CALL NO. 103

CONTRACT ID. 201007

JEFFERSON COUNTY

FED/STATE PROJECT NUMBER NHPP IM 2652 (026)

DESCRIPTION I-265

WORK TYPE JPC PAVEMENT REPAIRS PRIMARY

COMPLETION DATE 8/31/2021

LETTING DATE: September 25,2020

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 am EASTERN DAYLIGHT TIME September 25,2020. Bids will be publicly announced at 10:00 am EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 20%

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

TABLE OF CONTENTS

PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 05

CONTRACT ID - 201007

NHPP IM 2652 (026)

COUNTY - JEFFERSON

PCN - DE05602652007
NHPP IM 2652 (026)

I-265 (MP 18.8) ADDRESS PAVEMENT CONDITION OF JPC PAVEMENT ON I-265 BOTH DIRECTIONS FROM MP 18.8 TO MP 23.364 (MP 23.342), A DISTANCE OF 04.54 MILES.JPC PAVEMENT REPAIRS SYP NO. 05-20020.00.

GEOGRAPHIC COORDINATES LATITUDE 38:10:13.00 LONGITUDE 85:31:06.00

COMPLETION DATE(S):

COMPLETED BY 08/31/2021 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

FEDERAL CONTRACT NOTES

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

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

CIVIL RIGHTS ACT OF 1964

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

NOTICE TO ALL BIDDERS

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

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

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

SECOND TIER SUBCONTRACTS

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

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

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

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

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

b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;
c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;

4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

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

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

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

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

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

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

PROMPT PAYMENT

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

CONTRACTOR REPORTING

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

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

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

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

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

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

DEFAULT OR DECERTIFICATION OF THE DBE

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

PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES

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

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

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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

- To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
- To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

DGA BASE

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

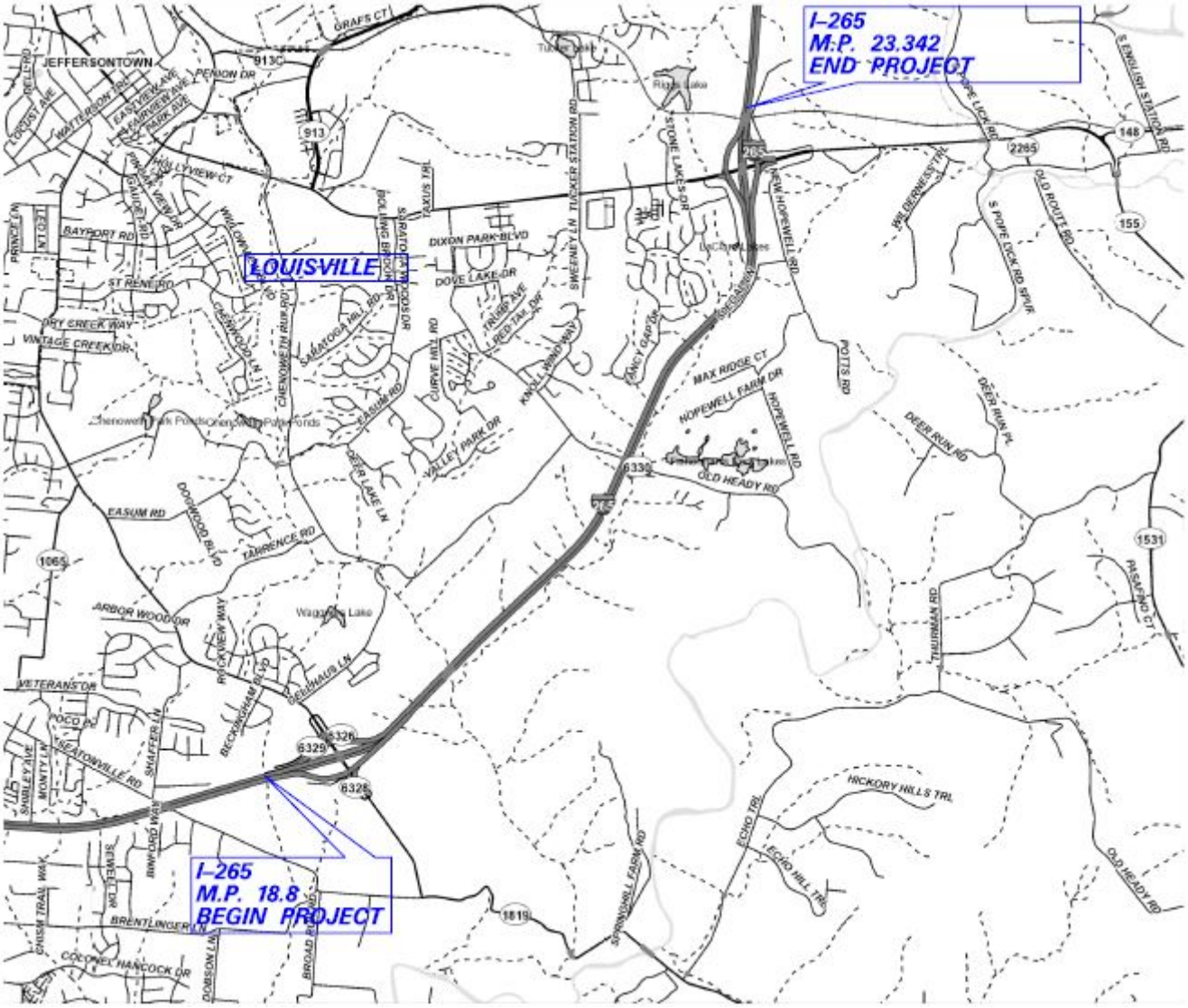
DGA BASE FOR SHOULDERS

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.

SPECIAL NOTE FOR AWARD OF CONTRACT

In accordance to section 103.02 of the Standard Specifications for Road and Bridge Construction, the Department may hold and not award the contract for a period not to exceed sixty (60) calendar days from the date of letting.



COUNTY: JEFFERSON

ITEM NUMBERS: 5-20020.00

PROJECT NUMBER: FD52 056 0265 018-024

CONSTRUCTION NUMBER: NHPP IM 2652 (026)

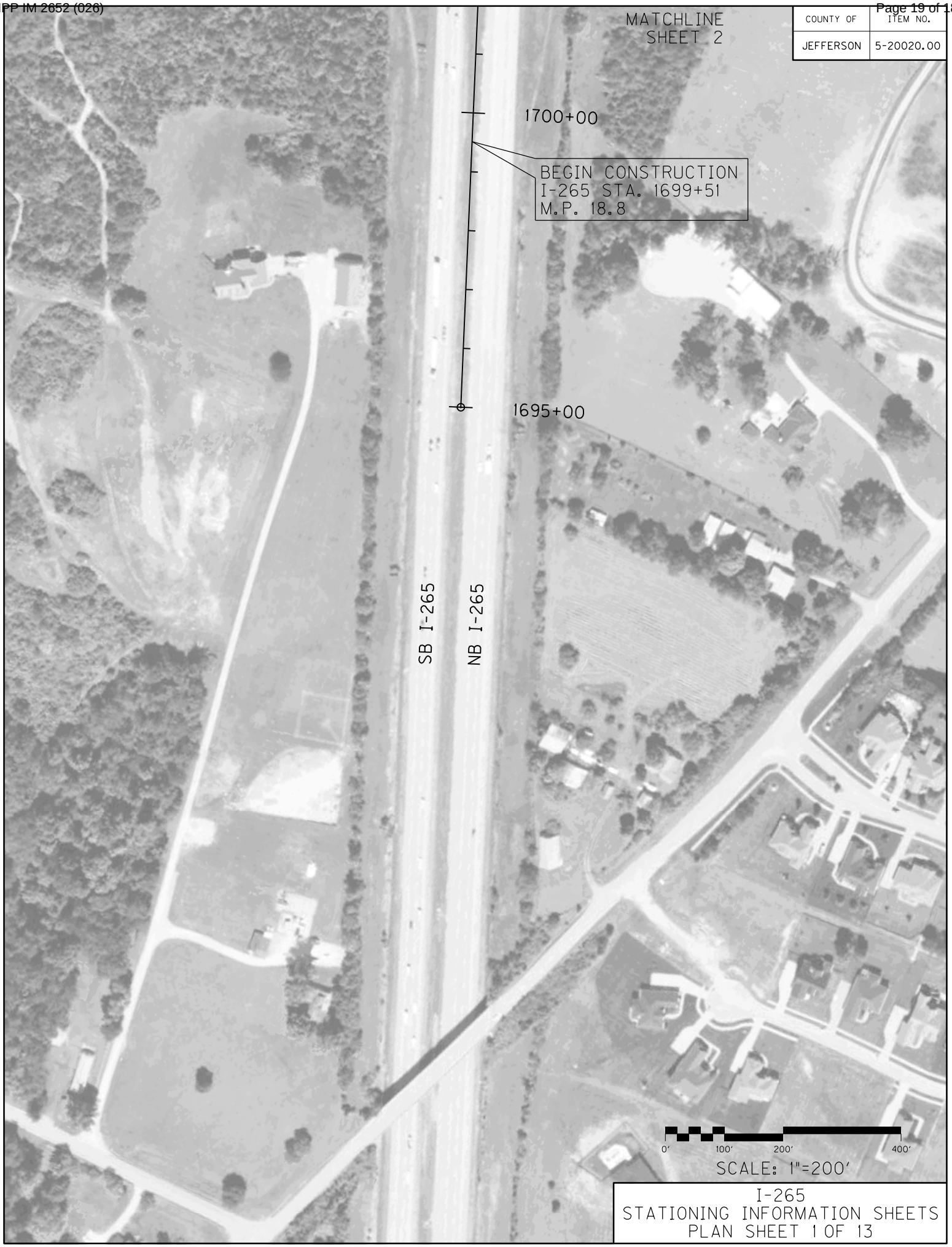
LETTING DATE: September 25, 2020

RECOMMENDED BY: _____ DATE: _____
Project Manager

PLAN APPROVED BY: _____ DATE: _____
State Highway Engineer

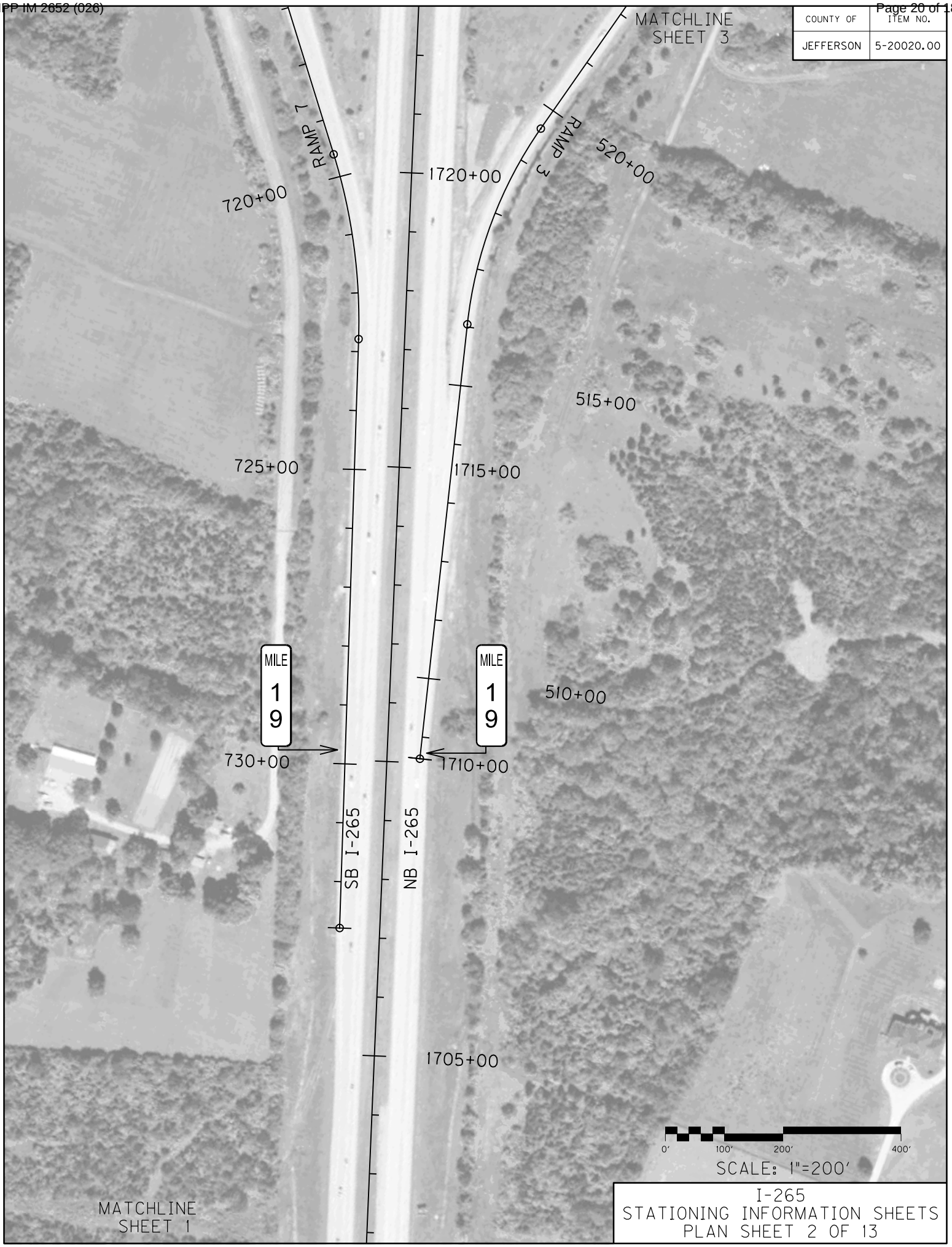
FHWA APPROVED BY: _____ DATE: _____

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



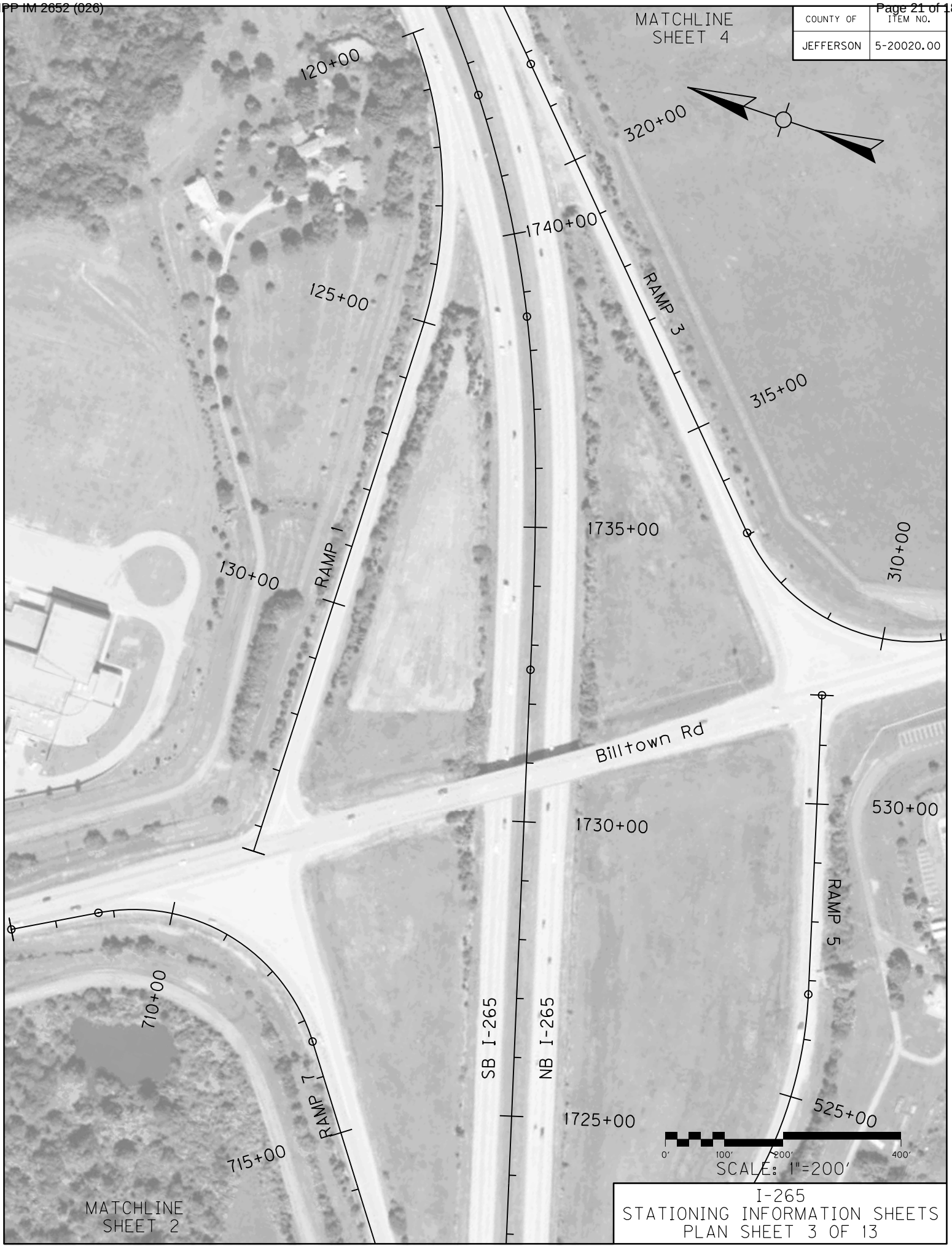
I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 1 OF 13

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

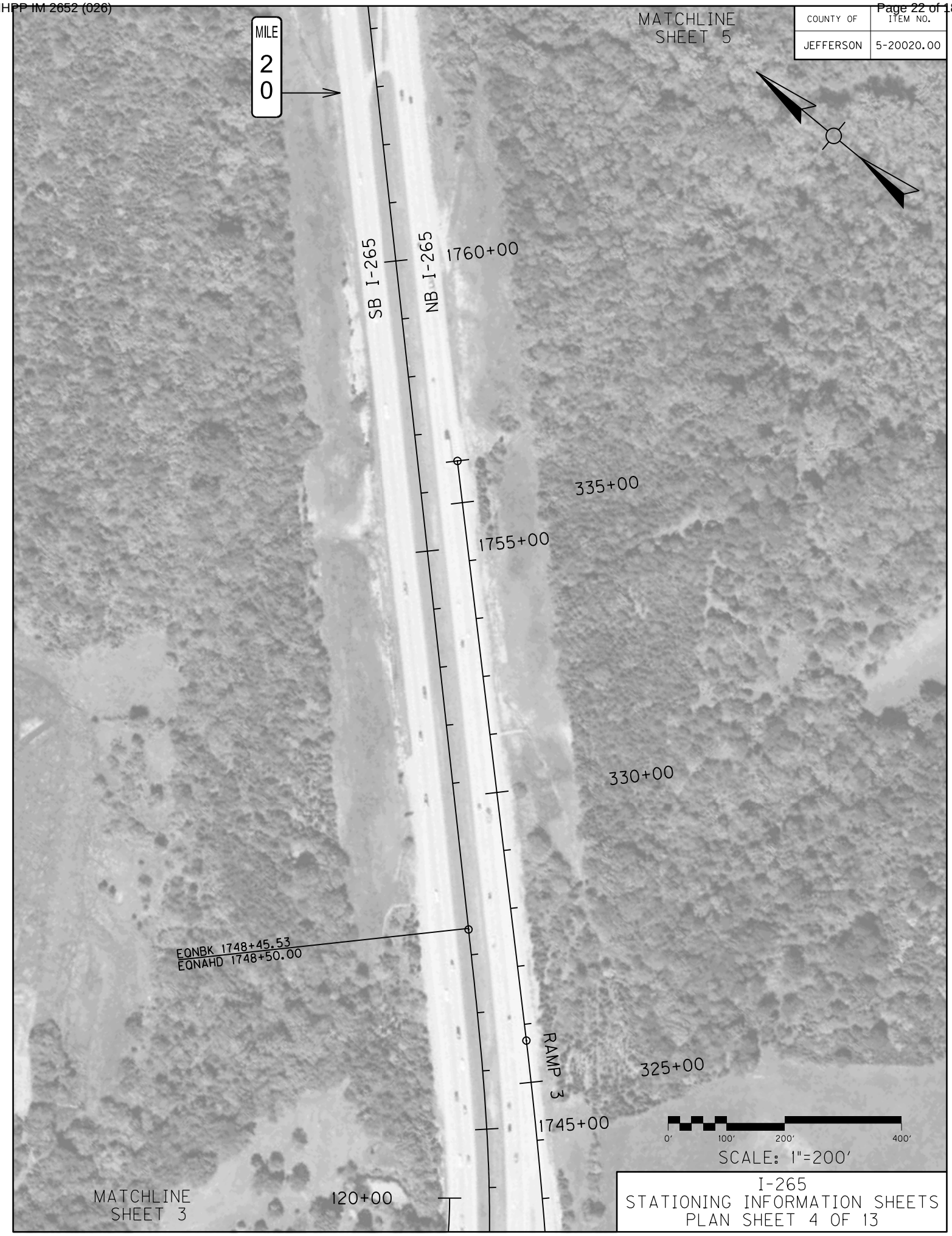


I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 2 OF 13

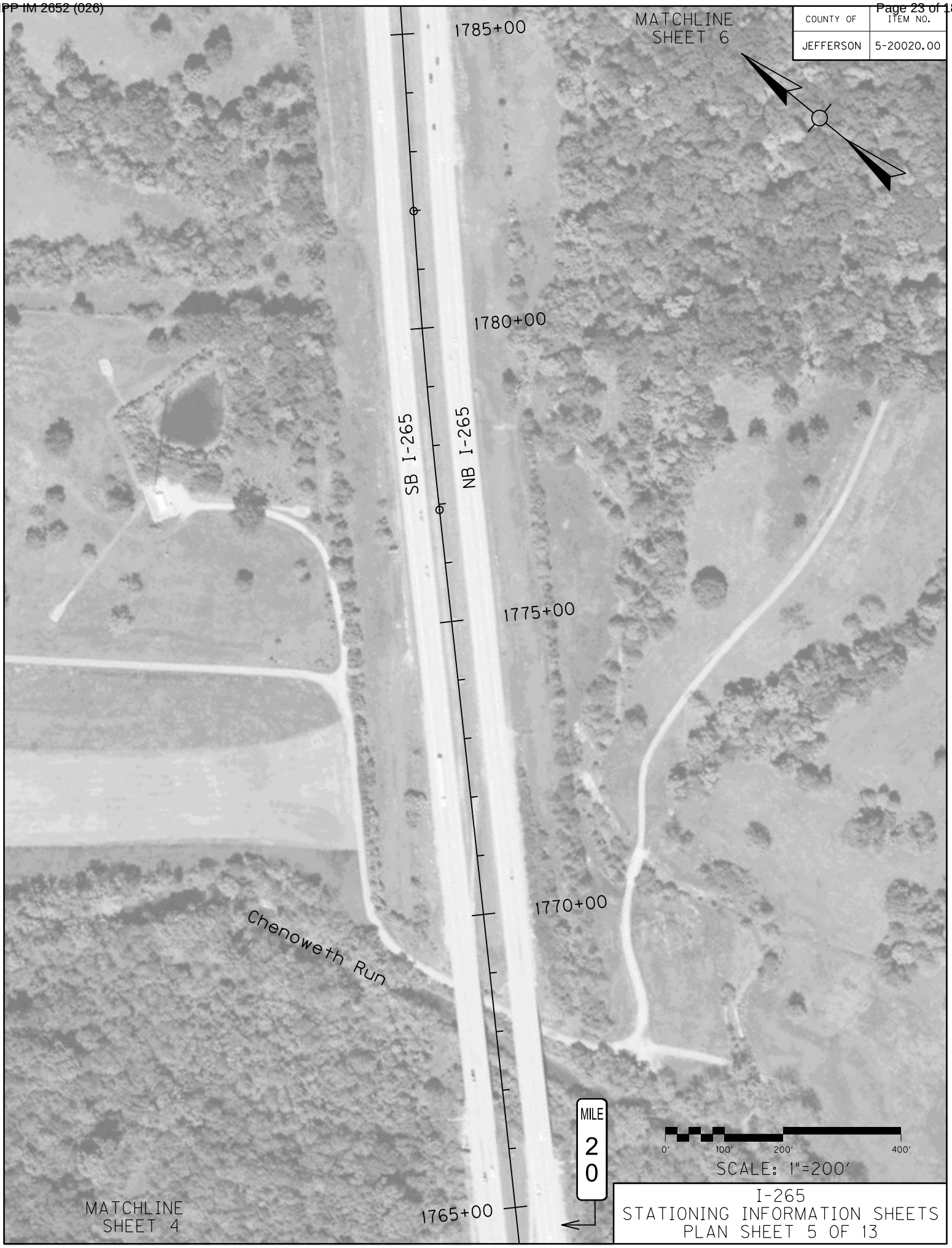
COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 3 OF 13



I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 4 OF 13

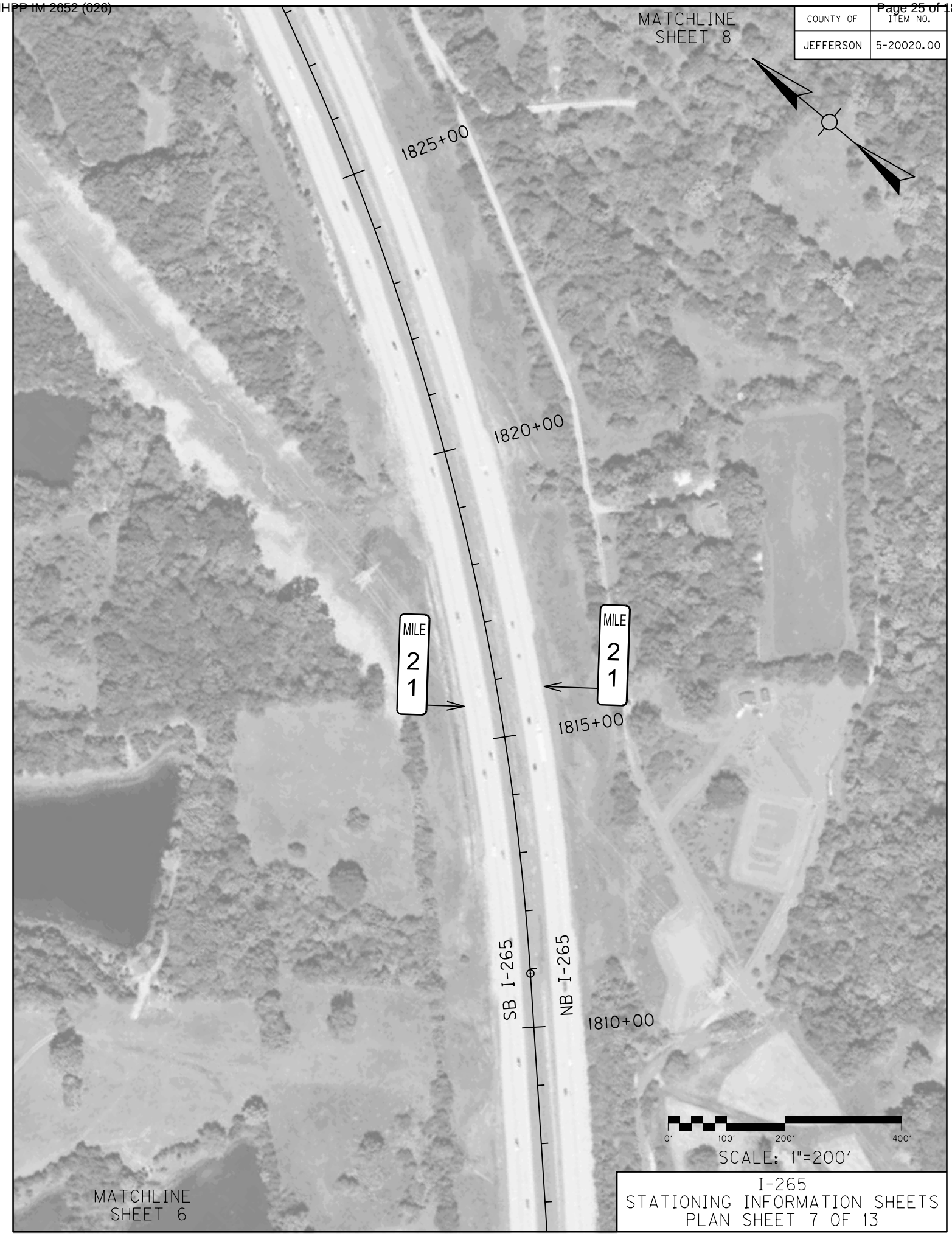


COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 5 OF 13

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 6 OF 13


MATCHLINE
SHEET 8
COUNTY OF
JEFFERSON
ITEM NO.
5-20020.00
1825+00
1820+00
MILE
2
1
MILE
2
1
1815+00
SB I-265
NB I-265
1810+00
0'
100'
200'
400'
SCALE: 1"=200'
MATCHLINE
SHEET 6
I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 7 OF 13

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

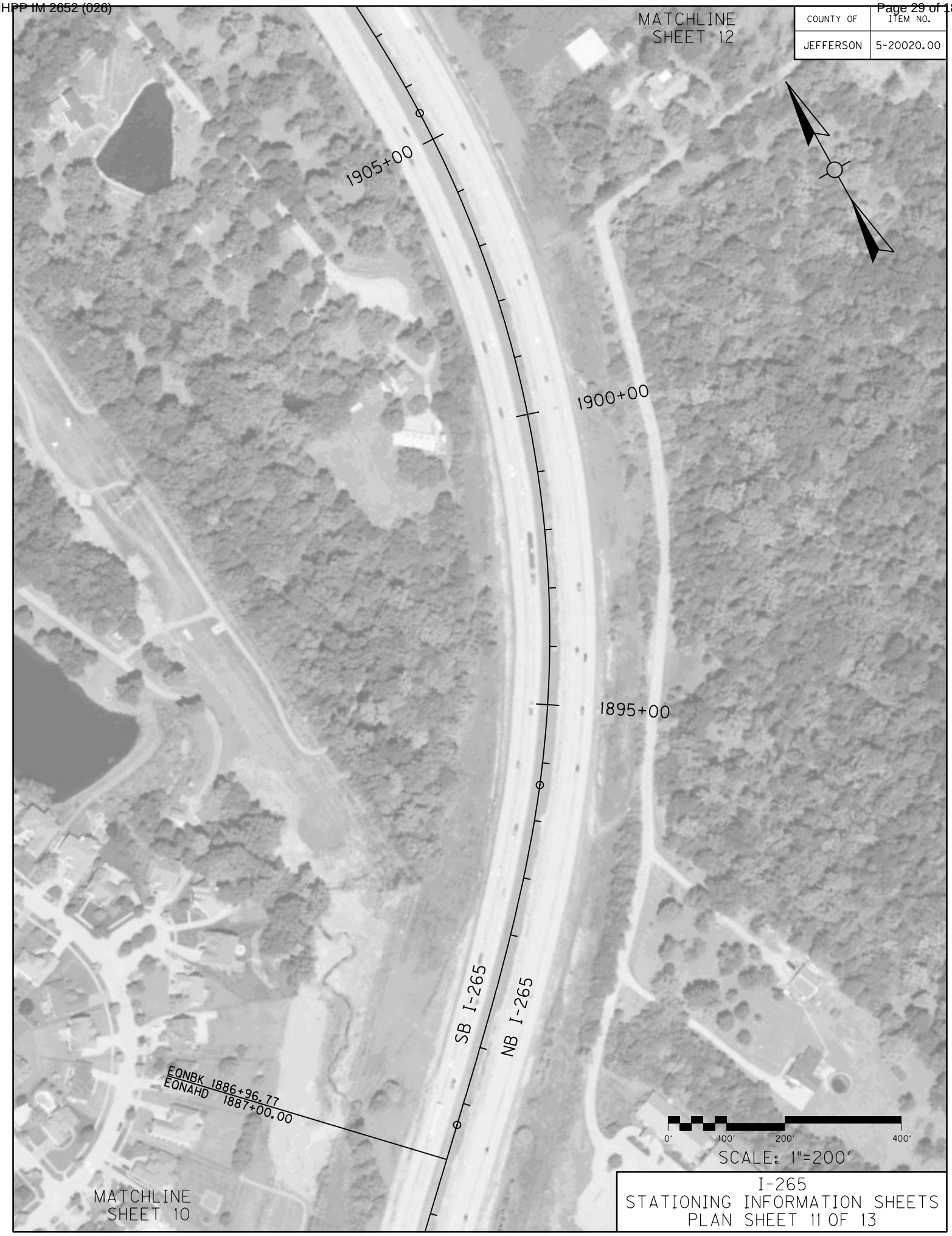
I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 8 OF 13

