



CALL NO. 102

CONTRACT ID. 091037

WHITLEY COUNTY

FED/STATE PROJECT NUMBER NH 75-1 (074)

DESCRIPTION TENNESSEE STATE LINE-LEXINGTON ROAD (I-75)

WORK TYPE ASPHALT REHAB INTERSTATE/PARKWAY

PRIMARY COMPLETION DATE 8/1/2010

LETTING DATE: July 24, 2009

Sealed Bids will be received in the Division of Construction Procurement and/or the Auditorium located on the 1st floor of the Transportation Cabinet Office Building until 10:00 AM EASTERN DAYLIGHT TIME July 24, 2009. Bids will be publicly opened and read at 10:00 AM EASTERN DAYLIGHT TIME.

DBE CERTIFICATION REQUIRED - 7.40%

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

(Check guaranty submitted: Cashier's Check Certified Check Bid Bond)

BID BONDS WHEN SUBMITTED WILL BE RETAINED WITH THE PROPOSAL

DBE General Plan Included

BID

PROPOSAL ISSUED TO: _____

SPECIMEN

Address City State Zip

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PART I
SCOPE OF WORK

CONTRACT ID - 091037

ADMINISTRATIVE DISTRICT - 11

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY - WHITLEY
NH 75-1 (074)

PCN - DE11800750937

TENNESSEE STATE LINE-LEXINGTON ROAD (I-75) PAVEMENT REHABILITATION ON NB AND SB I-75 FROM
0.242 MILE SOUTH OF KY 296 UNDERPASS NORTHERLY TO 1.03 MILE N OF KY 511. ASPHALT REHAB
INTERSTATE/PARKWAY. SYP NO. 11-02030.00.
GEOGRAPHIC COORDINATES LATITUDE 36^45'00" LONGITUDE 84^10'00"

COMPLETION DATE(S):

COMPLETION DATE - August 01, 2010
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 Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/contract)

The Bidder must download the bid file located on the web site to prepare a bid packet for submission to the Department. The bidder must include the completed bid packet printed from the Program along with the disk created by said program.

JOINT VENTURE BIDDING

Joint Venture bidding is permissible. However, both companies MUST purchase a bidding proposal. Either proposal may be submitted but must contain the company names and signatures of both parties where required. 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 is advised that the Underground Facility Damage Protection Act of 1994, became law January 1, 1995. It is the contractor's responsibility to determine the impact of the act regarding this project, and take all steps necessary to be in compliance with the provision of the act.

01/01/2009

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 Capacity Rating
102.08 Irregular Proposals
102.09 Proposal Guaranty

102.10 Delivery of Proposals
102.14 Disqualification of Bidders

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.

FHWA 1273

The requirements of Paragraph VI of FHWA 1273 does not apply to projects with a total cost of less than \$1,000,000.00.

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 READ PUBLICLY.** 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 printed bid packet. 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

All bidders are encouraged to submit their General DBE Participation Plan with their bid on the official form. Lowest responsive bidders whose bid packages include DBE Participation Plans may be awarded the contract at the next Awards Committee meeting provided that the DBE goal is met. 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;
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.

The apparent low bidder who does not submit a General DBE Participation Plan with the bid shall submit it within 10 calendar days after receipt of notification that they are the apparent low bidder. The project will not be considered for award prior to submission and approval of the apparent low bidder's DBE Participation Plan.

Detailed DBE Participation Plan forms will be included in the Contractor Package presented to successful bidders following the awarding of the project. The Detailed DBE Participation Plan must be completed and returned to Contract Procurement in accordance with Cabinet policy. A copy of the blank estimate will be included with the Detailed DBE Participation Plan to list sequence items by PCN (Project Control Number).

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 and nine (9) copies of this information must be received in the office of the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

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

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

1. Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted districts do not provide an intent to quote or no DBEs are prequalified in the subcontracted areas, the bidder must notify the DBE Liaison in the Office of Minority Affairs 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 submit certified reports on monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal.

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.

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:

<http://transportation.ky.gov/construction/forms/DBEcheck.xls>

Photocopied payments and completed form to be submitted to:

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

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.

06/29/2009

KYTC
DBE Payments

updated 2/28/08

Prime Contractor		Cont-ID	
DBE Contractor		CHECK #	
PAYMENT DATE		Amount of Payment	
Use the section below to show multiple payments using the same check			
Cont-ID	Amount	Cont-ID	Amount

Comments:

attach copy of check here

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

to be Submitted within 7 days of receipt of payment from KYTC

TRAINEES

In Compliance with the "TRAINING SPECIAL PROVISION" included in Part III of the Proposal, the Contractor will be required to employ 2 trainee(s) (CLASS A OR B OPERATORS) for this contract.

ASPHALT MIXTURE

The rate of application for all asphalt mixtures shall be estimated at 110 lbs/sy per inch of depth, unless otherwise noted.

DGA BASE

The rate of application for DGA Base shall be estimated at 115 lbs/sy per inch of depth.

DGA BASE FOR SHOULDERS

The rate of application shall be estimated at 115 lbs/sy per inch of depth. Payment for necessary grading and/or shaping of existing shoulders prior to placing of Dense Graded Aggregate Base shall be included in the unit price bid per ton for Dense Graded Aggregate Base.

INCIDENTAL SURFACING

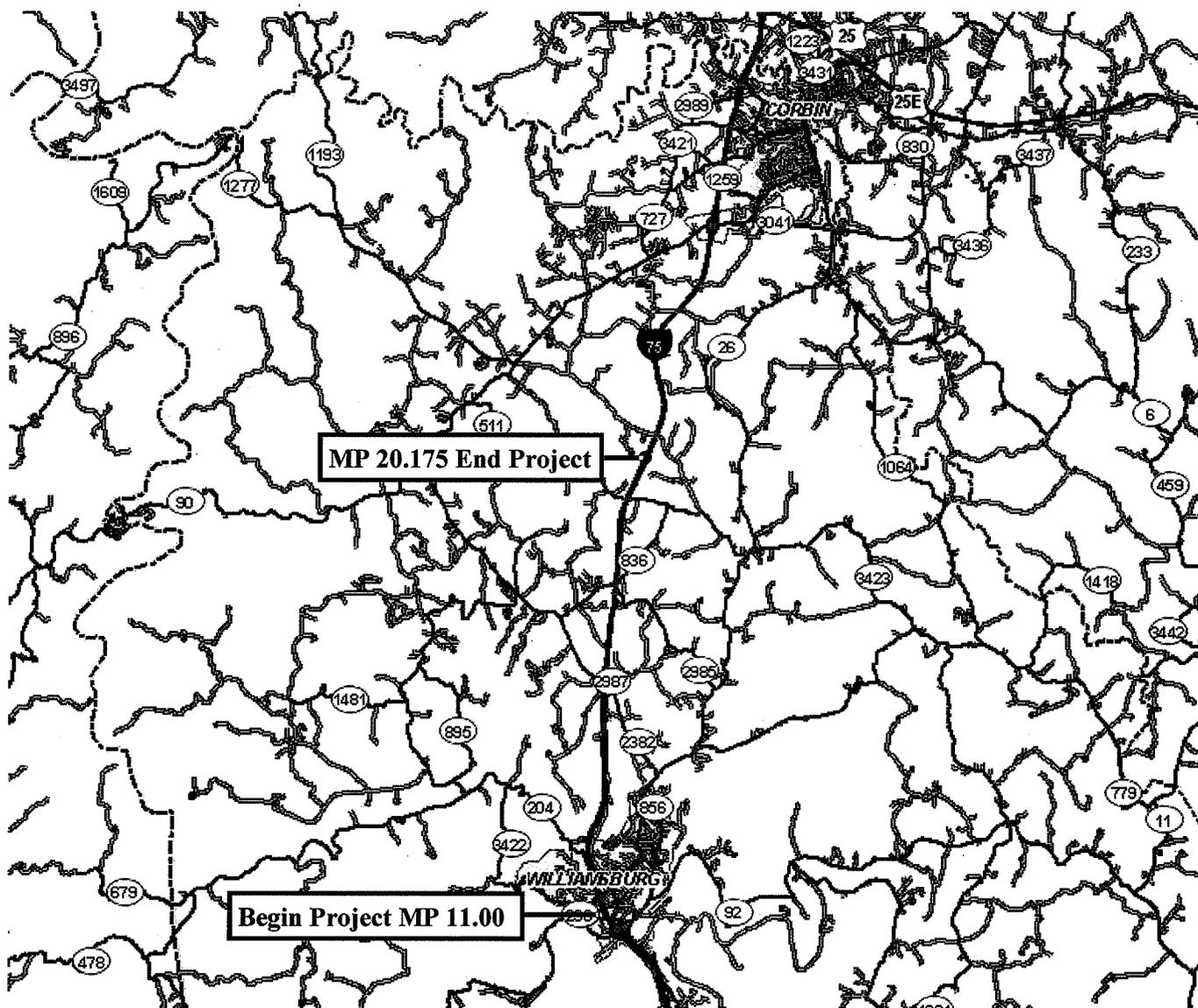
The quantities established in the proposal include estimated quantities required for resurfacing or surfacing mailbox turnouts, farm field entrances, residential and commercial entrances, and road and street approaches. These items are to be paved to the limits as shown on Standard Drawing RPM 110 or to the limits as directed by the Engineer. In the event signal detectors are present in the intersecting streets or roads, the paving of the crossroads shall be to the right of way limit or back of the signal detector, whichever is the farthest back of the mainline. These areas are to be surfaced or resurfaced as directed by the Engineer and no direct payment will be allowed for placing and compacting.

FUEL AND ASPHALT PAY ADJUSTMENT

The following contract items: Asphalt Adjustment and Fuel Adjustment, are for possible future payments. Additional monies may need to be setup with an additional change order if existing contract amount is insufficient to pay all items on the contract. Unit price is \$1.00. Quantity will be actual adjustment after work is completed.

OPTION A

The Contractor is advised that the compaction of asphalt mixtures furnished for driving lanes and ramps, at 25mm (1 inch) or greater, on this project will be accepted according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specification. Joint cores as described in subsection 402.03.02 are required for surface mixtures only. The compaction of all other asphalt mixtures will be accepted by OPTION B.



**KENTUCKY
DEPARTMENT OF HIGHWAYS
COUNTY OF WHITLEY**

ITEM NO. 11-2030.00
 PROJECT #: IM 75-1 (074)
 LETTING DATE 7-24-09

RECOMMENDED BY: *Paul White* DATE: 6-16-09
 PROJECT MANAGER

PLAN APPROVED BY: *[Signature]* DATE: 6/17/09
 STATE HIGHWAY ENGINEER

FHWA APPROVED BY: _____ DATE: _____

**Whitley County
MP 11.00 to MP 20.175
Item No. 11-2030.00**

Special Notes For Pavement Rehabilitation
Whitley County
FD52 118 0075 011-020

**This project is a fully
Controlled Access Highway**

General

Perform all work in accordance with the Department's 2008 Standard Specifications, applicable Special Provisions, and Standard and Sepia Drawings except as specified in these notes or elsewhere in this proposal. Article references are to the Standard Specifications.

Asphalt Pavement

Construct leveling and wedging, asphalt base, and asphalt surface as shown on the drawings and described in the scope of work. Correct pavement cross slopes and superelevations as shown on the typical sections and as directed by the Engineer. Additional quantities of CL4 Asph Base 1.5D PG64-22 have been established to raise the cross slope to 2%. Use a Material Transfer Vehicle to place all asphalt mixes on mainline and ramp mainline driving lanes. Construct pavement rumble strips in accordance with Construction Memo 7-06.

Pavement Striping

See Traffic Control Plan.

Guardrail

Guardrail, End Treatments and Terminal Sections to be replaced are listed by mile points. Exact placement is to be approved by the Engineer during construction. Removed guardrail shall be delivered to the Bailey Bridge Yard in Frankfort and shall be neatly stacked in accordance with section 719.03.07 of the Standard Specifications. All quantities of guardrail are to be signed for by a Department Representative and reported to the Resident Engineer. To minimize safety hazards, guardrail removal is to be performed at the latest practical time prior to initiating the paving operation in an area and re-installation is to begin within 5 calendar days from the time that the final base course is completed in the North or South Direction and shall be pursued until completion. If guardrail installation is not started within 5 calendar days after paving operation ends Liquidated Damages will be charged as outlined in Section 108 of the 2008 Standard Specifications. See Thrie Beam Guardrail Note for Thrie Beam replacement.

Final Dressing, Cleanup, and Seeding & Protection

After all work is complete, remove all waste and debris from construction job sites. Dispose of waste at sites off the right of way obtained by the contractor at no additional cost to the Department. The Contractor will be responsible for obtaining any necessary permits or jurisdictional determinations from any applicable agencies. The contractor will also be responsible for filing a Notice of Intent and Notice of Termination for the

KPDES statewide permit and maintain weekly erosion reports if applicable. Perform Final Dressing Class A on all disturbed areas and sow with Seed Mixture No. 1. Final Dressing and Seeding should be performed progressively and as soon as practical in accordance with Best Management Practices. Top dressing fertilizer shall be applied in accordance with Section 212.03.03 of the 2008 Standard Specifications.

Remove Median Crossovers

Median Crossovers located at Mileposts 14.796 and 16.197 are to be removed. Payment for each will include Pavement Removal, excavation necessary to construct the median to the typical cross slope, and to dispose of the waste materials. Additional items including seeding will be paid for at the contract unit price. Median crossovers to be left in place at mile post 20.1 will be overlaid with the same materials as the outside shoulders.

On-Site Inspection

Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. Any claims resulting from site conditions will not be honored by the Department.

Caution

Information shown on the drawings 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 encountered during construction. The bidder must draw his own conclusion as to the conditions encountered. The 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.

Property Damage

Be responsible for all damage to public and/or private property resulting from this work. Restore all disturbed features in like kind materials and design to the existing or proposed grades, as applicable, at no additional cost to the Department.

Utility Clearance

Work around and do not disturb existing overhead and underground utilities. The Department does not anticipate that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the contractor will be responsible for the coordination of this work. The utility companies will work concurrently with the contractor while relocating their facilities. Time extensions will only be considered if the subject utility relocation affects the controlling item of work while in progress.

Truck Mounted Variable Message Sign

Provide a Variable Message sign similar in programmable capabilities to the specified carriage mounted message signs. This sign is to be mounted on a licensed highway

vehicle. The vehicle and sign are to be manned and operated at all times between the hours of 12:00 noon and 8:00 PM in which a daytime lane closure is in place and at any other times in which a traffic backup occurs. This vehicle and sign's intended use is to be maintained at approximately ½ mile from the lane closure or backup point to warn of stopped traffic to reduce rear end collisions. The operator's sole duty is for the operation of this sign and no other duties. **This item will be incidental to Maintain & Control Traffic Item.**

Typical Section

Dimensions shown on the typical sections for pavement and shoulder widths and thicknesses 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.

Ramp Traffic

All ramps for Exit 15 must remain open at all times. The required work on ramps must be performed in half widths with a traffic scheme, properly marked and approved by the Engineer. For ramp shoulder pavement replacement, actively pursue the work necessary to fill the trench as a continuous operation until flush with the mainline pavement. Ramp pavement will be transitioned (tapered) vertically at the rate shown on drawing in the proposal. This distance will vary on each ramp depending on the existing ramp conditions or dimensions. The surface course will be keyed in to the existing concrete over 37.5 feet and will be paid as milling and texturing. Taper base courses to the existing concrete. Leveling and Wedging may be used for thinner applications of this taper.

Perforated Pipe Underdrain System

Outlet spacing for 4 inch perforated edge drain pipe should not exceed 500 feet. For grades less than 1%, spacing of outlets should not exceed 250 feet. Outlet spacing for 6 inch perforated edge drain pipe should not exceed 1000 feet. For grades less than 1%, spacing of outlets should not exceed 500 feet. All sags shall have an outlet. An outlet must be provided upstream of undercut areas having granular embankment installed. 4 inch perforated pipe will be installed with an outlet at the low point of all digouts/undercuts.

Median Work

All work in the median shall be done so as to ensure positive drainage. Embankment in Place will be paid for at Plan Quantity plus or minus authorized adjustments. Plan quantity will be 15,434 Cubic Yards for the median wedge. Contractor is warned this amount is for bid purposes only and **no adjustment will be made to this item.** This quantity shall be full pay for material necessary to place median wedge on a minimum of 6:1 slope or as close to a 6:1 as site conditions will permit. If the desired slope is not achieved on the 1st pass additional material shall be placed to achieve desired median slope. This quantity also includes additional material needed to dress median at MP 17.5 and 18.965 to desired median grade. An additional 500 Cubic Yards will be included for the purposes of slope modifications as directed by the Engineer for example embankment to be used to build 6" earth dike at bridge ends. This additional anticipated work will be measured, paid at actual as-built quantity and considered an authorized adjustment to the

plan quantity of 15,434 Cubic Yards. If contractor feels additional adjustments are needed for slope modifications, with the exception of median wedge, they must submit a request within 1 week or no claim will be entertained.

Ramp Widening

The Northbound Entrance Ramp (Exit 15) widening shall be performed as directed by Resident Engineer and as outlined in the attached drawings. The estimated quantity for embankment benches is 3,324 cubic yards however if errors exceed the 5% as outlined in Section 204.04.02 of the 2008 Standard Specifications adjustments will be made accordingly. If contractor feels that the estimated quantities are in error and have adequate justification to prove claim they must submit a request within 1 week or no claim will be entertained.

Bifurcated Median Work

The bifurcated median beginning at MP 18.495 shall be filled as outlined in attached drawings. The estimated quantity, based on 100 foot intervals, to fill this median is 8,950 cubic yards, however if errors exceed the 5% as outlined in Section 204.04.02 the 2008 Standard Specifications adjustments will be made accordingly. If contractor feels that the estimated quantities are in error and have adequate justification to prove claim they must submit a request within 1 week or no claim will be entertained. Material to fill this section of median can be retrieved from the remainder of the bifurcated median just south of this area.

Erosion Control

There are no erosion control plans for this project. The contractor is advised, however that an erosion control BMP plan must be developed for this project conjointly with the Engineer and BMP measures must be installed, maintained and monitored in accordance with all applicable regulations and the approved BMP.

Asphalt Pavement Ride Quality

Pavement Rideability requirements, in accordance with Section 410 of the Standard Specifications and Supplemental Specifications shall apply on this project. Contrary to the 2008 Standard Specifications and as outlined in the Supplemental Specifications no bonus will be paid for an IRI less than 47 but penalties will be applied if IRI is greater than 66.

Compaction of Asphalt Mixes

The Contractor is advised that the compaction of asphalt mixes furnished for driving lanes and ramps at 1 inch or greater on this project will be accepted according to Option A in accordance with section 402 and section 403 of the Standard Specifications. Joint

cores as described in Subsection 402.03.02 are required for surface mixtures only. The compaction of all other mixes will be accepted by Option B.

Bridge Repairs

See attached drawings for work to be performed on both the Northbound and Southbound lanes of Bridge B00045 (Cumberland River Bridge & Croley Road Bridge MP 14.561) and B00045 (KY 836 Overpass MP 17.342).

Thrie Beam Guardrail

Thrie Beam Guardrail has been established to replace the existing rail on both B00045 & B00046 Bridges. Contractor is advised that all field cutting, welding, and drilling shall be done only at Resident Engineers approval and any rail with damaged coating will not be accepted for pay. The pay per linear foot will include placing new rail and replacing \ repairing any damaged posts that may be damaged prior to letting or damaged between the time the project is let and the time that work will be performed. See attached drawing for repair of existing thrie beam rail post. Any additional hardware that may be needed will be considered incidental to the placement of thrie beam rail. Removal of existing thrie beam will be paid for as guardrail removal.

Remove Curb Box Inlet

Remove 4 existing Curb Box inlets at each bridge end to an elevation not less than 5 feet below the original ground surface. Plug all pipes and fill the resulting hole with flowable fill. Payment for Remove Curb Box Inlet will be full compensation for removal, plugging pipe and for backfill. Install approximately 25 feet of new island curb at each location to direct water from the bridge end and place channel lining class II to direct water over the slopes as directed by the Engineer.

Remove 18" Concrete Headwalls

Remove 18 inch concrete headwalls at mile post 17.5 , 18.497, 18.965 and custom fit Type 3 DBIs to match median ditch. Headwall in median at mile post 17.5 will be removed and replaced with a Type 3 DBI. Embankment in place will be used to construct median back to typical section. Existing 18 inch headwalls will be removed at mile post 18.965, 60 linear feet of 18 inch concrete culvert pipe will be installed, and Type 3 DBI will be constructed in median. Type 3 DBI will also be constructed at MP 18.495 (Bifurcated Median) Payment for removal of existing headwall will be paid each, culvert pipe will be paid by linear feet, and DBI will be paid each. All Earthwork performed at mile post 18.965 will be considered incidental to pay for headwall removal.

Existing Signs

Remove existing signs only when necessary, protect and store them in a safe location. If a sign is damaged during removal, storage or re-installation, the Contractor will be responsible to replace it at no cost to the Department. Re-install all signs at their original location by approved methods. This work will be incidental to Traffic Control.

References

1. Kentucky Transportation Cabinet, Department of Highways, *Standard Specifications for Road and Bridge Construction*, Edition of 2008.
2. FHWA Manual on Uniform Traffic Control Devices
3. Kentucky Department of Highways Standard Drawings, current editions, as applicable:

RBB-002-08	Guardrail and Bridge End Drainage for Twin Structures
RBB-003-02	Layout of Guardrail at Twin Structures (Depressed Median)
RBC-001-008	Guardrail Connector to Bridge End Type A and A-1
RBC-002	Guardrail Connector to Bridge End Type A and A-1 Components
RBC-003-06	Guardrail Connector to Bridge End Type A and A-1 Components
RBE-205-03	Crash Cushion Type IX-A
RBE-07-04	Concrete Median Barrier End for Crash Cushion Type IX
RBI-001-09	Typical Guardrail Installations
RBI-002-06	Typical Guardrail Installations
RBI-003-06	Typical Installation of Guardrail End Treatment 2A
RBI-004-02	Installation of Guardrail End Treatment Type I
RBI-001-11	Steel Beam Guardrail (W Beam)
RBR-005-10	Guardrail Components
RBR-010-05	Guardrail Terminal Sections
RBR-015-04	Guardrail Posts
RBR-016-04	Guardrail Posts
RBR-020-02	Guardrail End Treatment Type I
RBR-025-03	Guardrail End Treatment Type 2A
RBR-030-04	Guardrail End Treatment Type 3
RBR-100-05	Steel Beam Guardrail (Thrie Beam)
RDP-001-05	Perforated Pipe Types and Cover Heights
RDP-010-07	Perforated Pipe Headwalls
RPM-001-03	Permanent UTurn Median Opening
RPM-100-09	Curb and Gutter, Curbs and Valley Gutter
TPM-105	Pavement Marker Arrangements Multi-Lane Roadways
TPM-125	Pavement Marker Arrangement Exit Gore and Off Ramp
TPM-130	Pavement Marker Arrangement with Tapered Acceleration Lane
TTC-115	Lane Closure Multi-Lane Case I
TTC-135	Shoulder Closure
TTD-100	Miscellaneous Traffic Control Devices
TTD-105	Miscellaneous Traffic Control Devices
TTD-110	Post Splicing Detail
TTD-115	Arrow Panel
TTS-115	Mobile Operation for Paint Striping Case IV

Traffic Control Plan FD52 118 0075 011-020

This project is a fully controlled access highway.

Traffic Control General

Except as provided herein, maintain and control traffic in accordance with the 2008 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".

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.

The speed limit in work areas will be reduced to 55 mph and double fines for work zone speeding violations may be established. The extent of these areas within the project limits will be restricted to the proximity of actual work areas as determined by the Engineer. Reduced speed limits and double fine zones will be in place when workers are exposed to traffic hazards.

Project Phasing and Construction Procedures

No lane closures will be allowed on the following days and hours:

9:00 AM Thursday – 7:00 PM Thursday	Every Week
7:00 AM Friday – 8:00 PM Sunday	Every Week
7:00 AM Thurs July 2, 2009 – 7:00 PM Tues July 7, 2009	Independence Day
9:00 AM Aug 19, 2009 – 8:00 PM Aug 24 2009	Bristol – Southbound
7:00 AM Aug 21, 2009-8:00 PM Aug 24, 2009	Bristol – Northbound
Friday Sept 4, 2009 – 8:00 AM Sept 8, 2009	Labor Day
7:00 AM Wed Nov 15, 2009 – 8:00 PM Nov 29, 2009	Thanksgiving Week
Dec 23, 2009 – 8:00 PM Jan 1, 2010	Christmas/New Years
Wednesday – Sunday (Week TBA)	Bristol – Southbound
Sunday – Monday (Week TBA)	Bristol – Northbound
Sunday May 30, 2010 – 8:00 PM June 1, 2010	Memorial Day
Friday July 2, 2010 – Monday July 5, 2010	Independence Day

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

Maintain a minimum of one traffic lane (mainline) at all times during construction. The clear lane width shall be 11 feet; however, make provisions for passage of vehicles up to 16 feet width. Repair or pave shoulders used as temporary roadways with asphalt mixtures for leveling and wedging as directed by the engineer prior to opening to traffic.

Phase IA

Place leveling material on the right shoulder in the vicinity of the digouts to alleviate any irregularities prior to beginning work on the bridge digouts.

Phase IB

Construct all bridge end digouts Northbound and Southbound. Also perform intermediate digout repairs in this phase. Construction in this phase will include material necessary to bring pavement back to the existing grade. Once work begins and a drop off situation is in place, the contractor must work continuously until the digout is brought back up to the grade of the existing pavement. Perform the left lane of the digout first and complete both approaches of each lane under the same lane closure. Contractor will obtain services of a Law Enforcement Officer to have in place to control and slow traffic when digouts begin and traffic is exposed to drop offs. Payment will be by the hour at unit cost bid for these Law Enforcement Officers.

Phase IC

Set Type 9T Barrier wall, perform expansion dam repairs, bridge handrail repairs and latex overlays.

Phase ID

Trench and replace shoulder pavement in the ramp areas as shown in ramp drawings. Work continuously until the resulting trench is paved back to existing concrete grade. Do not excavate more than can be filled within the Contractor's work schedule or filled before lane closure restrictions become applicable.

Phase II

Construct the new edge drain system. Remove existing guardrail where necessary and protect areas where guardrail is removed in accordance with Standards, MUTCD, and 2008 Standard Specifications. Construct median embankment to match the existing shoulder elevation. The guardrail removal operation shall be done as late as possible to minimize the length of time traffic is exposed to unprotected areas.

Phase III

Break, seat and overlay Northbound Lanes with asphalt base from MP 11.2 up to the KY 836 Overpass MP 17.342. Overlay the inside lane and inside shoulder to a scheduled stopping point, place the inside shoulder DGA Wedge, shift traffic to the inside lane, then pave the right lane, right shoulder and place the DGA Wedge on the right shoulder prior to opening to two lane traffic. Traffic should be allowed to travel on the first layer of base no more than one week prior to placing the second layer of base. This work shall be completed by November 15, 2009 or LDs will be charged to project as specified in the 2008 Standard Specifications. If contractor desires and has ample time to go beyond MP 17.342 they must be able to complete entire work in the Northbound direction as described above.

Phase IIIA

Final dress the median embankment, shape the Northbound DGA wedges to match the typical section, and apply asphalt seal coat at contractor's option, except thru guardrail areas. If contractor chooses this option then they will be responsible for any areas that may exceed 1" and will be required to re-chip these areas at contractor's expense. Begin guardrail installation within 5 days of asphalt shoulder base completion. If guardrail installation is not complete within 2 weeks liquidated damages will be charged as outlined in 2008 Standard Specifications.

Phase IIIB

Complete remainder of the work in the Northbound lanes as described in Phases IIIA and IIIB.

Phase IV

Construct the new edge drain system. Remove existing guardrail where necessary and protect areas where guardrail is removed in accordance with Standards, MUTCD, and 2008 Standard Specifications. Construct median embankment to match the existing shoulder elevation. The guardrail removal operation shall be done as late as possible to minimize the length of time traffic is exposed to unprotected areas. On or after April 1, 2010 Break, seat and overlay Southbound Lanes with asphalt base. Overlay the inside lane and inside shoulder to a scheduled stopping point, place the inside shoulder DGA Wedge, shift traffic to the inside lane, then pave the right lane, right shoulder and place the DGA Wedge on the right shoulder prior to opening to two lane traffic. Traffic should be allowed to travel on the first layer of base no more than one week prior to placing the second layer of base.

Phase IVA

Repeat process in Phase IIIA for the Southbound Direction.

Phase V

Place final surfacing both Northbound and Southbound and pavement markings throughout the project. All work shall be completed by May 31, 2010 or LDs will be charged to project as specified in the 2008 Standard Specifications. **Under no circumstances will any time extensions be granted for this project.**

Lane Closures

Do not leave lane closures during prohibited hours. Daytime lane closures will only be allowed for specific items listed and a limited number of days of Daytime closures will be allowed. Liquidated damages as specified in the Special Note for Project Completion and Liquidated Damages will be applied for all lane closure that are in effect during prohibited hours and for all days in which the time allotted for daytime lane closures are

exceeded. The contractor may choose to and is encouraged to perform certain items of work by cover of a lane closure approved for another item of work. At no time should a daytime lane closure exceed 4 miles unless written permission is granted by District Office. At no time shall a Nighthtime lane closures exceed 4 miles without the Resident Engineers approval. Nighthtime lane closures exceeding 4 miles in length will be handled on a case by case basis. Lane closures in the same direction shall be spaced a minimum of 1 mile apart. The contractor is advised to only place the lane closure the length of need and as additional length is needed the lane closure may be extended. The Resident Engineer reserves the right to notify contractor to shorten the length of the lane closure when deemed necessary. In the event that traffic backs up more than three miles, the Resident Engineer may require the contractor to make the project safe and open both lanes to traffic until traffic backup subsides.

Daytime shoulder closures and work which can be performed safely by cover of a shoulder closure will be allowed at any time except during those times that a lane closure is prohibited by an event listed in the above table. Work will be allowed behind a shoulder closure from Thursday to Sunday except during Holidays and other listed events.

Daytime lane closures will be allowed for the following items of work. Daytime hours are described as 7:00 AM to 7:00 PM. A total of 78 daytime lane closure days will be allowed to perform the following items of work only.

- 1) Breaking and Seating, Paving, and DGA wedge placement.
- 2) Bridge Joint Replacement and Latex\Rosspphalt Overlays.
- 3) Bridge End Digouts and Intermediate Digouts.
- 4) Asphalt Seal Aggregate.
- 5) Final Surfacing and Pavement Markings.

A daytime lane closure day will be counted for each lane closure. If multiple lane closures are in place then multiple days will be counted. For example, if two lane closures are in place in any given location or direction then two lane closure days will be charged for that day. All other items requiring a lane closure must be either performed during non-daytime hours or by cover of a lane closure for another approved item. Any lane closure in place during hours defined as daytime hours will be charged as a full day of daytime lane closure, regardless of the length of time the lane closure is in place.

PERMANENT SIGNS

All existing permanent sign will be inventoried by Resident Engineers Office. Any sign removed or damaged during construction activities shall be repaired\replaced at contractor's expense. All signs taken out of service shall be replaced as soon as possible and at Residents Direction.

SIGNS

The Engineer may require additional traffic control signs in addition to normal lane closure signing detailed in the Standard Drawings. Additional signs needed may include, but are not limited to, dual mounted LEFT/RIGHT LANE CLOSED 1 MILE, LEFT/RIGHT LANE CLOSED 2 MILE, LEFT/RIGHT LANE CLOSED 3 MILE, SLOWED/STOPPED TRAFFIC AHEAD, KEEP RIGHT, KEEP LEFT, etc...

Contrary to Section 112.04.02 and 112.04.03, Low Shoulder signs will not be measured for payment, but shall be incidental to Maintain and Control Traffic. Contrary to section 112.04.02, only long term signs (signs intended to be continuously in place for more than 5 days) will be measured for payment; short term signs (signs intended to be left in place for 5 days or less) will not be measured for payment but shall be incidental to Maintain and Control Traffic. 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 directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment.

VARIABLE MESSAGE SIGNS

Provide a minimum of two Variable Message Signs for each direction of travel in advance of or on the project at locations designated by the Engineer. The Engineer will designate the messages to be provided. The locations and messages designated may vary as the work progresses. The Variable Message Signs shall be in operation at all times. In the event of damage or mechanical/electrical failure, immediately repair or replace the Variable Message Sign. Replacements for damaged variable message signs directed by the Engineer to be replaced due to poor condition or legibility will not be measured for payment. An additional truck mounted variable message sign will be required to be staffed and maintained at approximately ½ mile in advance of the work or traffic backup to warn motorists of stopped traffic ahead. This sign and all labor and equipment necessary to staff this sign will be considered incidental to maintain and control traffic. This sign is intended to be capable of being mobile and dynamically maintain a warning of stopped traffic ahead at variable locations as needed.

BARRICADES

Barricades used in lieu of barrels and cones for channelization or delineation will be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas and shoulder drop-offs greater than 4 inches will be measured and paid as individual units each according to Section 112.04.05. Individual barricades 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 barricades directed by the Engineer to be replaced due to poor condition or reflectivity will not be measured for payment.

PAVEMENT MARKINGS

Permanent and Temporary Striping shall be in accordance with Section 112, except that:

1. Temporary Striping shall be 6" painted, and
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" 6" in width shall be used; and
3. Temporary Black Mask for covering existing striping to remain in place shall be 8" in width; and
4. Edge lines will be required for temporary striping; and
5. Temporary or permanent striping shall be in place before a lane is opened to traffic; and
6. Permanent striping shall be 6" HD21 paint per the "HD21 Paint Spec Waterborne Paint Specification" included as a special note elsewhere in this proposal. In the gore areas of the US 25 interchange, a 12" wide stripe will be required. The pay item for the 12" stripe will be the same as the 6" stripe but the quantity will be doubled. No payment will be made for temporary striping prior to placement of the permanent 6" HD21 paint.

TRAFFIC COORDINATOR

Designate an employee to be traffic coordinator. During any period when a lane closure is in place, the Traffic Coordinator shall arrange for personnel to be present on the project at all times to inspect the traffic control (at least once every two hours during active operations and at any time when a lane closure is in effect) and to maintain the signing and devices. The personnel shall have access on the project to a radio or telephone to be used in case of emergencies or accidents. The Traffic Coordinator shall report all incidents throughout the work zone to the Engineer. Furnish the engineer with the name and telephone number where the Traffic Coordinator can be contacted at all times.

PAVEMENT EDGE DROP-OFFS

A pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation shall not have an elevation difference greater than 1 ½". Place warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual posting on both sides of the traveled way shall be required. Wedge all transverse transitions between resurfaced and unresurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove

the wedges prior to placement of the final surface course. Pavement edges that traffic is not expected to cross, except accidentally, shall be treated as follows:

Less than 2" – Protect with a lane closure. After resurfacing, wedge drop-offs on mainline and approach road shoulders with compacted cuttings from milling and/or trenching operations as shown on typical sections.

2" to 4" – Protect with a lane closure. Place plastic drums, vertical panels, or barricades every 50 feet. Cones may not be used in place of plastic drums, panels, and barricades at any time. Construct a wedge with compacted cuttings from milling, trenching, or asphalt mixtures with a 3:1 or flatter slope, when work is not active in the drop-off area. Place Type III Barricades at the beginning of the lane closures, and place additional Type III Barricades spaced at 2,500 feet during the time the lane closure is in place.

Greater than 4" – Positive separation or wedge with 3:1 or flatter slope required. If there is five (5) feet or more distance between the edge of pavement and the drop-off, then drums, panels, or barricades may be used. If the drop-off is greater than twelve (12) inches, positive separation is strongly encouraged. If concrete barriers are used, special reflective devices or steady-burn lights should be used for overnight installations.

Guardrail Installation – Guardrail will be removed at the last practical moment and replaced as soon as the placement of all base courses in an area requiring guardrail is complete. All areas from which guardrail is removed shall be protected by a shoulder closure or other method approved by the Engineer until the new guardrail is installed.

Bridge Digouts – In digout areas work should proceed continuously so that traffic is exposed to a drop-off for the minimum amount of time necessary to bring the pavement back up to existing grade. Barrels spacing should be 20 feet and appropriate lighting should be utilized to illuminate the digout area during nighttime operations. During bridge digouts activities a law enforcement officer shall be on duty at all times while the bridge end digouts are being performed. Contractor will contact a Law Enforcement Officer to have in place to navigate slow traffic when exposed to drop offs. Payment will be by the hour at unit cost bid for these Law Enforcement Officers.

Special Note For Fixed Completion Dates And Liquidated Damages

Fixed Completion Date

This project will have a fixed completion date of August 1, 2010 for completion of all work associated with this project. Contrary to Section 108.07.04 of the Standard Specifications, time extensions for any of the fixed completion dates will **not** be granted for any reason.

This project will also have an intermediate fixed completion dates for completion of the following items:

- 1) All asphalt base up to M.P. 17.342 in the northbound driving lanes and shoulders. **November 15, 2009**
- 2) DGA Wedge on both inside and outside shoulders. **November 30, 2009**
- 3) Guardrail and appropriate safety appurtenances. **December 15, 2009**

A disincentive fee of \$2000 per calendar day will be charged for each calendar day that the work prescribed under the intermediate completion date is not complete. Contrary to section 108.09 of the Standard Specifications, the Disincentive fee will be charged during the months of December through March for all work that is not complete. 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.

A disincentive fee of \$5000 per calendar day will be charged for each calendar day after August 1, 2010 that all work associated with this project is not complete. In addition, \$500 per hour will be charged for any lane closure that is placed after August 1, 2010 during times allowed by the contract. \$2000 per hour will be charged for any lane closure that is placed after August 1, 2010 during any times not allowed in the contract. Contrary to section 108.09 of the Standard Specifications, Contract Liquidated damages based on the original contract amount will not be charged.

Disincentive for Single Lane Traffic

Phases are identified in the Traffic Control Plan for this project that require single lane traffic in either direction of I-75 for specified periods of time. It is the intent of this project that single lane operations during peak hours be minimized. To achieve this objective, single lane operations will only be permitted during the following times:

- 1) 8:00PM Sunday to 9:00AM Thursday.
- 2) 7:00PM Thursday to 7:00AM Friday.

No lane closures will be allowed Thursdays from 9:00AM to 7:00 PM or between 7:00 AM Friday mornings and 8:00 PM on Sunday evenings. No lane closures will be permitted during additional times prohibited by the Traffic Control plan including several holidays and special events. Daytime lane closures as defined in the Traffic Control Plan will be permitted only for specific items of work listed in the Traffic Control Plan. All other non-qualifying items of work must be performed during non-daytime hours or by cover of a qualifying item of work while that qualifying item is in progress. A total of 78 daytime lane closures will be allowed as defined in the Traffic Control Plan. A daytime lane closure will be charged for each lane closure in place per day. For example, if two lane closures are in place (one Northbound and one Southbound or two per direction with adequate separation) on a given day, then two daytime lane closures will be charged for that day.

