payment schedule based on the compressive strength. The cylinders for payment will be tested two hours prior the scheduled opening of traffic.

3000 psi and up	100% payment
2750 to 3000 psi	75% payment and approval from the Engineer to open to traffic*
2500 to 2750 psi	50% payment and approval from the Engineer to open to traffic*
2250 to 2500 psi	25% payment and approval from the Engineer to open to traffic*
Below 2250 psi	10% payment and no potential to open to traffic. Maintain traffic closure until concrete reaches a minimum of 2250 psi.

*If the Engineer approves opening to traffic, the Engineer will evaluate the concrete at 28 days (or sooner) to determine if the removal and replacement of the concrete is necessary due to pavement distress induced by the early opening (i.e. noticeable cracking). If required by the Engineer, remove and replace those slabs showing distress at no cost to the Department.

4.4 Underdrains. The Department will measure the quantity according to Subsection 704.04. The Department will not measure lateral drains for payment and will consider them incidental to the Underdrains.

5.0 PAYMENT. The Department will consider payment as full compensation for all work required in this provision. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02091	Remove Pavement	Square Yard
00001	DGA Base	Ton
02069-02088	JPC Pavement	Square Yard
02604	Fabric-Geotextile Class 1A	Square Yard

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS
I-264

The dimensions shown on the typical sections for pavement and shoulder widths are nominal or typical dimensions. The actual dimensions to be constructed or diamond ground may be varied to fit existing conditions as directed or approved by the Engineer. It is not intended that existing pavement or shoulders be widened unless specified elsewhere in the Proposal.

SPECIAL NOTE FOR BEFORE YOU DIG

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

**Special Note for Fixed Completion Date and
Liquidated Damages
I-264
Jefferson County
Item No. 5-20015.00, 5-20018.00**

Contrary to Section 108.09, Liquidated Damages of \$5,000 per calendar day will be assessed for each day or fraction thereof work remains uncompleted beyond the Specified Project Completion Date. This project has a Fixed Project Completion Date of **December 31, 2020**.

In addition to the Liquidated Damages specified above, Liquidated Damages in the following amounts will be charged when a lane closure remains in place during the prohibited period outlined in the Traffic Control Plan:

Mainline & Ramps:	\$25,000 for the first hour or fraction thereof
	\$50,000 for any additional hour or fraction thereof

These hourly disincentives will still be in effect after the Fixed Completion Date and will be charged in addition to the \$5,000 per calendar day if warranted. The Contractor is expected to make every effort to complete the work in order to open the mainline lane closure within a specified timeframe.

Contrary to Section 108.09 of the Standard Specifications, **the disincentive fee will be charged during those periods when seasonal limitations of the Contract prohibit the Contractor from working on a controlling item or operation. This includes the months from December through March.**

All liquidated damages will be applied cumulatively.

All other applicable portions of Section 108 apply.

August 13, 2019

SPECIAL NOTE FOR CONCRETE PAVEMENT JOINT AND RANDOM CRACK SEALING

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's 2019 Standard and Supplemental Specifications, Special Notes and Special Provisions, and Standard and Sepia Drawings, current editions, as applicable. Article references are to the Standard Specifications. Furnish all materials, labor, equipment, and incidentals for the following work:

Saw, Clean, and Reseal Longitudinal Joints, Transverse Joints, and Random Cracks.

II. MATERIALS

The Department will sample and test all materials according to the Department's Sampling Manual. Make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in these notes.

A. Joint Sealant. Contrary to Section 501.03.18 (B), use hot poured elastic, no alternates.

III. CONSTRUCTION METHODS

A. Site Preparation. Be responsible for all site preparation, including, but not limited to, removal of all obstructions or any other items; disposal of materials; sweeping and removal of debris; and any other incidentals. All site preparation shall be only as approved or directed by the Engineer.

B. Sealing Joints and Random Cracks. Saw cut, clean, and reseal longitudinal, transverse, and random cracks within the project limits as directed by the Engineer. Contrary to Standard Drawing RPX- 015-04, saw cut the joint or crack a minimum of 1/8 inch wider than the existing joint or crack or to the width necessary to provide a clean, new face for a reservoir for the new seal. Except as provided herein, perform all joint and crack sealing according to section 501.03.18(F) except random cracks only need to be routed to a depth of approximately one inch.

IV. METHOD OF MEASUREMENT

Except as provided herein, the Department will measure all work in accordance with the 2019 Standard and Supplemental Specifications, Special Provisions and Special Notes, and Standard and Sepia Drawings, current editions. The Department will measure only the bid items listed. Consider all other items required to complete the work as incidental to the listed items.

A. Site Preparation. Other than the bid items listed, the Department will not measure Site Preparation for payment, but shall be incidental to the other items of the work, as applicable.

B. Saw-Clean-Reseal Joints and Random Cracks. The Department will measure sawed and resealed joints and random cracks in linear feet along the joint or crack. The Department will not measure removing existing joint material or cleaning joints but shall be incidental to Saw-Clean-Reseal Joints and Random Cracks.

August 13, 2019

V. BASIS OF PAYMENT

The Department will make direct payment only for the bid items listed. Consider all other items required to complete the construction to be incidental to the bid items listed.

A. Saw-Clean-Reseal Joints and Random Cracks. Accept payment at the contract unit price per linear foot of each type as full compensation for all materials, equipment, labor and incidentals necessary to complete the work as specified.

<u>CODE</u>	<u>PAY ITEM</u>	<u>PAY UNIT</u>
02115	Saw-Clean-Reseal Transverse Joint	Linear Foot
02116	Saw-Clean-Reseal Longitudinal Joint	Linear Foot
021173EC	Saw-Clean-Reseal Random Cracks	Linear Foot

July 23, 2018

SPECIAL NOTE FOR POLYMER MODIFIED PARTIAL DEPTH PATCHING

DESCRIPTION

This work consists of patching transverse and longitudinal random cracks, centerline joints, contraction joints, longitudinal and transverse expansion joints, holes from pavement markers, or spalled areas in Portland cement concrete pavement.

APPLICATIONS

The installed product shall be a hot applied, flexible mastic sealant made from highly polymer-modified synthetic resins and high quality aggregate. The installed product shall provide a load-transferring repair that has superior tensile strength and flexibility to accommodate joint and crack movement associated with thermal expansion and contraction, and vibratory movements. The patch must have exceptional resistance to water intrusion and to a broad range of salts, bases, and organic materials.

MATERIAL SPECIFICATIONS

<u>PROPERTY</u>	<u>METHOD</u>	<u>REQUIREMENT</u>
Color		Gray
Tensile Strain		29%
Cone Penetration Flow	ASTM D5329	7% Maximum
Aggregate Settlement		3 mm Maximum
Flexibility, lab std. condition	ASTM D3111	No cracking or loss of aggregate adhesion
Impact Testing	ASTM D3111	No cracking, chipping, or separation @ 6ft-lb
Resilience		50% Minimum
Min. Application Temp.		300°F
Max. Heating Temp.		400°F
Specific Gravity	ASTM D5329	1.8 -2.1

SITE PREPARATION

The area to be replaced shall be removed by saw cutting, jackhammering, or milling to the specified width and depth. The repair surfaces will be cleaned and dried with a hot air lance. The recessed area and vertical walls will be treated with a primer agent to promote adhesion and prevent moisture intrusion (for concrete applications only).

INSTALLATION

Installation of the material shall be by factory trained and certified installation professionals and done according to the manufacturer’s recommendations. Installers are to certify that material has not exceeded manufacturer’s assigned expiration date or shelf life.

Heat the material in a thermostatically controlled purpose built mixer, having a horizontal agitator that ensures complete mixing. Once the material has reached the manufacturer’s

July 23, 2018

recommended temperature, the molten material will be introduced into the prepared repair area, sealing the bottom of the repair from water intrusion.

If the depth of the repair exceeds 1 inch, the remainder of the repair process will consist of layering coarse hot angular aggregate (cleaned and dried) at a rate of 25%-35% by volume with the molten material until within $\frac{3}{4}$ " of the top of the repair. The bulking aggregate must be worked into the patch completely.

NO DRY LAYERS OF BULKING AGGREGATE WILL BE ALLOWED.

The final $\frac{3}{4}$ " of the repair will be material for optimum flexibility of the repair. Once this top layer has been screeded to a level grade, apply a high polish stone value (PSV) aggregate to the top of the repair to ensure proper skid resistance.

All removed materials and residual repair materials will be recovered and disposed of away from the site at the Contractor's expense.

DIAMOND GRINDING

If diamond grinding will be required after placing the polymer modified partial depth patch:

1. Repair spalls a minimum of 24 hours before diamond grinding.
2. Assess the size and frequency of repairs to be made. For large spalls where it is possible for more than 1 grinder wheel to be simultaneously on the patched area, fortify the final layer of material. To fortify the top layer add 20-30% structural aggregate to the mastic compound. It is acceptable to leave the top slightly rough since the Diamond Grinding will smooth the surface.
 - a. If the structural aggregate has evidence of moisture, heat and dry the aggregate to 300°F (149°C) in a vented barrel mixer before application. The structural aggregate can be applied after the aggregate has been heated or when the aggregate is at ambient temperature. If Contractor chooses to increase the structural aggregate volume, heating the aggregate prior to application may be necessary to adequately coat the aggregate, eliminate trapped air, and ensure adhesion. Use manufactured suggested aggregate or other aggregate approved by the Engineer.
3. Make sure the final layer of partial depth patching material is covered with surfacing aggregate as specified by the manufacturer.
4. Reduce weight and time grinding.
 - a. Assure that all or most of the wheels on the grinder are on solid pavement when grinding to minimize the load on the patch when grinding.
 - b. When grinding large repairs, float the grinding head to remove the downward load. Have the head or wheels skim the surface of the material to level and smooth the surface without sinking into the material and creating excessive fins.

July 23, 2018

- 5. Grind over partial depth repairs during the coolest temperatures possible.
Minimize high-ambient temperatures.
- 6. Keep the grinding head as cool as possible.

MEASUREMENT

The Department will measure the quantity of PARTIAL DEPTH PATCHING-POLYMER MOD in cubic feet, from field measurements or from the metered quantity from the mixer, as determined by the Engineer.

PAYMENT

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24997EC	Partial Depth Patching-Polymer Mod	Cubic Foot

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

Acceptable products to meet this specification are Fibrecrete G and Crafcro Techcrete (R or TBR). Other products that fully meet this specification will also be accepted if approved by the Engineer.

**SPECIAL NOTE FOR REMOVING EXISTING PAVEMENT MARKERS
ON PORTLAND CEMENT PAVEMENT
I-264**

Before diamond grinding, sawcut around and remove existing Type V snow plowable raised pavement markers (iron castings). Patch the hole with Partial Depth Repair Material listed in the Special Note for Polymer Modified Partial Depth Patching.

Removal of Type V markers will be paid at the contract unit price each, which shall be full compensation for removing the markers and disposing of the castings and any debris. The bid quantity is estimated by dividing the length of each run of markers by their average spacing (80'), plus one. Actual quantities removed will be verified by the Engineer. Partial Depth Repair Material to repair the resulting recess will be incidental to the pay item "Remove Pavement Marker Type V".

Removal of Type V pavement markers will not be measured for payment in areas where existing PCC pavement is being removed and replaced with asphalt and will be considered incidental to the bit item for "Remove PCC Pavement."

June 26, 2018

SPECIAL NOTE FOR DOWEL BAR RETROFIT

I. DESCRIPTION

The work consists of installing epoxy coated 1-1/2 inch diameter by 18 inch long plain round dowel bars into existing concrete pavement. The existing Portland cement concrete pavement shall be removed and the dowel bars shall be retrofit across the pavement joints or cracks.

II. MATERIALS

Dowel bars shall meet the requirements of Section 811 of the Standard Specifications. All surfaces of the dowel bars shall be epoxy coated, including the ends of the bars.

The dowel bars shall be further coated, prior to installation, with a bond-breaking compound. The bond breaking coating shall be one of the approved products on the Cabinet's Approved Products list.

The dowel bars shall have tight fitting end caps made of nonmetallic material that allows for 1/4 inch bar movement at each end of the bar. The Contractor shall submit an end cap sample to the Engineer for approval prior to installation.

Chair devices for supporting and holding the dowel bar in place shall be completely epoxy coated or made of nonmetallic material. The Contractor shall submit a chair sample to the Engineer for approval prior to installation.

The foam core board filler material shall be a 3/8 inch thick (minimum), closed cell foam faced with poster board material or plastic faced material on each side. This material is commonly referred to as Foam Core Board by Office Suppliers or a dense closed cell foam insulation material faced with plastic or foil. The Contractor shall submit a sample to the Engineer for approval prior to installation.

Select patching material that complies with ASTM C928 Category R3 and is included on the List of Approved Materials, "Concrete Repair Patch (Cementitious)" with the additional requirement that the material be a polymer modified patch material. Maximum Freeze Thaw Expansion permitted is 0.10% and minimum durability of 90.0% when tested in accordance with ASTM C666 Method A.

Prepackaged mortar that has not been extended with aggregate may be extended up to 100% (defined as 10 lbs. of aggregate to 10 lbs. of patching material), if allowed, and recommended by the manufacture. The aggregate extender shall be freeze thaw approved, meet the requirements of Section 805 of the Standard Specifications, and be Gradation- Size No. 8.

The Contractor shall verify the results of the suppliers mix design prior to beginning work. If the suppliers mix design is not satisfactory, the Contractors

June 26, 2018

shall provide the Department with a mix design that meets the requirement prior to the beginning of work. This mix design shall be performed with the materials that will be used on the project.

III. CONSTRUCTION REQUIREMENTS

The Contractor shall install the dowel bars in the existing Portland cement concrete pavement as shown in the plans and according to the following requirements:

- A.** Saw cut the pavement to place the center of the dowel bar at mid-depth in the pavement. Multiple saw cuts parallel to the centerline may be required to properly remove the material from the slot. The saw cuts shall not extend beyond the dimensions of the slot shown. The saw cuts for the six slots at each transverse joint or crack shall be made such that the dowel bars are placed within the following tolerances:
 - 1.** Centerline of individual dowel bars shall be parallel to the top of pavement, parallel to the other dowel bars, and parallel to the roadway centerline within $\pm 1/4$ inch in 18 inches.
 - 2.** Centerline of the individual dowel bars shall be ± 1 -inch of the middle of the concrete slab depth.
 - 3.** Centerline of individual dowel bars shall be ± 1 -inch of being centered over the transverse joint or crack.
- B.** Any jackhammers used to break loose the concrete shall not be larger than the 30- pound class. If the pavement is damaged by the 30-pound jackhammer, the Engineer will require the Contractor to use a 15-pound hammer.
- C.** All exposed surfaces and cracks in the slot shall be sand blasted and cleaned prior to bar installation.
- D.** The joint/crack on the bottom and the sides of the slot shall be filled with commercial grade silicone caulk containing a minimum of 50 percent silicone.
- E.** The dowel bars shall be lightly coated with the bond-breaking compound prior to placement. The bar chairs shall provide a minimum $1/2$ inch clearance between the bottom of the dowel bar and the bottom of the slot and chair. The dowel bars shall be placed to the depth shown on the plans, parallel to centerline and the top of the roadway surface, and at the middle of the slot, all within the specified tolerances. The chairs shall hold the dowel bar securely in place during placement of the patching mix.
 - 1.** Longitudinal dowel bar placement for skewed joints or cracks shall be within ± 2 inches.

June 26, 2018

2. Longitudinal dowel bar placement for perpendicular joints shall be within ± 1 inch.
- F. The 3/8 inch thick foam core board shall be placed at the middle of the dowel bar to maintain the transverse contraction joint. The foam core board shall fit tightly around the dowel bar and to the bottom and edges of the slot. The width of the foam board in its final position shall be 1/16 inch wider than the slot to minimize movement of the foam board and prevent incompressible material from entering the contraction joint during concrete placement. The top of the foam core board shall be flush with the top surface of the concrete pavement.

The Contractor may need to increase the width of the foam core board for pavements with skewed joints. The skew angle may vary for different pavement sections.

- G. The Contractor shall fill the slot (with the installed dowel bar, chairs, and foam core board in place) with an approved patching material. The patching material shall be vibrated with a 1.0-inch or less hand held vibrator capable of thoroughly consolidating the patching compound into the slot and around the dowel bar. The top surface of the filled slot shall be trowel finished and cured according to Section 501.03.15. For projects that include diamond grinding the patching material shall be left 1/8-inch to 1/4-inch high and not finished flush with the existing surface. The curing compound shall meet the requirements of Section 823.

The patching material will be tested by the Engineer once for each 4 hours of production or a minimum of once per day, whichever is more frequent. The patching material shall have a minimum compressive strength of 3,000 psi in 3 hours. Department compression testing may be performed up to 24 hours after the cylinders are made. If the compressive strengths are not being met, production shall cease and the Contractor shall resubmit a concrete mix design correcting the strength problems. Price adjustments according to KM 314 will be made based on the compressive cylinders for low concrete strength when the concrete fails to meet minimum strength of 3,000 psi within the 24-hour testing period.

The retrofitted pavement can be opened to traffic as soon as the compressive cylinders verify that the backfill material has reached a minimum compressive strength of 3,000 psi or as indicated in the adjusted opening to traffic payment schedule in Section 4.4 of the *Special Note for Full Depth Concrete Pavement Repair*. The compressive strength should be based on cylinders representative of the last repair material placed.

- H. The transverse contraction joints shall be sawed and sealed as required in the plans.
- I. Any individual dowel bar retrofit not functioning or damaged shall be

June 26, 2018

repaired or replaced at the expense of the Contractor.

IV. METHOD OF MEASUREMENT

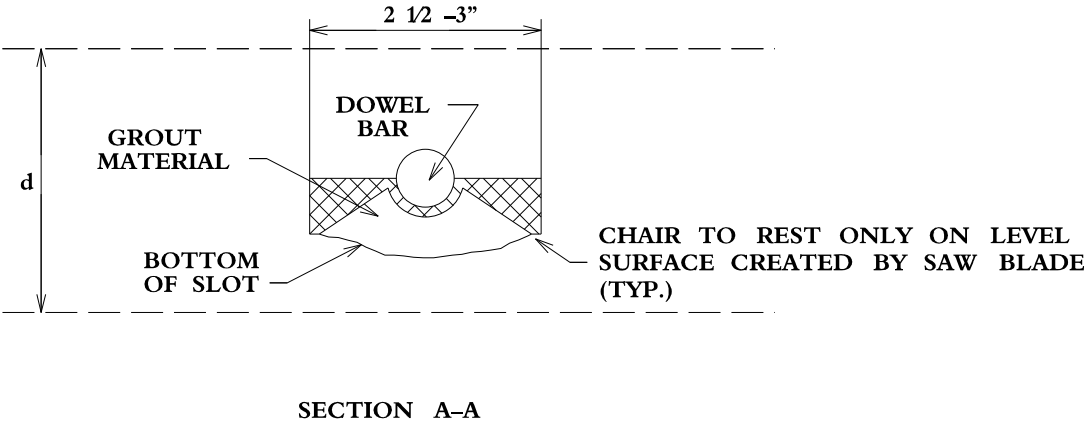
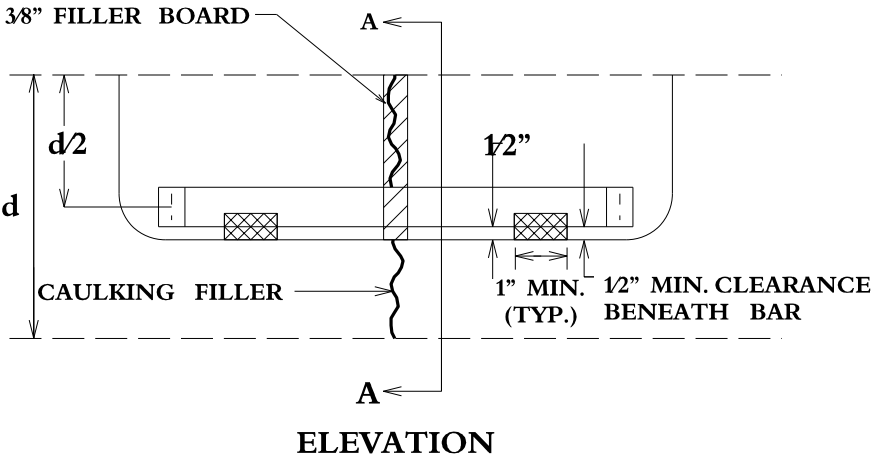
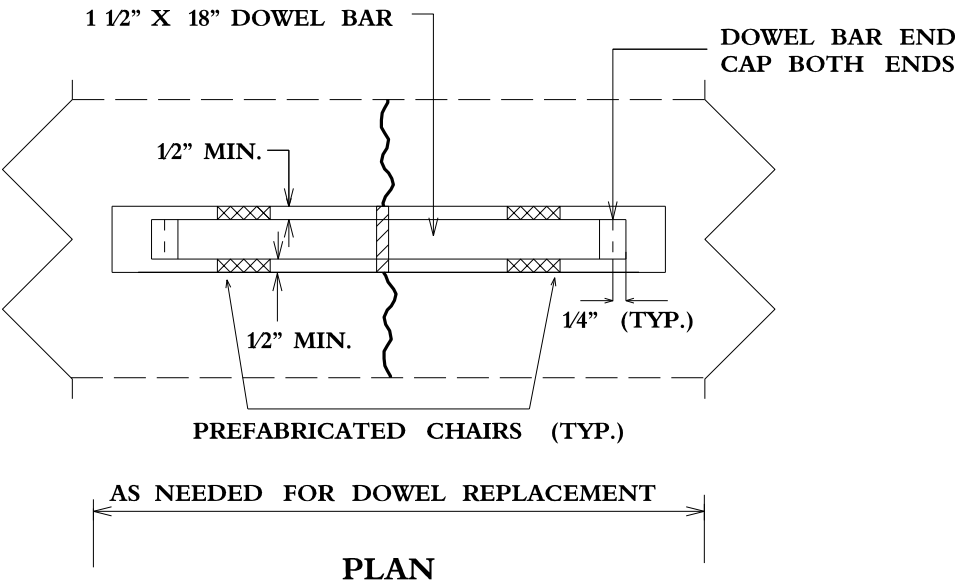
Dowel Bar Retrofit will be measured by each dowel bar installed and accepted.

V. BASIS OF PAYMENT

Dowel Bar Retrofit will be paid at the contract unit price per each dowel bar. Payment shall be full compensation for equipment, materials, labor, and all incidentals required.

<u>Item Code</u>	<u>Description</u>	<u>Unit</u>
20750ND	Dowel Bar Retrofit	Each

DOWEL BAR PLACEMENT



NOT TO SCALE

DOWEL BAR PLACEMENT

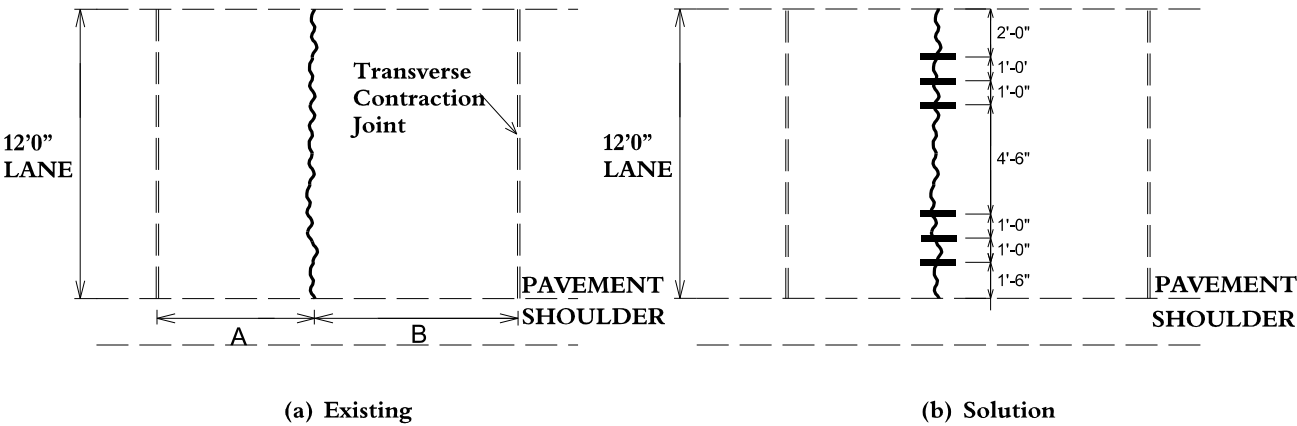


Figure 1. Mid panel transverse crack (A and B greater than three feet).

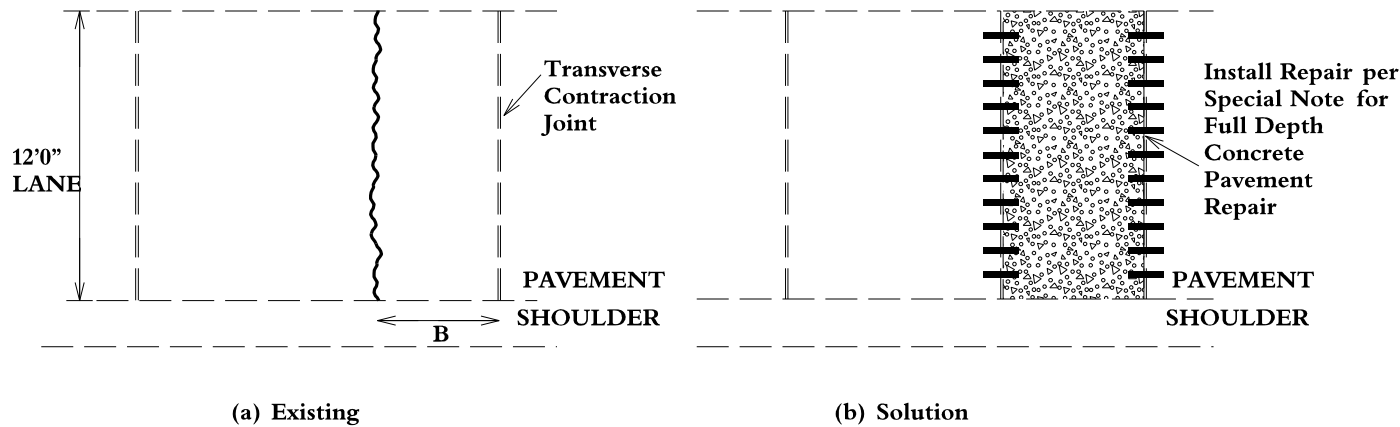


Figure 2. Existing transverse crack (B < three feet).

1. See Project Plans for existing thickness, d, and the lanes to be retrofitted.
2. The details shown on this plan for dowel retrofit also apply to existing concrete pavement constructed with transverse joints at right angles to longitudinal pavement jobs.
3. Seal existing transverse joint or crack at bottom and sides of the dowel bar slot with caulking filler prior to placing dowel bar and foam core insert.
4. The top of the foam core insert is to match the top of the existing pavement surface initially. The upper portion of insert will be removed during shaping of the sealant reservoir.

September 18, 2019

SPECIAL NOTE FOR CLASS 1A GEOTEXTILE FABRICS USED IN STRUCTURAL PAVEMENT DESIGNS

1. **DESCRIPTION.** This special note covers requirements for Class 1A geotextile fabrics to be used for subgrade stabilization that is a part of a structural pavement design.
2. **GEOTEXTILE FABRIC.** Use woven fabric consisting only of long chain polymeric filaments or yarns such as polypropylene formed into a stable network such that the filaments or yarns retain their relative position to each other. Use fabric that is inert to commonly encountered chemicals and free of defects or flaws significantly affecting its physical or filtering properties.

Ensure that the fabric is formed in widths of at least 6 feet. When necessary, sew sheets of fabric together to form required fabric widths. Sew the sheets of fabric together at the point of manufacture or other approved locations.

The geotextile manufacturer is responsible for establishing and maintaining a quality control program to ensure compliance with this section. The manufacturer must participate in the National Transportation Product Evaluation Program (NTPEP) for Geotextiles and Geosynthetics and the product data must be posted in NTPEP DataMine.

2.1 **PACKING.** During all periods of shipment and storage, wrap the fabric in a heavy duty protective covering to protect the fabric from direct sunlight, ultraviolet rays, temperatures greater than 140 °F, mud, dirt, dust, and debris.

2.2 **PHYSICAL REQUIREMENTS.** Class 1A fabrics are to meet the current requirements of AASHTO M288.

2.3 **ACCEPTANCE.** Obtain the Department's approval for all material before incorporating it into the project.

3. **CONSTRUCTION.** The Engineer will reject the fabric if it has defects, rips, holes, flaws, deterioration, or damage. Prepare the surface to receive the fabric to a smooth condition, free of obstructions, debris, or sharp objects that may puncture the fabric. Place the fabric smooth and free of folds, wrinkles, or creases. Do not operate equipment directly on the fabric. Protect the fabric at all times from contamination. Remove and replace any contaminated fabric with uncontaminated fabric.

Repair or replace any fabric damage. Repair individual isolated cuts, tears, or punctures by placing a patch of geotextile fabric that extends at least 3 feet beyond the damage in all directions or by field splicing the patch. Cover the fabric with a layer of the specified material within 14 calendar days. Remove and replace fabric not covered within 14 days.

September 18, 2019

4. ACCEPTANCE PROCEDURES FOR NON-SPECIFICATION FABRIC. Ensure that all geotextile fabric conforms to the requirements of this section. However, when non-specification geotextile fabric is inadvertently incorporated into the work before completion of testing, the Department may accept the material with a reduction in pay, provided the failure is marginal and will not cause poor performance. When the failure is excessive, then remove the geotextile fabric, and replace it unless the Engineer determines that the geotextile fabric can remain in place. The Department will apply the largest payment reduction when the material fails to meet more than one specification requirement. The Department will calculate the payment reduction on the invoice cost of the material delivered at the project site. The Department will reject geotextile fabric that fails and has not been incorporated into the work.

5. FASTENER PINS. The Engineer will accept fastener pins based on visual inspection on the project. Conform to the following:

5.1 SUBGRADE STABILIZATION AND WRAPPED AGGREGATE DRAINAGE BLANKET. Provide fastener pins that are formed of 3/16 inch diameter or heavier steel, pointed at one end, with a head on the opposite end to retain a washer with a minimum diameter of 1 ½ inches.

6. MEASUREMENT. The Department will measure the quantity in square yards. The Department will not measure fabric when the Contract indicates the fabric is incidental to the work or when the specification for another item requires incidental installation of geotextile fabric.

The Department will not measure material in laps or seams.

When fabric is used in conjunction with an aggregate layer, the Department will measure the quantity of (1) the area of the lower surface of the aggregate layer, (2) the area of the upper surface of the aggregate layer, and (3) the area of the sides and ends of the aggregate layer; using the dimensions specified in the Plans for each fabric type that applies to its corresponding location(s).

The Department will not measure for payment the repair or replacement of damaged fabric or replacement of fabric not covered within 14 days.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02604	FABRIC-GEOTEXTILE CLASS 1A	Square Yard

JEFFERSON CO. I-64 m.p. ~0.70
~LAT/LONG N 38.275052, W 85.814616
STATION 753

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6"x6" SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

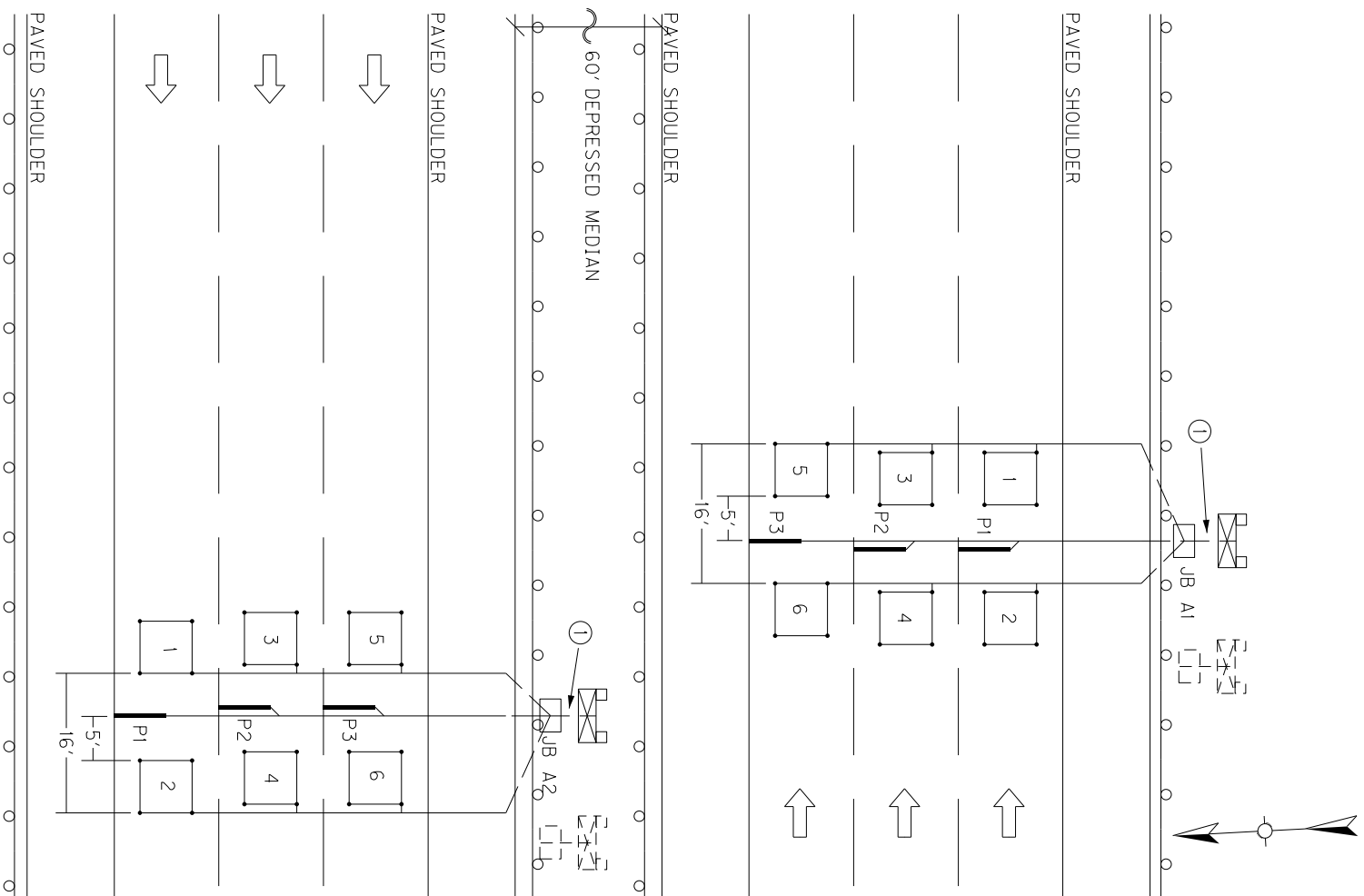
INSTALL ONE (1) 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH.