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

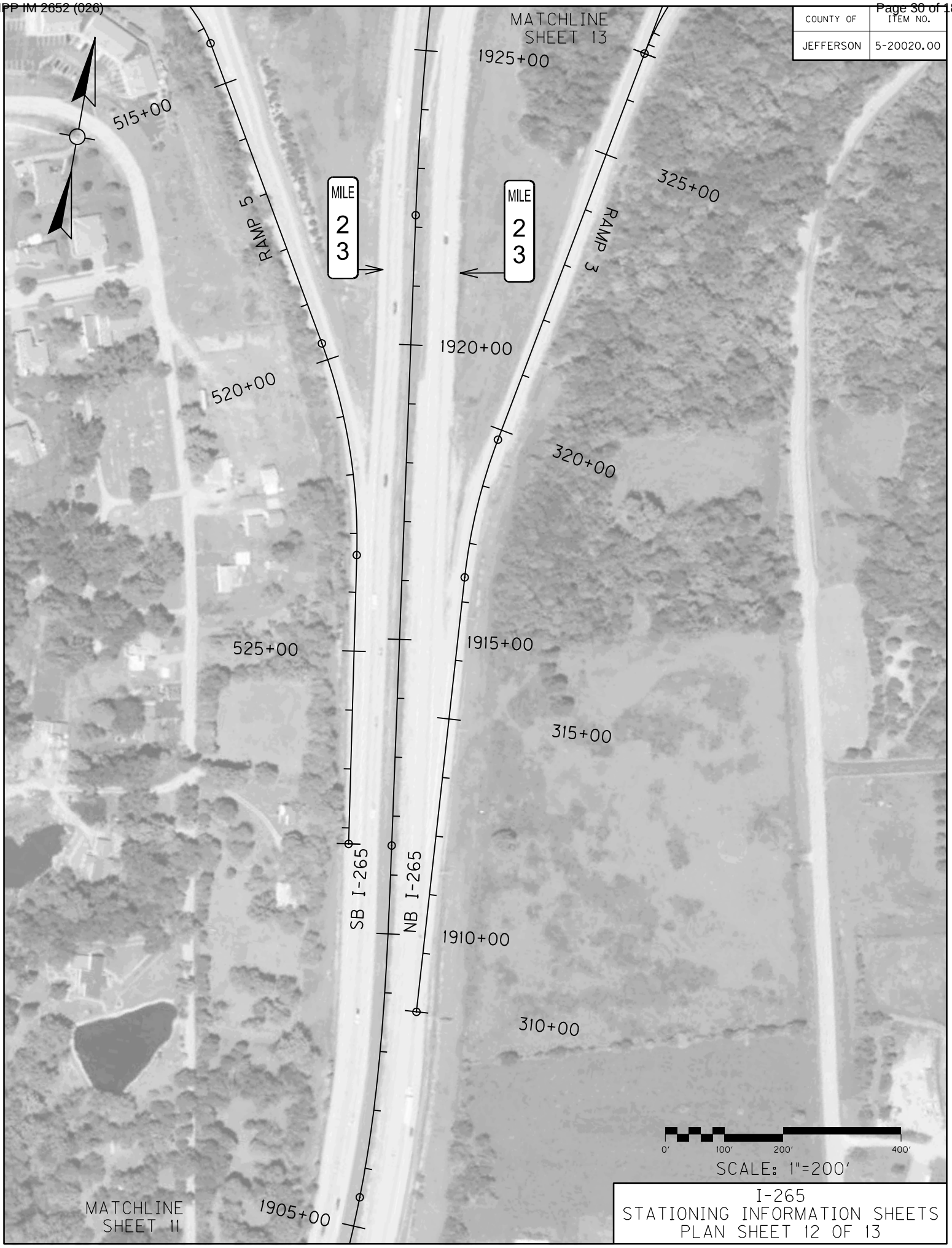
I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 9 OF 13


MATCHLINE
SHEET 11
COUNTY OF
JEFFERSON
ITEM NO.
5-20020.00
EONBK 1886+96.77
EONAHD 1887+00.00
1885+00
1880+00
SB I-265
NB I-265
1875+00
1870+00
MILE
2
2
MILE
2
2
0'
100'
200'
400'
SCALE: 1"=200'
MATCHLINE
SHEET 9
I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 10 OF 13

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 11 OF 13



COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 12 OF 13

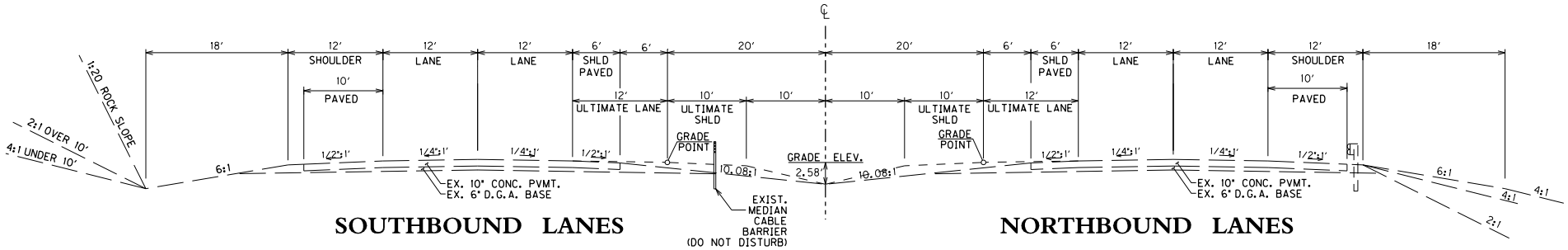
JEFFERSON COUNTY
NHPP IM 2652 (026)

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

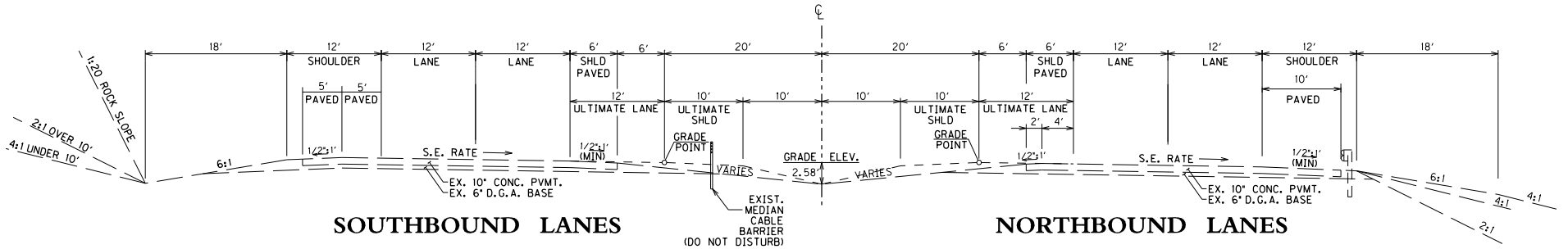
I-265
STATIONING INFORMATION SHEETS
PLAN SHEET 13 OF 13

I–265 (GENE SNYDER FREEWAY)
EXISTING TYPICAL SECTIONS

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



NORMAL SECTION



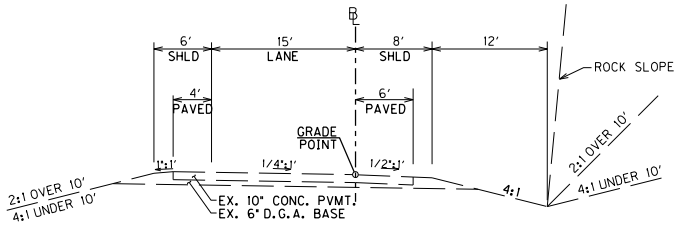
SUPERELEVATED SECTION

NOT TO SCALE

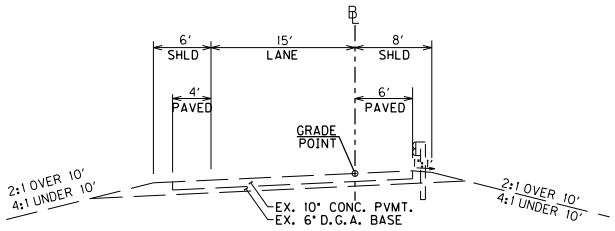
I-265 (GENE SNYDER FREEWAY)
TYPICAL SECTIONS

I–265 (GENE SNYDER FREEWAY)
EXISTING RAMP TYPICAL SECTIONS

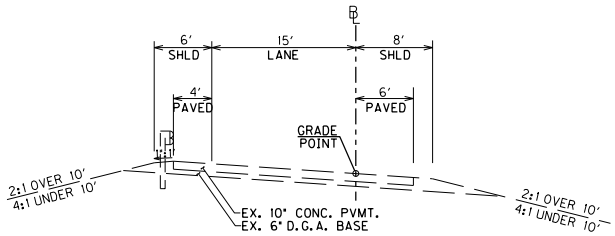
COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



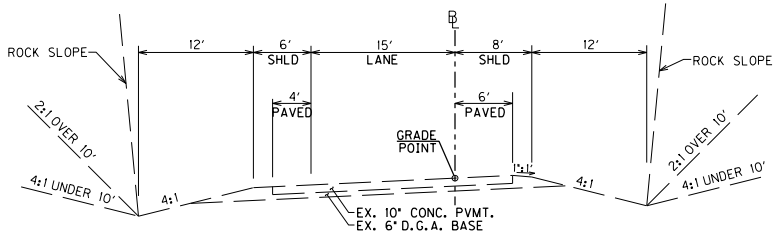
NORMAL SECTION



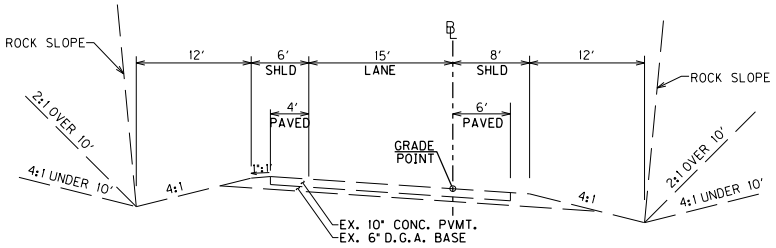
LEFT SUPERELEVATED CUT SECTION



RIGHT SUPERELEVATED FILL SECTION



LEFT SUPERELEVATED CUT SECTION



RIGHT SUPERELEVATED CUT SECTION

NOT TO SCALE

I-265 (GENE SNYDER FREEWAY)
TYPICAL SECTIONS

I-265 PAVEMENT REHABILITATION
JEFFERSON COUNTY MILEPOST M.P. 18.8- M.P. 23.342
ITEM NUMBER: 5-20020.00
GENERAL SUMMARY

ITEM NUMBER	ITEM	NOTE	QUANTITY	UNIT
0001	DGA BASE	(1)	222	TON
0078	CRUSHED AGGREGATE SIZE NO. 2	(1)	100	TON
1000	PERFORATED PIPE - 4 IN	(1)	100	LF
1010	NON-PERFORATED PIPE - 4 IN	(1)	100	LF
1020	PERF PIPE HEADWALL TY-1 4 INCH	(1)	10	EACH
1028	PERF PIPE HEADWALL TY-3 4 INCH	(1)	10	EACH
1032	PERF PIPE HEADWALL TY-4 4 INCH	(1)	10	EACH
1820	LIP CURB AND GUTTER	(2)	16	LF
1904	REMOVE CURB	(2)	16	LF
2704	SILT TRAP TYPE B		2	EACH
2707	CLEAN SILT TRAP TYPE B		2	EACH
2058	REMOVE PCC PAVEMENT	(3)	8,581	SQ YD
2069	JPC PAVEMENT - 10 IN	(3)	8,581	SQ YD
2115	SAW-CLEAN-RESEAL TVERSE JOINT		171,051	LF
2116	SAW-CLEAN-RESEAL LONGIT JOINT		181,016	LF
2237	DITCHING	(4)	1,542	LF
2562	TEMPORARY SIGNS	(6)	750	SQ FT
2568	MOBILIZATION		1	LS
2569	DEMOBILIZATION		1	LS
2602	FABRIC-GEOTEXTILE CLASS 1	(1)	500	SQYD
2604	FABRIC-GEOTEXTILE CLASS 1A	(1)	500	SQYD
2650	MAINTAIN AND CONTROL TRAFFIC		1	LS
2671	PORTABLE CHANGEABLE MESSAGE SIGN	(6)	4	EACH
2714	SHOULDERING	(7)	9,334	LF
2775	ARROW PANEL	(6)	2	EACH
5950	EROSION CONTROL BLANKET		5,116	SQYD
5963	INITIAL FERTILIZER		0.16	TON
5964	20-10-10 FERTILIZER		0.27	TON
5985	SEEDING AND PROTECTION		4,149	SQYD
6412	STEEL POST MILE MARKERS		10	EACH
6511	PAVE STRIPING-TEMP PAINT-6 IN		261,534	LF
6542	PAVE STRIPING-THERMO-6 IN W		1,180	LF
6543	PAVE STRIPING- THERMO-6 IN Y		943	LF
6556	PAVE STRIPING-DUR TY 1-6 IN W		72,515	LF
6557	PAVE STRIPING-DUR TY 1-6 IN Y		58,251	LF
6561	PAVE STRIPING-DUR TY 1-12 IN Y		9,010	LF
6592	PAVEMENT MARKER TYPE V-B W/R	(5)	100	EACH
10020NS	FUEL ADJUSTMENT		2,493	DOLL
20411ED	LAW ENFORCEMENT OFFICER		600	HOURS
21173EC	SAW-CLEAN-RESEAL RANDOM CRACKS		4,043	LF
21554EN	EXCAVATION	(1)	100	CUYD
23252ES717	PAVE MARK TY 1 TAPE STOP BAR-12 IN		135	LF
23270ES717	PAVE MARK TY 1 TAPE-CURV ARROW		15	EACH
24997EC	PARTIAL DEPTH PATCHING - POLYMER MOD		88	CU FT

(1)	Includes quantity to be used as directed by the Engineer
(2)	Replace damaged Lip Curb and Gutter located at Ramp 3 median island approximatly 15ft. Left of sta. 312+80.
(3)	Additional 10% was added to the total for continued pavement deterioration prior to construction.
(4)	Ditching is needed Right of Ramp 3 of Taylorsville Rd / I-265 Interchange from 120+00 to 133+00 for approximatly 1542ft. and additionaly Right of I-265 SB 1843+00 to 1848+00 for 500ft. for ditching.
(5)	100 Type V markers have been quantified to be used as directed by the Engineer
(6)	Includes initial placement. Any relocation required will not be paid for directly, but will be considered incidental to maintain and control traffic
(7)	Quantity includes 7,656 ft. for mainline I-265, 1542 ft. for Ramp 3 of Taylorsville Rd / I-265, and 136 ft. Ramp 1 of Biltown Rd / I-265
NOTE:	Quantities from all summaries have been carried over and included in this General Summary

FULL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020.00

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
NORTHBOUND I-265										
1696+10	1696+31	21			X				28	12' WIDE
1696+73	1697+51	78			X				104	12' WIDE
1699+14	1699+91	78			X				104	12' WIDE
1701+36	1704+71	335			X				446	12' WIDE
1702+73	1702+91	18		X					24	12' WIDE
1705+56	1709+51	395			X				526	12' WIDE
1708+13	1708+31	18		X					24	12' WIDE
1710+36	1710+71	35			X				47	12' WIDE
1710+53	1710+71	18		X					24	12' WIDE
1710+96	1711+74	78			X				104	12' WIDE
1712+04	1714+46	242			X				322	12' WIDE
1712+53	1712+78	25		X					33	12' WIDE
1713+56	1713+74	17		X					23	12' WIDE
1714+16	1714+34	17		X					23	12' WIDE
1715+07	1721+62	655			X				873	12' WIDE
1716+52	1716+70	18		X					24	12' WIDE
1722+52	1722+70	18		X					24	12' WIDE
1723+12	1725+34	223			X				297	12' WIDE
1727+91	1728+09	18			X				24	12' WIDE
1728+34	1728+69	35			X				47	12' WIDE
1730+14	1730+31	17		X					23	12' WIDE
1732+11	1732+29	18			X				24	12' WIDE
1733+90	1734+08	18			X				24	12' WIDE
1734+49	1734+67	18			X				24	12' WIDE
1736+69	1736+86	17			X				22	12' WIDE
1737+28	1737+62	34			X				46	12' WIDE
1737+86	1738+02	16			X				22	12' WIDE
1740+35	1740+77	41		X					55	12' WIDE
1741+35	1742+09	74		X					99	12' WIDE
1743+76	1743+84	8		X					11	12' WIDE
1774+46	1774+46	6			X				8	12' WIDE
1748+28	1748+28	6			X				8	12' WIDE
1756+01	1756+26	25			X				33	12' WIDE
1766+21	1766+46	25		X	X				67	Bridge Tie
1769+02	1769+27	25		X	X				67	Bridge Tie
1769+27	1769+35	8			X				10	12' WIDE
1771+28	1771+46	18			X				24	12' WIDE
1774+32	1774+46	15						X	8	5' WIDE
1775+52	1775+66	14			X				19	12' WIDE
1789+73	1790+20	47			X				63	12' WIDE
1794+52	1794+55	6			X				8	12' WIDE
1805+26	1805+31	6			X				8	12' WIDE
1807+27	1807+45	18			X				24	12' WIDE
1822+69	1823+46	77			X				102	12' WIDE
1839+22	1839+25	6			X				8	12' WIDE
1847+92	1848+04	12						X	7	5' WIDE
1857+03	1857+03	6			X				8	12' WIDE
1867+27	1867+48	21			X				28	12' WIDE
1867+57	1867+66	9						X	10	10' WIDE
1874+36	1874+48	12			X				16	12' WIDE
1875+22	1875+39	17			X				23	12' WIDE

FULL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020.00

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
1875+67	1875+67	6		X					8	12' WIDE
1876+26	1876+26	6		X					8	12' WIDE
1877+19	1877+19	6		X					8	12' WIDE
1879+59	1879+77	18			X				24	12' WIDE
1881+82	1881+85	6			X				8	12' WIDE
1884+08	1884+08	6			X				8	12' WIDE
1896+62	1896+79	16			X				22	12' WIDE
1909+22	1909+27	6				X			8	12' WIDE
1909+40	1909+57	17				X			23	12' WIDE
1909+40	1909+57	17						X	19	10' WIDE
1923+80	1924+16	36			X				47	12' WIDE
1926+13	1926+30	17			X				23	12' WIDE
1926+27	1926+52	25		X	X				67	Bridge Tie
1928+69	1928+94	25		X	X				67	Bridge Tie
1936+08	1936+27	18			X				24	12' WIDE
1937+59	1937+72	13			X				17	12' WIDE
1939+87	1940+12	25		X	X				67	Bridge Tie
SOUTHBOUND I-265										
1705+99	1706+17	18			X				24	12' WIDE
1739+26	1739+57	31			X				41	12' WIDE
1743+11	1743+13	6				X			8	12' WIDE
1752+66	1752+83	17			X				23	12' WIDE
1766+21	1766+46	25		X	X				67	Bridge Tie
1769+02	1769+27	25		X	X				67	Bridge Tie
1772+06	1772+23	17			X				23	12' WIDE
1774+46	1774+46	6		X					8	12' WIDE
1776+68	1777+02	35	X						12	3' WIDE
1791+04	1791+38	35			X				46	12' WIDE
1791+96	1791+98	6			X				8	12' WIDE
1799+01	1799+18	17			X				23	12' WIDE
1856+74	1856+97	23			X				31	12' WIDE
1869+23	1869+40	17		X					22	12' WIDE
1875+92	1876+05	13			X				17	12' WIDE
1885+61	1886+03	42			X				56	12' WIDE
1892+49	1892+49	6			X				8	12' WIDE
1898+58	1898+63	6			X				8	12' WIDE
1903+78	1905+92	214				X			285	12' WIDE
1906+84	1907+12	28						X	31	10' WIDE
1907+74	1907+74	6				X			8	12' WIDE
1908+53	1908+83	30				X			41	12' WIDE
1920+31	1920+31	6		X					8	12' WIDE
1923+73	1924+49	77		X					102	12' WIDE
1926+27	1926+52	25		X	X				67	Bridge Tie
1928+69	1928+94	25		X	X				67	Bridge Tie
1934+69	1934+74	6			X				8	12' WIDE
1936+08	1936+27	18			X				24	12' WIDE
1936+35	1936+38	6			X				8	12' WIDE
1939+01	1939+01	6					X		8	12' WIDE
1939+07	1940+01	93			X				125	12' WIDE
1939+87	1940+12	25		X	X				67	Bridge Tie
BILLTOWN RAMP 3										
318+62	319+69	107		X					287	24' WIDE

FULL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020.00

BEGIN STATION	END STATION	LENGTH (FT)	INSIDE SHLDR	LANE #1	LANE #2	LANE #3	LANE #4	OUTSIDE SHLDR	TOTAL SQ YD JPC - 10"	COMMENTS
BILLTOWN RAMP 7										
710+50	710+77	27			X				36	12' WIDE
KY 155 RAMP 1										
18+49	18+67	18		X					23	12' WIDE
KY 155 RAMP 1A										
8+00	8+00	6		X					8	12' WIDE
KY 155 RAMP 3										
319+19	319+56	37						X	20	5' WIDE
328+94	329+54	61		X					81	12' WIDE
28+56	37+09	853			X				1137	12' WIDE
KY 155 RAMP 5										
515+78	515+91	12			X				16	12' WIDE
515+27	516+76	149						X	166	10' WIDE
516+80	517+70	90		X					120	12' WIDE
518+78	518+90	12		X					16	12' WIDE
KY 155 RAMP 7										
14+68	15+29	62			X				82	12' WIDE

NORTHBOUND I-265 TOTAL - JPC PAVEMENT 10 IN (SQ YD)	**4,468**
SOUTHBOUND I-265 TOTAL - JPC PAVEMENT 10 IN (SQ YD)	**1,341**
RAMP TOTAL - JPC PAVEMENT 10 IN (SQ YD)	**1,992**
PROJECT TOTAL - JPC PAVEMENT 10 IN (SQ YD)	**7,801**

Lane numbers begin with the left most driving lane (lane #1) and increase as you move left into the right most driving lane. Note that shoulders and turn lanes were noted numerically. (Each Direction Separately)

Approximate full depth pavement repair locations are listed in this proposal. The Engineer will determine the exact location at the time of construction.

Note: Quantities are carried over to the General Summary

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
NORTHBOUND BOUND I-265											
1696+18		X					1	0.28	0.28		PATCH
1696+61		X					1	0.28	0.28		PATCH
1698+11			X							12	RESEAL
1698+97		X					1	0.28	0.28		PATCH
1700+93						X				12	RESEAL
1703+64		X					1	0.28	0.28		PATCH
1705+21		X					1	0.28	0.28		PATCH
1706+00		X					1	0.28	0.28		PATCH
1706+80		X					1	0.28	0.28		PATCH
1709+76			X							12	RESEAL
1709+93		X					2	0.28	0.56		PATCH
1709+93		X					1	0.28	0.28		PATCH
1710+95			X				1	0.28	0.28		PATCH
1711+13				X			1	0.28	0.28		PATCH
1711+48		X					1	0.28	0.28		PATCH
1712+43				X			1	0.28	0.28		PATCH
1714+62		X					1	0.28	0.28		PATCH
1716+17		X					1	0.28	0.28		PATCH
1716+95		X					1	0.28	0.28		PATCH
1718+53		X					1	0.28	0.28		PATCH
1724+31		X					1	0.28	0.28		PATCH
1724+78		X					2	0.28	0.56		PATCH
1725+55		X					1	0.28	0.28		PATCH
1726+34		X					1	0.28	0.28		PATCH
1727+12		X					1	0.28	0.28		PATCH
1727+91		X					1	0.28	0.28		PATCH
1728+69		X					1	0.28	0.28		PATCH
1730+42						X	4	0.28	1.12		PATCH
1732+77			X							12	RESEAL
1733+40		X					2	0.28	0.56		PATCH
1734+17		X					3	0.28	0.84		PATCH
1734+92		X					2	0.28	0.56		PATCH
1735+16			X							12	RESEAL
1735+70		X					2	0.28	0.56		PATCH
1735+75			X							12	RESEAL
1736+49		X					2	0.28	0.56		PATCH
1736+94			X							12	RESEAL
1737+28		X					1	0.28	0.28		PATCH
1738+02		X					1	0.28	0.28		PATCH
1738+13			X							12	RESEAL
1738+68			X							12	RESEAL
1739+55		X					3	0.28	0.84		PATCH
1739+86			X							12	RESEAL
1740+27			X							12	RESEAL
1740+82			X							12	RESEAL
1741+01			X							12	RESEAL
1742+54			X				2	0.28	0.56		PATCH

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1742+61		X					1	0.28	0.28		PATCH
1742+76			X							12	RESEAL
1743+25	X						3	0.28	0.84		PATCH
1743+39		X					1	0.28	0.28		PATCH
1743+91			X							12	RESEAL
1744+13		X					1	0.28	0.28		PATCH
1744+89		X					2	0.28	0.56		PATCH
1745+19			X				1	0.28	0.28		PATCH
1745+90			X				1	0.28	0.28		PATCH
1746+36		X					1	0.28	0.28		PATCH
1746+89			X							12	RESEAL
1748+75				X			3	0.28	0.84		PATCH
1749+06			X				2	0.28	0.56		PATCH
1750+75				X			3	0.28	0.84		PATCH
1751+53			X							12	RESEAL
1751+71			X							12	RESEAL
1752+42				X			1	0.28	0.28		PATCH
1753+74				X			1	0.28	0.28		PATCH
1754+51			X							12	RESEAL
1756+00				X			1	0.28	0.28		PATCH
1756+49			X							12	RESEAL
1756+92			X							12	RESEAL
1757+33				X			3	0.28	0.84		PATCH
1757+62		X					1	0.28	0.28		PATCH
1757+69			X							12	RESEAL
1757+80		X					1	0.28	0.28		PATCH
1757+88				X			6	0.28	1.68		PATCH
1757+92			X				1	0.28	0.28		PATCH
1758+15				X			1	0.28	0.28		PATCH
1758+43				X			1	0.28	0.28		PATCH
1759+49						X	4	0.28	1.12		PATCH
1760+31			X				1	0.28	0.28		PATCH
1760+61			X				1	0.28	0.28		PATCH
1760+68		X					2	0.28	0.56		PATCH
1761+50			X							4	RESEAL
1762+48			X							12	RESEAL
1764+64		X					1	0.28	0.28		PATCH
1765+45		X					1	0.28	0.28		PATCH
1766+10						X	2	0.28	0.56		PATCH
1769+65			X				1	0.28	0.28		PATCH
1771+41	X						3	0.28	0.84		PATCH
1771+79			X							12	RESEAL
1771+96			X							12	RESEAL
1773+04		X					1	0.28	0.28		PATCH
1773+33	X						6	0.28	1.68		PATCH
1774+35						X	3	0.28	0.84		PATCH
1774+87		X					1	0.28	0.28		PATCH
1774+97			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1775+48						X	3	0.28	0.84		PATCH
1775+90		X					1	0.28	0.28		PATCH
1777+46		X					1	0.28	0.28		PATCH
1777+71			X				1	0.28	0.28		PATCH
1779+68		X					1	0.28	0.28		PATCH
1779+78			X							12	RESEAL
1779+99			X				1	0.28	0.28		PATCH
1780+38			X							12	RESEAL
1781+68		X					1	0.28	0.28		PATCH
1781+80		X					1	0.28	0.28		PATCH
1782+28		X					1	0.28	0.28		PATCH
1785+01			X							12	RESEAL
1785+18			X							12	RESEAL
1786+40			X							12	RESEAL
1787+01	X						1	0.28	0.28		PATCH
1788+77			X							12	RESEAL
1789+60			X				1	0.28	0.28		PATCH
1791+61			X							12	RESEAL
1791+65						X	1	0.28	0.28		PATCH
1791+78			X							12	RESEAL
1792+45		X					1	0.28	0.28		PATCH
1792+45						X	1	0.28	0.28		PATCH
1792+59		X					1	0.28	0.28		PATCH
1792+69						X	2	0.28	0.56		PATCH
1794+15			X							12	RESEAL
1794+78			X							12	RESEAL
1795+84			X							6	RESEAL
1797+27			X				1	0.28	0.28		PATCH
1798+35			X							12	RESEAL
1799+56			X							12	RESEAL
1799+56		X								12	RESEAL
1799+98			X							12	RESEAL
1800+77			X							4	RESEAL
1801+96			X							12	RESEAL
1802+31			X				2	0.28	0.56		PATCH
1803+25			X				1	0.28	0.28		PATCH
1804+19			X							12	RESEAL
1805+56			X							12	RESEAL
1805+99			X							12	RESEAL
1806+15			X							12	RESEAL
1806+57			X							12	RESEAL
1807+78			X							12	RESEAL
1807+95			X							12	RESEAL
1807+95		X								12	RESEAL
1808+57			X							12	RESEAL
1809+15		X								12	RESEAL
1809+75		X								12	RESEAL
1810+18			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1812+35			X				1	0.28	0.28		PATCH
1814+92			X							12	RESEAL
1815+10			X							12	RESEAL
1817+95		X					1	0.28	0.28		PATCH
1821+01			X							12	RESEAL
1822+27		X					1	0.28	0.28		PATCH
1822+59			X							12	RESEAL
1824+76			X				1	0.28	0.28		PATCH
1825+16			X							12	RESEAL
1825+56			X							12	RESEAL
1825+74			X							12	RESEAL
1825+81		X					1	0.28	0.28		PATCH
1826+13			X							12	RESEAL
1826+23		X					1	0.28	0.28		PATCH
1826+32			X							12	RESEAL
1832+79			X				1	0.28	0.28		PATCH
1832+88			X							12	RESEAL
1832+97			X				1	0.28	0.28		PATCH
1833+22			X				1	0.28	0.28		PATCH
1833+39			X				2	0.28	0.56		PATCH
1833+76	X						1	0.28	0.28		PATCH
1837+08			X							12	RESEAL
1837+08						X				12	RESEAL
1841+80						X				12	RESEAL
1842+25			X							12	RESEAL
1842+64		X					1	0.28	0.28		PATCH
1845+76		X					1	0.28	0.28		PATCH
1845+94			X				1	0.28	0.28		PATCH
1845+98	X									12	RESEAL
1846+12			X				1	0.28	0.28		PATCH
1852+60			X							12	RESEAL
1853+65			X							12	RESEAL
1853+83			X							12	RESEAL
1854+61		X					3	0.28	0.84		PATCH
1857+51			X				1	0.28	0.28		PATCH
1861+64			X				1	0.28	0.28		PATCH
1861+64		X					1	0.28	0.28		PATCH
1861+94			X				1	0.28	0.28		PATCH
1863+85			X							12	RESEAL
1865+28		X					1	0.28	0.28		PATCH
1866+21			X				1	0.28	0.28		PATCH
1870+82			X				1	0.28	0.28		PATCH
1870+95			X				1	0.28	0.28		PATCH
1875+47		X								12	RESEAL
1875+82		X					1	0.28	0.28		PATCH
1876+42		X					1	0.28	0.28		PATCH
1877+19						X	1	0.28	0.28		PATCH
1877+49						X	1	0.28	0.28		PATCH