A disincentive fee \$500 per lane closure per hour will be charged for the first hour or fraction of an hour that two lanes in each direction of I-75 are not open excepting for the permitted hours as defined above including each hour of every daytime lane closure above the 78 days allowed. Lane closures in place for more than one hour in excess of permitted hours will be charged disincentive fees at a higher rate. The disincentive fee for the second hour and any successive hours of lane closure in place beyond permitted hours will be \$1000 per lane closure per hour or fraction of an hour. The \$1000 per lane closure per hour disincentive also will be assessed for any single lane closures not specifically permitted in the Traffic Control Plan.

Note: In the event that traffic backups reach an unacceptable level, the days and/or hours of allowable single lane traffic may be modified by the Cabinet.

**INTERSTATE 75 PAVEMENT REHABILITATION PROJECT IN
WHITLEY COUNTY
M.P. 11.000 TO M.P. 20.175
ITEM # IM 75-1(074)
PUBLIC INFORMATION PLAN**

The primary goal of the Public Information Plan (PIP) is to inform the motoring public and area stakeholders of project information including Maintenance of Traffic (MOT) which includes lane closures. The KYTC District 11 Public Information Officer (PIO) will coordinate and disseminate to stakeholders and the media appropriate information regarding the construction plans.

LOCAL STAKEHOLDERS

- Elected Officials
 - State Senator David Williams – (502) 564-3120; david.williams@lrc.ky.gov
 - State Representative Charles Siler – (502) 564-8100; charles.siler@lrc.ky.gov
 - Whitley County Judge/Executive Pat White, Jr. – (606) 549-6004; pwhite@2geton.net
 - Whitley County Magistrates: Roger Wells, David Myers, Joe Moses, Mike Baird- (606)-549-6004

- Local Agencies
 - T.O. Elliott, Director of Transportation for Whitley County Public Schools – (606) 549-7090; to.elliott@whitley.kyschools.us
 - Lonnie Anderson, Superintendent Whitley County Public Schools – (606) 549-7006; lonnie.anderson@whitley.kyschools.us
 - Lawrence Hodge, Whitley County Sheriff – (606) 549-6006; wcs0@2geton.net
 - Captain Lisa Rudzinski, Kentucky State Police Post 11 – (606) 878-6622; lisa.rudzinski@ky.gov
 - Mark Giuffre, UPS – (502) 329-3060; mgiuffre@ups.com
 - Virgie Long, Overdimensional Permits – (502) 564-7150; virgie.long@ky.gov

- Utility Companies
 - Local utility companies are kept apprised of this project by the District 11 Public Information Officer.

- Neighborhoods and their Mayors
 - Mayor Roddy Harrison – (606) 549-6033

TRUCKING FIRMS AND OUT OF STATE STAKEHOLDERS

Information will be distributed electronically to trucking firms via Rick Taylor at the Department of Vehicle Regulation (502-564-4540; rick.taylor@ky.gov). Information will also be posted on the 511 website (www.511.ky.gov) and on the 511 telephone information system.

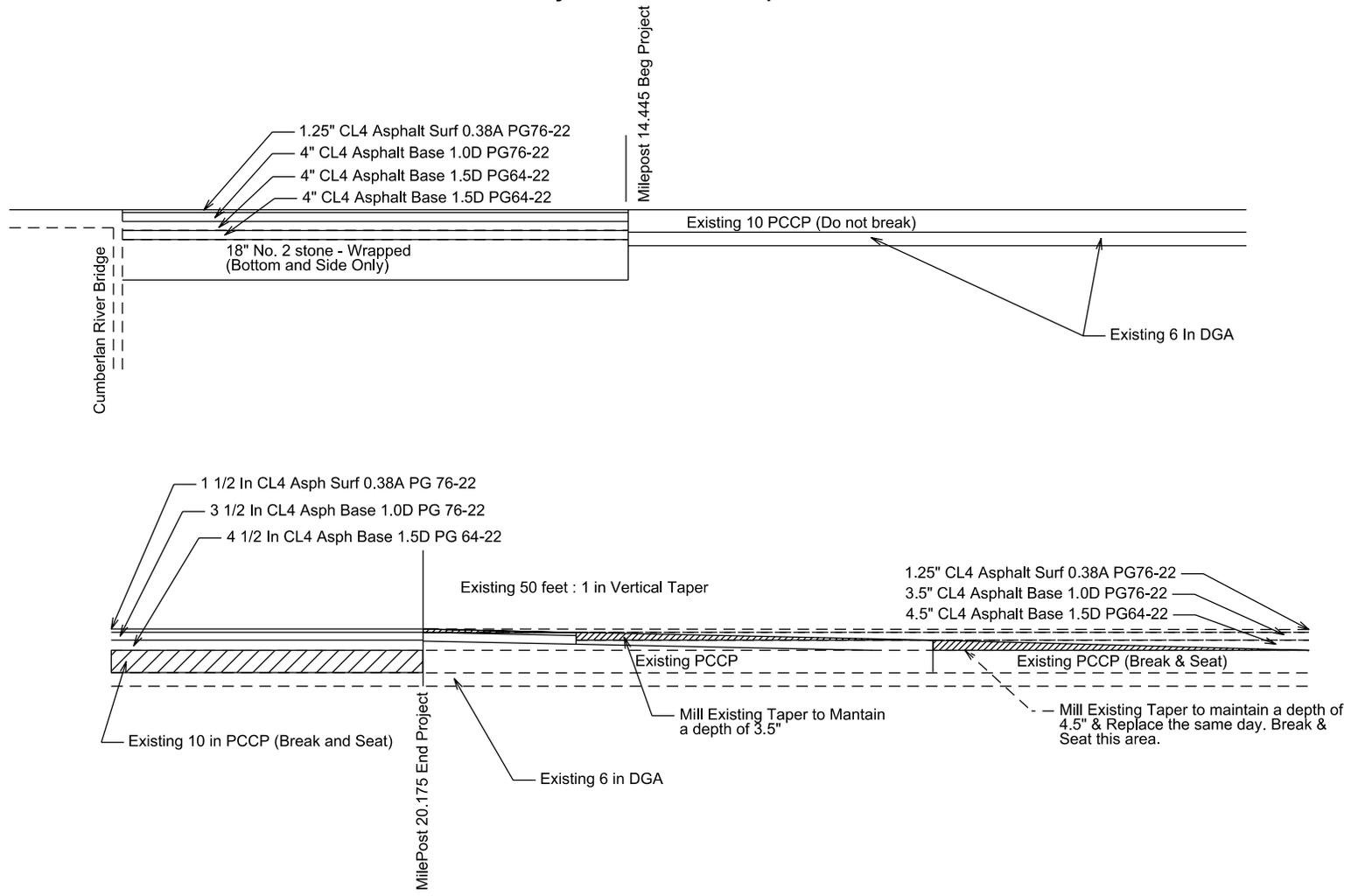
PRESENTATIONS

A project description including anticipated schedule will be provided to the media, stakeholders and other emergency service agencies via e-mail prior to construction. Information will be provided to these groups via traffic advisories and press releases.

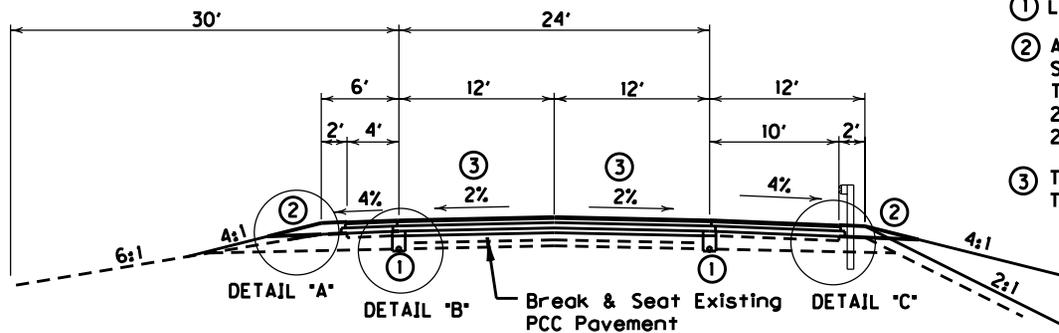
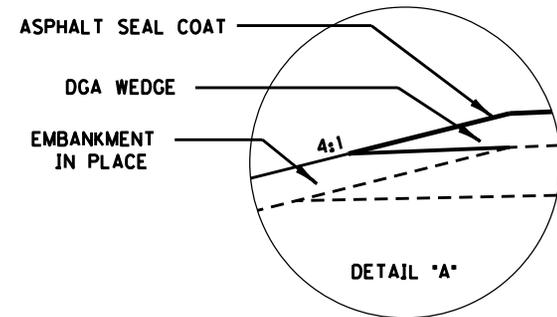
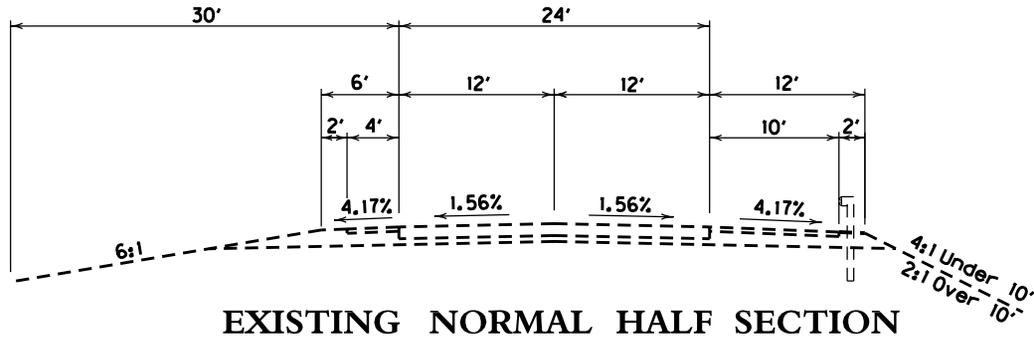
MEDIA RELATIONS

The District PIO will prepare an initial news release regarding the contract award for the project. The PIO will conduct interviews with the media throughout the project duration to keep the public informed of construction progress. Traffic advisories will be submitted to the media when a change in the MOT occurs. The contractor must provide to the PIO via the Resident Engineer notification of any change in the MOT at least three (3) days prior to the change.

Project Termini Tapers



INTERSTATE 75 PAVEMENT REHABILITATION - WHITLEY COUNTY



- ① LONGITUDINAL PAVEMENT EDGE DRAIN (SEE DETAIL SHEET)
- ② ASPHALT SEAL COAT REQUIRED FROM THE EDGE OF THE PAVED SHOULDER TO A POINT 2 FEET DOWN THE DITCH OR FILL SLOPE. TWO APPLICATIONS AT A RATE OF:
2.4 LBS/SO YD - EMULSIFIED ASPHALT RS-2
20 LBS/SO YD - ASPHALT SEAL AGGREGATE
- ③ THE CROSS-SLOPE CORRECTION FROM 1.56% TO 2% IS TO BE TAKEN OUT IN THE LOWER ASPHALT BASE LIFT.

PROPOSED NORMAL HALF SECTION

FLEXIBLE PAVEMENT
Leveling and Wedging PG64-22 (FOR PROFILE CORRECTION)

DRIVING LANES & INSIDE SHOULDERS

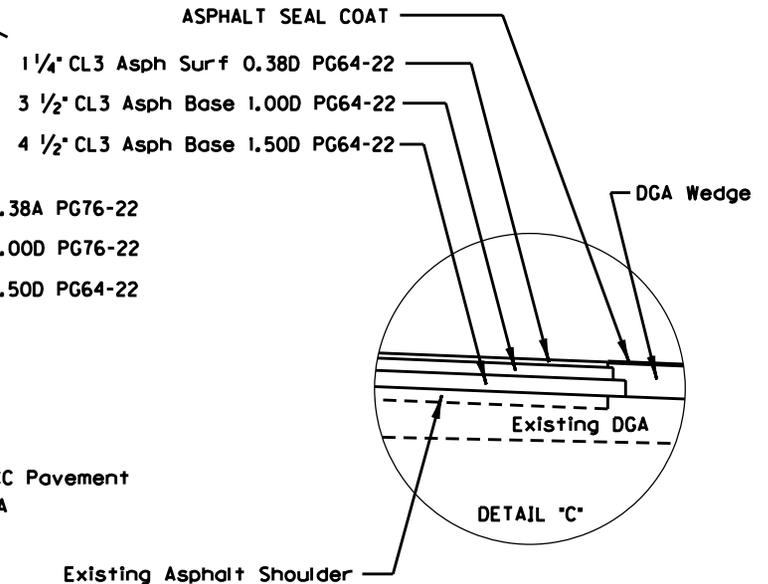
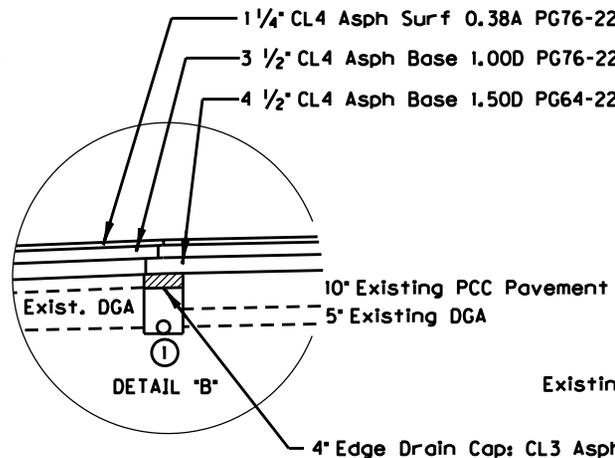
BASE 4 1/2" CL4 Asph Base 1.50D PG64-22
3 1/2" CL4 Asph Base 1.00D PG76-22

SURFACE 1 1/4" CL4 Asph Surf 0.38A PG76-22

OUTSIDE SHOULDERS

BASE 4 1/2" CL3 Asph Base 1.50D PG64-22
3 1/2" CL3 Asph Base 1.00D PG64-22

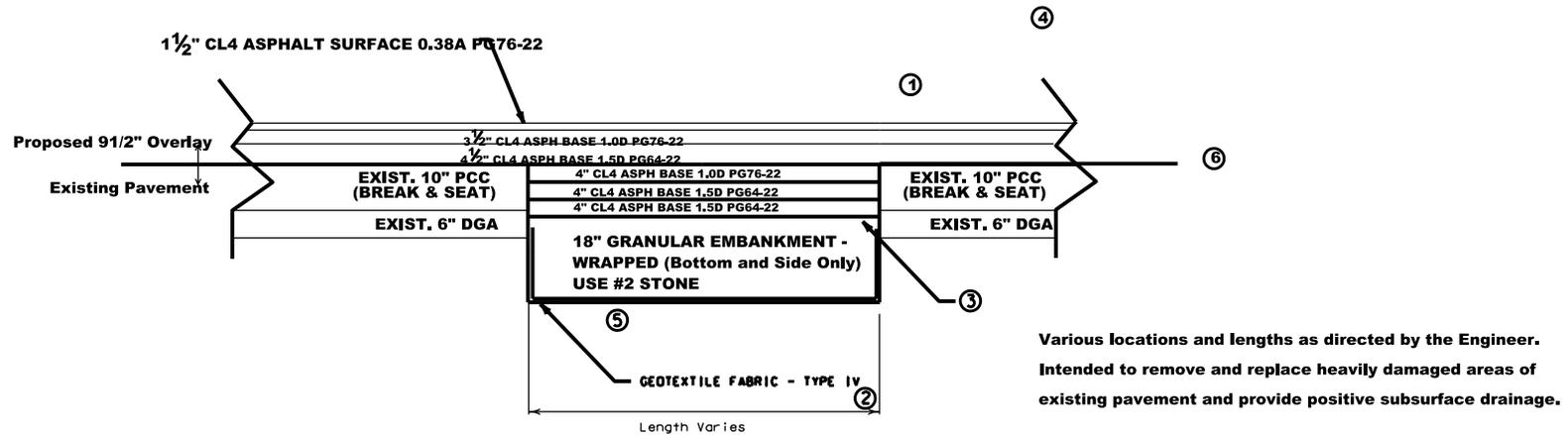
SURFACE 1 1/4" CL3 Asph Surf 0.38D PG64-22



TYPICAL SECTIONS

INTERSTATE 75 PAVEMENT REHABILITATION - WHITLEY COUNTY

INTERMEDIATE DIGOUTS

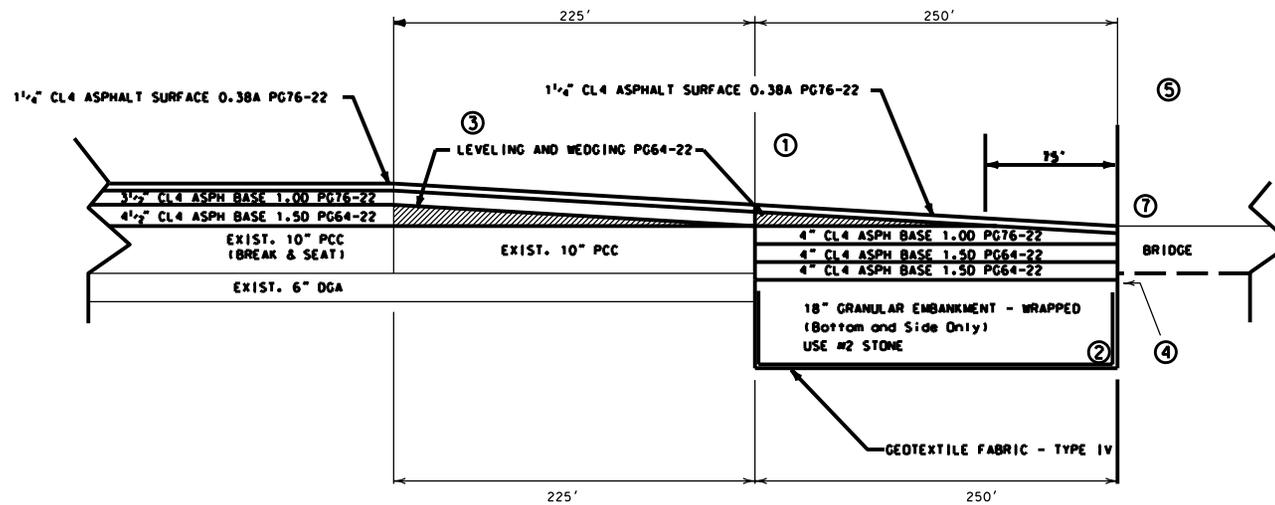


- ① Digout 30" below Existing Pavement Grade
- ② Locate 4" Perforated Pipe at low end of digout.
- ③ Estimated 1" DGA Base for paving platform
- ④ Digout width will be mainline plus 4' on inside shoulder and 1' on outside shoulder.
Total Width = 29'
- ⑤ Any excavation for undercut will be incidental to the unit bid price "Granular Embankment"
- ⑥ Base Course will match existing pavement grade initially prior to placement of proposed 9 1/2" overlay.

Not to Scale
PAVEMENT DETAILS

INTERSTATE 75 PAVEMENT REHABILITATION - WHITLEY COUNTY

NORMAL DIGOUT (with taper)



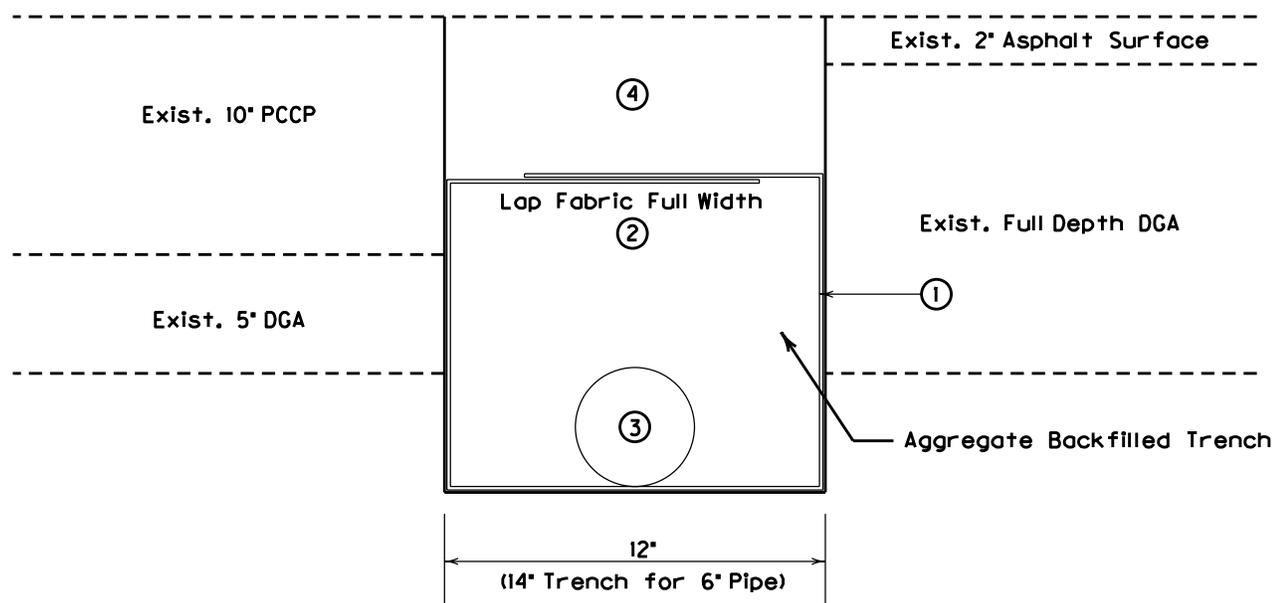
- ① Taper @ 1"=50'
- ② Locate 4" Perforated Pipe at low end of digout.
- ③ Use Leveling and Wedging to taper Base Courses
- ④ Estimated 1" DGA Base for paving platform
- ⑤ Digout width will be mainline plus 4' on inside shoulder and 1' on outside shoulder.
Total Width = 29'
- ⑥ Any excavation for undercut will be incidental to the unit bid price "Granular Embankment"
- ⑦ Base Course will match end of bridge initially.
Contractor will mill off 1 1/4" when applying surface course.

**BRIDGE END DIGOUT
WITH PAVEMENT TRANSITION**

Not to Scale
PAVEMENT DETAILS

INTERSTATE 75

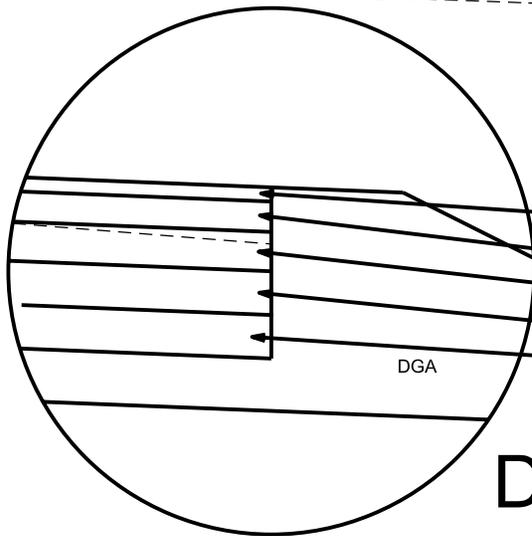
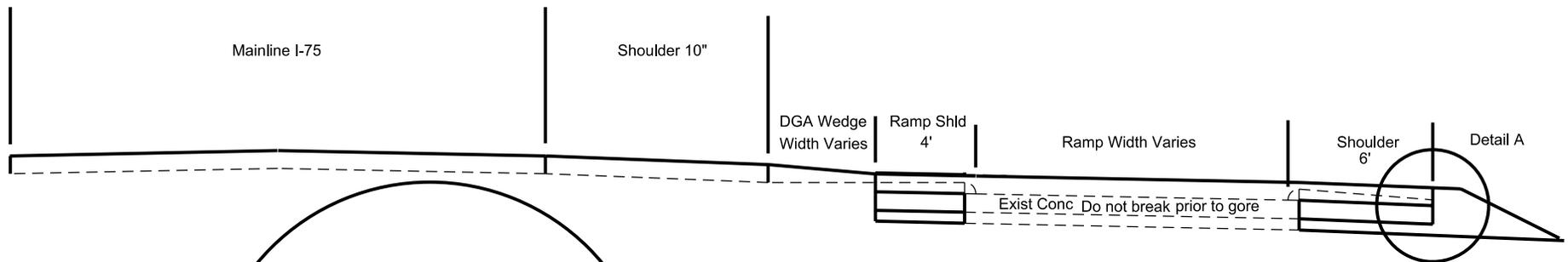
LONGITUDINAL PAVEMENT EDGE DRAIN (PERFORATED PIPE) EXISTING PAVEMENT



- * ① FABRIC - GEOTEXTILE TYPE IV
- * ② CRUSHED AGGREGATE SIZE NO. 57 (NO SAND) - PERF. PIPE TRENCH
FLOWABLE FILL - NON-PERF. PIPE TRENCH
- ③ 1000 PERFORATED PIPE - 4" (NO SOCK)
SCHEDULE 40 PVC NON-PERF PIPE - 4" (OUTLET)
1001 PERFORATED PIPE - 6" (NO SOCK)
SCHEDULE 40 PVC NON-PERF PIPE - 6" (OUTLET)
- ④ 4" CL3 ASPHALT BASE 1.00D PG64-22 (PERF. PIPE TRENCH) (SEPARATE BID ITEM)

NOTE: ITEMS INDICATED BY AN ASTERIK (*) ARE CONSIDERED INCIDENTAL TO PERFORATED PIPE - 4" AND 6"

Southbound Entrance Ramp Typical Section Exit 15



- 1.25" CL3 Surf .38D PG64-22
- 3.5" CL4 Base 1.0D PG76-22
- 4" CL4 Base 1.5D PG64-22
- 5" CL4 Base 1.5D PG64-22
- 5" CL4 Base 1.5D PG64-22

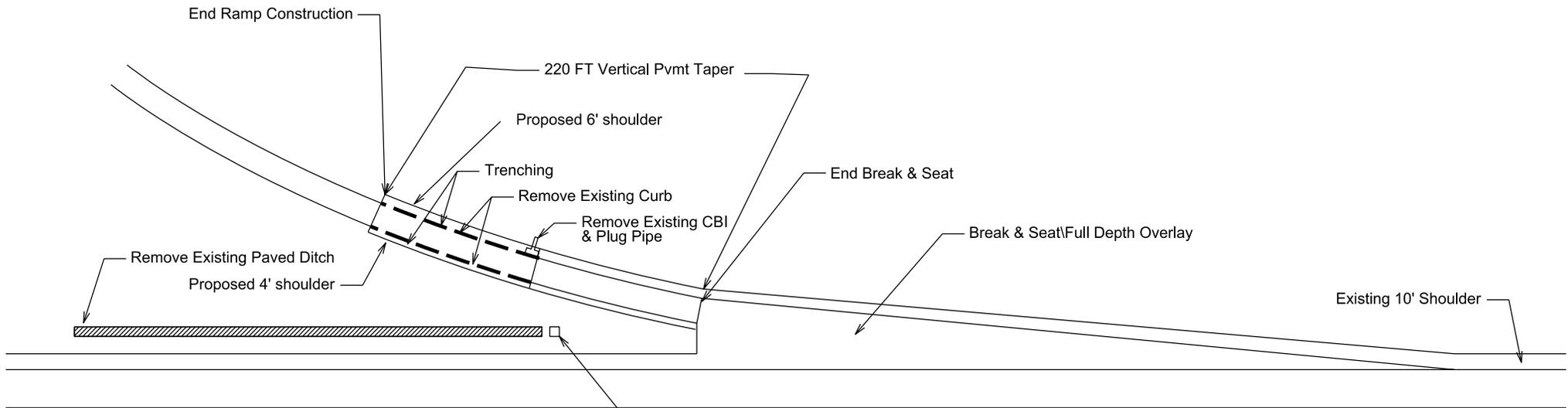
DGA

Detail A

Inside Shoulder Use same lift thickness

Thickness of the overlay varies as required for vertical taper
 Break concrete as show on attached drawings
 Match Mainline construction North of Gore for ramp adjacent to mainline

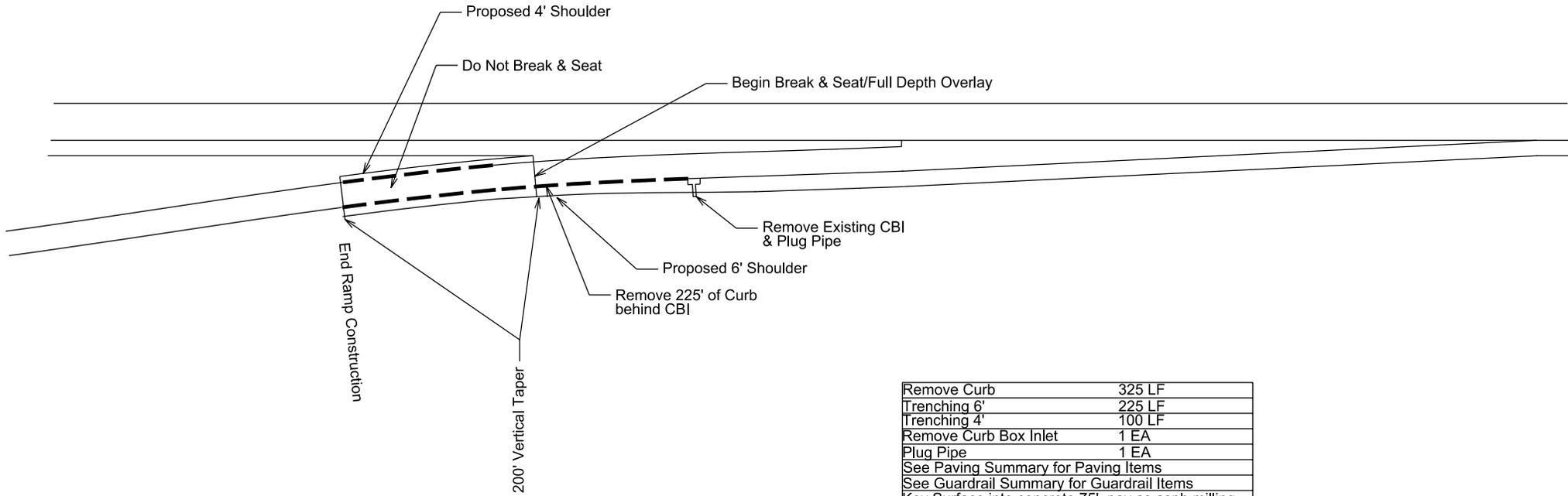
Exit 15 NB Exit Ramp A Plan Sketch Not to Scale



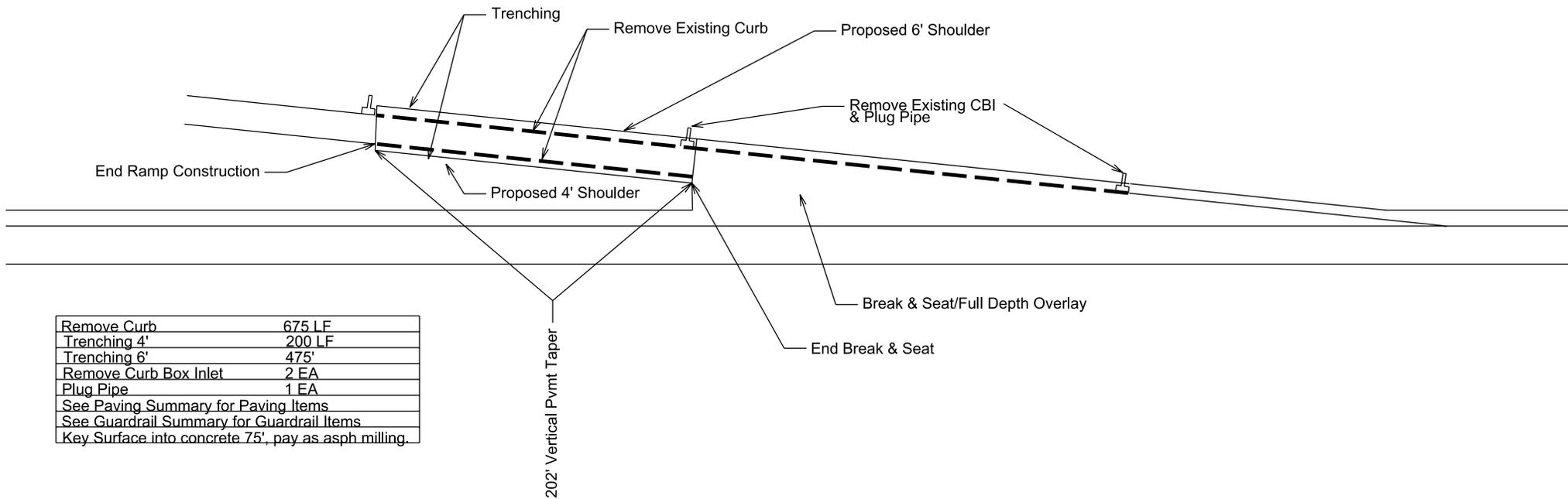
Raise Existing 24"
Drop Box Inlet to
Match Existing Ditch.

Remove Curb	200 LF
Trenching 4'	100 LF
Trenching 6'	100'
Remove Curb Box Inlet	1 EA
Plug Pipe	1 EA
Remove 6' Paved Ditch	300 LF
Raise Existing 24" DBI	1 EA
See Paving Summary for Paving Items	
See Guardrail Summary for Guardrail Items	
Key Surface into concrete 75'. pay as asph milling.	

Exit 15 SB Ent. Ramp B Plan Sketch Not to Scale



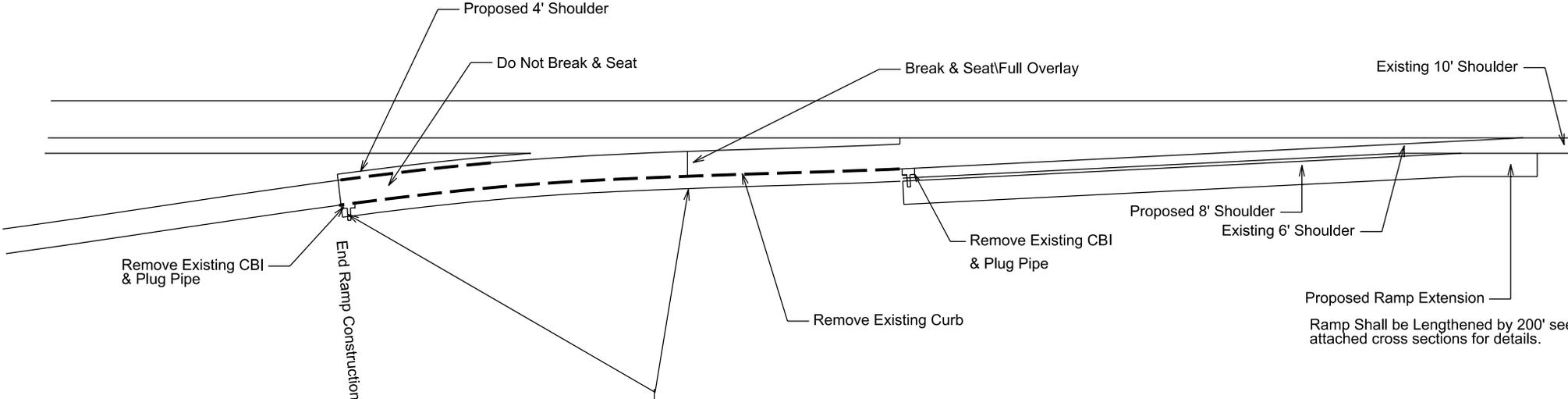
Exit 15 SB Exit Ramp C Plan Sketch Not to Scale



Remove Curb	675 LF
Trenching 4'	200 LF
Trenching 6'	475'
Remove Curb Box Inlet	2 EA
Plug Pipe	1 EA
See Paving Summary for Paving Items	
See Guardrail Summary for Guardrail Items	
Key Surface into concrete 75', pay as asph milling.	

Exit 15 NB Ent. Ramp D Plan Sketch

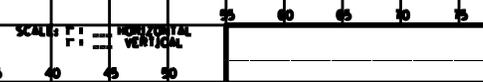
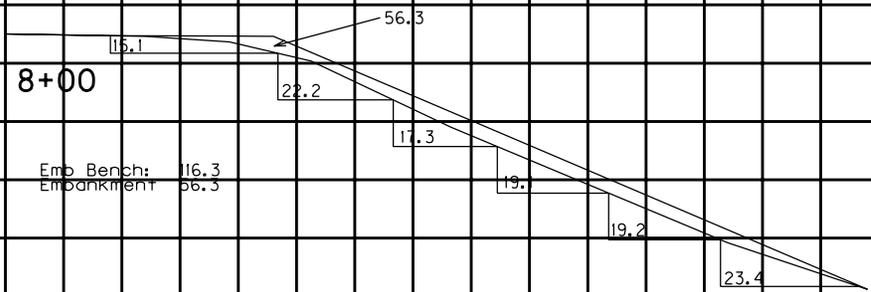
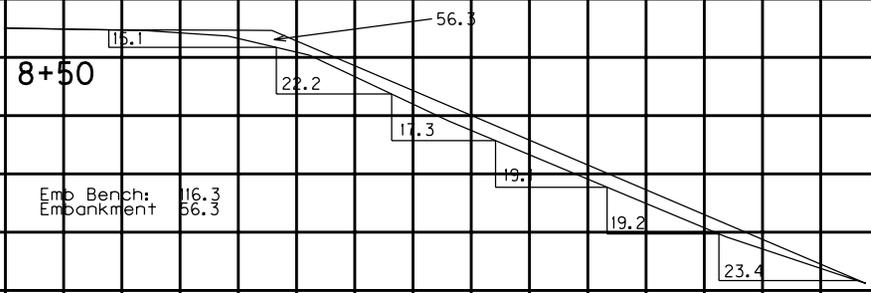
Not to Scale



Remove Curb	495 LF
Trenching 4'	100 LF
Trenching 6'	395
Embankment in Place	3,324 cubic yards
Remove Curb Box Inlet	2 EA
Plug Pipe	2 EA
See Paving Summary for Paving Items	
See Guardrail Summary for Guardrail Items	
Key Surface into concrete 75' pay as asph milling.	

COUNTY OF	ITEM NO.	SHEET NO.

Note: Embankment benches will constructed as directed by project engineer in the field.