REMOVE EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

- ① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 m.p. ~0.31
~LAT/LONG N 38.272441, W 85.808792
STATION 004

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

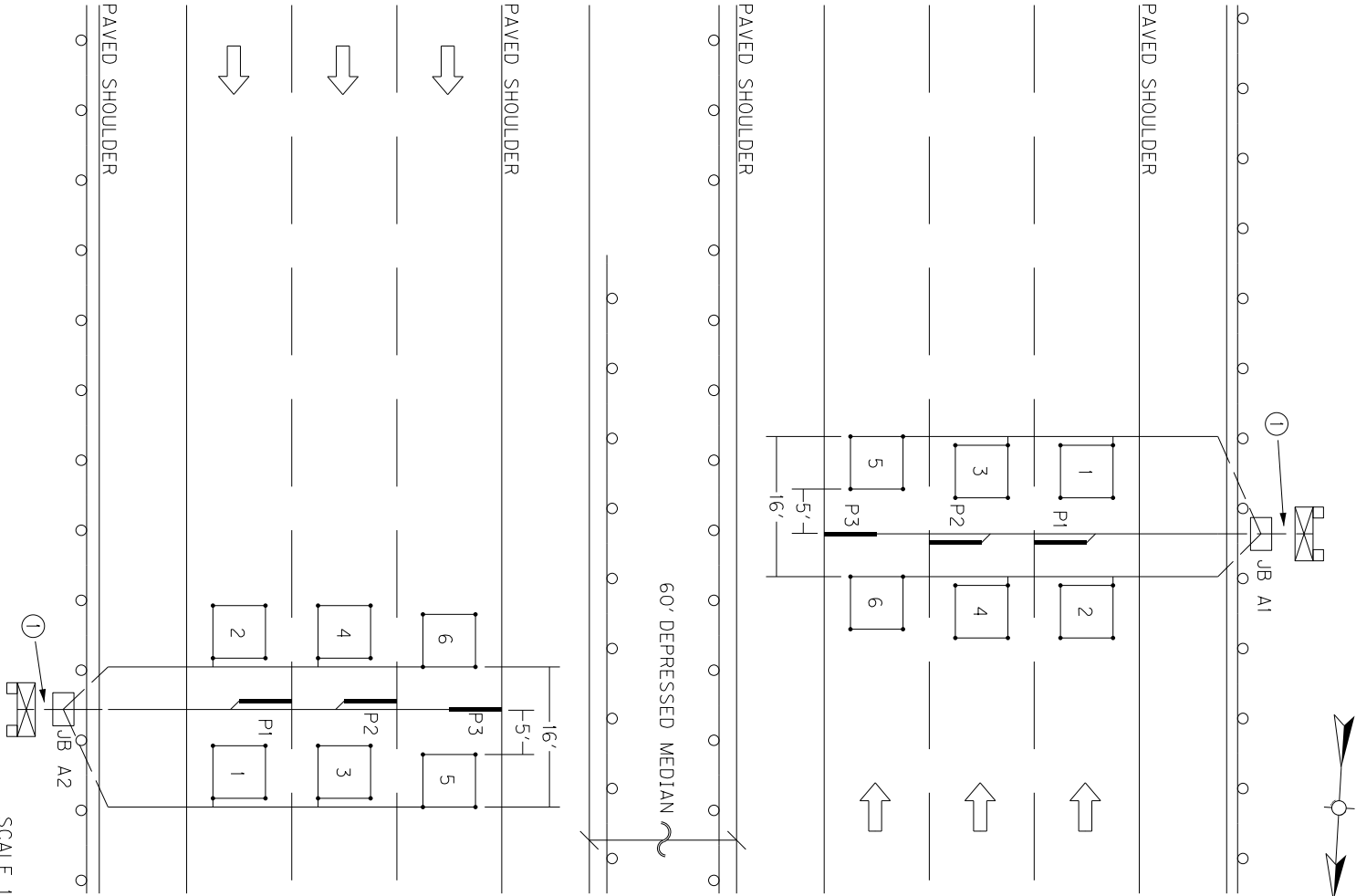
INSTALL ONE (1) 1 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH.

REMOVE EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

- ① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 m.p. ~0.67
~LAT/LONG N 38.267435, W 85.807608
STATION N17

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED AND LABELED INSIDE EACH JUNCTION BOX AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

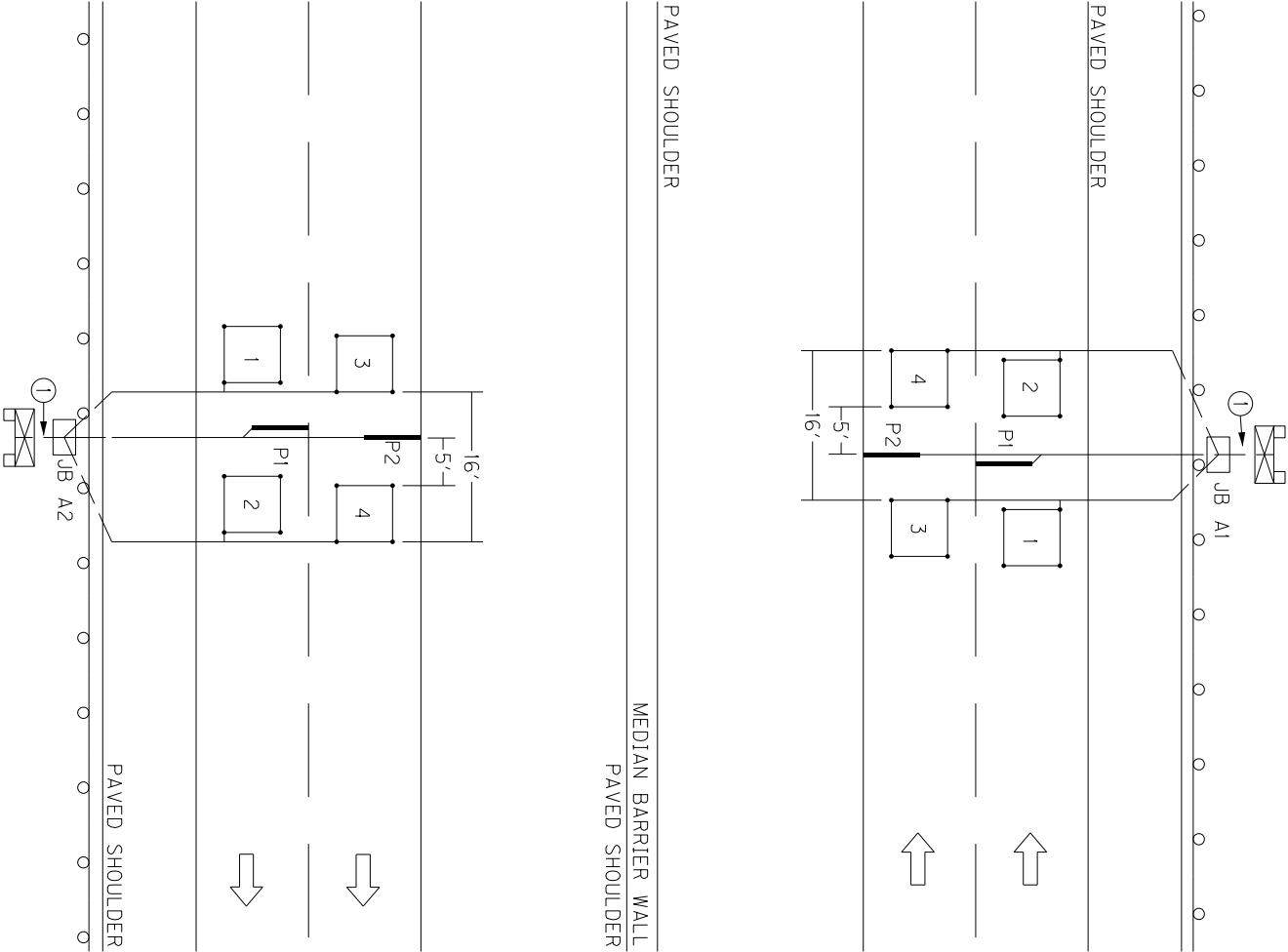
INSTALL ONE (1) 1 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH.

REMOVE EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

- ① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 EB m.p. ~2.35; WB m.p. ~2.33

EB ~LAT/LONG N 38.245282, W 85.811965

WB ~LAT/LONG N 38.245160, W 85.811726

STATION NO2

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND EACH CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

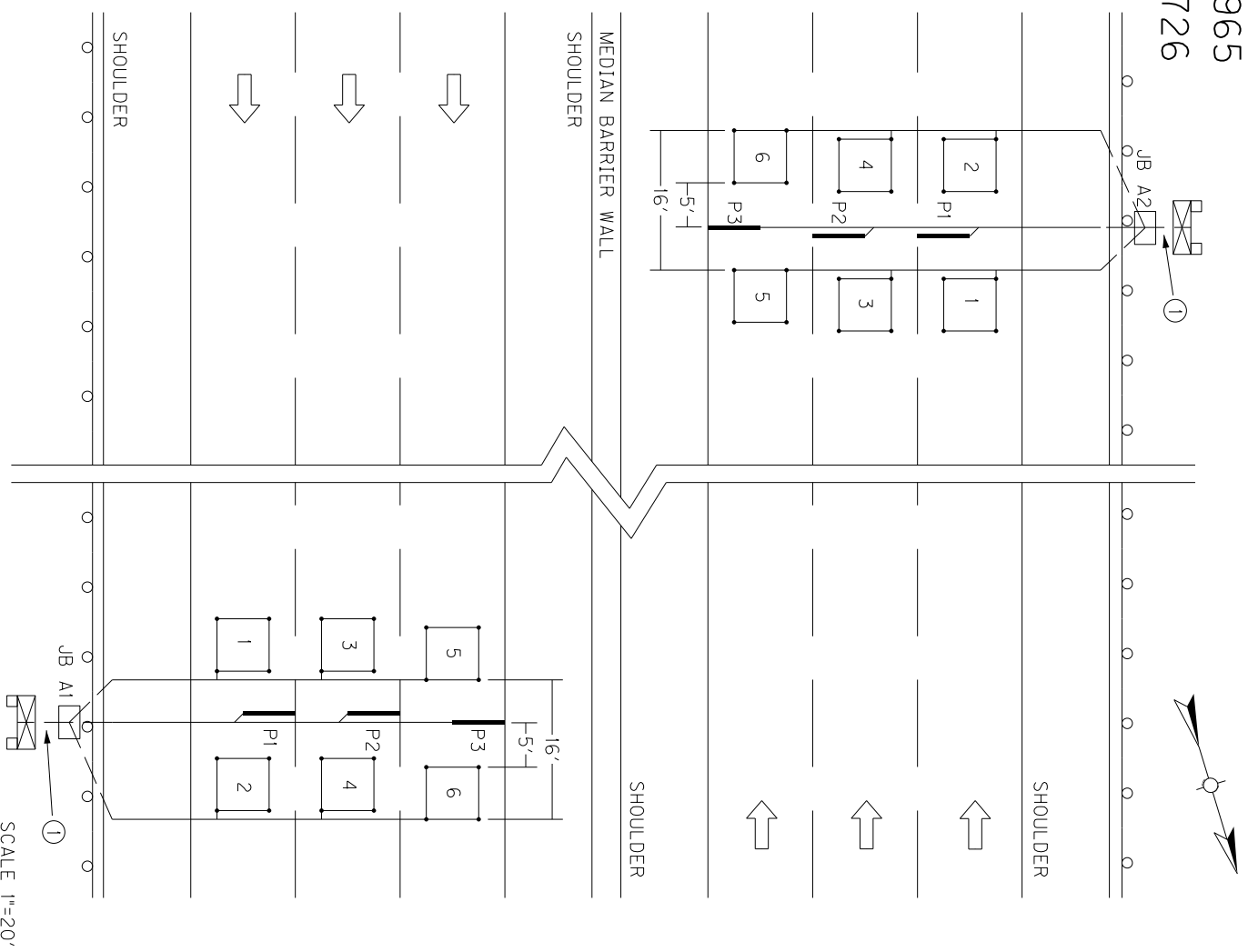
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH (ONE ON EACH SIDE OF THE ROADWAY).

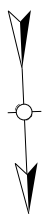
REMOVE ANY AND ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE JOBSITE.

CODED NOTE:

① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 EB m.p. ~3.47; WB m.p. ~3.43
EB ~LAT/LONG N 38.229592, W 85.821635
WB ~LAT/LONG N 38.229070, W 85.821436
STATION N13



SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND EACH CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 1 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

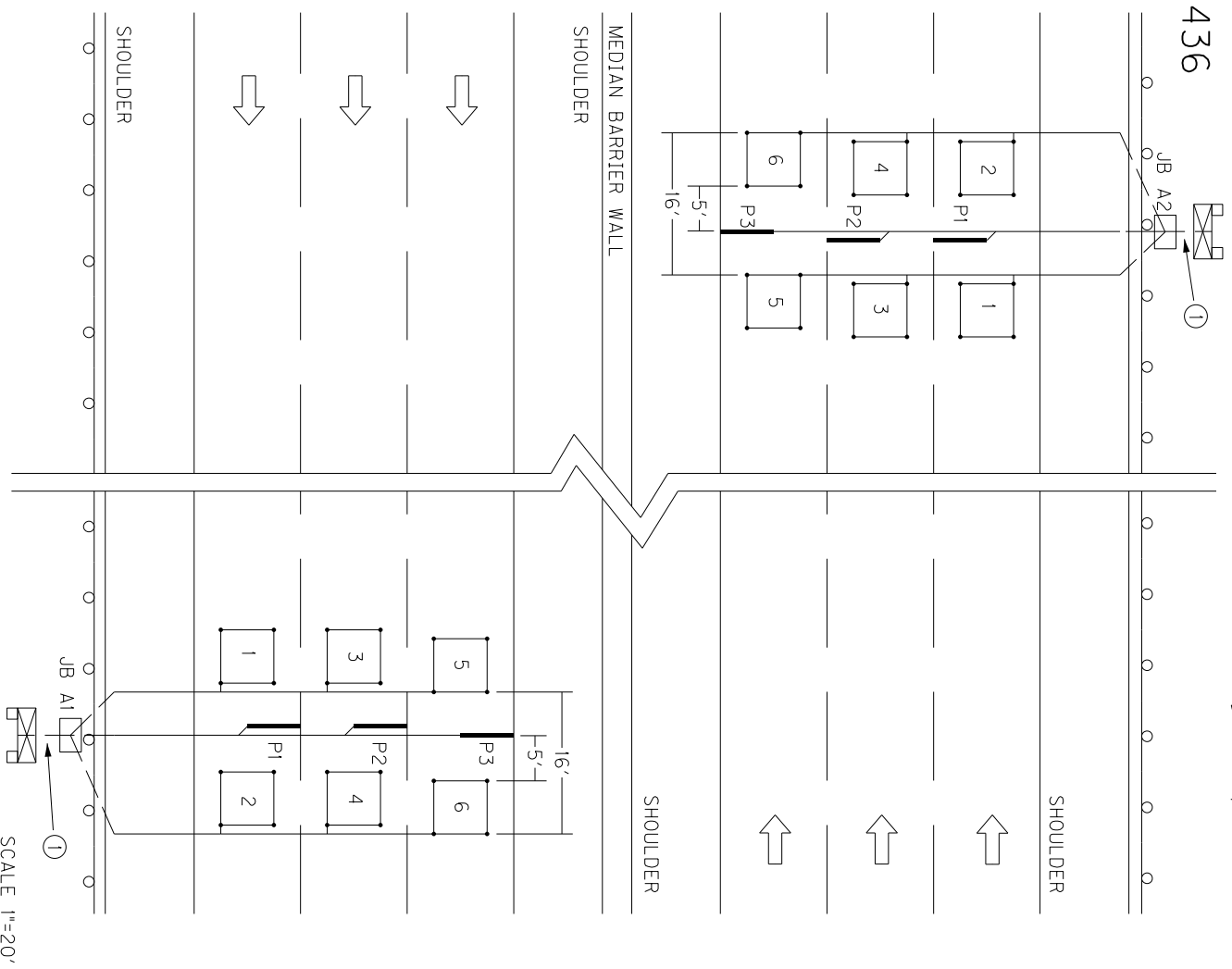
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH (ONE ON EACH SIDE OF THE ROADWAY).

REMOVE ANY AND ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE JOBSITE.

CODED NOTE:

- ① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 EB M.P. ~4.58; WB M.P. ~4.52

EB ~LAT/LONG N 38.215592, W 85.822635

WB ~LAT/LONG N 38.216110, W 85.822446

STATION N15

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND EACH CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 1 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

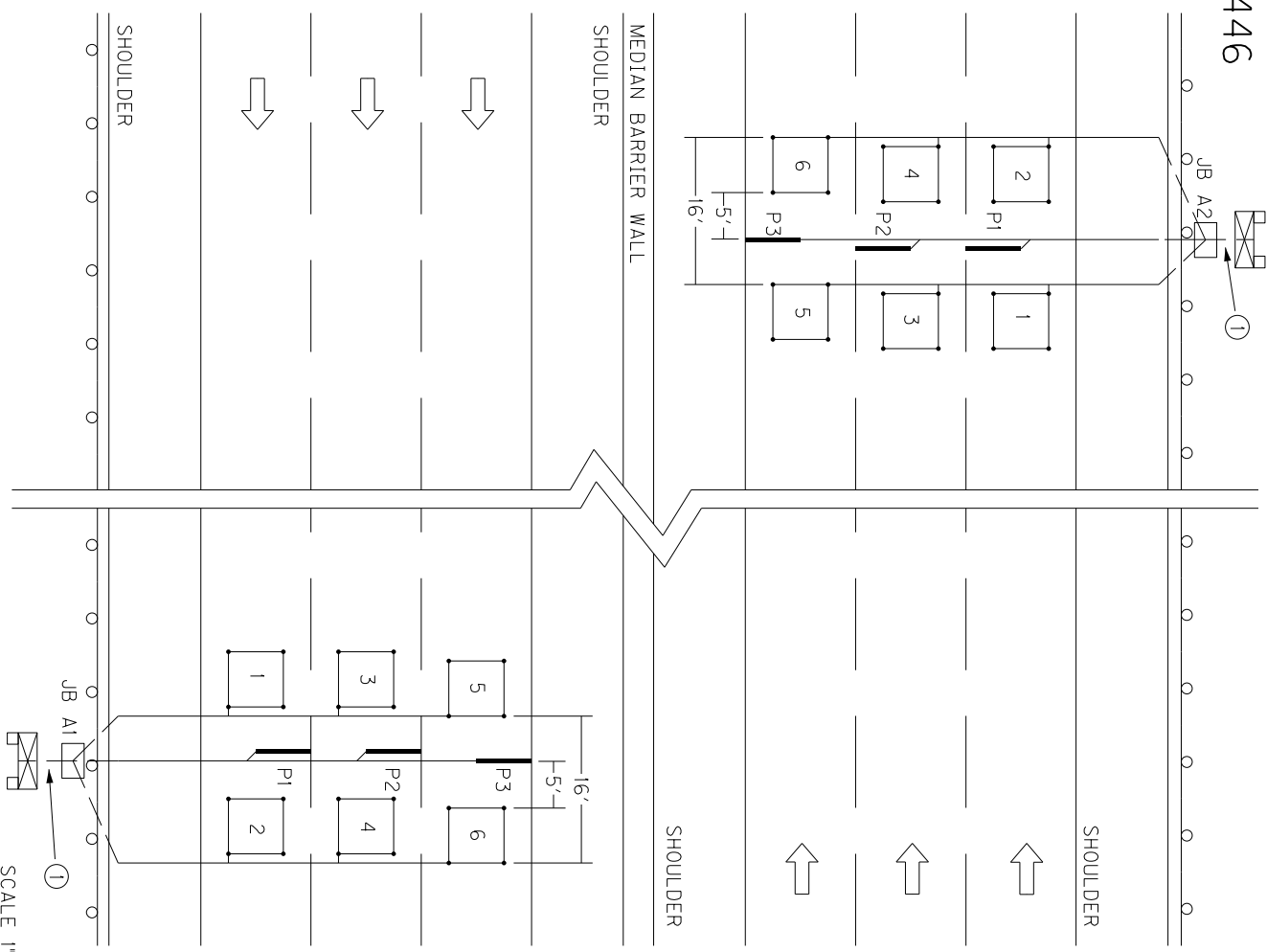
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH (ONE ON EACH SIDE OF THE ROADWAY).

REMOVE ANY AND ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE JOBSITE.

CODED NOTE:

- ① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 EB m.p. ~5.89; WB m.p. ~5.82

EB ~LAT/LONG N 38.197112, W 85.828455

WB ~LAT/LONG N 38.197070, W 85.828206

STATION N30

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND EACH CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

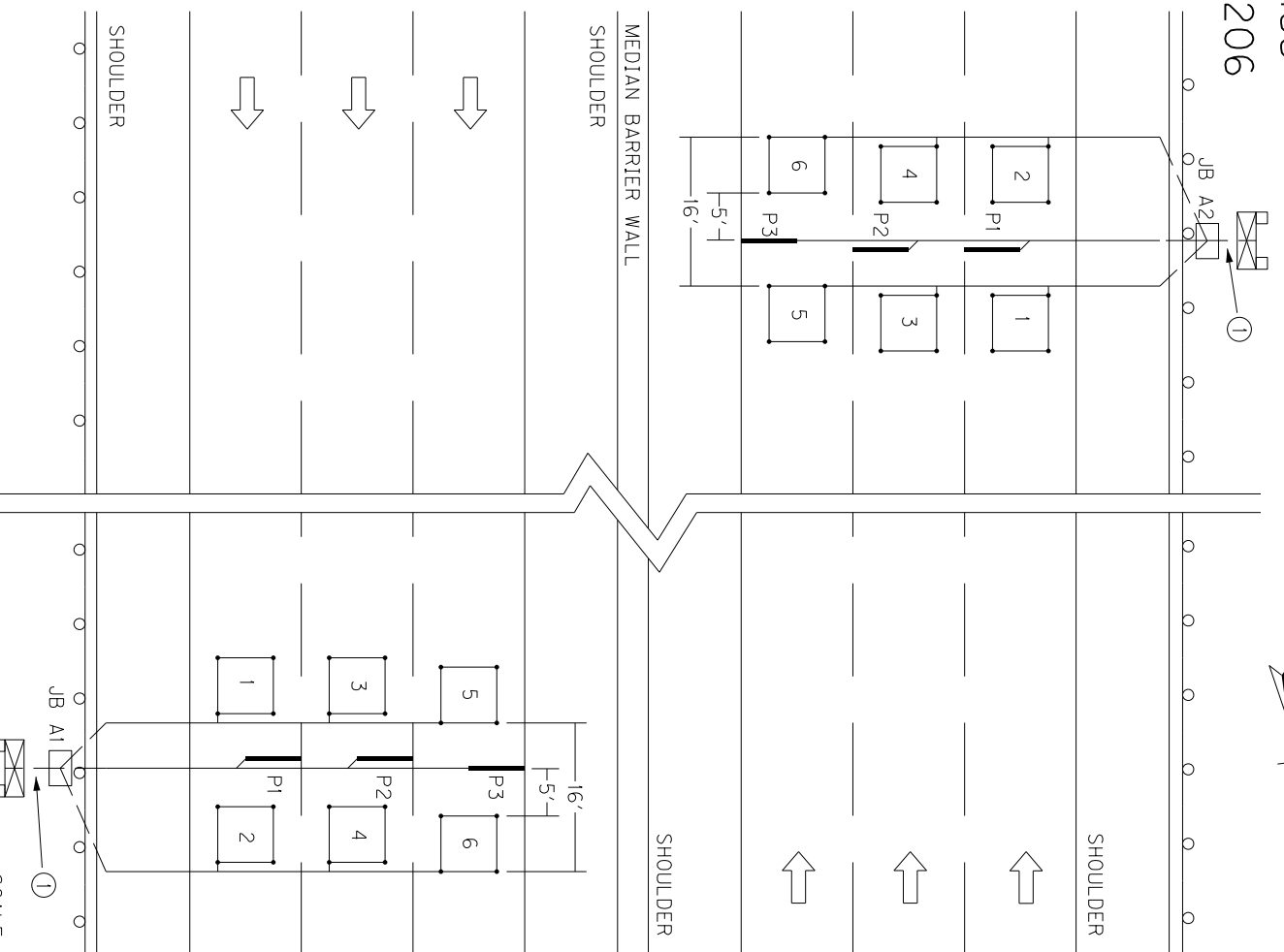
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH (ONE ON EACH SIDE OF THE ROADWAY).

REMOVE ANY AND ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE JOBSITE.

CODED NOTE:

① INSTALL ONE (1) 2" CONDUIT.



SCALE 1"=20'

JEFFERSON CO. I-264 EB m.p. ~8.21; WB m.p. ~8.36

EB ~LAT/LONG N 38.186252, W 85.799765

WB ~LAT/LONG N 38.186530, W 85.798786

STATION 805

SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND EACH CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL ONE (1) 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

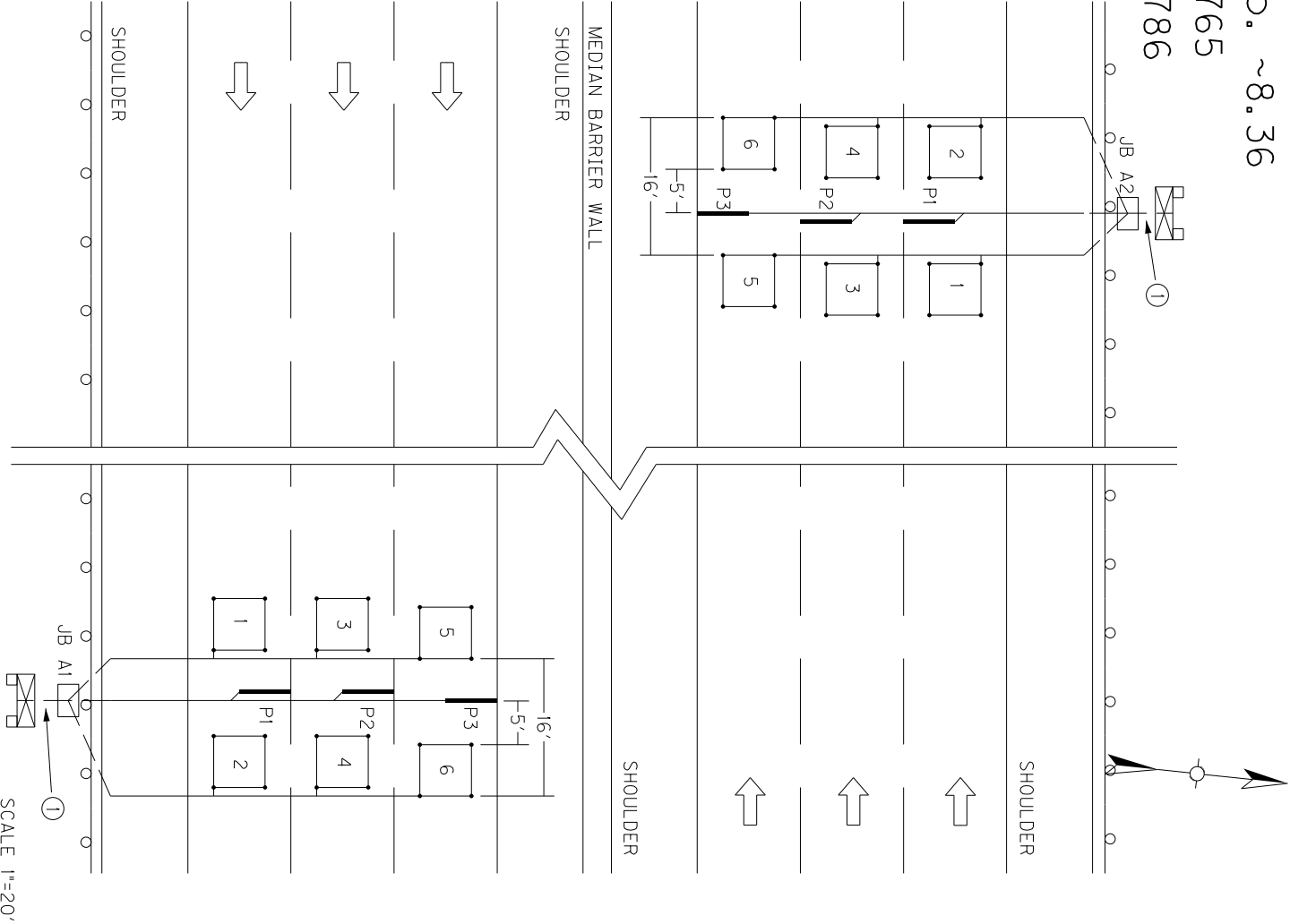
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2)

INSTALL TWO (2) 20"x20"x8" CABINETS MOUNTED TO TWO (2) WOOD POSTS EACH (ONE ON EACH SIDE OF THE ROADWAY).

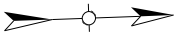
REMOVE ANY AND ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT AND DISPOSE OF OFF THE JOBSITE.

CODED NOTE:

① INSTALL ONE (1) 2" CONDUIT.



JEFFERSON CO. I-264 ~m.p. 9.5
~LAT/LONG N 38.113572, W 85.466775
STATION 801



SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET. A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE THE CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

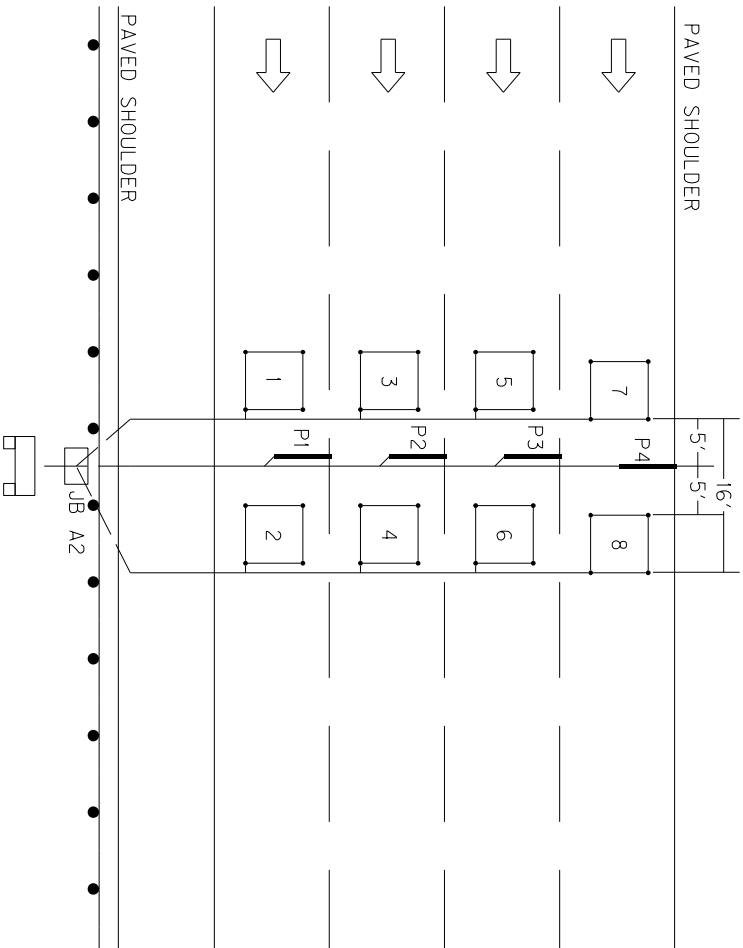
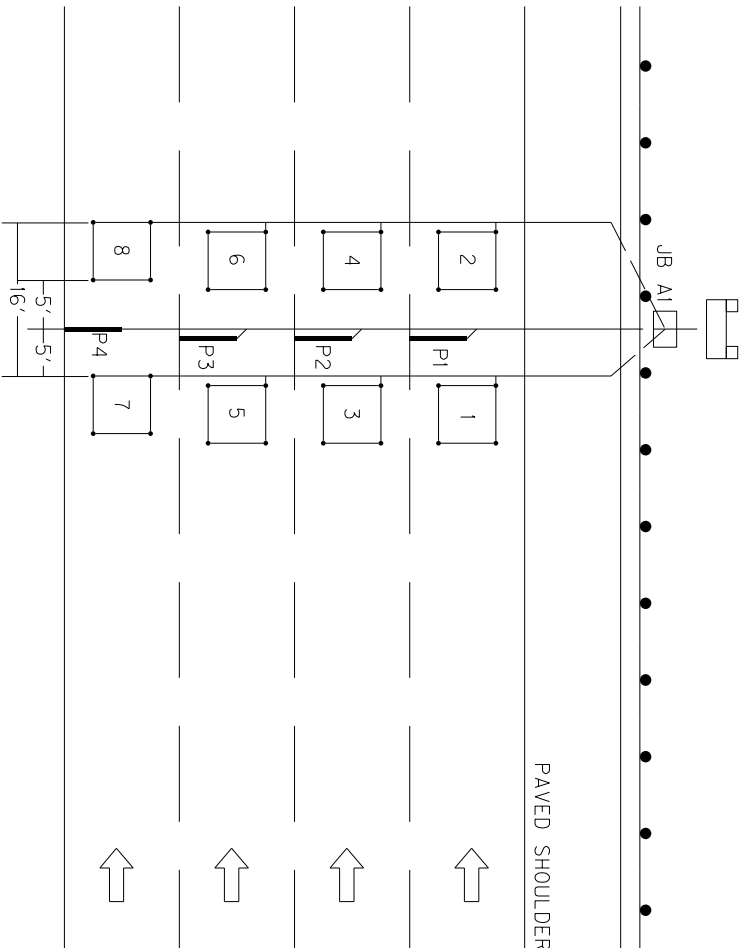
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND A2).

INSTALL ONE (1) 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL TWO (2) 20"x20"x8" GALVANIZED STEEL CABINET ON TWO (2) WOOD POSTS EACH.

INSTALL ONE (1) 2" CONDUIT FROM EACH JUNCTION BOX TO EACH CABINET.

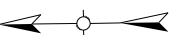
REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT (CABINET, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.