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1878+09			X				2	0.28	0.56		PATCH
1878+49			X							12	RESEAL
1878+82		X					1	0.28	0.28		PATCH
1880+19						X	1	0.28	0.28		PATCH
1880+37						X	1	0.28	0.28		PATCH
1880+49						X	1	0.28	0.28		PATCH
1881+09			X				2	0.28	0.56		PATCH
1882+07			X							12	RESEAL
1882+28		X					1	0.28	0.28		PATCH
1882+28						X	1	0.28	0.28		PATCH
1882+42		X					1	0.28	0.28		PATCH
1882+59		X					1	0.28	0.28		PATCH
1882+77		X					1	0.28	0.28		PATCH
1883+48		X					2	0.28	0.56		PATCH
1883+96		X					3	0.28	0.84		PATCH
1884+21			X				2	0.28	0.56		PATCH
1884+27			X							12	RESEAL
1884+38			X				1	0.28	0.28		PATCH
1884+38		X					1	0.28	0.28		PATCH
1884+44		X								12	RESEAL
1884+56		X					1	0.28	0.28		PATCH
1884+98		X					3	0.28	0.84		PATCH
1886+48		X					4	0.28	1.12		PATCH
1886+61		X					1	0.28	0.28		PATCH
1886+61						X	1	0.28	0.28		PATCH
1886+96		X					1	0.28	0.28		PATCH
1887+12		X					1	0.28	0.28		PATCH
1887+25						X	1	0.28	0.28		PATCH
1887+25		X					1	0.28	0.28		PATCH
1887+42		X					1	0.28	0.28		PATCH
1887+48		X								12	RESEAL
1888+08			X							12	RESEAL
1888+52			X							12	RESEAL
1889+28			X							12	RESEAL
1896+28		X								12	RESEAL
1899+10			X				1	0.28	0.28		PATCH
1899+61			X							12	RESEAL
1899+76			X							12	RESEAL
1901+49			X							12	RESEAL
1908+21	X						1	0.28	0.28		PATCH
1908+48			X							12	RESEAL
1910+05			X							12	RESEAL
1910+24			X							12	RESEAL
1910+45		X					1	0.28	0.28		PATCH
1910+54			X				1	0.28	0.28		PATCH
1914+53			X				2	0.28	0.56		PATCH
1914+79			X				2	0.28	0.56		PATCH
1915+02			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1916+75			X				1	0.28	0.28		PATCH
1919+08			X							12	RESEAL
1919+39			X							12	RESEAL
1920+25			X							12	RESEAL
1922+05			X							12	RESEAL
1923+26			X							12	RESEAL
1931+92			X							12	RESEAL
1932+35			X							12	RESEAL
1934+18			X							12	RESEAL
1938+17						X				12	RESEAL
1938+17					X					12	RESEAL
SOUTHBOUND BOUND I-265											
1696+48			X							12	RESEAL
1697+89		X								12	RESEAL
1697+89			X							12	RESEAL
1698+31		X								12	RESEAL
1698+32			X							12	RESEAL
1699+10		X								12	RESEAL
1699+51		X								12	RESEAL
1699+51			X							12	RESEAL
1699+69		X								12	RESEAL
1700+09		X								12	RESEAL
1700+29		X								12	RESEAL
1700+71			X							12	RESEAL
1700+89			X							12	RESEAL
1701+90			X							12	RESEAL
1703+28			X							12	RESEAL
1704+31			X							12	RESEAL
1704+91			X							12	RESEAL
1704+91		X								12	RESEAL
1705+52		X								12	RESEAL
1705+66			X							12	RESEAL
1706+10			X							12	RESEAL
1706+29			X							12	RESEAL
1706+54				X			1	0.28	0.28		PATCH
1706+69			X							12	RESEAL
1707+30			X							12	RESEAL
1707+46			X							12	RESEAL
1708+50			X							12	RESEAL
1708+67		X								12	RESEAL
1708+67			X							12	RESEAL
1709+08			X							12	RESEAL
1709+27			X							12	RESEAL
1710+28			X							12	RESEAL
1711+07			X							12	RESEAL
1711+67			X							12	RESEAL
1712+68			X							12	RESEAL
1712+85			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1713+90			X							12	RESEAL
1713+90		X								12	RESEAL
1715+10			X							12	RESEAL
1716+31		X								12	RESEAL
1717+49			X							12	RESEAL
1717+65			X							12	RESEAL
1719+27			X							12	RESEAL
1719+47			X							12	RESEAL
1720+65			X							6	RESEAL
1721+86			X							12	RESEAL
1722+89			X							12	RESEAL
1723+06			X							12	RESEAL
1725+89			X							12	RESEAL
1726+07			X							12	RESEAL
1726+48			X							12	RESEAL
1727+69			X							12	RESEAL
1730+27			X							12	RESEAL
1731+63			X				1	0.28	0.28		PATCH
1731+89			X							12	RESEAL
1732+06			X							12	RESEAL
1733+07			X							12	RESEAL
1733+68		X								12	RESEAL
1733+68			X							12	RESEAL
1733+83			X							12	RESEAL
1736+09			X							12	RESEAL
1736+28			X							12	RESEAL
1736+71			X							12	RESEAL
1736+76		X								12	RESEAL
1740+41			X							12	RESEAL
1740+58			X							12	RESEAL
1741+22			X							12	RESEAL
1742+02					X		2	0.28	0.56		PATCH
1743+53				X			1	0.28	0.28		PATCH
1743+92				X			4	0.28	1.12		PATCH
1744+09			X							12	RESEAL
1744+30			X							12	RESEAL
1745+32			X							12	RESEAL
1745+53			X							12	RESEAL
1746+71			X							12	RESEAL
1747+11			X							12	RESEAL
1747+73			X							12	RESEAL
1748+98			X							12	RESEAL
1749+16			X							12	RESEAL
1749+58			X							12	RESEAL
1749+74			X							12	RESEAL
1750+19			X							12	RESEAL
1750+35			X							12	RESEAL
1750+78		X								12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1750+78			X							12	RESEAL
1750+95			X							12	RESEAL
1753+18			X							12	RESEAL
1753+36			X							12	RESEAL
1753+77			X							12	RESEAL
1754+40			X							12	RESEAL
1754+54			X							12	RESEAL
1754+69			X							12	RESEAL
1754+98			X							12	RESEAL
1755+15			X							12	RESEAL
1755+59		X								12	RESEAL
1756+20		X								12	RESEAL
1756+37			X							12	RESEAL
1756+78		X								12	RESEAL
1756+78			X							12	RESEAL
1757+37			X							12	RESEAL
1757+97		X								12	RESEAL
1757+97			X							12	RESEAL
1758+16			X							12	RESEAL
1758+57			X							12	RESEAL
1758+76			X							12	RESEAL
1760+36			X							12	RESEAL
1761+55			X							12	RESEAL
1762+16			X							12	RESEAL
1762+20		X								12	RESEAL
1763+37		X								12	RESEAL
1764+89			X				1	0.28	0.28		PATCH
1766+08			X							12	RESEAL
1769+47		X								8	RESEAL
1785+32			X							12	RESEAL
1786+12		X					1	0.28	0.28		PATCH
1786+94			X							12	RESEAL
1789+34			X							12	RESEAL
1789+93			X							12	RESEAL
1790+53			X							12	RESEAL
1790+72			X							12	RESEAL
1791+77			X							12	RESEAL
1791+88			X							12	RESEAL
1792+34			X							12	RESEAL
1792+93			X							12	RESEAL
1792+94		X								12	RESEAL
1793+54			X							12	RESEAL
1794+14			X							12	RESEAL
1794+15		X								12	RESEAL
1794+30			X							12	RESEAL
1794+34		X								12	RESEAL
1794+71			X							12	RESEAL
1795+34			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1796+11			X							12	RESEAL
1796+53			X							12	RESEAL
1797+15			X							12	RESEAL
1797+28			X							12	RESEAL
1798+32			X							12	RESEAL
1798+51			X							12	RESEAL
1799+69			X							12	RESEAL
1816+36			X							12	RESEAL
1817+66						X	1	0.28	0.28		PATCH
1817+72						X	1	0.28	0.28		PATCH
1817+88						X	1	0.28	0.28		PATCH
1829+67			X							12	RESEAL
1833+27			X							12	RESEAL
1836+25			X							12	RESEAL
1838+07			X							12	RESEAL
1838+68			X							12	RESEAL
1839+26			X							12	RESEAL
1839+87			X							12	RESEAL
1841+06			X							12	RESEAL
1841+67			X							12	RESEAL
1841+72		X								12	RESEAL
1845+44			X							12	RESEAL
1846+04			X							12	RESEAL
1846+22			X							12	RESEAL
1846+65			X							12	RESEAL
1847+25			X							12	RESEAL
1848+03			X							12	RESEAL
1848+22			X				1	0.28	0.28		PATCH
1848+34			X				1	0.28	0.28		PATCH
1848+52			X				1	0.28	0.28		PATCH
1848+63			X							12	RESEAL
1848+83			X				1	0.28	0.28		PATCH
1848+94			X				1	0.28	0.28		PATCH
1850+23			X							12	RESEAL
1850+82			X							12	RESEAL
1851+44			X							12	RESEAL
1851+63			X							12	RESEAL
1852+22			X							12	RESEAL
1852+63			X							12	RESEAL
1852+80			X							12	RESEAL
1853+23			X							12	RESEAL
1853+42			X							12	RESEAL
1853+83			X							12	RESEAL
1854+00			X							12	RESEAL
1854+43			X							12	RESEAL
1855+21			X							12	RESEAL
1855+61			X							12	RESEAL
1855+80			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1856+22			X				3	0.28	0.84		PATCH
1858+06			X							12	RESEAL
1858+21			X							12	RESEAL
1858+78			X							12	RESEAL
1858+89			X				1	0.28	0.28		PATCH
1860+23			X							12	RESEAL
1861+43			X							12	RESEAL
1862+03			X							12	RESEAL
1862+24			X							12	RESEAL
1863+82			X							12	RESEAL
1865+19			X							12	RESEAL
1866+18			X							12	RESEAL
1866+81		X								12	RESEAL
1866+81			X							12	RESEAL
1869+17			X							12	RESEAL
1870+32			X							12	RESEAL
1870+90			X							12	RESEAL
1871+51			X							12	RESEAL
1872+12			X							12	RESEAL
1873+46			X							12	RESEAL
1873+87			X							12	RESEAL
1878+05			X							12	RESEAL
1878+85			X							12	RESEAL
1881+85			X							12	RESEAL
1882+42			X							12	RESEAL
1884+04			X							12	RESEAL
1884+66			X							12	RESEAL
1885+27			X							12	RESEAL
1886+45			X							12	RESEAL
1887+18		X					1	0.28	0.28		PATCH
1887+63						X				6	RESEAL
1888+30			X							12	RESEAL
1888+88			X							12	RESEAL
1890+11			X							12	RESEAL
1891+58			X				1	0.28	0.28		PATCH
1891+71			X				2	0.28	0.56		PATCH
1891+83		X					1	0.28	0.28		PATCH
1892+19			X				1	0.28	0.28		PATCH
1892+75						X	1	0.28	0.28		PATCH
1893+06		X					1	0.28	0.28		PATCH
1893+36						X	3	0.28	0.84		PATCH
1893+80		X								12	RESEAL
1893+80			X							12	RESEAL
1893+96			X							12	RESEAL
1894+38			X							12	RESEAL
1894+56			X							12	RESEAL
1896+22			X							12	RESEAL
1896+41			X							12	RESEAL

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
1896+48			X				1	0.28	0.28		PATCH
1896+61			X				1	0.28	0.28		PATCH
1897+00			X							6	RESEAL
1898+15		X					1	0.28	0.28		PATCH
1898+86			X							12	RESEAL
1899+80			X				1	0.28	0.28		PATCH
1899+89			X							12	RESEAL
1903+58		X								12	RESEAL
1904+37			X							12	RESEAL
1905+44			X							12	RESEAL
1905+44		X								12	RESEAL
1906+02			X							12	RESEAL
1910+16		X					1	0.28	0.28		PATCH
1911+36		X					1	0.28	0.28		PATCH
1914+66			X							12	RESEAL
1915+23			X							12	RESEAL
1917+43			X				1	0.28	0.28		PATCH
1919+04		X					2	0.28	0.56		PATCH
1919+11						X	3	0.28	0.84		PATCH
1920+39						X	1	0.28	0.28		PATCH
1920+91		X					1	0.28	0.28		PATCH
1921+51	X						1	0.28	0.28		PATCH
1922+11		X					1	0.28	0.28		PATCH
1922+36		X					1	0.28	0.28		PATCH
1922+54		X					1	0.28	0.28		PATCH
1923+67			X							12	RESEAL
1924+62		X					1	0.28	0.28		PATCH
1925+47		X					1	0.28	0.28		PATCH
1931+98			X							12	RESEAL
1932+58			X							12	RESEAL
1934+80		X								12	RESEAL
1934+92		X					1	0.28	0.28		PATCH
1935+54			X							12	RESEAL
1935+73			X							12	RESEAL
1936+71			X							12	RESEAL
BILLTOWN ROAD RAMP 1											
125+08		X					1	0.28	0.28		PATCH
126+23						X				4	RESEAL
126+31		X								15	RESEAL
133+90			X							12	RESEAL
133+90										12	RESEAL MEDIAN
BILLTOWN ROAD RAMP 3											
311+17		X					1	0.28	0.28		PATCH
311+27		X					1	0.28	0.28		PATCH
311+86		X					1	0.28	0.28		PATCH
322+22		X					1	0.28	0.28		PATCH
BILLTOWN ROAD RAMP 5											
516+58						X	1	0.28	0.28		PATCH

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
520+04						X	3	0.28	0.84		PATCH
528+95		X					1	0.28	0.28		PATCH
529+39		X					2	0.28	0.56		PATCH
529+56		X					1	0.28	0.28		PATCH
529+56		X					1	0.28	0.28		PATCH
529+75		X					1	0.28	0.28		PATCH
529+86		X					1	0.28	0.28		PATCH
529+99		X					1	0.28	0.28		PATCH
530+17		X					1	0.28	0.28		PATCH
530+34		X					2	0.28	0.56		PATCH
530+47			X				1	0.28	0.28		PATCH
BILLTOWN ROAD RAMP 7											
708+66			X				1	0.28	0.28		PATCH
711+47			X				1	0.28	0.28		PATCH
711+60	X						1	0.28	0.28		PATCH
712+04			X				1	0.28	0.28		PATCH
712+93			X				1	0.28	0.28		PATCH
714+69			X				1	0.28	0.28		PATCH
715+67		X					1	0.28	0.28		PATCH
715+76		X					3	0.28	0.84		PATCH
KY 155 RAMP 1											
12+86		X					1	0.28	0.28		PATCH
15+80		X					1	0.28	0.28		PATCH
17+48		X					1	0.28	0.28		PATCH
18+21		X					1	0.28	0.28		PATCH
KY 155 RAMP 1A											
7+73		X					1	0.28	0.28		PATCH
KY 155 RAMP 3											
317+83						X	1	0.28	0.28		PATCH
318+03						X	4	0.28	1.12		PATCH
318+30						X	1	0.28	0.28		PATCH
319+08						X	1	0.28	0.28		PATCH
319+77						X	1	0.28	0.28		PATCH
322+78						X	1	0.28	0.28		PATCH
325+52		X					1	0.28	0.28		PATCH
326+72						X	1	0.28	0.28		PATCH
KY 155 RAMP 3A											
28+77						X				6	RESEAL
28+91						X				6	RESEAL
29+81						X				6	RESEAL
30+42						X				6	RESEAL
30+74		X								12	RESEAL
30+85		X								12	RESEAL
31+22		X								12	RESEAL
31+53		X					1	0.28	0.28		PATCH
31+71		X								12	RESEAL
31+87		X								12	RESEAL
32+03		X					1	0.28	0.28		PATCH

PARTIAL DEPTH PCC PAVEMENT REPAIRS
I-265, JEFFERSON COUNTY
ITEM NUMBER: 5-20020

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)	COMMENTS
32+21		X								12	RESEAL
32+75						X				6	RESEAL
33+34						X				6	RESEAL
33+75						X				6	RESEAL
34+19						X				6	RESEAL
34+38						X				6	RESEAL
34+74						X				6	RESEAL
34+89						X				6	RESEAL
35+17						X				6	RESEAL
35+30						X				6	RESEAL
35+42						X				6	RESEAL
35+76						X				6	RESEAL
36+25						X				6	RESEAL
36+40						X				6	RESEAL
36+65						X				6	RESEAL
KY 155 RAMP 5											
513+98		X					1	0.28	0.28		PATCH
518+04		X					6	0.28	1.68		PATCH
520+88						X	4	0.28	1.12		PATCH
KY 155 RAMP 7											
27+60						X				15	RESEAL
28+68			X							12	RESEAL

PROJECT TOTAL - SAW-CLEAN-RESEAL RANDOM CRACKS (LF)	**4,070**
PROJECT TOTAL -- PARTIAL DEPTH PATCHING (CU FT)	**91**

Lane numbers begin with the left most driving lane (lane #1) and increase as you move left into the right most driving lane. Note that shoulders and turn lanes were noted numerically. (See Typical)

Approximate partial depth pavement repair locations are listed in this proposal. The Engineer will determine the exact location at the time of construction.

SHOULDERING SUMMARY
JEFFERSON COUNTY
I-265
Item Number: 5-20020

Location	SIDE	BEGIN Sta.	END Sta.	SHOULDERING	COMMENTS
Units				LIN. FT.	
Item Number				2714	
I-265	LEFT	1936+81	1939+91	310	Shouldering Required
I-265	LEFT	1928+79	1930+90	211	Shouldering Required
I-265	LEFT	1923+41	1926+28	287	Shouldering Required
I-265	LEFT	1885+73	1888+36	263	Shouldering Required
I-265	LEFT	1818+84	1822+54	370	Shouldering Required
I-265	LEFT	1810+83	1813+01	218	Shouldering Required
I-265	LEFT	1769+62	1773+78	416	Shouldering Required
I-265	LEFT	1763+52	1766+92	340	Shouldering Required
I-265	LEFT	1745+65	1751+48	583	Shouldering Required
I-265	RIGHT	1743+07	1757+17	1410	Shouldering Required
I-265	RIGHT	1759+91	1766+03	612	Shouldering Required
I-265	RIGHT	1768+69	1773+10	441	Shouldering Required
I-265	RIGHT	1783+00	1789+15	615	Shouldering Required
I-265	RIGHT	1799+73	1811+64	1191	Shouldering Required
I-265	RIGHT	1816+95	1820+17	322	Shouldering Required
I-265	RIGHT	1839+51	1840+18	67	Shouldering Required
PROJECT TOTAL				7,656	

SIGNAL SUMMARY

COUNTY: **JEFFERSON**
ITEM: **5-20020**
CID: **20-1007**
DESCRIPTION: **I-265 REHAB - 155 & I265 OFF RAMP 3A**

CODE	ITEM DESCRIPTION	UNITS	QUANTITY
04792	CONDUIT 1 INCH	LIN FT	10
04811	ELECTRICAL JUNCTION BOX TYPE B	EACH	1
04820	TRENCHING AND BACKFILLING	LIN FT	20
04850	CABLE-NO. 14/1 PAIR	LIN FT	200
04894	PREFORMED LOOP/LEAD-IN	LIN FT	70
24955ED	REMOVE SIGNAL EQUIPMENT	EACH	1
20453ES835	PREFORMED QUADRAPOLE LOOPS	LIN FT	102
24900EC	PVC CONDUIT - 1 1/4 INCH - SCHEDULE 80	LIN FT	20

NOTES APPLICABLE TO PROJECT
PCC PAVEMENT REHABILITATION
JEFFERSON COUNTY
I-265 GENE SNYDER FREEWAY
FD52 056 0265 018-024
NHPP IM 2652 (026)
Item No. 5-20020.00

THIS PROJECT IS A FULLY CONTROLLED ACCESS HIGHWAY

---

1. There is a summary of full depth concrete repair locations. Also, because of continuing deterioration of the pavement, there is an additional quantity for full-depth 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 its 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 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 include approximately:

I-265	Sta. 1702+12
I-265	Sta. 1813+66
I-265	Sta. 1815+80
I-265	Sta. 1840+85
I-265	Sta. 1920+30
I-265	Sta. 1928+78
Billtown Rd Ramp 1	Sta. 133+42
Billtown Rd Ramp 3	Sta. 311+26
Billtown Rd Ramp 5	Sta. 530+54
Billtown Rd Ramp 7	Sta. 710+21
KY 155 Ramp 1	Sta. 10+54
KY 155 Ramp 5	Sta. 513+25

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.

4. Any delineator posts or roadway signs that are damaged during construction are to be replaced at the contractor's expense. Signs that appear to have no visible damage but that are leaning are to be reset as directed by the Engineer. Payment for this work will be considered incidental to the contract.

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 Markers”.

6. The proposed striping for this project shall be as directed and/or approved by the Engineer. The existing striping layout may be modified in several locations according to the current MUTCD manual. The contractor is to provide a diagram of existing striping layout.

7. Several areas throughout the project have slopes that are beginning to fail or slip due to poor drainage. These areas shall be ditched as directed by the Engineer. The degrading slopes shall be regraded and dressed as directed by the Engineer. Payment for this work will be measured by linear foot of “Ditching”, and square yard of “Erosion Control Blanket”.

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 MUTCD.

9. Any light poles damaged during construction are to be replaced at the Contractor’s expense.

10. The existing cable median barrier is not to be disturbed with this project. In accordance with Section 107.12 of the Standard Specifications for Road and Bridge Construction, 2019 Edition, the Contractor will be responsible for the cost to repair any cable barrier that is damaged due to the operations of the Contractor. The Department will make any necessary repairs at the Contractor’s expense.

11. Shouldering shall be provided. The Shouldering operation shall be performed as outlined in the Standard Specifications, and shall be paid for by unit bid item Shouldering.

12. Type III Barricades must be used at Ramp closures to prevent traffic from entering the work zone. Pavement is considered incidental to “Maintenance of Traffic.”

13. Damage to adjacent slabs during full depth or partial depth patching will be at contractors expense.

14. It is intended to not disturb the underlying soil; however, a quantity of DGA, Crushed Aggregate Size No. 2, Geotextile Fabric Class 1, Geotextile Fabric Type Class 1A, 4" Perforated pipe and 4" Non- perforated pipe (to drain the aggregate), and Perforated Pipe Headwalls is included for undercutting very poor, soft, wet soils - to be used sparingly and only as directed by the Engineer. Undercutting will not be measured as a bid item and will be considered incidental to the bid item, “JPC Pavement – 10 in”.

TRAFFIC CONTROL PLAN
PCC PAVEMENT REHABILITATION
I-265 JEFFERSON COUNTY
ITEM NO. 5-20020.00

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 55 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:

November 26-29, 2020	Thanksgiving Weekend
December 24-27, 2020	Christmas Weekend
January 1-3, 2021	New Year's Day Weekend
January 16-18, 2021	Martin Luther King Jr. Day Weekend
February 13-15, 2021	President's Day Weekend
April 3-5, 2021	Easter Weekend
May 28-31, 2021	Memorial Day Weekend
July 2-5,2021	Independence Day Weekend
August 5-8, 2021	Street Rod Nationals
August 19-29,2021	Kentucky State Fair
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 normal two-lane 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, throughout the project as directed and/or approved by the Engineer. Paint temporary edge lines through the lane closure as directed and/or approved by the Engineer. 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".

I-265 PHASE I - JPC PAVEMENT REMOVAL AND REPLACEMENT, OUTSIDE LANES AND OUTSIDE SHOULDER

Utilize a lane closure and shift I-265 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". 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.

I-265 PHASE II – JPC PAVEMENT REMOVAL AND REPLACEMENT, INSIDE LANE AND INSIDE SHOULDER

Utilize a lane closure and shift I-265 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". . 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.

I-265 PHASE III – SAW AND SEAL JOINTS

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.

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.

RAMP CLOSURES, LANE CLOSURES AND LANE SHIFTS

All lane closures, lane shifts, and tapers shall be in accordance with the 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.

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:

Billtown Rd. Interchange
Billtown Rd. to NB I-265 entrance ramp
Billtown Rd. to SB I-265 entrance ramp

Taylorsville Rd. Interchange
Taylorsville Rd. to NB I-265 entrance ramp
NB I-265 to Taylorsville Rd. exit ramp
Taylorsville Rd. to SB I-265 entrance ramp

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".

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 are to be utilized for Ramp closure detours as noted in the detour signing sheets. 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 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 Durable Type I Tape except for bridge decks receiving epoxy-urethane overlay. Epoxy-urethane overlaid bridge decks shall have thermoplastic permanent striping.

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-265 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.

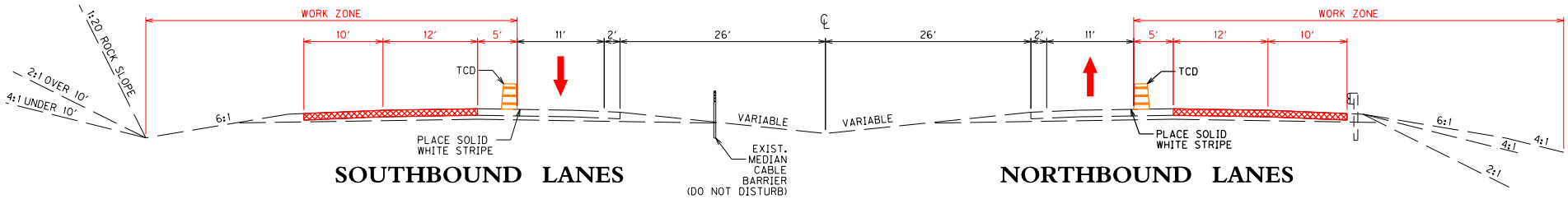
CONTRACTOR'S AND CONTRACTOR'S EMPLOYEE'S VEHICLES

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.

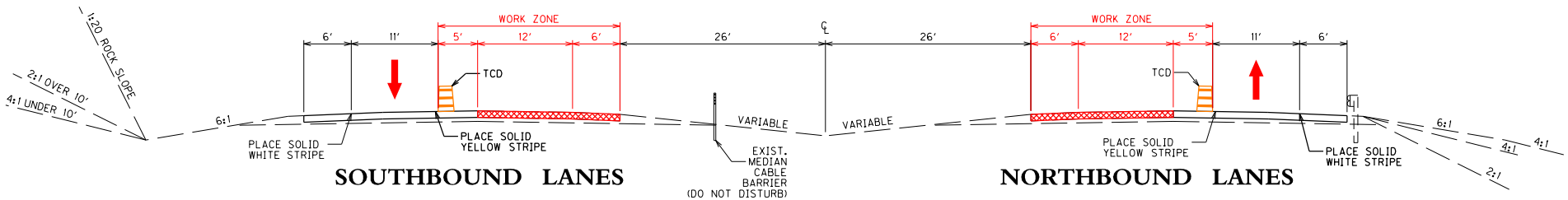
LAW ENFORCEMENT OFFICERS (LEO'S, Item no. 20411ED)

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.

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



PHASE I & PHASE III

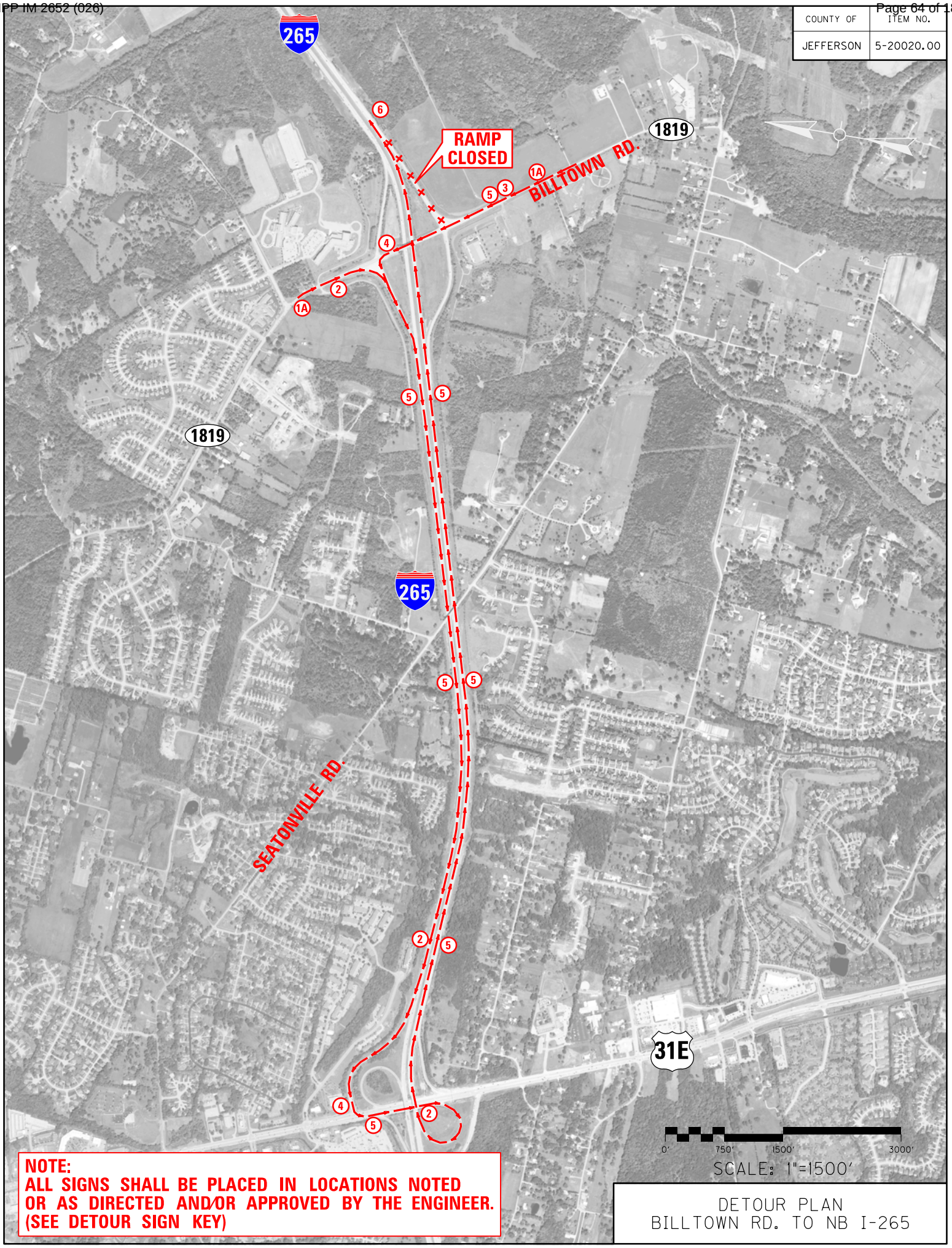


PHASE II & PHASE IV

NOT TO SCALE

I-265 (GENE SNYDER FREEWAY)
MAINTENANCE OF TRAFFIC
TYPICAL SECTIONS

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

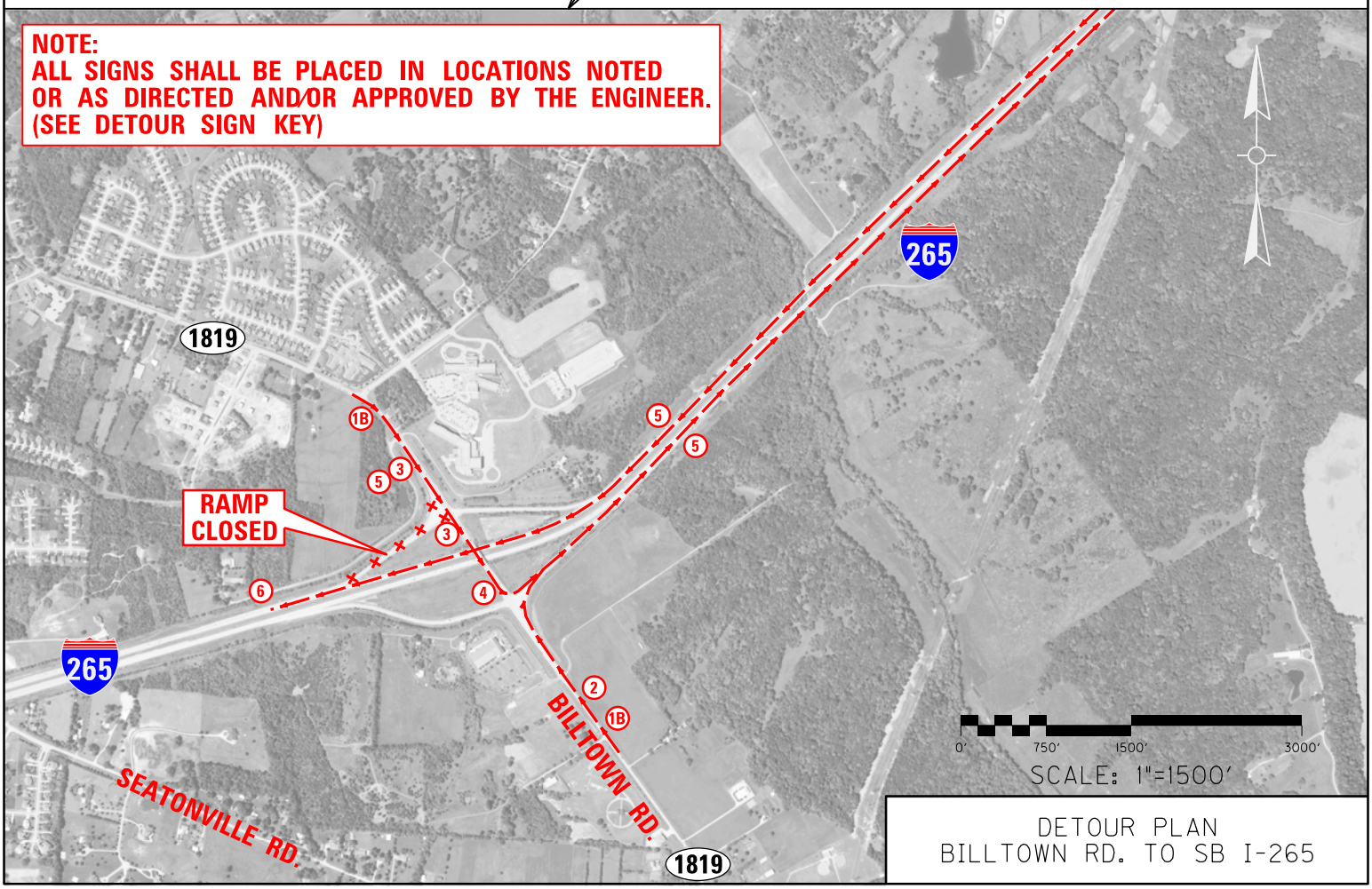


NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)