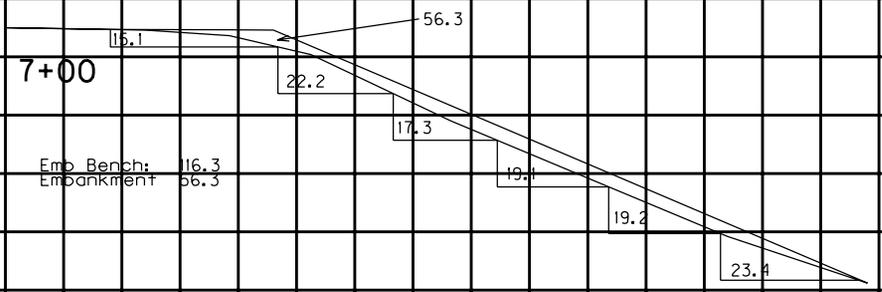
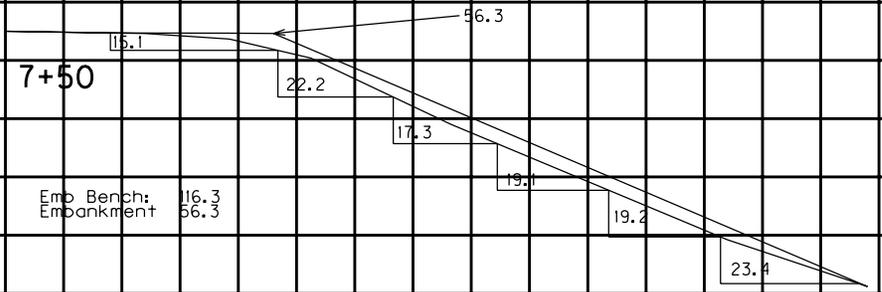
PREPARED BY _____ DATE _____
 CHECKED BY _____ DATE _____
 APPROVED BY _____ DATE _____

USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____

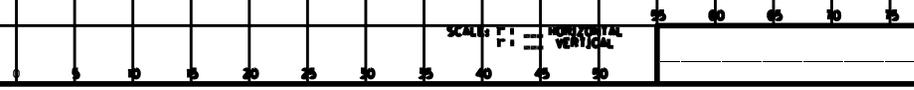
COUNTY OF	ITEM NO.	SHEET NO.

Note: Embankment benches will constructed as directed by project engineer in the field.

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



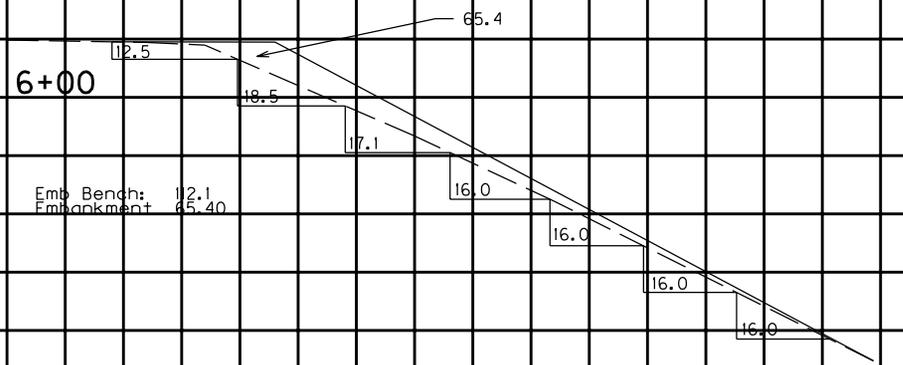
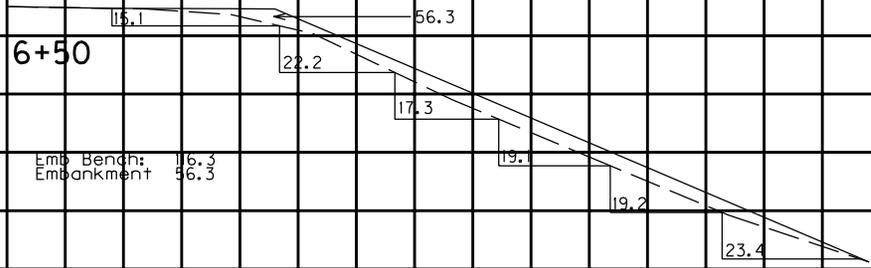
SCALES: 1" = 10' HORIZONTAL
 1" = 4' VERTICAL



USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____

COUNTY OF	ITEM NO.	SHEET NO.

Note: Embankment benches will constructed as directed by project engineer in the field.



SCALE: HORIZONTAL 1" = 30' VERTICAL 1" = 5'



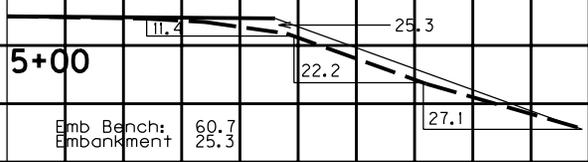
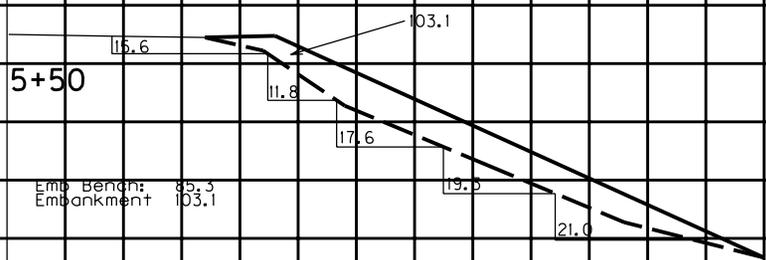
PREPARED BY _____ DATE _____
 CHECKED BY _____ DATE _____
 APPROVED BY _____ DATE _____

USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____

COUNTY OF	ITEM NO.	SHEET NO.

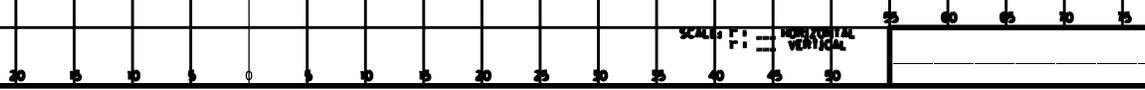
Note: Embankment benches will constructed as directed by project engineer in the field.

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



USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____

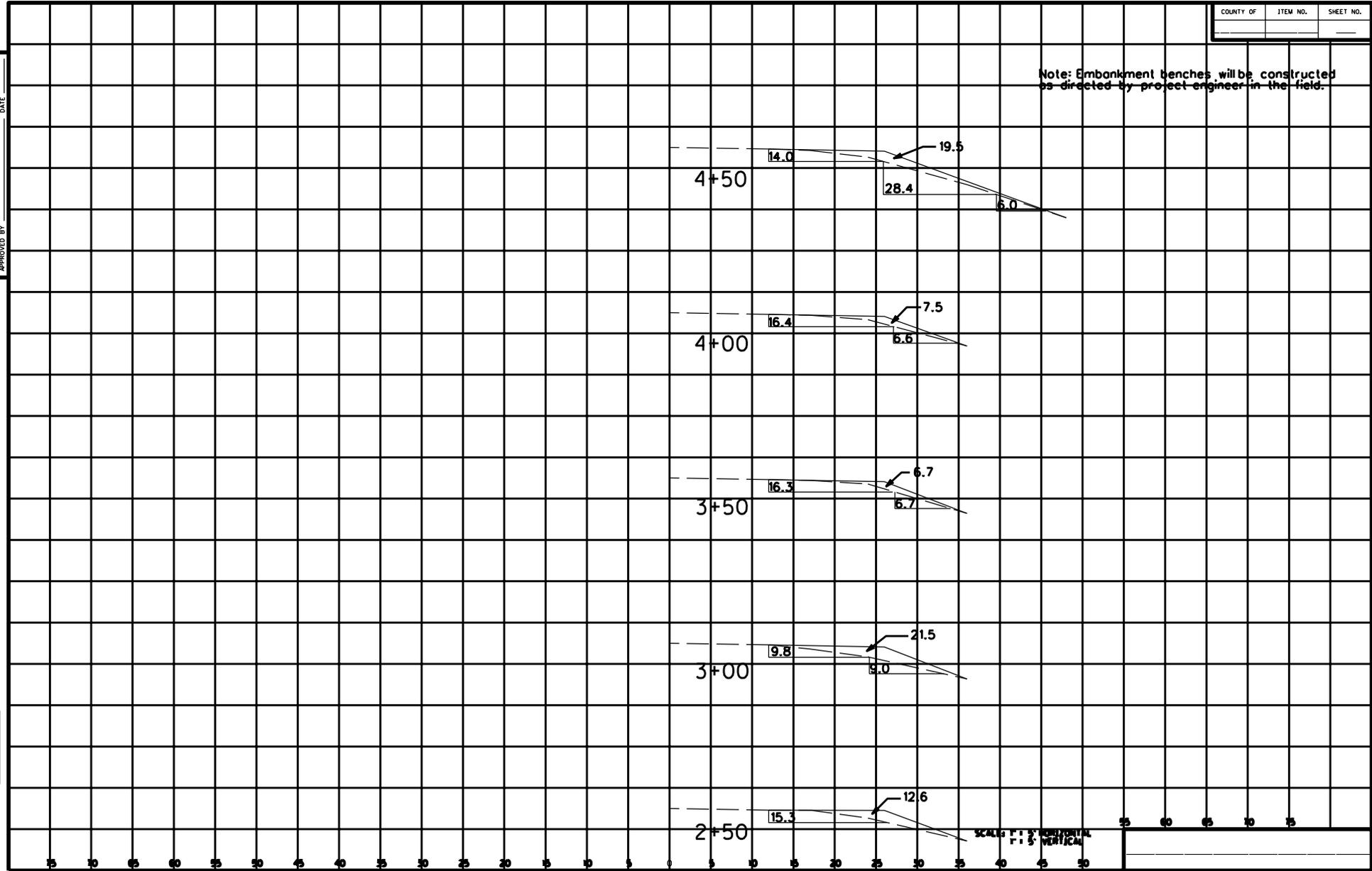
SCALES: HORIZONTAL 1"=40'
 VERTICAL 1"=10'



Note: Embankment benches will be constructed as directed by project engineer in the field.

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

USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____



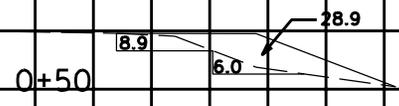
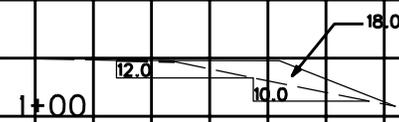
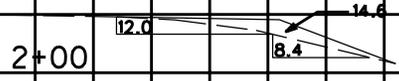
SCALE: HORIZONTAL
 1" = 50'
 VERTICAL
 1" = 5'

5 10 15 20 25 30 35 40 45 50

COUNTY OF	ITEM NO.	SHEET NO.

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

Note: Embankment benches will be constructed
 as directed by project engineer in the field.
 Station 0+00 - CBI on Entrance Ramp



SCALE: HORIZONTAL
 1" = 50'

USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____



COUNTY OF	ITEM NO.	SHEET NO.

Note: Embankment benches will constructed as directed by project engineer in the field.

Tie to existing embankment at 10+00

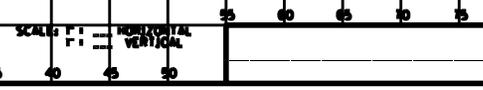
PREPARED BY _____ DATE _____
 CHECKED BY _____ DATE _____
 APPROVED BY _____ DATE _____

9+50

56.3

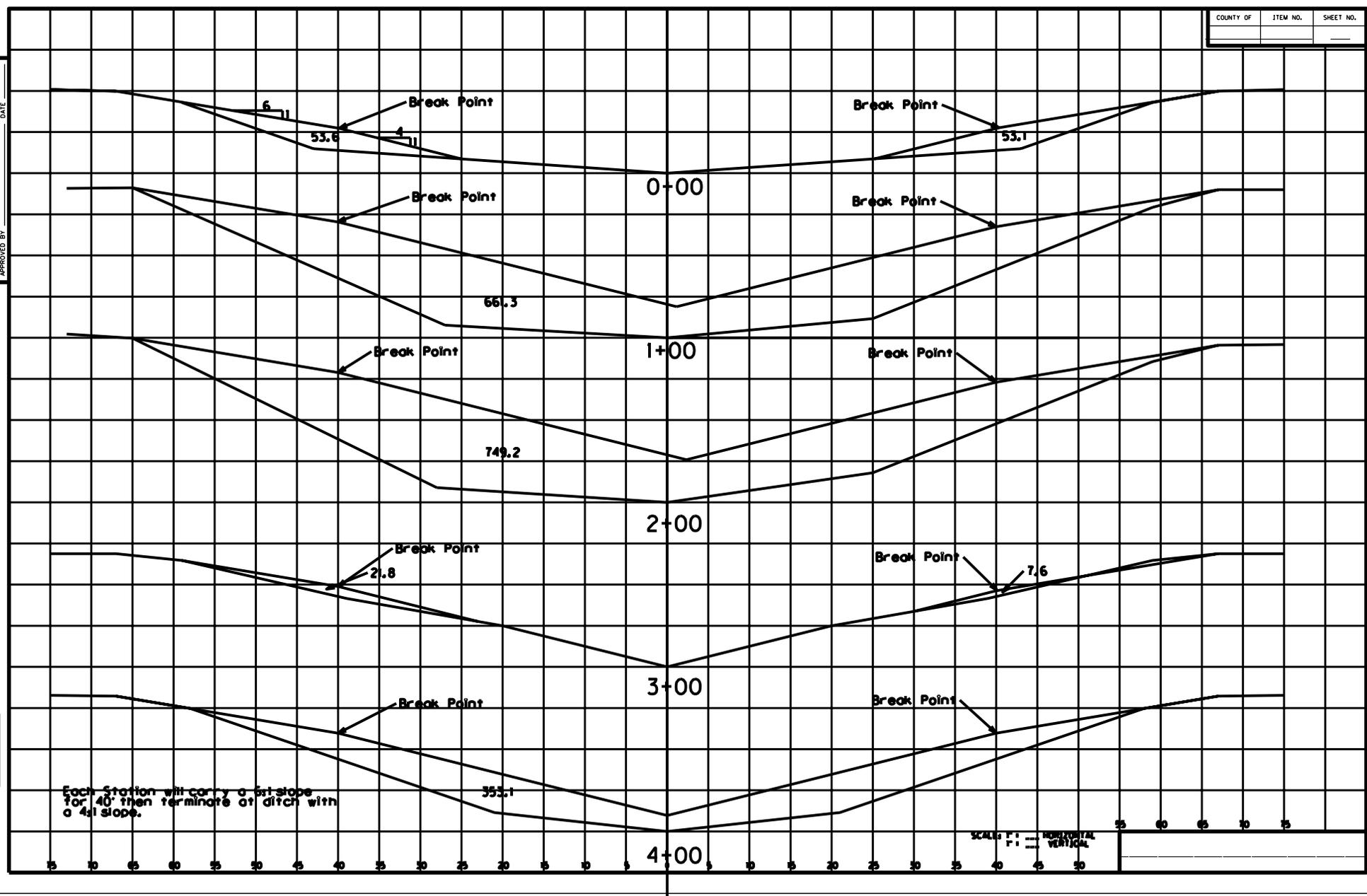
9+00

56.3



USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____

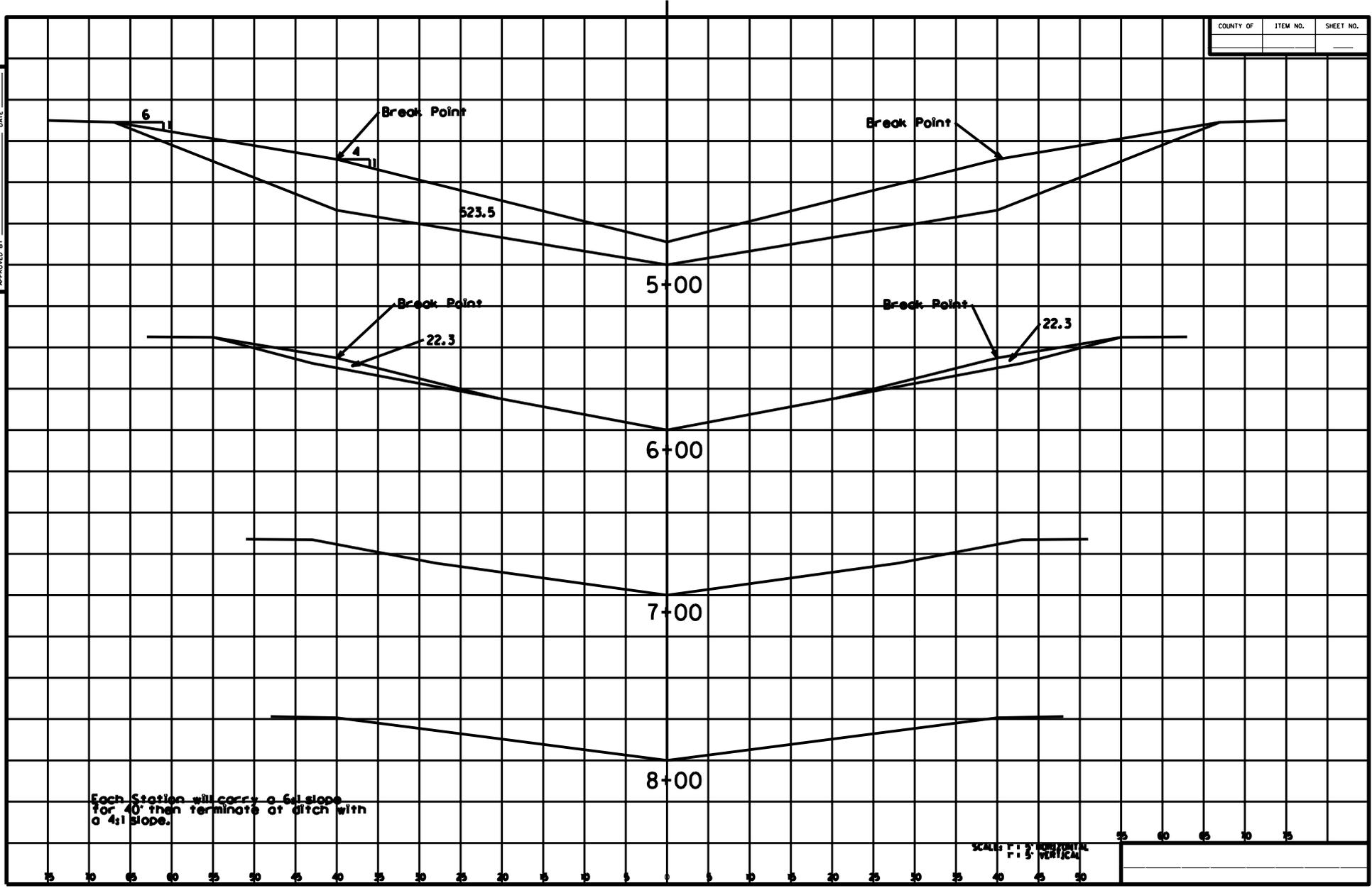
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 CHECKED BY _____ DATE _____
 APPROVED BY _____ DATE _____



USER: *****
 DATE: *****
 FILE NAME: *****
 SHEET NAME:

COUNTY OF	ITEM NO.	SHEET NO.

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



USER: *****
 DATE: *****
 FILE NAME: *****
 E-SHEET NAME: _____

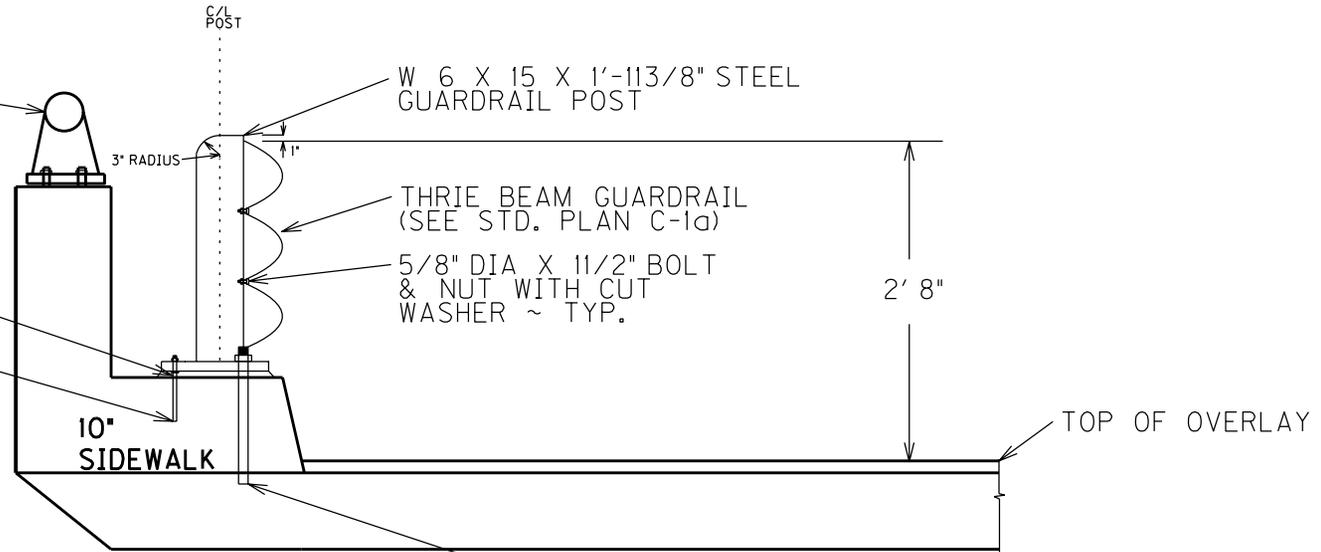
SCALE: HORIZONTAL 1" = 5'
 VERTICAL 1" = 5'

CURB LINE

REPAIR OR REPLACE EXISTING HANDRAIL AS DIRECTED BY RESIDENT ENGINEER

HEAVY HEX LEVELING NUT AND HARDENED WASHERS W/OPTIONAL 1/4" GROUT PAD @ POST CL.

CORE DRILL FOR 2 1/2" DIA. RESIN BONDED ANCHORS WITH HARDENED WASHERS (EMBEDMENT & HOLE SIZE PER MANUFACTURER'S RECOMMENDATION. 6-1/4" MINIMUM)



CORE DRILL FOR 2 1 1/4 DIA RESIN BONDED ANCHORS WITH HARDENED WASHER (EMBEDMENT AND HOLE SIZE PER MANUFACTURER'S RECOMMENDATION. 1'0" MIN.)

THE DEPARTMENT WILL MEASURE THE QUANTITY IN LINEAR FEET OUT TO OUT. ALL POST DRILLING, THRIE BEAM GUARDRAIL, POST, BOLTS, WASHERS, AND ANY OTHER QUANTITIES, ITEMS, AND OR WORK NECESSARY TO INSTALL AND ATTACH TO GUARDRAIL SYSTEMS LEADING INTO OR OUT OF THE BRIDGE INCLUDING TERMINAL SECTIONS WHEN REQUIRED WILL BE INCIDENTAL TO GUARDRAIL THRIE BEAM PAY ITEM.

GUARDRAIL MEDIAN

SOUTHBOUND

BEGIN M.P.	END M.P.	END TR		BR CONN TY A	THRIE BEAM TO W BEAM CONN	THRIE BEAM	TYPE IX-A	SINGLE FACE A	DOUBLE FACE A	TERM SECT 1	GRAIL W BEAM	ISLAND CURB	REM GRAIL	COMMENTS
		TY 1	TY 2A											
18.654	18.5	1	1								812.5		812.50	
18.426	18.348	1	1								412.5		412.50	
18.254	17.98	1	1								1450		1450.00	
17.585	17.505												425.00	Eliminate String
17.455	17.354				1		1	150	137.5	1		25	525.00	
17.354	17.32					180							180.00	
14.675	14.619				1		1	150	137.5	1		25	262.50	
14.622	14.497					663							663.00	

NORTHBOUND

BEGIN M.P.	END M.P.	END TR		BR CONN TY A	THRIE BEAM TO W BEAM CONN	THRIE BEAM	TYPE IX-A	SINGLE FACE A	DOUBLE FACE A	TERM SECT 1	GRAIL W BEAM	ISLAND CURB	REM GRAIL	COMMENTS
		TY 1	TY 2A											
14.437	14.497				1		1	150	137.5	1		25	312.50	Quantity Includes 25' Double Rail @ Bridge
14.497	14.619					663							663.00	
17.2	17.32				1		1	150	137.5	1		25	637.50	Quantity Includes 25' Double Rail @ Bridge
17.32	17.354					180							180.00	
17.95	18.09	1	1								737.5		737.50	
18.333	18.433	1	1								525		525.00	
18.46	18.605	1	1								762.5		762.50	

BEGIN M.P.	END M.P.	END TR		BR CONN TY A	THRIE BEAM TO W BEAM CONN	THRIE BEAM	TYPE IX-A	SINGLE FACE A	DOUBLE FACE A	TERM SECT 1	GRAIL W BEAM	ISLAND CURB	REM GRAIL
		TY 2A	TY 1										
TOTAL		6	6		4	1686	4	600	550	4	4700	100	8548.50

Shape median for guardrail installation at twin structures in accordance with RBB 002-08
 Use embankment in place if necessary to achieve the desired shape.

GUARDRAIL SOUTHBOUND

BEGIN M.P.	END M.P.	END TR		BR CONN TY A	THRIE BEAM TO W BEAM CONN	THRIE BEAM	SINGLE FACE A	DOUBLE FACE A	GRAIL W BEAM	ISLAND CURB	REM GRAIL	
		TY 1	TY 2A									
19.69	19.618	1	1						337.5		387.5	
19.504	19.291	1	1						1075		1125	
19	18.955	1		1					200		250	Tie to Pier Column @ MP 18.955
18.867	18.511	1	1						1825		1875	
18.417	18.334	1	1						387.5		437.5	
18.254	18.057	1	1						987.5		1037.5	
17.952	17.895	1	1						250		300	
17.496	17.346		1		1		50		700	25	750	Quantity Includes 25' Double Rail @ Bridge
17.354	17.312					180			175		175	
17.312	17.139		1		1				912.5		912.5	
17	16.83	1	1						850		900	
16.636	16.597										200	Eliminate String
16.425	15.982	1	1						2287.5		2337.5	
15.937	15.73	1	1						1037.5		1087.5	
15.504	15.45	1		1					237.5		287.5	Tie to Pier Column @ MP 15.460
15.33	14.619				1		50		3750	25	3750	Quantity Includes 25' Double Rail @ Bridge Tie to Existing on Ramp
14.619	14.494					663						
14.494	14.299				1				987.5		1037.5	Tie to Existing 14.440
13.866	13.77	1	1						462.5		512.5	
13.651	13.438	1	1						1075		1125	
13.129	13.027	1	1						487.5		537.5	
12.926	12.794	1	1						650		700	
12.427	12.273	1	1						762.5		812.5	
11.273	11.235	1		1					150		200	Tie to Pier Column at MP 11.235
Southbound Totals		17	16	3	4	843	100	0	19587.5	50	20737.5	

GUARDRAIL NORTHBOUND

BEGIN M.P.	END M.P.	END TR		BR CONN TY A	THRIE BEAM TO W BEAM CONN	THRIE BEAM	SINGLE FACE A	DOUBLE FACE A	GRAIL W BEAM	ISLAND CURB	REM GRAIL	
		TY 1	TY 2A									
11.203	11.242	1		1					150		200	
11.7	12.032	1	1						1700		1750	
12.224	12.368	1	1						712.5		762.5	
12.711	12.834	1	1						600		650	
13.508	13.629	1	1						687.5		637.5	
14.192	14.497				1		50		1587.5	25	1612.5	Quantity includes 25' double @ Bridge
14.497	14.622					660						
14.622	14.706		1		1				400		450	
15.411	15.444	1		1					175		225	Tie to Bridge Column @ MP 15.444
15.52	16.478		1						5062.5		5062.5	Tie to existing Rail on Ramp
16.835	17.24	1	1						2687.5		2737.5	
17.28	17.323	1			1				200	25	225	Quantity includes 25' double @ Bridge
17.323	17.35					180						Terminal Section for Thrie Beam Rail
17.396	17.509	1	1						550		600	
17.963	18.099	1	1						662.5		712.5	
18.134	18.252	1	1						575		625	
18.33	18.439	1	1						525		575	
18.56	18.706	1	1						725		775	
18.783	18.833	1	1						212.5		262.5	
18.918	18.968	1		1					212.5		262.5	Tie to Bridge Column @ MP 18.968
19.277	19.644	1	1						1887.5		1937.5	
19.729	19.779	1	1						212.5		262.5	
19.869	20.003	1	1						662.5		712.5	
Northbound Totals:		18	16	3	3	840	50	0	20187.5	50	21037.5	

Guardrail Totals North & Southbound

END TR		BR CONN TY A	THRIE BEAM TO W BEAM CONN	THRIE BEAM	SINGLE FACE A	DOUBLE FACE A	GRAIL W BEAM	ISLAND CURB	REM GRAIL	
TY 1	TY 2A									
35	32	6	7	1683	0	150	0	39775	100	41775

Guardrail Delivery Verification Sheet

CID NO: _____

Item No: _____

<u>GUARDRAIL, END TREATMENT, TERMINAL SECTION, OR POST TYPE</u>	<u>UNIT</u>	<u>FIELD VERIFIED AMOUNT</u>	<u>DELIVERED AMOUNT</u>
GUARDRAIL-STEEL W BEAM	LF	_____	_____
TEMPORARY GUARDRAIL	LF	_____	_____
GUARDRAIL TERMINAL SECTION	EACH	_____	_____
CRASH CUSHION TYPE IX-A	EACH	_____	_____
GUARDRAIL END TREATMENT TYPE 1	EACH	_____	_____
GUARDRAIL END TREATMENT TYPE 2A	EACH	_____	_____
GUARDRAIL END TREATMENT TYPE 3	EACH	_____	_____
GUARDRAIL END TREATMENT TYPE 4A	EACH	_____	_____
GUARDRAIL END TREATMENT TYPE 7	EACH	_____	_____
GUARDRAIL CONNECTOR TO BRIDGE END	EACH	_____	_____
GUARDRAIL CONNECTOR TO CONC MED BARR	EACH	_____	_____
GUARDRAIL CONNECT-SHLD BRIDGE PIER	EACH	_____	_____
TIMBER GUARDRAIL POST	EACH	_____	_____
STEEL GUARDRAIL POST	EACH	_____	_____

Removed guardrail, end treatments, terminal sections, and posts shall be delivered to the Bailey Bridge Yard in Frankfort, KY and shall be neatly stacked in accordance with section 719.03.07 of the standard specifications. Contractor, engineer, and Bailey Bridge Yard representative must all sign off on this sheet before payment may be made.

	PRINTED NAME	SIGNATURE	DATE
Resident Engineer (or representative)	_____	_____	_____
Contractor (or Representative)	_____	_____	_____
Bailey Bridge Yard Representative	_____	_____	_____

**Perforated Pipe Edge Drain Summary
Northbound Left
MP 11.000 to 20.175**

Beg MP	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3	Comments
11.136		0			Tie to Existing Pipe
11.281	766	30	1		
11.324	227	30	1		
11.383	312	30	1		
11.536	808	30	1		
11.636	528	30	1		
11.723	459	0			Top of Crest
11.817	496	30		1	
11.902	449	30	1		
12.040	729	30	1		
12.170	686	30	1		
12.313	755	30	1		
12.388	396	30		1	
12.464	401	0	1		Bottom of Sag
12.627	861	30	1		
12.816	998	30	1		
12.969	808	30	1		
13.103	708	30	1		
13.197	496	30		1	
13.291	496	30	1		
13.387	507	0			Top of Crest
13.474	459	30		1	
13.561	459	30	1		
13.674	597	30	1		
13.788	602	30	1		
13.920	697	30	1		
14.053	702	30	1		
14.136	438	30	1		
14.269	702	30	1		
14.401	697	30	1		Bottom of Sag

S. Totals 16542 750 22 4

**Perforated Pipe Edge Drain Summary
Northbound Left
MP 11.000 to 20.175**

Beg MP	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3	Comments
14.494		0			Bridge Digout
14.620		30		1	Bridge Dig Outlet
14.685	343	30	1		
14.725	211	30	1		
14.811	454	30	1		
14.905	496	30	1		
15.022	618	30	1		
15.114	486	30	1		
15.198	444	30	1		
15.329	692	30	1		
15.490	850	0			Top of Crest
15.591	533	30	1		
15.679	465	30	1		
15.753	391	30	1		
15.836	438	30	1		
15.941	554	30	1		
16.035	496	30	1		
16.121	454	30	1		Bottom of Sag
16.217	507	30	1		
16.302	449	30	1		
16.406	549	30	1		
16.492	454				Crest
16.738	1299	30	1		
16.824	454	30	1		
16.919	502	30	1		
17.001	433	30	1		
17.132	692	30	1		
17.265	702	30	1		Bottom of Sag
17.365	528	30	1		
17.509	760	30	1		
17.604	502	30		1	
17.698	496	30	1		
17.793	502	30	1		
17.876	438	30	1		
17.970	496	30		1	
18.064	496				Crest
18.158	496	30		1	
18.347	998			1	
18.536	998	30		1	
18.620	444	30		1	Bottom of Sag
18.729	576	30	1		
18.801	380	30	1		
18.909	570	30	1		
19.093	972	30	1		
19.135	222				Crest
S. Totals	22646	1140	32	7	

**Perforated Pipe Edge Drain Summary
Northbound Left
MP 11.000 to 20.175**

Beg MP	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3	Comments
19.186	269	30	1		
19.300	602	30	1		
19.432	697	30	1		Bottom of Sag
19.527	502	30	1		Replace Median Box
19.621	496	30	1		
19.727	560				Crest
19.781	285	30	1		
19.903	644	30	1		
19.998	502	30	1		
20.092	496	30	1		

S. Totals 5053 270 9 0

	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3
Totals	44,241	2,160	63	11

**Perforated Pipe Edge Drain Summary
Northbound Right Lane**

Milepost	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Remove Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
11.175	250	0							Tie to Existing
11.227	275	15					1		Core Hole DBI
11.322	500	15					1		Core Hole DBI
11.388	348	15					1		Core Hole DBI
11.481	491	20			1				
11.576	500	15		1					
11.628	278	20		1					
11.676	250	20		1					
11.723	250	0							Top of Crest
11.770	250	20	1						
11.818	250	20	1						
11.912	500	20	1						
12.001	0	0						1	Remove Existing HW
12.007	500	20	1						
12.102	500	20			1				
12.197	500	20			1				
12.270	0							1	Remove Existing HW
12.292	500	20	1						
12.374	433	20		1					
12.436	327	20		1					Bottom of Sag
12.436	0	0						1	Remove Existing HW
12.483	250	20			1				
12.530	250	20			1				
12.578	250	20				1			
12.625	250	20					1		Core Hole DBI
12.680	290	20					1		Core Hole DBI
12.710	158	20		1					
12.757	250	20		1					
12.843	454	20			1				
12.938	500	20				1			
12.999	322	20		1					
13.046	250	30			1				
13.094	250	20				1			Bottom of Sag
13.141	250	20			1				
13.188	250	40				1			
13.283	500	30			1				
13.387	0	0							Top of Crest
13.434	250	20		1					
13.492	305	20		1					
13.587	500	20		1					
13.603	0	0						1	Remove Existing HW
13.634	250	20		1					
13.682	250	20			1				
13.729	250	20			1				
13.776	250	20					1		Core Hole DBI
13.842	350	20			1				
13.908	348	20					1		Core Hole DBI
13.974	348	20			1				
14.040	348	25					1		Core Hole DBI
14.135	500	25		1					
14.232	500	20		1					
14.327	500	20	1						
14.401	392	20	1						Bottom of Sag
14.402								1	Remove Existing HW
14.448	250	20	1						
	16967	970	8	14	13	4	8	5	

**Perforated Pipe Edge Drain Summary
Northbound Right Lane**

Milepost	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Remove Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
14.494	250	20	1					BR Digout	
14.625								Tie to Bridge Digout	
14.720	500	20		1					
14.814	500	20		1					
14.909	500	25		1					
14.966	298	20		1					
15.022	298	20					1	Core Hole DBI	
15.117	500	20					1	Core Hole DBI	
15.180	0	15					1	Core Hole DBI	
15.275	500	15					1	Core Hole DBI	
15.330	290	15					1	Core Hole DBI	
15.424	500	15		1					
15.472	250	15		1					
15.490	95	0						Top of Crest	
15.537	250	15				1			
15.580	225	15				1		End at Gore	
15.640	0							Start Pipe Ramp	
15.735	500	15		1					
15.829	500	20	1						
15.924	500	20	1						
16.019	500	20	1						
16.066	250	20	1						
16.113	250	20	1					Bottom of Sag	
16.112	0	0					1	Remove Existing HW	
16.159	250	20	1						
16.254	500	20	1						
16.349	500	20	1						
16.443	500	20	1						
16.538	500	20			1				
16.611	385	20						Top Crest/Core Hole DBI	
16.658	250				1				
16.706	250	25				1			
16.800	500	40				1			
16.895	500	75	1						
16.936	0	0					1	Remove Existing HW	
16.988	275	20	1						
17.083	500	20	1						
17.177	500	20	1						
17.256	417	20			1			Bottom of Sag	
17.256	0	0					1	Remove Existing HW	
17.282	137				1			End pipe BR digout	
Summary	13420	1755	14	7	4	4	5	3	

**Perforated Pipe Edge Drain Summary
Northbound Right Lane**

Milepost	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Remove Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
17.354	0	20			1			End @ BR Digout	
17.373	0	0					1	Remove Existing HW	
17.401	250	20			1				
17.496	500	20		1					
17.590	500	20		1					
17.685	500	20		1					
17.780	500	20		1					
17.874	500	20		1					
17.969	500	20		1					
18.017	250	20	1						
18.064	250							Top of Crest	
18.111	250	20	1						
18.167	296	20	1						
18.262	500	20	1						
18.357	500	20		1					
18.451	500	25		1					
18.546	500	25				1		Core Hole DBI	
18.601	290	25		1				Bottom of Sag	
18.601	0	0					1	Remove Existing HW	
18.648	250	20		1					
18.743	500	20				1		Core Hole DBI	
18.838	500	20		1					
18.925	460	20				1		Core Hole DBI	
19.000	396	20				1		Core Hole DBI	
19.047	250	20		1					
19.097	265	25				1		Core Hole DBI	
19.135	200	0						Top of Crest	
19.188	280	25				1		Core Hole DBI	
19.283	500	40		1					
19.300				1					
19.378	500	25	1						
19.415	195	20	1					Botom of Sag	
19.433	0	0					1	Remove Existing HW	
19.459	250	20	1						
19.554	500	20	1						
19.648	500	25		1					
19.727								Top of Crest	
19.743	500	25		1					
19.760	250	25	1					Top of Crest	
19.807	250	20		1					
19.902	500	25			1				
19.996	500	25	1						
20.091	500	25		1					
20.186	500	25	1					End of Project	