JEFFERSON CO. I-264 ~m.p. 10.53

LAT/LONG N 38.189986, W 85.758033

STATION 795 (EB)



SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET. A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE THE CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

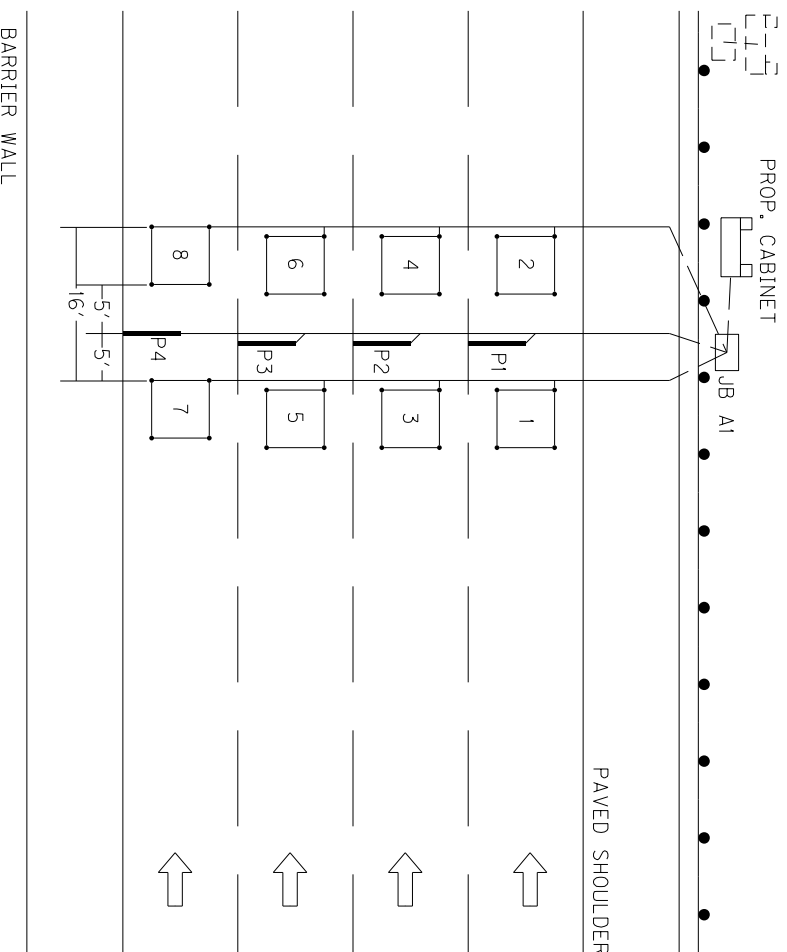
INSTALL ONE (1) TYPE A JUNCTION BOXES (JB A1).

INSTALL ONE (1) 1 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL ONE (1) 20"x20"x8" GALVANIZED STEEL CABINET ON TWO (2) WOOD POSTS.

INSTALL ONE (1) 2" CONDUIT FROM JUNCTION BOX TO CABINET.

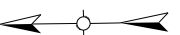
REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT (CABINET, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.



JEFFERSON CO. I-264 ~m.p. 10.78

~LAT/LONG N 38.190419, W 85.753192

STATION 795 (WB)



SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'X6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPlice-FREE TO THE CABINET. A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE THE CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

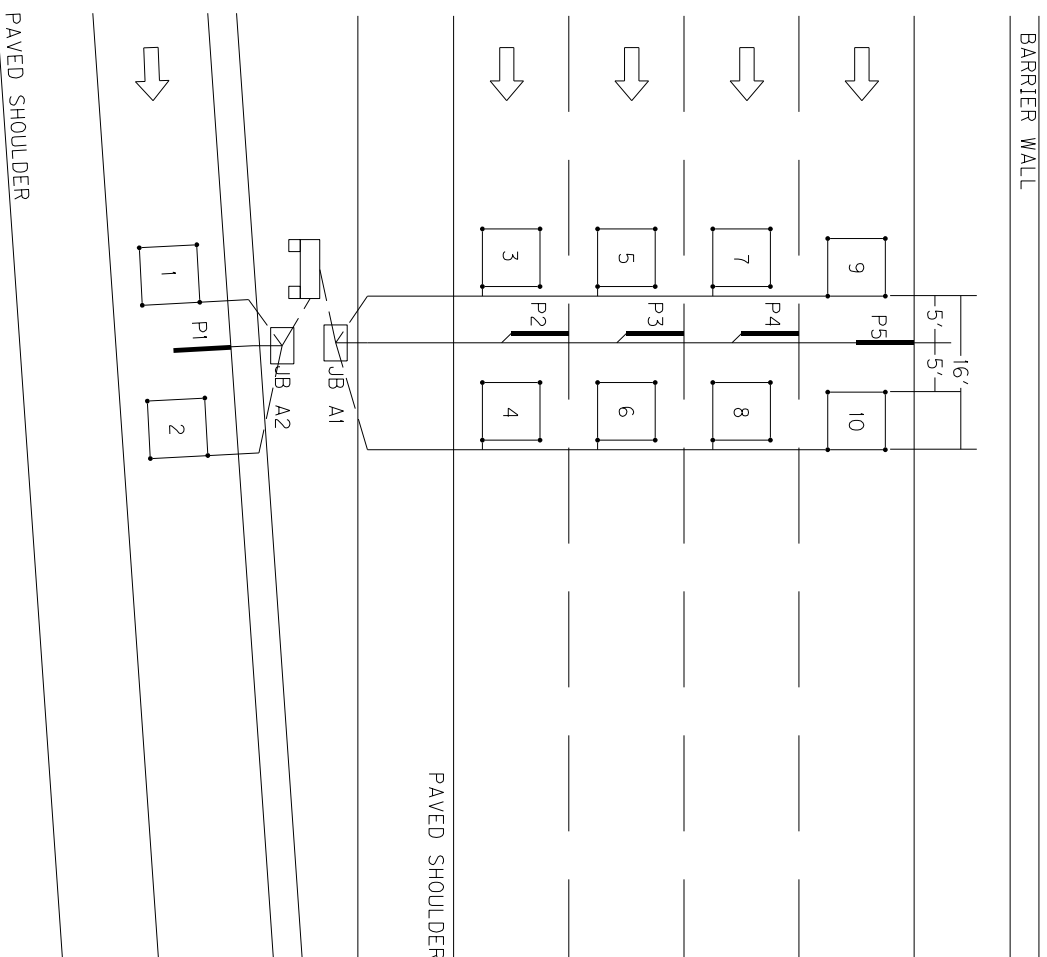
INSTALL TWO (2) TYPE A JUNCTION BOXES (JB A1 AND JB A2).

INSTALL ONE (1) 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

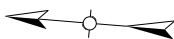
INSTALL ONE (1) 20"x20"x8" GALVANIZED STEEL CABINET ON TWO (2) WOOD POSTS.

INSTALL ONE (1) 2" CONDUIT FROM EACH JUNCTION BOX TO CABINET.

REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT (CABINET, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.



JEFFERSON CO. I-264 ~m.p. 11.22
LAT/LONG N 38.189214, W 85.744744
STATION 791 (EB)



PRIOR TO ANY CONSTRUCTION, CONTRACTOR SHALL GIVE THREE DAYS NOTICE TO CENTRAL OFFICE DIVISION OF PLANNING PERSONNEL SO THAT THEY CAN BE PRESENT DURING CONSTRUCTION. SITE LOCATION IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD AND APPROVED BY DIVISION OF PLANNING PERSONNEL PRIOR TO ANY CONSTRUCTION.

ALL LOOPS SHALL BE 6'x6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET. A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE THE CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

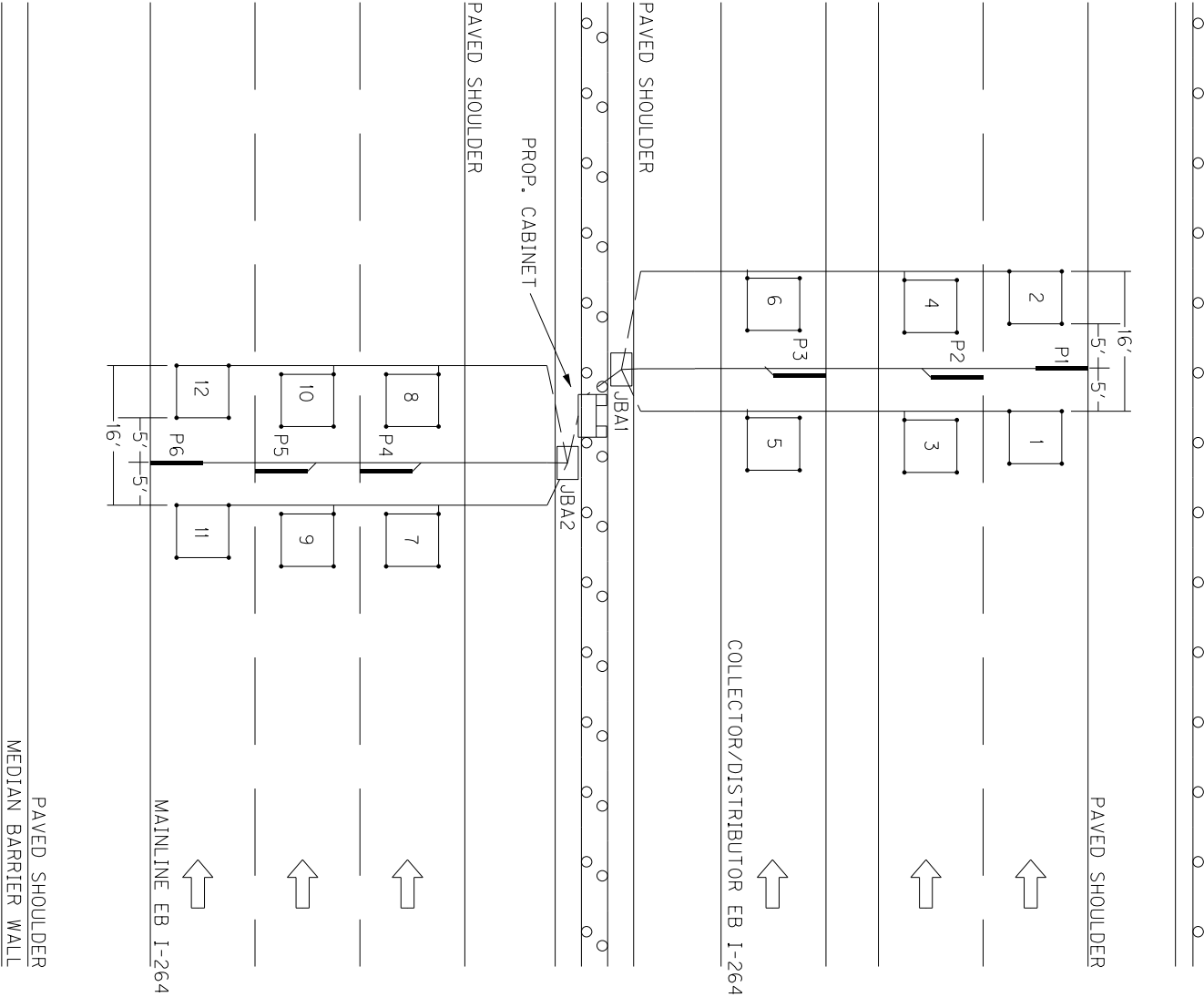
INSTALL TWO (2) TYPE A JUNCTION BOXES (JBA1 AND JBA2).

INSTALL ONE (1) 1 1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL ONE (1) 20"x20"x8" GALVANIZED STEEL CABINET ON TWO (2) WOOD POSTS.

INSTALL ONE (1) 2" CONDUIT FROM EACH JUNCTION BOX TO CABINET.

REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT (CABINET, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.



ALL LOOPS SHALL BE 6'x6' SQUARE AND SHALL BE INSTALLED 16' FROM LEADING EDGE TO LEADING EDGE AS SHOWN. PIEZOELECTRIC SENSORS (PIEZOS) SHALL BE INSTALLED 5' FROM THE EDGE OF LOOPS WITH THE EDGE OF EACH PIEZO FLUSH WITH THE EDGE OF THE CORRESPONDING DRIVING LANE. LOOPS AND PIEZOS SHALL BE INSTALLED SPLICE-FREE TO THE CABINET. A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE EACH JUNCTION BOX AND A MINIMUM OF 2' OF WIRE FOR EACH SENSOR SHALL BE COILED INSIDE THE CABINET. ALL LOOPS AND PIEZOS SHALL BE LABELED IN ALL JUNCTION BOXES AND CABINET. DIVISION OF PLANNING PERSONNEL WILL CONNECT THE LOOPS AND PIEZOS INSIDE THE CABINET.

INSTALL MAINLINE SENSOR WIRES AND CABLES THROUGH EX. MEDIAN BARRIER WALL PER DETAIL SHOWN. COST FOR INSTALLING WIRES AND CABLES THROUGH WALL SHALL BE INCIDENTAL TO LOOP SAW SLOT FILL.

INSTALL TWO (2) TYPE A JUNCTION BOXES (JBA1 AND JBA2).

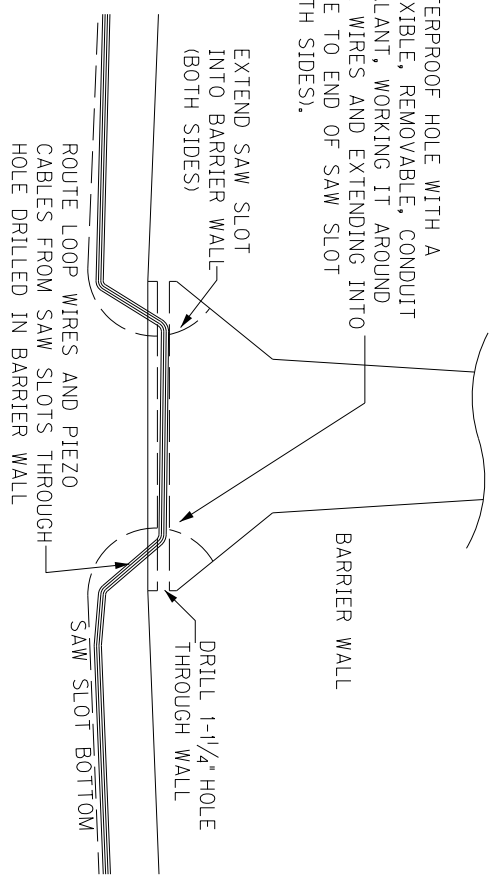
INSTALL ONE (1) 1-1/4" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

INSTALL ONE (1) 20"x20"x8" GALVANIZED STEEL CABINET ON TWO (2) WOOD POSTS.

INSTALL ONE (1) 2" CONDUIT FROM EACH JUNCTION BOX TO CABINET.

REMOVE ALL EX. TRAFFIC DATA COLLECTION EQUIPMENT (CABINET, WOOD POSTS, JUNCTION BOXES, WIRE, CONDUIT) NOT TO BE REUSED AND DISPOSE OF OFF THE PROJECT.

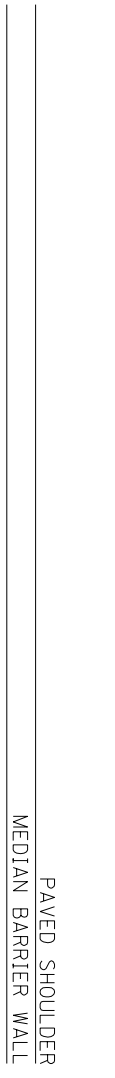
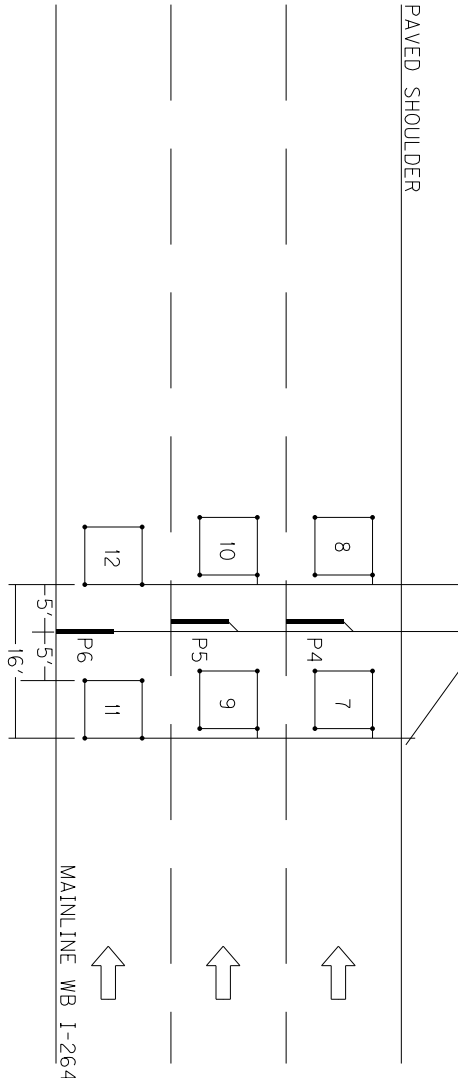
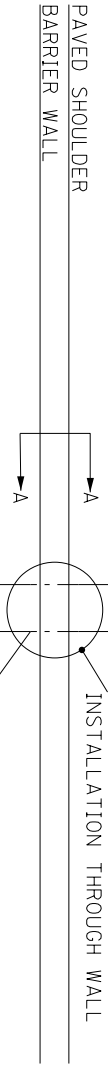
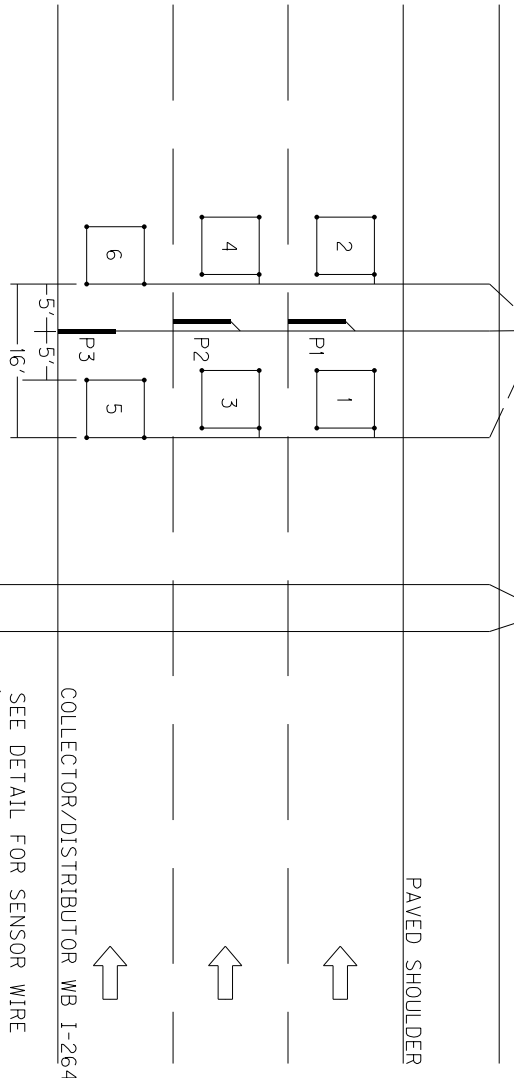
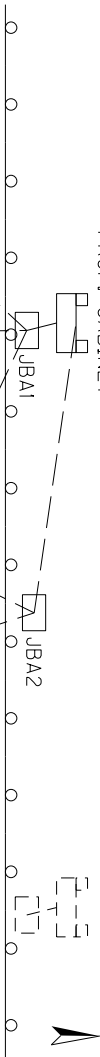
WATERPROOF HOLE WITH A FLEXIBLE, REMOVABLE, CONDUIT SEALANT, WORKING IT AROUND THE WIRES AND EXTENDING INTO HOLE TO END OF SAW SLOT (BOTH SIDES).



SENSOR WIRE INSTALLATION THROUGH BARRIER WALL SECTION A-A

JEFFERSON CO. I-264 ~m.p. 11.53
~LAT/LONG N 38.190111, W 85.739567
STATION 791 (WB)

PROP. CABINET

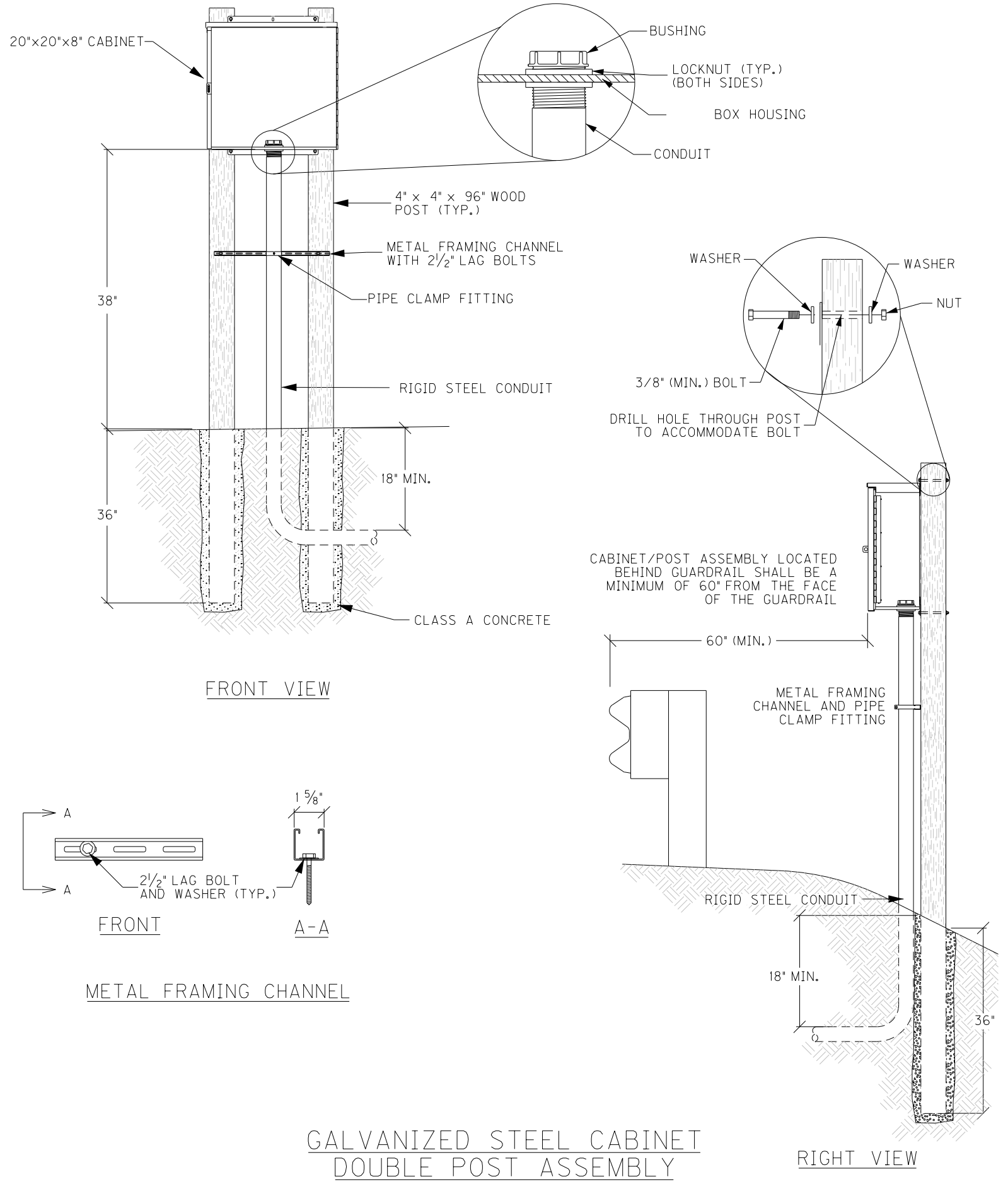


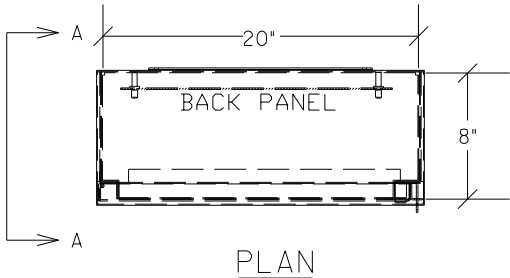


CONTRACTOR SHALL INSTALL UNDERGROUND UTILITY
WARNING TAPE ABOVE CONDUIT AS SHOWN.

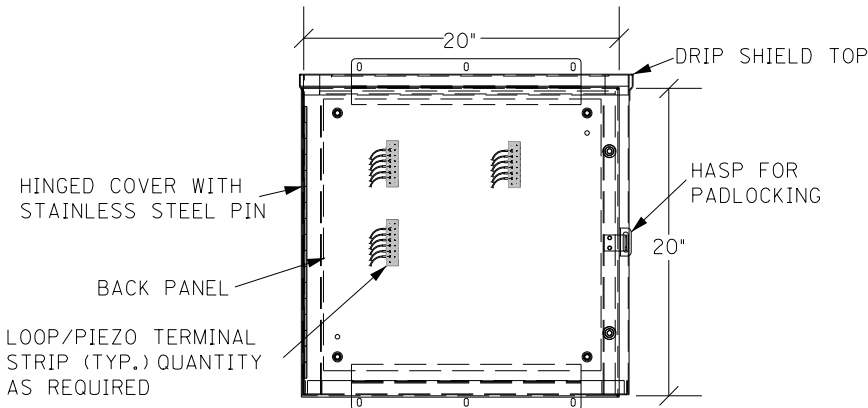
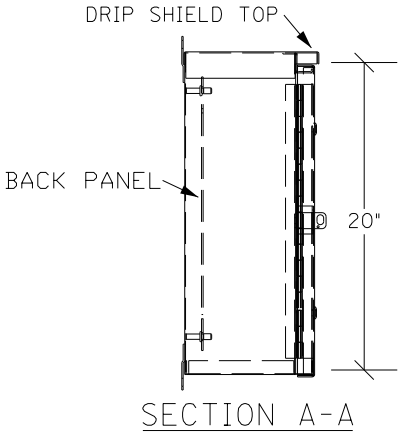


CONDUIT INSTALLATION



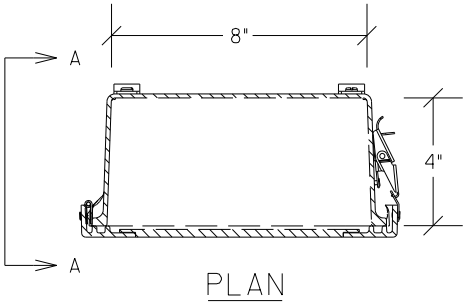


PLAN

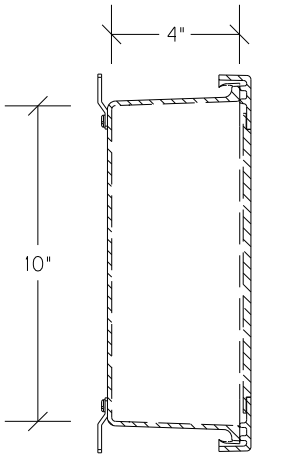


ELEVATION

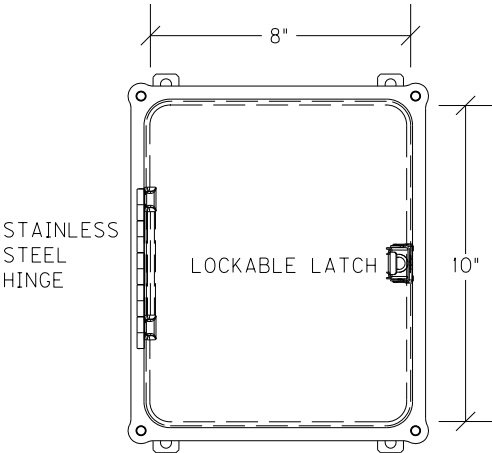
GALVANIZED STEEL CABINET



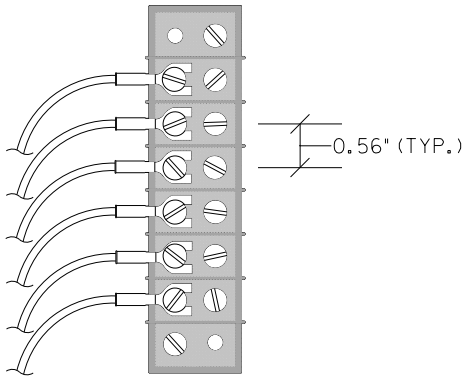
PLAN



SECTION A-A

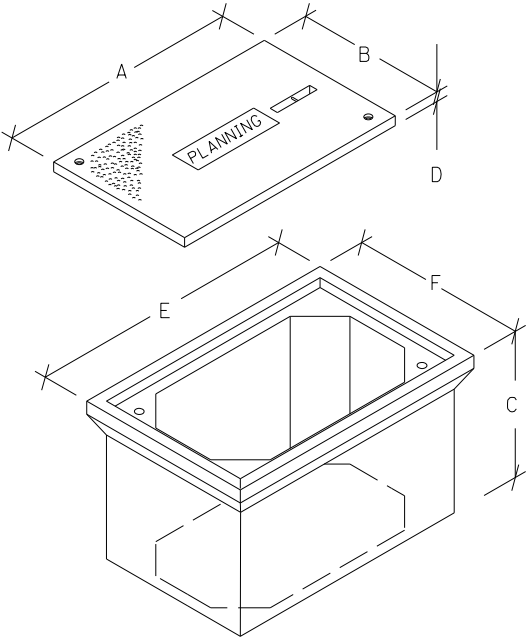


ELEVATION



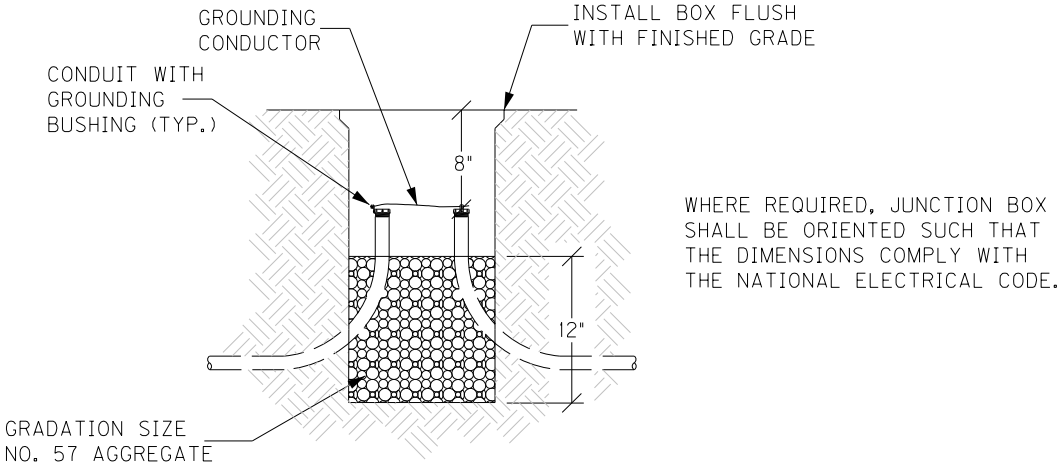
TERMINAL STRIP (TYP.)

JUNCTION BOX 10"X8"X4"

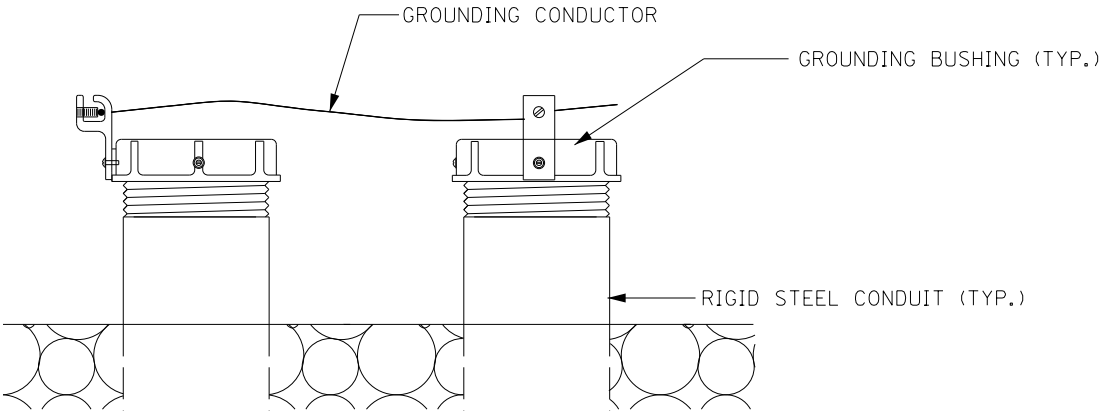


JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D*	E	F
TYPE A	23"	14"	18"	2"	25"	16"
TYPE B	18"	11"	12"	1¾"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
STACKABLE BOXES ARE PERMITTED



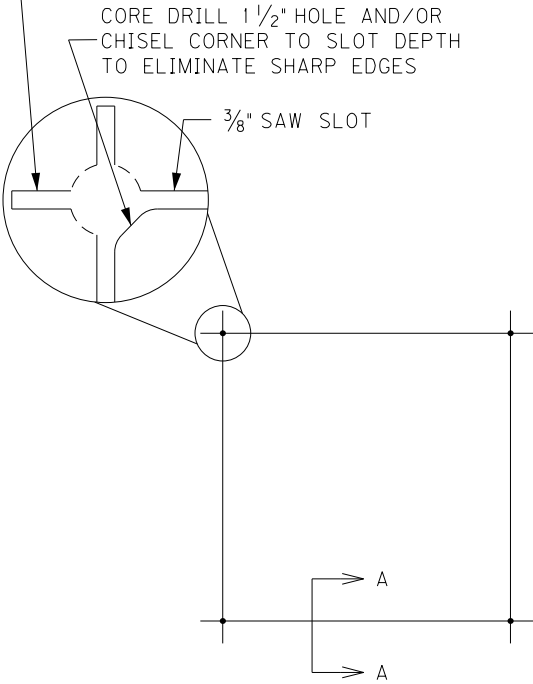
ELEVATION



GROUNDING DETAIL

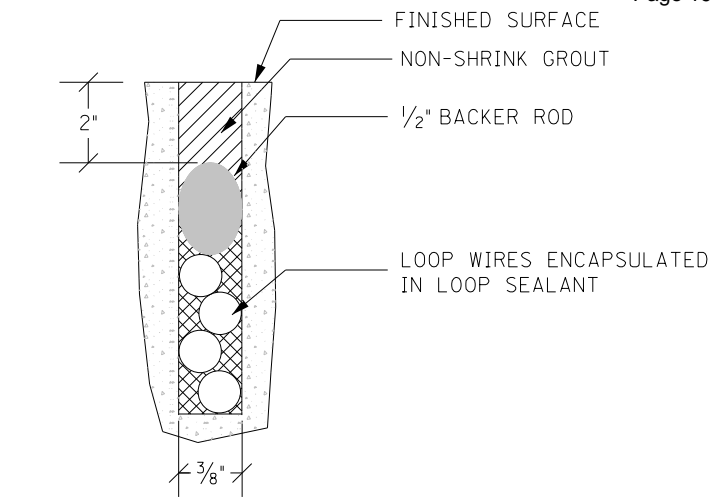
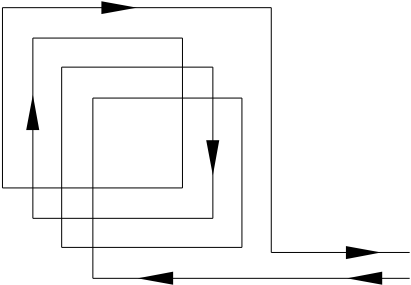
JUNCTION BOX - TYPE A, TYPE B, TYPE C

JEFFERSON COUNTY
NHPP IM 2649(183)

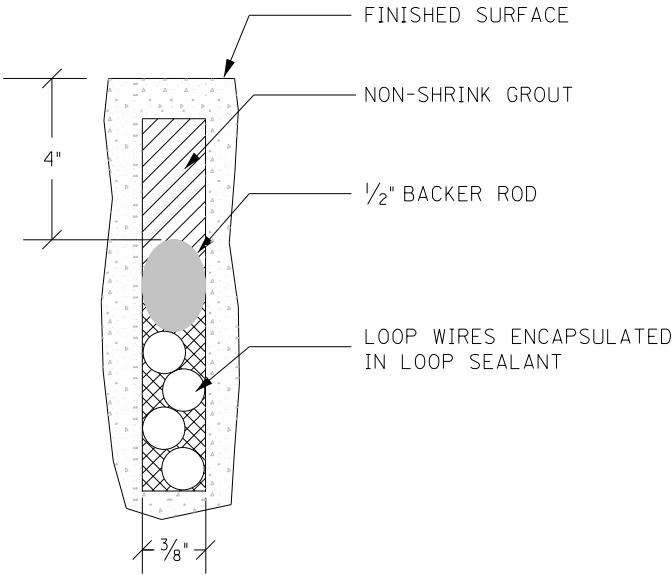


UNLESS SPECIFIED OTHERWISE, ALL LOOPS SHALL BE 6' x 6' SQUARE, CENTERED IN EACH LANE, WITH FOUR TURNS OF 14 AWG LOOP WIRE.