DETOUR PLAN
BILLTOWN RD. TO NB I-265

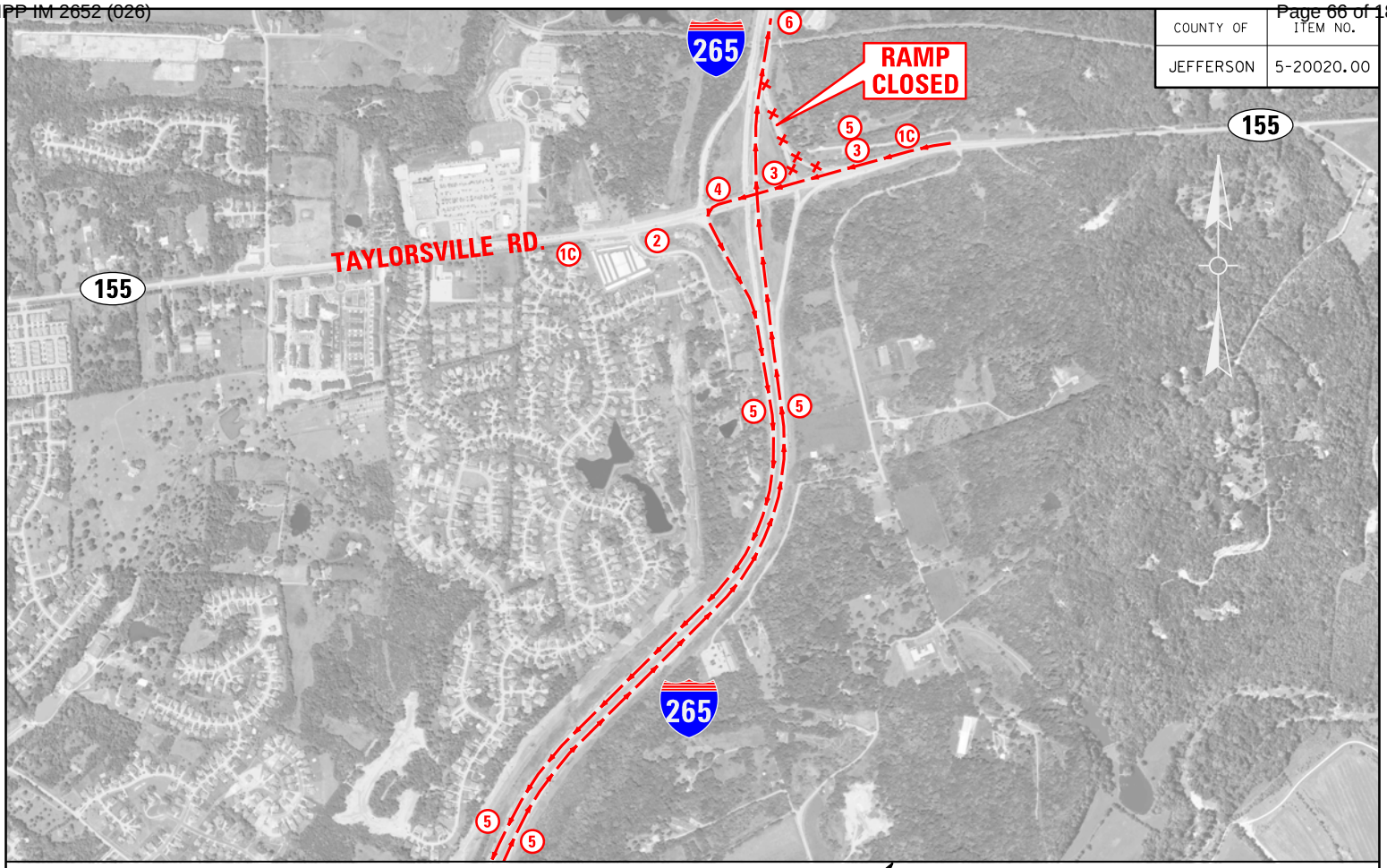
COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

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

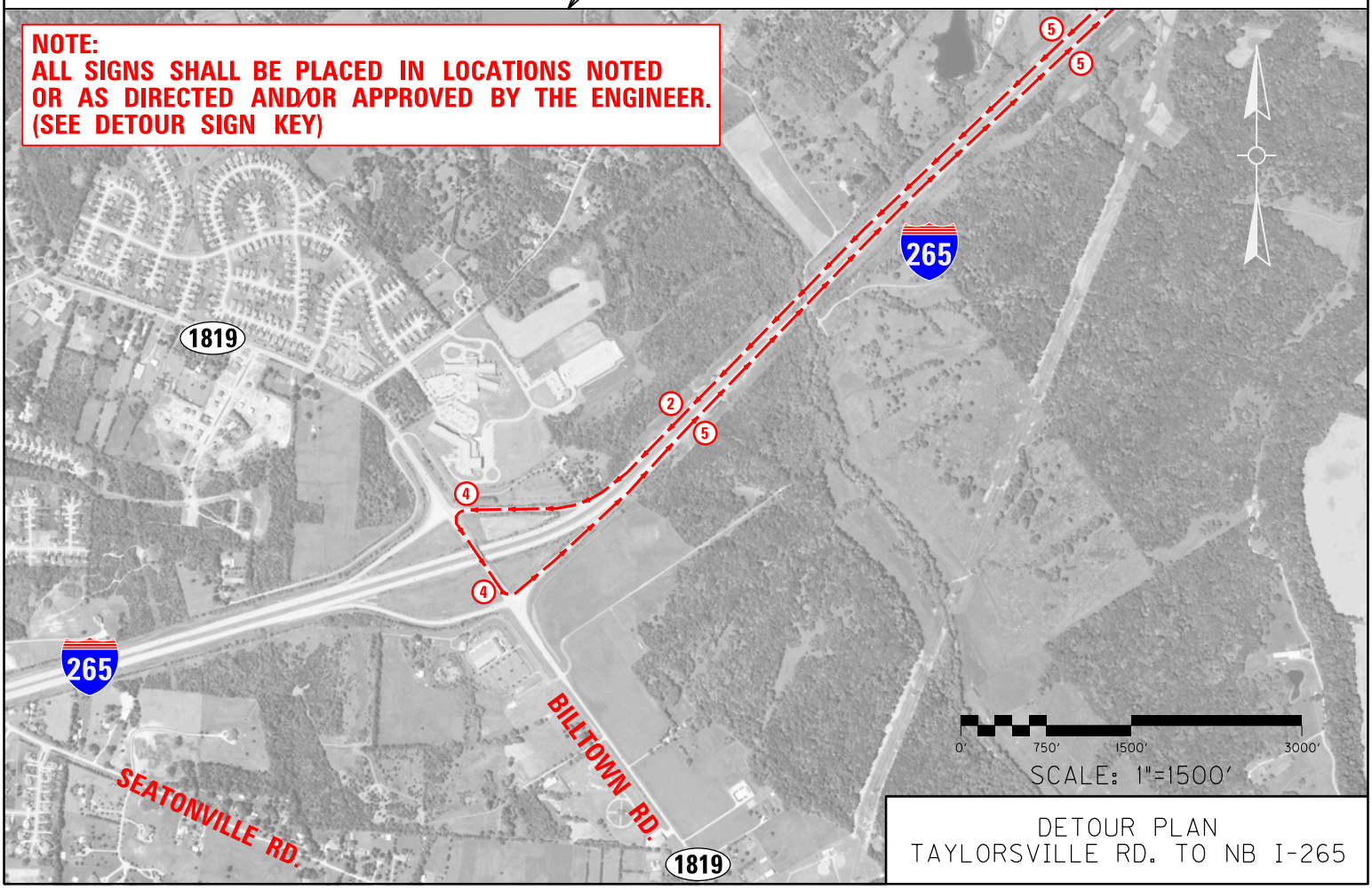


DETOUR PLAN
BILLTOWN RD. TO SB I-265

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00



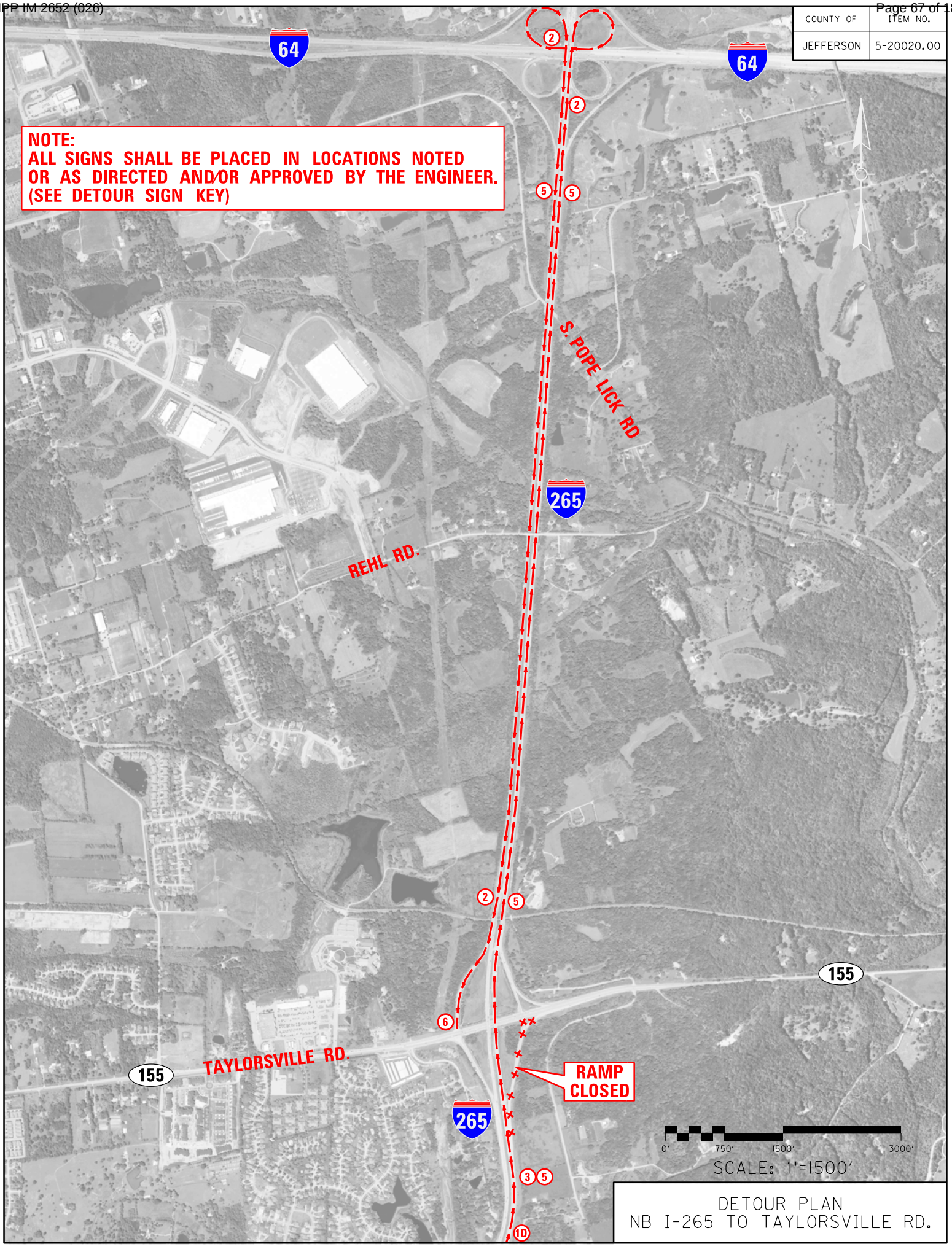
NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)



DETOUR PLAN
TAYLORSVILLE RD. TO NB I-265

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

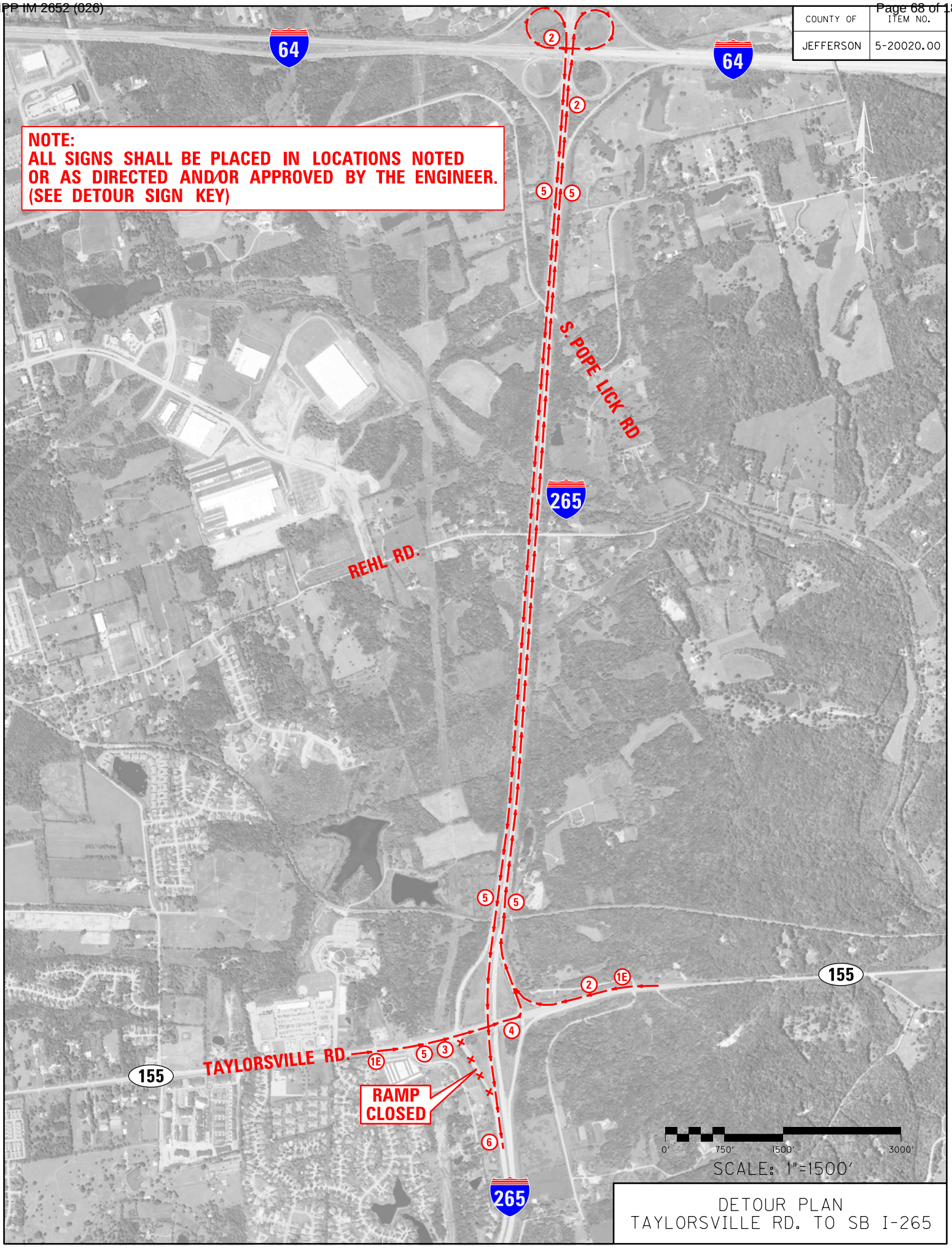
NOTE:
ALL SIGNS SHALL BE PLACED IN LOCATIONS NOTED OR AS DIRECTED AND/OR APPROVED BY THE ENGINEER. (SEE DETOUR SIGN KEY)



DETOUR PLAN
NB I-265 TO TAYLORSVILLE RD.

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

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



DETOUR PLAN
TAYLORSVILLE RD. TO SB I-265

COUNTY OF	ITEM NO.
JEFFERSON	5-20020.00

DETOUR SIGNS KEY

PORTABLE CHANGEABLE MESSAGE SIGNS

1A
BILLTOWN RD
TO NB I-265
CLOSED
FOLLOW
DETOUR

1B
BILLTOWN RD.
TO SB I-265
CLOSED
FOLLOW
DETOUR

1C
KY 155
TO NB I-265
CLOSED
FOLLOW
DETOUR

1D
NB I-265
TO KY 155
CLOSED
FOLLOW
DETOUR

1E
KY 155
TO SB I-265
CLOSED
FOLLOW
DETOUR

2

M4-9

4

M4-9

6

M4-8A

3

E5-2A

5

M4-9

DETOUR SIGNING
DETAIL SHEET

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. Kentucky Department of Highways Standard Drawings, current editions, as applicable:

RBB-002	Guardrail and Bridge End Drainage For Twin Structures
RBB-003	Layout of Guardrail At Twin Structures-Depressed Median
RBC-002	Guardrail Connector to Bridge End Type A Components
RBC-003	Guardrail Connector to Bridge End Type A and A1 Components
RBC-005	Guardrail Connector to Bridge End Type A
RBC-006	Guardrail Connector to Bridge End Type A-1
RBI-001	Typical Guardrail Installations
RBI-002	Typical Guardrail Installations
RBI-003	Typical Installation for Guardrail End Treatment Type 2A
RBI-004	Installation of Guardrail End Treatment Type 1
RBI-006	Guardrail Installation at Sign Supports
RBM-020	Delineators for Concrete Barriers
RBR-001	Steel Beam Guardrail (“W” Beam)
RBR-005	Guardrail Components
RBR-015	Steel Guardrail Posts
RBR-020	Guardrail End Treatment Type 1
RBR-025	Guardrail End Treatment Type 2A
RBR-035	Guardrail End Treatment Type 4A
RBR-055	Delineators for Guardrail
RDB-005	Drop Box Inlet Type 5B
RDB-106	Grates for Sloped and Flared Box Inlet-Outlet
RDD-021	Flume Inlet Type 2
RDD-040	Channel Lining Class II and III
RDI-001	Culvert, Entrance & Storm Sewer Pipe Types & Cover Heights
RDI-002	Culvert, Entrance & Storm Sewer Pipe Types & Cover Heights
RDI-020	Pipe Bedding for Culverts, Entrance and Storm Sewer Pipe
RDI-021	Pipe Bedding for Culverts, Entrance and Storm Sewer Reinforced Concrete Pipe
RDI-025	Pipe Bedding, Trench Condition
RDI-026	Pipe Bedding Trench Condition Reinforced Conc. Pipe
RDI-040	Erosion Control Blanket Slope Installation
RDI-041	Erosion Control Blanket Channel Installation
RDX-050	Subgrade Drainage Concrete Pavement
RDX-060	Intermediate and End Anchors for Circular Pipe
RDX-160	Security Devices for Frames, Grates and Lids

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-100	Curb and Gutter, Curbs, and Valley Gutter
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*	Non-Reinforced 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-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
TPM-200	Typical Entrance Ramp Markings For Interstates and Parkways
TPM-201	Typical Exit Ramp Markings For Interstates and Parkways
TPM-202	Typical Exit Ramp Markings For Interstates and Parkways
TPM-203	Typical Markings at Signalized Intersections
TPM-204	Typical Markings for Gore Areas
TPM-205	Typical Markings for Islands and Medians
TPM-206	Typical Markings for Turn Lanes
TPM-207	Typical Markings for Turn Lanes
TPR-115	Shoulder and Edge line Rumble Strip Details
TPR-130	Rumble Strip Details Multi-Lane Roadways and Ramps
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.

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

Special Note 1I	Portable Changeable Message Signs
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	Sealing Existing Transverse and Longitudinal Joints and Random Cracks *attached*
Special Note	Polymer Modified Partial Depth Patching *attached*
Special Note	Class 1A Geotextile Fabric for Structural Pavement *attached*
Special Note	Concrete Slurry *attached*
Special Note	Preformed Quadrapole Loops *attached*
Special Note	Material, Installation, and Bid Item Notes for Permanent Data Acquisition Stations *attached*
Special Note	Bridge Repair Items *attached*

September 2, 2020

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 ½" 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.

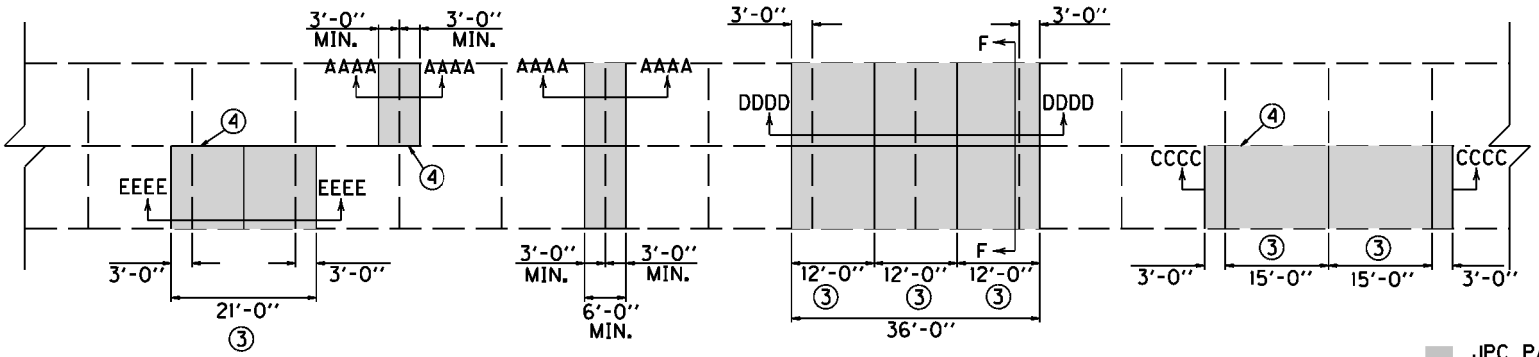
3000 psi and up	100% payment
2750 to 3000 psi	75% payment and approval from the Engineer to open to traffic*
2500 to 2750 psi	50% payment and approval from the Engineer to open to traffic*
2250 to 2500 psi	25% payment and approval from the Engineer to open to traffic*
Below 2250 psi	10% payment and no 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:

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



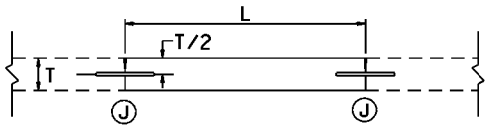
PLAN VIEW

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION CCCC), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION CCCC) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION CCCC) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.

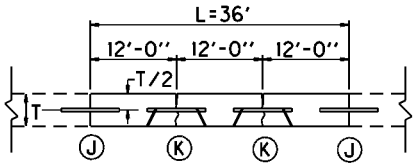
(3) IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND CONSTRUCT CONTRACTION JOINTS SUCH THAT THE DISTANCE BETWEEN JOINTS IN THE REPLACED SECTION IS NO LESS THAN 10 FEET OR MORE THAN 20 FEET. TRANSVERSE JOINTS SHALL BE SPACED APPROXIMATELY 15' EQUIDISTANT, BUT NOT LESS THAN 10 FEET OR NO MORE THAN 20 FEET. ADJUST JOINTS TO PROVIDE THE MINIMUM NUMBER OF JOINTS WITHOUT EXCEEDING THE 10-20 FOOT RANGE. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH AN EXISTING JOINT OR CRACK IN THE ADJACENT SLAB IF ONLY ONE LANE IS BEING REPLACED.

(4) IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.

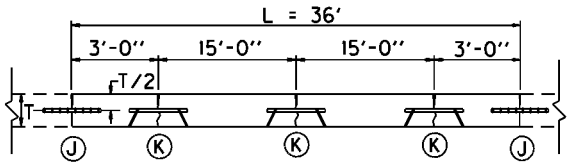
5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION CCCC) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.



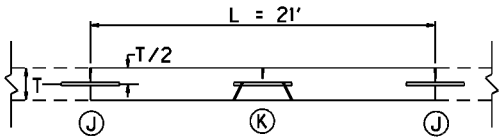
SECTION AAAA
JOINT REPLACEMENT



SECTION DDDD
FULL WIDTH REPLACEMENT
(INCLUDING JPC SHOULDERS)



SECTION CCCC
LANE REPLACEMENT WHERE ADJACENT
LANES OR JPC SHOULDERS WILL REMAIN

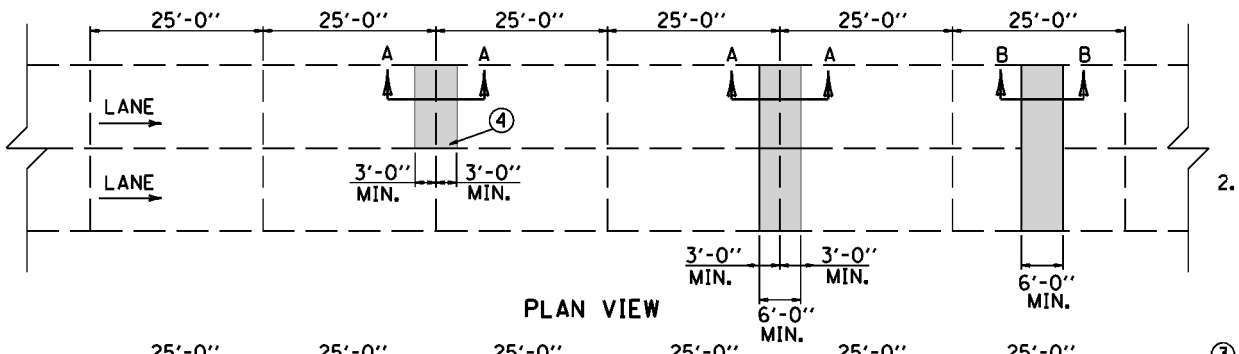


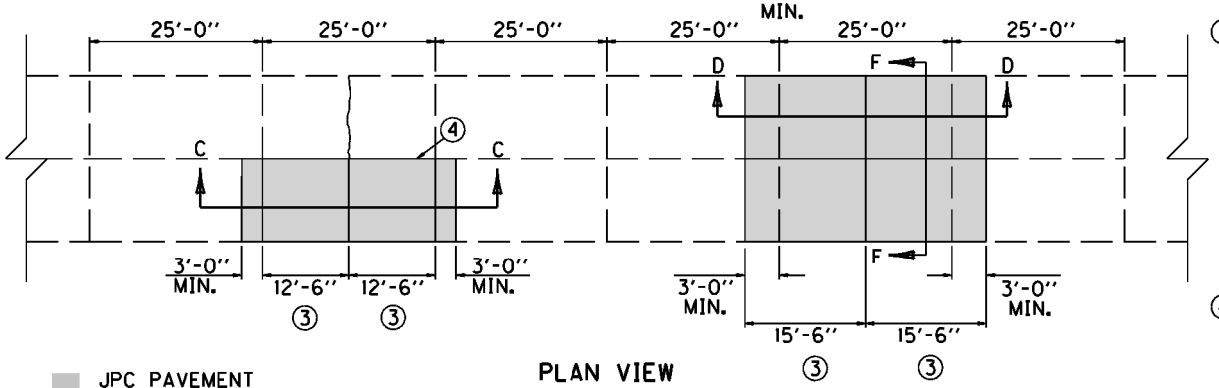
SECTION EEEE
LANE REPLACEMENT L≤25'

KENTUCKY
DEPARTMENT OF HIGHWAYS

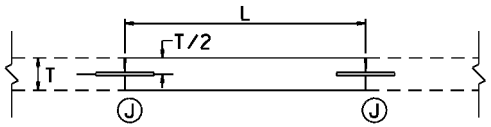
15' JOINT SPACING

APPROVED _____ _____
TEBM DIVISION OF DESIGN DATE

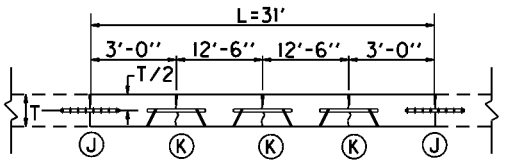




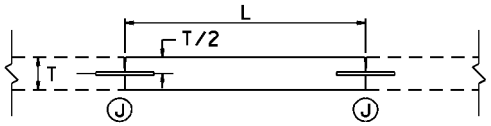
JPC PAVEMENT TO BE REMOVED



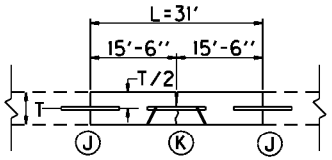
SECTION A
JOINT REPLACEMENT



SECTION C
LANE REPLACEMENT WHERE ADJACENT LANES OR JPC SHOULDERS WILL REMAIN



SECTION B
MID-SLAB REPLACEMENT



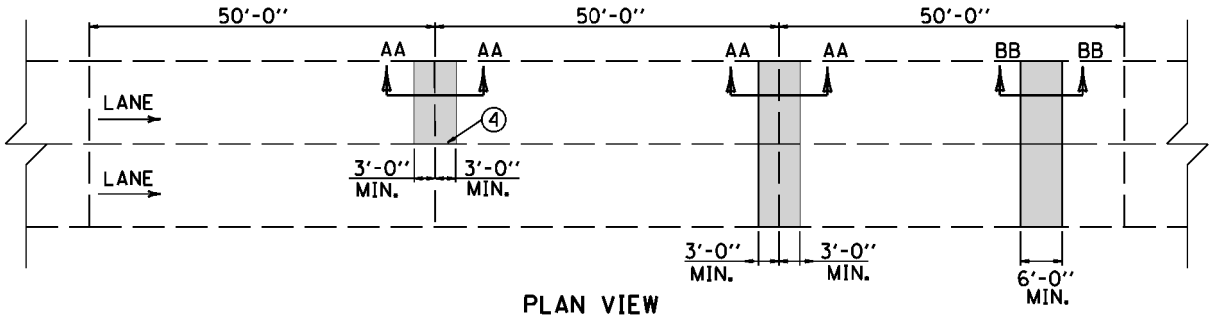
SECTION D
FULL WIDTH REPLACEMENT
(INCLUDING JPC SHOULDERS)

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION C), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION C) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION C) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.
③ IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND CONSTRUCT CONTRACTION JOINTS SUCH THAT THE DISTANCE BETWEEN JOINTS IN THE REPLACED SECTION IS NO LESS THAN 10 FEET OR MORE THAN 20 FEET. TRANSVERSE JOINTS SHALL BE SPACED APPROXIMATELY 15' EQUIDISTANT, BUT NOT LESS THAN 10 FEET OR NO MORE THAN 20 FEET. ADJUST JOINTS TO PROVIDE THE MINIMUM NUMBER OF JOINTS WITHOUT EXCEEDING THE 10-20 FOOT RANGE. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH AN EXISTING JOINT OR CRACK IN THE ADJACENT SLAB IF ONLY ONE LANE IS BEING REPLACED.
④ IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.
5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION C) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.

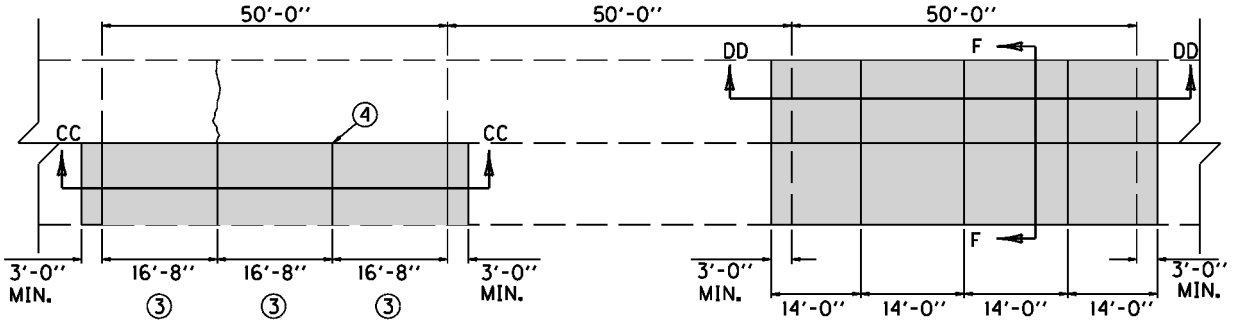
KENTUCKY DEPARTMENT OF HIGHWAYS

25' JOINT SPACING

APPROVED _____ TEBM DIVISION OF DESIGN _____ DATE

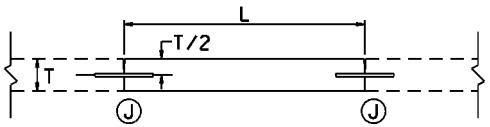


PLAN VIEW

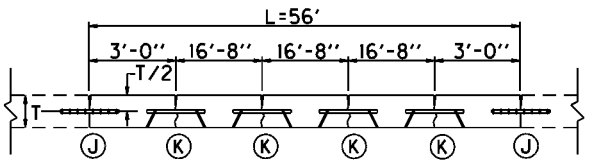


JPC PAVEMENT TO BE REMOVED

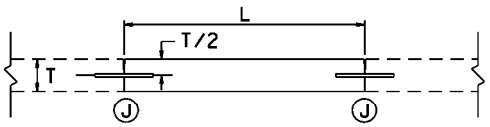
PLAN VIEW



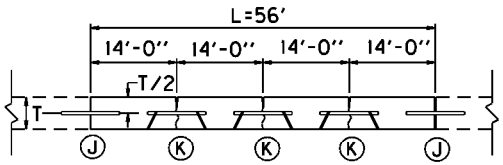
SECTION AA
JOINT REPLACEMENT



SECTION CC
LANE REPLACEMENT WHERE ADJACENT LANES OR JPC SHOULDERS WILL REMAIN



SECTION BB
MID-SLAB REPLACEMENT



SECTION DD
FULL WIDTH REPLACEMENT
(INCLUDING JPC SHOULDERS)

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION CC), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION CC) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION CC) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.

③ IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND CONSTRUCT CONTRACTION JOINTS SUCH THAT THE DISTANCE BETWEEN JOINTS IN THE REPLACED SECTION IS NO LESS THAN 10 FEET OR MORE THAN 20 FEET. TRANSVERSE JOINTS SHALL BE SPACED APPROXIMATELY 15' EQUIDISTANT, BUT NOT LESS THAN 10 FEET OR NO MORE THAN 20 FEET. ADJUST JOINTS TO PROVIDE THE MINIMUM NUMBER OF JOINTS WITHOUT EXCEEDING THE 10-20 FOOT RANGE. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH AN EXISTING JOINT OR CRACK IN THE ADJACENT SLAB IF ONLY ONE LANE IS BEING REPLACED.

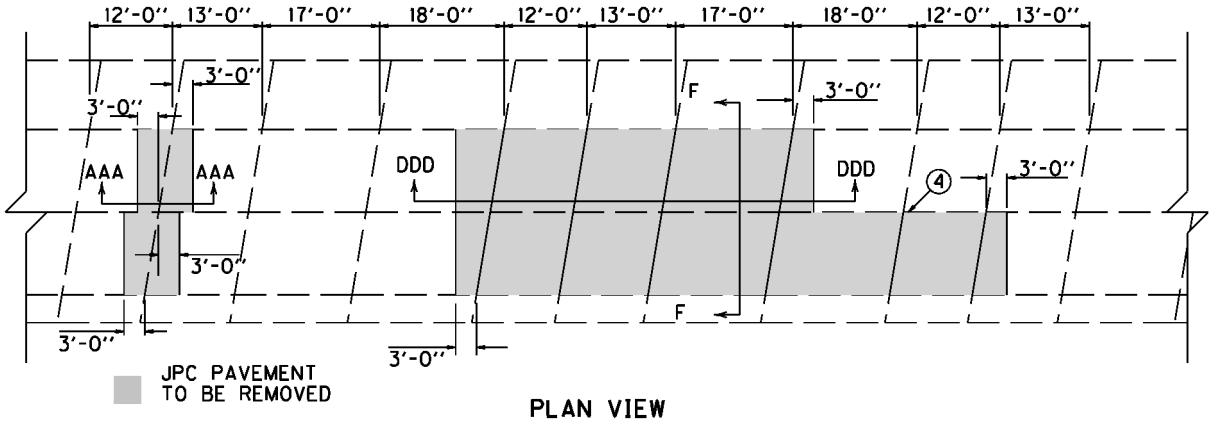
④ IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.

5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION CC) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.

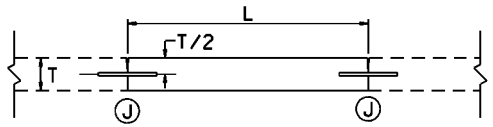
KENTUCKY DEPARTMENT OF HIGHWAYS

50' JOINT SPACING

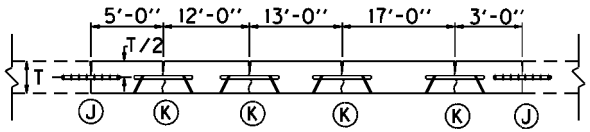
SUBMITTED _____ TEBM DIVISION OF DESIGN _____ DATE



PLAN VIEW



SECTION AAA
JOINT REPLACEMENT



SECTION DDD
LANE REPLACEMENT
(ALWAYS MATCH EXISTING JOINTS)

1. SAW AT LOCATIONS "J" AND ALONG LONGITUDINAL JOINT (IF ONLY ONE LANE IS REMOVED) FULL DEPTH WITHOUT DAMAGE TO EXISTING CONCRETE. SAW RELIEF JOINTS AS THE ENGINEER DIRECTS OR APPROVES. REMOVE THE EXISTING JPC PAVEMENT TO THE LENGTH AND AT THE LOCATIONS NOTED ELSEWHERE IN THE CONTRACT. L=6 FEET MINIMUM AND LOCATIONS "J" SHALL NOT BE CLOSER THAN 6 FEET TO ANY TRANSVERSE JOINT BEYOND THE REPAIR.
2. INSTALL SMOOTH, LOAD TRANSFER DOWELS (EXCEPT USE TIE BARS FOR SECTION DDD), 18 INCHES LONG (SEE STANDARD DRAWING NO. RPS-020 FOR DOWEL SIZE) AT LOCATIONS "J". INSTALL DOWELS (OR TIE BARS FOR SECTION DDD) IN THE EXISTING CONCRETE USING EPOXY TYPE IV. INSTALL DOWELS (OR TIE BARS FOR SECTION DDD) ON 12 INCH CENTERS BEGINNING 12 INCHES FROM THE EDGE OF THE SLAB.
3. IF L IS GREATER THAN 20 FEET, INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND MATCH EXISTING JOINTS. INSTALL NEW LOAD TRANSFER ASSEMBLY(S) AND ALIGN LOAD TRANSFER ASSEMBLY(S) WITH EXISTING JOINTS IN ADJACENT SLABS.

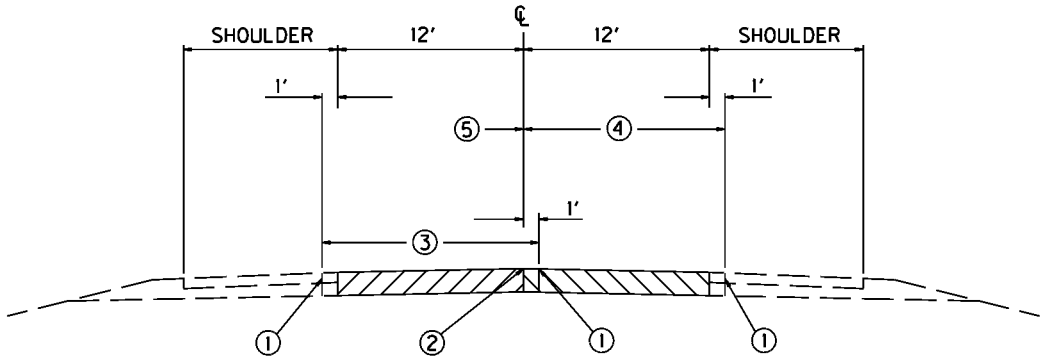
④ IF ONLY ONE LANE IS REMOVED, AND L>25', INSTALL NEW 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS IN THE LONGITUDINAL JOINT USING EPOXY TYPE IV. IF 2 OR MORE LANES ARE REMOVED, CONSTRUCT LONGITUDINAL JOINT(S) ACCORDING TO THE STANDARD DRAWING EXCEPT USE 1-INCH TIE BARS 18 INCHES LONG ON 30 INCH CENTERS. IF L≤25', DO NOT TIE THE LONGITUDINAL JOINT TO THE EXISTING LANE; USE A BOND BREAKER MATERIAL APPROVED BY THE ENGINEER THAT WILL ASSURE NO INTERACTION WITH THE ADJACENT LANE.

5. REPLACE WITH NON-REINFORCED JPC PAVEMENT AND INSTALL CONTRACTION JOINTS AT LOCATIONS "K" AND CONTRACTION JOINTS (OR A CONSTRUCTION JOINT FOR LOCATION DDD) AT LOCATIONS "J". SAW AND SEAL ALL JOINTS.
6. SEE "CROSS SECTION" FOR SECTION F.

KENTUCKY
DEPARTMENT OF HIGHWAYS

RANDOM SKEWED

APPROVED _____ DATE _____
TEBM DIVISION OF DESIGN



SECTION F

① SAW-CUT LINE. THIS ONE FOOT IS TO ALLOW FOR A FORM AND THE REMOVAL AND REPLACEMENT SHALL BE INCIDENTAL TO THE WORK, EXCEPT NEW ASPHALT MIXTURE SHALL BE PAID DIRECT ON A TONNAGE BASIS, AND NEW JPC PAVEMENT WILL BE PAID BY THE SQUARE YARD. COMPACT THE DGA BASE BY MECHANICAL TAMPERS TO THE ENGINEER'S SATISFACTION.

② EXISTING LONGITUDINAL JOINT.

③ FIRST SLAB REMOVAL LIMITS AND REPLACE 12-FOOT LANE.

④ SECOND SLAB REMOVAL LIMITS AND REPLACE 12-FOOT LANE.

⑤ THIS ONE FOOT IS TO ALLOW FOR A FORM ON THE FIRST POUR, AND A TEMPORARY PAVEMENT IS REQUIRED. THE DEPARTMENT WILL NOT REQUIRE REMOVAL OF THIS ONE FOOT IF THE GRADE OF THE EXISTING PAVEMENT IS ADEQUATE TO ENSURE THE NEW CONCRETE CAN BE PLACED AND FINISHED TO THE SATISFACTION OF THE ENGINEER. ANY TEMPORARY PAVEMENT IS INCIDENTAL TO JPC PAVEMENT.

6. THE ABOVE DRAWING DEPICTS THE ORDER OF SLAB REMOVAL WHEN BOTH ARE TO BE REMOVED AT THE SAME LOCATION. WHEN ONLY ONE SLAB OR LANE IS TO BE REMOVED, REMOVE AND REPLACE ACCORDING TO SECTION C, CC, OR CCCC. TRAFFIC CONTROL WILL SPECIFY WHICH LANE TO REMOVE FIRST.

KENTUCKY
DEPARTMENT OF HIGHWAYS

CROSS SECTION

APPROVED _____ _____
TEBM DIVISION OF DESIGN DATE

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS
I-265

The dimensions shown on the typical sections for pavement and shoulder widths are nominal or typical dimensions. The actual dimensions to be constructed 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-265
Jefferson County
Item No. 5-20020.00

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 **August 31, 2021**.

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 calender 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.

CODE	PAY ITEM	PAY UNIT
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

PROPERTY	METHOD	REQUIREMENT
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 moister 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

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 ¾" 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 ¾" 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:

Code	Pay Item	Pay Unit
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 Crafco Techcrete (R or TBR). Other products that fully meet this specification will also be accepted if approved by the Engineer.

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.

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:

Code	Pay Item	Pay Unit
02604	FABRIC-GEOTEXTILE CLASS 1A	Square Yard

SPECIAL NOTE FOR PREFORMED QUADRAPOLE LOOPS

1.0 DESCRIPTION. Be advised that there are existing traffic signal loop detectors within the construction limits of this project. Except as specified herein, perform all work in accordance with the Department's Standard/Supplemental Specifications, Special Provisions, Special Notes, and Standard/Sepia Drawings, current editions, and as directed by the Engineer. Article references are to the Standard Specifications. Furnish all materials, equipment, labor, and incidentals for placement of preformed quadrapole loops, preformed loops, preformed loop/lead-In, loop lead-in, conduit, junction box, wiring, and connection to the existing signal system.

1.1 PREBID REQUIREMENTS. Conform to Subsection 723.03.17

2.0 MATERIALS. Except as provided herein, provide materials according to Subsection 723.02 and Section 835. Provide for materials to be sampled and tested in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing, unless otherwise specified in this Special Note.

2.1 Preformed Quadrapole Loops or Preformed loops. All preformed loop wire shall be 16-gauge THWN stranded copper, single conductor in a 2-4-2 configuration for Quadrapole as shown on the Quadrapole Loop detail. If it is a 6'x6' loop, the loop shall have 3 turns installed in the preformed loop. The loop shall be housed in a class A oil resistant heavy-duty reinforced rubber hose with a 250-PSI internal pressure rating. Hose for the loop assembly shall be one continuous piece. The 3/8" I.D. (5/8" O.D.) hose shall be factory assembled. Preformed loops shall be pre-wired. The loop configuration lengths shall be assembled for the specific application. Hose tee connections shall be high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing the glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking. Preformed loop quadrapole loops.

Bid item 20453ES835 is used for 6'x30' loops, and bid item 20452ES835 is used for 6'x6' loops.

2.2 Preformed Loop/Lead-In. All preformed loop/lead-in (homerun) wire shall be 16-gauge THWN stranded copper, single conductor in a 2 configuration for homerun wire as shown on the quadrapole Loop detail. The homerun wire is from the junction box to the edge of the quadrapole loop. The home run shall be housed in a class A oil resistant heavy-duty reinforced rubber hose with a 250-PSI internal pressure rating. Hose for the loop and home run wire assembly shall be one continuous piece from the hose tee. The 3/8" I.D. (5/8" O.D.) hose shall be factory assembled. Homerun wires shall be pre-wired. The homerun lengths shall be assembled for the specific application. Hose tee connections shall be high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing the glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking.

2.3 Maintain and Control Traffic. See Traffic Control Plan.

2.4 Sand. Furnish natural sand meeting the requirements of Subsection 804.04.01.

2.5 Seeding. Furnish Seed Mix Type I.

2.6 Loop Saw Slot and Fill. Furnish loop sealant, backer rod, and non-shrink grout according to the Saw Slot Detail. Use if sawing into existing pavement. Usually, the preformed loops will be laid on the ground under the final concrete inlay.

2.7 Junction Boxes. Furnish junction box type B, #57 aggregate, and geotextile filter type IV according to junction box detail.

2.8 Cable No. 14/1 pair. Furnish cable that is specified in Section 835. Cable shall be ran splice free. This shall include splice kits to connect to the preformed loop/lead-in (homerun).

2.9 Conduit. Furnish and install appropriate conduit from transitions to the roadway, junction boxes and poles. See details below.

3.0 CONSTRUCTION. Except as specified herein, install and test Preformed Quadrapole Loops in accordance with Section 723 and the drawings.

3.1 Testing. Conform to Subsection 723.03.17 (A)

3.2 Coordination. Conform to Subsection723.03.17 (B)

3.3 Connection. Conform to Subsection 723.03.17 (C)

3.4 Maintain and Control Traffic. See Traffic Control Plan.

3.5 Concrete inlays. Conform to Subsection 723.03.17 (E)

3.6 Milling. Conform to Subsection 723.03.17 (F)

3.7 **Loop Saw Slot and Fill.** Conform to Subsection 723.03.13 (A).

3.8 Backfilling and Disturbed Areas. Conform to Subsection 723.03.11.

3.9 Removal: Conform to Subsection 723.03.16.

3.10 Property/roadway Damage. Conform to Subsection 723.03.17 (J).

3.11 Right-of-Way Limits. Conform to Subsection 723.03.17 (K).

3.12 Utility Clearance. Conform to Subsection 716.03.01.

3.13 Control. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to permit other contractors, state forces, public utility companies, and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with each other's work will be reduced to a minimum. The Contractor agrees to make no claims against the Department for additional compensation due to delays or other conditions created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

3.14 Bore and Jack. Conform to Subsection 723.03.06 (I).

3.15 Open Cut Roadway. Conform to Subsection 723.03.06 (I).

4.0 MEASUREMENT. See Subsection 723.04 for bid item notes. Additional bid items include the following:

4.1 Preformed loop quadrapole loops. Use bid note for loop wire in subsection 723.04.05.

4.2 Preformed loops. Use bid note for loop wire in subsection 723.04.05.

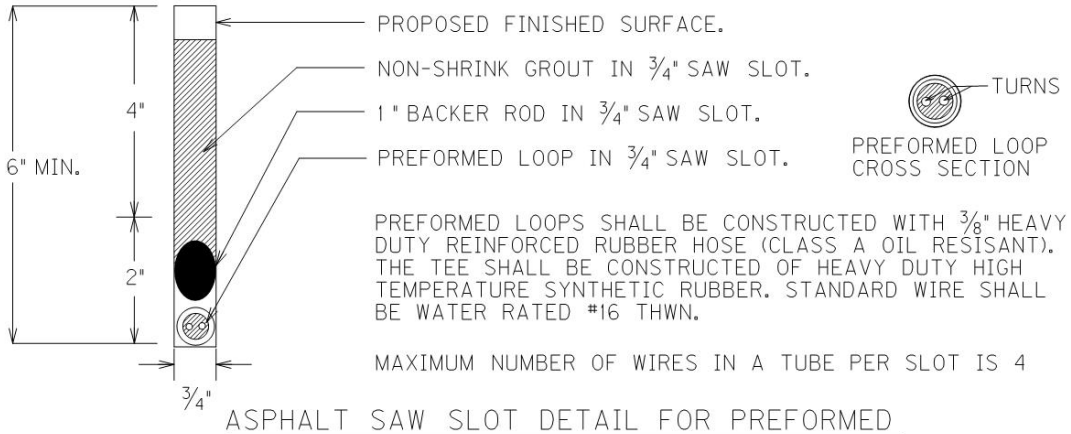
4.3 Preformed loop/lead-in. Use bid note for loop wire in subsection 723.04.05.

4.4 Loop Test. The Department will measure the quantity as each individual unit loop tested. The Department will not measure disconnection, reconnection, traffic control, re-splicing per specifications, before and after testing per note above, and any associated hardware for payment and will consider them incidental to this item of work.

5.0 PAYMENT. The Department will make payment for the completed and accepted quantities of listed items according to Subsection 723.05 in addition to the following:

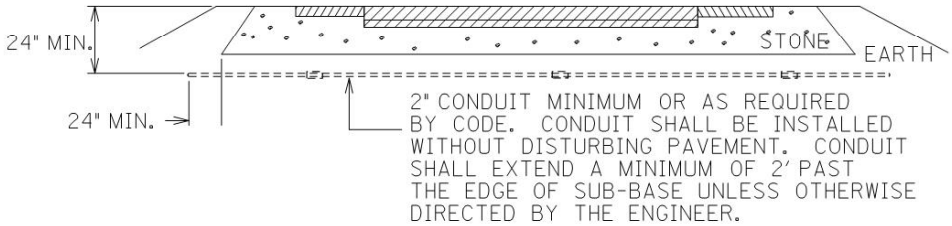
Code	Pay Item	Pay Unit
Conduit 1”	4792	Linear Foot
PVC Conduit – 1 ¼ inch – sch 80	24900EC	Linear Foot
PVC Conduit – 2 inch – sch 80	24901EC	Linear Foot
Conduit 2”	4795	Linear Foot
Preformed loop quadrapole loops	20453ES835	Linear Foot
Preformed loops	20452ES835	Linear Foot
Preformed loop/lead-in	4894	Linear Foot
Electrical Junction boxes type B	4811	Each
Loop Test	24963ED	Each
Trenching and Backfilling	4820	Linear Foot
Loop Wire	4830	Linear Foot
Cable-No. 14/1 Pair	4850	Linear Foot[1]
Loop Saw Slot and Fill	4895	Linear Foot[1]
Bore and Jack Conduit	21543EN	Linear Foot[3]
Open Cut Roadway	4821	Linear Foot[3]

The Department will consider payment as full compensation for all work required under these notes and the Standard Specifications.

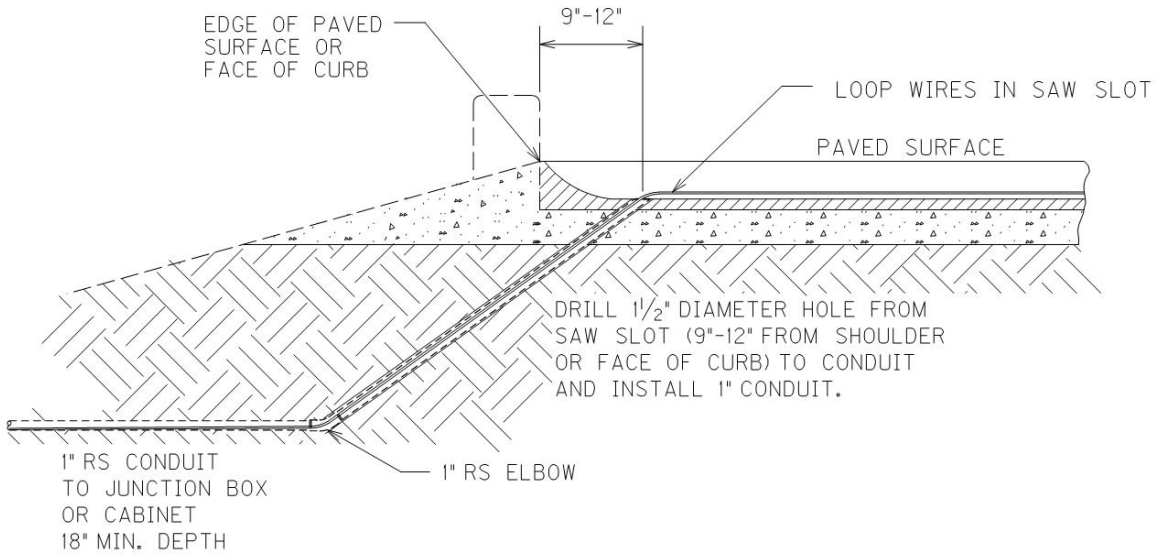


ASPHALT SAW SLOT DETAIL FOR PREFORMED

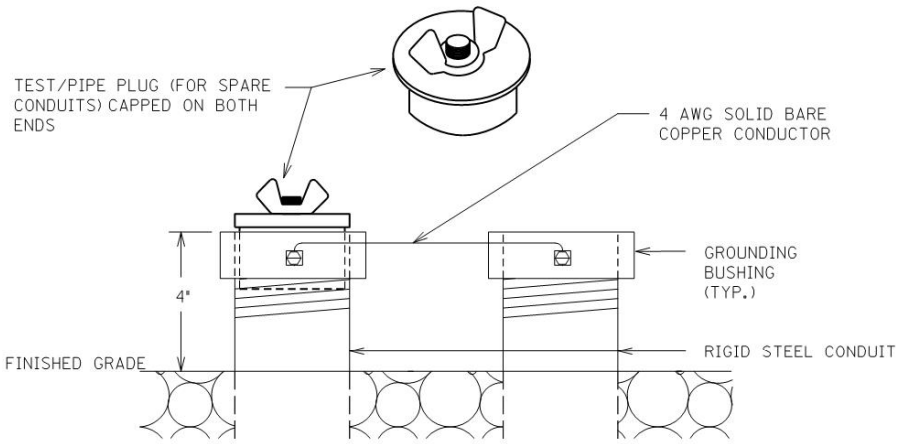
Use detail for concrete application if concrete is four inches or less



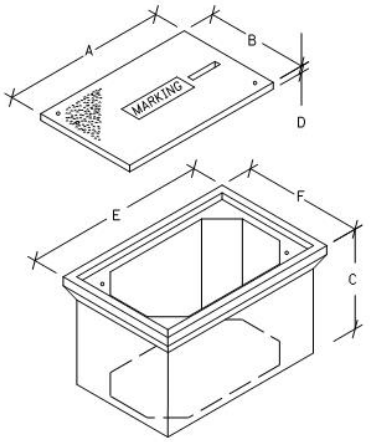
CONDUIT UNDER EXISTING PAVEMENT DETAIL



SAW SLOT EDGE OF PAVEMENT TRANSITION



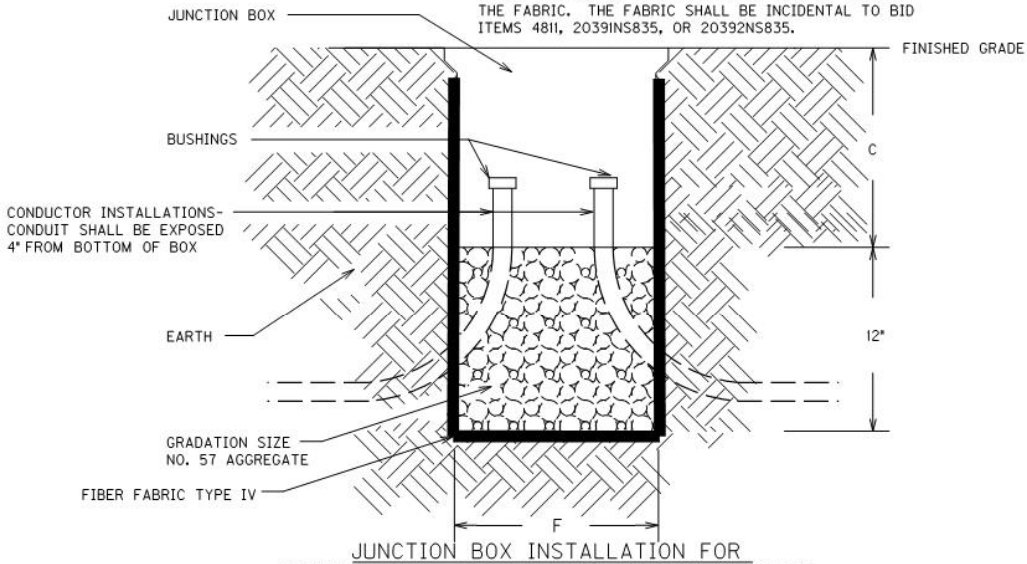
TEST/PIPE PLUG(FOR SPARE CONDUITS) AND GROUNDING DETAIL



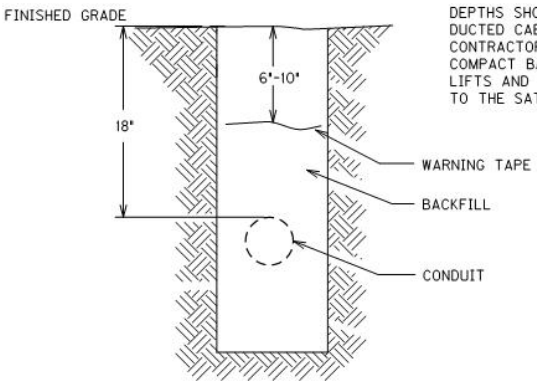
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D	E	F
TYPE A	23"	14"	27"	2"	25"	15"
TYPE B	18"	11"	12"	1¾" *	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
NOTE: STACKABLE BOXES ARE PERMITTED

BEFORE THE INSTALLATION OF THE #57 AGGREGATE AND JUNCTION BOX, THE CONTRACTOR SHALL INSTALL GEOTEXTILE FILTER FABRIC TYPE IV IN THE HOLE. THE FABRIC SHALL EXTEND TO JUST BELOW THE LIP OF THE JUNCTION BOX AND SHALL BE CONTINUOUSLY ADHERED TO THE EXTERIOR OF THE BOX WITH ADHESIVE. ANY LOCATIONS WHERE CONDUITS ENTER THE BOX, THE FABRIC SHALL BE 'X CUT' ONLY AS MUCH AS NECESSARY TO ALLOW PASSAGE OF EACH INDIVIDUAL CONDUIT THROUGH THE FABRIC. THE FABRIC SHALL BE INCIDENTAL TO BID ITEMS 4811, 2039INS835, OR 20392NS835.

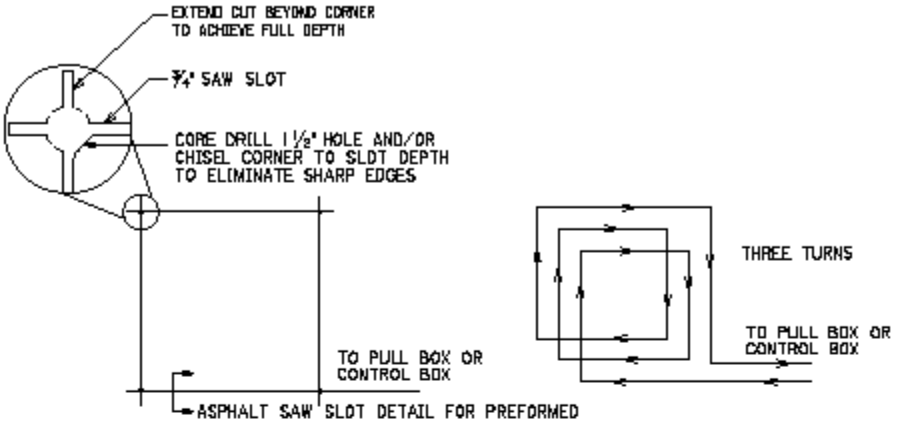


JUNCTION BOX INSTALLATION FOR
CONVENTIONAL LIGHTING OR TRAFFIC SIGNALS

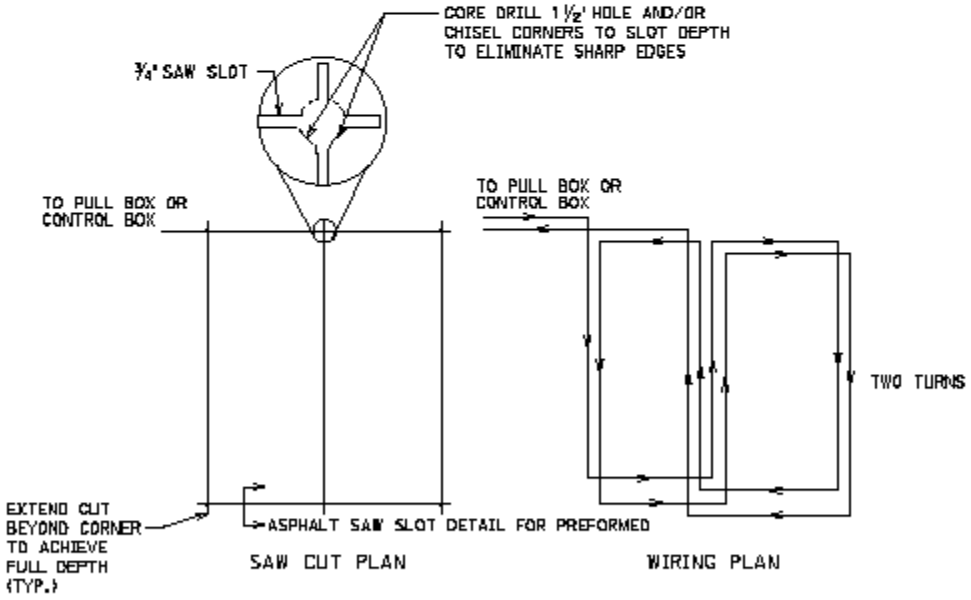


DEPTHS SHOWN FOR CONDUIT AND DUCTED CABLE ARE MINIMUMS. CONTRACTOR SHALL PLACE AND COMPACT BACKFILL IN 9" MAXIMUM LIFTS AND RETORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER.