Summary 15132 825 11 18 3 0 6 3

NB Right	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Remove Exist HW
			Type 1	Type 2	Type 3	Type 4		
Totals	45,519	3,550	33	39	20	8	19	11

**Perforated Pipe Edge Drain Summary
Southbound Left**

Beg MP	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3	Comments
11.136		0			Tie to Existing Pipe
11.281	766	30	1		
11.324	227	30	1		
11.383	312	30	1		
11.536	808	30	1		
11.636	528	30	1		
11.723	459	0			Top of Crest
11.817	496	30		1	
11.902	449	30	1		
12.040	729	30	1		
12.170	686	30	1		
12.313	755	30	1		
12.388	396	30		1	
12.464	401	0	1		Bottom of Sag
12.627	861	30	1		
12.816	998	30	1		
12.969	808	30	1		
13.103	708	30	1		
13.197	496	30		1	
13.291	496	30	1		
13.387	507	0			Top of Crest
13.474	459	30		1	
13.561	459	30	1		
13.674	597	30	1		
13.788	602	30	1		
13.920	697	30	1		
14.053	702	30	1		
14.136	438	30	1		
14.269	702	30	1		
14.401	697	30	1		Bottom of Sag
	17239	780	23	4	

**Perforated Pipe Edge Drain Summary
Southbound Left**

Beg MP	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3	Comments
14.494	250	0	1		Bridge Digout
14.620		0			Tie to Bridge Digout
14.685	343	30	1		
14.725	211	30	1		
14.811	454	30	1		
14.905	496	30	1		
15.022	618	30	1		
15.114	486	30	1		
15.198	444	30	1		
15.329	692	30	1		
15.490	850	0			Top of Crest
15.591	533	30	1		
15.679	465	30	1		
15.753	391	30	1		
15.836	438	30	1		
15.941	554	30	1		
16.035	496	30	1		
16.121	454	30	1		Bottom of Sag
16.217	507	30	1		
16.302	449	30	1		
16.406	549	30	1		
16.492	454	30	1		
16.738	1299	30	1		Top of Crest @ 16.657
16.824	454	30	1		
16.919	502	30	1		
17.001	433	30	1		
17.132	692	30	1		
17.265	702	30	1		Bottom of Sag
17.365	528	30	1		
17.509	760	20	1		
17.604	502	20		1	Begin Biforcated Section
17.698	496	25	1		
17.793	502	30	1		
17.876	438	30	1		End Biforcated Section
17.970	496	30		1	
18.064	496				Top of Crest
18.158	496	30		1	
18.347	998			1	
18.536	998	30		1	
18.620	444	30		1	Bottom of Sag
18.729	576	30	1		
18.801	380	30	1		
18.909	570	30	1		
18.990	428	30	1		
23324	1145	35	6		

**Perforated Pipe Edge Drain Summary
Southbound Left**

Beg MP	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3	Comments
19.093	544	30	1		
19.135	222				Top of Crest
19.186	269	30	1		
19.300	602	30	1		
19.432	697	30	1		Bottom of Sag
19.527	502	30	1		Replace Median Box
19.621	496	30	1		
19.727	560				Top of Crest
19.781	285	30	1		
19.903	644	30	1		
19.998	502	30	1		
20.092	496	30	1		End Pipe @ Box
Summary	5,819	300	10	0	

	Perf Pipe 6 inch	Non Perf Pipe 6inch	Core Hole Drainage Str.	P. Pipe HW 6" Type 3
Totals	46,381	2,225	68	10

**Perforated Pipe Edge Drain Summary
Southbound Right Lane**

Milepost	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Rem Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
11.315	306	15					1		Core Hole
11.373	475	15					1		Core Hole
11.463	327	15					1		Core Hole
11.525	500	15					1		Core Hole
11.620	296	15					1		Core Hole
11.676	250	15		1					
11.723	250								
11.774	245	15	1						
11.820	500	15		1					
11.915	500	15		1					
12.010	306	15					1		Core Hole
12.068	500	15		1					
12.162	500	15		1					
12.257	0							1	Remove Existing HW
12.257	242	15		1					
12.303	500	15	1						
12.398	250	15	1						
12.445	250	15	1						Bottom of Sag
12.493	250	15		1					
12.540	250	15		1					
12.587	250	15	1						
12.635	250			1					Top of Crest
12.682	250	15		1					
12.729	250	15		1					
12.777	500	15	1						
12.871	500	15			1				
12.966	250	15		1					
13.013	250	15	1						
13.061	250	15	1						Bottom of Sag
13.108	148	25					1		Core Hole
13.136	250	15		1					
13.184	250	15		1					
13.231	250	15	1						
13.278	141	15					1		Core Hole
13.305	250	15	1						
13.352	250	15					1		Core Hole
13.400	250	15	1						
13.447	250								Top of Crest
13.493	250	15		1					
13.540	250	15		1					
13.587	250	15	1						
13.635	250	15		1					
13.682	250	15		1					
13.729	500	15		1					
13.824	500	15	1						
13.919	500	15			1				
14.013	500	15		1					
14.108	325	15					1		Core Hole
14.170	325	15		1					
14.231	327	15					1		Core Hole
14.293	327	15		1					
14.355	250	15	1						
14.400	0	0							Remove Existing HW
14.402	227	15	1						
14.445	250	15	1						End of BR Digout
S. Total	16767	760	16	22	2	0	11	1	

**Perforated Pipe Edge Drain Summary
Southbound Right Lane**

Milepost	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Rem Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
14.494	0	0						Bridge Digout	
14.620	0	0	1					BR Digout	
14.580	211	15	1					Bridge Digout	
14.652	0	0					1	Remove Existing HW	
14.557	500	15							
14.463	500	15	1						
14.368	500	15	1						
14.273	500	15	1						
14.179	500	15	1						
15.165	500	15	1						
15.260	0	0						Start Pipe @ Ramp	
15.165	500	20					1	Ending pipe at CH	
15.071	500	20	1						
15.004	354	20					1	Top of Crest/Flat	
15.581	443	20					1	Core Hole	
15.665	0	20					1	Core Hole	
15.570	500	0						Start Pipe @ Ramp	
15.476	500	15	1						
15.381	500	15			1				
16.030	500	0		1					
16.115	0	0					1	Remove Existing HW	
16.032	438	15	1					Bottom of Sag	
15.937	500	15	1						
15.843	500	15	1						
15.748	500	15	1						
15.672	401	15					1	Core Hole	
15.625	250	15		1					
15.577	250	40					1	Top of Crest/Flat	
15.530	250	25			1				
15.435	500	25			1				
15.341	500	30			1				
16.899	500	50	1						
16.938	0	0					1	Remove Existing HW	
16.993	500	20		1					
17.088	396	20					1	Core Hole	
16.993	500	15	1						
16.951	225	15		1				Bottom of Sag	
16.951	0	0					1	Remove Existing HW	
17.301	0	0							
17.301	0	0		1				At End of BR Digout	
17.263	200	15	1					End @ Bridge	
17.263	0	0					1	Remove Existing HW	
17.168	500	15	1					Begin BR Digout	
17.074	500	15		1					
16.979	500	15		1					
16.884	500	15		1					
16.816	359	25					1	Core Hole	
S. Total	15777	665	17	8	4	0	8	5	

**Perforated Pipe Edge Drain Summary
Southbound Right Lane**

Milepost	4" Perf Pipe	4" Non Perf Pipe	Perforated Pipe Headwall 4"				Core Hole 4"	Rem Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
16.748	359	0		1					
16.654	500	25			1				
16.618	190	25					1	Core Hole	
16.570	250	15		1					
16.523	250	15	1						
16.476	250	0						Top of Crest	
16.428	250	20	1						
16.334	500	20	1						
16.239	500	20			1				
16.144	500	20		1					
16.049	500	15							
15.981	360	15	1					Bottom of Sag	
15.981	0	0					1	Remove Existing HW	
15.934	250	15	1						
15.839	500	15	1						
15.745	500	15	1						
15.650	500	40			1				
15.555	500	35					1	Core Hole	
15.514	215	40					1	Core Hole	
15.458	296	0						Top of Crest	
15.421	200	40							
15.326	500	20			1				
15.231	500	25	1						
15.255	375	25	1					Bottom of Sag	
19.439	0	0					1	Remove Existing HW	
19.392	250	25			1				
19.297	500	25				1			
19.250	250	25	1						
19.202	250	20		1					
19.151	269	0						Top of Crest	
19.104	250	30					1	Core Hole	
19.009	500	20		1					
19.920	0	0						Tie to existing HW	
S. Total	11014	605	10	5	5	1	4	2	

Sheet	4" Perf Pipe	4" Non Perf Pipe	Pipe Headwall 4"				Core Hole 4"	Rem Exist HW	Comments
			Type 1	Type 2	Type 3	Type 4			
Totals	43,558	2,030	43	35	11	1	23	8	

Total Length of Project 48446

Material	Mainline	Outside Shldr	Inside Shldr	Inter Digouts	Bridge Digouts	Ramps				GR End Treatments	Square Yards
						A	B	C	D		
9" DGA Base		48785	48785							5000	102570
5" DGA Base						150	254	530	1285		2219
1.25" CL3 Asph Surf 0.38D PG64-22		107658				111	194	406	1034		109403
3.5" CL3 Asph Base 1.0D PG64-22		107658									107658
4" CL3 Asph Base 1.5D PG64-22						111	194	406	1034		1745
4" CL3 Asph Base 1.0D PG64-22 Pipe cap											21589
4.5" CL3 Asph Base 1.5D PG64-22		107658									107658
5" CL3 Asph Base 1.5D PG64-22						136	231	482	1168		2017
5" CL3 Asph Base 1.5D PG64-22						122	213	443	1101		1879
1.25" CL4 Asph Surf 0.38A PG76-22	258380		43063			1100	2050	1200	2400		308193
3.5" CL4 Asph Base 1.0D PG76-22	258380		43063			1100	2050	1200	2400		308193
4" CL4 Asph Base 1.5D PG64-22				1233	9778						11011
4" CL4 Asph Base 1.5D PG64-22				1233	9778						11011
4" CL4 Asph Base 1.0D PG76-22				1233	9778						11011
4.5" CL4 Asph Base 1.5D PG64-22	258380		43063			650	1600	750	1950		306393
Cross Slope Correction CL4 1.5 PG64-22	258380										258380
Asphalt Seal Aggregate		43100	43100							5000	91200
Emulsified Asphalt RS-2		43100	43100							5000	91200
Granular Embankment				1233	9778						11011

Quantities	Tons
DGA Base	53,718
CL3 Asph Surf 0.38D PG64-22	7,521
CL3 Asph Base 1.0D PG64-22	20,724
CL3 Asph Base 1.0D PG64-22 Pipe Trench	4,750
CL3 Asph Base 1.5D PG64-22	28,101
CL4 Asph Surf 0.38A PG76-22	23,307
CL4 Asph Base 1.0D PG76-22	59,327
CL4 Asph Base 1.5D PG64-22	89,541
Leveling & Wedging PG 64-22	750
Asphalt Seal Aggregate	1,824
Emulsified Asphalt RS-2	219
Asphalt Pave Milling & Texturing	5,600
Granular Embankment	8,920
	Lin ft
Trenching 4'	500
Trenching 6'	1195
Trenching 2'	705
Curb Removal	1,695

Tons

Trench cap.

Leveling is for profile correction

Milling and Texturing quantity includes removal of bituminous patches prior to breaking pavement and keying mixes as depicted herein.

Trenching is for ramp widening, varies in width as directed.

DRAINAGE SUMMARY

SOUTHBOUND DITCHING			NORTHBOUND DITCHING		
BEG MP	END MP	LENGTH (FT)	BEG MP	END MP	LENGTH (FT)
19.921	19.670	1325.280	11.203	11.730	2782.56
19.284	18.909	1980.000	12.03	12.230	1056
18.512	18.465	248.160	12.39	12.485	501.6
18.338	18.240	517.440	13.05	13.185	712.8
18.040	17.920	633.600	13.35	13.550	1056
17.900	17.470	2270.400	13.7	14.040	1795.2
17.145	16.965	950.400	14.815	15.105	1531.2
16.840	16.400	2323.200	15.23	15.475	1293.6
15.985	15.920	343.200	16.48	16.82	1795.2
15.740	15.666	390.720	17.24	17.32	422.4
15.667	15.315	1858.560	17.36	17.42	316.8
14.630	14.623	36.960	17.5	17.98	2534.4
13.894	13.827	353.760	18.11	18.17	316.8
13.768	13.615	807.84	18.25	18.35	528
13.550	13.468	432.960	18.45	18.5	264
13.436	13.110	1721.280	18.71	18.8	475.2
13.270	12.885	2032.800	18.925	19.3	1980
12.640	12.415	1188.000	19.66	19.75	475.2
12.265	12.005	1372.800	19.78	19.895	607.2
11.800	11.756	232.320	20	20.18	950.4
11.737	11.190	2888.160			
23907.840			21394.56		
TOTAL			45302.400		

CROSS DRAINS

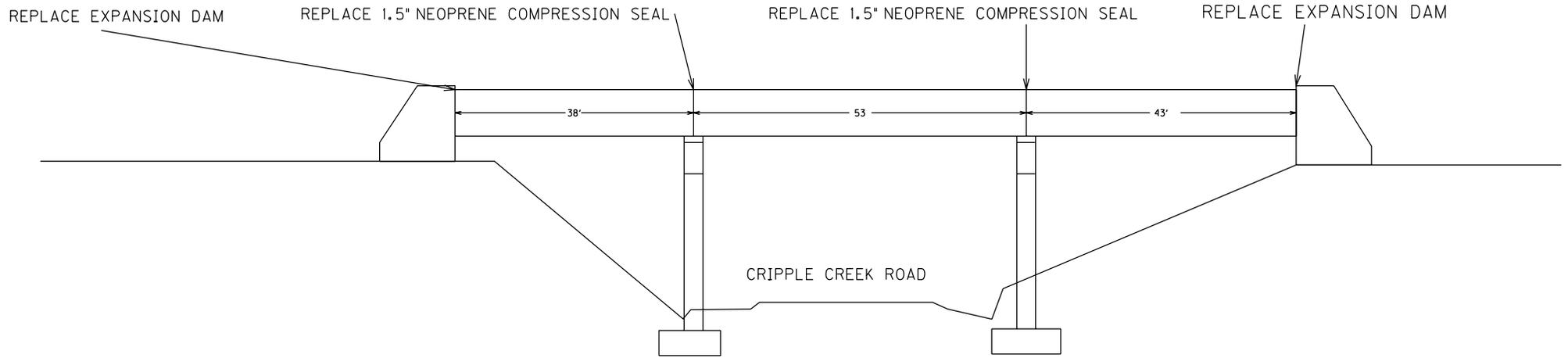
11.115	50	15.831	50
11.228	50	15.858	50
11.33	50	15.934	50
11.389	50	16.06	50
11.481	50	16.03	50
11.535	50	16.13	50
11.629	50	17.422	50
11.76	50	17.695	50
11.902	50	17.877	50
11.997	50	18.36	50
12.029	50	18.543	50
12.166	50	18.622	50
12.324	50	18.74	50
12.623	50	18.828	50
12.68	50	18.921	50
13.02	50	19.003	50
14.832	50	19.099	50
15.117	50	19.189	50
15.521	50	19.434	50
15.682	50	19.775	50
15.819	50	19.948	50
	1050		1050
TOTAL FOR PIPE CLEANING			2100

50' of ditching established for cross drains not in ditching limits.
TOTAL PROJECT DITCHING 47402.400

Contractor is advised that ditching must be performed to a minimum depth of 31 inches below the original edge of mainline excavation or 40 inches below proposed elevation to ensure positive drainage from perforated pipe headwalls. This depth must be reached by not exceeding a 4:1 slope from the shoulder break and may require some additional removal of material from the cut backslope. All required excavation will be considered incidental to the per foot payment for ditching.

If any cross drains or other drainage structures are encountered not noted herein, the engineer will assess their condition and may require cleaning. An additional 50 feet of ditching will be paid for each structure cleaned and not within any of the above ditching limits.

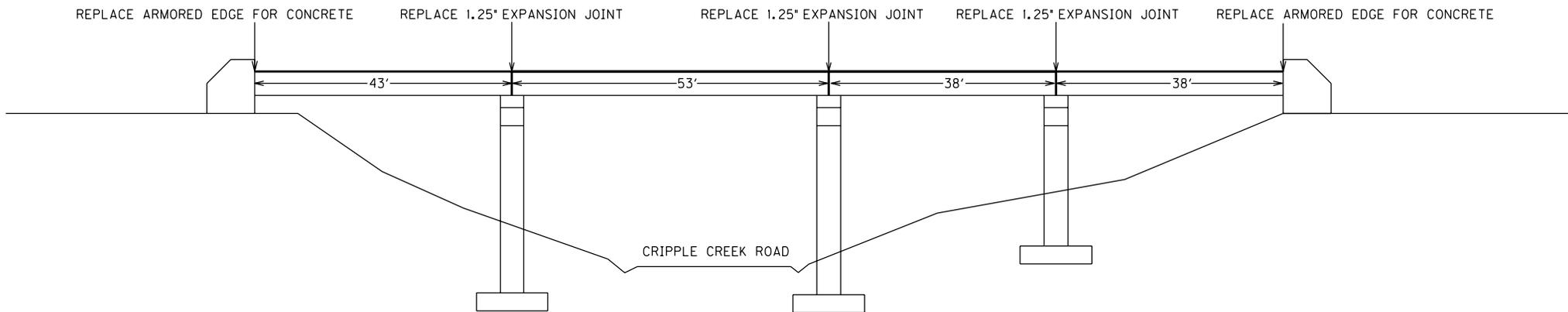
NOTE: NOT TO SCALE
B00046



NOTE: NOT TO SCALE
B00046



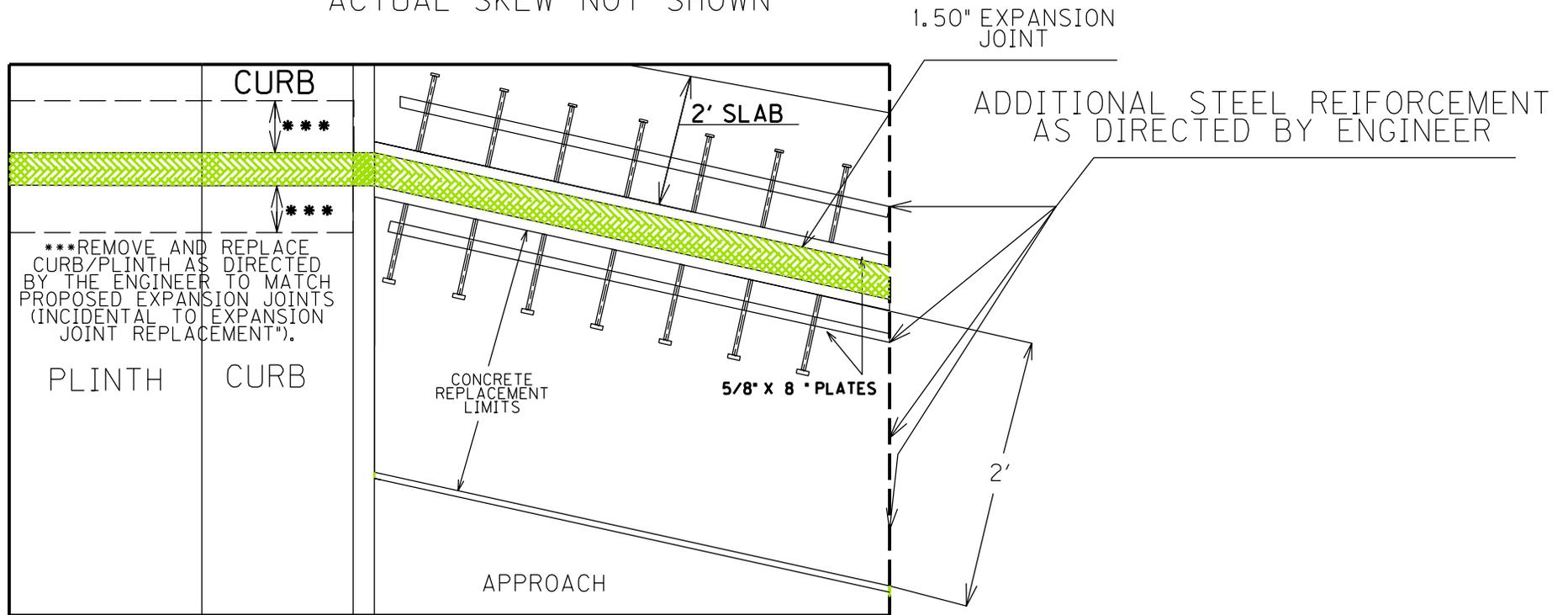
NOTE: NOT TO SCALE
B00046 SB



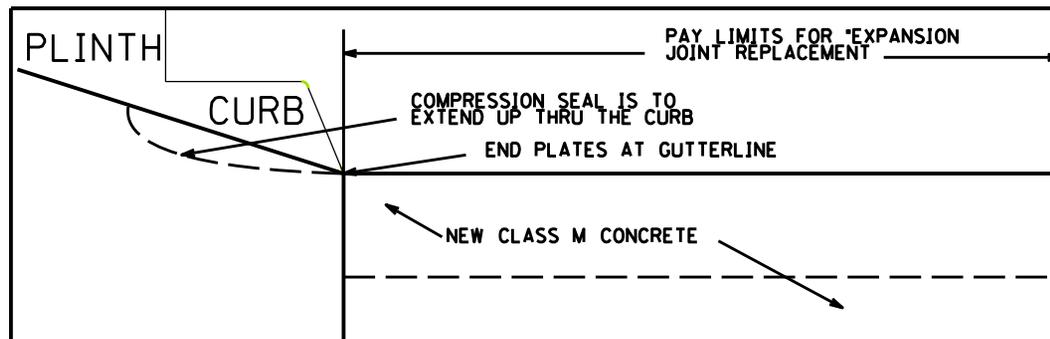
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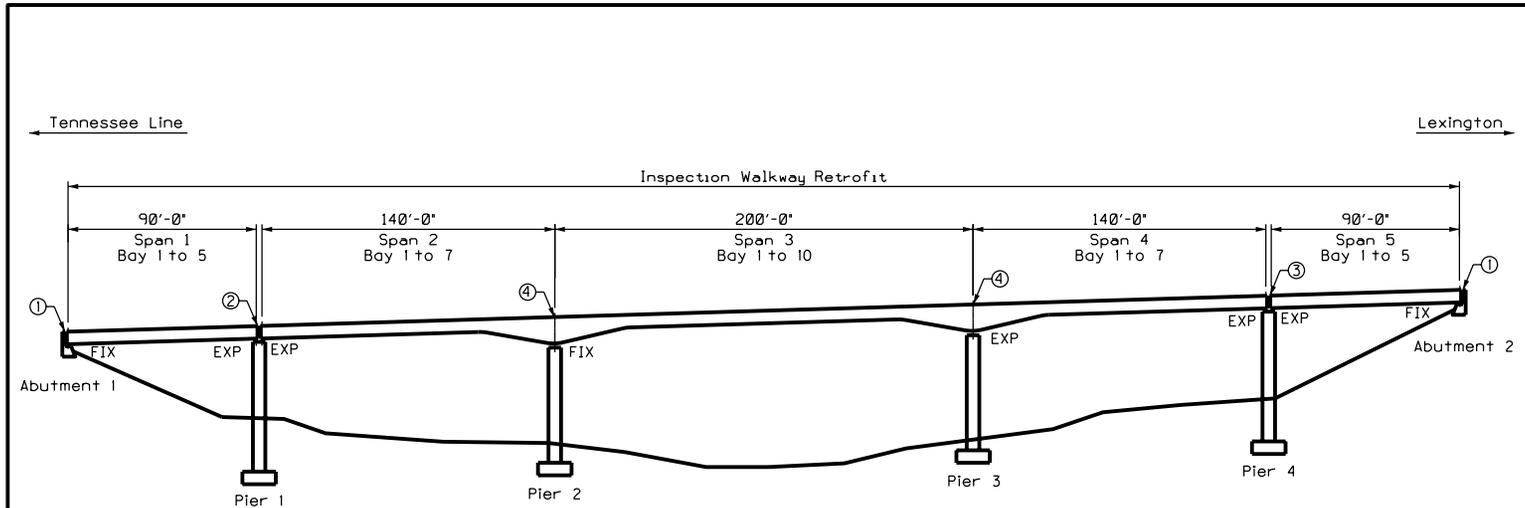
CURB SECTION

*NOTE: NOT TO SCALE
ACTUAL SKEW NOT SHOWN



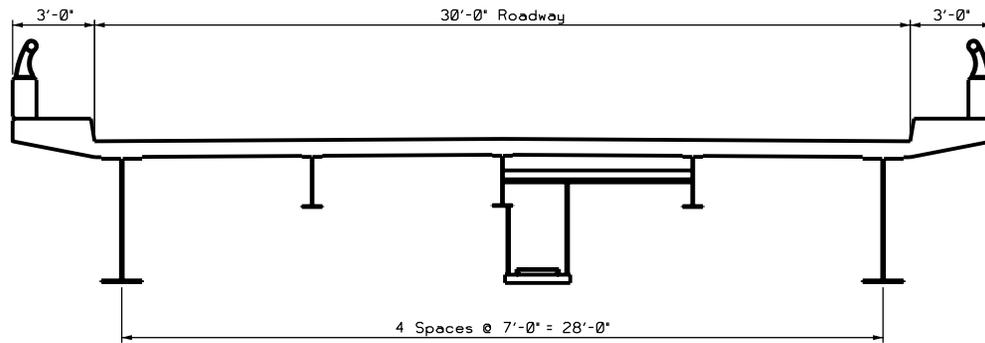
PLAN VIEW @ CURB





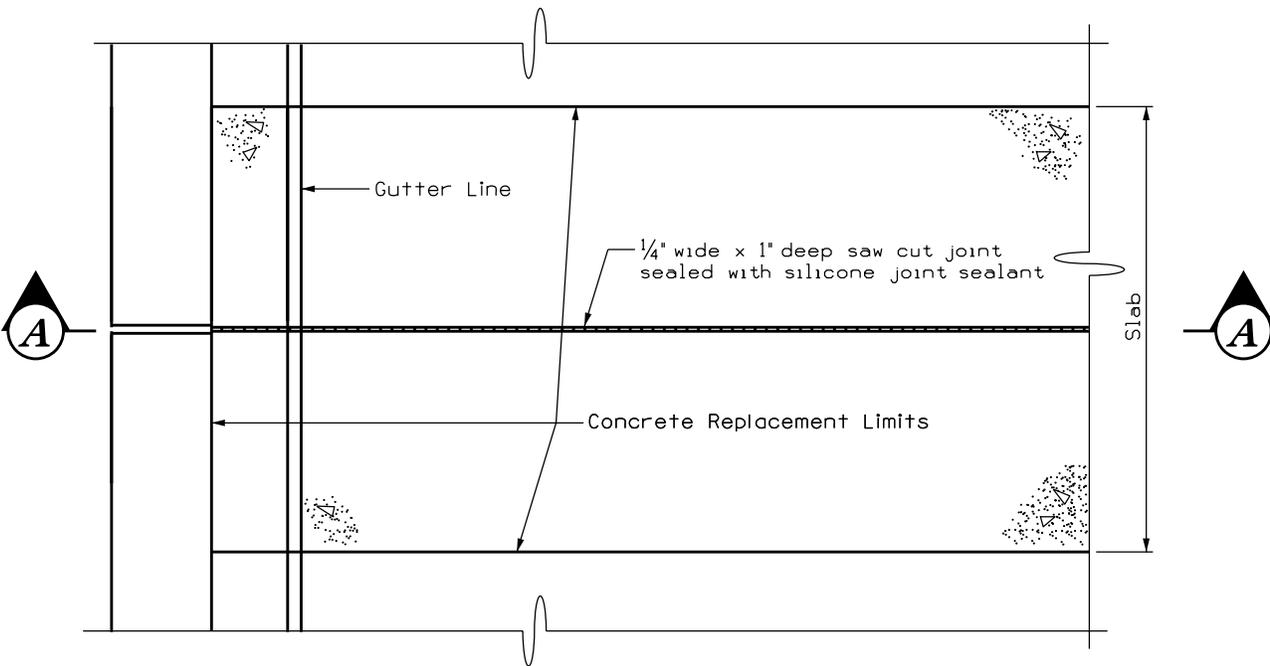
ELEVATION

- ① Expansion Joint Replacement - 1/2'
- ② Expansion Joint Replacement - 4'
- ③ Expansion Joint Replacement - 5'
- ④ Eliminate Transverse Joint

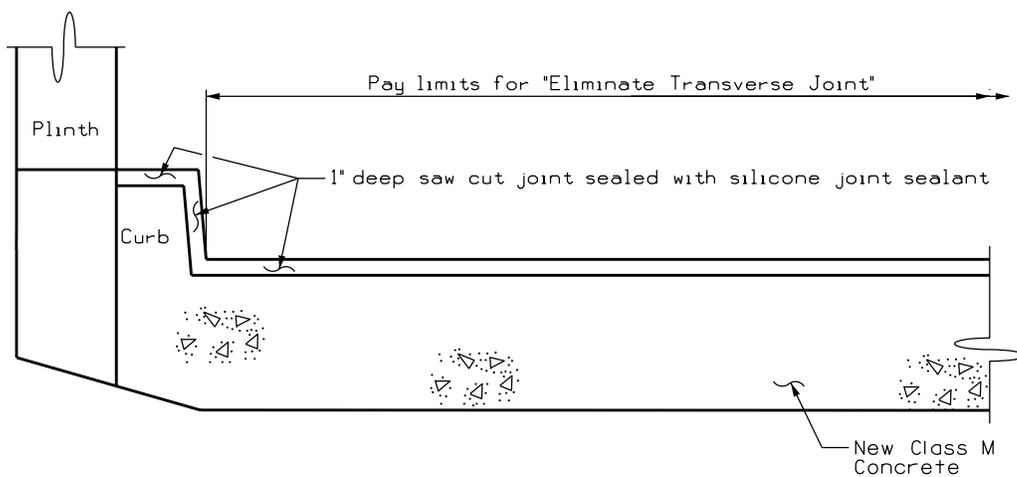


TYPICAL SECTION

ROUTE I-75 N.B.	COUNTY WHITLEY	ELEVATION AND TYPICAL SECTION	PREPARED BY URS
CROSSING CUMBERLAND RIVER	PROJECT NUMBER MP 118 0075 B00045N		URS Corporation Waterfront Plaza Tower One 325 West Main Street, Suite 1200 Louisville, KY 40202-4251 www.urscorp.com



PLAN VIEW AT CURB

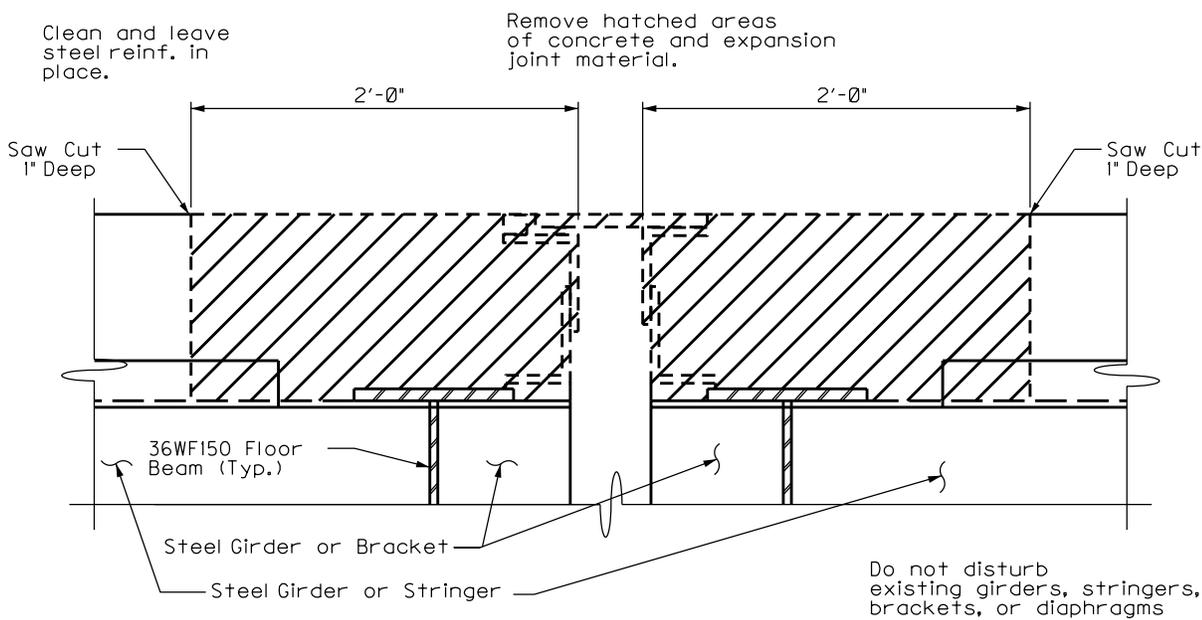


SECTION A-A

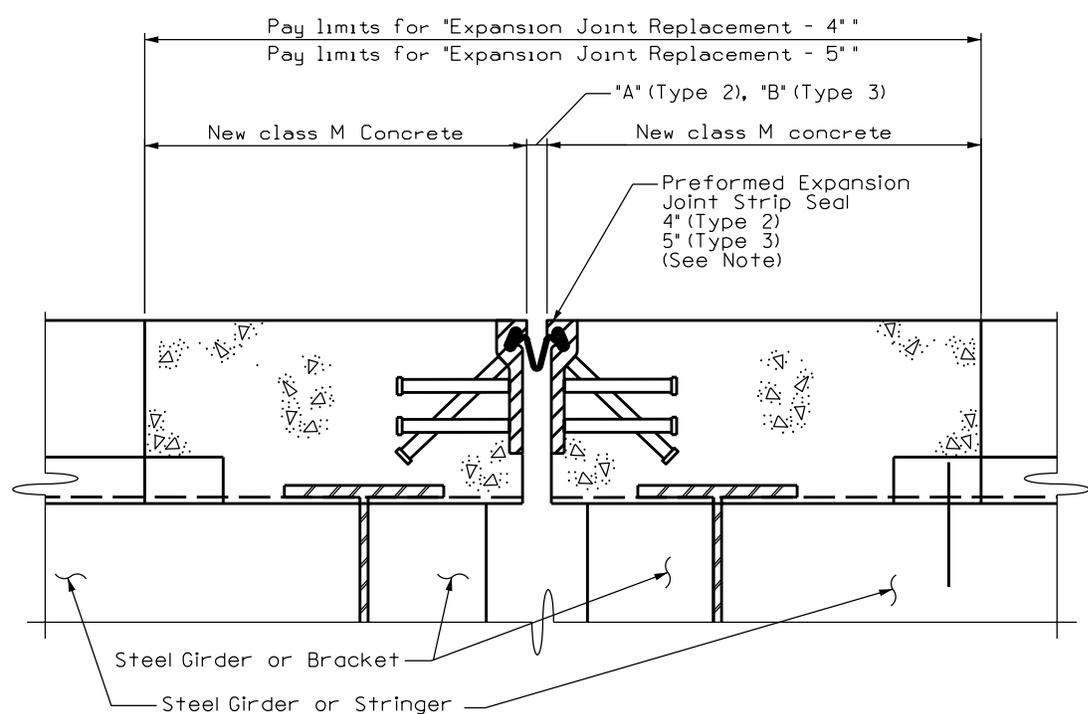
CURB SECTION - TYPE (4)

COUNTY
WHITLEY
PROJECT NUMBER
MP 118 0075 B00045N

ROUTE
I-75 N.B.
CROSSING
CUMBERLAND RIVER



EXISTING SECTION

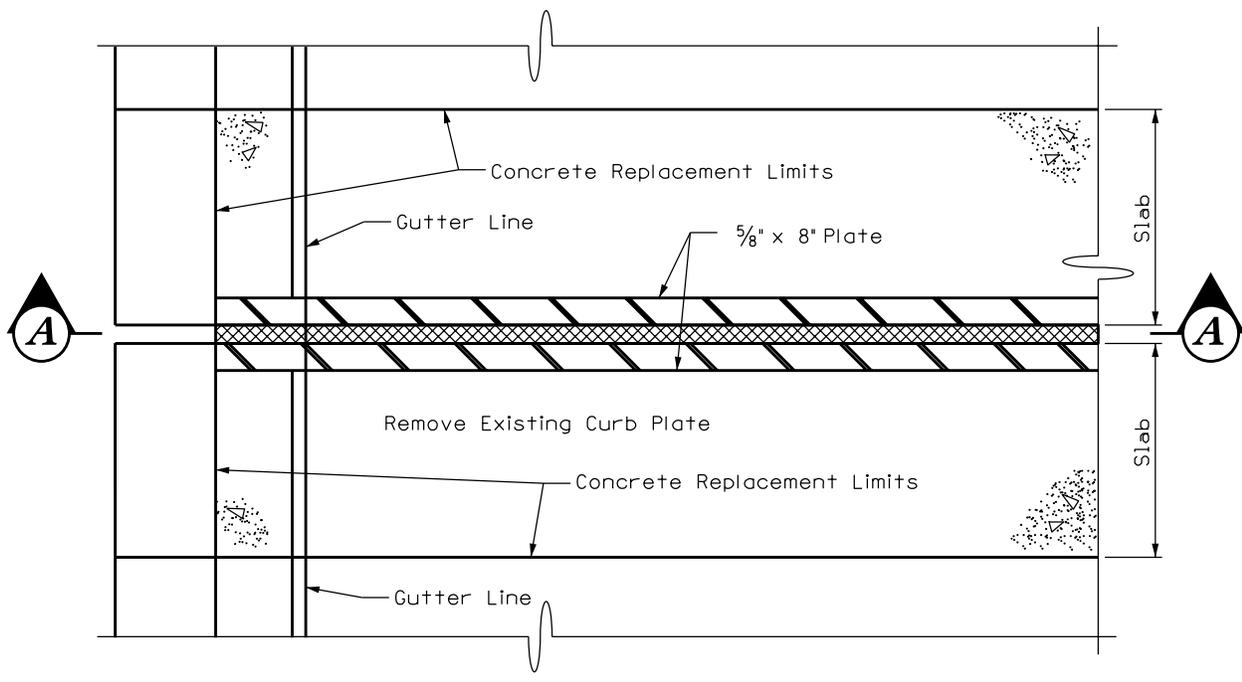


PROPOSED SECTION

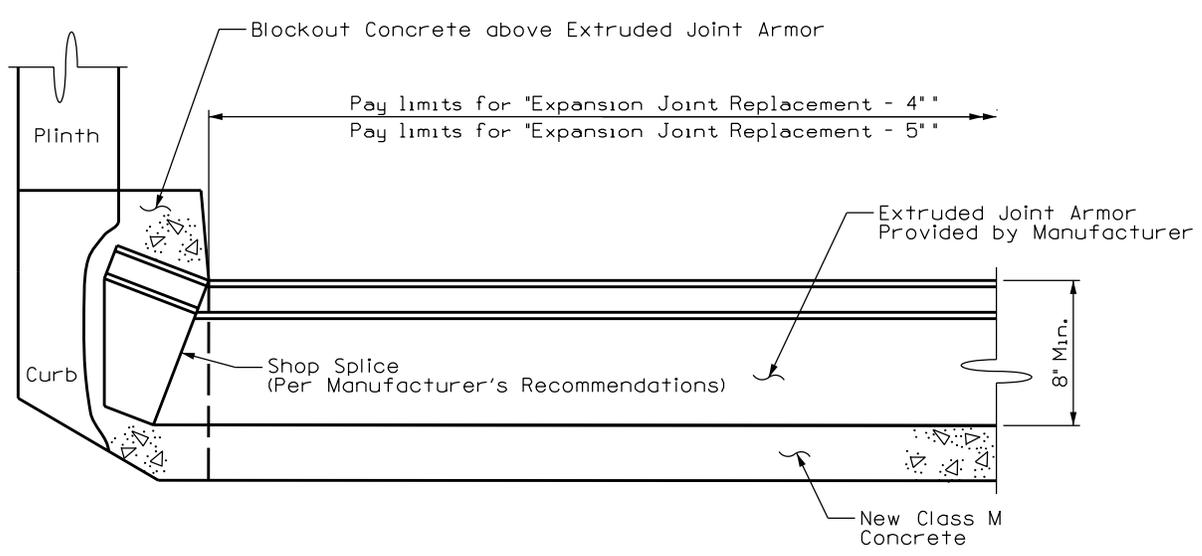
Note
Preformed expansion joint strip seal shall be either one of the following or an approved equivalent:

	4"	5"
D.S. Brown Company	A2R-400	L2-500
Watson Bowman Acme	SE-400	SE-500

Joint Opening		
Temp. (°F)	"A"	"B"
40	2 1/4"	2 3/4"
50	2"	2 3/8"
60	1 7/8"	2"
70	1 5/8"	1 3/4"
80	1 1/2"	1 3/8"
90	1 1/4"	1"



PLAN VIEW AT CURB

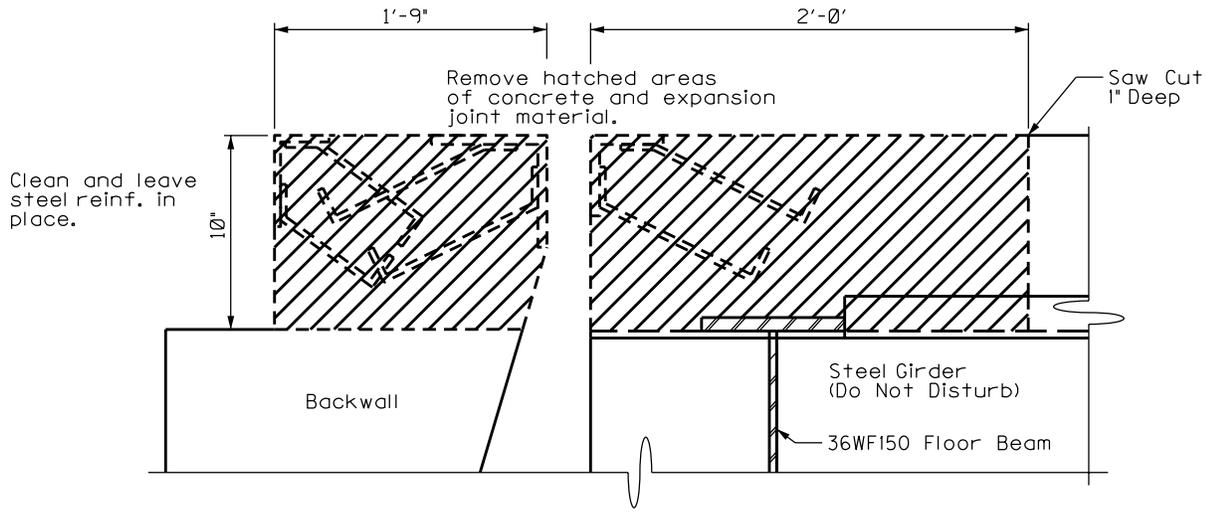


SECTION A-A

CURB SECTION - TYPE 2 & 3

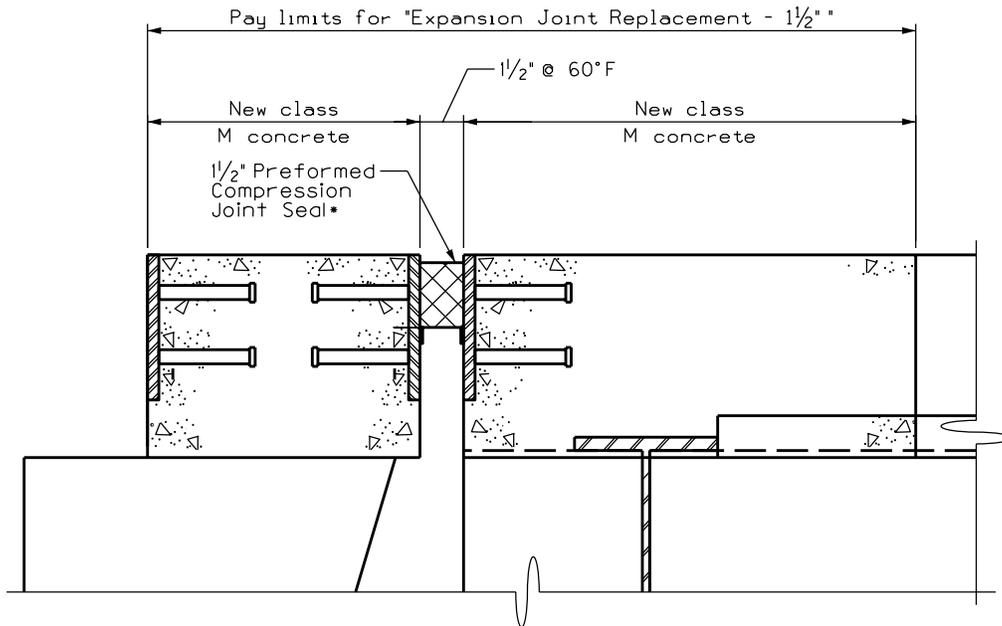
COUNTY
WHITLEY
PROJECT NUMBER
MP 118 0075 B00045N

ROUTE
I-75 N.B.
CROSSING
CUMBERLAND RIVER



EXISTING SECTION

Abutment 2



*See Std. Dwg. BJE-001, current edition.

PROPOSED SECTION

Abutment 2

PREPARED BY



JOINT DETAILS - TYPE 1
Abutment 2

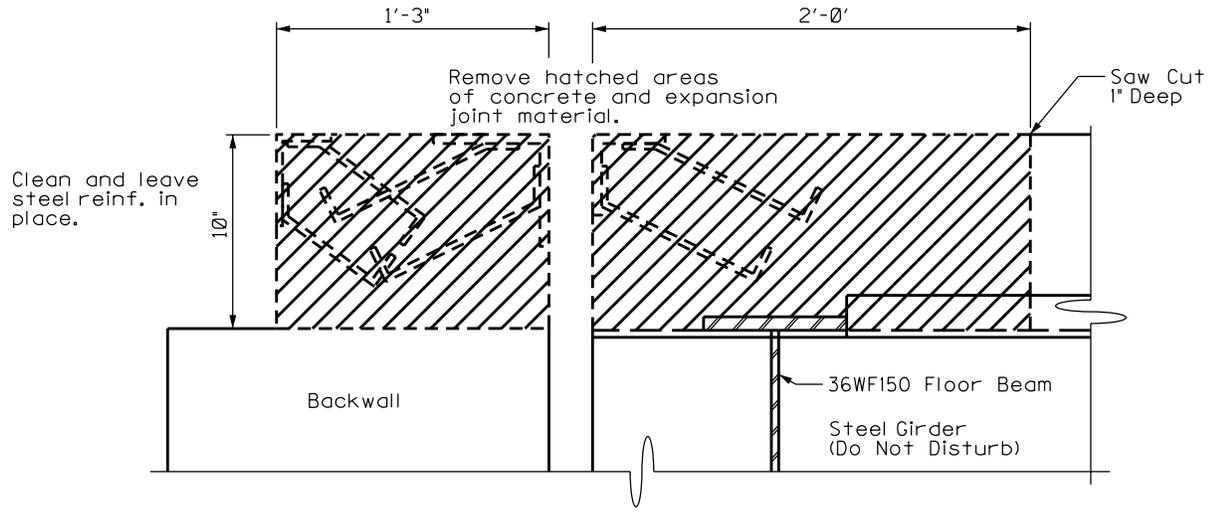
COUNTY
WHITLEY

PROJECT NUMBER
MP 118 0075 B00045N

ROUTE
I-75 N.B.

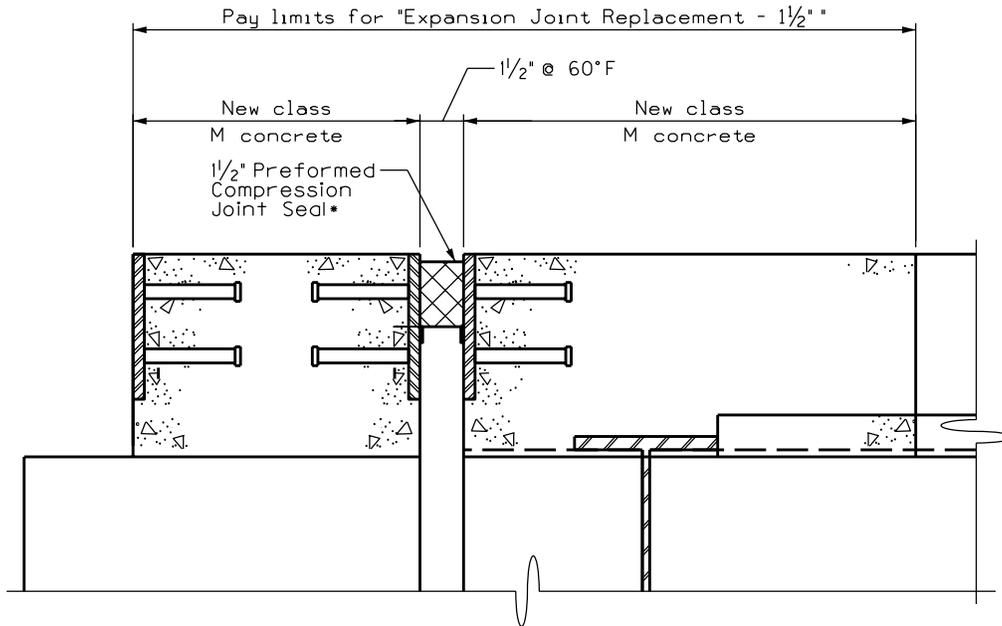
CROSSING
CUMBERLAND RIVER

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Tower One
Waterfront Plaza
1000 Riverchase
Louisville, KY 40202-4251
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EXISTING SECTION

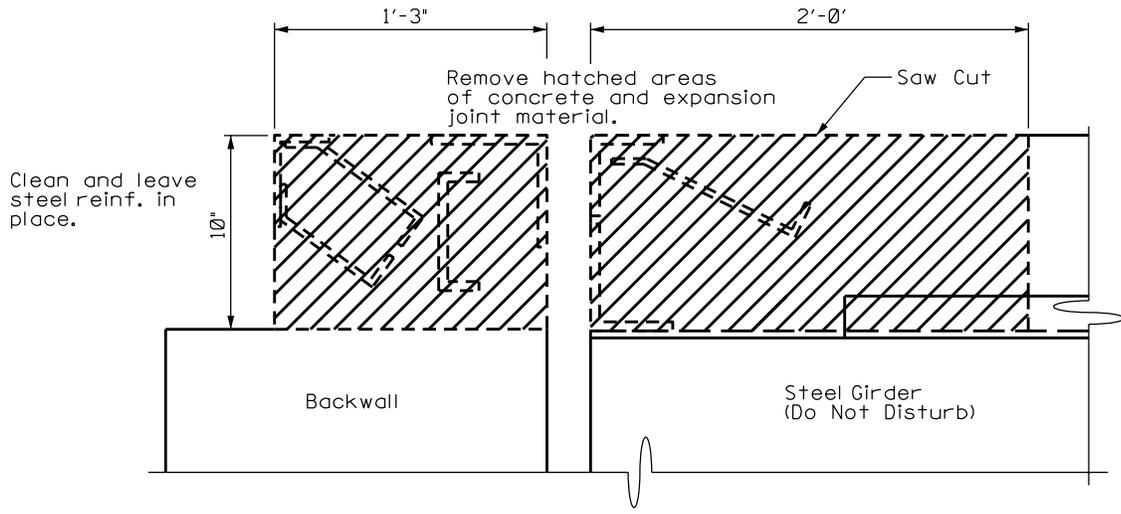
Abutment I



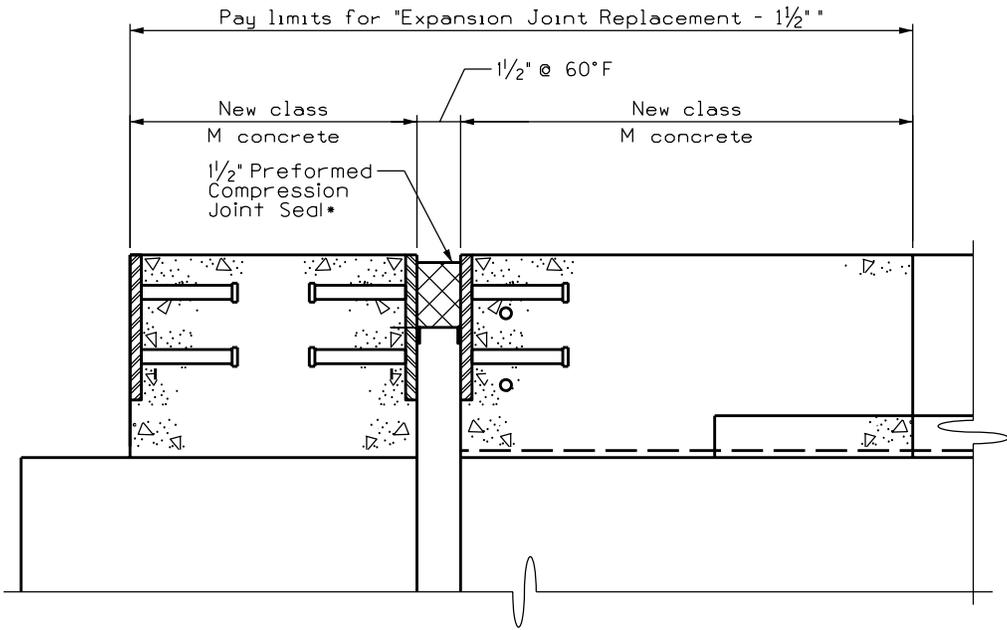
*See Std. Dwg. BJE-001, current edition.

PROPOSED SECTION

Abutment I



EXISTING SECTION



*See Std. Dwg. BJE-001, current edition.

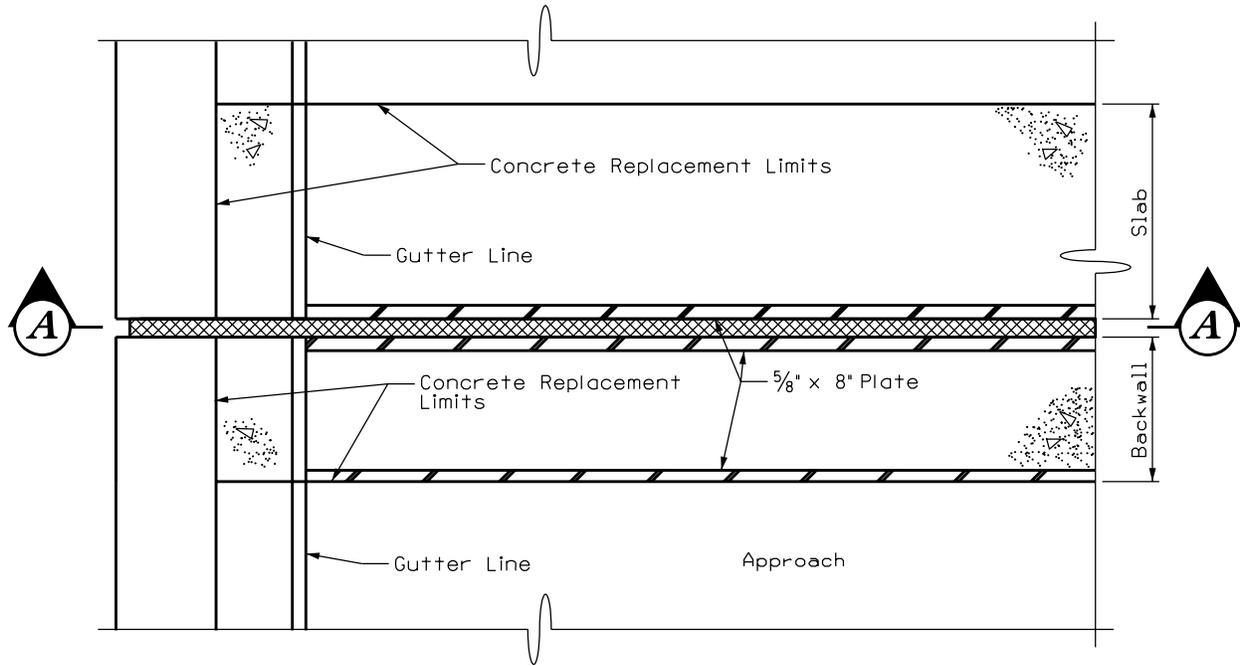
PROPOSED SECTION

PREPARED BY
URS
URS Corporation
Tower One
Waterfront Plaza
1000 River Street
Louisville, KY 40202-4251
www.urscorp.com

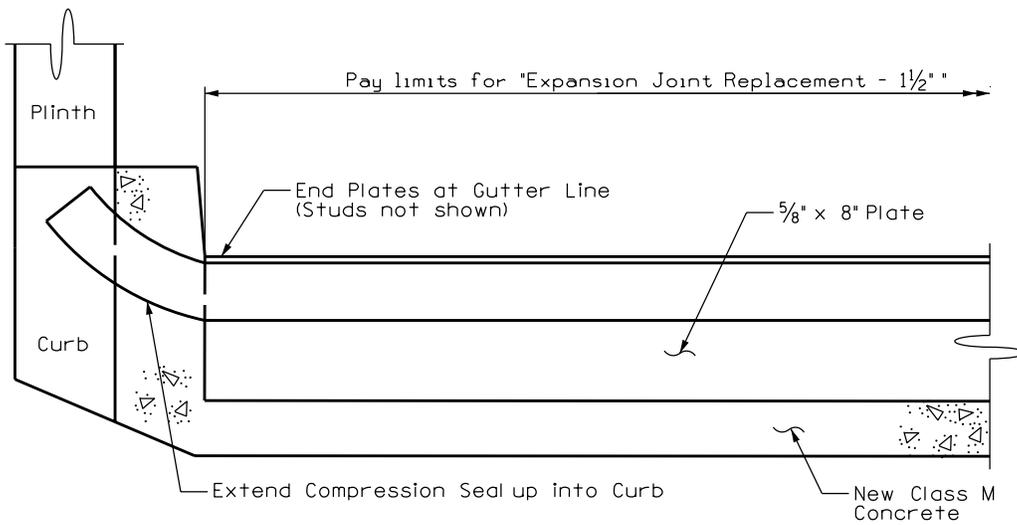
JOINT DETAILS - TYPE ①

COUNTY
WHITLEY
PROJECT NUMBER
MP 118 0075 B00045N

ROUTE
I-75 N.B.
CROSSING
CUMBERLAND RIVER



PLAN VIEW AT CURB



SECTION A-A

PREPARED BY



CURB SECTION - TYPE 1

COUNTY

WHITLEY

PROJECT NUMBER

MP 118 0075 B00045N

ROUTE

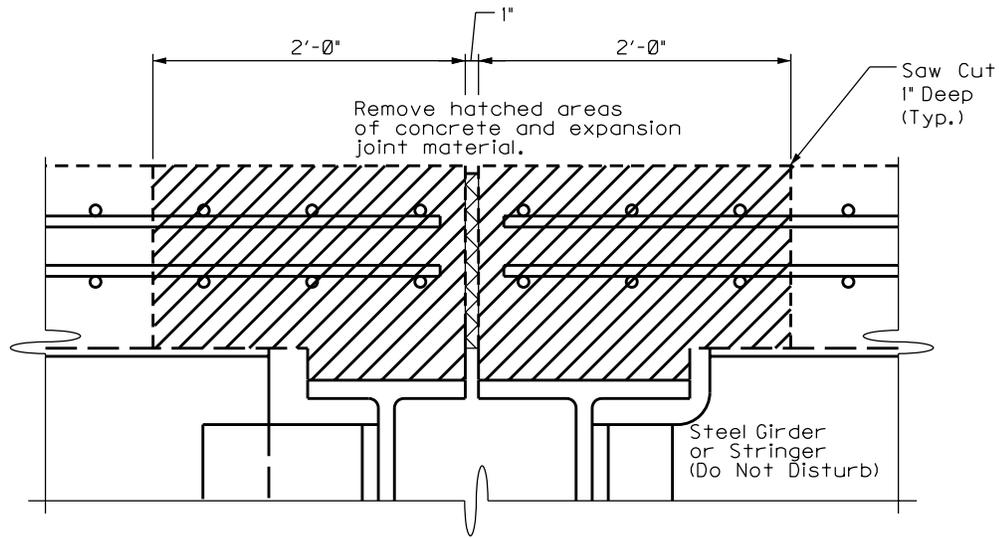
I-75 N.B.

CROSSING

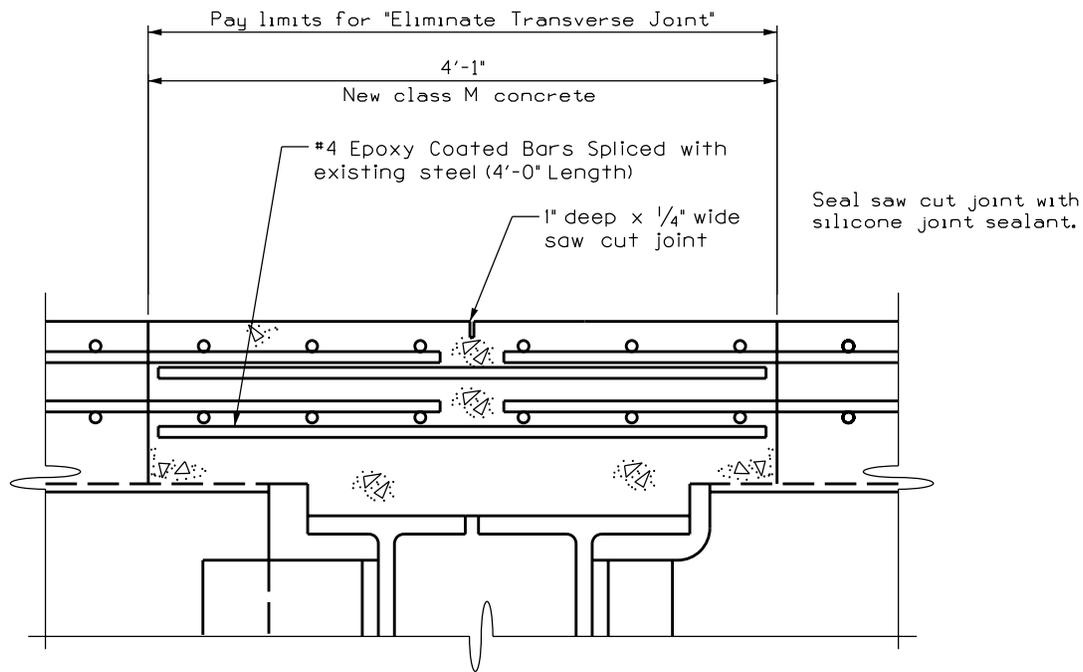
CUMBERLAND RIVER

URS Corporation, Tower One
325 West Main Street, Suite 1200
Louisville, KY 40202-4251
www.urscorp.com

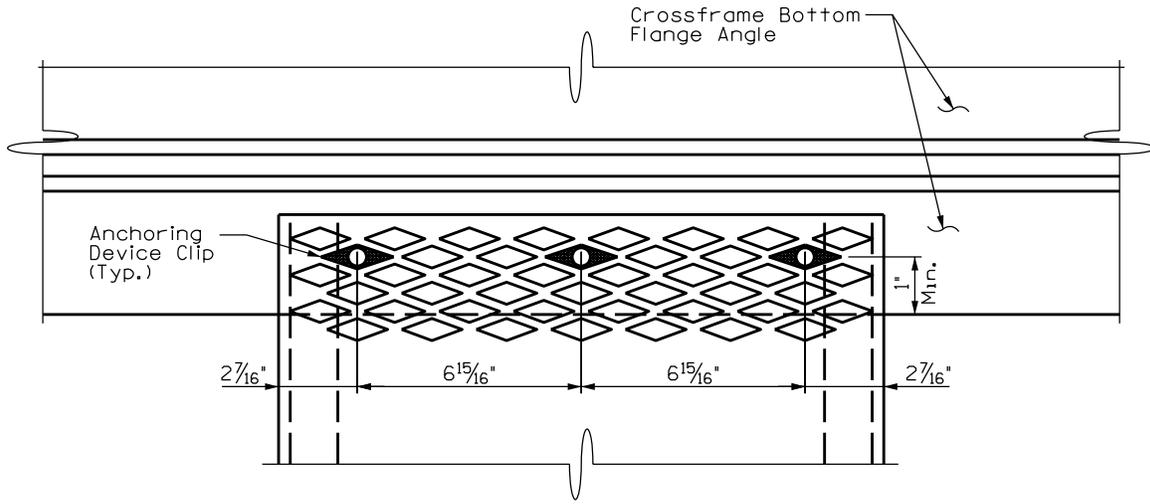
Clean and leave
steel reinf. in
place.



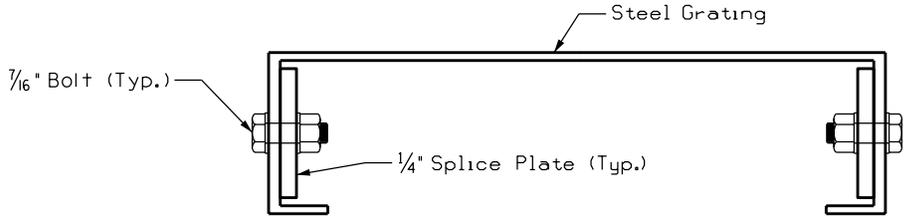
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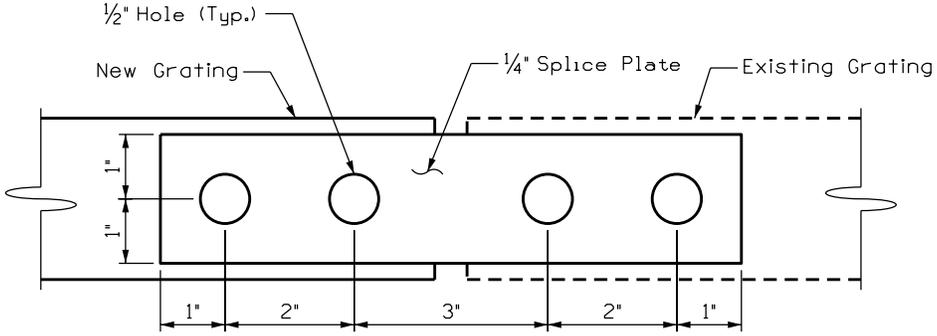
PROPOSED SECTION



VIEW X-X
Retrofits ① & ③



SECTION A-A
Retrofit ①



DETAIL A
Retrofit ①

INSPECTION WALKWAY RETROFIT
(SHEET 3 OF 4)

COUNTY
WHITLEY
PROJECT NUMBER
MP 118 0075 B00045N

ROUTE
I-75 N.B.
CROSSING
CUMBERLAND RIVER

Retrofit ①		
Span No.	Bay No.	"L"*
Span 3	Bay 5	10'-0"
	Bay 8	10'-0"
	Bay 10	12'-0"
Span 4	Bay 1	2'-0"
Span 5	Bay 3	8'-0"
Addn'l**		10'-0"
TOTAL		52'-0"

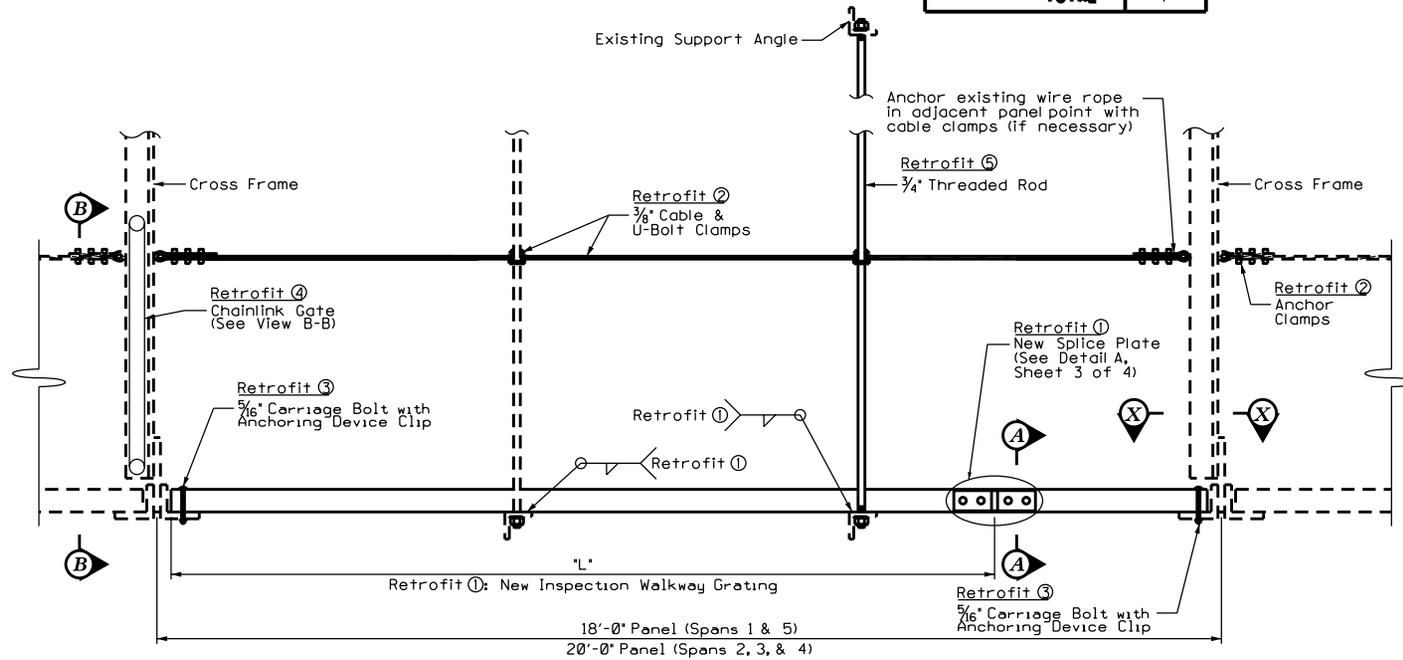
Retrofit ②		
Span No.	Bay No.	"L"*
Span 3	Bay 4	20'-0"
Span 5	Bay 5	20'-0"
Addn'l		40'-0"
TOTAL		80'-0"

Retrofit ③	
Span No.	No. Bolts
Span 1	30
Span 2	42
Span 3	60
Span 4	42
Span 5	30
TOTAL	204

Retrofit ④		
Span No.	Bay No.	Ea.
Span 1	1st Crossframe from Abutment	1
Span 5	1st Crossframe from Abutment	1
TOTAL		2

Retrofit ⑤		
Span No.	Bay No.	Ea.
Span 2	Bay 2	1
TOTAL		1

- *Exact locations to be determined by the Engineer
- **Additional as determined by the Engineer



PROPOSED WALKWAY ELEVATION

Note:
Cable is not intended for securing a lanyard for fall protection

ROUTE I-75 N.B.	COUNTY WHITLEY	INSPECTION WALKWAY RETROFIT (SHEET 2 OF 4)	PREPARED BY URS Corporation Waterfront Plaza Tower One 325 West Main Street, Suite 1200 Louisville, KY 40202-4251 www.urscorp.com
CROSSING CUMBERLAND RIVER	PROJECT NUMBER MP 118 0075 B00045N		

Inspection Walkway Retrofit Legend

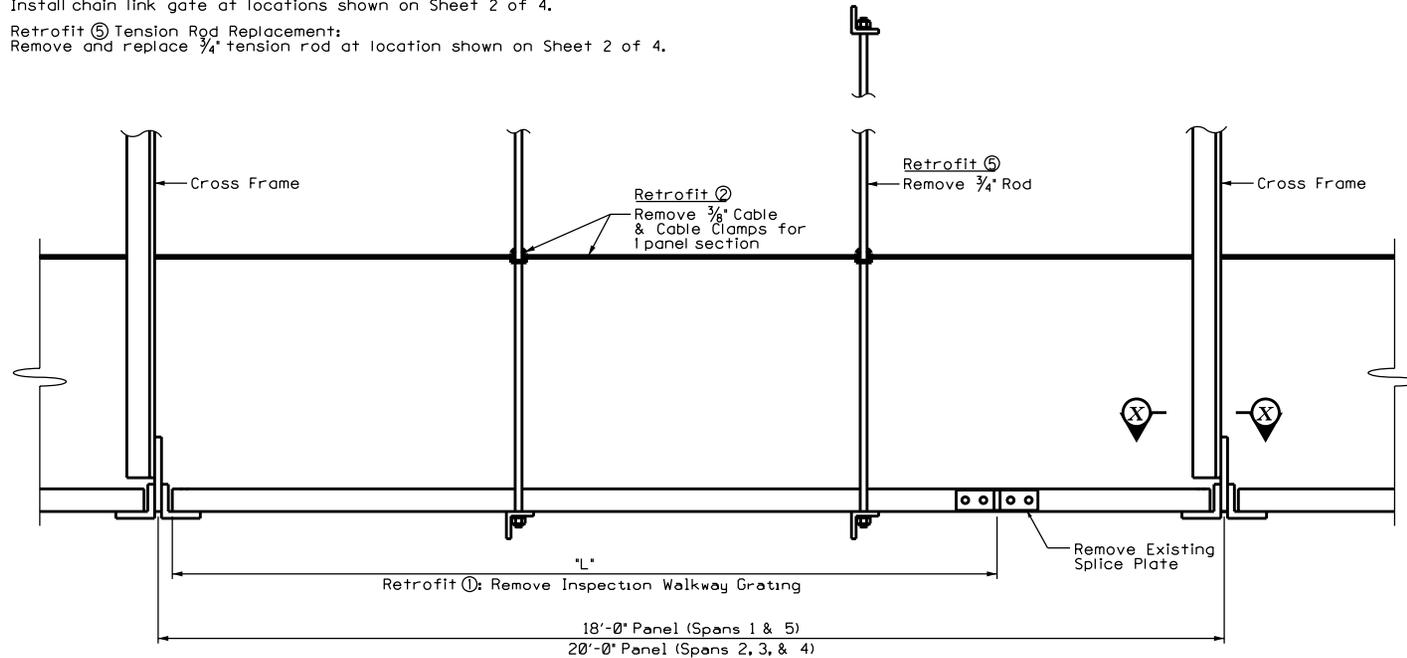
Retrofit ① Inspection Walkway Grating Replacement:
Remove and replace steel grating at locations shown on Sheet 2 of 4.

Retrofit ② Handrail Cable Replacement:
Remove and replace $\frac{3}{8}$ " cable and clamps at locations shown on Sheet 2 of 4.

Retrofit ③ Inspection Walkway Bolt Installation:
Supply and install $\frac{5}{16}$ " carriage bolts and anchorage device clips at all cross frames.

Retrofit ④ Chain Link Gate Installation:
Install chain link gate at locations shown on Sheet 2 of 4.

Retrofit ⑤ Tension Rod Replacement:
Remove and replace $\frac{3}{4}$ " tension rod at location shown on Sheet 2 of 4.