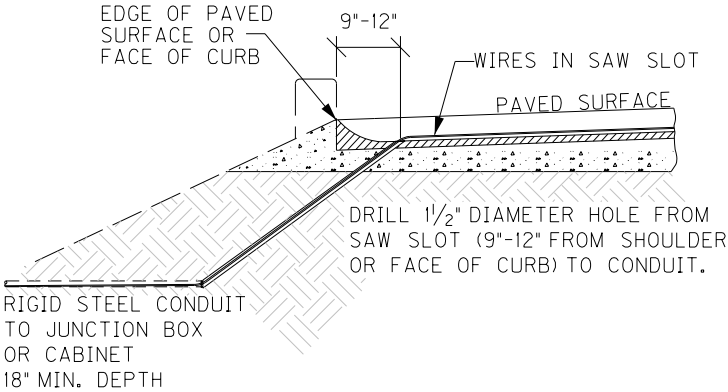
ADJACENT SAW SLOTS SHALL BE A MINIMUM OF 12" APART.



SECTION A-A (CONCRETE)



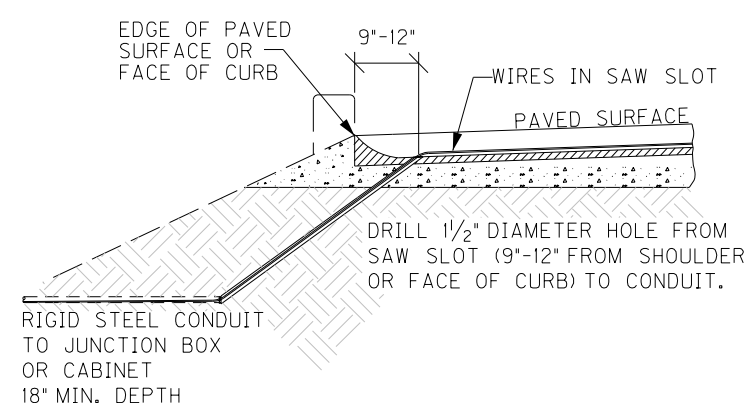
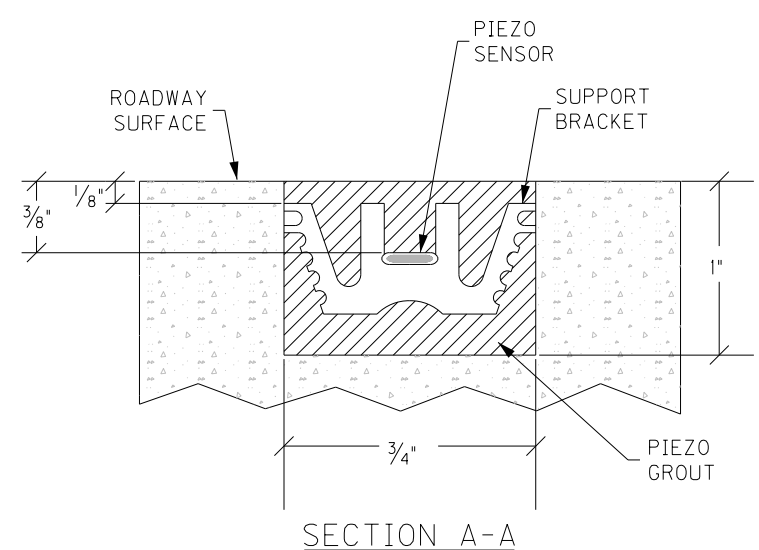
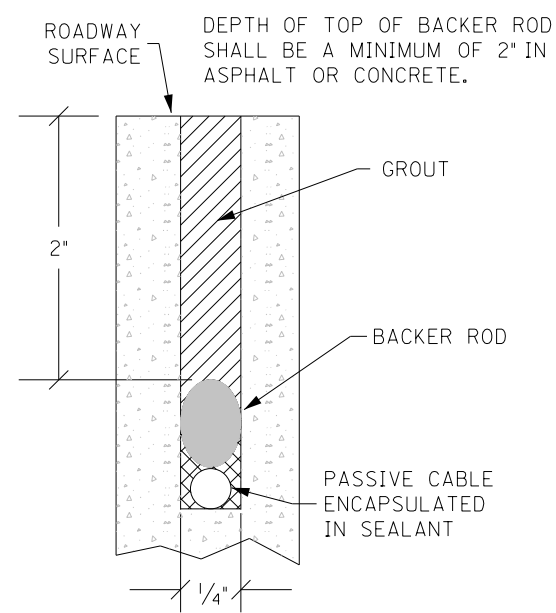
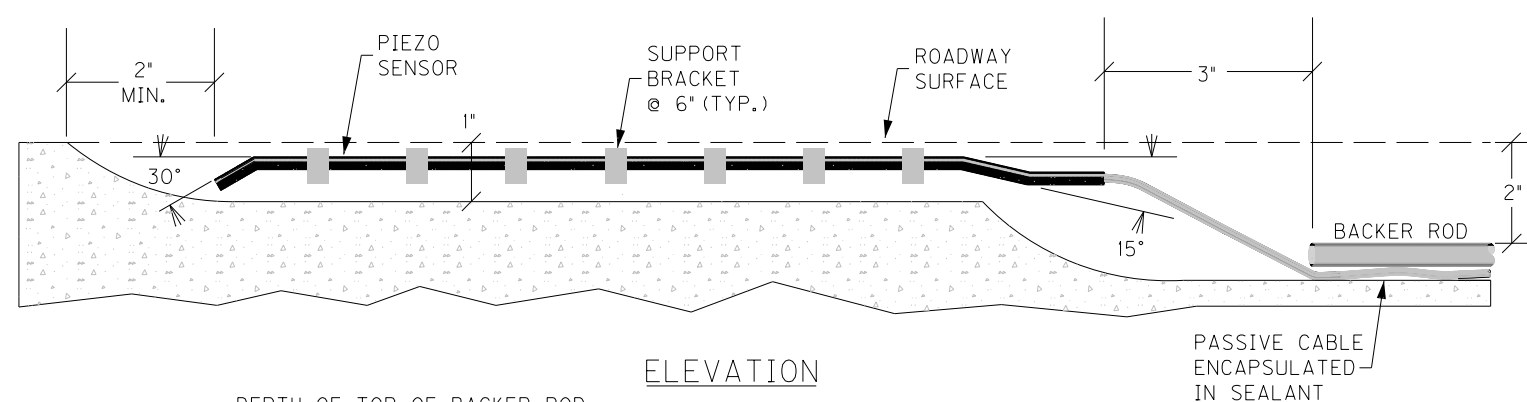
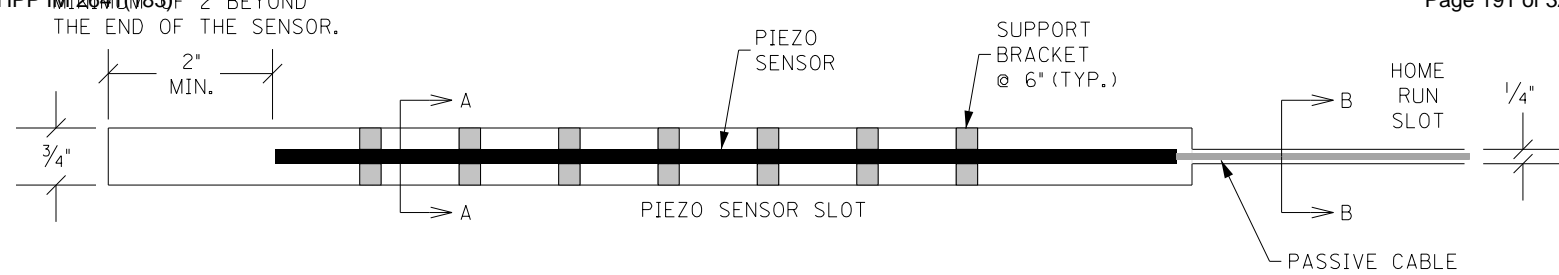
SECTION A-A (ASPHALT)



SAW SLOT EDGE OF PAVEMENT TRANSITION

INDUCTIVE LOOP DETECTOR

NOT TO SCALE



PIEZOELECTRIC SENSOR INSTALLATION

Permanent Traffic Data Acquisition Station
Estimate Of Quantities

Revised April, 2018

PERMANENT TRAFFIC DATA ACQUISITION STATIONS
ESTIMATE OF QUANTITIES

Bid Item Code	Description	Unit	Quantity
2562	TEMPORARY SIGNS	SQ FT	
2650	MAINTAIN AND CONTROL TRAFFIC	LP SUM	
2775	ARROW PANEL	EACH	
4791	CONDUIT ¾ INCH	LIN FT	
4793	CONDUIT 1 ¼ INCH	LIN FT	720
4795	CONDUIT 2 INCH	LIN FT	305
4811	ELECTRICAL JUNCTION BOX TYPE B	EACH	
4820	TRENCHING AND BACKFILLING	LIN FT	910
4821	OPEN CUT ROADWAY	LIN FT	
4829	PIEZOELECTRIC SENSOR	EACH	75
4830	LOOP WIRE	LIN FT	35270
4850	CABLE NO. 14/1 PAIR	LIN FT	
4871	POLE – 35’ WOODEN	EACH	
4895	LOOP SAW SLOT AND FILL	LIN FT	7355
4899	ELECTRICAL SERVICE	EACH	
20213EC	INSTALL PAD MOUNT ENCLOSURE	EACH	
20359NN	GALVANIZED STEEL CABINET	EACH	22
20360ES818	WOOD POST	EACH	44
20391NS835	ELECTRICAL JUNCTION BOX TYPE A	EACH	24
20392NS835	ELECTRICAL JUNCTION BOX TYPE C	EACH	
20468EC	ELECTRICAL JUNCTION BOX 10x8x4	EACH	
21543EN	BORE AND JACK CONDUIT	LIN FT	
23206EC	INSTALL CONTROLLER CABINET	EACH	

MATERIAL, INSTALLATION, AND BID ITEM NOTES FOR PERMANENT TRAFFIC DATA ACQUISITION STATIONS

1. DESCRIPTION

Except as specified in these notes, all work shall consist of furnishing and installing all materials necessary for permanent data acquisition station equipment installation(s) and shall be performed in accordance with the current editions of:

- The Contract
- Division of Planning Standard Detail Sheets
- Kentucky Transportation Cabinet, Department of Highways, *Standard Specifications for Road and Bridge Construction*
- Kentucky Transportation Cabinet, Department of Highways, *Standard Drawings*
- National Fire Protection Association (NFPA) 70: *National Electrical Code*
- Institute of Electrical and Electronic Engineers (IEEE), *National Electrical Safety Code*
- Federal Highway Administration, *Manual on Uniform Traffic Control Devices*
- American Association of State Highway and Transportation Officials (AASHTO), *Roadside Design Guide*.
- Standards of the utility company serving the installation, if applicable

The permanent traffic data acquisition station layout(s) indicate the extent and general arrangement of the proposed installation and are for general guidance. Any omission or commission shown or implied shall not be cause for deviation from the intent of the plans and specifications. Information shown on the plans and in this proposal and the types and quantities of work listed are not to be taken as an accurate or complete evaluation of the material and conditions to be encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The Department of Highways (Department) does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation if the conditions encountered are not in accordance with the information shown. If any modifications of the plans or specifications are considered necessary by the Contractor, details of such modifications and the reasons, therefore, shall be submitted in writing to the Engineer for written approval prior to beginning such modified work.

The Contractor shall contact all utility companies and the district utility agent prior to beginning construction to insure proper clearance and shielding from existing and proposed utilities. The Contractor shall use all possible care in excavating on this project so as not to disturb any existing utilities whether shown on the plans or not shown on the plans. Any utilities disturbed or damaged by the Contractor during construction shall be replaced or repaired to original condition by the Contractor at no cost to the department. If necessary, to avoid existing utilities, the Contractor shall hand dig areas where poles or conduit cross utilities.

Material, Installation, and Bid Item Notes for
Permanent Traffic Data Acquisition Stations

Revised August, 2018

The Contractor shall be responsible for all damage to public and/or private property resulting from his work.

The Contractor shall inspect the project site prior to submitting a bid and shall be thoroughly familiarized with existing conditions. Submission of a bid will be considered an affirmation of this inspection having been completed. The Department will not honor any claims resulting from site conditions.

2. MATERIALS

All proposed materials shall be approved prior to being utilized. The Contractor shall submit for material approval an electronic file of descriptive literature, drawings and any requested design data for the proposed materials. After approval, no substitutions of any approved materials may be made without the written approval of the Engineer.

Materials requiring sampling shall be made available a sufficient time in advance of their use to allow for necessary testing.

2.1. Anchoring

2.1.1. Anchor and Anchor Rod

Anchor, except rock anchor, shall be expanding type, with a minimum area of 135 square inches.

Anchor rod shall be galvanized steel, double-eye, have a minimum diameter of 5/8 inches, and a minimum length of 84 inches. Minimum holding capacity shall be 15,400 lbs.

Rock anchor shall be galvanized steel, triple-eye, expanding type, with a minimum diameter of 3/4 inch, a minimum 53 inches long, and a minimum tensile strength of 23,000 lb.

2.1.2. Guy Wire and Guy Guard

Guy wire shall be Class A, Zinc-coated, 3/8 inch diameter, high strength grade steel (minimum 10,800 lb.) and galvanized per ASTM A475. Guy guard shall be 8' long, fully-rounded, yellow, and able to be securely attached to the guy wire.

2.1.3. Strandwise for Guy Wire

Strandwise for guy wire shall be 3/8 inch and rated to hold a minimum of 90% of the rated breaking strength (RBS) of the strand used.

2.2. Asphalt

Asphalt shall be a minimum CL2 Asph Surf 0.38C PG64-22 and conform to the *Standard Specifications for Road and Bridge Construction*.

2.3. Backer Rod

Backer rod shall be 1/2 inch diameter, closed cell polyethylene foam and shall meet or exceed the following physical properties:

- Density (average): 2.0 lbs/cu.ft. (minimum): ASTM D 1622 test method
- Tensile Strength: 50 PSI (minimum): ASTM D 1623 test method
- Compression Recovery: 90% (minimum): ASTM D 5249 test method
- Water Absorption: 0.03 gm/cc (maximum): ASTM C 1016 test method

2.4. Cabinets

2.4.1. Galvanized Steel Cabinet

Galvanized Steel Cabinet shall be constructed of 16 or 14 gauge galvanized steel and shall meet or exceed the industry standards set forth by UL 50 and NEMA 3R. The finish shall be an ANSI 61 gray polyester powder finish inside and out over the galvanized steel. Cabinet shall have minimum inside dimensions of 20 inches high by 20 inches wide by 8 inches deep.

The cabinet shall be equipped with the following:

- Drip shield top
- Seam-free sides, front, and back, to provide protection in outdoor installations against rain, sleet, and snow
- Hinged cover with 16 gauge galvanized steel continuous stainless steel pin.
- Cover fastened with captive plated steel screws, knob or latch
- Hasp and staple for padlocking
- No gaskets or knockouts
- Back panel for terminal block installation
- Post mounting hardware
- Terminal Blocks

2.4.2. Anchor Bolt for Pad Mounted Cabinet

Anchor bolt for pad mounted cabinet shall be galvanized steel with minimum dimensions of 3/8 inch by 6 inches.

2.5. Concrete

Concrete shall be Class A and conform to the *Standard Specifications for Road and Bridge Construction*.

2.6. Conduit and Conduit Fittings

Conduit and conduit fittings shall be rigid steel unless otherwise specified.

Conduit shall be zinc galvanized inside and out and conform to the NEC, UL Standard 6, and ANSI C-80.1.

Rigid Steel Conduit Fittings shall be galvanized inside and out and conform to the NEC, UL Standard 514B, and ANSI C-80.4. Intermediate Metal Conduit (IMC) will not be approved as an acceptable alternative to rigid steel conduit.

2.7. Conduit sealant

Conduit sealant shall be weather-, mold-, and mildew-resistant and chemically resistant to gasoline, oil, dilute acids and bases. Conduit sealant shall be closed cell type and shall meet or exceed the following properties:

- | | |
|------------------------------------|--|
| • Cure Time | 20 minutes max. |
| • Density | 64.4 kg/m ³ ; 6 lbs/ft ³ |
| • Compressive Strength (ASTM 1691) | 13.8 MPa; 330 or 300 psi |

- Tensile Strength (ASTM 1623) 15.9 MPa; 270 or 250 psi
- Flexural Strength (ASTM D790) 14.5 MPa; 460 or 450 psi
- Service Temperature -20 to 200 F

2.8. Electrical Service Meter Base

Electrical service meter base shall meet or exceed all requirements of the National Electrical Code and the local utility providing the electrical service.

2.9. Electrical Service Disconnect

Electrical service disconnect shall meet or exceed all requirements of the National Electrical Code and the local utility providing the electrical service.

2.10. Flashing Arrow

Flashing Arrow shall conform to the *Standard Specifications for Road and Bridge Construction*.

2.11. Ground Fault Circuit Interrupter (GFCI) Receptacle

Ground Fault Circuit Interrupter Receptacle shall be 2-pole, 3-wire, 20 Amp, 125 Volt, 60 Hz, NEMA 5-20R configuration and meet or exceed the following standards and certifications:

- NEMA WD-1 and WD-6
- UL 498 and 943
- NOM 057
- ANSI C-73

This item shall include a UL listed, 4 inch x4 inch x 2¹/₈ inch box with ³/₄ inch side and end knockouts and a 1¹/₂ inches deep, single-receptacle cover to house the GFCI receptacle. Box and cover shall be hot rolled, galvanized steel with a minimum thickness of 0.62 inches.

2.12. Grounding

2.12.1. Ground Rod

Ground Rod shall be composite shaft consisting of a pure copper exterior (5 mil minimum) that has been inseparably molten welded to a steel core. Ground Rod shall have a minimum diameter of 5/8 inch, a minimum length of 8 feet and shall be manufactured for the sole purpose of providing electrical grounding.

2.12.2. Ground Rod Clamp

Ground rod shall be equipped with a one piece cast copper or bronze body with a non-ferrous hexagonal head set screw and designed to accommodate a 10 AWG solid through 2 AWG stranded grounding conductor.

2.13. Grout

2.13.1. Grout for Inductive Loop Installation

Grout for inductive loop installation shall be non-shrink, shall meet the requirements of the *Standard Specifications for Road and Bridge Construction*,

and shall be included on the KYTC Division of Materials, *List of Approved Materials*.

2.13.2. Grout for Piezoelectric Sensor Installation

Grout for piezoelectric sensor installation shall be per the piezoelectric sensor manufacturer's recommendation. Grout shall be suitable for installation in both asphalt and Portland cement pavements. Grout shall have a short curing time (tack free in ten minutes; open to traffic in forty minutes; and fully cured within sixty minutes) to prevent unnecessary lane closure time and should be of sufficient consistency to prevent running when applied on road surfaces with a drainage cross slope. Particulate matter within the grout shall not separate or settle and the grout shall not shrink during the curing process.

2.14. Hardware

Except where specified otherwise, all hardware such as nuts, bolts, washers, threaded ends of fastening devices, etc. with a diameter less than 5/8 inch shall be passivated stainless steel, alloy type 316 or type 304. Stainless steel hardware shall meet ASTM F593 and F594 for corrosion resistance. All other nuts and bolts shall meet ASTM A307 and shall be galvanized.

2.14.1. Conduit Strap

Conduit strap shall be double-hole, stainless steel, and sized to support specified conduit. Conduit strap shall attach to wood pole or post with two 2 1/4 inch wood screws.

2.14.2. Mounting Strap for Pole Mount Cabinet

Mounting strap for pole mount cabinet shall be 3/4 inch x 0.03 inch stainless steel; equipped with clips or buckles to securely hold strap.

2.14.3. Metal Framing Channel and Fittings

Metal framing channel shall be 1 5/8 inches wide galvanized steel that conforms to ASTM A1011 and ASTM A653. One side of the channel shall have a continuous slot with in-turned edges to accommodate toothed fittings.

Fittings shall be punch pressed from steel plates and conform to ASTM A575 and the physical requirements of ASTM A1011.

2.15. Junction Box

2.15.1. Junction Box Type A, B, or C

Junction Box Type A, B, or C shall meet or exceed ANSI/SCTE 77-2007, Tier 15. Box shall have an open bottom. A removable, non-slip cover marked "PLANNING" shall be equipped with a lifting slot and attached with a minimum of two 3/8 inch stainless steel hex bolts and washers. Type A Box shall have nominal inside dimensions of 13 inches wide by 24 inches long by 18 inches deep. Type B Box shall have nominal inside dimensions of 11 inches wide by 18 inches long by 12

inches deep. Type C Box shall have nominal inside dimensions of 24 inches wide by 36 inches long by 30 inches deep.

2.15.2. Aggregate for Junction Box Type A, B, or C

Aggregate for junction box type A, B, or C shall be gradation size no. 57 and conform to the *Standard Specifications for Road and Bridge Construction*.

2.15.3. Junction Box 10x8x4

Junction Box Type 10x8x4 shall be constructed of a UV-stabilized, nonmetallic material or non-rusting metal and be weatherproof in accordance with NEMA 4X. Box shall be equipped with an overhanging door with a continuous durable weatherproof gasket between the body and door. Door shall be hinged with screws, hinge(s) and pin(s) and shall be equipped with a padlockable latch on the side opposite the hinge(s). Junction Box 10x8x4 shall have minimum inside dimensions of 10 inches high by 8 inches wide by 4 inches deep.

2.16. Maintain and Control Traffic

Materials for the bid item Maintain and Control Traffic shall conform to the *Standard Specifications for Road and Bridge Construction*, and the KYTC Department of Highways *Standard Drawings*.

2.17. Piezoelectric Sensor

Piezoelectric sensor (piezo) shall provide a consistent level voltage output signal when a vehicle axle passes over it, shall have a shielded transmission cable attached, and shall meet the following requirements:

- Dimensions: such that sensor will fit in a ¾ inch wide by 1 inch deep saw cut. Total length shall be 6 feet unless specified otherwise.
- Output uniformity: ± 7% (maximum)
- Typical output level range: 250mV (minimum) from a wheel load of 400 lbs.
- Working temperature range: -40° to 160° F.
- Sensor life: 30 million Equivalent Single Axle Loadings (minimum)

Shielded transmission cable shall be coaxial and shall meet the following requirements:

- RG 58C/U with a high density polyethylene outer jacket rated for direct burial
- Length shall be a minimum of 100 feet. Installations may exceed 100 feet so the piezo shall be supplied with a lead-in of appropriate length so that the cable can be installed splice-free from the piezo to the cabinet.
- Soldered, water resistant connection to the sensor.

One installation bracket for every 6 inches of sensor length shall also be supplied. Piezo shall be a RoadTrax BL Class I or approved equal.

2.18. Saw Slot Sealant

Saw Slot Sealant shall be non-shrink, non-stringing, moisture cure, polyurethane

encapsulant suitable for use in both asphalt and concrete pavements. It shall provide a void-free encapsulation for detector loop cables and adequate compressive yield strength and flexibility to withstand heavy vehicular traffic and normal pavement movement.

The cured encapsulant shall meet or exceed the following:

- Hardness (Indentation): 35-65 Shore A, ASTM D2240
- Tensile Strength: 150 psi minimum, ASTM D412
- Elongation: 125% minimum 2 inch/minute pull, ASTM D412
- Tack-free Drying Time: 24 hours maximum, ASTM C679
- Complete Drying Time: 30 hours maximum, KM 64-447
- Chemical Interactions (seven day cure at room temperature, 24-hour immersion, KM 64-446):
 - Motor Oil: No effect
 - Deicing Chemicals: No effect
 - Gasoline: Slight swell
 - Hydraulic Brake Fluid: No effect
 - Calcium Chloride (5%): No effect

2.19. Seeding and Protection

Material for Seeding and Protection shall be Seed Mixture Type I and conform to the *Standard Specifications for Road and Bridge Construction*.

2.20. Signs

Materials for signs shall conform to the *Standard Specifications for Road and Bridge Construction*.

2.21. Splicing Materials

2.21.1. Electrical Tape

Electrical tape shall be a premium grade, UL-listed, all-weather, vinyl-insulating tape with a minimum thickness of 7 mil. Tape shall be flame retardant and resistant to abrasion, moisture, alkalis, acids, corrosion, and weather (including ultraviolet exposure).

2.21.2. Splice Kit

Splice kit shall be inline resin-type and rated for a minimum of 600V. Resin shall be electrical insulating-type and shall provide complete moisture and insulation resistance.

2.22. Steel Reinforcing Bar

Steel reinforcing bar shall be #5 and shall conform to the *Standard Specifications for Road and Bridge Construction*.

2.23. Terminal Block

Terminal block shall be rated for a minimum of 300 V and have a minimum of six

terminal pairs with 9/16-inch nominal spacing (center to center) for connecting loop and piezoelectric sensor wires to cable assemblies. Terminal block shall have screw type terminal strips to accommodate wire with spade-tongue ends.

2.24. Warning Tape

Warning tape shall be acid and alkali resistant formulated for direct burial. Tape shall be a minimum of 3 inches wide by 4.0 mils (nominal) thick, and shall be permanently imprinted with a minimum 1 inch black legend on a red background warning of an electric line. Tape shall meet or exceed the following industry specifications:

- American Gas Association (AGA) 72-D-56
- American Petroleum Institute (API) RP 1109
- American Public Works Association (APWA) Uniform Color Code
- Department of Transportation (DOT) Office of Pipeline Safety USAS B31.8
- Federal Gas Safety Regulations S 192-321 (e)
- General Services Administration (GSA) Public Buildings Service Guide: PBS 4-1501, Amendment 2
- National Transportation Safety Board (NTSB) PSS 73-1
- Occupational Safety and Health Administration (OSHA) 1926.956 (c) (1)

2.25. Wire and Cable

All cable and wire shall be plainly marked in accordance with the National Electrical Code (NEC).

2.25.1. Loop Wire

Loop wire shall be 14 AWG, stranded, copper, single conductor, and shall conform to the International Municipal Signal Association (IMSA) Specification No. 51-7.

2.25.2. Cable No. 14/1 Pair

Cable No. 14/1 pair loop lead-in cable shall be 14 AWG, stranded, copper paired, electrically shielded conductors, and shall conform to IMSA 19-2.

2.25.3. Grounding conductor

Grounding conductor and bonding jumper shall be solid or stranded, 4 AWG bare copper.

2.25.4. Service Entrance Conductor

Service entrance conductor shall be stranded, copper, Type USE-2, sized as required to comply with the NEC.

2.25.5. Terminal for electrical wire or cable

Terminal for electrical wires or cables shall be insulated, solderless, spade tongue terminals of correct wire and stud size. Terminal for electrical wires or cables shall be incidental to the wire or cable (including piezoelectric sensor transmission cable) to be connected to terminal strips.

2.26. Wood Post

Wood post shall be Southern Pine pretreated to conform to the American Wood Preservers' Association (AWPA) C-14 or UC4B and shall have minimum dimensions of 4 inches by 4 inches by 8 feet long (for Galvanized Steel Cabinet) or 4 feet long (for Junction Box 10x8x4), sawed on all four sides with both ends square.

2.27. Wooden Pole

Wooden pole shall be a Class IV wood pole of the length specified and shall conform to the *Standard Specifications for Road and Bridge Construction* except the pole shall be treated in accordance with AWPA P9 Type A.

3. CONSTRUCTION METHODS

The plans indicate the extent and general arrangement of the installation and are for guidance. When the Contractor deems any modifications to the plans or specifications necessary, details of such changes and the reasons shall be submitted in writing to the engineer for written approval prior to beginning the modified work.

After the project has been let and awarded, the Division of Construction shall notify the Division of Planning of the scheduled date for a Pre-Construction meeting so that prior arrangements can be made to attend. This will allow the Division of Planning an opportunity to address any concerns and answer any questions that the Contractor may have before beginning the work.

The Division of Planning Equipment Management Team (502-564-7183) shall be notified a minimum of seven days before any work pertaining to these specifications begins to allow their personnel the option to be present during installation.

Unless otherwise specified, installed materials shall be new.

Construction involving the installation of loops or piezoelectric sensors shall not be performed when the temperature of the pavement is less than 38°F.

A final inspection will be performed by a member of the Central Office Division of Planning equipment staff after the installation is complete to verify that the installation is in compliance with the plans and specifications.

Any required corrective work shall be performed per the *Standard Specifications for Road and Bridge Construction*.

3.1. Anchoring

Furnish: Anchor, anchor rod, guy wire, strand vise, guy guard.

Anchor shall be installed in relatively dry and solid soil. Rock anchor shall be installed in solid rock. Excavate the hole at a 45° to 60° angle in line with the guy (hole size shall be slightly larger than the expanded anchor – see manufacturer's recommendation). Attach rod to anchor, install assembly into hole, and expand anchor. Backfill and tamp entire disturbed area. The effectiveness of the anchor is dependent upon the thoroughness of backfill tamping. Attach guy to strand vise on pole and anchor rod and tighten to required tension. Install guy guard on guy.

3.2. Bore and Jack Pipe – 2"

Furnish: Steel Encasement Pipe, 2"

Bore and jack pipe – 2" shall conform to the Section 706 of the *Standard Specifications for Road and Bridge Construction*.

3.3. Cleanup and Restoration

Furnish: Seed Mix Type 1 (as required); fertilizer (as required); agricultural limestone (as required); mulch or hydromulch (as required); tackifier (as required).

The Contractor shall be responsible for repairing any damage to public and/or private property resulting from his work. Upon completion of the work, restore all disturbed highway features in like kind design and materials. This shall include filling any ruts and leveling ground appropriately. Contractor shall dispose of all waste and debris off the project. Sow all disturbed earthen areas with Seed Mix Type 1 per Section 212 of the *Standard Specifications for Road and Bridge Construction*. All materials and labor necessary for cleanup and restoration shall be considered incidental to other bid items.

3.4. Conduit

Furnish: Conduit; conduit fittings; bushings (grounding where required); LB condulets (as required); weatherheads (as required); conduit straps; hardware; conduit sealant.

Conduit that may be subject to regular pressure from traffic shall be laid to a minimum depth of 24 inches below grade. Conduit that will not be subject to regular pressure from traffic shall be laid to a minimum depth of 18 inches below grade.

Conduit ends shall be reamed to remove burrs and sharp edges. Cuts shall be square and true so that the ends will butt together for the full circumference of the conduit. Tighten couplings until the ends of the conduit are brought together. Do not leave exposed threads. Damaged portions of the galvanized surfaces and untreated threads resulting from field cuts shall be painted with an Engineer-approved, rust inhibitive paint. Conduit bends shall have a radius of no less than 12 times the nominal diameter of the conduit, unless otherwise shown on the plans.

Contractor shall install a bushing (grounding bushing where required) on both ends of all conduits. Cap spare conduits on both ends with caps or conduit sealant.

Conduit openings in junction boxes and cabinets shall be waterproofed with a flexible, removable conduit sealant, working it around the wires, and extending it a minimum 1 inch into the end of the conduit.

After the conduit has been installed and prior to backfilling, the conduit installation shall be inspected and approved by the Engineer.

3.5. Electrical Service

Furnish: Meter base, service disconnect, wire, GFCI AC duplex receptacle with box and cover; conduit, conduit fittings, bushings (grounding where required); LB condulets (as required); weatherhead; conduit straps; hardware; conduit sealant; ground rod with clamp; grounding conductor.

Prior to any construction, the Contractor shall initiate a work order with the local power

company for the installation of electrical service to the site. A representative from the Division of Planning and the local power company shall be consulted prior to choosing an exact location for the pole. The Contractor shall clear the right-of-way for the electrical service drop.

Contractor shall obtain electrical inspections, memberships, meter base, service disconnect and any other requirements by the utility serving the installation and pay all fees as required.

Install meter-base and disconnect panel with a 30-ampere, fused, circuit breaker inside. Install a manufactured weatherproof hub connectors to connect the conduit to the top of the meter base and service disconnect.