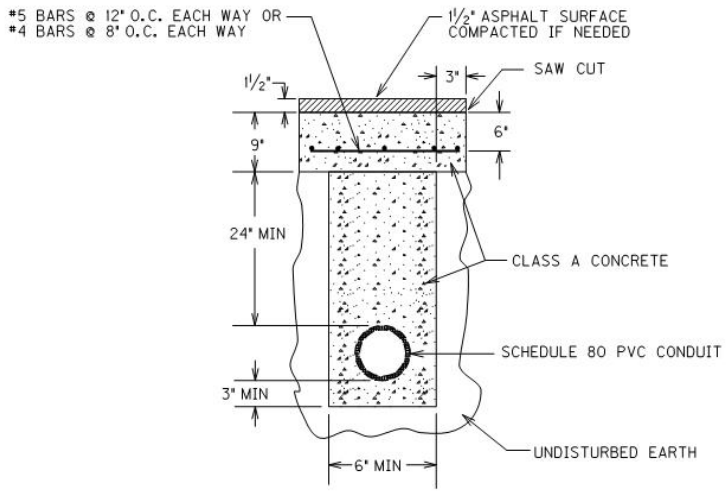
CONDUIT AND WARNING TAPE TRENCH



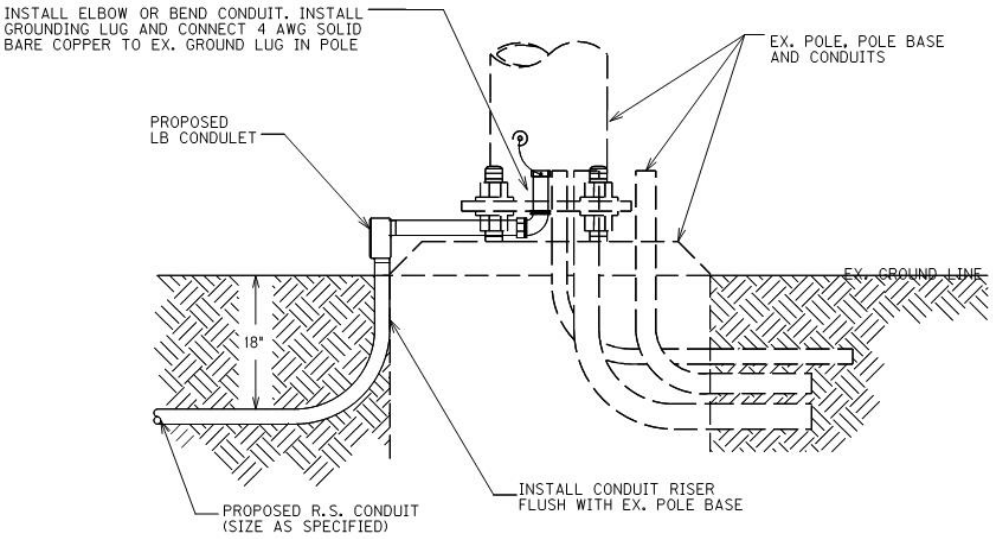
6'X6' LOOP



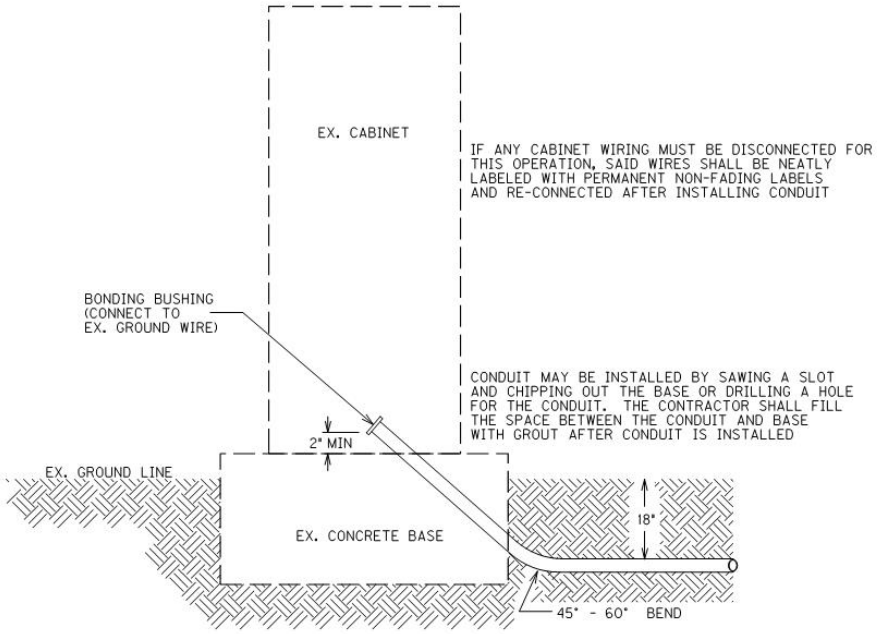
6'X30' QUADRAPOLE LOOP



OPEN CUT PAVEMENT DETAIL



CONDUIT INSTALLATION IN EX. POLE BASE



CONDUIT INSTALLATION IN EX. CABINET BASE

JEFFERSON CO. I-265 ~m.p. 22.35
~LAT/LONG N 38.178353, W 85.511487 (WB)
~LAT/LONG N 38.177694, W 85.511894 (EB)
STATION D35

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 THE 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 CABINETS.

INSTALL TWO (2) TYPE B JUNCTION BOXES (JB B1, JB B2).

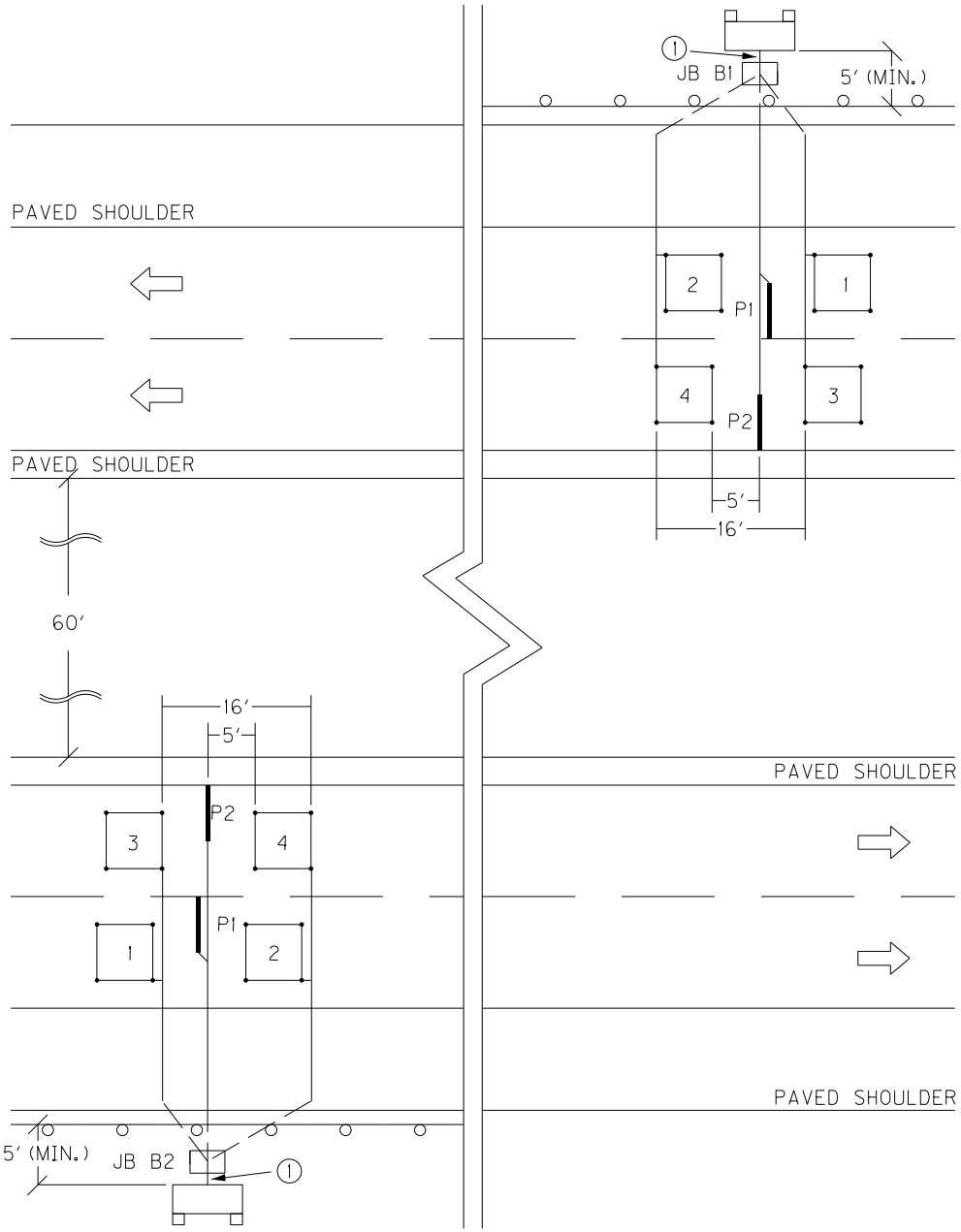
INSTALL ONE (1) 1¼" CONDUIT FROM EACH SAW SLOT TO NEAREST JUNCTION BOX.

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

REMOVE ALL EXISTING EQUIPMENT (JUNCTION BOXES, CONDUIT, WIRE, ETC.) AND DISPOSE OF OFF THE PROJECT.

CODED NOTE:

① INSTALL ONE (1) 1¼" CONDUIT.



SCALE 1"=20'

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	60
4795	CONDUIT 2 INCH	LIN FT	20
4811	ELECTRICAL JUNCTION BOX TYPE B	EACH	2
4820	TRENCHING AND BACKFILLING	LIN FT	70
4821	OPEN CUT ROADWAY	LIN FT	
4829	PIEZOELECTRIC SENSOR	EACH	4
4830	LOOP WIRE	LIN FT	1650
4850	CABLE NO. 14/1 PAIR	LIN FT	
4871	POLE – 35’ WOODEN	EACH	
4895	LOOP SAW SLOT AND FILL	LIN FT	400
4899	ELECTRICAL SERVICE	EACH	
20213EC	INSTALL PAD MOUNT ENCLOSURE	EACH	
20359NN	GALVANIZED STEEL CABINET	EACH	2
20360ES818	WOOD POST	EACH	4
20391NS835	ELECTRICAL JUNCTION BOX TYPE A	EACH	
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.

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 ¾ 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. Strandvise for Guy Wire

Strandvise 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 ½ 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/m3; 6 lbs/ft3
- 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 $2^1/_8$ inch box with ¾ inch side and end knockouts and a 1½ 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 ¼ inch wood screws.

2.14.2. Mounting Strap for Pole Mount Cabinet

Mounting strap for pole mount cabinet shall be ¾ 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 38ºF.

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 ¾ inch conduit with three 8 AWG service conductors from the cabinet, through the service disconnect to the meter base and a 1¼" 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 1-¾" 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 ¾ 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 ¾ 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 1-¾" conduit form cabinet to ground rod.

Install one ¾ 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 condulet(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 45º 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.

- It is strongly recommended that a ¾ inch wide diamond blade be used for cutting the slot, or that blades be ganged together to provide a single ¾ inch wide cut. The slot shall be wet cut to minimize damage to the pavement.
- Cut a slot ¾ inch wide (±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 ½ 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 ¼ 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 1½ inch hole on a 45º 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 ±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).

- 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 ±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 **s**igns 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:

Enclosure Type	Additional length of each wire
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.

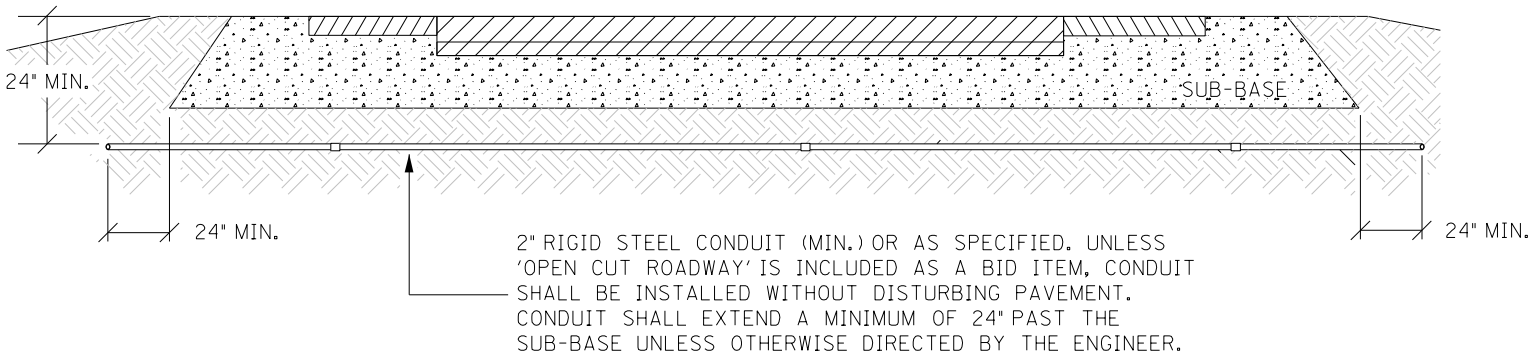
4.17. Wire or Cable

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

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.

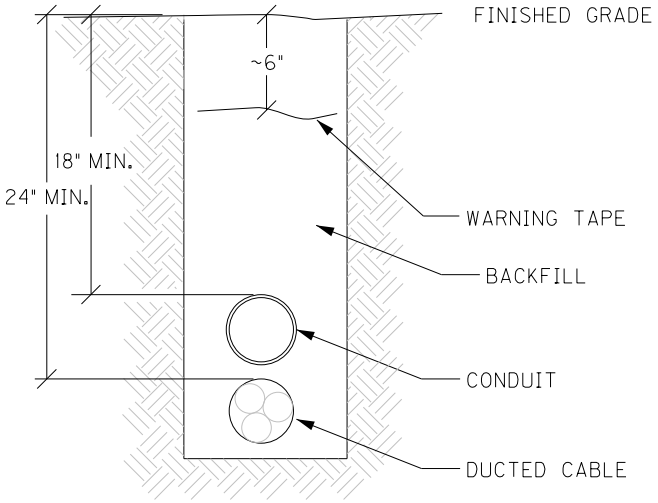


CONDUIT UNDER PAVEMENT

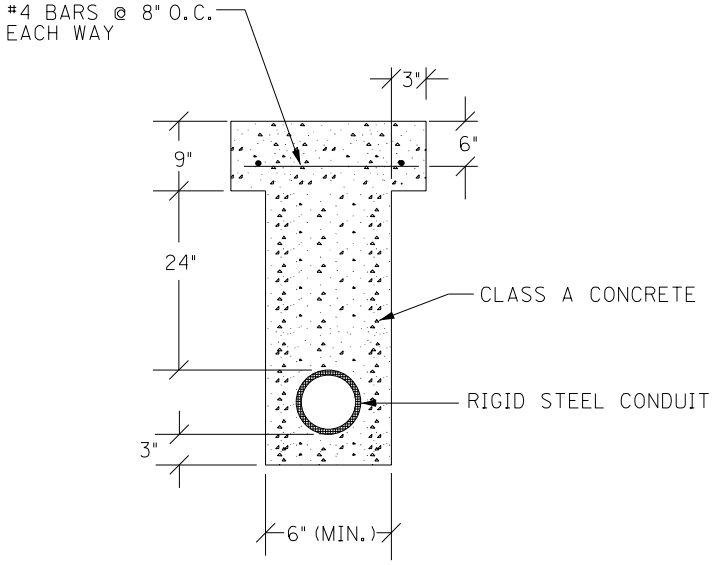
TOTAL TRENCH WIDTH SHALL BE 3" (NOM.) WIDER THAN THE SUM OF THE OUTSIDE DIAMETER(S) OF THE CONDUIT(S) INSTALLED. CONDUIT(S) SHALL BE CENTERED IN TRENCH.

CONTRACTOR SHALL PLACE BACKFILL IN LIFTS (9" MAX.) COMPACT BACKFILL, AND RESTORE DISTURBED AREA TO THE SATISFACTION OF THE ENGINEER

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



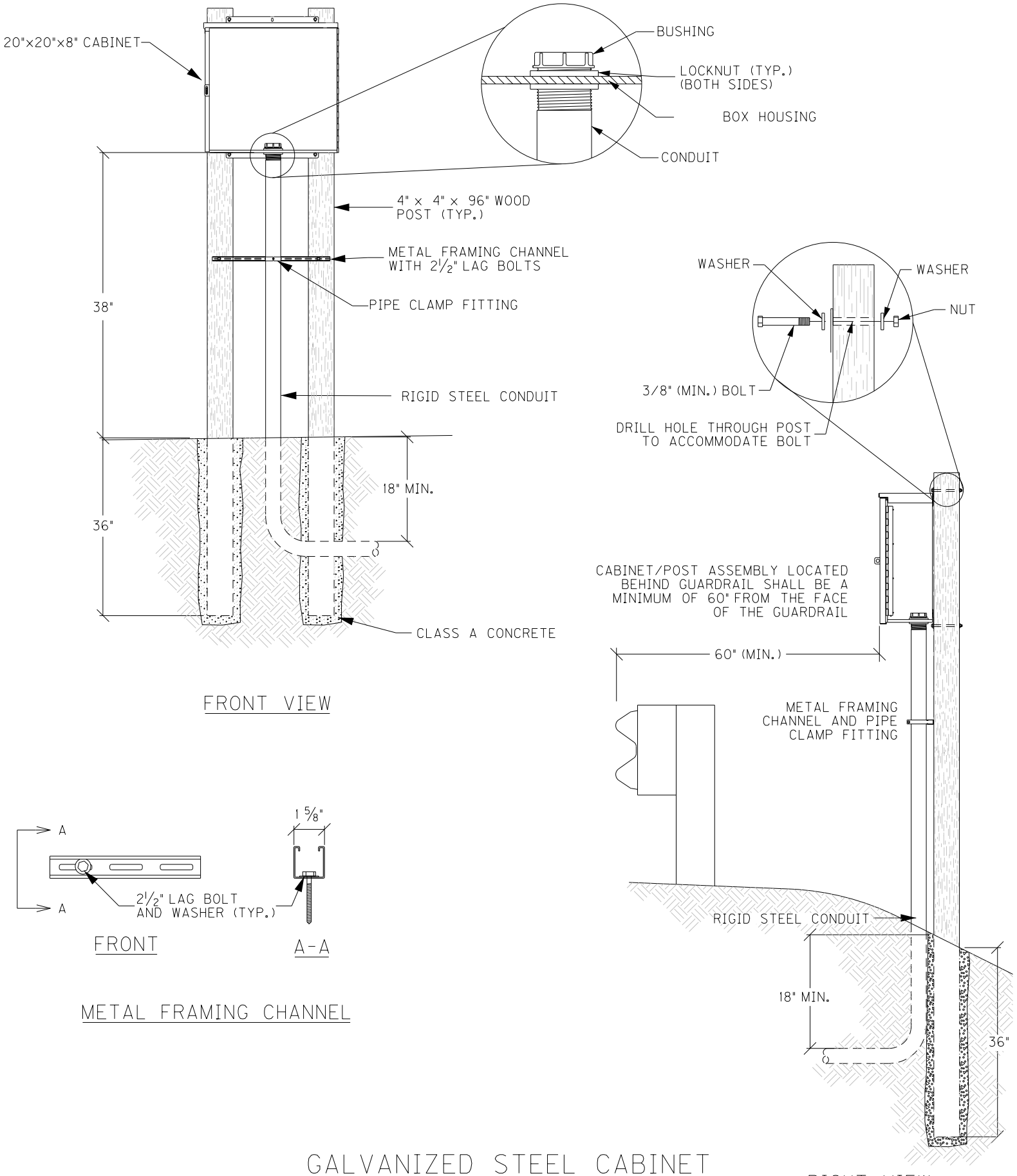
CONDUIT TRENCH



OPEN CUT PAVEMENT DETAIL

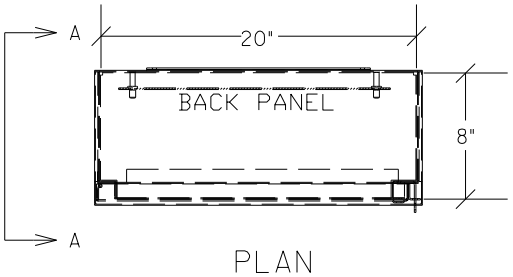
CONDUIT INSTALLATION

NOT TO SCALE

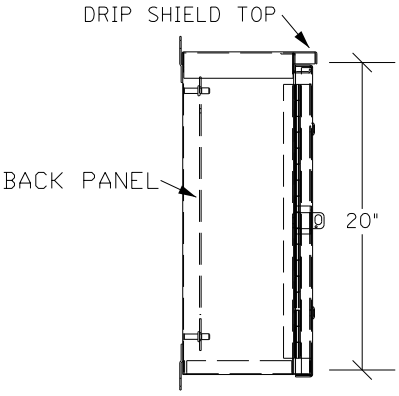


GALVANIZED STEEL CABINET
DOUBLE POST ASSEMBLY

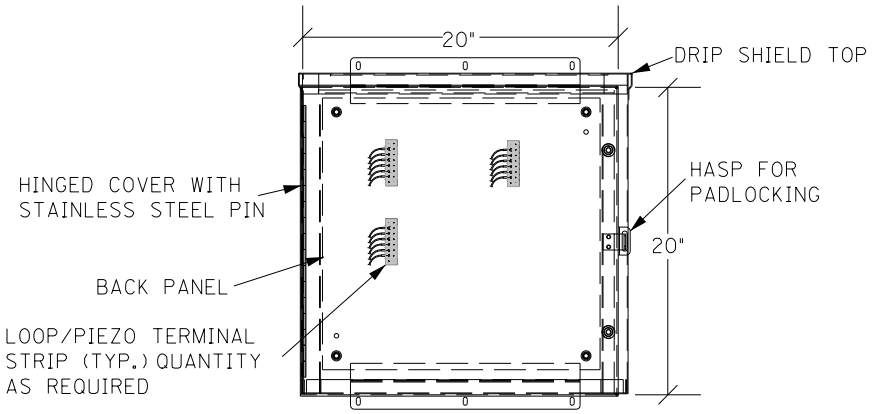
NOT TO SCALE



PLAN

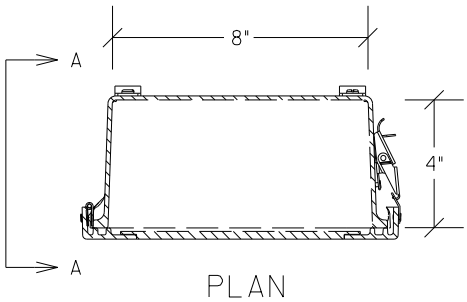


SECTION A-A

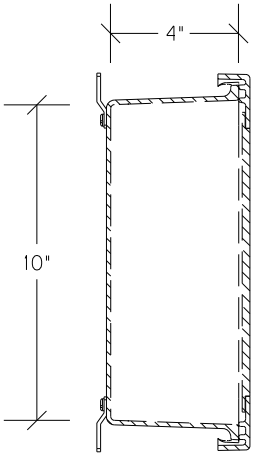


ELEVATION

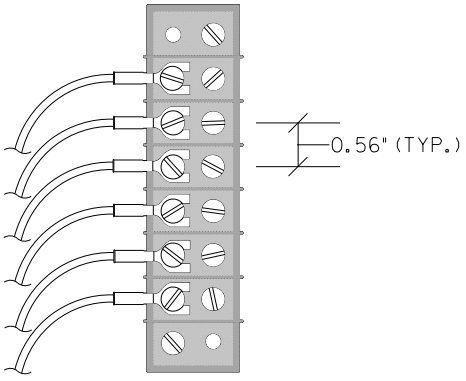
GALVANIZED STEEL CABINET



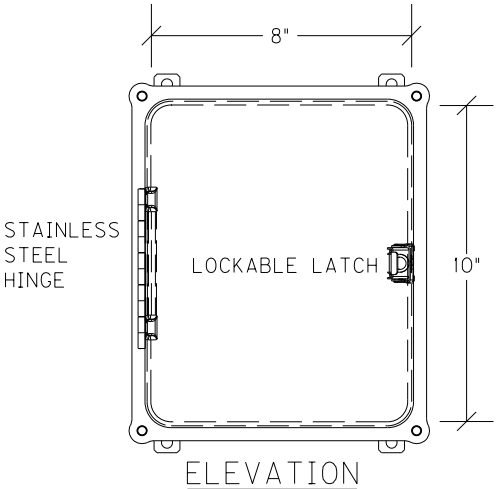
PLAN



SECTION A-A



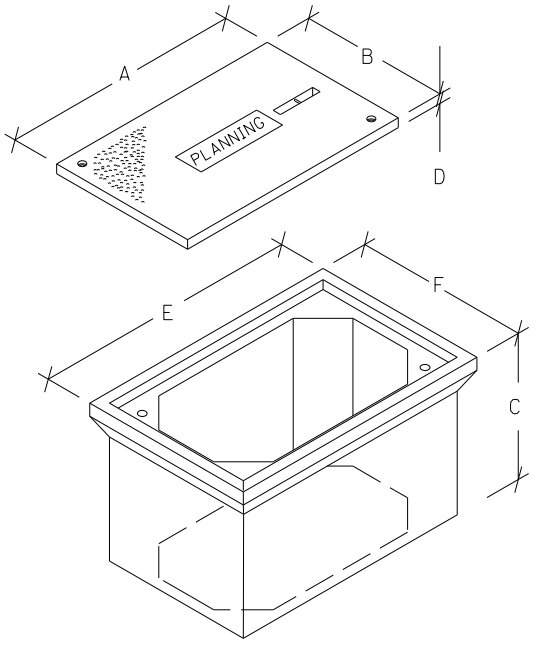
TERMINAL STRIP (TYP.)



ELEVATION

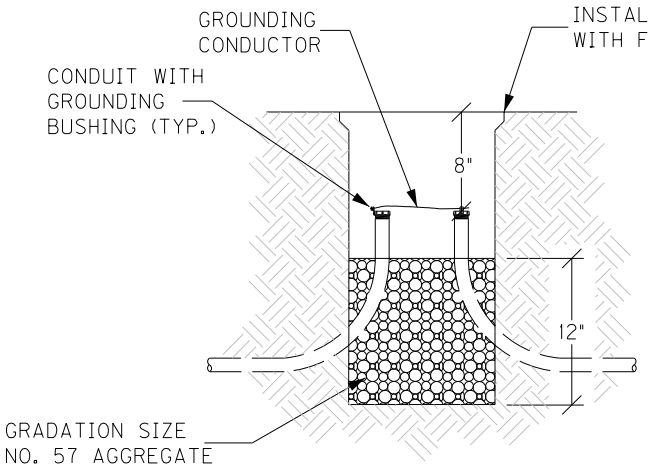
JUNCTION BOX 10"x8"X4"

NOT TO SCALE



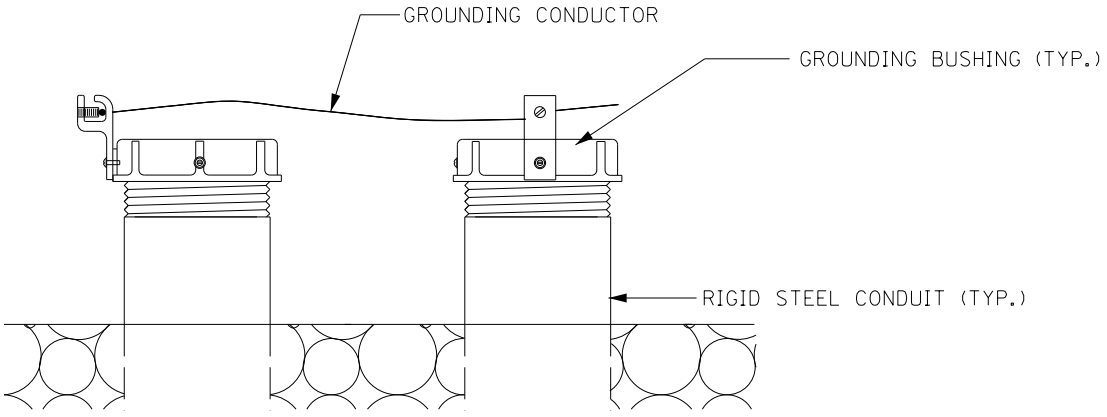
JUNCTION BOX DIMENSIONS (NOMINAL)						
	A	B	C	D*	E	F
TYPE A	23"	14"	18"	2"	25"	16"
TYPE B	18"	11"	12"	1¾"	20"	13"
TYPE C	36"	24"	30"	3"	38"	26"

* MINIMUM
STACKABLE BOXES ARE PERMITTED



WHERE REQUIRED, JUNCTION BOX SHALL BE ORIENTED SUCH THAT THE DIMENSIONS COMPLY WITH THE NATIONAL ELECTRICAL CODE.

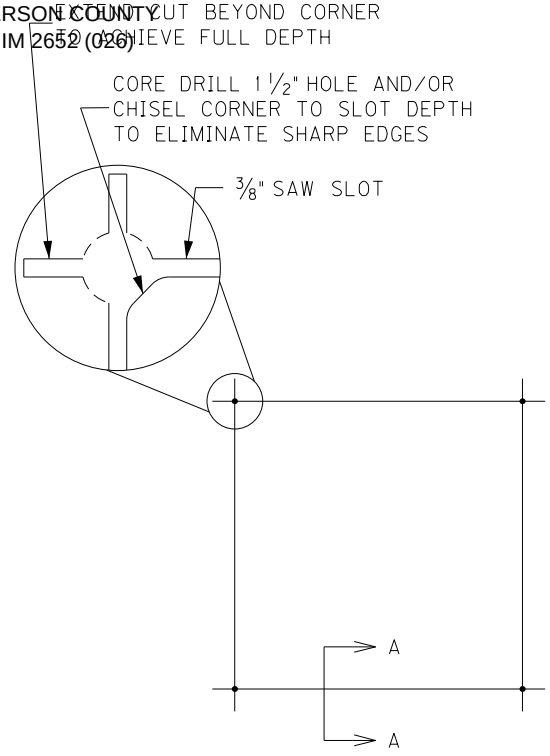
ELEVATION



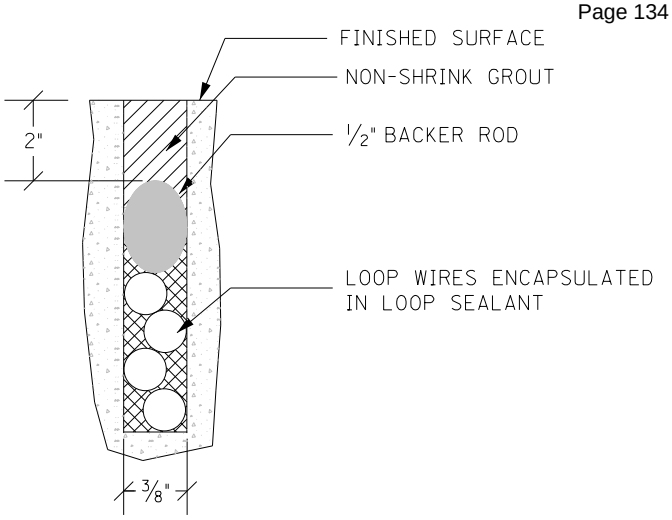
GROUNDING DETAIL

JUNCTION BOX - TYPE A, TYPE B, TYPE C

NOT TO SCALE



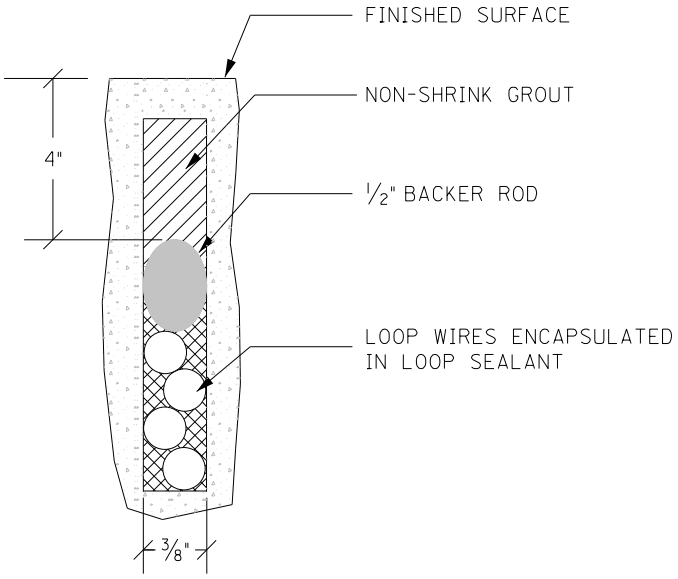
SAW CUT PLAN



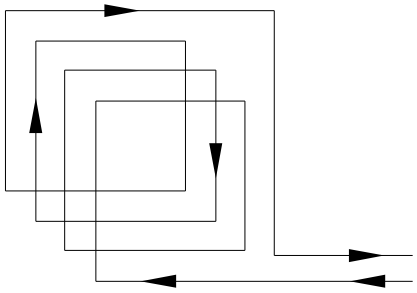
SECTION A-A (CONCRETE)

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

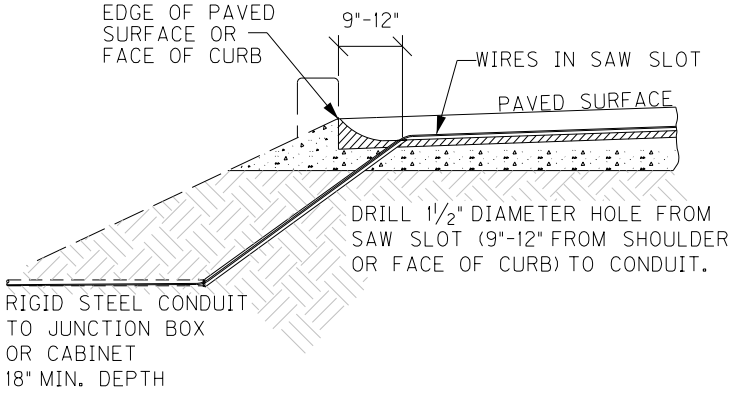
ADJACENT SAW SLOTS SHALL BE A MINIMUM OF 12" APART.