EXISTING WALKWAY ELEVATION

For View X-X, see Sheet 3 of 4

ROUTE 1-75 N.B.	COUNTY WHITLEY	INSPECTION WALKWAY RETROFIT (SHEET 1 OF 4)	PREPARED BY URS URS Corporation Waterfront Plaza Tower One 325 West Main Street, Suite 1200 Louisville, KY 40202-4251 www.urscorp.com
CROSSING CUMBERLAND RIVER	PROJECT NUMBER MP 118 0075 B00045N		

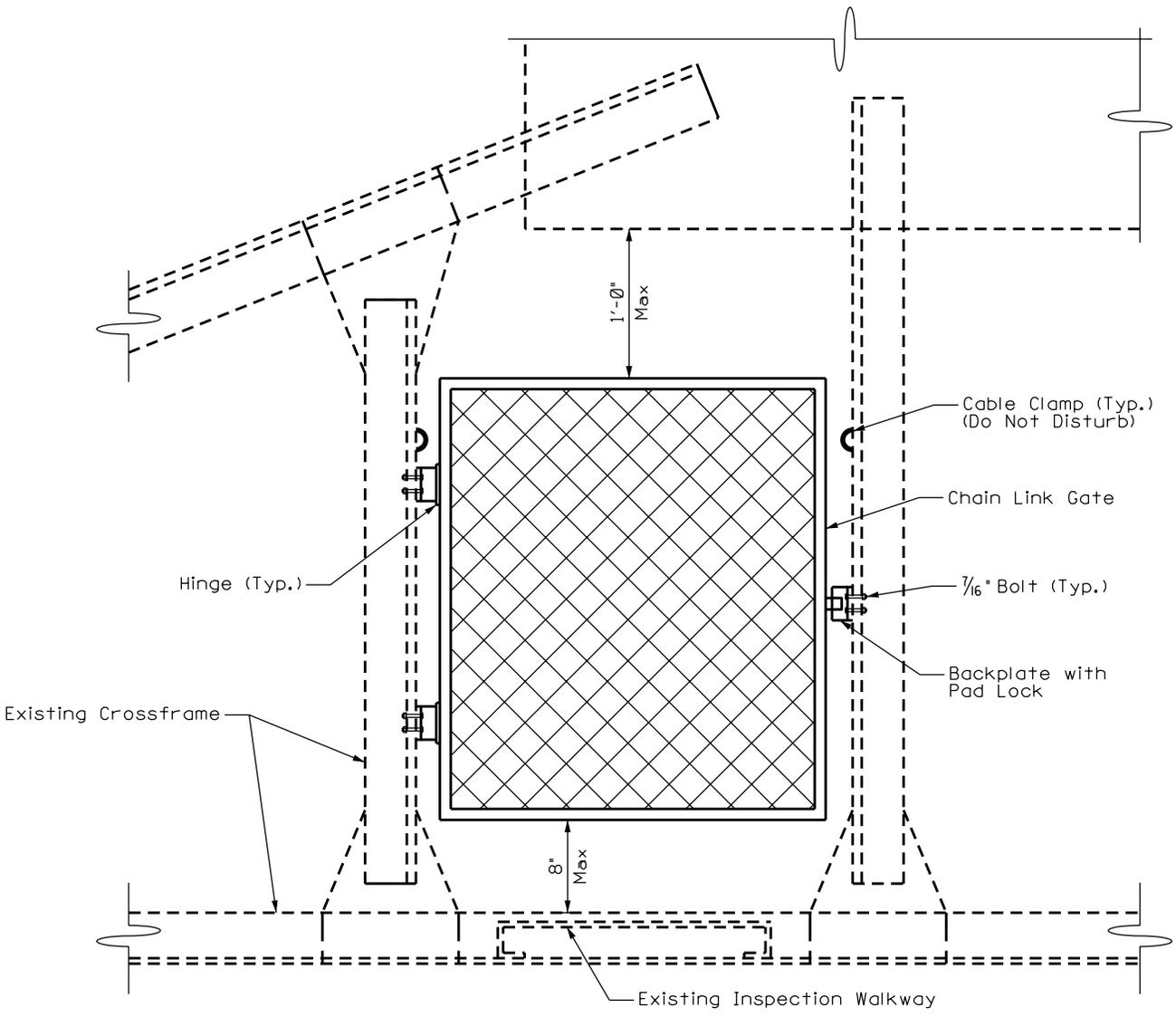
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INSPECTION WALKWAY RETROFIT
(SHEET 4 OF 4)

COUNTY
WHITLEY
PROJECT NUMBER
MP 118 0075 B00045N

ROUTE
I-75 N.B.
CROSSING
CUMBERLAND RIVER



VIEW B-B
Retrofit ④

SPECIAL NOTE FOR ELIMINATING TRANSVERSE JOINTS ON BRIDGES

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2008 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

- (1) Furnish all labor, materials, tools, and equipment.
- (2) Remove existing concrete to eliminate the transverse joint.
- (3) Install additional steel reinforcement and new concrete as specified and in accordance with the attached detail drawings.
- (4) Maintain and control traffic.
- (5) Any other work specified as part of this contract.

II. MATERIALS

- A. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- B. Steel Reinforcement.** Use Grade 60. See Section 602.
- C. Epoxy Bond Coat.** See Section 511.
- D. Silicone Rubber Sealants.** See Section 807.

III. CONSTRUCTION

- A. Remove Existing Materials.** Remove the existing transverse joints, joint filler, and specified areas of concrete as shown on the attached detail drawings or as directed by the Engineer. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Eliminate Transverse Joint".

Clean and leave all existing steel reinforcement encountered in place. Damaged steel reinforcement will be repaired/replaced as directed by the Engineer at no additional cost to the Department.

- B. Place New Concrete.** After all specified existing materials have been removed, place new Class "M" Concrete to the scarified grade and finish to receive the new overlay as shown on the detail drawings.

On the sidewalk or curb, place the new concrete to original grade as shown on the detail drawings and finish to match the existing curb/sidewalk.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class "M" Concrete. The surface areas of existing concrete to come in contact with the new Class "M" Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with

Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

- C. Additional Steel Reinforcement.** Furnish for this work, as directed by the Engineer, steel reinforcing bars ½” diameter. Splice these bars to the existing longitudinal reinforcement in the deck and curb/sidewalk in the areas of removed concrete to tie the slabs together as shown on the attached detail drawings. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class “M” concrete.

IV. MEASUREMENT

- A. Eliminate Transverse Joint.** The Department will measure the quantity in linear feet from plinth to plinth perpendicular to the centerline of the bridge.
- B. Steel Reinforcement.** See Section 602.

V. PAYMENT

- A. Eliminate Transverse Joint.** Payment at the contract unit price per linear foot is full compensation for removing and disposing of the specified existing materials, furnishing and installing the concrete, and all incidental items necessary to complete the work (except the overlay material) within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- B. Steel Reinforcement.** See Section 602.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.

**SPECIAL NOTE FOR REPLACING EXPANSION DAMS AND/OR
INSTALLING ARMORED EDGES FOR CONCRETE BRIDGES**

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2008 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following: (1) Furnish all labor, materials, tools, and equipment; (2) Remove the existing concrete, expansion devices, and bridge ends; (3) Install armored edges and new concrete as specified and in accordance with the attached detail drawings; (4) Install new joint seals; (5) Maintain and control traffic; and (6) Any other work specified as part of this contract.

II. MATERIALS

- A. Class "M" Concrete.** Use either "M1" or "M2". See Section 601.
- B. Structural Steel.** Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection. See Standard Drawing BJE-001, current edition.
- C. Stud Anchors.** The armored edge stud anchors are ¾" x 6" embedded stud shear connectors conforming to ASTM A108, Grade 1015 (Nelson Studs or equal).
- D. Steel Reinforcement.** Use Grade 60. See Section 602.
- E. Epoxy Bond Coat.** See Section 511.
- F. Neoprene Joint Sealers (Compression Seals).** See Section 807.
- G. Preformed Expansion Joint Strip Seals – 4".** Shall be either A2R-400 as manufactured by D.S. Brown Company or SE-400 as manufactured by Watson Bowman Acme or approved equal.
- H. Preformed Expansion Joint Strip Seals – 5".** Shall be either L2-500 as manufactured by D.S. Brown Company or SE-500 as manufactured by Watson Bowman Acme or approved equal.

III. CONSTRUCTION

- A. Remove Existing Materials.** Remove the existing expansion dam/bridge end and specified areas of concrete as shown on the attached sketches. Remove debris and/or expansion joint filler as directed by the Engineer. Dispose of all removed material entirely away from the job site. This work is incidental to the contract unit price for "Expansion Joint Replacement" or "Armored Edge for Concrete". Clean and leave all existing steel reinforcement encountered in place.
- B. Place New Concrete and Armored Edges.** After all specified existing materials have been removed; place new armored edges to match the original grade (See

attached detail drawings). Place the new Class “M” concrete to the original grade and finish with broom strokes drawn transversely from curb to curb.

All new structural steel shall be cleaned and painted with two coats of commercial primer paint red orange in color, except that the surfaces to come in contact with concrete are not to be painted.

Blast clean all areas of existing concrete and structural steel to come in contact with new concrete until free of all laitance and deleterious substances immediately prior to the placement of the Class “M” Concrete. The surface areas of existing concrete to come in contact with the new Class “M” Concrete are to be coated with an epoxy bond coat immediately prior to placing new concrete in accordance with Section 511. The interfaces of the new and old concrete shall be as nearly vertical and horizontal as possible.

- C. Additional Steel Reinforcement.** Furnish for replacement, as directed by the Engineer, 158 steel reinforcing bars ½” diameter by 20’ lengths. Place these bars in areas deemed by the Engineer to require additional reinforcement. Field cutting and bending is permitted. Do not place any additional steel reinforcement above the height of the top row of Nelson studs on the armored edges. Ensure that all exposed steel reinforcement is tied in accordance with Section 602.03.04 prior to pouring the new Class “M” concrete. Deliver unused bars to the Local County Maintenance Barn. Payment will be made in accordance with Section 602.
- D. Stage Construction.** Installation of concrete and armored edges in two (or more if specified) stages is necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld, and grind smooth.
- E. Preformed Neoprene Joint Seal.** Place the preformed joint seal in one continuous, unbroken length. Place neoprene compression seals as recommended by the manufacturer and in accordance with Section 609.03.04 (D).
- F. Preformed Expansion Joint Strip Seals.** Place the strip seal in one continuous, unbroken length. Place the joints as recommended by the manufacturer and in accordance with Section 609.03.04 (E).
- G. Shop Plans.** Shop plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.

IV. MEASUREMENT

- A. Expansion Joint Replacement – 1½”.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.
- B. Expansion Joint Replacement – 4”.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.
- C. Expansion Joint Replacement – 5”.** The Department will measure the quantity in linear feet from gutterline to gutterline along the centerline of the joint.
- D. Armored Edge for Concrete.** The Department will measure the quantity in linear feet from gutterline to gutterline along the face of the bridge end.
- E. Steel Reinforcement.** See Section 602.

V. PAYMENT

- A. Expansion Joint Replacement – 1½”.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, neoprene joint seal, and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- B. Expansion Joint Replacement – 4”.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, preformed expansion joint strip seal, and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- C. Expansion Joint Replacement – 5”.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete, preformed expansion joint strip seal, and all incidental items necessary to complete the work within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- D. Armored Edge for Concrete.** Payment at the contract unit price per linear foot is full compensation for removing specified existing materials, furnishing and installing the new armored edges, concrete and all incidental items necessary to complete work within the specified pay limits as specified by this note and as shown on the attached detail drawings.
- E. Steel Reinforcement.** See Section 602.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.

SPECIAL NOTE FOR INSPECTION WALKWAY REPAIR

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2008 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and the attached detail drawings. Section references are to the Standard Specifications.

This work consists of the following:

- (1) Furnish all labor, materials, tools, and equipment
- (2) Remove existing inspection walkway as specified in detail drawings
- (3) Repair inspection walkway in accordance with the attached detail drawings
- (4) Maintain and control traffic
- (5) Any other work specified as part of this contract

This repair is not intended to bring the inspection walkway to current OSHA standards. The inspection walkway handrail is not intended for the attachment of a safety lanyard.

II. MATERIALS

- A. Inspection Walkway Grating.** Use Grip Strut 12 ga., hot-dipped and mill galvanized after fabrication, 18³/₄" wide steel grating with 2¹/₂" deep channels furnished by GS Metals Corp. or approved equal.
- B. Structural Steel (Splice plates, threaded tension rod).** Use AASHTO M270 (ASTM A709) Grade 36 steel, galvanized. The Engineer will base acceptance on visual inspection.
- C. High Strength Bolts, Nuts, and Washers.** Ensure all bolted connections (with the exception of carriage bolts) are AASHTO M164 or ASTM A325 galvanized high strength bolts, nuts, and washers.
- D. Anchoring Device Clips.** Use Diamond Anchor 12262 as manufactured by GS Metals or approved equal. Attach with 5/16" carriage head bolts galvanized in accordance with ASTM A153. Use galvanized locking washers and nuts.
- E. Handrail Cable.** Use 3/8" dia. galvanized steel structural wire rope (ASTM A603)
- F. Chain Link Gate.** See Section 817.
- G. Padlocks.** Provide four (2) weather tough, high security, padlocks furnished by Master Lock Company, or approved equal. Padlocks shall either be keyed alike or be 4-digit set-your-own-combination locks at the Engineer's discretion. Four (4) keys shall be provided for each keyed locks and given to the Engineer.

III. CONSTRUCTION

- A. Remove Existing Materials.** Remove existing materials as shown on the attached detail drawings. Dispose of all removed material away from the job site. This work

- will be incidental to the contract unit price for “Retrofit 1: Inspection Walkway Grating Replacement”, “Retrofit 2: Handrail Cable Replacement”, or “Retrofit 5: Tension Rod Replacement.”
- B. Dimensions.** Dimensions shown on these plans are approximate. The Contractor shall verify elevations and dimensions, including thickness of parts, with field measurements prior to ordering materials or fabricating steelwork.
 - C. Shop Plans.** Shop plans will not be required. The Contractor is responsible for obtaining field measurements and supplying properly sized materials to complete the work.
 - D. Installation. Retrofit 1: Inspection Walkway Grating Replacement.** Install new inspection walkway grating, splice plates, and 7/16” bolts as directed by the Engineer and as shown on the attached detail drawings.
 - E. Installation. Retrofit 2: Handrail Cable Replacement.** Install new steel cable as directed by the Engineer and as shown on the attached detail drawings. Anchor the existing cable in adjacent panels as necessary. Properly tension the cable (existing or new) to the Engineer’s satisfaction.
 - F. Installation. Retrofit 3: Inspection Walkway Bolt Installation.** Install new bolts and anchor device clips as directed by the Engineer and as shown on the attached detail drawings.
 - G. Installation. Retrofit 4: Chain Link Gate Installation.** Install new chain link gates to restrict access onto the inspection walk as directed by the Engineer and as shown on the attached detail drawings.
 - H. Installation. Retrofit 5: Tension Rod Replacement.** Install new threaded tension rods, washers, and nuts, as directed by the Engineer and as shown on the attached detail drawings.
 - I. Prohibited Field Welding.** No welding of any nature shall be performed on the bridge except as shown on the attached drawings without the written consent of the Director, Division of Bridge Design, and then only in the manner and at the locations designated in the authorization.
 - J. Welding Specifications.** All welding and welding materials, shall conform to "Joint Specification ANSI/AASHTO/AWS D1.5M-D1.5-2002 Bridge Welding Code". Modification and additions as stated on the plans and Special Note for Welding Steel Bridges, shall supersede the Joint Specifications. The cost of welding, welding materials, straightening, altering, and burning new or existing steel shall be included in the unit price bid for the appropriate items.
 - K. Lead Paint.** Residual lead paint may be on the bridge even through previous sandblastings and painting of the bridge. The Contractor is advised to take all necessary protective measures when removing, cutting, or performing any other actions on the existing steel.
 - L. Damage to the Structure.** The Contractor shall bear full responsibility and expense for any and all damage to the structure, should such damage result from the Contractor's actions.
 - M. Touch-Up Painting.** All areas of new or existing structural steel on which the paint has been damaged by the Contractor with weld burns or by other means during

construction, shall be wire brush cleaned and spot painted in accordance with the special notes. The cost of this touch-up painting is to be included in the price bid for appropriate items.

IV. MEASUREMENT

- A. Retrofit 1: Inspection Walkway Grating Replacement.** The Department will measure the quantity of linear feet of inspection walkway grating replaced.
- B. Retrofit 2: Handrail Cable Replacement.** The Department will measure the quantity of linear feet of steel safety cable replaced.
- C. Retrofit 3: Inspection Walkway Bolt Installation.** The Department will measure the quantity for each bolt installed.
- D. Retrofit 4: Chain Link Gate Installation.** The Department will measure the quantity for each gate installed.
- E. Retrofit 5: Tension Rod Replacement.** The Department will measure the quantity for each rod replaced.

V. PAYMENT

- A. Retrofit 1: Inspection Walkway Grating Replacement.** Payment at the contract unit price is full compensation for removing and disposing of specified existing materials, drilling, reaming, cutting, welding, removing deteriorated or damaged metal, all new materials (including steel safety grating, splice plates, and bolts), labor, equipment, tools and incidentals necessary to complete the work as shown on the attached detail drawings.
- B. Retrofit 2: Handrail Cable Replacement.** Payment at the contract unit price is full compensation for removing and disposing of specified existing materials, drilling, reaming, cutting, removing deteriorated or damaged metal, all new materials (including steel cable, clamps, and bolts), labor, equipment, tools and incidentals necessary to complete the work as shown on the attached detail drawings.
- C. Retrofit 3: Inspection Walkway Bolt Installation.** Payment at the contract unit price is full compensation for drilling, reaming, all new materials (including bolts and anchorage clip devices), labor, equipment, tools and incidentals necessary to complete the work as shown on the attached detail drawings.
- D. Retrofit 4: Chain Link Gate Installation.** Payment at the contract unit price is full compensation for drilling, reaming, all new materials (including but not limited to: chain link gate, connection plates, hinges, and padlock with keys), labor, equipment, tools and incidentals necessary to complete the work as shown on the attached detail drawings.
- E. Retrofit 5: Tension Rod Replacement.** Payment at the contract unit price is full compensation for removing and disposing of specified existing materials, drilling, reaming, cutting, removing deteriorated or damaged metal, all new materials

(including threaded tension rods, washers, and nuts), labor, equipment, tools and incidentals necessary to complete the work as shown on the attached detail drawings.

The Department will consider payment as full compensation for all work required by this note and the attached detail drawings.

**SPECIAL NOTE FOR BRIDGE DECK OVERLAYS
WHITLEY COUNTY IM 75-1(074)
MP 11.000 TO 20.175**

I. TRAFFIC CONTROL GENERAL

Except as provided herein, traffic shall be maintained in accordance with the 2008 of the Kentucky Standard Specifications, Section 112.

II. PROTECTION OF WATERWAY UNDERNEATH

Preventative measures shall be taken to ensure that no construction material or construction debris fall into the Cumberland River or roadways underneath at any time throughout the duration of this project.

III. PROJECT PHASING & CONSTRUCTION PROCEDURES

During daytime operations work shall be coordinated in a manner such that paving operation and bridge overlay operation only affect one lane of traffic at a time. Provide a "Temporary Concrete Barrier" for the Temporary Traffic Barrier required on Standard Drawing TTC-120. The minimum clear lane width required is 12'-0", see the attached drawing.

While shifting traffic, placing barrier wall, and placing temporary striping, the Contractor may be allowed to further reduce traffic lanes as approved by the Engineer. Any traffic reduction beyond those listed above must be approved by the Engineer at least two weeks prior to the reduction and should take place between the hours of 10:00 P.M. and 5:30 A.M. - \$1,000 will be charged to the contractor every 15 minutes that the required minimum lanes of traffic listed above, in each direction, are not open after the 5:30 A.M. deadline

IV. WIDE LOAD DETOUR

Contractor shall contact the Division of Motor Carriers (502) 564-7150 when wide load restrictions are in place. A detour route for wide load vehicles will needed to be developed by the Contractor and submitted to the Engineer for approval. The Contractor is responsible for the installation, maintenance, and removal of the detour signage. This detour route signage must be in place at any time the clear barrier-to-barrier width is reduced under 16'-0". The Department will not measure installation, maintenance, or removal for payment and will consider these incidental to Maintain and Control Traffic.

**SPECIAL NOTE FOR ASPHALT WATERPROOFING MIX
FOR BRIDGE-DECK OVERLAYS AND ADJACENT APPROACHES
(WHITLEY COUNTY, I-75)**

1. DESCRIPTION. Asphalt Waterproofing Mix (AWM) is a highly elastomeric, polymer-modified, impermeable asphalt mixture that is designed to be a one-step, waterproof, wearing course system for bridge-deck overlays and the adjacent approaches. Place AWM at a minimum thickness of 1.50 in. directly on the prepared surface using a conventional paver(s) and roller(s). Apply this material according to the lines, grades, and typical cross-sections in the plans or as established by the Engineer.

Unless otherwise noted, Section references herein are to the Department’s *Standard Specifications for Road and Bridge Construction*. Conform to all requirements for CL3 ASPH SURF 0.50A PG76-22 unless specifically modified herein.

2. MATERIALS AND PERSONNEL.

2.1 Aggregate. Provide polish-resistant coarse and fine aggregate conforming to Subsection 403.03.03 for a Type A mixture. Do not use mineral aggregates that are inherently porous, such as blast-furnace slag, expanded shale, porous limestone, and lightweight aggregates, in this mixture.

2.2 AWM Binder. Provide a performance-graded (PG) 64-22 binder conforming to Section 806. Add 2.25 percent of a concentrated, thermoplastic, virgin polymeric material by weight of the total mixture. Ensure that the modified binder conforms to AASHTO M 320 with a high temperature of 94 °C or higher and a low temperature of -34 °C or lower. In addition, ensure that the AWM binder conforms to the following criteria:

<u>Test</u>	<u>Criteria</u>
Elastic Recovery at 10 °C (ASTM D 6084)	92 % (min)
Toughness (ASTM D 5801)	210 in.-lbf (min)
Tenacity (ASTM D 5801)	141 in.-lbf (min)

2.3 Edge Sealant. Provide a material for edge sealant as recommended by the producer of the thermoplastic polymer modifier utilized in the AWM. Ensure the material is a highly thixotropic edge sealant that dries to a soft consistency and will not dry out, crack, or split under vibration or slight movement of opposing surfaces.

2.4 Adhesive Tack Coat. Provide a solvent-based, elastomeric primer adhesive tack coat as recommended by the producer of the thermoplastic polymer modifier utilized in the AWM.

2.5 Joint Sealant [Rubber Expansion Joint Compound (REJC)]. Provide a flexible, cold-pour, two-part polyurethane joint sealant conforming to the Special Note for Rubber Expansion Joint Compound.

2.6 Preconstruction Meeting. At least two weeks prior to the anticipated start of the project, the Department will schedule a preconstruction meeting to discuss the production and placement of AWM.

2.7 AWM Representative. Ensure a technical representative from the producer of the thermoplastic polymer modifier utilized in the AWM is present at the preconstruction meeting, during the initial construction activities, and available upon the request of the Engineer.

3. CONSTRUCTION.

3.1 Preparation of Mixture. Submit component material samples to the thermoplastic polymer modifier manufacturer for formulation of a mix design. Ensure the AWM contains no reclaimed materials. After receiving the completed mix design from the thermoplastic polymer modifier manufacturer, submit the AWM design and component material samples to the Division of Materials according to Subsection 402.03.

3.2 Job-Mix Formula (JMF). Contrary to Subsection 402.03, formulate and submit a JMF conforming to the following total binder content and gradation limits.

<u>Sieve Size</u>	<u>Percent Passing</u>	<u>Production Tolerance (%)</u>
½ in.	100	---
¾ in.	80-100	± 6
No. 4	50-76	± 6
No. 8	37-54	± 5
No. 16	26-40	± 4
No. 30	17-29	± 4
No. 50	10-21	± 3
No. 100	5-16	± 2
No. 200	2.0-8.0	± 1.5
% Virgin PG binder	5.0-7.0	
% Thermoplastic polymer	2.25 by weight of total mixture	
% Total binder (including PG binder and thermoplastic polymer)	7.25-9.25	± 0.5

3.3 Mix Design Criteria. Contrary to Subsection 403.03, using a compaction effort of $N_{des} = 100$ gyrations, perform and submit a laboratory mix design conforming to the following mixture specifications.

<u>Test</u>	<u>Criteria</u>
% Air Voids (AV) (AASHTO R 35)	2.0 ± 2.0
% Voids-in-Mineral Aggregate (VMA) (AASHTO R 35)	16.0 (min)
Permeability (ASTM D 5084)	10^{-8} to 10^{-10} m/s
Flexural Beam Fatigue (AASHTO T 321) (750 microstrains, 10 Hz, 2.0 % AV min)	250,000 cycles (min) (average of two samples)

The Department will not require AWM blends previously documented as satisfying the flexural beam fatigue specification to be tested again for flexural beam fatigue. Also, the Department will not require flexural beam fatigue testing for projects with a total AWM quantity of less than 1000 tons.

3.4 Surface Preparation. Prior to the preconstruction meeting, review the existing bridge deck(s) and approach pavement with a technical representative from the producer of the thermoplastic polymer modifier utilized in the AWM and Department personnel to develop a strategy for repairing distressed areas.

Prior to the placement of the AWM over PCC bridge deck(s) and approach pavement and as directed by the Engineer, repair any moderately or highly “D-cracked” areas, high-severity “punch-outs,” “blow-ups,” and other severe distresses with a doweled, full-depth patch. Ensure the patching material satisfies the applicable requirements of Section 502.

Prior to the placement of the AWM over asphalt pavement and as directed by the Engineer, fill large surface deformities, greater than 3 in. deep and 4 ft in diameter, with an approved asphalt mixture.

Immediately prior to placing the AWM, thoroughly clean the surface of all vegetation, loose materials, dirt, mud, and objectionable materials. Ensure the surface is dry. During placement of the AWM, fill smaller pavement deformities in the underlying bridge deck(s) and approach pavement with the AWM.

3.5 Application of Edge Sealant. Apply edge sealant, at 4 to 6 in. wide and approximately 0.03 in. thick, before and after AWM application in accordance with the guidelines from the producer of the thermoplastic polymer modifier utilized in the AWM. Apply the sealant to all perimeter surfaces adjacent to the AWM, such as curbs, parapet walls, headers, drains, scuppers, and joints, in order to reduce moisture infiltration into the AWM. Also apply edge sealant to all longitudinal or transverse joints in the AWM

that have cooled below 150 °F. When practical, apply the edge sealant the day before, or as early as possible on the day of, paving to maximize drying time.

3.6 Application of Adhesive Tack Coat. Contrary to Subsection 406.03, cold-apply an adhesive tack coat to the existing pavement at a rate to achieve an undiluted residue of 0.10 to 0.15 gal/yd². For milled surfaces, apply the tack coat at a rate to achieve an undiluted residue of 0.15 gal/yd². For smaller projects as defined by the Engineer, cold-apply the tack coat by hand with a brush, roller, or hand-wand sprayer. Allow the adhesive tack coat to cure for a period of at least 40 min, or until the tack coat is dry, depending on local conditions.

3.7 Application of Joint Sealant (REJC). For continuous paving operations over existing bridge/pavement joints, saw-cut a construction joint, 1.0 to 1.5 in. wide, in the AWM and fill the joint with joint sealant (REJC) as directed by the technical representative from the producer of the thermoplastic polymer modifier utilized in the AWM or the Engineer. Additionally, conform to the construction requirements in the Special Note for Rubber Expansion Joint Compound.

3.8 Production, Transport, and Placement of AWM. For batch plants, after adding the concentrated thermoplastic virgin polymeric material, dry-mix for approximately ten seconds. Next, add the asphalt binder, and wet-mix for 80 seconds to ensure a homogenous blend.

Do not use parallel-flow drum plants for production. For other types of drum plants, refer to the producer of the thermoplastic polymer modifier utilized in the AWM for mixing times.

Ensure the pavement surface or ambient air temperature is a minimum of 50 °F and rising at the time of AWM placement.

Contrary to Subsection 401.03, produce and place AWM at the following temperatures:

	<u>Temperature (°F)</u>
Mixing	410-450
Laydown at Paver	350-410
Compaction	250-410

Do not permit any truck containing AWM to leave the asphalt mixing plant without inspection and approval by the technical representative from the producer of the thermoplastic polymer modifier utilized in the AWM or by the Engineer.

Ensure that the paving process begins on the downhill side of the crown and works upward in order to keep the excess water from the rollers, which may cause the mat to blister, away from the paving process.

3.9 Compaction of AWM.

3.9.1 Rollers. Contrary to Subsection 403.03, compact the AWM only with steel, double-drum drive rollers in the static mode. Provide breakdown rollers with a static weight of approximately eight tons. Provide finish rollers with a static weight of four to eight tons and a maximum drum width of 60 in. Due to the elevated temperature of the mat, utilize approximately twice the water for the rollers than that of standard paving. Because the rollers will require more frequent filling, provide an additional roller to replace the roller being filled with water. Also provide a small roller or vibratory plate to compact smaller areas such as headers, scuppers, expansion joints, etc. that cannot accommodate a full-size roller.

3.9.2 Opening to Traffic. Open lanes to traffic when the AWM pavement reaches 140 °F or a minimum of one hour after compaction is completed.

3.10 Trial Demonstration(s). At least two days prior to beginning mainline paving, demonstrate that satisfactory production and placement of AWM is possible. Furnish at least 50 tons for the trial demonstration. The Engineer will determine the site, outside of the driving lanes, and exact quantity of the trial placement. Perform a minimum of one volumetric analysis (two gyratory specimens and two G_{mm} tests), one total binder content determination, and one gradation determination. Document that the AWM satisfies the applicable requirements of Sections 3.2 and 3.3 of this note for total binder content, gradation, AV, and VMA prior to beginning mainline paving.

Use the paver and rollers to be used on the project to construct the trial placement. Obtain and test a minimum of four roadway cores from the trial placement according to KM 64-442. Ensure the density of each core is within the range of 96.0 ± 2.0 percent of the theoretical maximum density prior to beginning mainline paving.

Furnish additional 50-ton production lots until achieving mixture properties that satisfy the requirements above. Construct additional trial sections until establishing a rolling pattern that provides the density specified above.

Also furnish an additional 50-ton production lot and construct a new trial placement whenever a change in the mix design, compaction method, or compaction equipment occurs. When directed by the Engineer, remove and replace trial sections with unacceptable results.

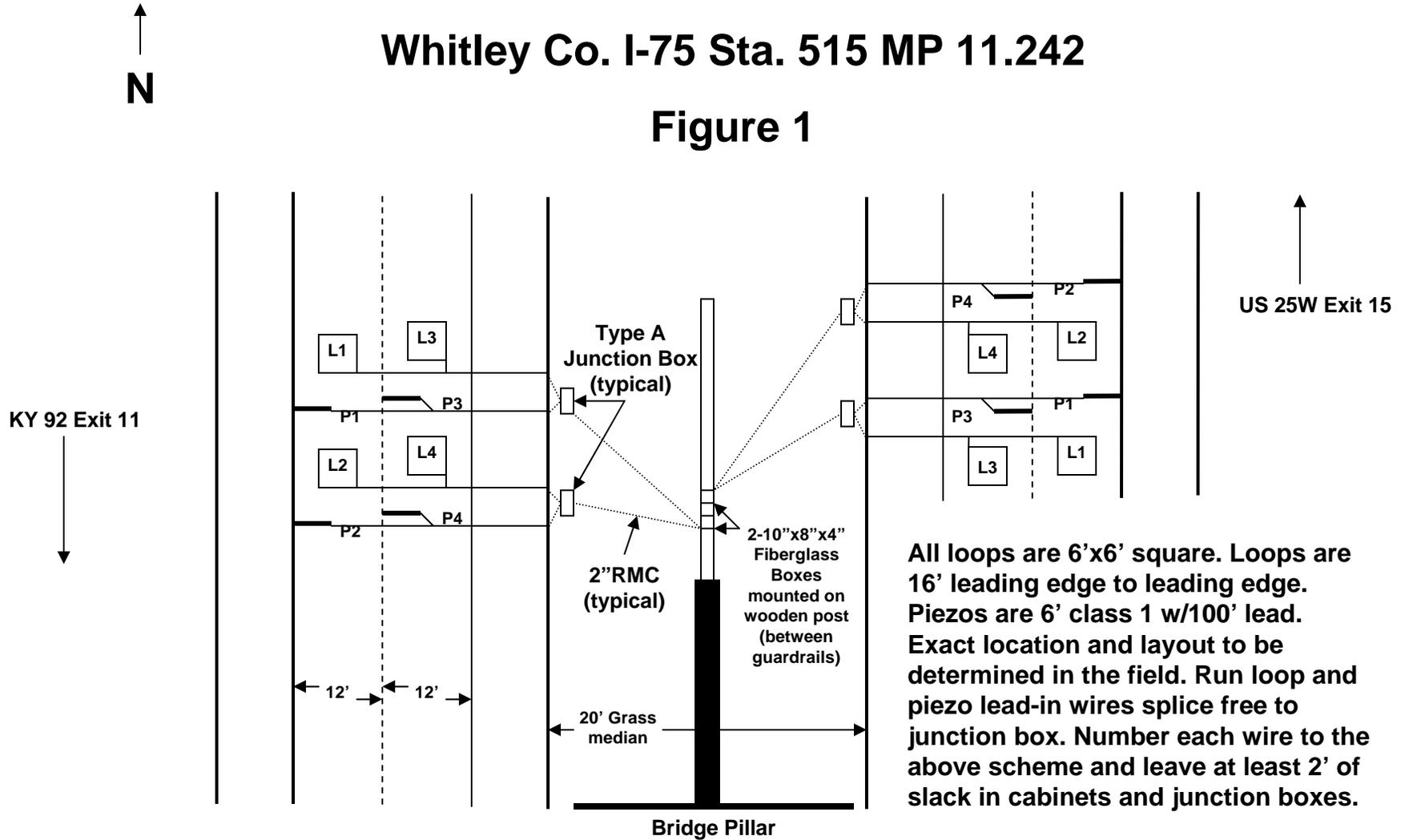
3.11 Acceptance Sampling and Testing. Contrary to Subsection 402.03.02, the Department will accept AWM as follows:

3.11.1 Definitions for Sublot, Lot, and Minimum Level of Testing. Contrary to Subsection 402.03.02, for projects with a total AWM quantity of less than 4000 tons, the Department will define a sublot as 250 tons and a lot as 1000 tons. For these projects, the Department will define the setup period as the first 250 tons of production. For projects with a total AWM quantity of 4000 tons or more, the

Site Drawing

Whitley Co. I-75 Sta. 515 MP 11.242

Figure 1



All loops are 6'x6' square. Loops are 16' leading edge to leading edge. Piezos are 6' class 1 w/100' lead. Exact location and layout to be determined in the field. Run loop and piezo lead-in wires splice free to junction box. Number each wire to the above scheme and leave at least 2' of slack in cabinets and junction boxes.