Install a rigid $\frac{3}{4}$ inch conduit with three 8 AWG service conductors from the cabinet, through the service disconnect to the meter base and a $1\frac{1}{4}$ " conduit with three 8 AWG service conductors from the meter base to a weatherhead two feet from the top of the electrical service pole. Install conduit straps 30 inches on center and provide a drip loop where the wire enters the weatherhead. Splice electric drop with service entrance conductors at the top of the pole.

The limit of conduit incidental to "Install Electrical Service" for a pad mounted cabinet is 24 inches beyond face of service pole.

Install a 120-volt, 20-amp GFCI AC duplex receptacle with box and cover in the automatic data recorder (ADR) cabinet.

Install a ground rod with clamp. Install a grounding conductor wire from the meter base, through the disconnect panel, to the ground rod clamp. Install grounding conductor in $1\frac{3}{4}$ " conduit from service disconnect to ground rod.

After completing the installation and before the electrical service is connected, obtain a certificate of compliance from the Kentucky Department of Housing, Buildings and Construction, Electrical Inspection Division.

3.6. Flashing Arrow

Furnish: Arrow Panel

Construction of Flashing Arrow shall conform to the *Standard Specifications for Road and Bridge Construction*.

3.7. Galvanized Steel Cabinet

Furnish: Cabinet; wood posts; concrete; conduit fittings; metal framing channel; pipe clamp; terminal block(s); spade tongue wire terminals; wire labels; hardware.

Where right-of-way allows, locate the cabinet such that it is outside the clear zone in accordance with the *Roadside Design Guide*. Install Cabinet such that the door of the

cabinet faces the roadway.

Excavate as required and install wood posts to a depth of 36 inches and place concrete around posts as shown on the standard detail sheets. Install metal framing channel with pipe clamp between posts.

Install Cabinet on wood posts 38 inches above the finished grade as shown on the standard detail sheets. Install a unistrut between posts when two posts are specified.

Install the required number of terminal blocks on the cabinet back plate. Install a spade tongue terminal on each loop and piezo sensor wire entering the cabinet and connect wires to terminal block(s). Wiring shall be neat and orderly. Label all wires and cables inside cabinet.

Install conduit from ground to cabinet and attach to pipe clamp. Install locknuts to attach conduit to cabinet and install a conduit bushing as shown on the standard detail sheets.

3.8. Grounding

Furnish: Ground rod with clamp; grounding conductor.

At sites with electrical or solar service, all conduits, poles, and cabinets shall be bonded to ground rods and the electrical system ground to form a complete grounded system.

Install such that top of ground rod is a minimum of 3 inches below finished grade.

Grounding systems shall have a maximum 25 ohms resistance to ground. If the resistance to ground is greater than 25 ohms, two or more ground rods connected in parallel shall be installed. Adjacent ground rods shall be separated by a minimum of 6 feet.

3.9. Install Pad Mount Enclosure

Furnish: Concrete; anchor bolts with washers and nuts; conduit; conduit fittings; conduit grounding bushings; ground rod with clamp; grounding conductor; conduit sealant; wooden stakes (where required); wire labels; hardware.

The Contractor shall be responsible for securing the enclosure from the Central Office Division of Planning Warehouse in Frankfort and transporting it to the installation site.

Where right-of-way allows, locate the enclosure such that it is outside the clear zone in accordance with the *Roadside Design Guide*.

Excavate as required, and place concrete to construct the enclosure foundation as specified on the standard detail sheets. Install enclosure on the concrete base such that the door(s) of the enclosure opens away from traffic (hinges away from traffic). Install anchor bolts, washers, and nuts to secure the enclosure to the foundation.

Install ground rod with clamp and install one $\frac{3}{4}$ inch rigid conduit from enclosure base to

ground rod. Install a grounding conductor from ground rod to enclosure base and bond to each conduit bushing in the base.

Install one $\frac{3}{4}$ inch rigid steel conduit for electrical service from the base of the enclosure to 24 inches beyond the concrete base. Make all field wiring connections to the electrical service, as applicable.

If electrical service is not provided as a bid item in the contract, plug conduit on both ends with a cap, conduit sealant, or electrical tape. Mark the location of the buried conduit end with a wooden stake labeled "3/4 in. conduit."

Install specified rigid steel conduit(s) into the base of the enclosure for sensor wire entry. Install one spare 2 inch conduit from the enclosure base to 2 feet beyond the concrete base. Plug spare conduit on both ends with a cap, conduit sealant or electrical tape.

The limit of all conduits incidental to "Install Pad Mount Enclosure" is 24 inches beyond the edge of the concrete base.

Wiring in enclosure shall be neat and orderly. Label all wires and cables inside enclosure. KYTC personnel will furnish and install terminal blocks and connect sensors to terminal blocks.

3.10. Install Controller Cabinet

Furnish: Mounting brackets; mounting straps; conduit; LB condulets; conduit fittings; conduit grounding bushings; ground rod with clamp; grounding conductor; cable staples; conduit sealant; wooden stakes (where required); wire labels; hardware.

The Contractor shall be responsible for securing the cabinet from the Central Office Division of Planning Warehouse in Frankfort and transporting it to the installation site. Any existing holes in the cabinet not to be reused shall be covered or plugged to meet NEC requirements.

Install mounting brackets and secure cabinet to pole with mounting straps.

Install a ground rod with clamp. Install grounding conductor in 1- $\frac{3}{4}$ " conduit from cabinet to ground rod.

Install one $\frac{3}{4}$ inch rigid steel conduit with two lb condulets from cabinet to electrical service disconnect box. Make all field wiring connections to the electrical service, as applicable.

If electrical service is not provided as a bid item in the contract, plug conduit on both ends with cap, plumbers putty, conduit sealant, or electrical tape. Mark the location of the buried conduit end with a wooden stake labeled "3/4 in. conduit".

Install specified rigid steel conduit(s) and type LB conduit(s) into the bottom of the

cabinet for sensor wire entry. The limit of conduits incidental to "Install Controller Cabinet" is 24 inches beyond the face of the pole.

Wiring in cabinet shall be neat and orderly. Label all wires and cables inside cabinet. KYTC personnel will furnish and install terminal blocks and connect sensors to terminal blocks.

3.11. Junction Box Type 10x8x4

Furnish: Junction box; wood post; conduit fittings; wire labels; hardware.

Where right-of-way allows, locate the junction box such that it is outside the clear zone in accordance with the Roadside Design Guide.

Excavate as required and install wood post(s) to a depth of 18 inches. Install junction box on wood post such that the bottom of the box is 18 inches above the finished grade as shown on the standard detail sheets. Box shall be installed with four (4) 2½ inch wood screws and washers.

Install locknuts to attach conduit to junction box and install a conduit bushing as shown on the standard detail sheets.

Wiring inside box shall be neat and orderly. Label all wires and cables inside box.

3.12. Junction Box Type A, B, or C

Furnish: Junction box, No. 57 aggregate; grounding conductor

Excavate as required and place approximately 12 inches of No. 57 aggregate beneath the proposed junction box to allow for drainage. Install specified junction box type A, B, or C near the edge of pavement, flush with finished grade per the detail sheets. Where required, orient the box so that the dimensions comply with the National Electrical Code. Stub conduits with grounding bushings into junction box at its base to accommodate wires and connect grounding conductor to all grounding bushings. Backfill to existing grade, and restore disturbed area to the satisfaction of the Engineer.

Wiring inside box shall be neat and orderly. Label all wires and cables inside box.

3.13. Loops - Proposed

Furnish: Wire; saw slot sealant; backer rod; grout; conduit sealant.

The plans and notes specify the approximate location for loop installations. Prior to sawing slots or drilling cores, the Contractor shall meet with a representative of the Division of Planning to verify the precise layout locations on site. Avoid expansion joints and pavement sections where potholes, cracks, or other roadway flaws exist.

Upon completion of this meeting, the Contractor shall measure out and mark the proposed loop locations with spray paint or chalk such that the saw slots will be parallel

and perpendicular to the direction of traffic. Marked lines shall be straight and exact to the locations determined and sized as shown on the plans. Unless indicated otherwise, loops shall be 6 feet by 6 feet square and loops in the same lane shall be spaced 16 feet from leading edge to leading edge.

On resurfacing, rehabilitation, and new construction projects that include new asphalt pavement, the Contractor shall install loops prior to laying the final surface course. On projects with milling and texturing, the Contractor may install the loops prior to or after the milling operation; however, if installed prior to milling, the Contractor shall be responsible for ensuring that the loops are installed at a depth such that the milling operation will not disturb the newly installed loops. The Contractor shall correct damage caused by the milling operations to newly installed loops prior to placement of the final surface course at no additional cost to the Cabinet.

For projects that include the installation of new asphalt and piezoelectric sensors, the Contractor shall mark or otherwise reference all loops installed prior to the final surface course such that the loops can be accurately located when the piezoelectric sensors are installed after placement of the final surface course.

For projects that do not have asphalt surfacing, the Contractor shall install the loops in the surface of the pavement.

The Prime Contractor shall coordinate the installation of loops with the electrical sub-Contractor and the Engineer to ensure correct operation of the completed installation.

The following is a typical step by step procedure for the installation of a loop.

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and centered in the lane.
- Make each saw-cut 3/8-inch wide and at a depth such that the top of the backer rod is a minimum of 2 inches below the surface of rigid (PCC/Concrete) pavement or 4 inches below the surface of asphalt pavement.
- Drill a 1½ inch core hole at each corner and use a chisel to smooth corners to prevent sharp bends in the wire.
- Clean ALL foreign and loose matter out of the slots and drilled cores and within 1 foot on all sides of the slots using a high pressure washer.
- Completely dry the slots and drilled cores and within 1 foot on all sides of the slots using oil-free forced air, torpedo heaters, electric heaters, or natural evaporation, depending on weather conditions. Be very careful not to burn the asphalt if heat is used.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a 1½ inch hole on a 45° angle to the conduit adjacent to the roadway.
- Closely inspect all cuts, cores, and slots for jagged edges or protrusions prior to the placement of the wire. All jagged edges and protrusions shall be ground or re-cut and cleaned again.

- Place the loop wire splice-free from the termination point (cabinet or junction box) to the loop, continue around the loop for four turns, and return to the termination point.
- Push the wire into the saw slot with a blunt object such as a wooden stick. Make sure that the loop wire is pushed fully to the bottom of the saw slot.
- Install conduit sealant to a minimum of 1" deep into the cored 1½ inch hole.
- Apply loop sealant from the bottom up and fully encapsulate the loop wires in the saw slot. The wire should not be able to move when the sealant has set.
- Cover the encapsulated loop wire with a continuous layer of backer rod along the entire loop and home run saw slots such that no voids are present between the loop sealant and backer rod.
- Finish filling the saw cut with non-shrinkable grout per manufacturer's instructions. Alleviate all air pockets and refill low spaces. There shall be no concave portion to the grout in the saw slot. Any excess grout shall be cleaned from the roadway to alleviate tracking.
- Clean up the site and dispose of all waste off the project.
- Ensure that the grout has completely cured prior to subjecting the loop to traffic. Curing time varies with temperature and humidity.

Exceptions to installing loop wire splice-free to the junction box or cabinet may be considered on a case-by-case basis and must be pre-approved by the Engineer. If splices are allowed, they shall be located in a junction box and shall conform to the construction note for Splicing.

If loop lead-in cable (Cable No. 14/1 Pair) is specified, cable shall be installed splice free to the cabinet ensuring that extra cable is left in each junction box or cabinet. All wires and cables shall be labeled in each junction box and cabinet.

Loop inductance readings shall be between 100 and 300 microhenries. The difference of the loop inductance between two loops in the same lane shall be ± 20 microhenries. Inductance loop conductors shall test free of shorts and grounds. Upon completion of the project, all loops must pass an insulation resistance test of a minimum of 100 million ohms to ground when tested with a 500 Volt direct current potential in a reasonably dry atmosphere between conductors and ground.

3.14. Loops – Existing

When noted on a data collection station layout sheet that there are existing inductive loops within the limits of the project, notify the Engineer in writing, a minimum of 14 calendar days prior to beginning milling operations. After milling and prior to placing asphalt inlay, conduct an operating test on the existing inductance loops at the control cabinet in the presence of the Engineer to determine if the inductance loop conductors have an insulating resistance of a minimum of 100 megohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground. The Department may also conduct its own tests with its own equipment.

If the tests indicate the loop resistances are above the specified limit and the Engineer determines the system is operable, proceed with the asphalt inlay. If the test indicates the loop resistance is not within the specified limits or if the Engineer determines the system is otherwise not operable, prior to placing the asphalt inlay install and test new loop detectors according to the station layout, notes, and Detail Drawings.

The Engineer will contact and maintain liaison with the District Planning Engineer and the Division of Planning in order to coordinate any necessary work.

3.15. Maintain and Control Traffic

Furnish (all as required): Drums, traffic cones, barricades used for channelization purposes, delineators, and object markers.

Maintain and Control Traffic shall conform to the plans, the Standard Specifications for Road and Bridge Construction, and the KYTC Department of Highways Standard Drawings.

3.16. Open Cut Roadway

Furnish: Concrete, reinforcing bars.

Excavate trench by sawing and chipping away roadway to dimensions as indicated on the detail sheets. After placing conduit, install concrete and steel reinforcing bars per the *Standard Specifications for Road and Bridge Construction*. Restore any disturbed sidewalk to its original condition.

3.17. Piezoelectric Sensor

Furnish: Piezoelectric sensor and cable; sensor support brackets; saw slot sealant; backer rod; grout; conduit sealant.

The plans and notes specify the approximate location for piezoelectric sensor (piezo) installations. Prior to sawing slots or drilling cores, the Contractor shall meet with a representative of the Division of Planning to verify the final layout on site. Avoid expansion joints and pavement sections where potholes, cracks, or other roadway flaws exist. Roadway ruts at the proposed piezo location shall not be in excess of ½ inch under a 4-foot straight edge.

Install the piezo perpendicular to traffic in the final surface course of the pavement. Locate the sensor in the lane as shown on the site layout drawing. Eleven-foot length sensors shall be centered in the lane.

The following is a typical step by step procedure for the installation of a piezo. Refer specifically to the manufacturer's instructions provided with the sensor prior to installation.

- Carefully mark the slot to be cut, perpendicular to the flow of traffic and properly positioned in the lane.

Material, Installation, and Bid Item Notes for
Permanent Traffic Data Acquisition Stations

Revised August, 2018

- It is strongly recommended that a $\frac{3}{4}$ inch wide diamond blade be used for cutting the slot, or that blades be ganged together to provide a single $\frac{3}{4}$ inch wide cut. The slot shall be wet cut to minimize damage to the pavement.
- Cut a slot $\frac{3}{4}$ inch wide ($\pm 1/16$ inch) by 1 inch minimum deep. The slot should be a minimum of 2 inches longer than the sensor (including the lead attachment). Drop the saw blade an extra $\frac{1}{2}$ inch down on both ends of the sensor. The lead out of the passive cable should be centered on the slot.
- Cut the slot for the passive cable $\frac{1}{4}$ inch wide and at a depth so that the top of the backer rod is a minimum of 2 inches below the road surface.
- Clean ALL foreign and loose matter out of the slot and within 1 foot on all sides of the slot using a high pressure washer.
- Completely dry the slot and within 1 foot on all sides of the slot using oil-free forced air, torpedo heaters, electric heaters, or natural evaporation, depending on weather conditions. Be very careful not to burn the asphalt if heat is used.
- Measure 9-12 inches from the edge of the paved surface (shoulder break or face of curb) and drill a $1\frac{1}{2}$ inch hole on a 45° angle to the conduit adjacent to the roadway.
- Place strips of 2-4 inch wide tape strips on the pavement along the lengths of both sides of the sensor slot, $1/8$ inch away from the slot.
- Wear clean, protective latex (or equivalent) gloves at all times when handling sensors. Visually inspect sensor to ensure it is straight. Check lead attachment and passive cable for cuts, gaps, cracks and/or bare wire. Verify that the correct sensor type and length is being installed by checking the data sheet. Verify there is sufficient cable to reach the cabinet. Piezo lead-in cable shall not be spliced.
- Test the sensor for capacitance, dissipation factor and resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within $\pm 20\%$ of the piezo data sheet. Resistance (using the 20M setting) should be infinite. Record the sensor serial number and the test results and label "pre-installation." This information should be stored in the counter cabinet and/or returned to Department Planning personnel.
- Lay the sensor next to the slot and ensure that it is straight and flat.
- Clean the sensor with steel wool or an emery pad and wipe with alcohol and a clean, lint-free cloth.
- Place the installation bracket clips every 6 inches along the length of the sensor.
- Bend the tip of the sensor downward at a 30° angle. Bend the lead attachment end down at a 15° angle and then 15° back up until level (forming a lazy Z).
- Place the sensor in the slot, with the brass element $3/8$ inch below the road surface along the entire length. The tip of the sensor should be a minimum of 2 inches from the end of the slot and should not touch the bottom of the slot. The top of the plastic installation bracket clips should be $1/8$ inch below the surface of the road. The lead attachment should not touch the bottom or sides of the slot. Ensure the sensor ends are pushed down per the manufacturer's instructions.
- Visually inspect the length of the sensor to ensure it is at uniform depth along its length and it is level (not twisted, canted or bent).

Material, Installation, and Bid Item Notes for
Permanent Traffic Data Acquisition Stations

Revised August, 2018

- On the passive cable end, block the end of the slot approximately 3-5 inches beyond the end of the lead attachment area creating an adequate “dam” so that the sensor grout does not flow out.
- Use one bucket of sensor grout per piezo installation. Overfill the slot with sensor grout and allow to cure for a minimum of 10 minutes before continuing with the installation. Ensure that sensor grout fills around and beneath the sensor completely and that there is not a trough on top.
- Remove the tape along the sides of the saw slot when the adhesive starts to cure.
- Carefully remove the dam from the end of the sensor.
- Route the lead-in cable through the saw slot
- Install conduit sealant to a minimum of 1” deep into the cored 1½ inch hole.
- Cover the lead-in cable with encapsulant, backer rod, and grout.
- If necessary, after the grout has hardened, grind with an angle grinder until the profile is a 1/16 inch mound. There shall be no concave portion to the mound.
- Clean up the site and dispose of all waste off the project.
- Ensure that the sensor grout has completely cured prior to subjecting the sensor to traffic. Curing time will vary with temperature and humidity.

Upon installation, test the sensor for capacitance, dissipation factor and resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within $\pm 20\%$ of the piezo data sheet. Resistance (using the 20M setting) should be infinite. Perform a functional test of the piezo with an oscilloscope to ensure that the sensor is generating a proper response to the passage of vehicles.

Record the sensor serial number and the test results and label “post-installation.” This information should be stored in the counter cabinet and/or returned to Department Planning personnel.

3.18. Pole – Wooden

Furnish: Pole; anchoring equipment (as required); hardware (as required).

Excavate and install wood pole to a minimum depth of one-sixth the total pole height. Place backfill material in hole and compact until flush with existing grade. Install guy wire, guy guard, anchor, anchor rod, and strand vise, if necessary. Anchor shall be a minimum of one-third the pole height from the face of the pole. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer.

3.19. Removal of Existing Equipment

The Contractor shall remove existing materials (including but not limited to: poles, anchors, cabinets, junction boxes, conduit and wire) not to be reused. Contractor shall dispose of all removed materials off the project. All materials and labor necessary for the removal of existing equipment shall be considered incidental to other bid items.

3.20. Signs

Furnish: Signs; sign standards; hardware.

Construction of signs shall conform to the *Standard Specifications for Road and Bridge Construction*.

3.21. Splicing

Furnish: Splice kit; solder.

These notes describe the splicing process (if permitted) and are not intended to grant permission to splice. Permission to splice shall be determined by the Division of Planning and the locations shall be shown on the layout sheet. If splicing is needed but not shown on the layout sheet, the Contractor shall receive prior written approval from the Division of Planning.

All splices shall conform to the provisions of the NEC.

Splices for loop and loop lead-in wire shall be twisted and soldered. Abrade the outer jacket of both wires to promote good adhesion and prevent capillary leak paths. Seal the splice with an electrical sealing resin. Spliced loop conductors shall test free of shorts and unauthorized grounds and shall have an insulating resistance of at least 100 megohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground.

For piezos, the same type coax cable, supplied by the manufacturer, shall be used to splice to the sensor's lead-in cable. Cables shall be soldered. Abrade the outer jacket of both cables to promote good adhesion and prevent capillary leak paths. Seal the splice with an electrical sealing resin. Spliced piezo cables shall be tested and have a minimum resistance of 20 megohms, a maximum dissipation factor of 0.03, a capacitance within the manufacturer's recommended range based upon the length of additional cable. A functional test of the piezo shall be performed to ensure that the sensor is generating a proper response to the passage of vehicles.

3.22. Trenching and Backfilling

Furnish: Warning tape; seed mix type I; cereal rye or German foxtail-millet; mulch; concrete (as required); asphalt (as required).

Excavate trench and provide required cover as shown on the standard detail sheets. After placing conduit, backfill material shall be placed and compacted in lifts of 9 inches or less. Install warning tape as shown on the detail sheet. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer. This item shall include concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required).

3.23. Wiring

Furnish: Wire; wire labels; spade tongue wire terminals (as required).

Installation of all wiring shall conform to the NEC. Permanent identification numbers shall be affixed to all wires in all junction boxes and cabinets (see Layout(s) for loop and piezo numbers).

Additional lengths of each loop and piezo sensor wire shall be neatly coiled in all cabinets and junction boxes as follows:

<u>Enclosure Type</u>	<u>Additional length of each wire</u>
Galvanized Steel Cabinet	2' – 3'
Pad Mount Cabinet (332)	6' - 8'
Pole Mount Cabinet (336)	3' - 4'
Junction Box Type 10x8x4	2' – 3'
Junction Box Type A, B, or C	2' – 3'

3.24. Wood Post

Furnish: Wood post; concrete (as required); seed mix type I; cereal rye or German foxtail-millet; mulch.

Excavate hole to specified depth and place concrete, if required. Install post, backfill to existing grade, and tamp backfill. Provide temporary erosion control, seeding, protection and restoration of disturbed areas to the satisfaction of the Engineer.

4. BID ITEM NOTES AND METHOD OF MEASUREMENT FOR PAYMENT

Only the bid items listed will be measured for payment. All other items required to complete the vehicle detection installation shall be incidental to other items of work. Payment at the contract unit price shall be full compensation for all materials, labor, equipment and incidentals to furnish and install these items.

4.1. Bore and Jack Pipe – 2”

Bore and jack pipe – 2” shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction*.

4.2. Conduit

Conduit shall include furnishing and installing specified conduit in accordance with the specifications. This item shall include conduit fittings, bodies, boxes, weatherheads, expansion joints, couplings, caps, conduit sealant, electrical tape, clamps, bonding straps and any other necessary hardware. Conduit will be measured in linear feet.

4.3. Electrical Service

Electrical Service shall include furnishing and installing all necessary materials and payment of all fees toward the complete installation of an electrical service which has passed all required inspections. Incidental to this item shall be furnishing and installing:

- Meter-base per utility company’s specifications
- Service disconnect panel per utility company’s specifications
- Meter base and service disconnect entrance hubs, waterproof
- Service entrance conductors
- Rigid steel conduit
- Rigid steel conduit fittings
- Conduit straps
- Weatherhead
- Duplex GFCI receptacle, 120-volt, 20-amp
- Ground rod with clamp
- Grounding conductor

Also incidental to this item shall be any necessary clearing of right of way for the electrical service drop.

Electrical service will be measured in individual units each.

4.4. Flashing Arrow

Flashing Arrow shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction*.

4.5. Galvanized Steel Cabinet

Galvanized Steel Cabinet shall include furnishing and installing galvanized steel cabinet on post as specified. Incidental to this item shall be furnishing and installing grounding hardware, and any necessary post/pole mounting hardware. Also incidental to this item shall be furnishing and installing the required number of terminal blocks and connection of all

sensors to the terminal blocks. Galvanized Steel Cabinet will be measured in individual units each.

4.6. Install Pad Mount Enclosure

Install Pad Mount Enclosure shall include installing a Department-furnished enclosure as specified on the detail sheets.

This item shall include obtaining the enclosure from KYTC and transporting it to the installation site and furnishing and installing the following:

- Concrete foundation (including any excavation necessary)
- Anchor bolts, lock washers, and nuts
- Conduit
- Conduit fittings (including grounding bushings)
- Weatherhead
- Terminal Strip(s)
- Ground rod with clamp
- Grounding conductor

Install Pad Mount Enclosure will be measured in individual units each.

4.7. Install Controller Cabinet

Install Controller Cabinet shall include installing a Department-furnished cabinet as specified on the detail sheets.

This item shall include obtaining the cabinet from KYTC and transporting it to the installation site and furnishing and installing the following:

- Conduit
- Conduit Fittings
- Terminal Strip(s)
- Ground rod with clamp
- Grounding conductor

Install Controller Cabinet will be measured in individual units each.

4.8. Junction Box Type 10" x 8" x 4"

Junction Box Type 10"x8"x4" shall include furnishing and installing specified junction box in accordance with the specifications. This item shall include connectors, splice sleeves, conduit fittings, mounting materials and any other items required to complete the installation. Incidental to this item shall be furnishing and installing specified post (wood, channel, metal, etc.) as required for the installation. Junction Box Type 10"x8"x4" will be measured in individual units each.

4.9. Junction Box Type A, B, or C

Junction Box Type A, B, or C shall include furnishing and installing specified junction box in accordance with the specifications. This item shall include excavation, furnishing and installing #57 aggregate, backfilling around the box, and restoration of disturbed areas to the satisfaction of the Engineer. Incidental to this item shall be furnishing and installing a

grounding conductor bonding all conduit grounding bushings in the box. Junction Box Type A, B, or C will be measured in individual units each.

4.10. Loop Saw Slot and Fill

Loop Saw Slot and Fill shall include sawing and cleaning saw slots and furnishing and installing conduit sealant, loop sealant, backer rod, grout, or other specified material. Loop Saw Slot and Fill will be measured in linear feet of sawed slot.

4.11. Maintain and Control Traffic

Maintain and Control Traffic shall be measured for payment per the *Standard Specifications for Road and Bridge Construction*.

4.12. Open Cut Roadway

Open Cut Roadway shall include excavating trench (sawing and chipping roadway) to dimensions as indicated on the detail sheets and furnishing and placing concrete, steel reinforcing bars, and asphalt. This item also includes restoring any disturbed sidewalk to its original condition. Open Cut Roadway will be measured in linear feet.

4.13. Piezoelectric Sensor

Piezoelectric sensor (piezo) shall include sawing and cleaning saw slots and furnishing and installing piezo in accordance with the specifications. This item shall include furnishing and installing lead-in wire, conduit sealant, encapsulation material, backer rod, grout, testing, and accessories. Piezo will be measured in individual units each.

4.14. Pole – 35' Wooden

Pole – 35' Wooden shall include excavation, furnishing and installing specified wood pole, backfilling and restoring disturbed areas to the satisfaction of the Engineer. Incidental to this item shall be furnishing and installing guy wire, anchor and anchor rod, strand vise, and guy guard, if specified.

Pole – 35' Wooden will be measured in individual units each.

4.15. Signs

Signs shall be furnished, installed, and measured for payment per the *Standard Specifications for Road and Bridge Construction*.

4.16. Trenching and Backfilling

Trenching and Backfilling shall include excavation, warning tape, backfilling, temporary erosion control, seeding, protection and restoration of disturbed areas to original condition. This item shall include concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required). Trenching and backfilling will be measured in linear feet.

4.17. Wire or Cable

Wire or cable shall include furnishing and installing specified wire or cable within saw slot, conduit, junction box, cabinet, or overhead as indicated on the detail sheets. Incidental to this item shall be the labeling of all wires and cables in each junction box, cabinet and splice

Material, Installation, and Bid Item Notes for
Permanent Traffic Data Acquisition Stations

Revised August, 2018

box, and furnishing and installing other hardware required for installing cable. Wire or Cable will be measured in linear feet.

4.18. Wood Post

Wood Post shall include furnishing and installing wood post as specified. This item shall include excavation, furnishing and placing concrete (if required), backfilling around the post, and restoration of disturbed areas to the satisfaction of the engineer. Wood Post will be measured in individual units each.

JEFFERSON COUNTY

INTERSTATE I-64 (WB) RAMP & INTERSTATE I-264

ITEM NO. 5-20015 & 5-20018

BRIDGE REHABILITATION
(THREE LOCATIONS)

MILE POINT 0.17 TO 0.33 (5-20015)
MILE POINT 0.24 TO 12.7 (5-20018)

SPECIAL NOTE INDEX

- SPECIAL NOTE FOR CONCRETE OVERLAY-LATEX
- SPECIAL NOTE FOR CONCRETE PATCHING REPAIR
- SPECIAL NOTE FOR JOINT REPLACEMENT
- SPECIAL NOTE FOR BRIDGE BARRIER RETROFIT
- SPECIAL NOTE FOR EPOXY-INJECTION CRACK REPAIR

BRIDGE INDEX

- | | | |
|--|--------------|---------|
| - I-64 (WB) Ramp over Northwestern Parkway | (056B00277N) | MP 0.25 |
| - I-264 (EB) over Bank Street | (056B00227R) | MP 0.34 |
| - I-264 over Belles Lane | (056B00478N) | MP 4.0 |

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 Current 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, and equipment;
- (2) Machine prep the existing slab for bridge without existing overlays ~ or ~
Remove the existing overlay for bridges with overlays
- (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;
- (6) Complete asphalt approach pavement;
- (7) Maintain and control traffic; and
- (8) 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. Bituminous Asphalt. Use CL2 ASPH SURF 0.38D PG64-22.

D. Epoxy-Sand Slurry. See Section 606.03.10.

III. CONSTRUCTION.

A. For bridges which do not have an existing overlay:

Machine prep of existing slab. Remove concrete from existing slab to a depth of at least 1/4" below the existing surface, and remove all patches completely, in accordance with the requirements of Section 606.03.03. This work is incidental to pay item "Machine Preparation of Slab"

~ or ~

A. For bridges which have an existing overlay:

Remove Existing Overlay. In addition to Section 606.03.03, totally remove the existing asphalt, concrete, or foreign overlay by grinding or scarifying the deck to a depth slightly below or equal to the original bridge slab surface or to the depth as shown in the plans. Machine preparation of the existing slab to a depth of at least 1/4" below the existing surface is NOT required. When removal of an existing overlay is a pay item, no payment will be allowed for "Machine Preparation of Existing Slab". This work is incidental to the pay item "Removal of Epoxy, Asphalt, or Foreign, Overlay"

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 45lbs 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.

C. Full Depth Patching. Where the deck 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.

D. Asphalt Approach Pavement. See the the Special Note for Bridge Overlay Approach Pavement for Construction, Measurement, and Payment.

E. Surface Texturing. Texture the concrete surface of the overlay in accordance with Section 609.03.10.

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.

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 grades shown on the Plans or established by the Engineer.

C. Full Depth Patching. When encountered on a bridge deck and marked in the field by the Engineer, full depth repair shall be paid for per Cubic Yard of Class "M" Concrete used.

D. Removal of Epoxy, Asphalt, or Foreign Overlay. See Section 606.

E. Machine Preparation of Slab. See Section 606.

F. Blast Cleaning. See Section 606.

G. Epoxy Sand Slurry. See Section 606.

H. 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.

V. PAYMENT. See Section 606 and the following:

A. Latex Modified Concrete for Overlay. The Department will make payment for the Latex Modified Concrete under bid item #08534 "CONCRETE OVERLAY – LATEX" for the quantity in cubic yards complete in place.

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

**SPECIAL NOTE FOR BRIDGE RESTORATION AND
WATERPROOFING WITH CONCRETE OVERLAYS**

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 "CONCRETE CLASS "M" FULL DEPTH PATCH" Payment will be for the completed and accepted quantity per cubic yard.
- D. Removal of Epoxy, Asphalt, or Foreign Overlay.** See Section 606.
- E. Machine Preparation of Slab.** See Section 606.
- F. Blast Cleaning.** See Section 606.
- G. Epoxy Sand Slurry.** See Section 606.
- H. 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.

SPECIAL NOTE FOR CONCRETE PATCHING REPAIR

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

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

This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing spalled/delaminated concrete; (3) Prepare the existing surface for concrete patching; (4) Place hook fasteners and welded wire fabric over surfaces to be repaired (where applicable); (5) Apply concrete patching as specified by this note and as shown on the attached detail drawings; (6) Finish and cure the new Concrete Patches; (7) Maintain & control traffic; and, (8) Any other work specified as part of this contract.

II. MATERIALS.

- A. Self-Consolidating Concrete.** Refer to list of approved materials or Kentucky Product Evaluation List.
- B. Vertical and Overhead Patch Material.** From approved KYTC Division of Materials List.
- C. Steel Reinforcement.** Use Grade 60. See Section 602
- D. Welded Steel Wire Fabric (WWF).** Conform to Section 811
- E. Hook Fasteners.** Use commercial grade galvanized hook fasteners. Minimum 3/16" diameter.

III. CONSTRUCTION.

- A. Concrete Removal and Preparation.** The Contractor, as directed by the Engineer shall locate and remove all loose, spalled, deteriorated and delaminated concrete. Sounding shall be used to locate delaminated areas. Care shall be exercised not to damage areas of sound concrete or reinforcing steel during concrete removal operations. Concrete removal shall be in accordance with a sequence approved by the Engineer. Concrete removal shall be accomplished by chipping with hand picks, chisels or light duty pneumatic or electric chipping hammers (not to exceed 15 lbs.). Remove all deteriorated loose concrete a minimum depth of 3/4" behind bar, and at least 1/4" greater than the largest size of aggregate in the repair mix., Care shall be taken to not damage bond to adjacent non-exposed reinforcing steel during concrete removal processes. Unless specifically *directed by the Engineer*, depth of removal shall not exceed 6 inches. The outer edges of all chipped areas shall be saw cut to a minimum depth of 1 inch to prevent featheredging unless otherwise approved by the Engineer. The perimeter of all areas where concrete is removed shall be sawcut at a 90° angle. After all deteriorated concrete has been removed; the repair surface to receive concrete patching shall be prepared by abrasive blast cleaning or water blast cleaning (greater than 5,000 psi). Abrasive blast cleaning shall remove all fractured surface concrete and all traces of any unsound material or contaminants such as oil, grease, dirt, slurry, or any

SPECIAL NOTE FOR CONCRETE PATCHING REPAIR

materials which could interfere with the bond of freshly placed concrete. The abrasive blast cleaning shall produce a Concrete Surface Profile (CSP) of a 6 or greater as per the current guidelines established by the International Concrete Repair Institute (ICRI), Technical Guideline 310.2R-2013. The Contractor shall dispose all removed material in an approved site.