SECTION A-A (ASPHALT)



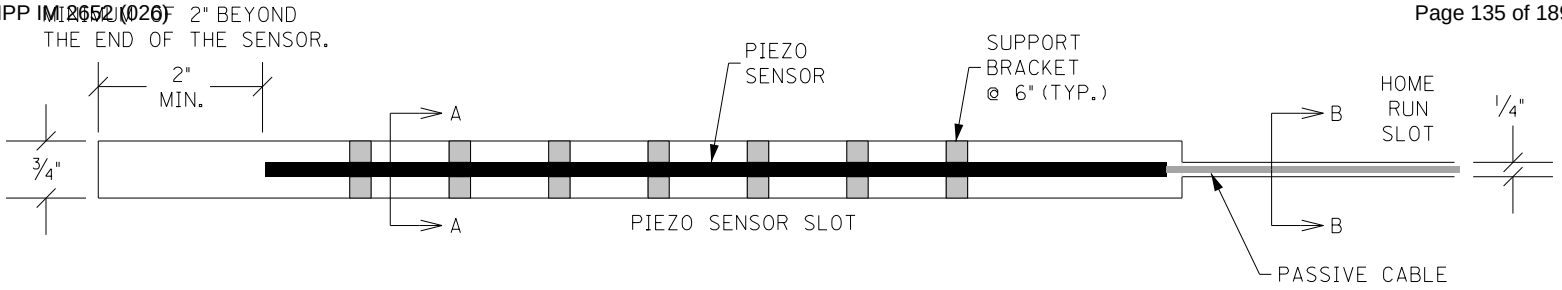
WIRING PLAN



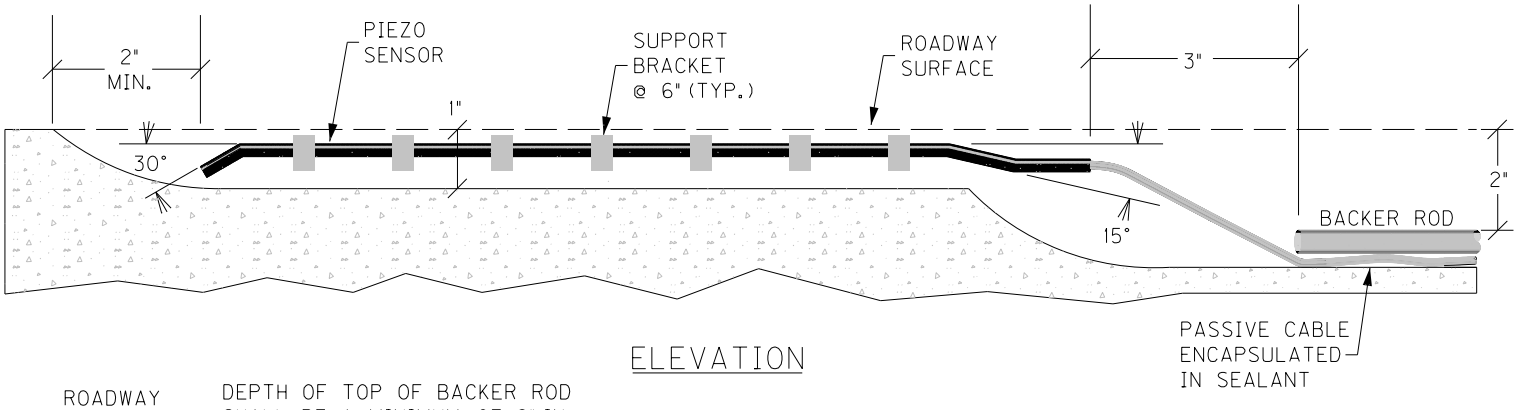
SAW SLOT EDGE OF PAVEMENT TRANSITION

INDUCTIVE LOOP DETECTOR

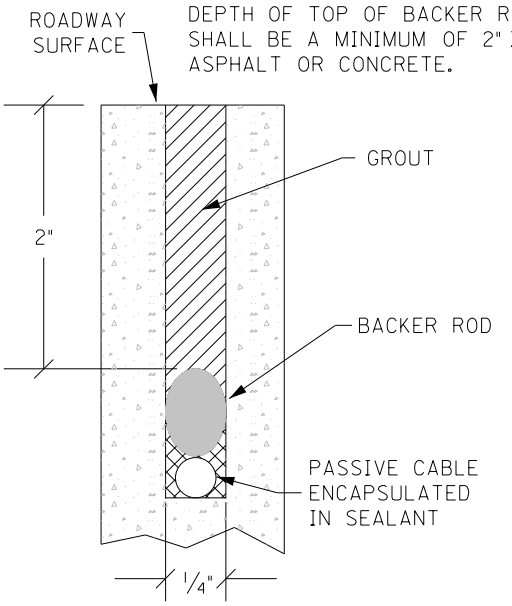
NOT TO SCALE



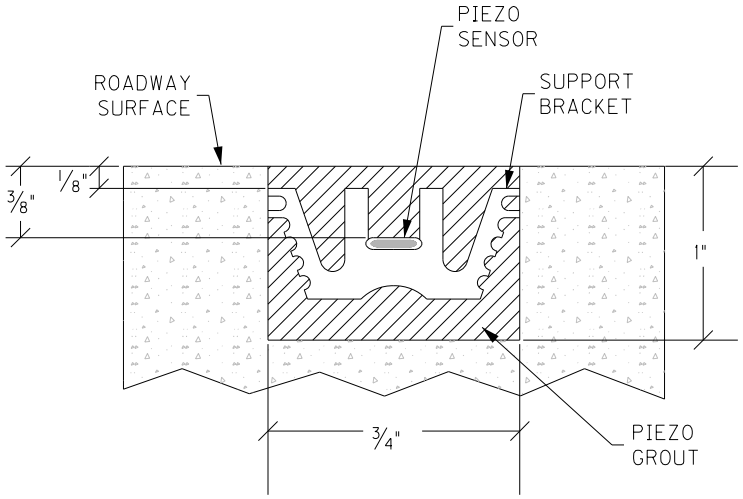
PLAN



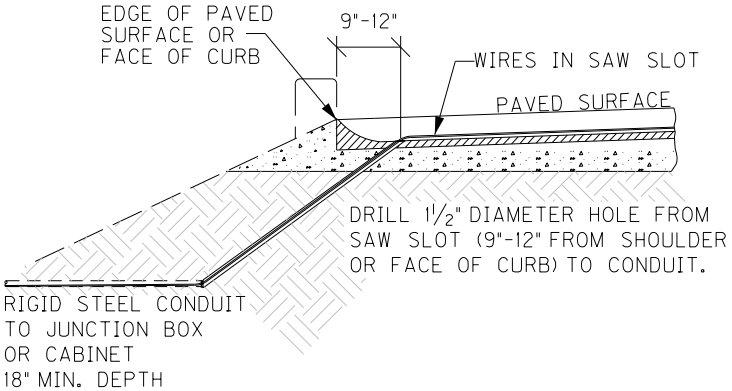
ELEVATION



SECTION B-B



SECTION A-A



SAW SLOT EDGE OF PAVEMENT TRANSITION

PIEZOELECTRIC SENSOR INSTALLATION

NOT TO SCALE

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 working 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 05-20020

Structure ID: 056B00378R

Structure Location: I-265 over Chenoweth Run

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. *MRS, Inc. Analytical Laboratory Division*
332 West Broadway / Suite # 902
Louisville, Kentucky - 40202 - 2133
(502) 495-1212
Fax: (502) 491-7111

BULK SAMPLE ASBESTOS ANALYSIS

Analysis # # 910242 D
Client Name: KYTC
Sampled By: O'Dail Lawson
Address: Jefferson 056 B00378R
I - 265 Over Chenoweth Road

				% FIBROUS ASBESTOS				% NON-ASBESTOS FIBERS			
Sample ID	Color	Layered	Fibrous	Chrysotile	Amosite	crocidolite	Others	Cellulose	Fiberglass	Syn. Fiber	Other/Mat.
# 378-1	Black	Yes	No				None				100%

Methodology : EPA Method 600/R-93-116
Date Analyzed : 24-Oct-19
Analyst : Winterford Mensah
Reviewed By: Winterford Mensah
Signature

AIHA # 102459

AJHA #1 02459

Chain of Custody Record

Kentucky Transportation Cabinet
200 Mero Street, 5th Floor West
Frankfort, Kentucky 40622
(502) 564-7250 fax (502) 564-5655

O'Dail Lawson odail.lawson@ky.gov KYTC Address: 200 Mero Street Frankfort KY Phone: 502-564-7250 Fax: 502-564-5655 PO#:	**Client Information** KY TRANS CABINET Results Code: ND = None Detected FTD = Filter Tampering or Damaged N/A = Not Applicable

I-265 on Chenoweth Road.

Samplers (signature):

Project or Subject Reference Jefferson 056B00378R

Sample ID	Sample Description	Collected Date	Collected Time	Analysis Requested	Grab/ Comp.	No. of Cont.	Cont. Type	Preservative
3781	Joint Company	10/23/19	11:20	Asbestos bulk	Grab			N/A

Relinquished By:	Date/Time:
Received By: Winfrey Thomas	Date/Time: 10/22/19
Relinquished By:	Date/Time:
Received at Lab By:	Date/Time:

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

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

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

RIGHT OF WAY CERTIFICATION

☒ Original ☐ Re-Certification — RIGHT OF WAY CERTIFICATION

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
5-20020.00	Jefferson	FDS2 056 0265 018-024	NHPP IM 2652 (026

PROJECT DESCRIPTION

Concrete Paving Rehab on I-265 from MP 18.8 to 23.364

☒ **No Additional Right of Way Required**

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

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

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

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

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

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

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

Total Number of Parcels on Project		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)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	Tom Boykin
Signature		Signature	Tom Boykin Digitally signed by Tom Boykin Date: 2019.10.28 11:22:28 -04'00'
Date		Date	

Right of Way Director		FHWA	
Printed Name	Digitally signed by DM Loy Date: 2019.10.28 11:35:31 -04'00'	Printed Name	Carville Johnson
Signature	DM Loy	Signature	Carville G. Johnson
Date		Date	10 29 19

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

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 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

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 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

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 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

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 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

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 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

Cell (419) 564-8826
Aron Velasquez
Office (419) 421-3704
AdVelasquez@marathonpetroleum.com

18. Metropolitan Sewer District
700 West Liberty Street
Louisville, KY 40203-1911

Brandon Flaherty
Brandon.Flaherty@LouisvilleMSD.org
Office (502) 540-6632
Cell (502) 381-0804
Greg Powell
Greg.Powell@LouisvilleMSD.org

19. Mid - Valley Pipeline Company
4910 Limaburg Road
Burlington, KY 41005

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

20. Shelby Energy Cooperative
P.O. Box 311
620 Old Finchville Road
Shelbyville, KY 40065

Jason Ginn
Cell (502) 643-2778
Jason@ShelbyEnergy.com
Zach Mischler
(502) 633-4420
Zach@shelbyenergy.com

21. Sprint - Fiber Optics
11370 Enterprise Park Drive
Sharonville, OH 45241

Steven T. Hughes
Office (513) 459-5796
Cell (513) 462-7221
Steven.Hughes@sprint.com

22. Texas Gas Transmission, LLC
2332 Hwy 60 West
Hardinsburg, KY 40143

Kevin Carman
Kevin.Carman@bwpmlp.com
Cell (270) 779-3893

610 W 2nd Street
PO Box 20008
Owensboro, KY 42301

Amanda Isom
Amanda.Isom@bwpmlp.com
(270) 688-5854

UTILITIES AND RAIL CERTIFICATION NOTE

JEFFERSON COUNTY, NHPP IM 2652 (026))
FD52 056 0265 018-024
I-265 PAVEMENT REHAB M.P. 18.8 – M.P. 23.364
5-20020)

(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

James Galvin
Office (270) 765-1818
Cell (270) 748-9249
James.Galvin@windstream.com
Mark Ware
(502) 364-1133

WCI.OSP.PERMITS@windstream.com

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 2020.*

SUPPLEMENTAL SPECIFICATIONS

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

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

1I

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.

1I

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

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

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

2.3 Power.

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

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

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

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

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

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

1I

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

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

Code	Pay Item	Pay Unit
02671	Portable Changeable Message Sign	Each

Effective June 15, 2012

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

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

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

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

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

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

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

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

II. NONDISCRIMINATION

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

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

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

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

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

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

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

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

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

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

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

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

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

2. Withholding

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

3. Payrolls and basic records

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

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

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

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

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

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

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

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

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

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

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

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

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

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

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

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

10. Certification of eligibility.

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

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

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

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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

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

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

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

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

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

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

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

AN ACT OF THE KENTUCKY GENERAL ASSEMBLY TO PREVENT DISCRIMINATION IN EMPLOYMENT

KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

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

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

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

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

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

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

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

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:

    a. withholding payments to the contractor under the contract until the contractor complies; and/or
    b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

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

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

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 08/28/2020

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
1	08/14/2020
2	08/28/2020

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 07/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 33.95	17.25
GROUP 2	$ 31.09	17.25
GROUP 3	$ 31.54	17.25
GROUP 4	$ 30.77	17.25

OPERATING ENGINEER CLASSIFICATIONS

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

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.);

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

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

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

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling 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 06/01/2020

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.....$ 28.95 21.20
Structural.....$ 30.47 21.20

IRON0070-006 06/01/2020

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	$ 30.42	23.15

IRON0769-007 06/01/2020

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

	Rates	Fringes
IRONWORKER		
ZONE 1	$ 32.75	26.34
ZONE 2	$ 33.15	26.34
ZONE 3	$ 34.75	26.34

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; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

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

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

---

LABO0189-008 07/01/2018

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; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; 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; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; 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
Plumbers and Pipefitters	$ 32.01	19.67

PLUM0502-003 08/01/2020

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.....$ 36.92 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.

PROPOSAL BID ITEMS

Report Date 9/22/20

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	222.00	TON		$	
0020	01820		LIP CURB AND GUTTER	16.00	LF		$	
0030	01904		REMOVE CURB	16.00	LF		$	
0040	02058		REMOVE PCC PAVEMENT	8,581.00	SQYD		$	
0050	02069		JPC PAVEMENT-10 IN	8,581.00	SQYD		$	
0060	02115		SAW-CLEAN-RESEAL TVERSE JOINT	171,051.00	LF		$	
0070	02116		SAW-CLEAN-RESEAL LONGIT JOINT	181,016.00	LF		$	
0080	21173EC		SAW-CLEAN-RESEAL RANDOM CRACKS	4,043.00	LF		$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0090	00078		CRUSHED AGGREGATE SIZE NO 2	100.00	TON		$	
0092	01020		PERF PIPE HEADWALL TY 1-4 IN (ADDED: 9-22-20)	10.00	EACH		$	
0094	01028		PERF PIPE HEADWALL TY 3-4 IN (ADDED: 9-22-20)	10.00	EACH		$	
0096	01032		PERF PIPE HEADWALL TY 4-4 IN (ADDED: 9-22-20)	10.00	EACH		$	
0110	02237		DITCHING	1,542.00	LF		$	
0120	02562		TEMPORARY SIGNS	750.00	SQFT		$	
0125	02602		FABRIC-GEOTEXTILE CLASS 1 (ADDED: 9-22-20)	500.00	SQYD		$	
0126	02604		FABRIC-GEOTEXTILE CLASS 1A (ADDED: 9-22-20)	500.00	SQYD		$	
0130	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0140	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		$	
0150	02704		SILT TRAP TYPE B	2.00	EACH		$	
0160	02707		CLEAN SILT TRAP TYPE B	2.00	EACH		$	
0170	02714		SHOULDERING	9,334.00	LF		$	
0180	02775		ARROW PANEL	2.00	EACH		$	
0190	05950		EROSION CONTROL BLANKET	5,116.00	SQYD		$	
0200	05963		INITIAL FERTILIZER	.16	TON		$	
0210	05964		MAINTENANCE FERTILIZER	.27	TON		$	
0220	05985		SEEDING AND PROTECTION	4,149.00	SQYD		$	
0230	06412		STEEL POST MILE MARKERS	10.00	EACH		$	
0240	06511		PAVE STRIPING-TEMP PAINT-6 IN	261,534.00	LF		$	
0250	06542		PAVE STRIPING-THERMO-6 IN W	1,180.00	LF		$	
0260	06543		PAVE STRIPING-THERMO-6 IN Y	943.00	LF		$	
0270	06556		PAVE STRIPING-DUR TY 1-6 IN W	72,515.00	LF		$	
0280	06557		PAVE STRIPING-DUR TY 1-6 IN Y	58,251.00	LF		$	
0290	06561		PAVE STRIPING-DUR TY 1-12 IN Y	9,010.00	LF		$	
0300	06592		PAVEMENT MARKER TYPE V-B W/R	100.00	EACH		$	
0310	10020NS		FUEL ADJUSTMENT	2,493.00	DOLL	$1.00	$	$2,493.00
0320	20411ED		LAW ENFORCEMENT OFFICER	600.00	HOUR		$	
0330	21554EN		EXCAVATION	100.00	CUYD		$	
0340	23252ES717		PAVE MARK TY 1 TAPE STOP BAR-12 IN	135.00	LF		$	

PROPOSAL BID ITEMS

Report Date 9/22/20

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0350	23270ES717		PAVE MARK TY 1 TAPE-CURV ARROW	15.00	EACH		$	
0360	24997EC		PARTIAL DEPTH PATCHING-POLYMER MOD	88.00	CUFT		$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0370	01000		PERFORATED PIPE-4 IN	100.00	LF		$	
0380	01010		NON-PERFORATED PIPE-4 IN	100.00	LF		$	

Section: 0004 - BRIDGE-056B00378L

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0390	08151		STEEL REINFORCEMENT-EPOXY COATED	100.00	LB		$	
0400	08526		CONC CLASS M FULL DEPTH PATCH	3.00	CUYD		$	
0410	08549		BLAST CLEANING	1,280.00	SQYD		$	
0420	22146EN		CONCRETE PATCHING REPAIR	95.00	SQFT		$	
0430	23331EC		EPOXY-URETHANE WATERPROOFING	11,515.00	SQFT		$	

Section: 0005 - BRIDGE-056B00378R

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0450	08151		STEEL REINFORCEMENT-EPOXY COATED	100.00	LB		$	
0460	08526		CONC CLASS M FULL DEPTH PATCH	3.00	CUYD		$	
0470	08549		BLAST CLEANING	1,280.00	SQYD		$	
0480	22146EN		CONCRETE PATCHING REPAIR	95.00	SQFT		$	
0490	23331EC		EPOXY-URETHANE WATERPROOFING	11,515.00	SQFT		$	

Section: 0006 - TRAFFIC LOOPS-SIGNAL LOOPS

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0510	04792		CONDUIT-1 IN	10.00	LF		$	
0520	04793		CONDUIT-1 1/4 IN	60.00	LF		$	
0530	04795		CONDUIT-2 IN	20.00	LF		$	
0540	04811		ELECTRICAL JUNCTION BOX TYPE B	3.00	EACH		$	
0550	04820		TRENCHING AND BACKFILLING	90.00	LF		$	
0560	04829		PIEZOELECTRIC SENSOR	4.00	EACH		$	
0570	04830		LOOP WIRE	1,650.00	LF		$	
0580	04850		CABLE-NO. 14/1 PAIR	200.00	LF		$	
0590	04894		PREFORMED LOOP/LEAD-IN	70.00	LF		$	
0600	04895		LOOP SAW SLOT AND FILL	400.00	LF		$	
0610	20359NN		GALVANIZED STEEL CABINET	2.00	EACH		$	
0620	20360ES818		WOOD POST	4.00	EACH		$	
0630	20453ES835		PREFORMED QUADRAPOLE LOOPS	102.00	LF		$	
0640	24900EC		PVC CONDUIT-1 1/4 IN-SCHEDULE 80	20.00	LF		$	
0650	24955ED		REMOVE SIGNAL EQUIPMENT	1.00	EACH		$	

PROPOSAL BID ITEMS

Report Date 9/22/20

Section: 0007 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0660	02568		MOBILIZATION	1.00	LS		$	
0670	02569		DEMOBILIZATION	1.00	LS		$	

JEFFERSON COUNTY, INTERSTATE I-265

ITEM NO. 5-20020

BRIDGE REHABILITATION
(TWO LOCATIONS)

MILE POINT 18.8 TO 23.364

SPECIAL NOTE INDEX

BRIDGE INDEX

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, and this Note. Section references are to the Standard Specifications.

This work consists of the following:

(1) Furnish all labor, materials, tools, and equipment
(2) Provide safe access to the bridge substructure (piers) in accordance with Section 107.01.01, for the Engineer to sound possible repair areas and for workers to complete the construction
(3) Remove the deteriorated concrete
(4) Blast clean and prepare the surfaces for patching
(5) Prime the areas immediately prior to patching
(6) Apply the Vertical and Overhead Patch or Class "M" Concrete
(7) Finish the patched surface
(8) Maintain and control traffic
(9) Any other work specified as part of this Contract

II. MATERIALS

A. Vertical and Overhead Patching Material. Conform to Manufacturer's Technical Guidance.

B. Class "M" Concrete. Use either "M1" or "M2". See Section 601.

III. CONSTRUCTION

A. Remove Deteriorated Concrete. Prior to beginning the concrete repairs, provide safe access to the substructure, in accordance with Section 107.01.01, for the Engineer to sound possible repair areas. The Engineer will sound the concrete with a hammer and mark the areas of concrete to be removed and patched. All areas of deteriorated concrete found should be repaired as part of this work. Final payment for "Concrete Patching Repair" will be the field measured quantity of patching completed in accordance with this Note and as designated by the Engineer.

Remove specified areas of deteriorated concrete as directed by the Engineer. The removal of unsound material shall be accomplished with hand tools or pneumatic hammers that do not exceed twenty (20) pounds. Precautions shall be exercised to protect the underlying sound material. Saw, route, or otherwise manipulate the sides of the patch so that the interface between the old concrete and patch area are perpendicular. Remove all deteriorated loose concrete to a minimum depth of 2" for repairs using vertical and overhead patching material and 4" for repairs using Class "M" Concrete. Also ensure concrete removal in the patch area extends at least three-quarters (3/4) inch beyond any steel reinforcement more than 50 percent exposed. Dispose of all removed material entirely away from the job site or as directed by the Engineer.

Extreme care shall be taken when removing the existing spalled or delaminated concrete so as not to damage the existing reinforcing steel. Completely clean all existing steel reinforcement encountered free of rust and leave in place. Wire brushing may be required to thoroughly clean exposed steel reinforcement. Repair or replace any damaged steel reinforcement as directed by the Engineer at no additional cost to the Department. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04.

B. Prepare Concrete Surfaces for Patching. Prepare concrete surfaces to be patched in accordance with Section 510.03.01. Final blast cleaning shall be completed within twelve (12) hours prior to placement of the epoxy mortar patch. Concrete must be sound, dry, and clean prior to placement of epoxy resin prime coat.

C. Apply Vertical and Overhead Patching Material or Class "M" Concrete. The Engineer shall have the option of designating a spalled or delaminated area to be repaired using Class "M" high early strength concrete or a Vertical and Overhead Patching Material. Any material used must be approved by the Engineer. Refer to the Transportation Cabinet, Division of Materials' List of Approved Materials for currently approved materials for vertical and overhead patching. Place either the Class "M" Concrete or Vertical and Overhead Patching Material as approved by the Engineer. Place the epoxy resin primer in accordance with the standard specifications and Manufacturer's recommendations. Place the Vertical and Overhead Patching Material in accordance with the Manufacturer's specifications to restore the deteriorated areas to their original dimensions as directed by the Engineer. Place Class "M" Concrete according to the Standard Specifications.

IV. MEASUREMENT

A. Concrete Patching Repair. The Department will measure the quantity in square feet.

V. PAYMENT

A. Concrete Patching Repair. Payment at the Contract unit price per square foot is full compensation for removal of deteriorated concrete, preparation of the concrete surface, application of the Vertical and Overhead Patching Material or Class "M" Concrete, application of the epoxy resin seal coat, and all incidental items necessary to complete the work in accordance with this Note.

The Department will consider payment as full compensation for all work required by this Note.

SPECIAL NOTE FOR 3/8" EPOXY-URETHANE WATERPROOFING OVERLAY FOR BRIDGE DECKS

1. DESCRIPTION

1.1 This specification describes the Pre-treatment and Overlay consisting of multiple layers of hybrid polymer systems and a special blend of extremely hard aggregate designed to provide a minimum of a 3/8" thick application for the purpose of complete waterproofing as well as providing a non-skid surface to withstand continuous heavy traffic and extreme changes in weather conditions.

1.2 Unless otherwise noted, Section references herein are to the Department's *Standard Specifications for Road and Bridge Construction*. All applicable portions of the Department's *Standard Specifications* apply unless specifically modified herein.

2. MATERIALS

Pre-treatment:

2.1 Hairline cracks

This two part hybrid polymer shall be free of any fillers, volatile solvents and shall be formulated to provide simple volumetric ratio of two components such as one to one or two to one by volume.

This hybrid polymer system shall be formulated to provide a unique combination of extremely low viscosity and low surface tension coupled with a built in affinity for concrete and steel.

Overlay:

2.2 The two-part epoxy-urethane co-polymer system shall be free of any fillers volatile solvents and shall be formulated to provide simple volumetric mixing ratio of two components such as one to one or two to one by volume.

The epoxy-urethane co-polymer system shall be formulated to provide flexibility in the system without any sacrifice of the hardness, chemical resistance or strength of the epoxy-urethane co-polymer system. Use of external/conventional flexibilizers are not acceptable. Flexibility shall be introduced by interaction of elastomers to chemically link in the process of curing so that the flexibility of the molecule is least affected during the low temperature conditions that are confronted in actual use.

2.3 Material Requirements

2.3.1 Physical Requirements of Cured *Pretreatment for Cracks* System. When Components A and B are mixed in the appropriate ratio, the cured resin shall conform to the requirements of Table 1. (Test methods are discussed in detail in Item 3 of this specification.)

TABLE 1
PHYSICAL PROPERTIES OF THE CURED PRETREATMENT SYSTEM

Property	Value
Compressive Strength, min. psi	5000
Tensile Strength, min. psi	2500
Elongation at Break, min percent	30
Water Absorption, percent by wt. max.	0.5%
Shore D hardness, min., 25°C (77°F)	65
Gel Time, min, minutes	15 (100gms)
Adhesion to Concrete	100% failure in concrete
Percent Solids	100

2.3.2 Physical requirements of Epoxy-Urethane Copolymer Overlay System. When Components A and B are mixed in the appropriate ratio, the cured resin shall conform to the requirements of Table 2. (Test methods are discussed in detail in Item 3 of this specification.)

TABLE 2
PHYSICAL PROPERTIES OF THE CURED OVERLAY SYSTEM

Property	Value
Compressive Strength, min. psi	5000
Tensile Strength, min. psi	2000
Elongation at Break, min. percent	30
Water Absorption, percent by wt. max.	1.0%
Shore D hardness, min, 25°C (77°F)	65
Gel Time, min, minutes	15
LA Abrasion, max. percent	35
Adhesion to Concrete	100% failure in concrete
Flexural Yield Strength, min. psi	5000
Percent Solids	100
Thermal Compatibility	Visual – No Delamination/Cracking
Permeability to Chloride Ion at 28 days	100 Coulombs

2.4 Aggregate

2.4.1 Aggregate used for all layers shall be non-friable, non-polishing, clean and free from surface moisture. It shall be durable and sound and have a proven record of performance in applications of this type. The aggregate shall be 100 percent fractured, thoroughly washed and kiln dried to a maximum moisture content of 0.2 percent by weight, measured in accordance with ASTM C566. The recommended sources of aggregate are **Washington Stone** or **Oklahoma Flint or an approved equivalent**

2.4.2 Aggregate for all layers shall have a minimum Mohs scale hardness of 7.

2.4.3 The grading of the aggregate shall conform to the requirements of Table 3

TABLE 3	
AGGREGATE GRADATION	
Sieve Size	**Percent Passing**
No. 4	60 - 100
No. 8	0 - 40
No. 16	0 - 10

3. METHOD OF TESTING

3.1 Tests shall be conducted in accordance with the following methods:

3.1.1 **Compressive Strength:** ASTM C579 Method B, *Compressive Strength of Chemical Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.* The two components of the resin are to be thoroughly mixed in their appropriate ratios specified by the manufacturer. The samples shall then be prepared according to the conditioning requirements of ASTM C579 and allowed to cure for 7 days at 23 ± 2°C.

3.1.2 **Tensile Strength and Elongation:** ASTM D638, *Tensile Properties of Plastics,* Specimen Type I or Type II. Samples shall be cured at 23 ± 2°C (73.4 ± 3.6°F) and 50 ± 5% relative humidity. Speed of testing shall be at 0.5 in/min.

3.1.3 **Water Absorption:** ASTM D570, *Water Absorption of Plastics.* Sample specimens shall be prepared according to section 4.1 and allowed to cure at 23 ± 2°C (73.4 ± 3.6°F) and 50 ± 5% relative humidity. Tests are then to be carried out as per section 6.1.

3.1.4 **Shore D Hardness:** ASTM D2240, *Rubber Property – Durometer Hardness.* Specimen shall be prepared as per ASTM D570 section 4.1 and allowed to cure at 23 ± 2°C (73.4 ± 3.6°F).

3.1.5 **Gel Time:** The following procedure shall be used to determine gel time. Measure 4 oz. of Part A and 2 oz. of Part B each at 25°C (77°F), into an unwaxed paper cup and record the time and mix immediately. 100 gms of this mixture shall be poured into a 6 oz. unwaxed paper cup and placed on a wooden bench top. Starting twenty minutes from the time recorded above, the mixture shall be probed every two minutes with a small stick until a small ball forms in the center of the container. The total time, including mixing, required for the ball to form shall be regarded as the gel time. The test shall be performed in a room or enclosed area maintained at 25 ± 2°C (77 ± 3.6°F) and 50 ± 5% relative humidity.

3.1.6 **LA Abrasion, AASHTO T96** 35% Max

3.1.7 **Adhesion to Concrete:** ACI-503-R; Pull Out Test.

3.1.8 **Flexural Yield Strength:** ASTM D-790.

3.1.9 **Thermal Compatibility:** ASTM C884, Determination if specimens are susceptible to debonding when subjected to temperature changes.

4. CONSTRUCTION PRACTICE

4.1 Surface Preparation

4.1.1 Perform full depth patching in accordance with the requirements of Section 606.03.05. All patching materials shall be in accordance with the requirements of Section 601 and be free of Magnesium Phosphate.

4.1.2 Patching shall be scheduled so that the bridge can be open to traffic during all non-working hours.

4.1.3 Partial depth patching system shall be approved by resin manufacturer and be completed prior to the polymer overlay. . Completion of Partial Depth Patching including removal of concrete, cleaning, and placing the material will not be measured for payment and shall be considered incidental to "Epoxy-Urethane Waterproofing Overlay". The pay item includes additional quantity for partial depth patching.

4.1.4 The entire concrete deck shall be cleaned by shot blasting to remove any oil, dirt, rubber or any other potentially detrimental material such as curing compound and laitances which, in the manufacturer and engineer's opinion, would prevent proper bonding to and curing of the material. Ensure the shot blasting has obliterated all pavement markings.

Produce a surface relief that meets the International Concrete Repair Institute (ICRI) Surface Preparation CSP 5-7.

4.1.5 In areas that the shot blasting equipment cannot reach (i.e., along curbs and median walls) or cannot remove (pavement marking, asphalt, etc.), sandblasting and walk behind grinders are permitted to an extent satisfactory to the manufacturer and engineer. This should be performed prior to the shotblasting whenever applicable and practical.

4.1.6 Protect the bridge deck expansion joints, armored edges, drains, etc… with a bond breaker that can adequately seal the joints from the epoxy.

4.1.7 The overlay application equipment is allowed to drive on the deck surface during application provided precautions have been taken to insure that the deck surface will not become contaminated. For any reason traffic is to be allowed on the deck after surface preparation, or between layers, a visual inspection by the manufacturer and state engineer will be required to determine if additional surface preparation is needed before applying material.

4.1.8 All surfaces to be treated shall be dry at the time of application. Immediately before the application of any liquids, all prepared surfaces shall be cleaned with compressed air (or vacuumed) to remove dust and debris.

4.1.9 The application of the system shall not be made when it has rained 24 hours before application or rain is forecast (greater than 50%) within eight hours after application or as determined by the manufacturer (fog and high humidity will not impede the application of or affect the performance of the overlay). If waiting for 24 hours is impractical, then the moisture content in concrete substrate shall not exceed 4.5% when measured by an electronic moisture meter. Any exception shall be determined by the moisture content present in the deck which shall not exceed 75% of air entrainment in the mix design.

4.1.10 Materials shall be placed when the ambient air and bridge deck surface temperatures are greater than 55 deg F and less than 90 deg F.

4.2 Application of Overlay System

4.2.1 **The manufacturer of the epoxy-urethane overlay material shall have a representative on the jobsite at all times who has proven experience with the resin system and with guiding and assisting installers in the polymer overlay system installation.** Who, upon consultation with the engineer, may suspend any item of work that is suspect and does not meet the requirements of this specification. Resumption of work will occur only after the manufacturer's

representative and the engineer are satisfied that appropriate remedial action has been taken by the contractor.