NOT TO SCALE

05/04/09

DIVISION OF PLANNING

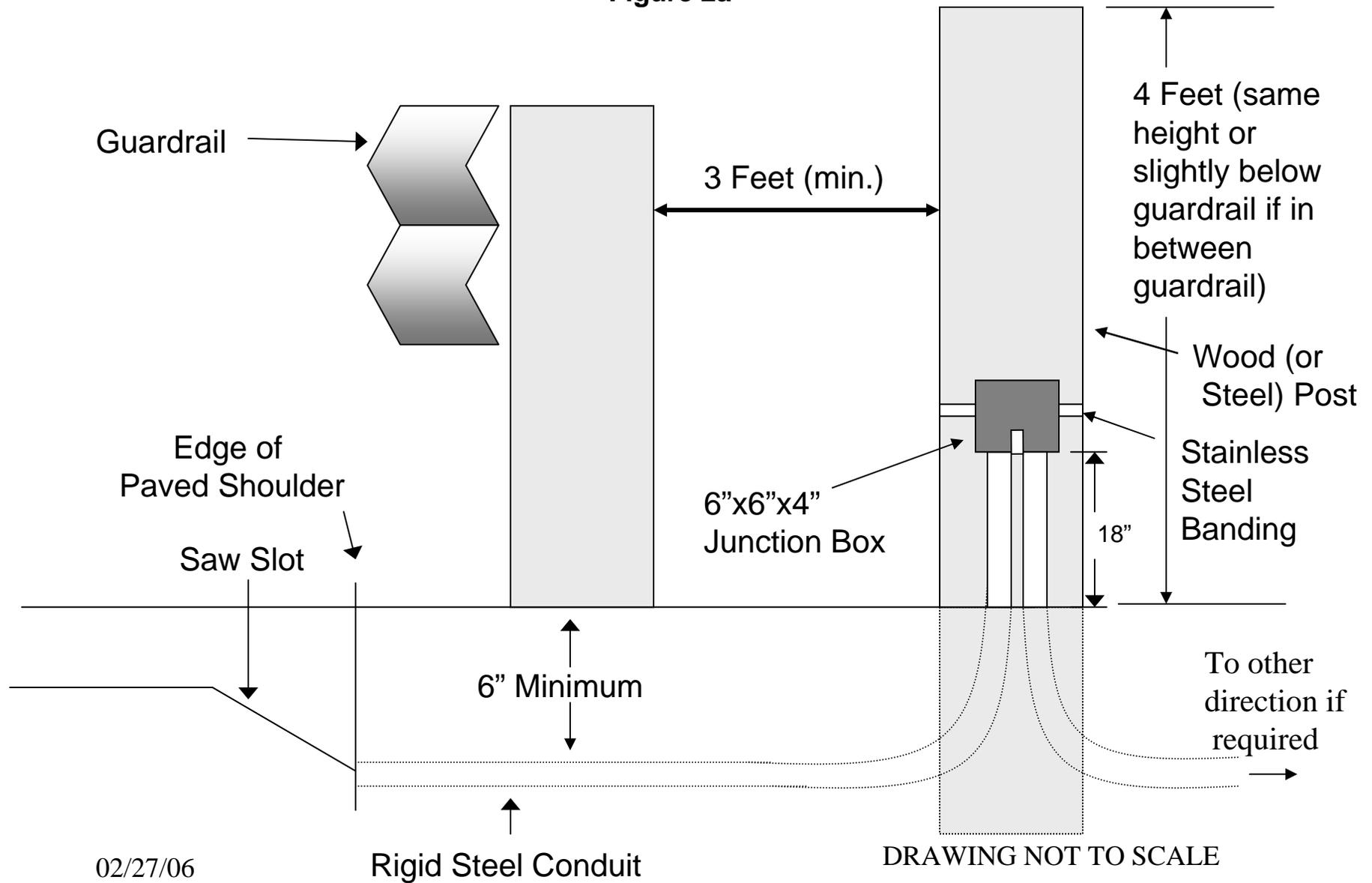
STANDARD DETAILS FOR INSTALLATION OF TRAFFIC COUNTING INDUCTANCE LOOPS AND AXLE SENSORS

DRAWINGS ARE NOT TO SCALE

Rev. 12/08

Junction Box Type 6"x 6"x 4" Detail

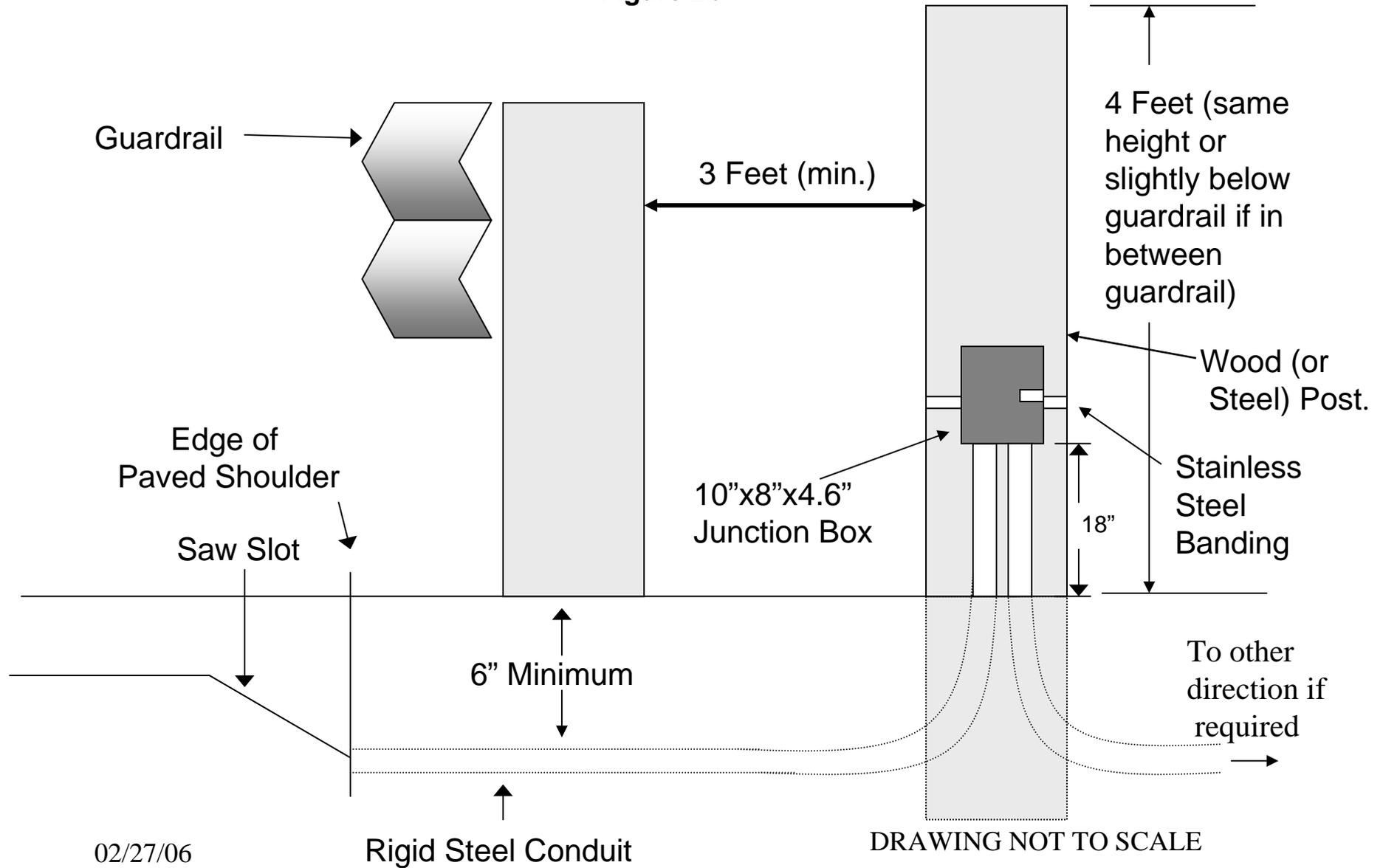
Figure 2a



02/27/06

Junction Box Type 10"x 8"x 4" Detail

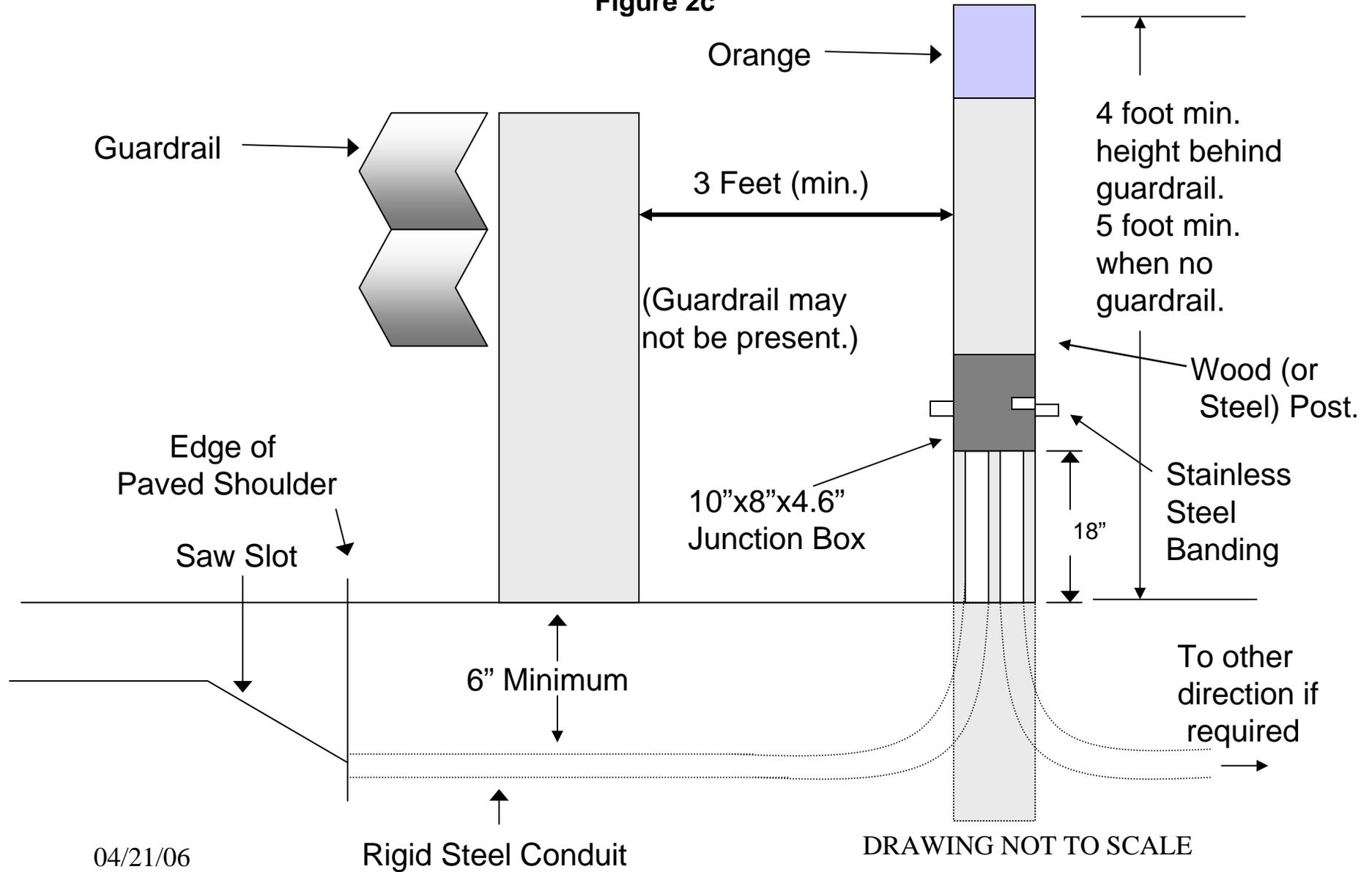
Figure 2b



02/27/06

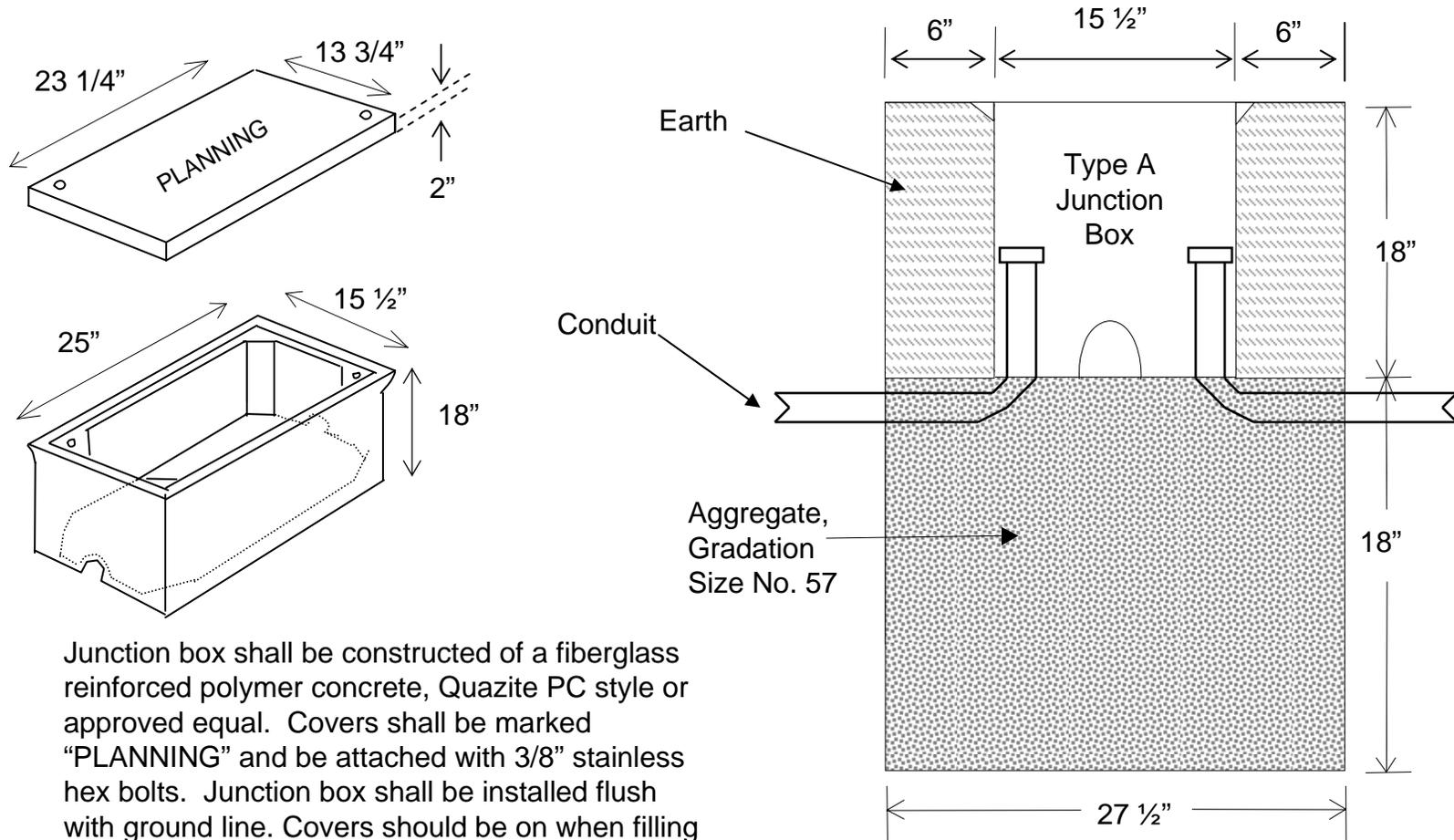
Junction Box Type 10"x 8"x 4" Detail

Figure 2c



Junction Box Type A Installation

Figure 3a



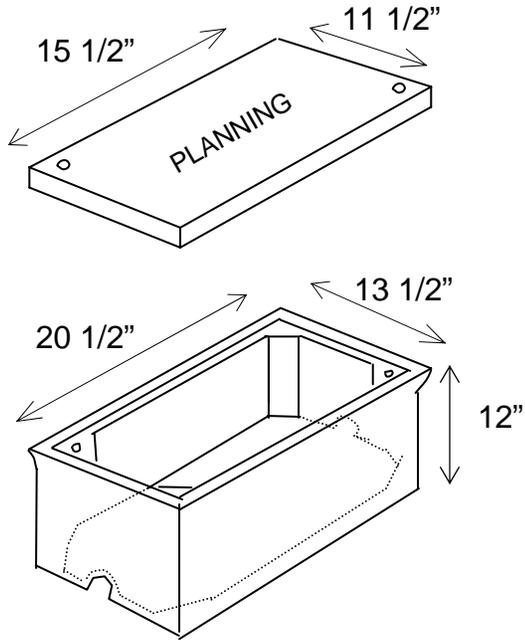
Junction box shall be constructed of a fiberglass reinforced polymer concrete, Quazite PC style or approved equal. Covers shall be marked "PLANNING" and be attached with 3/8" stainless hex bolts. Junction box shall be installed flush with ground line. Covers should be on when filling in around the box.

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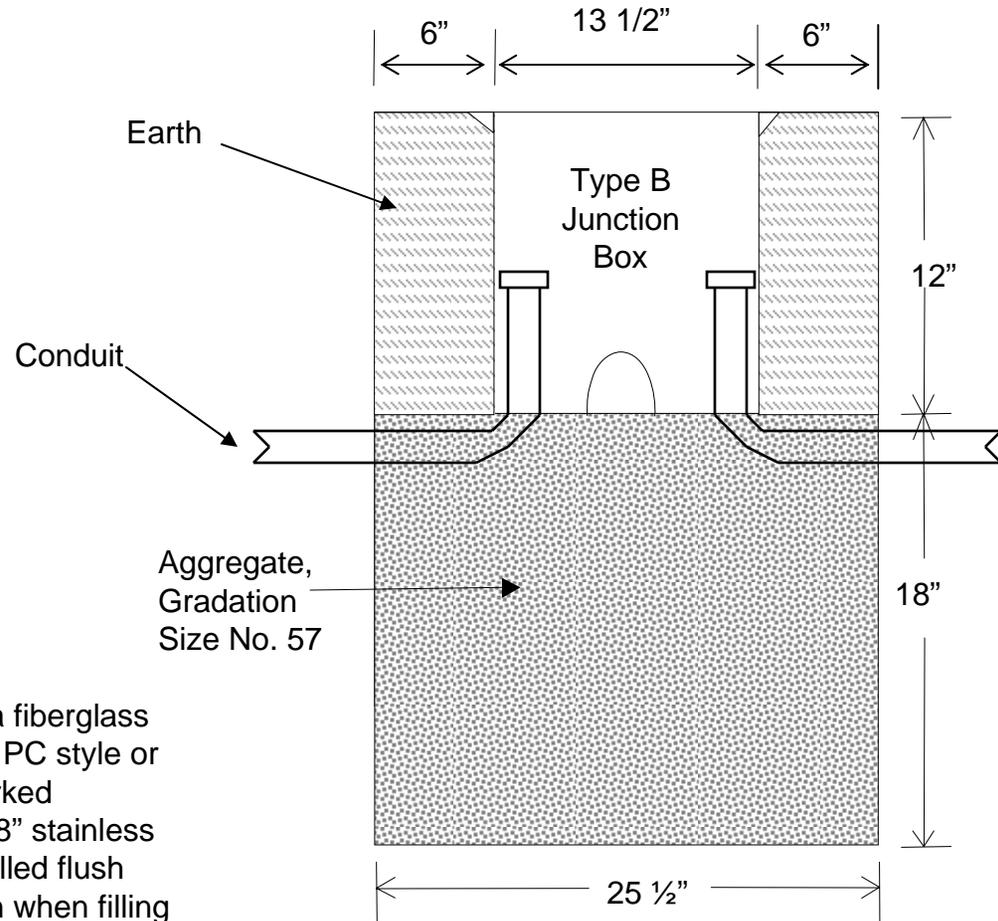
DRAWING NOT TO SCALE

Junction Box Type B Installation

Figure 3b



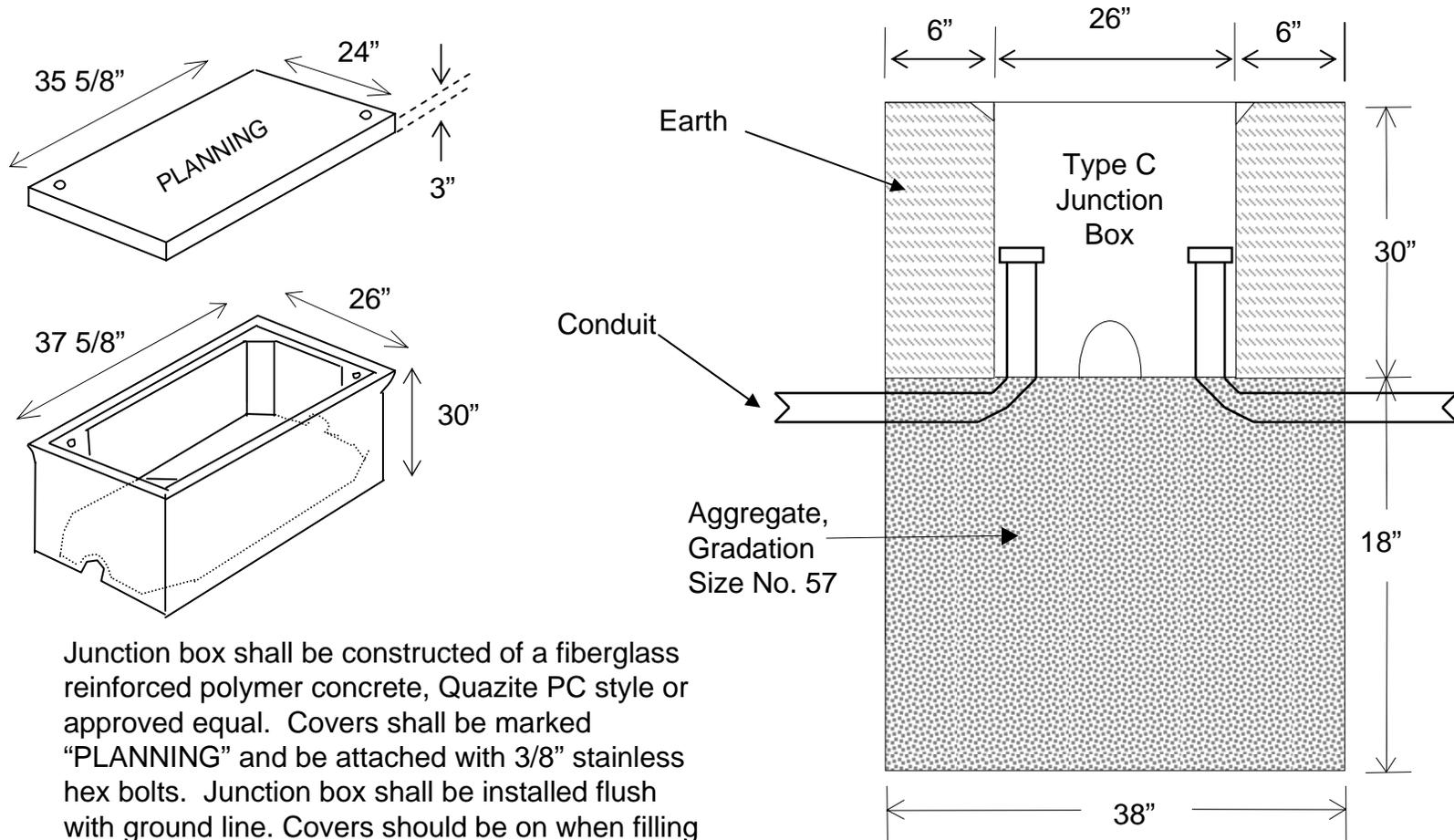
Junction box shall be constructed of a fiberglass reinforced polymer concrete, Quazite PC style or approved equal. Covers shall be marked "PLANNING" and be attached with 3/8" stainless hex bolts. Junction box shall be installed flush with ground line. Covers should be on when filling in around the box.



DRAWING NOT TO SCALE

Junction Box Type C Installation

Figure 3c



Junction box shall be constructed of a fiberglass reinforced polymer concrete, Quazite PC style or approved equal. Covers shall be marked "PLANNING" and be attached with 3/8" stainless hex bolts. Junction box shall be installed flush with ground line. Covers should be on when filling in around the box.

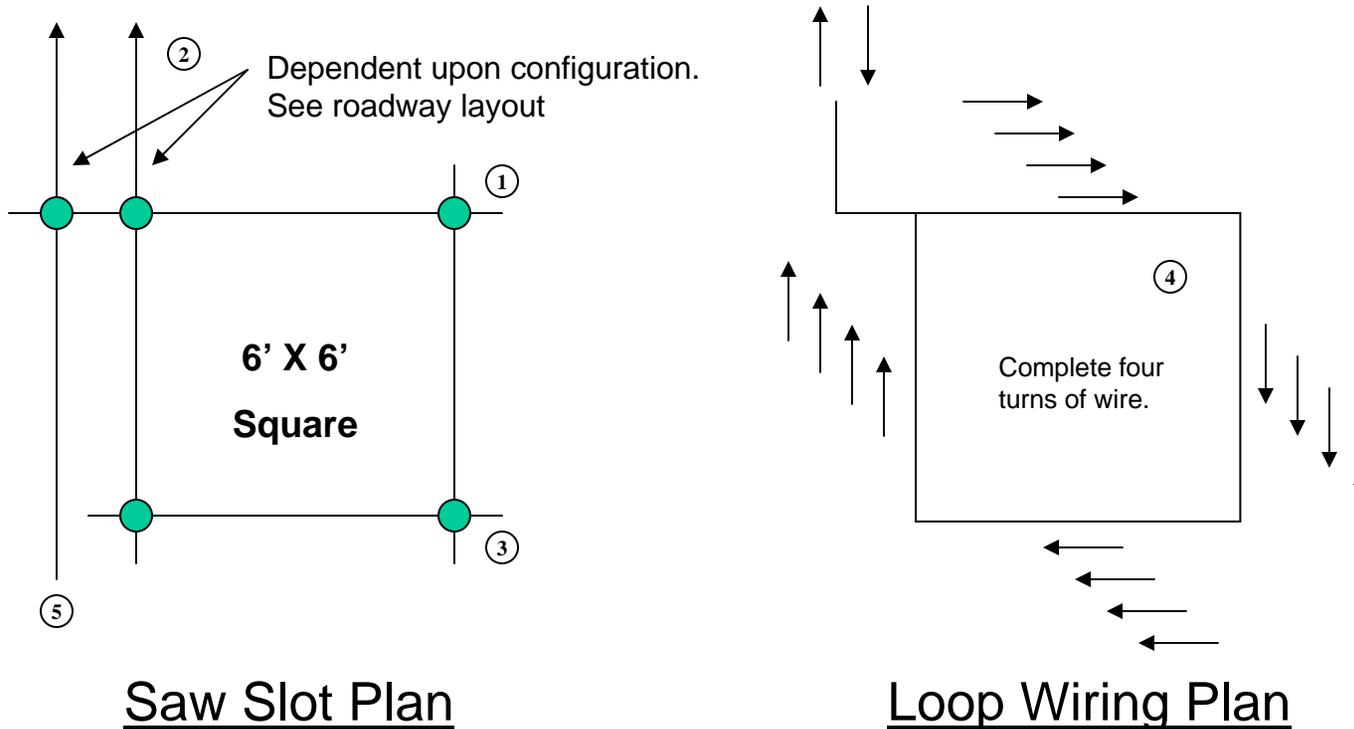
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DRAWING NOT TO SCALE

Loop Installation Instructions

Loop Installation in Existing Roadways

Figure 4



Saw Slot Plan

Loop Wiring Plan

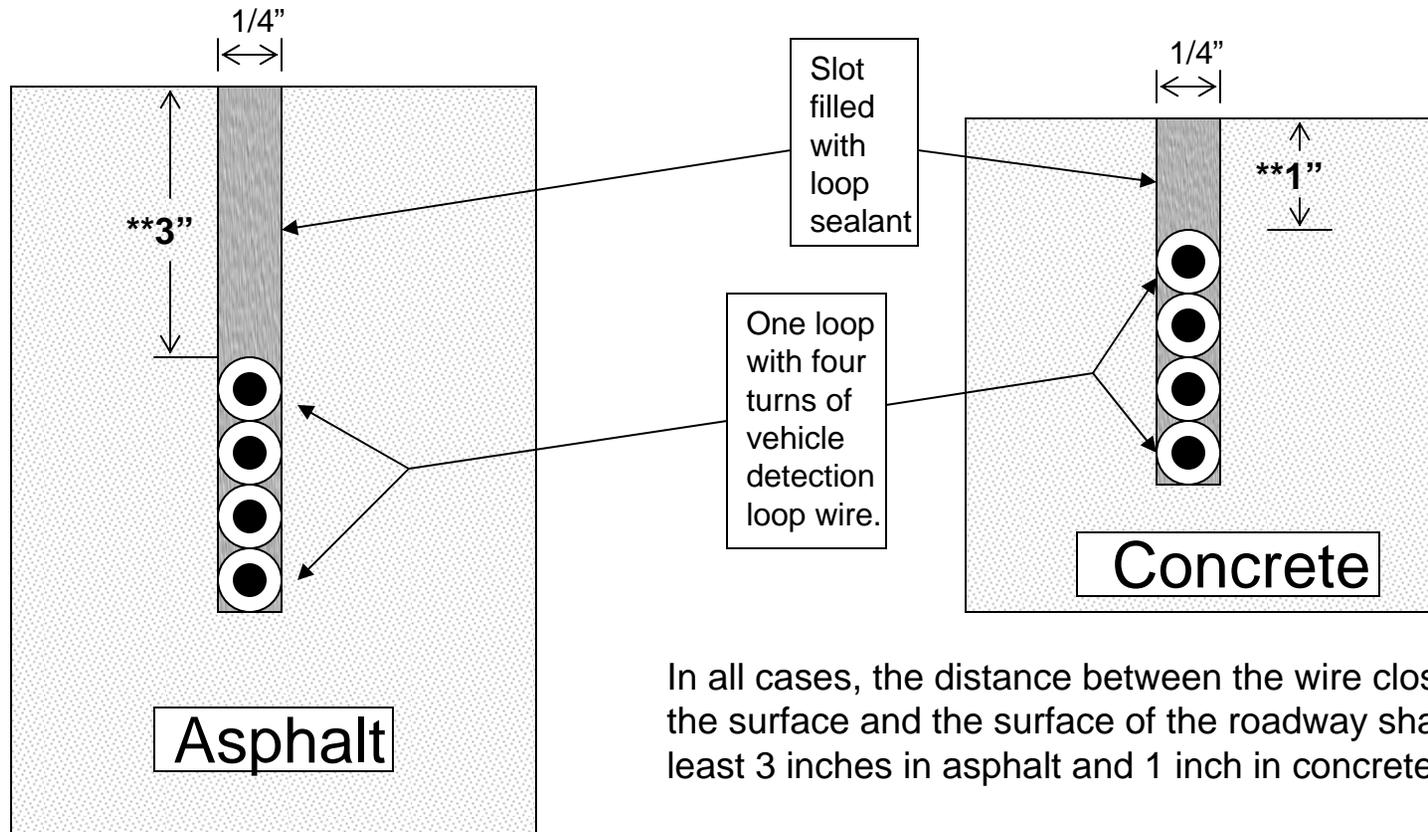
Notes:

- ① Overlap cuts so that slots are full depth at corners.
- ② Configuration is dependent upon loop layout.
- ③ Drill 1.5" hole in each corner to prevent sharp bends in the wire.
- ④ Unless denoted otherwise, all loops are 6' x 6' square, positioned in center of lane with 4 turns of 14 AWG loop wire.
- ⑤ The distance between adjacent loops is 6' for 12' lanes, 5.5' for 11' lanes, etc. It cannot be less than the loop is wide.

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Loop Installation in Existing Roadway

Figure 5

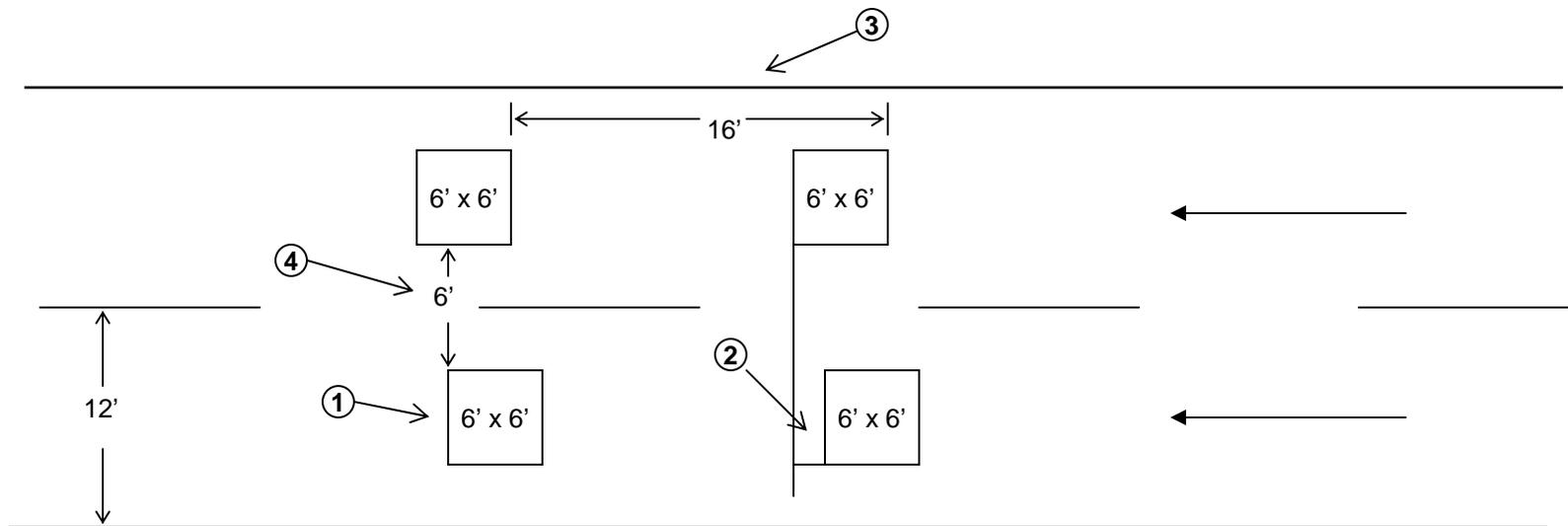


In all cases, the distance between the wire closest to the surface and the surface of the roadway shall be at least 3 inches in asphalt and 1 inch in concrete.

**Saw slot level shall be lowered at edge of roadway to meet the conduit level.

Loop Characteristics

Figure 6

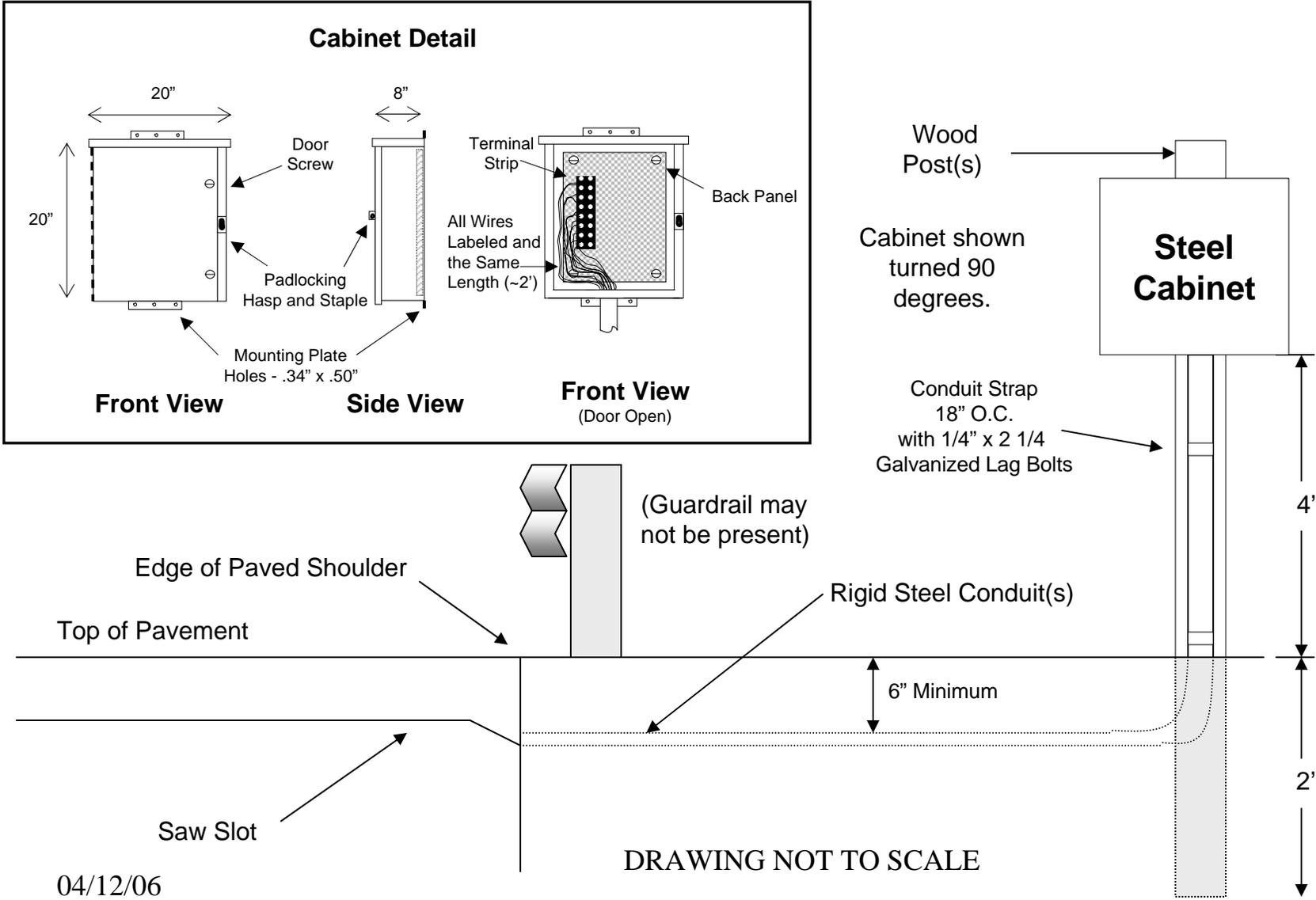


- ① Unless denoted otherwise, all loops are 6' x 6' square, positioned in center of lane with 4 turns of 14 AWG loop wire.
- ② Minimum 12" between loop and lead-ins. Lead-ins should be on the trailing edge of the loop.
- ③ If two loops are installed in a lane, space loops 16' from leading edge to leading edge unless denoted otherwise.
- ④ This distance is typically 6' for 12' lanes, 5.5' for 11' lanes, etc. It cannot be less than the loop is wide.