- B. Steel Reinforcement.** All corroded reinforcing steel exposed during concrete removal shall have corrosion products removed by abrasive grit blasting or wire brush whichever is more appropriate. Furnish for replacement, as directed by the Engineer, additional linear feet of steel reinforcing bars ½” diameter by 20-foot lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Deliver unused bars to the nearest County Maintenance Barn. Reinforcing steel displaying deep pitting or loss of more than 20 percent of cross-sectional area shall be removed and replaced. Reinforcement shall be placed such that the minimum spacing around each bar is three times the maximum aggregate size to allow for proper encapsulation with concrete patching. Intersecting reinforcing bars shall be tightly secured to each other using tie wire and adequately supported to minimize movement during concrete placement.
- C. Concrete Repairs.** Place and finish the new concrete for the patching area in accordance with the manufacturer’s recommendations, as shown on the attached detail drawings, and as directed by the Engineer. For repairs greater than 1 square foot in surface area, the contractor must use self-consolidating repairs and use a form-and-pour technique (hand application is not allowed). Vertical and Overhead Patching material may be applied by hand troweling for repairs less than one square foot. The Engineer shall approve the Contractor’s method of placing and consolidating the concrete prior to the beginning of this operation.
- D. Curing.** On completion of finishing operation, patching concrete shall immediately be prevented from drying out and cracking by fogging, wetting, and/or any appropriate method approved by the Engineer. Curing shall continue for the duration recommended by the product manufacturer.
- E. Quality Control/Testing.** After completion of the curing, tensile bond testing shall be performed. The testing shall be in accordance with ICRI Technical Guideline 210.3R and ASTM C1583/C1583M. Up to one location per substructure unit and one location per span shall be performed, as directed by the Engineer. Repair of the test areas is to follow the guidance in this note. No additional payment will be made for testing or for the repair of testing locations.

SPECIAL NOTE FOR CONCRETE PATCHING REPAIR

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize himself with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department. Quantities given are approximate. The quantity for "Concrete Patching Repair" shall be bid with the contingency that quantities may be increased, decreased, or eliminated by the Engineer. Dispose of all removed material entirely away from the job site as approved by the Engineer. This work is incidental to the contract unit price for "Concrete Patching Repair".

IV. MEASUREMENT

- A. **Concrete Patching Repair.** The Department will measure the quantity per square feet of each area restored. Double payment will not be made on both faces of corner repairs.
- B. **Steel Reinforcement.** See Section 602. Steel reinforcement will not be measured for payment, but shall be considered incidental to "Concrete Patching Repair".

V. PAYMENT

- A. **Concrete Patching Repair.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, equipment; (2) preparation of specified areas including removing and disposing of specified existing materials; (3) place, finish and cure new concrete patches; and (4) all incidentals necessary to complete the work as specified by this note and as shown on the attached detail drawings.
- B. **Steel Reinforcement.** See Section 602.

The Department will consider payment as full compensation for all work required by these notes and detail drawings.

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's Current 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, and equipment
- (2) Remove existing concrete and expansion devices and/or bridge ends
- (3) Install armored edges and new concrete as specified and in accordance with the attached detail drawings
- (4) Install new joint seals (where required)
- (5) Maintain and control traffic
- (6) Any other work specified as part of this Contract.

II. MATERIALS

- A. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- B. Structural Steel.** Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. See Standard Drawing BJE-001, current edition, for armored edges. See Manufacturer's specifications for "Armored Edges on Strip Seal Expansion Dams".
- C. Stud Anchors.** The armored edge stud anchors are $\frac{3}{4}$ " x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).
- D. Steel Reinforcement - Epoxy Coated.** Use Grade 60. See Section 602.
- E. Epoxy Bond Coat.** See Section 511.
- F. Pre-Compressed Horizontal Expansion Joint System.** It shall have a cellular or micro-cell, polyurethane foam impregnated with hydrophobic acrylic emulsion, or a hydrophobic polymer. The polyurethane foam external facing shall be factory coated and cured with highway-grade, fuel resistant silicone or a highway-grade elastomeric coating at a width greater than the maximum joint expansion.

III. EQUIPMENT

- A. Hammers.** See Section 606.02.10 B.
- B. Sawing Equipment.** See Section 606.02.10 C.
- C. Hydraulic Impact Equipment.** See Section 606.02.10 D.

IV. CONSTRUCTION

- A. Remove Existing Materials.** Remove the existing expansion dam/bridge end and specified areas of concrete as shown on the attached sketches.

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

Remove debris and/or expansion joint filler as directed by the Engineer. When deteriorated concrete adjacent to the limits of removal is encountered, extend the removal area as directed by the Engineer. Dispose of all removed material entirely away from the job site. Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department. This work is incidental to the Contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete".

- B. Place New Concrete and Armored Edges.** After all specified existing materials have been removed; place new armored edges to match the grade of the proposed overlay or to match the original grade (See attached detail drawings). Place the new Class "M" Concrete to the scarified grade and finish to receive the new overlay or place the new Class "M" Concrete to the original grade and finish with broom strokes drawn transversely from curb to curb (See attached detail drawings).

All new structural steel shall be cleaned and painted in accordance with requirements of Section 607.03.23 except that surfaces to come in contact with concrete are not to be painted.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

- C. Additional Steel Reinforcement.** Furnish for this work, as directed by the Engineer, steel reinforcement as shown in the attached detail drawings. Splice these bars to the existing reinforcement in the deck in the areas of removed concrete as shown in the attached detail drawings or as directed by the Engineer. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class "M" Concrete. Field cutting and bending is permitted. Do not place any additional steel reinforcement above the height of the top row of Nelson studs on the armored edges.

Reinforcement, bar splices, and mechanical connectors are incidental to the Contract unit price for "Expansion Joint Replacement" or "Replace Armored Edge".

SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES

- D. Stage Construction.** Install concrete and armored edges in two (or more if specified) stages as necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld, and grind smooth.
- E. Pre-Compressed Horizontal Expansion Joint System.** System shall be supplied in pre-compressed sticks for easy installation. System shall be installed in accordance with Manufacturer's recommendations concerning approved adhesives, welds between sticks and appurtenances, and adhesion to concrete deck or armored edges. Joint seal is to be installed $\frac{3}{4}$ " recessed from the surface.
- F. Shop Plans.** Shop Plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

V. MEASUREMENT

- A. Expansion Joint Replacement – $1\frac{1}{2}$ ", 2" and $2\frac{1}{2}$ ".** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.
- B. Longitudinal Joint Replacement – $\frac{3}{4}$ ".** The Department will measure the quantity in linear feet from abutment to abutment along the centerline of the joint.
- C. Armored Edge for Concrete.** The Department will measure the quantity in linear feet from gutterline to gutterline along the face of the bridge end.

VI. PAYMENT

- A. Expansion Joint Replacement – $1\frac{1}{2}$ ", 2" and $2\frac{1}{2}$ ".** Payment at the Contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, reinforcement, precompressed joint seal, and all incidental items necessary to complete the work as specified by this note and as shown on the attached detail drawings.
- B. Longitudinal Joint Replacement – $\frac{3}{4}$ ".** Payment at the Contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, reinforcement, precompressed joint seal, and all incidental items necessary to complete the work as specified by this note and as shown on the attached detail drawings.
- C. Armored Edge for Concrete.** Payment at the Contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, reinforcement,

**SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR
INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES**

and all incidental items necessary to complete work as specified by this note and as shown on the attached detail drawings.

D. Steel Reinforcement. See Section 602.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.

SPECIAL NOTE FOR BRIDGE BARRIER RETROFIT

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's Current 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, and equipment
- (2) Remove specified portions of existing bridge barrier wall, brush blocks and wing walls
- (3) Install additional steel reinforcement and new concrete as specified and in accordance with the attached detail drawings
- (4) Paint exposed existing reinforcement and masonry coat all new concrete
- (5) Maintain and control traffic
- (6) Any other work specified as part of this contract

II. MATERIALS

A. Class "AA" Concrete. See Section 601.

B. Steel Reinforcement-Epoxy Coated. Use Grade 60. See Section 602.

III. CONSTRUCTION

A. Remove Existing Materials. Remove the existing bridge barrier wall to the limits shown on the plans and as directed by the Engineer including the existing brush blocks, rails, posts, and wing walls. Dispose of all removed material entirely away from the job site. This work shall be included in the contract unit price for "Bridge Barrier Retrofit" or "Bridge Barrier Removal".

B. Concrete Sawing. Existing barrier and wingwall parapet sections shall be carefully removed to lines designated on plans by using diamond saw blades or an approved equivalent. The surfaces presented as a result of this removal shall be reasonably true and even with sharp straight corners. Sawing shall be dust free and without vibration. Payment for this work is incidental to "Bridge Barrier Retrofit" or "Bridge Barrier Removal".

C. Steel Reinforcement. All steel reinforcement shall be epoxy-coated in accordance with Section 811.10. Install the steel reinforcement in accordance with Section 602 and as directed by the Engineer. In the attached detail drawings, dimensions shown from face of concrete to bars are clear distances unless otherwise shown. Spacing of bars is from center to center of bars. Payment for steel reinforcement will be incidental to "Bridge Barrier Retrofit".

- D. Place New Concrete.** Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class “AA” Concrete. The surface areas of existing concrete to come in contact with the new Class “AA” Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. This work is incidental to the pay item “Bridge Barrier Retrofit”.
- E. Masonry Coating.** A masonry coating shall be applied to all new concrete surfaces; existing concrete surfaces that have been sawcut; and to front, top, and end faces of existing wingwalls. Payment for this work is incidental to “Bridge Barrier Retrofit”.
- F. Exposed Reinforcing Bars (Final).** The existing reinforcing steel exposed by sawcutting shall be painted a color that is compatible with the sawed concrete face. The paint shall be a heavy duty epoxy with epoxy/polyamide resin. This work should be completed as soon as practicable to reduce rusting and streaking. Payment for this work is incidental to “Bridge Barrier Retrofit”.
- G. Bonding of Drilled Reinforcement.** Where shown on the plans, drill holes and anchor / bond new reinforcement into existing concrete using a polyester resin adhesive conforming to special note 6J for non-epoxy adhesives. Embedment shall be sufficient to develop the full tensile strength of the reinforcing bar in accordance with the polyester resin manufacturer’s recommendations. In no case shall embedment be less than the minimum embedment shown in the plans. Installation shall be in strict conformance with the manufacturer’s recommendations for the polyester adhesive being used and section 511 of the standard specifications. Holes shall be wire brushed and blown out with air from the bottom up to ensure good bonding. Where indicated in the drawings, holes shall be core drilled.
- H. Electrical Conduit.** Electrical Conduit is in the brush blocks and/or plinths of some of the barriers. The contractor shall determine if live electricity is in the conduit before removing any portions of the barrier.

IV. MEASUREMENT

- A. Bridge Barrier Retrofit.** The Department will measure the quantity in linear feet measured along gutterline from end to end of bridge barrier retrofit rail.
- B. Bridge Barrier Removal.** The Department will measure the quantity of barrier removed in lineal feet measured along gutterline from end to end of bridge slab, not to include sections remaining for signage.

V. **PAYMENT**

- A. Bridge Barrier Retrofit.** Payment for this item of work shall be at the contract unit price and payment will be full compensation for the following: (1) Furnish all labor, materials (including reinforcing steel, plastic pipe, and concrete), tools, and equipment; (2) Remove existing brush blocks and wing wall parapets as shown in the attached detail drawings (steel bridges requiring substantial barrier removal will have a separate "Bridge Barrier Removal" pay item); (3) Install additional steel reinforcement and new concrete; (4) Paint exposed existing reinforcement and masonry coat all new concrete and existing sawcut surfaces; and (5) Any other work specified as part of this contract and the attached detail drawings.
- B. Bridge Barrier Removal.** Payment for this item of work shall be at the contract unit price and payment will be full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove existing bridge barrier wall, curb, and wing wall; (3) Dispose of debris; and (4) Any other work specified as part of this contract and the attached detail drawings.

The Department will consider payment as full compensation for all work required by this note and the detail drawings.

SPECIAL NOTE FOR EPOXY INJECTION CRACK REPAIR

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highways current Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the Contract Documents. Section references are to the Standard Specifications.

This work consists of the following:

1. Furnish all labor, materials, tools, equipment, and incidental items necessary to complete the work.
2. Provide safe access to the bridge, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction.
3. Drill injection port holes.
4. Epoxy injection.
5. Finish the repaired surface.
6. Obtain core samples for the Engineer's visual inspection.
7. Repair core holes.
8. Any other work specified as part of this contract.

II. MATERIALS, EQUIPMENT, PERSONNEL

A. Type IV Epoxy Resin. Use either Category I or II suitable for epoxy injection applications. See Section 826. All cracks shall be injected using an adhesive suitable for the field conditions (crack width, temperature, humidity, etc.) recommended by the adhesive manufacture as shown on material data sheets.

B. Equipment. Equipment used to inject the epoxy shall meet the recommendations of the epoxy injection material manufacturer.

C. Personnel. Arrange to have a manufacturer's representative at the job site to familiarize him and the Engineer with the epoxy materials, application procedures and recommended pressure practice. The representative shall direct at least one complete crack or area injection and be assured prior to his departure from the project that the personnel are adequately informed to satisfactorily perform the remaining repairs.

Furnish the Engineer a copy of the manufacturer's comprehensive preparation, mixing and application instructions which have been developed especially for use with the proposed epoxy injection system. Ensure that any significant changes to these instructions which are recommended by the representative for an unanticipated situation have been approved by the Engineer prior to the adoption of such changes.

SPECIAL NOTE FOR EPOXY INJECTION CRACK REPAIR

III. CONSTRUCTION

- A. Investigate Remedial Action.** If the crack is larger than or equal to 0.025" wide or has rust stains, repair the crack by epoxy injection. If the crack is less than 0.025" wide, the crack shall be sealed in accordance with the Special Note for Concrete Sealing. Areas of map cracking are to be sounded by the Engineer with a hammer. If the areas are delaminated or spalled, they shall be repaired in accordance with the Special Note for Concrete Patching. Otherwise, the cracks shall be repaired in accordance with this Note.
- B. Drill Injection Port Holes.** Install injection ports or tees in cracks to be injected. Space injection ports or tees at 6 to 12 inches vertically and 6 to 18 inches horizontally but in no case closer together than the thickness of the concrete member if full depth penetration is desired unless otherwise specified or directed. Set ports or tees in dust free holes made either with vacuum drills or chipping hammers.
- C. Epoxy Injection.** Seal all surface cracks in the area to be repaired, after injection ports or tees have been inserted into the holes, with paste epoxy between ports to insure retention of the pressure injection within the confines of the member. An alternate procedure of sealing the cracks before the injection holes have been made can be submitted to the Engineer for approval. Limit the application of paste epoxy to clean and dry surfaces. Limit substrate temperatures to not less than 45°F during epoxy applications.
- Begin the epoxy injection at the bottom of the fractured area and progress upward using a port or tee filling sequence that will ensure the filling of the lowermost injection ports or tees first.
- Establish injection procedures and the depths and spacings of holes at injection ports or tees. Use epoxy with flow characteristics and injection pressure that ensure no further damage will be done to the member being repaired. Ensure that the epoxy will first fill the innermost portion of the cracked concrete and that the potential for creating voids within the crack or epoxy will be minimized.
- D. Finish the Repaired Surface.** Remove the injection ports or tees flush with the concrete surface after the fractured area has been filled and the epoxy has partially cured (24 hours at ambient temperature not less than 60°F, otherwise not less than 48 hours). Roughen the surfaces of the repaired areas to achieve uniform surface texture. Remove any injection epoxy runs or spills from concrete surfaces.
- E. Obtain Core Samples.** Obtain two 4-inch diameter core samples in the first 25 linear feet of crack repaired and one core for each 25 linear feet thereafter. Take the core samples from locations determined by the Engineer and for the full crack depth. Cores will be visibly examined by the Engineer to determine the extent of epoxy penetration.
- F. Repair Core Holes.** Repair core holes in the concrete with non-shrink grout in accordance with Section 601.03.03(B) within 24 hours.

SPECIAL NOTE FOR EPOXY INJECTION CRACK REPAIR

IV. MEASUREMENT

The Department will measure the quantity in linear feet along the centerline of the cracks. The Department will not measure preparation of the site for the Engineer’s access or removal and reapplication of repairs that do not satisfy the Engineer’s approval for payment and will consider them incidental to “Epoxy Injection Crack Repair”.

V. PAYMENT.

The Department will make payment for the completed and accepted quantities of concrete cracks repaired with epoxy injection under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
23744EC	Epoxy Injection Crack Repair	Linear Feet

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

I-64 (WB) Ramp over Northwestern Parkway (056B00277N)

(MP 0.25)



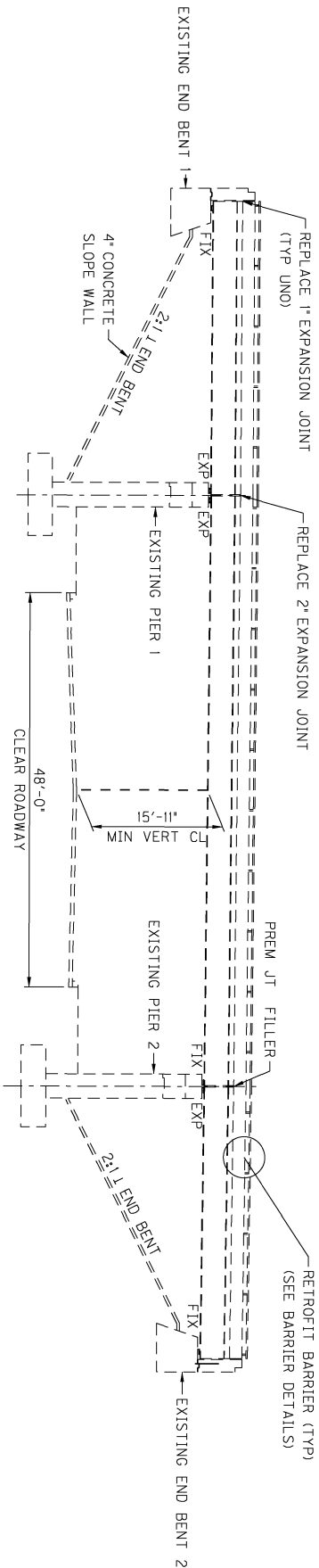
SUMMARY OF QUANTITIES – 056B00277N			
ITEM CODE	DESCRIPTION	QUANTITY	UNIT
03293	EXPAN JOINT REPLACE 1 IN	101	LF
03295	EXPAN JOINT REPLACE 2 IN	34	LF
08526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	0.5	CY
08534	CONCRETE OVERLAY-LAYTEX	19	CY
23032EN	BRIDGE BARRIER RETROFIT	288	LF
24094EC	PARTIAL DEPTH PATCHING	1	CY
08510	REM EPOXY BIT FOREIGN OVERLAY	450	SY
08549	BLAST CLEANING	450	SY
08504	EPOXY SAND SLURRY	35	SY
08151	STEEL REINFORCEMENT-EPOXY COATED	100	LB

NOTES:

- EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS. CONTRACTOR SHALL FIELD VERIFY JOINT SEAL WIDTH BEFORE ORDERING MATERIAL.
- PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTTTIES ARE APPROXIMATE ESTIMATES BASED ON VISUAL INSPECTION +25%.



ELEVATION



NOTES:

- 1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 14673). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.
- 2 CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.
- 3 APPLY LATEX OVERLAY, PER SPECIAL NOTE.



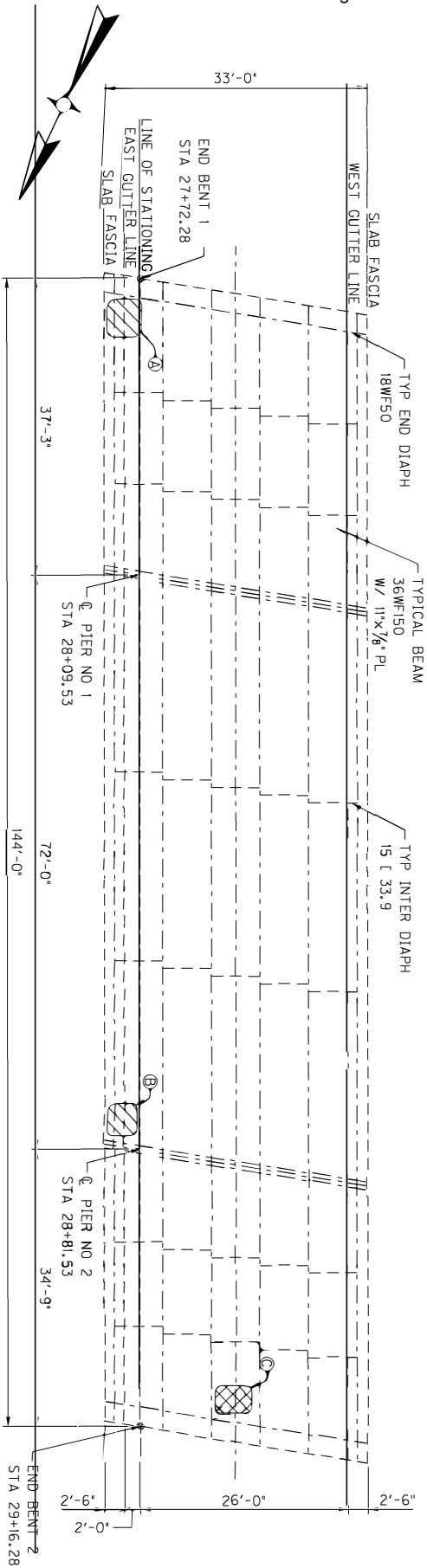
PLAN AND ELEVATION

BRIDGE:
056B00277N

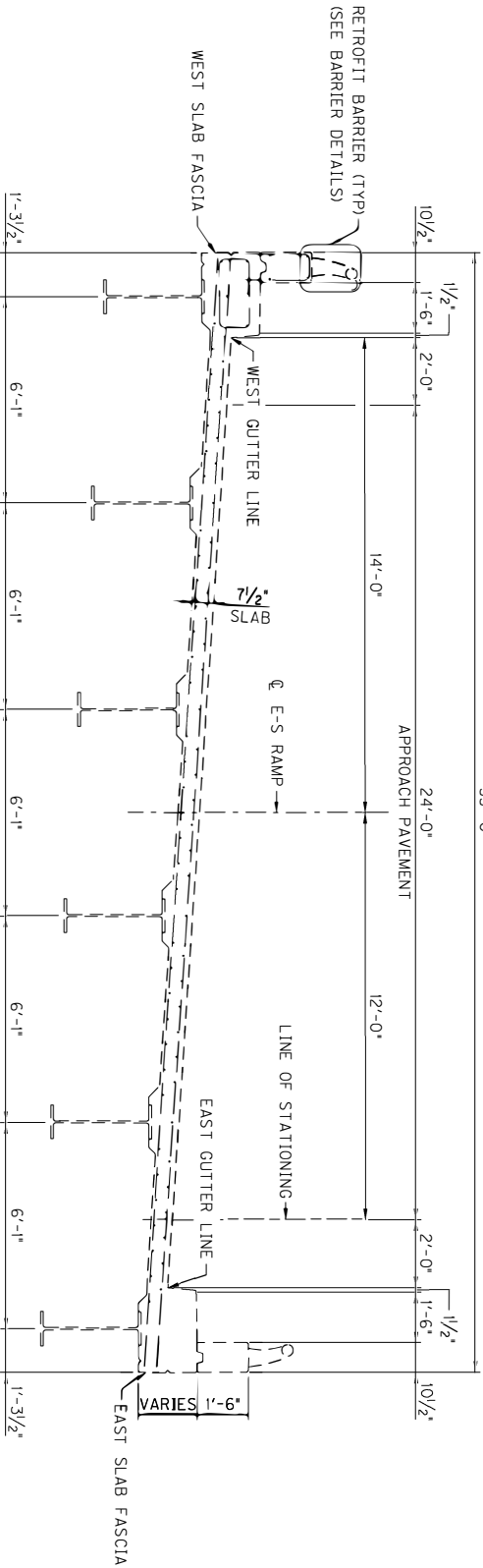
COUNTY: JEFFERSON

ROUTE: I-64 E-S RAMP

CROSSING: KY 3064 (N WESTERN PKWY)

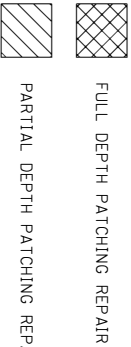


PLAN



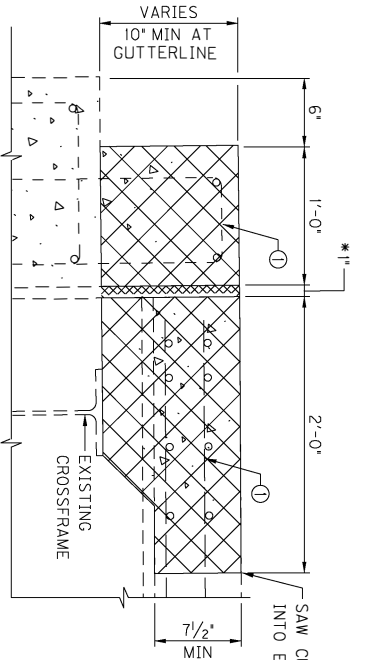
TYPICAL SLAB SECTION

- NOTES:
- 1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 14673). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.
 - 2 CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.
 - 3 PARTIAL DEPTH PATCHING = 34 S.F. (APPROX)
 - Ⓐ 25 S.F. (APPROX)
 - Ⓑ 9 S.F. (APPROX)
 - 4 FULL DEPTH PATCHING = 9 S.F. (APPROX)
 - Ⓒ 9 S.F. (APPROX)



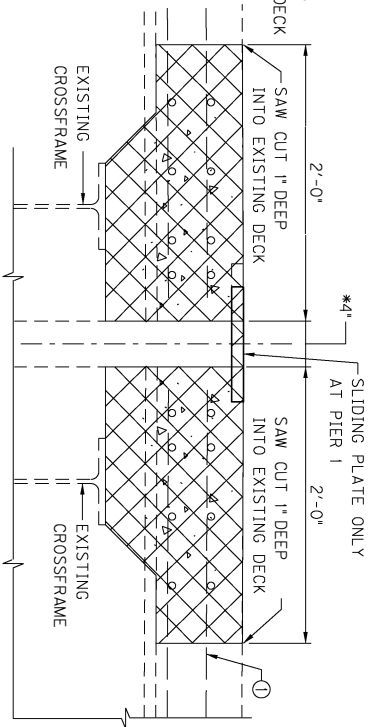
FRAMING PLAN AND TYPICAL SECTION

BRIDGE: 05BBD0277N
COUNTY: JEFFERSON
ROUTE: I-64 E-S RAMP
CROSSING: KY 3064 (N WESTERN PKWY)



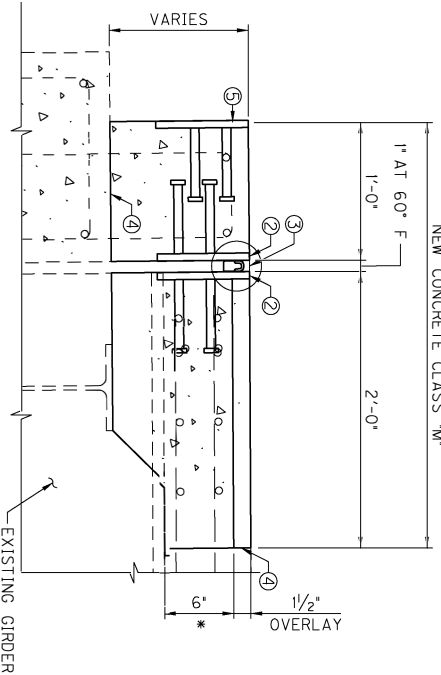
EXISTING SECTION AT ABUTMENTS

(SHOWING REMOVAL)

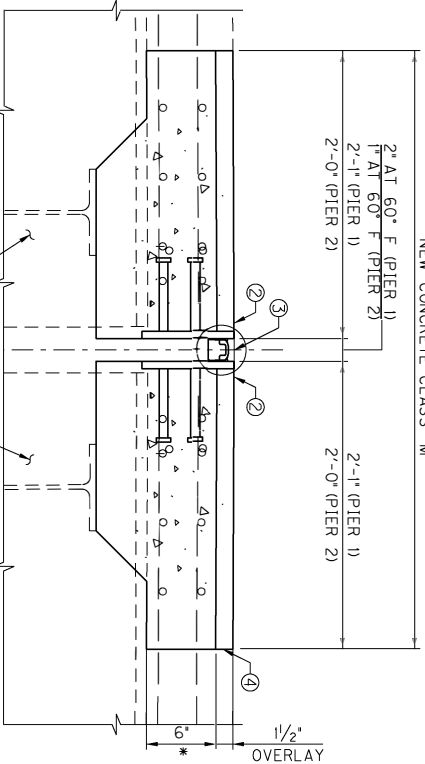


EXISTING SECTION AT PIERS

(SHOWING REMOVAL)



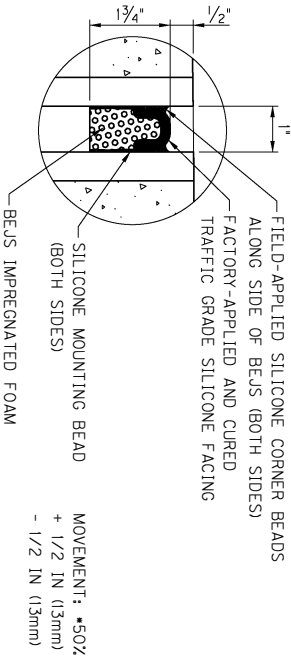
PROPOSED SECTION AT ABUTMENTS



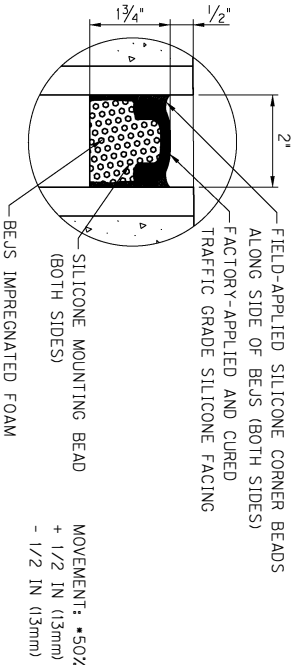
PROPOSED SECTION AT PIERS

(SHOWING PIER 1)

DETAIL "A"



DETAIL "B"



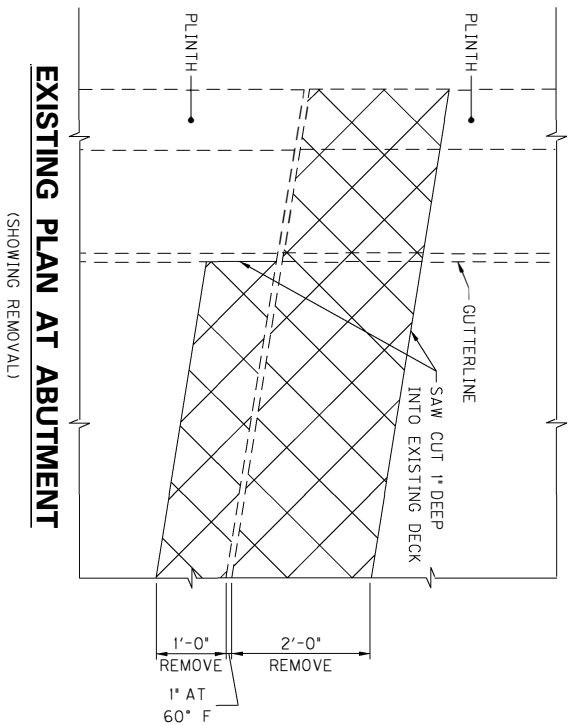
NOTES:

- 1 REMOVE HATCHED AREAS OF CONCRETE AND EXPANSION DEVICE. CLEAN, STRAIGHTEN & REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REPLACE EXISTING TRANSVERSE REINFORCEMENT.
- 2 FOR BONDING NEW CONCRETE TO EXISTING SURFACE, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.
- 3 ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.
- 4 FOR TEMPERATURE CHANGE INCREMENTS, SEE STD. DWG. BJE-001-12. PREFORMED EXPANSION JOINT SHALL BE EMSEAL OR AN APPROVED EQUIVALENT.
- 5 THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL IS TO BE INCLUDED IN THE BID ITEM 03293 "EXPAN JOINT REPLACE 1 IN" AND 03295 "EXPAN JOINT REPLACE 2 IN".

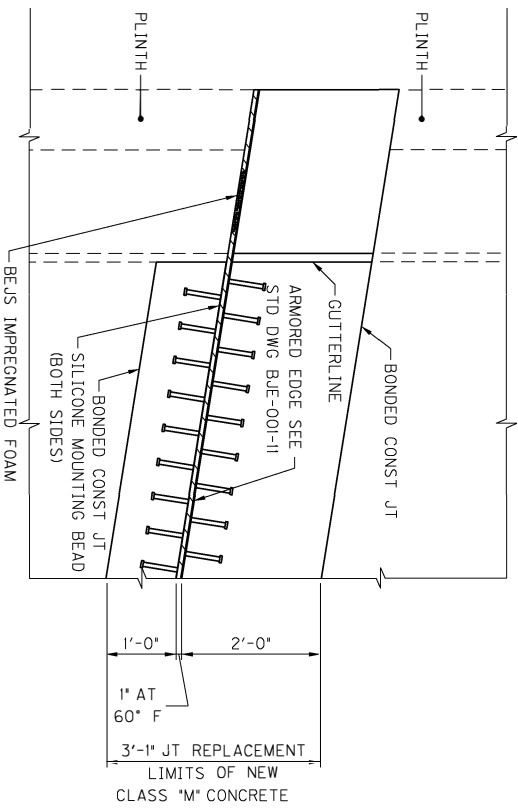
NOTATIONS:

- 1 CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT
- 2 PL 3/8"x8" WITH 3/4"x0 x 6" STUDS ADJUSTED TO AVOID INTERFERENCE WITH ADJACENT ANCHORS AND EXISTING REINFORCEMENT, AS NECESSARY
- 3 1" AND 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM INSTALLED 1/2" FROM TOP OF DECK. MITER CUT THE JOINT TRANSITION INSTALLED AT BARRIERS TO MATCH THE SKEW AT THE GUTTERLINE. (SEE DETAIL "A" (PIER 1) SEE DETAIL "B")
- 4 BONDED CONSTRUCTION JOINT
- 5 ARMORED EDGE, SEE STD DWG BJE-001-13
- * FIELD VERIFY DIMENSION
- ** STUD SPACING

CONCRETE REMOVAL
REMOVE HATCHED AREAS OF CONCRETE. EXPANSION DEVICE & ARMORED EDGE. SAND-BLASTED CLEAN, STRAIGHTEN & REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REPLACE EXISTING TRANSVERSE REINFORCEMENT. FIELD VERIFY REMOVAL TO TOP OF GIRDER.