4.2.2 The overlay shall be applied on all deck areas using metering, mixing and distribution machinery **approved by the manufacturer of the epoxy-urethane overlay system.** Ratio check verification at the pump outlets as well as cycle counting capabilities to monitor output will be standard features.

4.2.3 The number of layers (a minimum of two), excluding the pre-treatment if required and the application rates of the liquid in the various layers shall be as recommended by the manufacturer in order to achieve an average overlay thickness of 3/8**".**

4.2.4 Hand mixing of material is not permitted.

4.2.5 Application of Pre-treatment

Crack Filling (Pre-treatment as required)

Application of the Liquid: After mechanically measuring and mixing of the components, the liquid shall be evenly distributed on the clean, dry deck surface at the rate/process recommended by the manufacturer. The overlay application equipment may drive on this layer (prior to being cured) when applying the overlay system. If the overlay application is going to be applied after 6-8 hours of the pretreatments application, a medium size coarse silica sand shall be broadcasted evenly into the pre-treatment system (prior to it curing) as directed by the manufacturer.

4.2.6 Overlay (First and Second Layers)

Application of Liquid: Prior to the application, if there exists any excess or loose aggregate from the previous coat, such excess aggregate shall be completely removed by vacuum or with compressed air. After mixing of the components via the mechanical application equipment, the liquid shall be evenly distributed on the clean, dry deck surface at the rate recommended by the manufacturer.

4.2.7 After the application of the liquid in the first and second coats, the maximum time allowed before broadcasting of the aggregate is as follows:

Above 90°F	. . . . .	10 minutes
80°F to 90°F	. . . . .	15 minutes
70°F to 80°F	. . . . .	20 minutes
60°F to 70°F	. . . . .	25 minutes
55°F to 60°F	. . . . .	35 minutes

4.2.8 **No vehicle shall be allowed on the overlay during the curing period.**

4.2.9 Broadcasting on decks shall be by truck-mounted equipment capable of dispensing the aggregate onto the deck in a uniform manner as directed or otherwise approved by the manufacturer of the epoxy-urethane overlay.

4.2.10 The aggregate shall be broadcast as described below in a manner to cover the surface so that no wet spots appear and before the co-polymer begins to gel (see section 3.1.5). The aggregate must be dropped vertically in such a manner that the level of the liquid is not disturbed. Reclaimed aggregate is prohibited.

4.2.10.1 In the first and second layers of **the polymer overlay system, the** aggregate conforming to table 3 shall be broadcast to saturation.

4.2.11 **Removal of Excess Aggregate:** After the overlay has hardened, removal of all loose and excess aggregate with a power vacuum or other method shall be made prior to the application of subsequent coats.

4.2.12 **Joints in the Overlay:** (i.e., between two adjacent lanes) shall be staggered 6 to 12 inches and overlapped between successive coats so that no ridges will appear. Prior to applying the first or second layer, duct tape shall be used to ensure a straight edge is created. The use of chalk lines can be used when applying the first layer only.

4.2.13 **Traffic may be allowed** on the final layer (or in between layers) after the resin has cured (as determined by the manufacturer) and after removal of all excess, loose aggregate.

4.2.14 The prepared surface may be opened to traffic for no more than 24 hours. A light shot blast will be required prior to applying the pretreatment or first layer. A visual inspection by the inspector and manufacturer shall occur to ensure no additional prep is necessary to remove oil, tar, brake/tire residue, etc. After 24 hours, prep shall be per section 4.1.4.

4.2.15 The pretreatment with aggregate or first layer may be opened to traffic for no more than 24 hours. Prior to application of second layer, the inspector and manufacturer rep shall inspect the pretreatment with aggregate or first layer to ensure no additional surface prep is required to remove oil, brake/tire residue, etc. After 24 hours, prep shall be per section 4.1.4.

4.2.16 Seams in the Overlay shall not be present between lanes. Driving lanes next to shoulders must be done in the same application pass so no additional seams/joints in overlay are created.

5. STORAGE AND HANDLING

5.1 Liquid Material: All material shall be transported and stored in their original containers inside a dry, temperature controlled facility and maintained at a manufacturer recommended temperature.

5.2 Job Site Storage: The materials shall be stored on the jobsite in a dry, weather protected facility away from moisture and within the temperature range of 60°F to 90°F. When the materials are transported or stored on the job in the application machine tanks, the material must also be maintained at a temperature of 60°F to 90°F. Outdoor storage is permitted with manufacturer's approval.

5.3 Handling of Liquid Materials on the Job: Protective gloves, clothing, and goggles shall be provided to workers and inspectors directly exposed to the material if required. Product safety data sheets shall be provided to all workers and inspectors as obtained from the manufacturer.

5.4 Packing Requirement: All materials must be packaged in strong, substantial containers. The containers shall be identified as Part A and Part B and shall be plainly marked with the name and address of the manufacturer, name of the product, mixing proportions and instructions, lot and batch numbers, date of manufacture, and quantity contained therein.

5.5 Aggregate: All aggregate shall be stored in a dry, moisture-free atmosphere. The aggregate shall be fully protected from any contaminants on the jobsite and shall be stored so as not to be exposed to rain or other moisture sources.

6. SAMPLING AND ACCEPTANCE

6.1 Product Acceptance: The manufacturer of the system shall provide evidence of field performance, lab performance with infrared spectra in order to obtain state approval of the overlay system for use on the project:

6.1.1 Independent Lab Performance

A nationally recognized independent lab must verify that the material:

1. Has the capability of preventing the ingress of essentially all the chloride ions into the concrete at 1" depth when tested according to NCHRP-244 method.

2. Has the capability to de-activate the existing chloride ions present in the concrete specimen so that the corrosion of steel rebars embedded in the concrete stop corroding.
3. When tested as per Tables 1 and 2 fully comply with the test results specified for cured system.

6.1.2 Infrared Spectrograph: In addition to the initial certification process each manufacturer shall furnish the state an infrared spectra of each component of system for its permanent record and for individual installation verification.

6.1.3 Field Performance: The selected polymer overly system must have at least two years of satisfactory performance for non-interstate use and four years of satisfactory performance for interstate use in similar environmental conditions as the project in which it will be used.

6.2 Certification for Compliance: At the pre-construction conference, the contractor shall notify the state project engineer of the source of material.

6.2.1 Independent Test Lab Report: Test results certified and verified by a nationally recognized independent testing laboratory verifying properties of the cured system as per Table 1 & 2 shall be submitted to the engineer for approval prior to the pre-construction conference. This certification shall be provided on each lot number to be used on the project.

6.2.2 Infrared Spectra: Infrared spectra of each component from each lot/batch number (to be used on the project) shall be submitted with the independent lab certification.

6.2.3 Test Sample for DOT Laboratory: The manufacturer shall furnish at least a one-quart sample of each component from each lot/batch to the DOT laboratory to verify material supplied by the manufacturer. Material shall be taken at job site.

6.3 Performance Acceptance

6.3.1 Thickness Verification: At the end of each day, the contractor will submit to the inspector/project engineer a signed project report stating the number of square yards applied, number of gallons used (for pretreatment and overlay) and number of pounds of aggregate estimated to have been used. In addition, the contractor shall verify to the State that the overlay is an average of at least 3/8" thick at three random locations agreed upon by the state engineer and material manufacturer representative. If 3/8" average is not achieved, a retest shall be performed in adjoining areas. Thin areas shall be re-coated as described above by the contractor and re-verified at no additional cost to the State. This verification may consist of cores, holes, etc., but in all cases, any

destructively tested areas shall be repaired by the contractor before final acceptance by the engineer.

7. MEASUREMENT

7.1 Epoxy-Urethane Waterproofing Overlay. The Department will measure the overlay application in Square Feet.

7.2 Shotblasting. The Department will measure "Blast Cleaning" in Square Yard. The Department will only measure this quantity once for any area to be shotblast. Additional blast cleaning to meet the requirements of this note shall be performed at the Contractor's expense.

7.3 Full Depth Patching. The Department will measure "Concrete Class M Full Depth Patching" in Cubic Yard.

8. PAYMENT

8.1 Epoxy-Urethane Waterproofing Overlay. The Department will pay for the measured quantities at the Contract unit bid price for "Epoxy-Urethane Waterproofing".

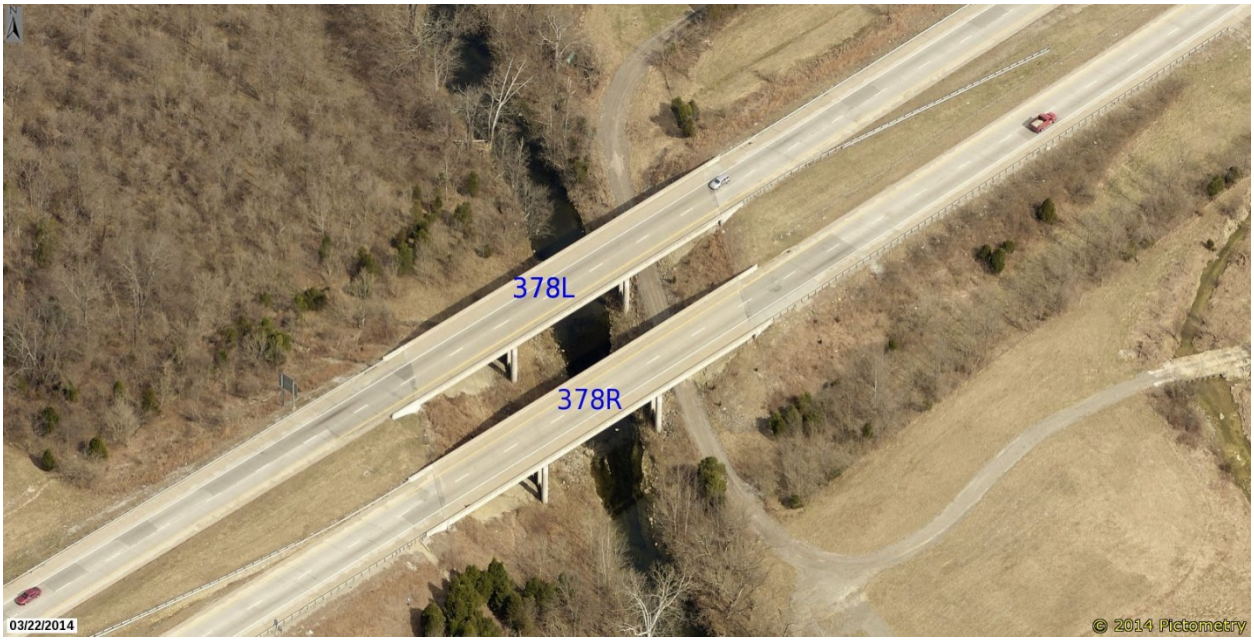
8.2 Shotblasting. The payment at the contract unit price for the pay item "Blast Cleaning" shall include all labor, equipment and material needed to complete the task as described in paragraphs 4.1.4 and 4.1.5.

8.3 Full Depth Patching. The payment at the contract unit price shall include all labor, equipment and material needed to complete this task. The Department will not measure material removal, forming, blast cleaning, or retying steel reinforcement in the patches and will consider this work incidental to the pay item "Concrete Class M Full Depth Patching".

Code	Pay Item	Pay Unit
23331EC	Epoxy-Urethane Waterproofing	SQFT
08549	Blast Cleaning	SQYD
08526	CONC Class M Full Depth Patch	CUYD

I-265 (SB/NB) over Chenoweth Run (056B00378L/R)

(MP 20.1)

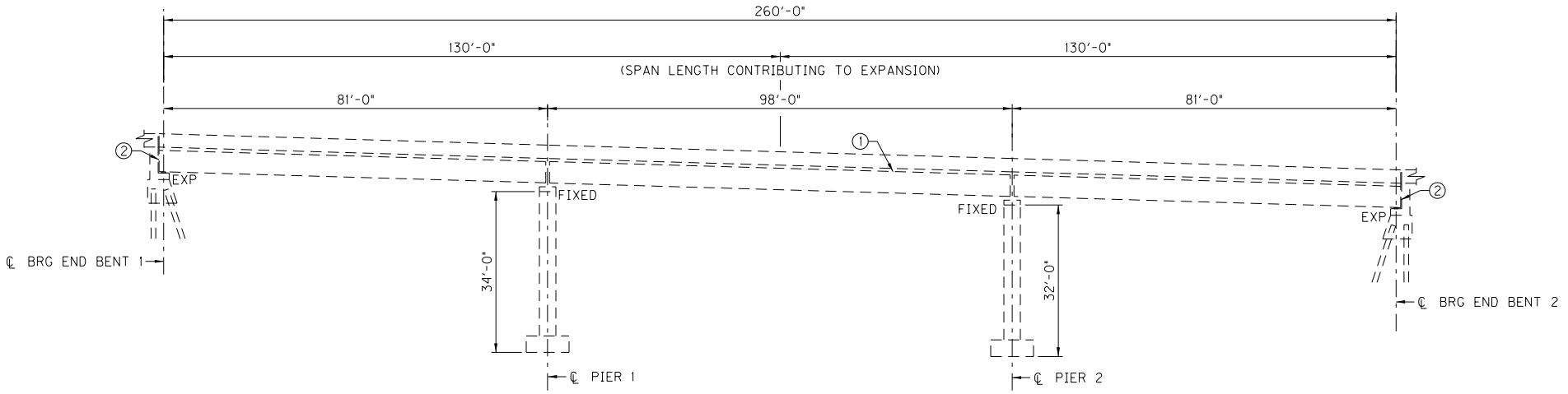


SUMMARY OF QUANTITIES – 056B00378L			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
22146EN	CONCRETE PATCHING REPAIR	95	SF
23331EC	EPOXY-URETHANE WATERPROOFING	11,515	SF
08526	CONCRETE CLASS M FULL DEPTH PATCH	3	CY
08549	BLAST CLEANING	1,280	SY
08151	STEEL REINFORCEMENT-EPOXY COATED	100	LB

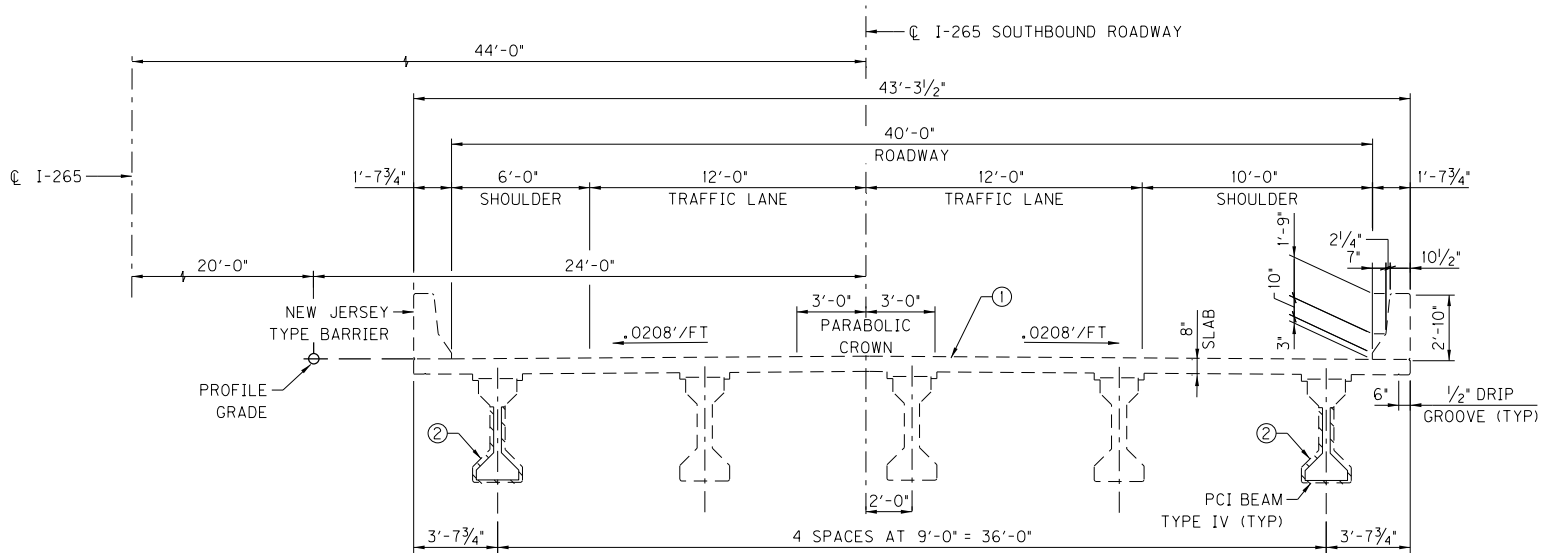
SUMMARY OF QUANTITIES – 056B00378R			
ITEM CODE	**DESCRIPTION**	**QUANTITY**	**UNIT**
22146EN	CONCRETE PATCHING REPAIR	95	SF
23331EC	EPOXY-URETHANE WATERPROOFING	11,515	SF
08526	CONCRETE CLASS M FULL DEPTH PATCH	3	CY
08549	BLAST CLEANING	1,280	SY
08151	STEEL REINFORCEMENT-EPOXY COATED	100	LB

NOTES:

- CONCRETE PATCHING QUANTITY IS AN APPROXIMATE ESTIMATE BASED ON VISUAL INSPECTION +10%.
- FULL DEPTH PATCHING QUANTITIES ARE APPROXIMATE ESTIMATES ASSUMED TO BE 1% OF TOTAL DECK AREA X FULL DECK THICKNESS.



ELEVATION



TYPICAL SECTION

NOTES:

1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 19734). 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.

CONCRETE PATCHING REPAIRS

NOTATIONS:

① INSTALL EPOXY OVERLAY

② REPAIR THE BEAM ENDS, AS REQUIRED (SEE BEAM DETAILS SHEETS)

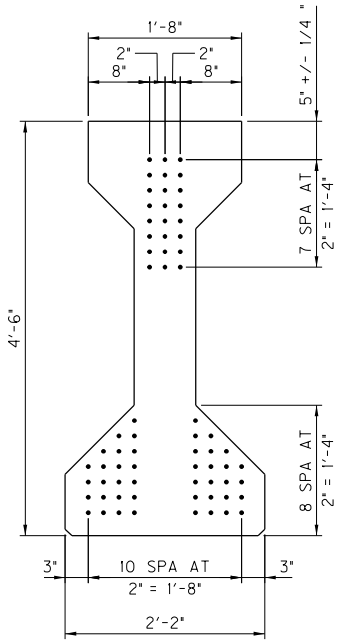
BRIDGE: 056B00378L

SHEET OF

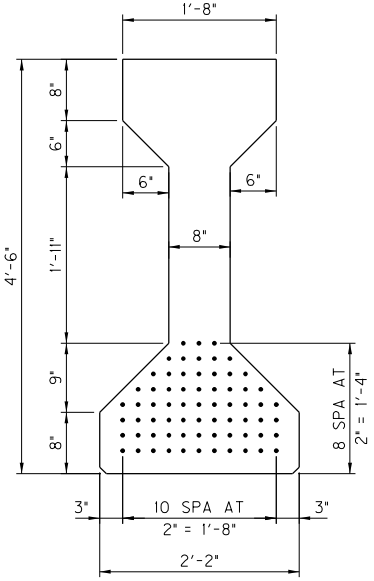
Stantec

ELEVATION & TYPICAL SECTION

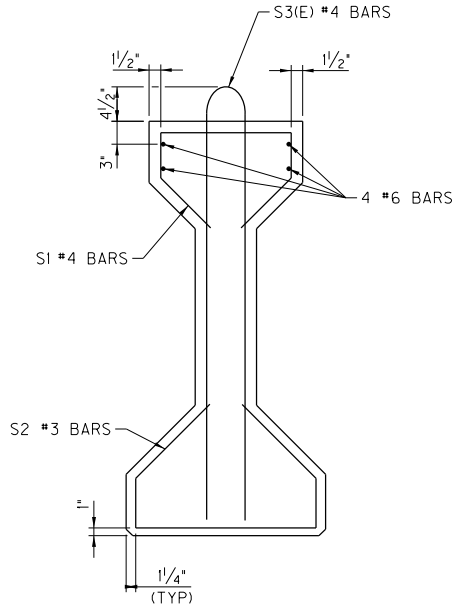
COUNTY:	JEFFERSON
ROUTE:	I-265 SB
CROSSING:	CHENOWETH RUN



PRESTRESSED STRANDS
(END OF BEAM SHOWN)

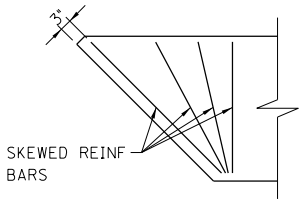


PRESTRESSED STRANDS
(MIDSPAN SHOWN)



STEEL REINFORCEMENT
(TYP)

BEAM SECTIONS – TYPE IV 54"



PART PLAN

(SHOWING SKEWED END)
(15° OR GREATER)

NOTES:

1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 19734). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

2 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.

3 REFER TO SPECIAL NOTE FOR CONCRETE PATCHING REPAIRS. DO NOT DAMAGE EXISTING REINFORCEMENT.

FOR INFORMATION ONLY

BRIDGE:
056B00378L

SHEET 3 OF 3

Stantec

BEAM DETAILS (1 of 2)

COUNTY: JEFFERSON
ROUTE: I-265 SB
CROSSING: CHENOWETH RUN

BEAM 1 AT END BENT 1

BEAM 1 AT END BENT 2

BEAM 3 AT END BENT 1
(TYP INTERIOR BEAM CONDITION)

BEAM 5 AT END BENT 1

BEAM 5 AT END BENT 2

BEAM DETAILS

NOTE:

1 REFER TO SPECIAL NOTE FOR CONCRETE PATCHING REPAIRS. DO NOT DAMAGE EXISTING REINFORCEMENT.

2 THE PHOTOS SHOWN ON THIS SHEET REPRESENT SOME OF THE MOST SIGNIFICANT DETERIORATION AREAS OBSERVED DURING A RECENT SITE VISIT; HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR INVESTIGATING ALL BEAM ENDS AT THE ABUTMENTS AND REPAIRING WHAT IS REQUIRED.

3 THE TOTAL CONCRETE PATCHING REPAIR QUANTITY REFLECTS A 3-FT LONG x 2-FT HIGH AREA OF REPAIR WORK ON A GIVEN FACE OF A BEAM. BOTH FACES OF THE EXTERIOR BEAMS WERE ASSUMED TO NEED REPAIR WORK, WHILE ONLY 1 FACE OF THE INTERIOR BEAM WAS ASSUMED TO NEED REPAIR WORK.

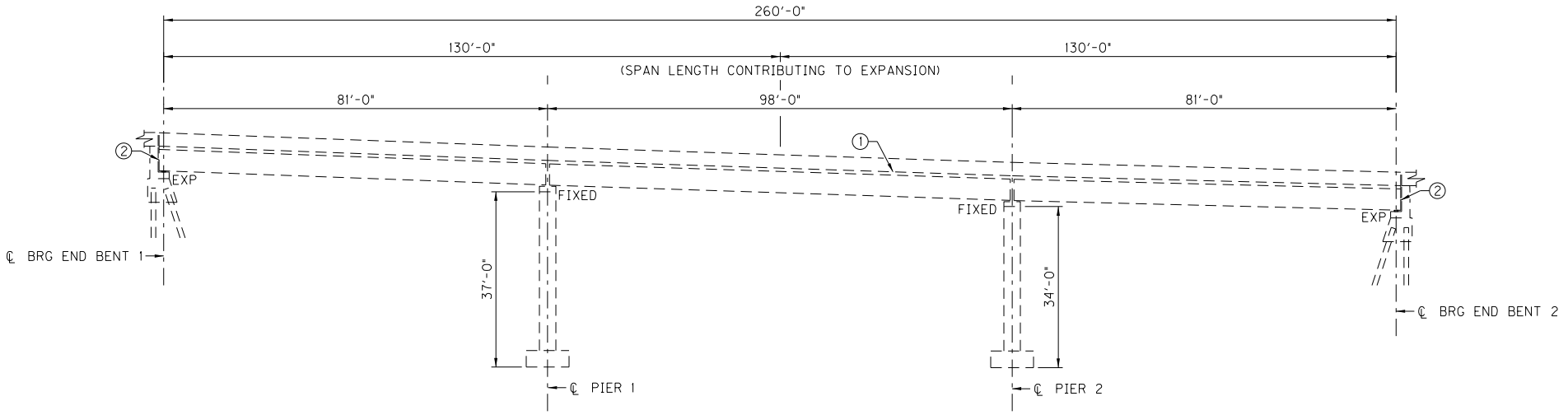
BRIDGE:
056B00378L

SHEET 3 OF 3

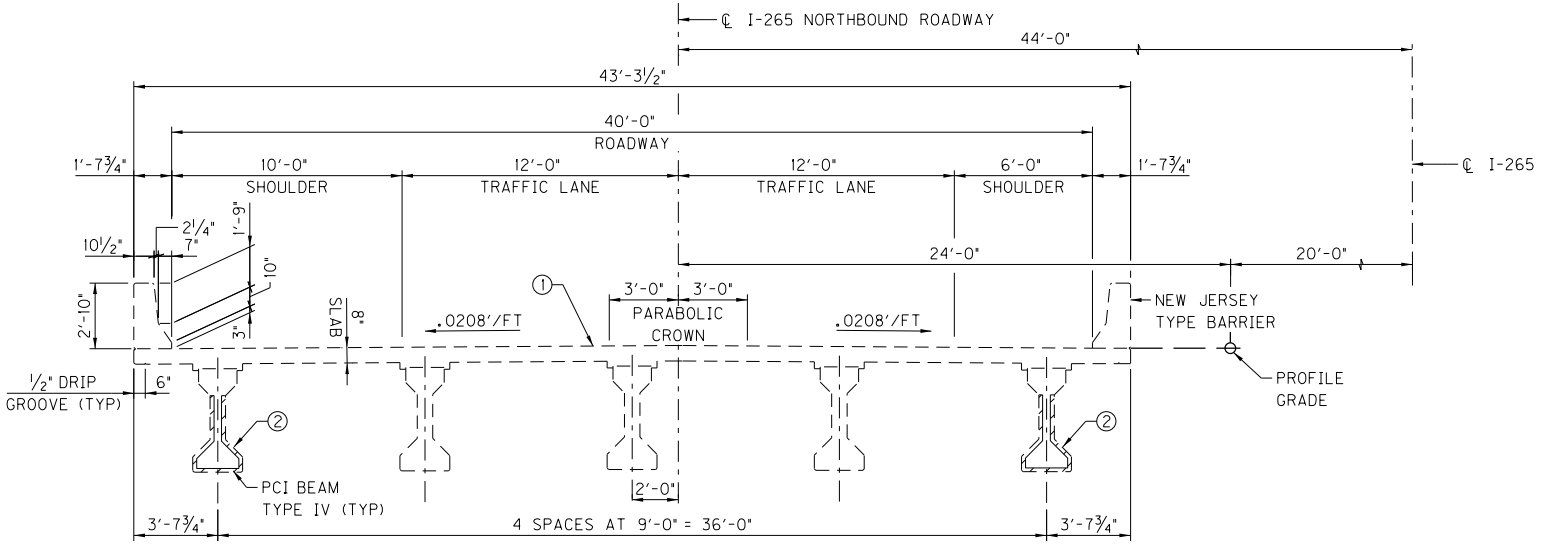
Stantec

BEAM DETAILS (2 of 2)

COUNTY:	JEFFERSON
ROUTE:	I-265 SB
CROSSING:	CHENOWETH RUN



ELEVATION



TYPICAL SECTION

NOTES:

1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 19734). 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.

▨ CONCRETE PATCHING REPAIRS

NOTATIONS:

① INSTALL EPOXY OVERLAY

② REPAIR THE BEAM ENDS, AS REQUIRED (SEE BEAM DETAILS SHEETS)

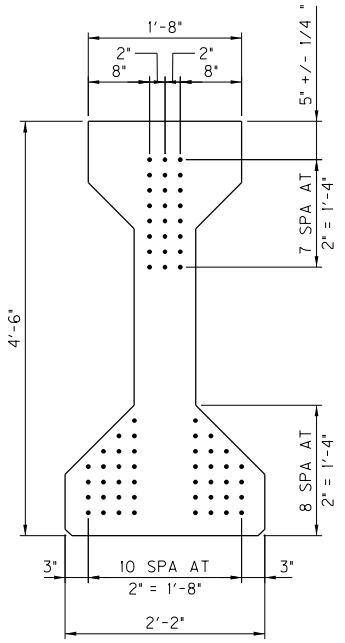
BRIDGE: 056B00378R

SHEET 8 OF

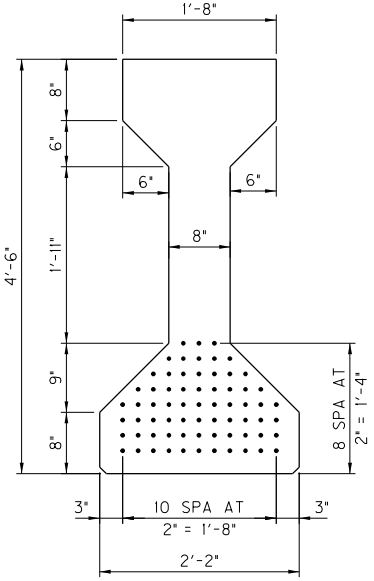
Stantec

ELEVATION & TYPICAL SECTION

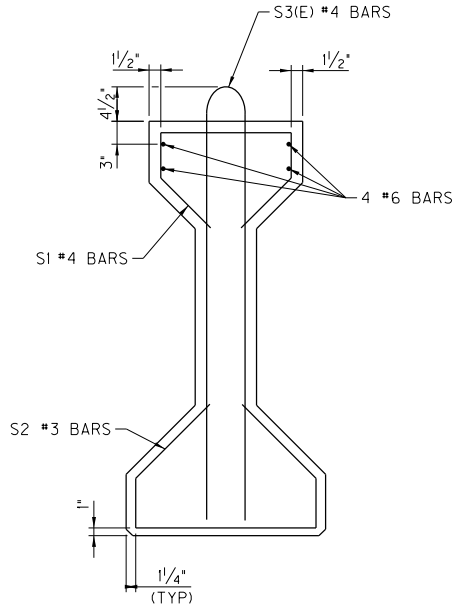
COUNTY:	JEFFERSON
ROUTE:	I-265 NB
CROSSING:	CHENOWETH RUN



PRESTRESSED STRANDS
(END OF BEAM SHOWN)

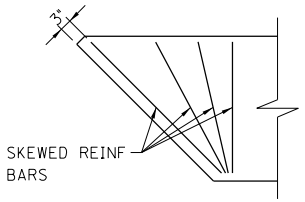


PRESTRESSED STRANDS
(MIDSPAN SHOWN)



STEEL REINFORCEMENT
(TYP)

BEAM SECTIONS – TYPE IV 54"



PART PLAN

(SHOWING SKEWED END)
(15° OR GREATER)

NOTES:

1 DETAILS SHOWN ARE BASED ON EXISTING PLANS (DWG NO 19734). FEATURES AND DIMENSIONS SHOWN ARE APPROXIMATE.

2 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.

3 REFER TO SPECIAL NOTE FOR CONCRETE PATCHING REPAIRS. DO NOT DAMAGE EXISTING REINFORCEMENT.

FOR INFORMATION ONLY

BRIDGE:
056B00378R

SHEET 3 OF 3

Stantec

BEAM DETAILS (1 of 2)

COUNTY:	JEFFERSON
ROUTE:	I-265 NB
CROSSING:	CHENOWETH RUN

BEAM 1 AT END BENT 2

BEAM 5 AT END BENT 1

BEAM 5 AT ABUT 2

BEAM 5 AT END BENT 2
(BOTTOM FLANGE SHOWN)

BEAM DETAILS

NOTE:

1 REFER TO SPECIAL NOTE FOR CONCRETE PATCHING REPAIRS. DO NOT DAMAGE EXISTING REINFORCEMENT.

2 THE PHOTOS SHOWN ON THIS SHEET REPRESENT SOME OF THE MOST SIGNIFICANT DETERIORATION AREAS OBSERVED DURING A RECENT SITE VISIT; HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR INVESTIGATING ALL BEAM ENDS AT THE ABUTMENTS AND REPAIRING WHAT IS REQUIRED.

3 THE TOTAL CONCRETE PATCHING REPAIR QUANTITY REFLECTS A 3-FT LONG x 2-FT HIGH AREA OF REPAIR WORK ON A GIVEN FACE OF A BEAM. BOTH FACES OF THE EXTERIOR BEAMS WERE ASSUMED TO NEED REPAIR WORK, WHILE ONLY 1 FACE OF THE INTERIOR BEAM WAS ASSUMED TO NEED REPAIR WORK.

BRIDGE:
056B00378R

SHEET 3 OF 3

Stantec

BEAM DETAILS (2 of 2)

COUNTY: JEFFERSON
ROUTE: I-265 NB
CROSSING: CHENOWETH RUN