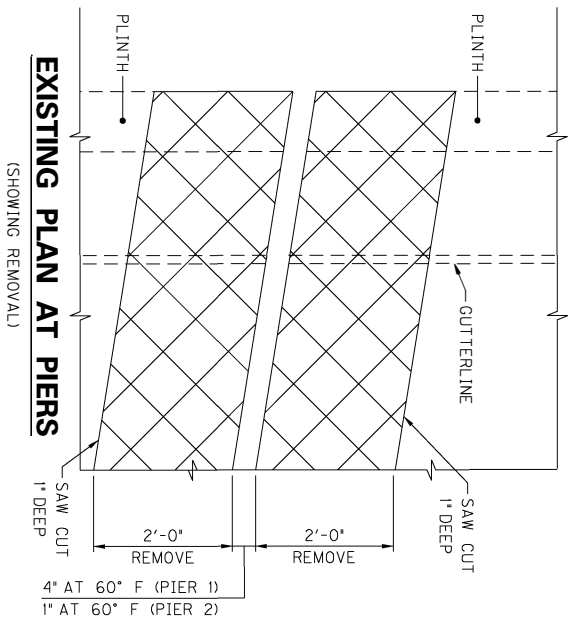


EXISTING PLAN AT ABUTMENT
(SHOWING REMOVAL)

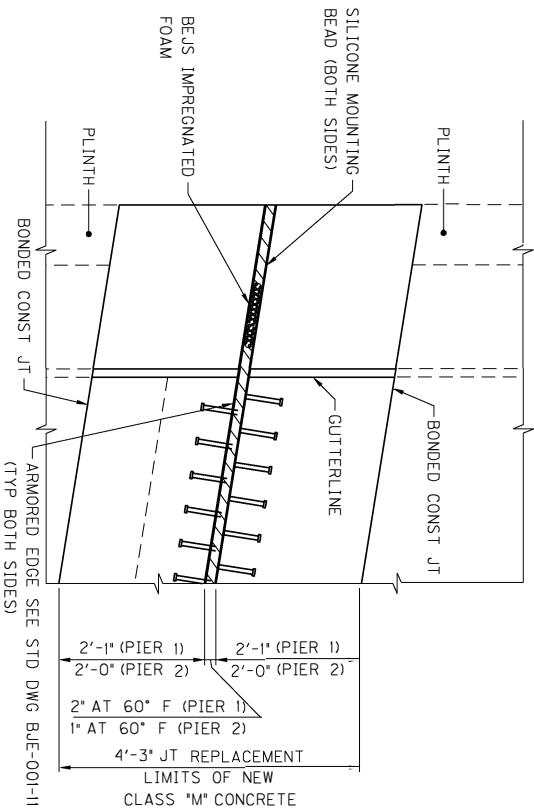


PROPOSED PLAN AT ABUTMENT

BONDING NEW CONCRETE TO EXISTING JOINT
WHERE REPAIR IS CALLED FOR IN PLANS. NEW CONCRETE SHALL BE BONDED TO EXISTING CONCRETE WITH A TWO-COMPONENT EPOXY RESIN SYSTEM CONFORMING TO SECTION 511 AND 826 OF THE SPECIFICATIONS. THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIALS IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR EXPANSION JOINT REPLACEMENT. ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.



EXISTING PLAN AT PIERS
(SHOWING REMOVAL)

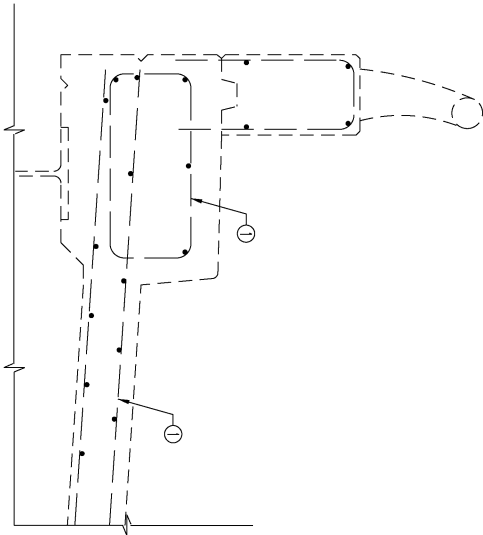


PROPOSED PLAN AT PIERS

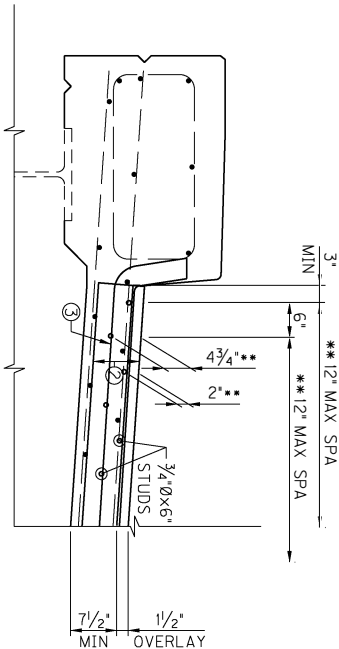


EXPANSION JOINT DETAILS

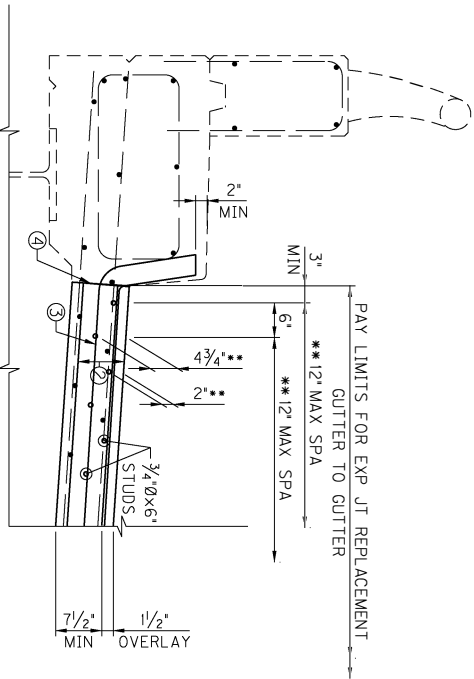
BRIDGE:
05B00277R
COUNTY: JEFFERSON
ROUTE: I-64 E-S RAMP
CROSSING: KY 3064 (N WESTERN PKWY)



**EXISTING SECTION THRU
JOINT AT BARRIER**



**PROPOSED SECTION THRU
JOINT AT BARRIER ON BRIDGE**



**PROPOSED SECTION THRU
JOINT AT BARRIER ON ABUTMENT**

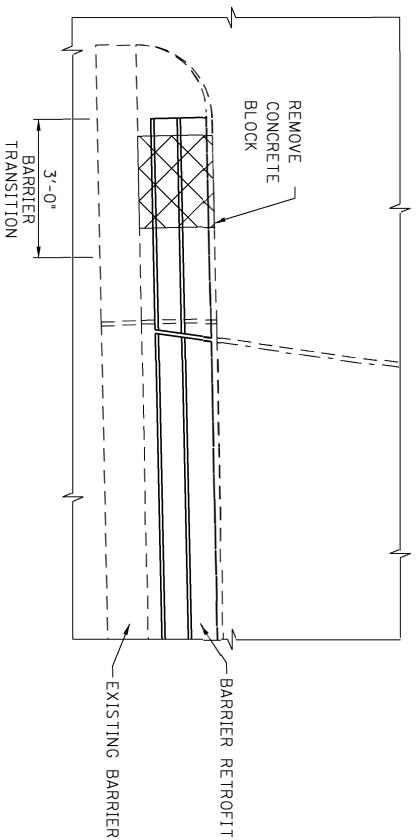
NOTATIONS:

- ① CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT
- ② PL $\frac{5}{8}$ "x8" WITH $\frac{3}{4}$ " \varnothing x 6" STUDS ADJUSTED TO AVOID INTERFERENCE WITH ADJACENT ANCHORS AND EXISTING REINFORCEMENT, AS NECESSARY
- ③ 1" AND 2" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM INSTALLED $\frac{1}{2}$ " FROM TOP OF DECK. MITER CUT THE JOINT TRANSITION INSTALLED AT BARRIERS TO MATCH THE SKEW AT THE GUTTERLINE. (SEE DETAIL "A") (PIER 1 SEE DETAIL "B")
- ④ BONDED CONSTRUCTION JOINT
- ⑤ ARMORED EDGE, SEE STD DWG BUE-001-13
- * FIELD VERIFY DIMENSION
- ** STUD SPACING

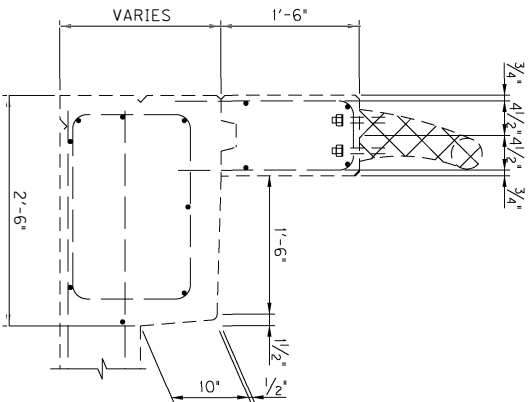


EXPANSION JOINT DETAILS

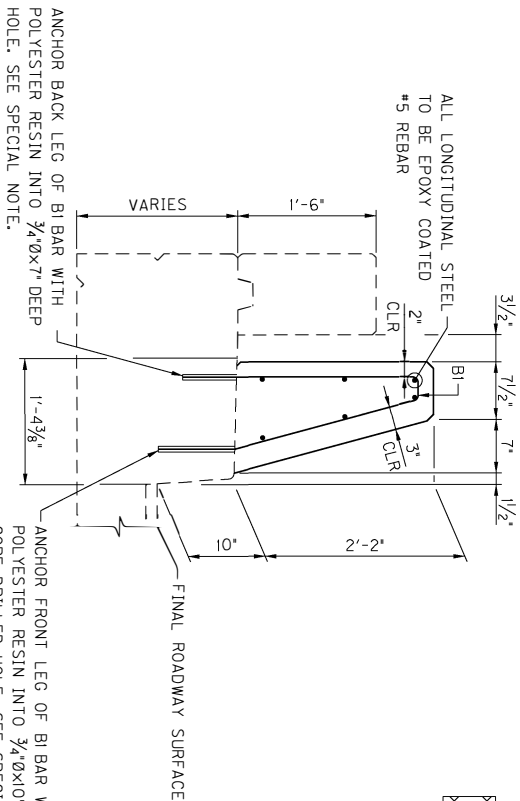
BRIDGE: 05B00277R	SHEET 5 OF 6
COUNTY: JEFFERSON	
ROUTE: I-64 E-S RAMP	
CROSSING: KY 306.4 (N WESTERN PKWY)	



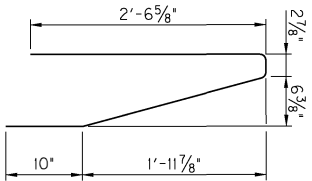
PLAN - ABUTMENT 1



BARRIER DETAIL - EXISTING



BARRIER DETAIL - PROPOSED



B1 - #5 BARS



AREA OF REMOVAL

NOTES:

- 1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 14673). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.
- 2 CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.
- 3 REMOVE HATCHED AREA OF CONCRETE, RAILING, AND EXISTING REINFORCEMENT BY SAW CUTTING AT LIMITS SHOWN. PAINT ANY PERMANENTLY EXPOSED REINFORCING STEEL. SEE SPECIAL NOTE.
- 4 FOR BONDING NEW CONCRETE TO EXISTING SURFACES, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.
- 5 APPLY MASONRY COATING TO BARRIER, WINGWALL, AND EXPOSED SAMCUT SURFACES. SEE SPECIAL NOTE FOR LIMITS.
- 6 NEW CONCRETE IS TO BE CLASS "AA".
- 7 ATTACH GUARDRAIL CONNECTOR (TYPE A OR A-1) TO BARRIER RETROFIT AT BRIDGE END IN GENERAL CONFORMITY TO STD DWG RBC-001-09 WITH ALL MODIFICATIONS APPROVED BY THE ENGINEER.
- 8 REFER TO KYTC SEPIA 052 FOR BARRIER TRANSITION AND GUARDRAIL CONNECTION.
- 9 BRIDGE BARRIER RETROFIT TO BE COMPLETED AFTER JOINT REPLACEMENT.

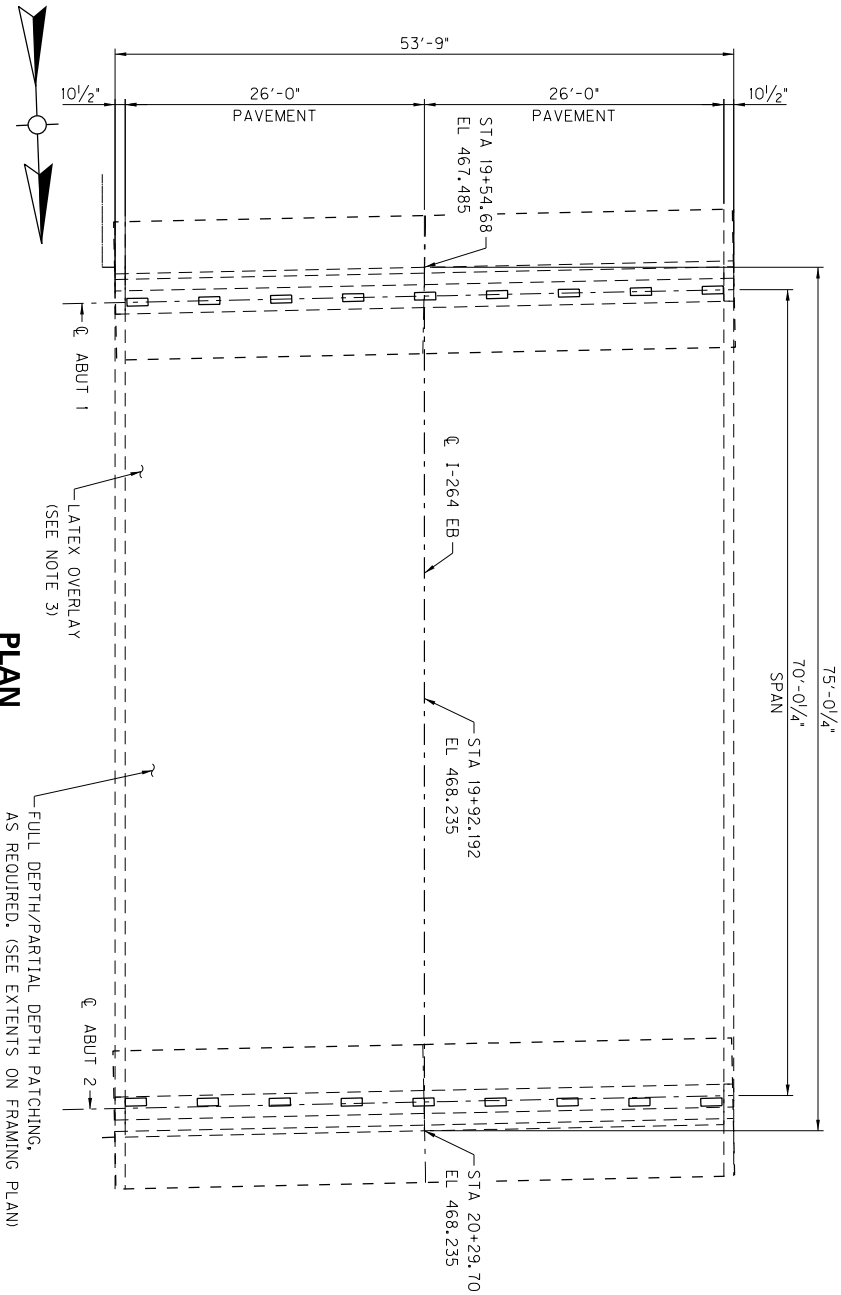
I-264 (EB) over Bank Street (056B00227R)
(MP 0.34)



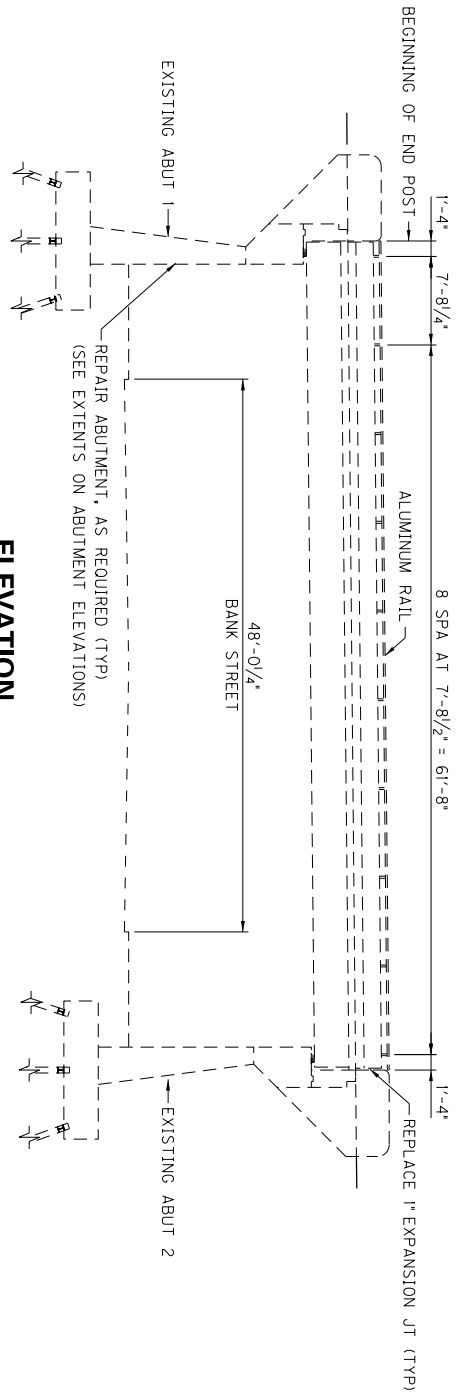
SUMMARY OF QUANTITIES – 056B00227R			
ITEM CODE	DESCRIPTION	QUANTITY	UNIT
03293	EXPAN JOINT REPLACE 1 IN	109	LF
08526	CLASS M CONCRETE FOR FULL DEPTH PATCHING	11	CY
08534	CONCRETE OVERLAY-LAYTEX	18.5	CY
22146EN	CONCRETE PATCHING REPAIR	30	SF
23744EC	EPOXY INJECTION CRACK REPAIR	50	LF
24094EC	PARTIAL DEPTH PATCHING	0.5	CY
08510	REM EPOXY BIT FOREIGN OVERLAY	435	SY
08549	BLAST CLEANING	435	SY
08504	EPOXY SAND SLURRY	20	SY
08151	STEEL REINFORCEMENT-EPOXY COATED	100	LB

NOTES:

- EXPANSION JOINT REPLACEMENT SIZE BASED ON WIDTH SHOWN ON EXISTING PLANS. CONTRACTOR SHALL FIELD VERIFY JOINT SEAL WIDTH BEFORE ORDERING MATERIAL.
- PARTIAL DEPTH AND FULL DEPTH PATCHING QUANTITIES ARE APPROXIMATE ESTIMATES BASED ON VISUAL INSPECTION +25%.
- CONCRETE PATCHING REPAIR QUANTITY IS AN APPROXIMATE ESTIMATE BASED ON VISUAL INSPECTION +25%.
- EPOXY INJECTION CRACK REPAIR QUANTITY IS BASED ON VISUAL INSPECTION +10%.



PLAN



ELEVATION

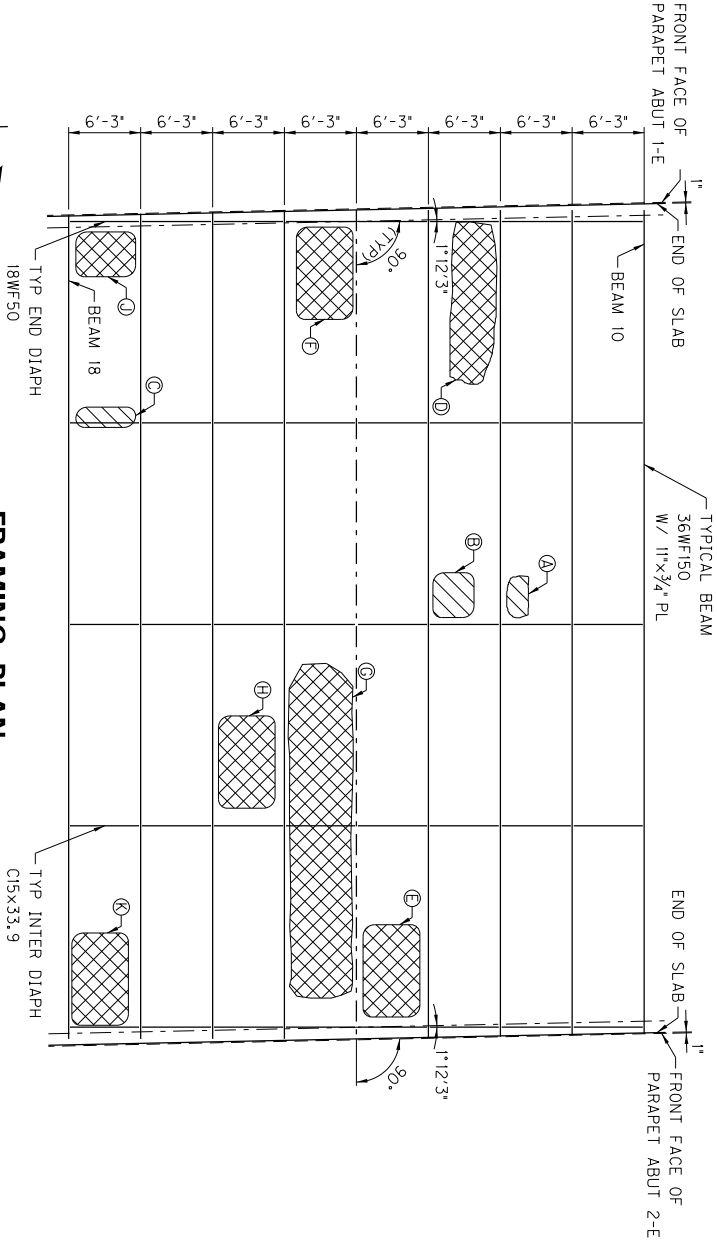
NOTES:

- 1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 14530). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.
- 2 CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.
- 3 APPLY LATEX OVERLAY, PER SPECIAL NOTE.
- 4 NORTHEAST WINGWALL CONCRETE PATCHING REPAIR = 4 S.F. (APPROX)

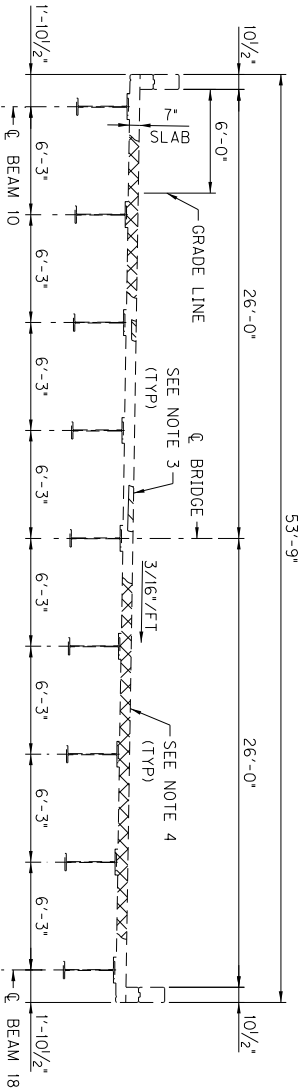


PLAN AND ELEVATION

BRIDGE: 056B00227R	
COUNTY: JEFFERSON	SHEET 1 OF 4
ROUTE: I-264 EASTBOUND	
CROSSING: KY 3082 (BANK STREET)	



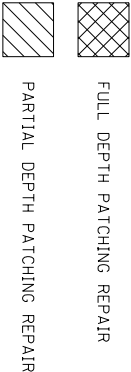
FRAMING PLAN



TYPICAL SECTION

NOTES:

- 1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 14530). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.
- 2 CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.
- 3 PARTIAL DEPTH PATCHING = 18 S.F. (APPROX),
3/4 OF DECK THICKNESS
 A 1 S.F. (APPROX)
 B 12 S.F. (APPROX)
 C 5 S.F. (APPROX)
- 4 FULL DEPTH PATCHING = 395 S.F. (APPROX),
FULL DECK THICKNESS
 D 50 S.F. (APPROX)
 E 40 S.F. (APPROX)
 F 40 S.F. (APPROX)
 G 150 S.F. (APPROX)
 H 35 S.F. (APPROX)
 I 40 S.F. (APPROX)
 K 40 S.F. (APPROX)
- 5 CONCRETE PATCHING REPAIR (DECK OVERHANG) = 18 S.F. (APPROX)
NE CORNER = 3 S.F. (APPROX)
NW CORNER = 6 S.F. (APPROX)
EAST OVERHANG AT MIDSPAN = 9 S.F. (APPROX)

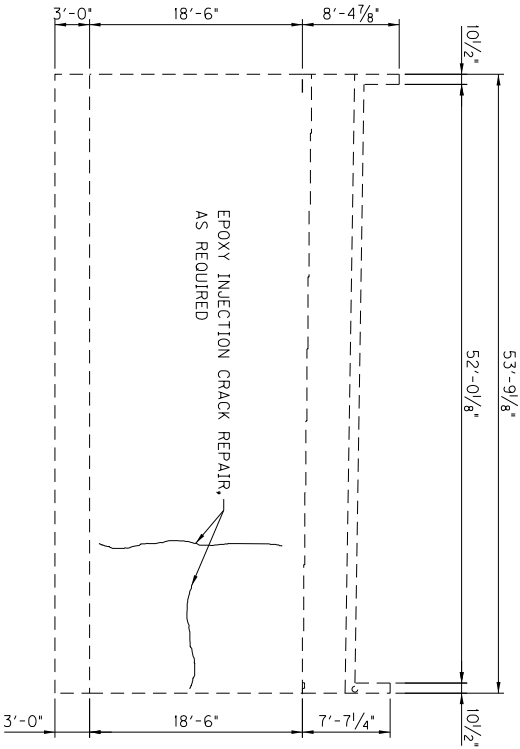
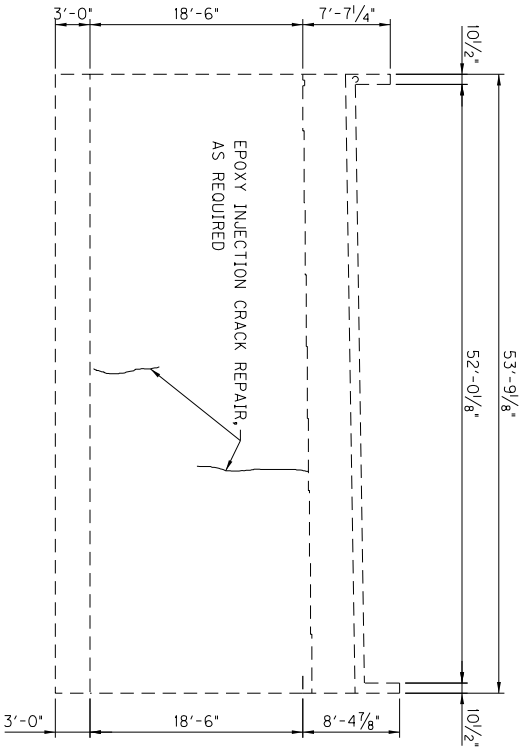


FRAMING PLAN AND TYPICAL SECTION



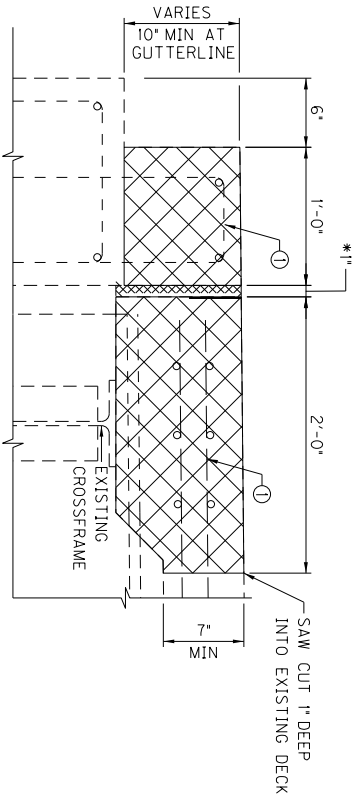
NOTES:

- 1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 14530). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.
- 2 CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.
- 3 ABUT 1 EPOXY INJECTION CRACK REPAIRS = 20 L.F. (APPROX)
ABUT 2 EPOXY INJECTION CRACK REPAIRS = 25 L.F. (APPROX)



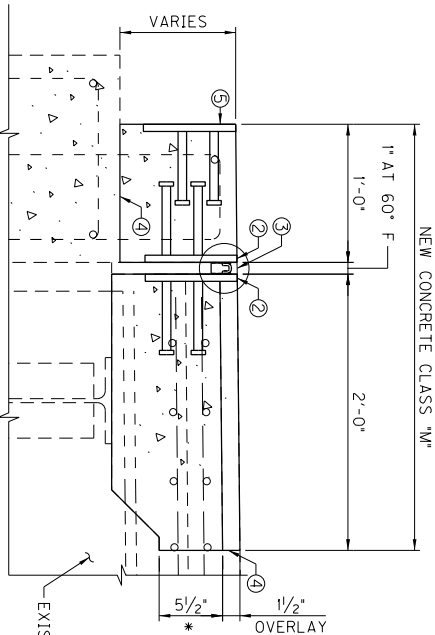
ABUTMENT ELEVATIONS

BRIDGE: 056B00227R		SHEET 3 OF 4
COUNTY: JEFFERSON		
ROUTE: I-264 EASTBOUND CROSSING: KY 3082 (BANK STREET)		

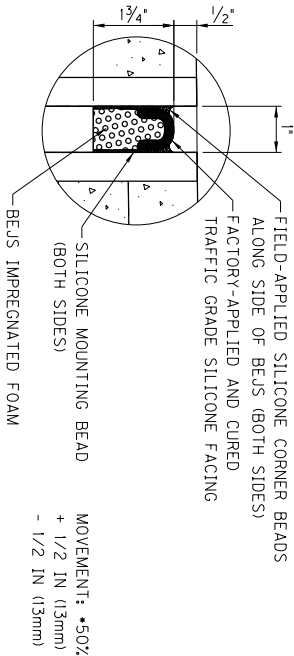


EXISTING SECTION AT ABUTMENTS

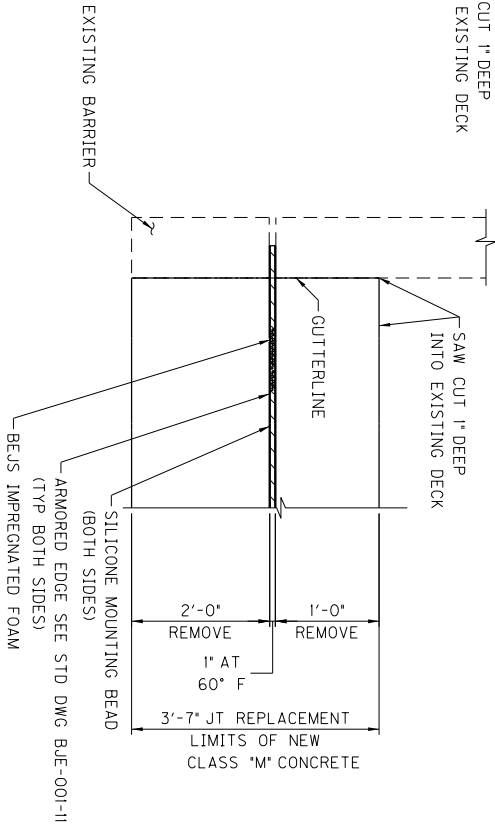
(SHOWING REMOVAL)



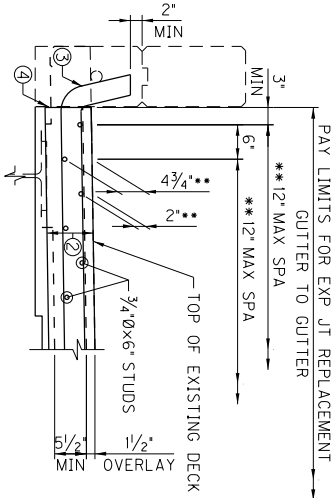
PROPOSED SECTION AT ABUTMENTS



DETAIL "A"



PLAN AT ABUTMENT



PROPOSED SECTION THRU JOINT AT BARRIER

JOINT AT BARRIER

NOTES:

- 1 REMOVE HATCHED AREAS OF CONCRETE AND EXPANSION DEVICE. CLEAN, STRAIGHTEN & REUSE EXISTING REINFORCEMENT. THE CONTRACTOR HAS THE OPTION TO REPLACE EXISTING TRANSVERSE REINFORCEMENT.
- 2 FOR BONDING NEW CONCRETE TO EXISTING SURFACE, SEE SECTION 511 OF THE STANDARD SPECIFICATIONS.
- 3 ROUGHEN EXISTING CONCRETE WHEN IN CONTACT WITH NEW CONCRETE.
- 4 FOR TEMPERATURE CHANGE INCREMENTS, SEE STD. DWG. BJE-001-12. PREFORMED EXPANSION JOINT SHALL BE EMSEAL OR AN APPROVED EQUIVALENT.
- 5 THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIAL IS TO BE INCLUDED IN THE BID ITEM 03293 "EXPAN JOINT REPLACE 1 IN".

NOTATIONS:

- ① CLEAN AND STRAIGHTEN EXISTING REINFORCEMENT
- ② PL 5/8"x8" WITH 3/4"Ø x 6" STUDS ADJUSTED TO AVOID INTERFERENCE WITH ADJACENT ANCHORS AND EXISTING REINFORCEMENT, AS NECESSARY
- ③ 1" PRECOMPRESSED, SILICONE-AND-FOAM HYBRID JOINT SYSTEM INSTALLED 1/2" FROM TOP OF DECK, MITER CUT THE JOINT TRANSITION INSTALLED AT BARRIERS TO MATCH THE SKEW AT THE GUTTERLINE. (SEE DETAIL "A")
- ④ BONDED CONSTRUCTION JOINT
- ⑤ ARMORED EDGE, SEE STD DWG BJE-001-13
- * FIELD VERIFY DIMENSION
- ** STUD SPACING

I-264 over Belles Lane (056B00478N)

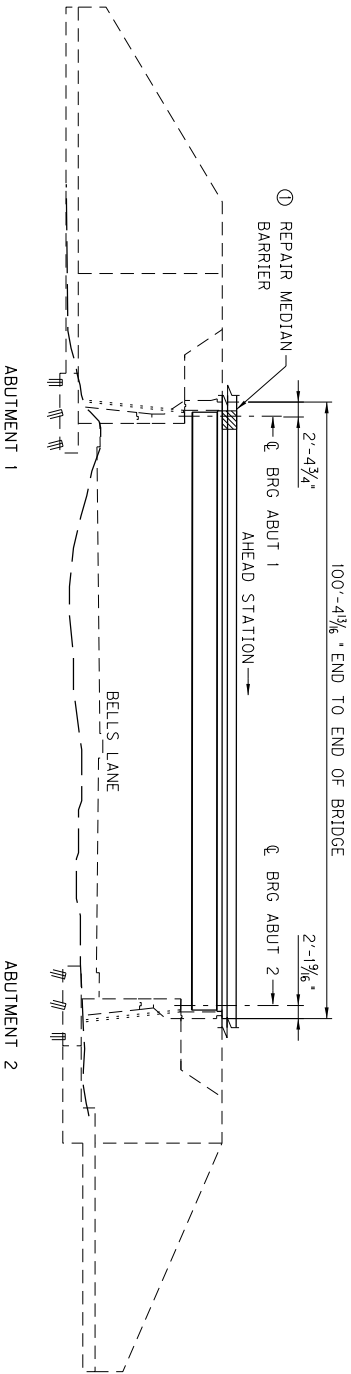
(MP 4.0)



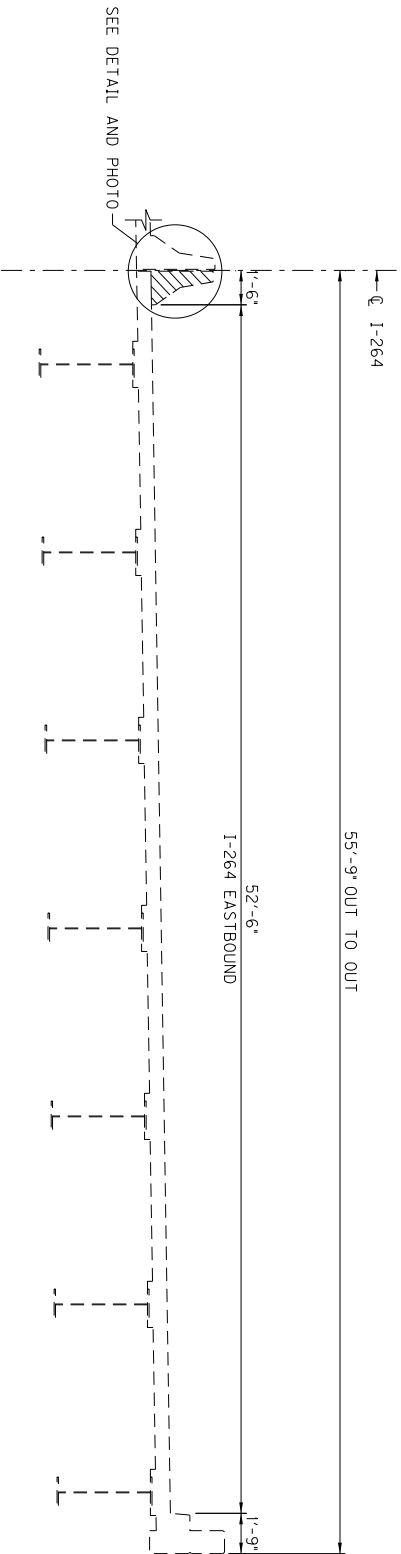
SUMMARY OF QUANTITIES – 056B00478N			
ITEM CODE	DESCRIPTION	QUANTITY	UNIT
08104	CONCRETE-CLASS AA	1.5	CY
08151	STEEL REINFORCEMENT-EPOXY COATED	285	LB

NOTE:

- CLASS AA CONCRETE QUANTITY IS AN APPROXIMATE ESTIMATE BASED ON VISUAL INSPECTION +10%.



ELEVATION



TYPICAL DECK SECTION

(EASTBOUND SHOWN, WESTBOUND SIMILAR)

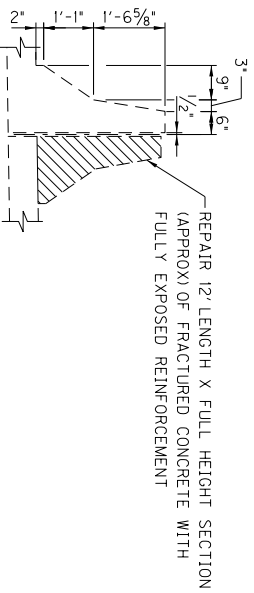
- ① CONCRETE PATCHING REPAIR OF NORTH MEDIAN BARRIER AT ABUTMENT 1 = 32 S.F. ACTUAL QUANTITY MAY VARY



CONCRETE REPAIR AREA

NOTES:
DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 17366). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS, PROFILE GRADE, AND CROSS-SLOPES WITH THE EXISTING PLANS AND ROADWAY PAVEMENT REHABILITATION PLANS.



MEDIAN BARRIER SECTION



MEDIAN BARRIER PHOTO



ELEVATION AND TYPICAL DECK SECTION

BRIDGE: 0506000178N		SHEET 1 OF 1	
COUNTY:	JEFFERSON	ROUTE:	1-264
CROSSING:	KY 2056 (BELLS LN)		

SPECIAL NOTE FOR CONCRETE SLURRY

If diamond grinding, grooving or any other process which produces slurry is required on roadways or bridges, the contractor shall ensure that all concrete slurry associated with these processes is collected, managed, and disposed of appropriately. The waste material shall be disposed of at a permitted disposal facility, in accordance with the Kentucky Standard Specifications for Road and Bridge Construction and the Environmental Performance Standards outlined in 401 KAR 47:030, or managed as a material for beneficial reuse. Any fines or remediation related to improper disposal shall be the sole responsibility of the contractor.

Disposal of concrete slurry will not be paid separately and shall be considered incidental to other bid items.

8/20/2019

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

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

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



Matthew G. Bevin
Governor

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Greg Thomas
Secretary

Asbestos Inspection Report

To: Ross Mills

District: Central Office

Date: October 25, 2019

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-20015

Structure ID: 056B00227R

Structure Location: I-264 over Bank Street

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2019

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%.
No abatement is required at this time.

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



MRS, Inc. Analytical Laboratory Division

(502) 495-1212
Fax: (502) 491-7111

Analysis N #	# 910242 C	Address:	Jefferson 056 B00227R
Client Name:	KYTC		I - 264 Over Bank Street
Sampled By:	O'Dail Lawson		

[illegible]

Date Analyzed : 24-Oct-19
Analyst : Winterford Mensah

Reviewed By: Hirshwar Menad
Signature

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government. Partial reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AJHA #1 02459

ENVIRONMENTAL TRAINING CONCEPTS, INC
P.O. Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-041619-00415

O'Dail Lawson

has on 04-16-2019, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1520 Alliant Ave., Louisville, KY


Name - Training Manager

Expiration Date: 04-16-2020


Name - Instructor



Matthew G. Bevin
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Greg Thomas
Secretary

Asbestos Inspection Report

To: Ross Mills

District: Central Office

Date: October 25, 2019

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-20015

Structure ID: 056B00277N

Structure Location: I-264 over Northwestern Parkway

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2019

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%.
No abatement is required at this time.

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





(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N #	# 910242 B	Address:	Jefferson 056 B00277N
Client Name:	KYTC		I - 264 Over Northwestern PKWY
Sampled By:	O'Dail Lawson		

[illegible]

Reviewed By: Hinton Meraf
Signature

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AJHA #1 02459

Kentucky Transportation Cabinet
200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

[illegible]

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O. Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-041619-00415

O'Dail Lawson

has on 04-16-2019, attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1520 Alliant Ave., Louisville, KY

Expiration Date: 04-16-2020

Name - Training Manager

Name - Instructor



Matthew G. Bevin
Governor

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Greg Thomas
Secretary

Asbestos Inspection Report

To: Ross Mills

District: Central Office

Date: October 25, 2019

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Jefferson 05-20018

Structure ID: 056B00478R

Structure Location: I-265 over Bells Lane

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: October 23, 2019

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%.
No abatement is required at this time.

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



MRS, Inc. Analytical Laboratory Division

Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis N#	# 910242 E	Address:	Jefferson 056 B00478
Client Name:	KYTC		I - 264 Over Bells Lane
Sampled By:	O'Dail Lawson		

[illegible]

Methodology : EPA Method 600/R-93-116

Date Analyzed : 24-Oct-19
Analyst : Winterford Mensah

Reviewed By: Kintezoo Mensah
Signature

The test relates only to the items tested. This report does not represent endorsement by NVLAP or any agency of the U.S. Government. Partial Reproduction of any part of this report is strictly prohibited. Samples shall be retained for (30) days.

AIHA # 102459

AJHA #1 02459

200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5

ENVIRONMENTAL TRAINING CONCEPTS, INC

P.O Box 99603 Louisville, KY 40269

(502)610-2951

Certification Number: ETC-AIR-041619-00415

O'Dail Lawson

has on 04-16-2019, attended and successfully completed the requirements and passed the examination with a score of 70% or better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management and Tennessee Department of Environment & Conservation. The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1520 Alliant Ave., Louisville, KY

Expiration Date: 04-16-2020


Name - Training Manager


Name - Instructor

KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF RIGHT OF WAY & UTILITIESTC 62-226
Rev. 01/2016
Page 1 of 1

RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
5-20010.00	Jefferson	FD52 056 0064 000-001 & FD52 056 0264 000-013	NHPP IM 2641 (183)
PROJECT DESCRIPTION			
Cocrete Paving Rehab on I-64 MP 0- 0.824, I-264 MP 0 -0.46 & I-64 MP 0.46-12.7			
<input checked="" type="checkbox"/> No Additional Right of Way Required			
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.			
<input type="checkbox"/> Condition # 1 (Additional Right of Way Required and Cleared)			
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.			
<input type="checkbox"/> Condition # 2 (Additional Right of Way Required with Exception)			
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract			
<input type="checkbox"/> Condition # 3 (Additional Right of Way Required with Exception)			
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.			
Total Number of Parcels on Project		EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed			
Condemnation			
Signed ROE			
Notes/ Comments (Use Additional Sheet if necessary)			
5-20015.00 and 5-20018.00 will be let as part of this project.			
LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Tom Boykin
Signature		Signature	Tom Boykin <small>Digitally signed by Tom Boykin Date: 2019.10.28 11:28:56 -04'00'</small>
Date		Date	
Right of Way Director		FHWA	
Printed Name		Printed Name	Camille Johnson
Signature	DM Loy <small>Digitally signed By DM Loy Date: 2019.10.28 11:35:59 -04'00'</small>	Signature	<i>Camille Johnson</i>
Date		Date	10.29.19

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)
FD52 056 0064 000-001
FD52 056 0264 000-013
I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828
I-264 PAVEMENT REHAB M.P. 0 – M.P. 127
5-20010)

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

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

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

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

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

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

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The

Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)
FD52 056 0064 000-001
FD52 056 0264 000-013
I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828
I-264 PAVEMENT REHAB M.P. 0 – M.P. 127
5-20010)

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

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

AREA UTILITIES CONTACT LIST AS PROVIDED BY KY 811

Utility Company/Agency	Contact Name	Contact Information
1. Atmos Energy 105 Hudson Blvd Shelbyville, KY 40065	Jake Basham Cell (270) 779-7381 Jake.Basham@AtmosEnergy.com Silas Bohlen Silas.Bohlen@atmosenergy.com Cell (270) 570-0445	
2. AT&T KY 1340 E. John Rowan Blvd Bardstown, KY 40004	Scott Roche SR8832@att.com Office (502) 348-4528 Cell (502) 827-4703	
3. AT&T Legacy 7555 E. Pleasant Valley Road, Suite 140 Independence, OH 44131	Mike Diederich MD4145@att.com Office (216) 750-0135 Cell (216) 212-8556 Don Garr DRGarr@Hughes.net Cell (502) 741-8374	
4. CenturyLink 260 Winn Ave Winchester, KY 40391	Jim Trapnell Jim.Trapnell@centurylink.com Cell (859) 806-5833 John Pellegrino	

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)
FD52 056 0064 000-001
FD52 056 0264 000-013
I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828
I-264 PAVEMENT REHAB M.P. 0 – M.P. 127
5-20010)

CenturyLink National Network Construction
3625 Brookside Parkway, Suite 400
Alpharetta, GA 30022

John.Pellegrino@centurylink.com
Mark Sewell
Mark.Sewell@centurylink.com
Cell (502) 295-0939

5. Charter Communications
10168 Linn Station Road, Suite 120
Louisville, KY 40223

Nathen L Howerton
Office (502) 357-4318
Cell (502) 639-6838
Nathen.Howerton@charter.com
James Whitehouse

(502) 643-0863
James.Whitehouse@charter.com
Kevin Mercer
Office (502) 357-4724
Cell (502) 817-5055
Kevin.Mercer@charter.com
Richard Bast
Office (502) 357-4118
Cell (502) 817-0734

6. City of Taylorsville Sewer & Water
70 Taylorsville Road, P O Box 279
Taylorsville, KY 40071
Consultant: Kevin Sisler
220 Reynolds Rd
Lexington, KY 40517

Harold Compton
HCompton@TaylorsvilleWater.org
(502) 477-3235
Fax (502) 477-1310
Kevin.@SislerMaggard.com
(859) 271-2978 (859) 509-3799
Steve Biven, City Clerk
SBiven@taylorsvillewater.org
(502) 477-3235 ext. 106

7. Crown Castle Network Operations
10300 Ormsby Park Place, Suite 501
Louisville, KY 40223

Edna Roy
Edna.Roy@crowncastle.com
Office (704) 405-6561
Cell (540) 222-1533
Wendy Burkholder
Wendy.Burkholder@crowncastle.com
Tessa Linde
Tessa.Linde@crowncastle.com
Patrick Massie, Field Construction

Engineer

Patrick.Massie@crowncastle.com

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)

FD52 056 0064 000-001

FD52 056 0264 000-013

I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828

I-264 PAVEMENT REHAB M.P. 0 – M.P. 127

5-20010)

8. Crown Castle Fiber
Manager
3310 Ruckreigel Parkway
Jeffersontown, KY 40299

Patrick Massie, Fiber Construction

Office (502) 340-1403
Cell (502) 604-5268
Patrick.Massie@crowncastle.com
Rick Weiss, Regional Director
Rick.Weiss@crowncastle.com
9. Google Fiber
101 N. 7th Street, Suite 400
Louisville, KY 40202

Lewis Roberts
(423) 430-9853
LewisRobertsjr@google.com
Jesse Quirion
(650) 214-3032
JQuirion@google.com
10. Indiana Utilities Corporation
123 West Chestnut Street
Corydon, Indiana 47112

Scott Schmitt
Office (812) 738-3235
Cell (812) 972-0539
ScottS@indianautilitiescorp.com
Corey Thatcher, Field Technician
Office (812) 738-3235
Cell (812) 267-6936
CoreyT@indianautilitiescorp.com
Kevin Kinney
Ron Timberlake
11. Jefferson County Public Schools (JCPS)
C B Young
Building 6
3001 Crittenden Drive
Louisville, KY 40209

Jeff Hardy
Office (502) 485-7975
Cell (502) 379-9315
Jeff.Hardy@Jefferson.kyschools.us
JDHardy70@gmail.com

Scott McMahan (Team Fishel)
Office (502) 456-2900
Cell (502) 664-9312
12. Kentucky Data Link (See Windstream)

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)
FD52 056 0064 000-001
FD52 056 0264 000-013
I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828
I-264 PAVEMENT REHAB M.P. 0 – M.P. 127
5-20010)

13. Kentucky Wired
209 St. Clair Street, 4th Floor
Frankfort, KY 40601

Mike Hayden,
Chief Operating Officer
Office (502) 782-2535
Mike.Hayden@ky.gov

Black & Veatch

Chad Blevins
OSP/ISP Field CRO Engineering
Office (913)

Specialist
458-4921

Cell (606) 316-6450
BlevinsCM@bv.com
Lead Fiber Design Engineer
Mark Crawford
Lead Fiber Design Engineer
Office (913) 458-3506
Cell (816) 813-4526
CrawfordM@bv.com

14. LG&E KU (Electric)
820 West Broadway
Louisville, KY 40202
LG&E Emergency Number (502) 589-1444
LG&E and KU Emergency Number 1-800-331-7370

Caroline Justice
Office (502) 627-3708
Caroline.Justice@LGE-KU.com

15. LG&E (Gas)
820 West Broadway
Louisville, KY 40202
Gas Emergency Number (502) 589-5511
LG&E and KU Emergency Number 1-800-331-7370

Caroline Justice
Office (502) 627-3708
Caroline.Justice@LGE-KU.com

16. Louisville Water Company
550 South Third Street
Louisville, KY 40202

Daniel Tegene, PE
(502) 569-3649
DTegene@LWCky.com

17. Marathon Pipeline, LLC
539 South Main Street, Room X-05-018
Findlay, OH 45840
or
20-C Industrial Drive
Lexington, OH 44904

Dennis Durnal
Office (502) 448-8311
Cell (419) 581-0038
DDurnal@marathonpetroleum.com
Greg Newman
GcNewman@marathonpetroleum.com
Office (419) 884-0800 x 236

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)
FD52 056 0064 000-001
FD52 056 0264 000-013
I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828
I-264 PAVEMENT REHAB M.P. 0 – M.P. 127
5-20010)

18. Metropolitan Sewer District
700 West Liberty Street
Louisville, KY 40203-1911

19. Mid - Valley Pipeline Company
4910 Limaburg Road
Burlington, KY 41005

20. Shelby Energy Cooperative
P.O. Box 311
620 Old Finchville Road
Shelbyville, KY 40065

21. Sprint - Fiber Optics
11370 Enterprise Park Drive
Sharonville, OH 45241

22. Texas Gas Transmission, LLC
2332 Hwy 60 West
Hardinsburg, KY 40143

610 W 2nd Street
PO Box 20008
Owensboro, KY 42301

Cell (419) 564-8826
Aron Velasquez
Office (419) 421-3704
AdVelasquez@marathonpetroleum.com

Brandon Flaherty
Brandon.Flaherty@LouisvilleMSD.org
Office (502) 540-6632
Cell (502) 381-0804
Greg Powell
Greg.Powell@LouisvilleMSD.org

Richard (Todd) Calfee
Office (859) 371-4469 x14
Cell (859) 630-8271
Fax (866) 699-1185
Todd.Calfee@energytransfer.com
Justin White
Justin.White@energytransfer.com
Office (859) 371-4469
Cell (859) 630-1823
Bill Eppehimer

Jason Ginn
Cell (502) 643-2778
Jason@ShelbyEnergy.com
Zach Mischler
(502) 633-4420
Zach@shelbyenergy.com

Steven T. Hughes
Office (513) 459-5796
Cell (513) 462-7221
Steven.Hughes@sprint.com

Kevin Carman
Kevin.Carman@bwpmlp.com
Cell (270) 779-3893

Amanda Isom
Amanda.Isom@bwpmlp.com
(270) 688-5854

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2641 (183)
FD52 056 0064 000-001
FD52 056 0264 000-013
I-64 PAVEMENT REHAB M.P. 0 – M.P. 0.828
I-264 PAVEMENT REHAB M.P. 0 – M.P. 127
5-20010)

(270) 231-7629

10327 Gaslight Way
Louisville, KY 40299

Thomas Spargo
Trey.Spargo@bwpmlp.com
(502) 438-2408

23. TRIMARC
Public Safety & Transportation Systems
901 West Main Street
Louisville, KY 40202

Todd Hood
Todd.Hood@ngc.com
Office (502) 290-7201
Cell (270) 307-7456

24. Verizon/MCI (Owns W.U. TEL)
730 West Henry Street
Indianapolis, IN 46225

Dean Boyers
Dean.Boyers@verizon.com
Office (615) 777-7855
Cell (615) 507-5287

Verizon/MCI
2421 Holloway Road
Louisville, KY 40299

Moeed Ahmed
(502) 663-3219
Moeed.Ahmed2@verizonwireless.com

Dave Wiley (Field)

(502) 439-8783
Dave.Wiley@verizon.com

25. Windstream
111 S. Main Street
Elizabethtown, KY 42071

WCI.OSP.PERMITS@windstream.com

James Galvin
Office (270) 765-1818
Cell (270) 748-9249
James.Galvin@windstream.com
Mark Ware
(502) 364-1133

26. Zayo
9209 Castlegate Drive
Indianapolis, IN 46256

Ryan Burns
Office (317) 296-6048
Cell (812) 589-9314
Ryan.Burns@zayo.com

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2016*.

SUPPLEMENTAL SPECIFICATIONS

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

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

SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS

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

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

2.0 MATERIALS.

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

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

2.2 Sign and Controls. All signs must:

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

11

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

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

*Insert numerals as directed by the Engineer.

Add other messages during the project when required by the Engineer.

2.3 Power.

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

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

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

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

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

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

11
the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

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

ATTACHMENTS

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

I. GENERAL

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

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

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

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

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

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

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

II. NONDISCRIMINATION

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

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

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

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

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

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

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

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

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

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

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

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

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

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

2. Withholding

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

3. Payrolls and basic records

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

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

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

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

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

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

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

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

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

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

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

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

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

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

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

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

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

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

10. Certification of eligibility.

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

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

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

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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

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

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

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

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

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

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

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

2. Instructions for Certification - Lower Tier Participants:

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

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

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

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

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

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

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

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

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

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

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

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

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

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

**AN ACT OF THE KENTUCKY GENERAL ASSEMBLY
TO PREVENT DISCRIMINATION IN EMPLOYMENT**

**KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972**

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

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

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

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

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

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

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

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

Standard Title VI/Non-Discrimination Statutes and Authorities

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

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

EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

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

Revised: January 27, 2017

"General Decision Number: KY20200038 01/03/2020

Superseded General Decision Number: KY20190038

State: Kentucky

Construction Type: Highway

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

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher)

for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020

BRIN0004-003 06/01/2017

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 26.80	12.38

BRKY0001-005 06/01/2017

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

Rates	Fringes
-------	---------

BRICKLAYER.....	\$ 26.80	12.38
-----------------	----------	-------

BRKY0002-006 06/01/2017

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 27.81	13.01

BRKY0007-004 06/01/2017

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

	Rates	Fringes
BRICKLAYER.....	\$ 32.98	19.02

BRKY0017-004 06/01/2017

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

	Rates	Fringes
BRICKLAYER.....	\$ 26.47	12.76

CARP0064-001 05/01/2015

	Rates	Fringes
CARPENTER.....	\$ 27.50	16.06
Diver.....	\$ 41.63	16.06
PILEDRIVERMAN.....	\$ 27.75	16.06

* ELEC0212-008 06/03/2019

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.18	18.89

ELEC0212-014 11/26/2018		

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication		
Technician.....	\$ 24.35	10.99

ELEC0317-012 06/01/2019		

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen)		
Electrician.....	\$ 34.35	25.70

ELEC0369-007 05/28/2019		

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

	Rates	Fringes
ELECTRICIAN.....	\$ 32.44	17.22

* ELEC0575-002 05/27/2019

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 33.75	17.19

ENGI0181-018 07/01/2019

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

OPERATING ENGINEER CLASSIFICATIONS

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

Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier;
Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom;
Telescoping Type Forklift; Tow or Push Boat; Tower Crane
(French, German & other types); Tractor Shovel; Truck
Crane; Tunnel Mining Machines, including Moles, Shields or
similar types of Tunnel Mining Equipment

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

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

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

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

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

IRON0044-009 06/01/2019

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

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 28.00	21.20
Structural.....	\$ 29.47	21.20

IRON0070-006 06/01/2019

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

	Rates	Fringes
IRONWORKER.....	\$ 29.68	22.75

IRON0769-007 06/01/2019

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

	Rates	Fringes
IRONWORKER		
ZONE 1.....	\$ 32.00	25.95
ZONE 2.....	\$ 32.40	25.95
ZONE 3.....	\$ 34.00	25.95

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

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

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

LABO0189-003 07/01/2018

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

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter

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

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

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

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

LAB00189-008 07/01/2018

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

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

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

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

Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
Vibrator Operator; Wagon Driller

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

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

LABO0189-009 07/01/2018

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter
Tender; Cement Mason Tender; Cleaning of Machines;
Concrete; Demolition; Dredging; Environmental - Nuclear,
Radiation, Toxic & Hazardous Waste - Level D; Flagperson;
Grade Checker; Hand Digging & Hand Back Filling; Highway
Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;

Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail
& Fence Installer; Signal Person; Sound Barrier Installer;
Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
Wrecking of Concrete Forms; General Cleanup

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

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

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

PAIN0012-005 06/11/2005

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

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

PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

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

PAIN0118-004 06/01/2018

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

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

PAIN1072-003 12/01/2018		

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

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

PLUM0248-003 06/01/2018		

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

	Rates	Fringes
Plumber and Steamfitter.....	\$ 36.00	20.23

PLUM0392-007 06/01/2018		

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

Rates	Fringes
-------	---------

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

	Rates	Fringes
PLUMBER.....	\$ 35.77	20.78

SUKY2010-160 10/08/2001

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

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

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

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

Breaker

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

=====

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

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the

cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

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

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

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates

the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
- * an existing published wage determination
 - * a survey underlying a wage determination
 - * a Wage and Hour Division letter setting forth a position on

a wage determination matter

* a conformance (additional classification and rate) ruling

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

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

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

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

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

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

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative

Review Board (formerly the Wage Appeals Board). Write to:

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

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

=====

END OF GENERAL DECISION

"

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

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

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

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

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

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

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

OVERTIME:

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

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

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

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

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
11.2%	6.9%

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

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

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

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

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

PART IV

INSURANCE

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

PART V

BID ITEMS

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	2,000.00	TON		\$	
0020	00003		CRUSHED STONE BASE	4,915.00	TON		\$	
0030	00078		CRUSHED AGGREGATE SIZE NO 2	10,423.00	TON		\$	
0040	00217		CL4 ASPH BASE 1.00D PG64-22	4,726.00	TON		\$	
0050	00219		CL4 ASPH BASE 1.00D PG76-22	1,741.00	TON		\$	
0060	00342		CL4 ASPH SURF 0.38A PG76-22	862.00	TON		\$	
0070	00356		ASPHALT MATERIAL FOR TACK	9.00	TON		\$	
0080	01484		CURB BOX INLET TYPE B-T	2.00	EACH		\$	
0090	01890		ISLAND HEADER CURB TYPE 1	100.00	LF		\$	
0100	02058		REMOVE PCC PAVEMENT	22,613.00	SQYD		\$	
0110	02060		PCC PAVEMENT DIAMOND GRINDING	513,578.00	SQYD		\$	
0120	02069		JPC PAVEMENT-10 IN	14,291.00	SQYD		\$	
0130	02110		PARTIAL DEPTH PATCHING	394.00	CUFT		\$	
0140	02115		SAW-CLEAN-RESEAL TVERSE JOINT	308,030.00	LF		\$	
0150	02116		SAW-CLEAN-RESEAL LONGIT JOINT	548,635.00	LF		\$	
0160	02714		SHOULDERING	18,601.00	LF		\$	
0170	06412		STEEL POST MILE MARKERS	24.00	EACH		\$	
0180	06592		PAVEMENT MARKER TYPE V-B W/R	4,978.00	EACH		\$	
0190	06593		PAVEMENT MARKER TYPE V-B Y/R	1,836.00	EACH		\$	
0200	06600		REMOVE PAVEMENT MARKER TYPE V	6,814.00	EACH		\$	
0210	20750ND		DOWEL BAR RETROFIT	130.00	EACH		\$	
0220	21173EC		SAW-CLEAN-RESEAL RANDOM CRACKS	1,714.00	LF		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0230	00100		ASPHALT SEAL AGGREGATE	83.00	TON		\$	
0240	00103		ASPHALT SEAL COAT	10.00	TON		\$	
0250	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	529.00	EACH		\$	
0260	02200		ROADWAY EXCAVATION	6,000.00	CUYD		\$	
0270	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	4.00	EACH		\$	
0280	02369		GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH		\$	
0290	02381		REMOVE GUARDRAIL	2,888.00	LF		\$	
0300	02387		GUARDRAIL CONNECTOR TO BRIDGE END TY A-1	4.00	EACH		\$	
0310	02562		TEMPORARY SIGNS	4,600.00	SQFT		\$	
0320	02602		FABRIC-GEOTEXTILE CLASS 1	12,907.00	SQYD		\$	
0330	02604		FABRIC-GEOTEXTILE CLASS 1A	15,106.00	SQYD		\$	
0340	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0350	02671		PORTABLE CHANGEABLE MESSAGE SIGN	8.00	EACH		\$	
0360	02775		ARROW PANEL	6.00	EACH		\$	
0370	06511		PAVE STRIPING-TEMP PAINT-6 IN	760,000.00	LF		\$	
0380	06542		PAVE STRIPING-THERMO-6 IN W	2,241.00	LF		\$	
0390	06543		PAVE STRIPING-THERMO-6 IN Y	1,622.00	LF		\$	
0400	06546		PAVE STRIPING-THERMO-12 IN W	221.00	LF		\$	

Report Date 3/27/20

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	06556		PAVE STRIPING-DUR TY 1-6 IN W	211,152.00	LF		\$	
0420	06557		PAVE STRIPING-DUR TY 1-6 IN Y	135,253.00	LF		\$	
0430	06560		PAVE STRIPING-DUR TY 1-12 IN W	36,176.00	LF		\$	
0440	10020NS		FUEL ADJUSTMENT	9,794.00	DOLL	\$1.00	\$	\$9,794.00
0450	10030NS		ASPHALT ADJUSTMENT	13,208.00	DOLL	\$1.00	\$	\$13,208.00
0460	20314ED		MILLED RUMBLE STRIPS	1,700.00	LF		\$	
0470	20411ED		LAW ENFORCEMENT OFFICER	600.00	HOURL		\$	
0480	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	2,888.00	LF		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0490	01000		PERFORATED PIPE-4 IN	500.00	LF		\$	
0500	01010		NON-PERFORATED PIPE-4 IN	100.00	LF		\$	
0510	01020		PERF PIPE HEADWALL TY 1-4 IN	2.00	EACH		\$	
0520	01028		PERF PIPE HEADWALL TY 3-4 IN	2.00	EACH		\$	
0530	01032		PERF PIPE HEADWALL TY 4-4 IN	2.00	EACH		\$	
0540	02704		SILT TRAP TYPE B	1.00	EACH		\$	
0550	02707		CLEAN SILT TRAP TYPE B	1.00	EACH		\$	
0560	05950		EROSION CONTROL BLANKET	4,135.00	SQYD		\$	
0570	05963		INITIAL FERTILIZER	.13	TON		\$	
0580	05964		MAINTENANCE FERTILIZER	.21	TON		\$	
0590	05985		SEEDING AND PROTECTION	1,281.00	SQYD		\$	
0600	20366NN		REPLACE GRATE	4.00	EACH		\$	

Section: 0004 - BRIDGE- 056B00277N

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0610	03293		EXPAN JOINT REPLACE 1 IN	101.00	LF		\$	
0620	03295		EXPAN JOINT REPLACE 2 IN	34.00	LF		\$	
0630	08151		STEEL REINFORCEMENT-EPOXY COATED	100.00	LB		\$	
0640	08504		EPOXY SAND SLURRY	35.00	SQYD		\$	
0650	08510		REM EPOXY BIT FOREIGN OVERLAY	450.00	SQYD		\$	
0660	08526		CONC CLASS M FULL DEPTH PATCH	.50	CUYD		\$	
0670	08534		CONCRETE OVERLAY-LATEX	19.00	CUYD		\$	
0680	08549		BLAST CLEANING	450.00	SQYD		\$	
0690	23032EN		BRIDGE BARRIER RETROFIT	288.00	LF		\$	
0700	24094EC		PARTIAL DEPTH PATCHING	1.00	CUYD		\$	

Section: 0005 - BRIDGE- 056B00227R

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0710	03293		EXPAN JOINT REPLACE 1 IN	109.00	LF		\$	
0720	08151		STEEL REINFORCEMENT-EPOXY COATED	100.00	LB		\$	
0730	08504		EPOXY SAND SLURRY	20.00	SQYD		\$	
0740	08510		REM EPOXY BIT FOREIGN OVERLAY	435.00	SQYD		\$	

Report Date 3/27/20

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0750	08526		CONC CLASS M FULL DEPTH PATCH	11.00	CUYD		\$	
0760	08534		CONCRETE OVERLAY-LATEX	18.50	CUYD		\$	
0770	08549		BLAST CLEANING	435.00	SQYD		\$	
0780	22146EN		CONCRETE PATCHING REPAIR	30.00	SQFT		\$	
0790	23744EC		EPOXY INJECTION CRACK REPAIR	50.00	LF		\$	
0800	24094EC		PARTIAL DEPTH PATCHING	.50	CUYD		\$	

Section: 0006 - BRIDGE- 056B00478N

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0810	08104		CONCRETE-CLASS AA	1.50	CUYD		\$	
0820	08151		STEEL REINFORCEMENT-EPOXY COATED	285.00	LB		\$	

Section: 0007 - TRAFFIC LOOPS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0830	04793		CONDUIT-1 1/4 IN	720.00	LF		\$	
0840	04795		CONDUIT-2 IN	305.00	LF		\$	
0850	04820		TRENCHING AND BACKFILLING	910.00	LF		\$	
0860	04829		PIEZOELECTRIC SENSOR	75.00	EACH		\$	
0870	04830		LOOP WIRE	35,270.00	LF		\$	
0880	04895		LOOP SAW SLOT AND FILL	7,355.00	LF		\$	
0890	20359NN		GALVANIZED STEEL CABINET	22.00	EACH		\$	
0900	20360ES818		WOOD POST	44.00	EACH		\$	
0910	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	24.00	EACH		\$	

Section: 0008 - MOBILIZATION &/OR DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0920	02568		MOBILIZATION	1.00	LS		\$	
0930	02569		DEMOBILIZATION	1.00	LS		\$	