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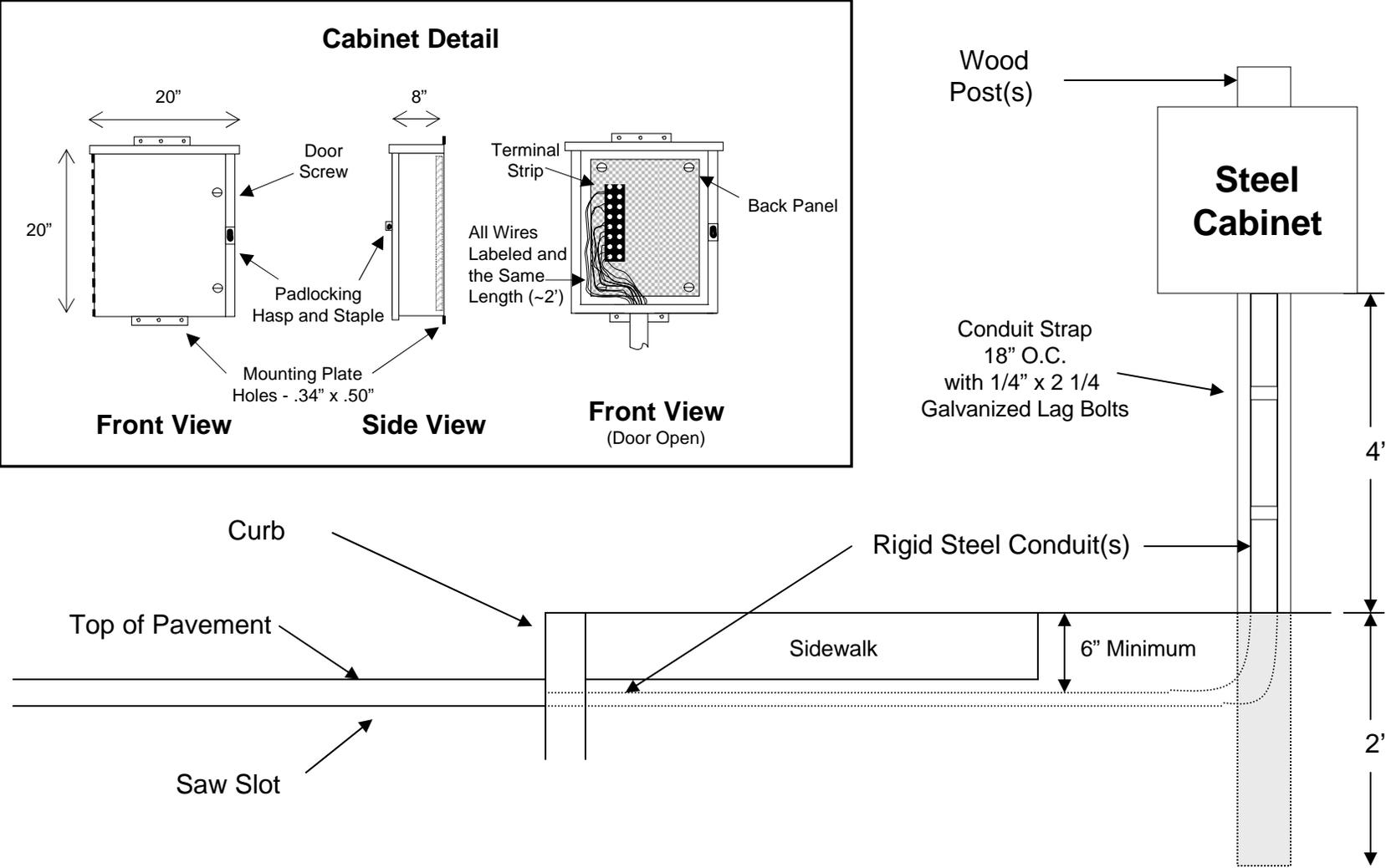
Galvanized Steel Cabinet and Post Installation

Figure 7a



Galvanized Steel Cabinet and Post Installation

Figure 7b

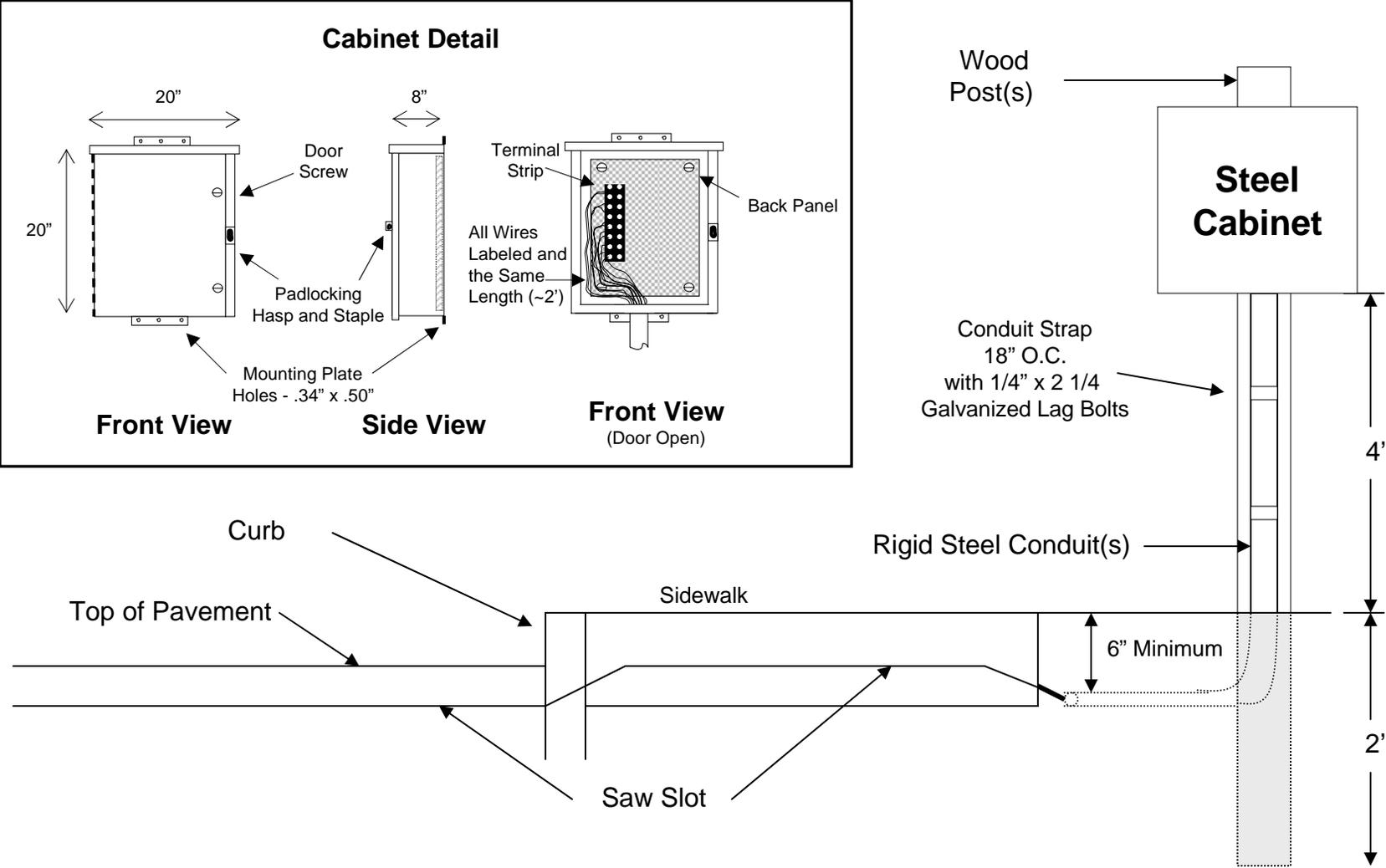


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Galvanized Steel Cabinet and Post Installation

Figure 7c

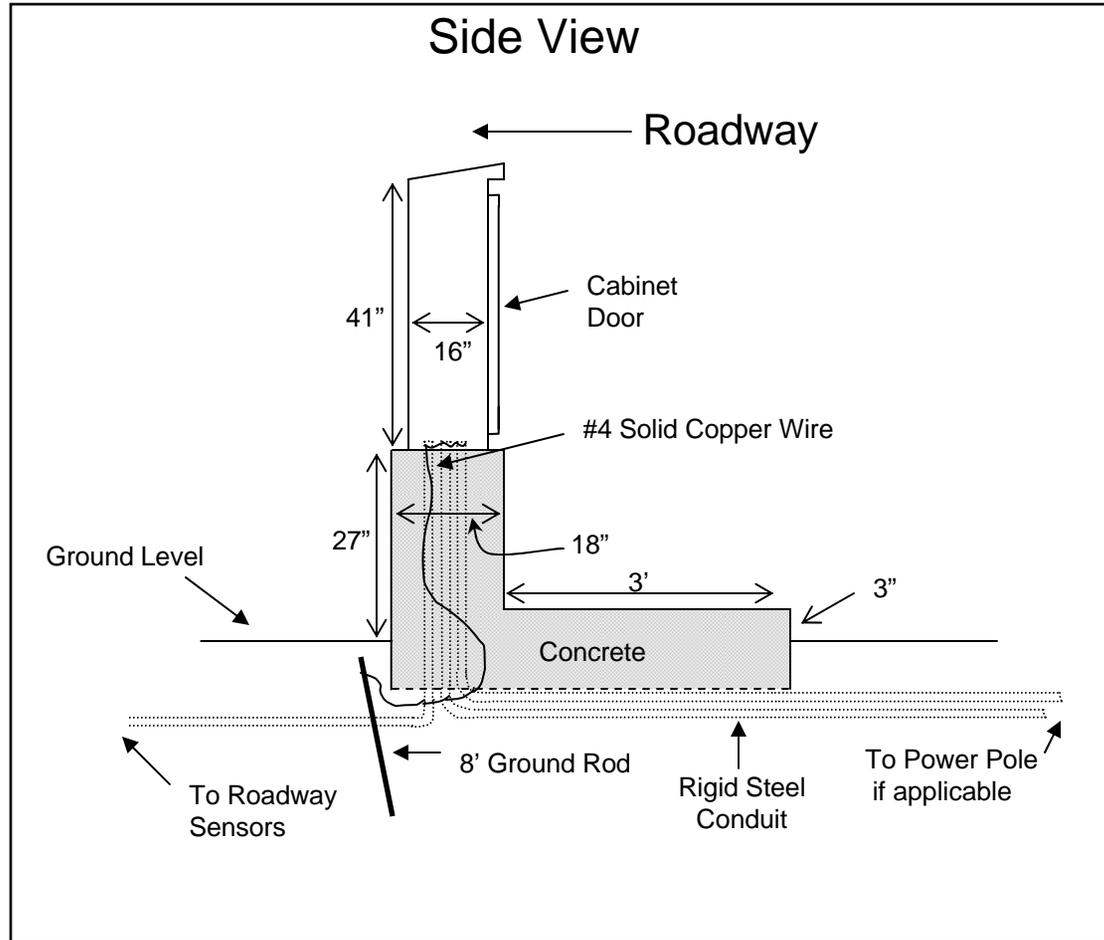
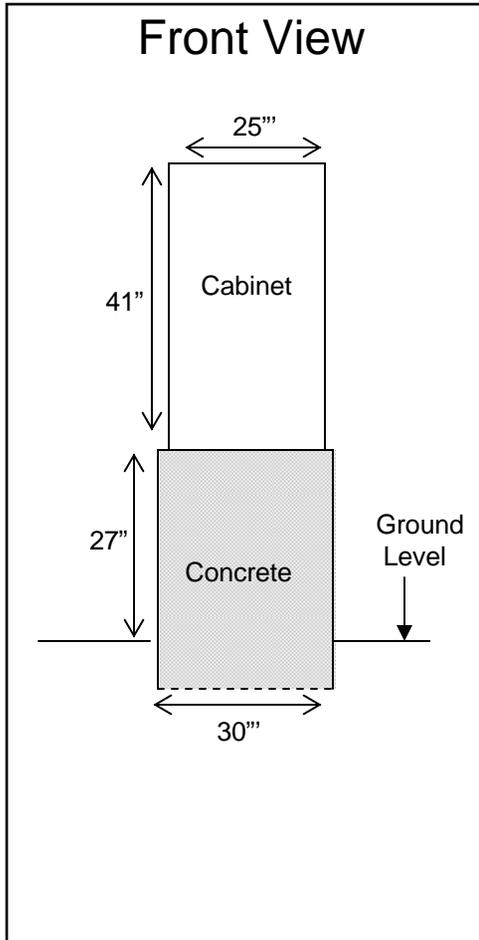


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Cabinet Type G

Figure 8



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02/15/05

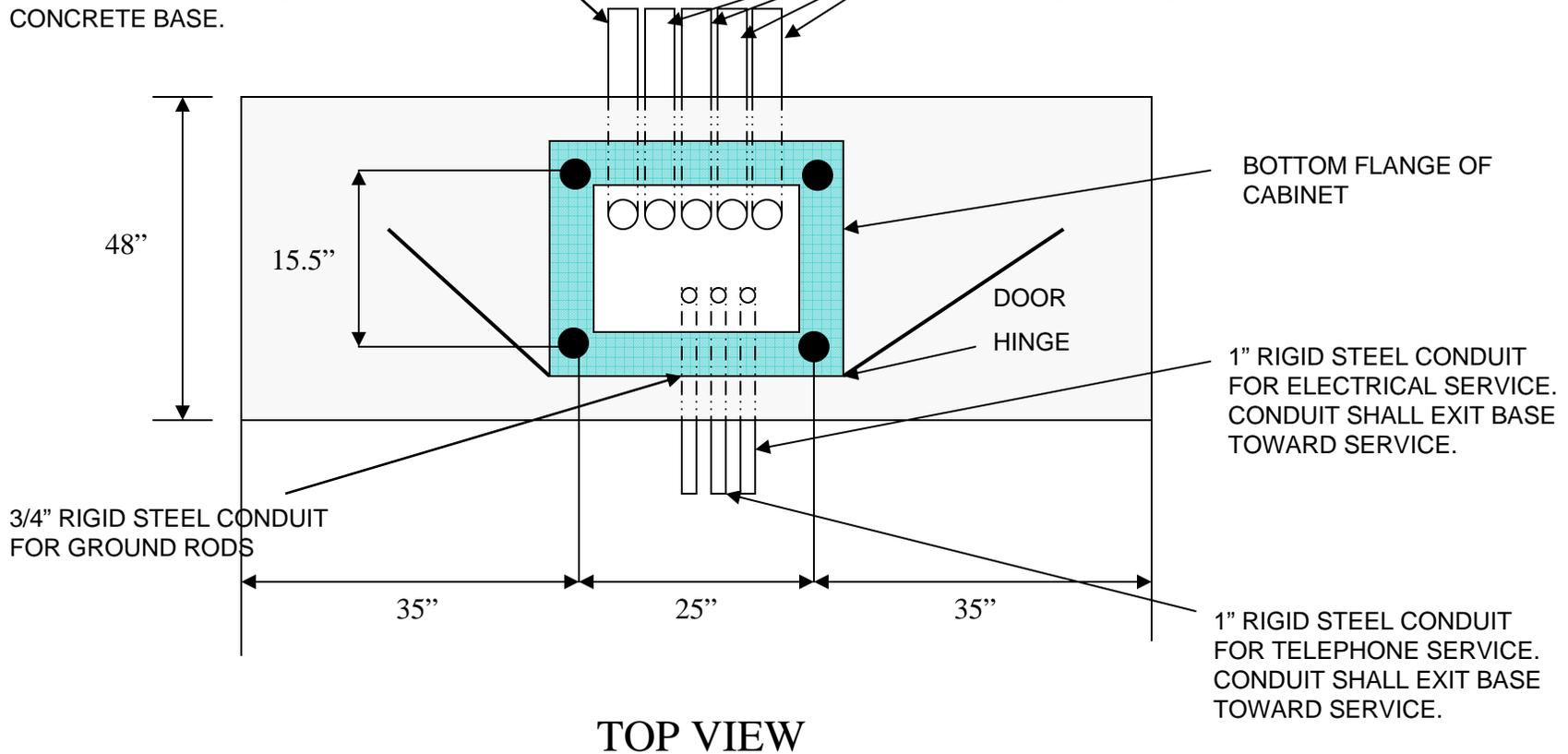
Base Mounted 170 Cabinet Detail

Figure 9a

SPARE 1 1/4" RIGID STEEL CONDUIT STUBBED, THREADED AND CAPPED AT BOTH ENDS.

ALL CONDUIT SHALL BE EXTENDED A MIN. OF 24" PAST THE SIDE OF THE CONCRETE BASE.

MIN. 4 - 2" RIGID STEEL CONDUITS TO JUNCTION BOXES (2 EA.). TWO WILL BE USED FOR WIRING AND THE OTHER TWO WILL BE SPARE CONDUITS (EMPTY) FOR FUTURE USE.

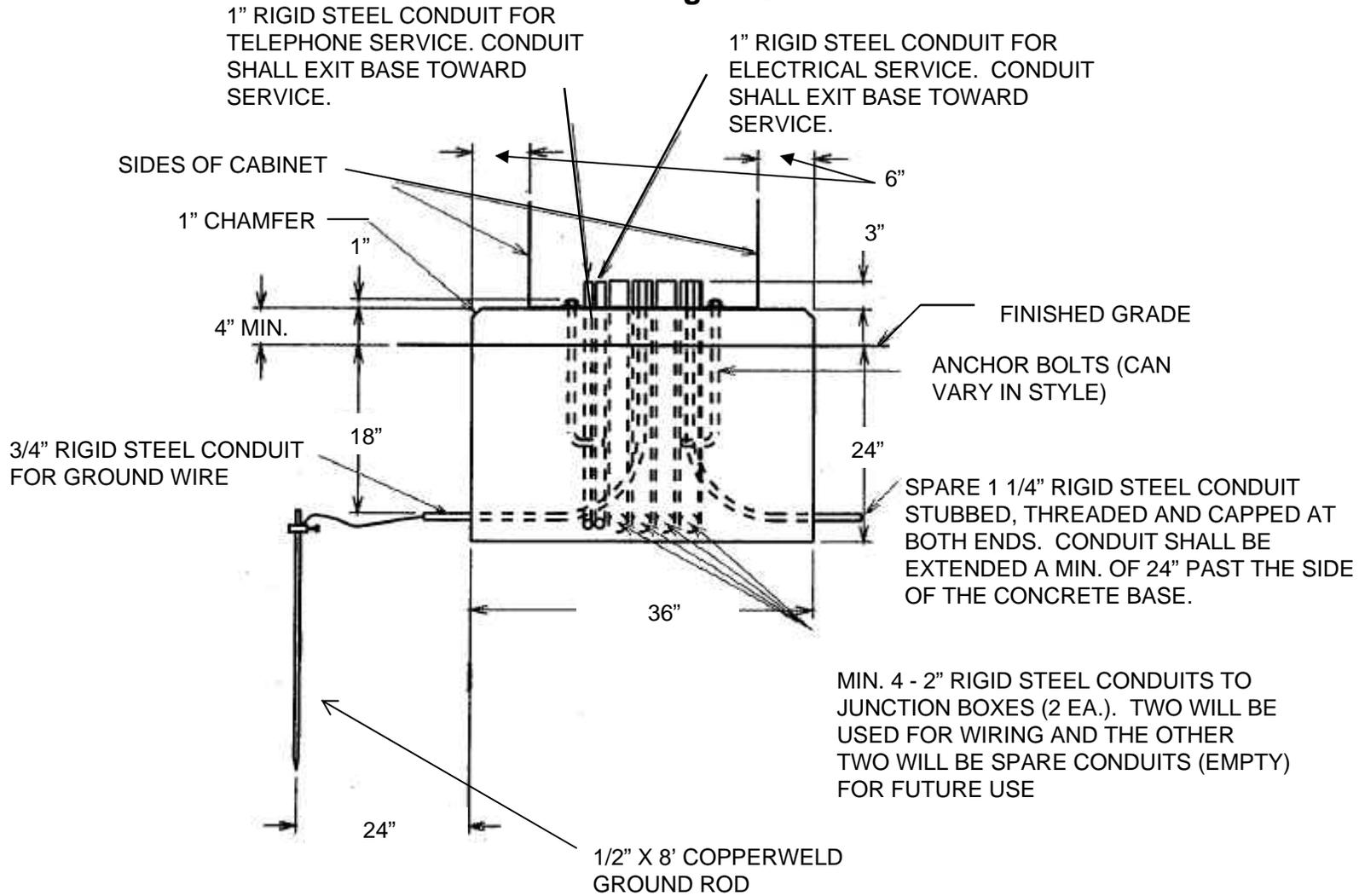


02/15/05

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Base Mounted 170 Cabinet Detail

Figure 9b



SIDE VIEW

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Rev.12/08

DIVISION OF PLANNING

SPECIAL NOTES FOR INSTALLATION OF TRAFFIC COUNTING INDUCTANCE LOOPS AND AXLE SENSORS

I. DESCRIPTION

Except as specified in these notes, perform all work according to the Department's Current Edition Standard Specifications, applicable Special Provisions and Special Notes, Sepia and Standard Drawings, and the drawings elsewhere in this proposal. Article references are to the Standard Specifications.

Furnish all materials, labor, equipment, and incidentals for the following work: (1) Maintain and control traffic; (2) install inductive loops; and (3) all other work required by the Specifications, Standard Drawings, Special Notes and the drawings in the proposal. The details of the project will be supplied in addition to these Special Notes.

II. MATERIALS

The Department will sample and test all materials according to Department's Sampling Manual. Have all 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. All materials shall be approved prior to being utilized. The Contractor shall submit for approval five (5) copies of descriptive literature, drawings, and any requested design data for the materials he proposes to use. No substitutions for approved materials will be made without the written approval of the Engineer.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Junction Box Type 6 in. x 6 in. x 4 in. The junction box shall have minimum inside dimensions of at least 6 inches high by 6 inches wide by 4 inches deep, made of a UV stabilized nonmetallic material (plastic) or non-rusting metal, and be weatherproof (NEMA 4X enclosure). It shall have a removable replaceable door with a continuous durable weatherproof gasket between the body and overhanging door to ensure a watertight seal. The door shall be hinged with stainless steel screws, hinge(s) and pin(s). The door shall also have a stainless steel padlockable latch on the side opposite the hinge(s). An approved enclosure is the Hubbell-Wiegmann model VJ606HWPL1.

C. Junction Box Type 10 in. x 8 in. x 4 in. The junction box shall have minimum inside dimensions of at least 10 inches high by 8 inches wide by 4.6 inches deep, made of a UV stabilized nonmetallic material (plastic) or non-rusting metal, and be weatherproof (NEMA 4X enclosure). It shall have a removable replaceable door with a continuous durable weatherproof gasket between the body and overhanging door to ensure a watertight seal. The door shall be hinged with stainless steel screws, hinge(s) and pin(s). The door shall also

Department will define a subplot, a lot, and the setup period according to Subsection 402.03.02. In either case, perform a minimum of one complete set of acceptance tests, as defined by this note, each day that any AWM is produced.

3.11.2 Total Binder Content and Gradation. Perform one evaluation per subplot according to Subsection 402.03.02. By the end of the setup period, establish a JMF conforming to the total binder content and gradation limits from Section 3.2 of this note. The Department will allow the established JMF to vary within the production tolerances from Section 3.2 of this note provided the percent passing each sieve remains within the gradation limits and the total binder content remains within the specified range.

3.11.3 AV. Prepare and analyze one set of two gyratory specimens per subplot according to Subsection 402.03.02. By the end of the setup period, test the AWM to document that the average AV value of each set of specimens conforms to the limits from Section 3.3 of this note.

3.11.4 VMA. Prepare and analyze one set of two gyratory specimens per subplot according to Subsection 402.03.02. By the end of the setup period, test the AWM to document that the average VMA value of each set of specimens conforms to a minimum of 15.5 percent.

3.11.5 Density. For each subplot of production after the setup period, randomly select locations for four cores from the bridge approach areas, not the bridge deck itself, in order to preserve the integrity of the AWM over the bridge deck. Obtain and furnish the cores to the Engineer according to Subsection 402.03.02. The Department will test the cores to ensure that the density of each core is within the range of 96.0 ± 2.0 percent of the G_{mm} value for that subplot.

3.11.6 Unsatisfactory Work Based on Laboratory Data. When the total binder content, gradation, AV, VMA, or density value from any test after the setup period fails to satisfy the applicable requirements of this note, cease all shipments to the project. Adjust procedures or mixture composition until all properties satisfy the applicable requirements of this note. Document acceptable materials and work before restarting operations.

3.12 Verification Sampling and Testing. Contrary to Subsection 402.03.03, the Department will verify AWM as follows. Using the definition for a lot from Section 3.11.1 of this note, the Department will perform a minimum of one verification test for total binder content, gradation, AV, and VMA for each lot according to Subsection 402.03.03. Provided the differences between the contractor's acceptance test and the Department's verification test are within the tolerances given in Subsection 402.03.03, the Department will accept the AWM for that lot.

When the differences between the contractor's acceptance test and the Department's verification test are not within the tolerances given in Subsection

402.03.03, cease all shipments to the project. Adjust procedures or mixture composition until the differences are within the tolerances given in Subsection 402.03.03. Document compliance with these tolerances before restarting operations.

4. MEASUREMENT.

4.1 Trial Demonstrations. The Department will measure up to 100 tons of AWM used in the Trial Demonstration. The Department will not measure quantities exceeding 100 tons for payment and will consider them incidental to the AWM.

4.2 AWM. The Department will measure AWM in tons. The Department will not measure the surface preparation, edge sealant, or adhesive tack coat for payment and will consider them incidental to AWM.

4.3 Joint Sealant (REJC). The Department will measure joint sealant (REJC) according to the Special Note for Rubber Expansion Joint Compound. The Department will not measure saw-cutting joints for payment and will consider that operation incidental to the joint sealant (REJC).

5. PAYMENT.

5.1 Trial Demonstrations. The Department will pay for the measured quantities at the Contract unit bid price for AWM.

5.2 AWM. The Department will consider the unit bid price per ton to include all labor, materials, and equipment necessary to complete the work. The Department will make payment for the completed and accepted quantities according to the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
-----	Asphalt Waterproofing Mix	Ton

July 7, 2006

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have a stainless steel padlockable latch on the side opposite the hinge(s). An approved enclosure is the Hubbell-Wiegmann model VJ1008HWPL1.

D. Junction Box Type A. The junction box Type A shall be constructed of a fiberglass reinforced polymer concrete, Quazite PC Style, or approved equal. It shall have nominal inside dimensions of 13 inches wide by 24 inches long by 18 inches deep with an open bottom. The removable cover shall be attached with a minimum of two 3/8-inch stainless steel hex bolts and washers.

E. Junction Box Type B. The junction box Type B shall be constructed of a fiberglass reinforced polymer concrete, Quazite PC Style, or approved equal. It shall have nominal inside dimensions of 11 inches wide by 18 inches long by 12 inches deep with an open bottom. The removable cover shall be attached with a minimum of two 3/8-inch stainless steel hex bolts and washers.

F. Junction Box Type C. The junction box Type C shall be constructed of a fiberglass reinforced polymer concrete, Quazite PC Style, or approved equal. It shall have nominal inside dimensions of 24 inches wide by 36 inches long by 30 inches deep with an open bottom. The removable cover shall be attached with a minimum of two 3/8-inch stainless steel hex bolts and washers.

G. Cabinet Type G. A controller cabinet Type G shall be constructed of type 5052-H32 sheet aluminum with a minimum thickness of 0.125 inches. The cabinet shall meet or exceed the industry standards set forth by the UL 50 and the National Electrical Manufacturer's Association (NEMA) 3R. The cabinet shall have a dimension of 41 inches high by 25 inches wide by 16 inches deep. The cabinet shall include kits for a back panel and two shelves. The cabinet shall be designed with a sloped top to prevent the accumulation of water on its top surface. The single door opening shall be double flanged on all four sides, hinged on the right side, equipped with a three-point latching mechanism, and include a door restraint. The door shall be equipped with a Corbin tumbler #2 lock. The cabinet shall be equipped with two adjustable "C" mounting channels on both side and back walls to allow for versatile positioning of shelves. Manufacturer's shop drawings shall be submitted demonstrating details of equipment housing and installation. If electrical service is specified, a 120-volt GFCI AC duplex receptacle shall be provided in the cabinet.

An approved source is provided below. Other approved equal cabinets may be furnished if approved by a representative of the Central Office, Division of Planning. To be considered approved equal, the cabinet shall meet the above requirements and match the specified detailed dimensions.

Econolite Control Products.
P.O. Box 6150
3360 E. La Palma
Anaheim, California 92806-2856

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H. Galvanized Steel Cabinet. The cabinet shall be a hinged cover NEMA Type 3R medium enclosure, constructed of 16 or 14 gauge galvanized steel, and have inside dimensions of 20 inches high by 20 inches wide by 8 inches deep. This shall be the standard size that contractors shall place their bids on. The cabinet shall meet the industry standards set forth by the Underwriters Laboratories Inc. (UL) 50 and the National Electrical Manufacturers Association (NEMA). The finish shall consist of an American National Standards Institute (ANSI) 61 gray polyester powder finish inside and out over the galvanized steel. The cabinet shall have the following features:

- Drip shield top and seam-free sides, front, and back, to provide protection in outdoor installations against rain, sleet, and snow.
- 16 gauge galvanized steel continuous stainless steel pin.
- Cover fastened securely with captive plated steel screws.
- Hasp and staple provided for padlocking.
- No gaskets or knockouts.
- Back plate mounted inside the cabinet for terminal strip installation.

An approved source is provided below. Other approved equal cabinets may be furnished if approved by a representative of the Central Office, Division of Planning. To be considered approved equal, the cabinet shall meet the above requirements and match the specified detailed dimensions.

Hoffman Engineering Co.
World Headquarters
900 Ehlen Drive
Anoka, Minnesota 55303-7504

I. Wood Post. The wood post shall be 4 inches by 4 inches by 8 feet long, and is pretreated to conform to the American Wood Preservers' Association (AWPA) C-14. All wood posts shall be sawed on all four sides, having both ends square, and conform to the dimensions specified. The wood post is described in detail in Section 820.01 of the Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Current Edition.

J. Conduit. Conduit shall be rigid steel waterproofed conduit unless otherwise specified. All conduits shall be galvanized inside and out and shall conform to the Underwriters' Laboratories (UL) requirements for rigid metallic conduit. IMC will not be accepted. Furnish all conduit fittings, bodies, boxes, joints, couplings and mounting hardware.

K. Loop Wire. All loop wire shall be plainly marked in accordance with the provisions of the current editions of the National Electric Code (NEC). The wire shall be 14-gauge single conductor, insulated in polyethylene (PE) with a 0.004-inch thick nylon coating, and enclosed in a 0.030-inch thick PE tube jacket. The wire shall meet the requirements of the International Municipal Signal Association (IMSA) Specification No. 51-7- latest edition. Any other wire shall be of appropriate size and type per the NEC and Section

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834.01 Wiring of the Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Current Edition.

L. Cable No. 14/1 Pair. Cable No. 14/1 pair or loop lead-in cable shall be 14 AWG, stranded, paired conductors, electrically shielded and shall conform to IMSA 19-2. All cable shall be plainly marked in accordance with the provisions of the National Electric Code.

M. Traffic Loop Encapsulant. The traffic loop encapsulant shall consist of a one-part polyurethane as described in Section 835.06 of the Kentucky Transportation Cabinet, Department of Highways Standard Specifications for Road and Bridge Construction, Current Edition.

N. Seeding and Protection. Use seed mixture No. I per Section 212-Erosion Control of the Department's Current Edition Standard Specifications for Road and Bridge Construction book.

O. Electrical Service. The contractor shall initiate a work order for the installation of electrical service to the power site. A representative from the Division of Planning and the local utility company shall be consulted prior to choosing an exact location for the pole. The contractor shall be responsible for clearing the right-of-way for the electrical service drop. The electrical service shall be a minimum 60-ampere, which is capable of supplying 120 volts or 240 volts to the electronics. The installation and materials specified in the construction notes below, shall be made incidental to the bid item established for electrical service. A 120-volt GFCI AC duplex receptacle shall be provided in the cabinet. Contractor is responsible for correct size and type of wire. Contractor is responsible for obtaining any and all electrical inspections, memberships, meter base and any other requirements by the utilities serving the installation and pays all fees required.

P. Piezoelectric Sensors. The sensor shall consist of a metal strip 0.260" wide x 0.063" thick; ± 0.005 " and be furnished in the specified lengths. The sensor shall include a 100-foot electrical coax-cable connected to one end. The coax-cable shall be RG 58 type with an underground/direct burial rated outer jacket. The OD of the cable is 0.187". The nominal capacitance of the cable is 27 pF/ft. Piezo lead-in cables are to be run splice free to their cabinets. Many installations exceed the 100-foot length so the piezo should be ordered with a lead-in of appropriate length. Standard lead-ins can be ordered from 100 to 500 feet in 50-foot increments. The manufacturer should be contacted regarding longer distances.

- 1. Piezoelectric Sensor: Roadtrax BL Class I or Approved Equal.** Furnish Class I Piezoelectric Sensor to be used to collect truck weigh-in-motion data. Class I sensors are typically furnished in 6- or 11-foot lengths. See Notes and Estimate of Quantities for sensor type and length. One installation bracket for every 6 inches of sensor length shall also be supplied.

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The vendors listed below are known distributors of the Roadtrax BL Class I sensors. Other approved equal sensors may be furnished if approved by a representative of the Central Office, Division of Planning. To be considered approved equal, the sensors shall meet the above requirements and match the specified detailed dimensions.

DIA-L Associates
P. 3302 Aquia Drive
Stafford, VA 22554

Measurement Specialties, Inc.
80 Little Falls Road
Fairfield, NJ 07004

International Road Dynamics, Inc.
702 43rd Street East
Saskatoon, Saskatchewan
Canada, S7K3T9

Grout material shall display fast cure times; tack free in 10 minutes and open to traffic in 40 minutes with full cure within an hour. Material shall have excellent adhesion to concrete and asphalt. It should display excellent chemical resistance, water insensitivity, and thermal stability at high and low temperatures. Ample encapsulation material shall be supplied for each sensor for its proper installation. Approved encapsulation material by the piezo manufacturer includes AS475 Axle Sensor Grout or approved equal. This is a durable two-part resin-based grout suitable for asphalt and concrete applications having the following typical physical properties:

Compressive Strength (psi)	ASTM D638	5000 min.
Water Absorbtion	ASTM D570	0.3% max
Wear Resistance	ASTM D4060	CS10 wheel, 1000 gm load 1000 cycles, 186 mg loss

The vendors listed below are known distributors of the approved grout.

DIA-L Associates
P. 3302 Aquia Drive
Stafford, VA 22554
(540) 659-2264

Measurement Specialties, Inc.
80 Little Falls Road
Fairfield, NJ 07004

PAT Traffic Control Corporation
1665 Orchard Drive
Chambersburg, PA 17201

International Road Dynamics, Inc.
702 43rd Street East
Saskatoon, Saskatchewan
Canada, S7K3T9

III. CONSTRUCTION METHODS

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

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Once 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 their concerns and answer any questions that the contractor may have before beginning the work. Planning shall also be notified two weeks before work pertaining to these specifications begins to ensure their personnel are present during sensor installation and once the work has been completed so that their representative can perform a final inspection. The Division of Construction then reviews Planning's final inspection report and determine whether the work is in compliance with the specifications before awarding payment to the contractor.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Junction Box Type 6" x 6" x 4" or 10" x 8" x 4" (as noted). The contractor shall stub the rigid steel conduit to the junction box so the bottom of the box is approximately 18" above the ground. The junction box shall be located at or beyond the shoulder and mounted on the side of a post approximately 3 feet beyond the guardrail post using banding material or other appropriate mounting hardware with the hinge side up. See Figures 2a and 2b for additional details. Leave approximately 18" of slack lead-in wire coiled inside the junction box. Permanent identification numbers shall be affixed to all wires in each junction box and cabinet in order to distinguish between the loops and/or sensors. See Location Drawing for sensor numbers to be placed on all lead-ins.

C. Junction Box Type A (or B or C). Install the Junction Box Type A near the edge of pavement and flush with the ground level (see Figure 3). Place roughly 18 inches of No. 57 aggregate underneath the junction box Type B to allow drainage. Extend the loop lead-in wires splice-free to the cabinet. Run the wire from the junction box Type A through the conduit at a minimum depth of 6 inches. Stub the conduit up into the junction box Type A from its base to accommodate the lead-in wires. Leave at least 2 feet of slack lead-in wire coiled inside the junction box Type A. The conduit fittings, backfilling, and aggregate shall be incidental to the junction box Type A. Permanent identification numbers shall be affixed to all wires in each junction box and cabinet in order to distinguish between the loops and/or sensors. See Location Drawing for sensor numbers to be placed on all lead-ins.

D. Cabinet Type G. Locate the cabinet sufficiently beyond the roadside by determining the minimum clear zones in accordance with the "Roadside Design Guide". Place a concrete foundation of appropriate size for mounting the cabinet. The cabinet shall be mounted on the concrete base such that the bottom of the cabinet is 27" above the ground. The door of the cabinet shall open away from traffic. Fasten the cabinet to the foundation using anchor rods and caulk the gap between the cabinet and the base. Stub rigid conduit up into the cabinet from its base. Install an extra 1 ¼" conduit to be stubbed out in the bottom of the cabinet and run out 2 feet from the concrete base and plugged with duct seal or taped shut with electrical tape toward the roadway for future use. An 8' copper clad ground rod shall be driven into the soil and bonded to the rigid conduit via #4 solid copper wire and ran through the concrete and up into the cabinet. A ¾" rigid steel

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conduit shall be stubbed up into the cabinet and run 2 feet up the electrical service pole and terminated to a ¾" weatherhead. This conduit shall be run in the same ditch as the electrical service. If electrical service is not provided as an item in the contract, the ¾" rigid steel conduit shall be run out 2 feet from the concrete base and plugged with plumbers putty or taped shut with electrical tape. The location of the plugged end shall be marked with a wooden stake and labeled "¾ in. conduit end" (see Figure 8). A 120-volt, 20-amp GFCI AC duplex receptacle shall be provided in the cabinet.

Leave at least 5 feet of slack lead-in wire in the cabinet. Include the following major items as incidental to the cost of the cabinet: concrete foundation, anchor rods, ground rod, #4 solid copper wire, bonding clamps, and caulking. The Division of Planning will supply additional harnesses and do final connections inside the cabinet. Permanent identification numbers shall be affixed to all wires in each junction box and cabinet in order to distinguish between the loops and/or sensors. See Location Drawing for sensor numbers to be placed on all lead-ins.

E. Install Base Mount Enclosure. Locate the cabinet sufficiently beyond the roadside by determining the minimum clear zones in accordance with the "Roadside Design Guide". For this project, a base mount Model 170 Controller Cabinet, without anchor bolts, will be State-furnished. The contractor shall construct each cabinet foundation as shown on the plans per the attached Figures 9a and 9b, "Base Mounted 170 Cabinet Detail", (including furnishing and installing anchor bolts). Contractor shall install the cabinet on the concrete base such that the doors of the cabinet open away from traffic (hinges are away from traffic), and shall make all field wiring connections to the sensors, electrical and telephone services (as applicable). Fasten the cabinet to the foundation using anchor rods and caulk the gap between the cabinet and the base. Stub rigid conduit up into the cabinet from its base. Install an extra 1 ¼" conduit to be stubbed out in the bottom of the cabinet and run out 2 feet from the concrete base and plugged with duct seal or taped shut with electrical tape toward the roadway for future use. An 8' copper clad ground rod shall be driven into the soil and bonded to the rigid conduit via #4 solid copper wire and ran through the concrete and up into the cabinet. Two 1" rigid steel conduits shall be stubbed up into the cabinet, one for electrical service and one for telephone service (whether installed at this time or in the future). They shall be run a minimum of 2 feet up the electrical service pole and/or telephone source and terminated to 1" weatherheads. These conduits shall be run in the same ditch if possible. If electrical service is not provided as an item in the contract, the 1" rigid steel conduit shall be run out 2 feet from the concrete base and plugged with plumbers putty or taped shut with electrical tape. The location of the plugged end shall be marked with a wooden stake and labeled "1 in. conduit end". A 120-volt, 20-amp GFCI AC duplex receptacle shall be provided in the cabinet.

Leave at least 6 feet of slack sensor lead-in wire in the cabinet. Include the following major items as incidental to the cost of this bid item: concrete foundation, anchor rods and associated hardware, ground rod, #4 solid copper wire, bonding clamps, caulking, electrical material and connections (if applicable). The Division of Planning will supply the cabinet, additional harnesses and do final sensor connections inside the cabinet.

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Permanent identification numbers shall be affixed to all wires in each junction box and cabinet in order to distinguish between the loops and/or other sensors. See Location Drawing for sensor numbers to be placed on all lead-ins.

F. Galvanized Steel Cabinet. The contractor shall determine the amount of clearance required from the road to the cabinet for each specific station location. The "Roadside Design Guide", developed by the American Association of State Highway Officials (AASHTO), shall be used as a tool to determine roadside safety based on design and speed limit. The contractor and Planning shall discuss and resolve any conflicts in the Pre-Construction meeting that might arise from following the station descriptions of the Location Table.

Use terminal strips on the back plate with a minimum of eight terminals each and 7/16-inch spacing (center to center) to mount inside the cabinet in order to connect the lead-in wires to the cable assemblies. Use screw type terminal strips to accommodate wire with spade-tongue ends. Allow for at least 20 inches of slack lead-in wire in the cabinet before connecting them to the terminal strip. Wires connected to the terminal strips shall have insulated, solderless, spade tongue terminals of correct wire and stud size. Wires shall be labeled correctly. See Location Drawing and Wiring Table.

Permanent identification numbers shall be affixed to all wires in each junction box and cabinet in order to distinguish between the loops and/or sensors. See Location Drawing for sensor numbers to be placed on all lead-ins.

G. Wood Post. Set the treated-wood post 3 feet below the ground and place the backfill material in the hole, compacting until flush with the existing earth. Mount the cabinet to the post using 1/4" x 2 1/2" galvanized lag bolts at the top and bottom of the cabinet. The base of the cabinet shall be 4 feet above ground level. Stub the rigid steel conduit up into the base of the cabinet. Affix the conduit to the post using two conduit straps, a maximum of 18" on-center, and 1/4" x 2 1/2" galvanized lag bolts. Cabinet door shall open facing away from traffic (see Figure 7).

H. Conduit. Rigid steel waterproofed conduit encasement shall be provided for all conductors where conductors run to a junction box or cabinet. All conduit installations shall conform to the provisions of the NEC, except where directed otherwise. Bonded slip joints will be permitted for joining rigid conduit to the junction box or cabinet. Where a standard coupling cannot be used, an approved threaded union coupling shall be used.

All conduit ends shall be reamed to remove burrs and sharp edges. Damaged portions of the galvanized surfaces and untreated threads resulting from field cuts shall be painted with a 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.

Conduit that will 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

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traffic shall be laid to a minimum depth of 6 inches below grade. All conduit openings shall be waterproofed with a flexible, removable sealant, including those ending in junction boxes and cabinets. This shall be accomplished using duct seal, or plumber's putty, by working it around the wires and then extending it 1 inch into the end of the conduit. After the conduit has been installed and before the backfilling is started, the conduit installation shall be inspected and approved by the Engineer. In backfilling trenches, the backfill material shall be placed and compacted in lifts of 9 inches or less. Any area disturbed as a result of the contractor's operations shall be restored to the satisfaction of the Engineer.

I. Wiring. All wiring shall conform to the provisions of the NEC unless otherwise shown on the plans. Permanent identification numbers shall be affixed to all wires in each junction box and cabinet in order to distinguish between the loops and/or sensors. See Location Drawing Figure 1 for sensor numbers to be placed on all lead-ins. All wiring shall be taken to a cabinet or junction box. Leave at least 2 feet of "slack" lead-in wire inside each Type B junction box and steel cabinet, a minimum of 4 feet of wire inside the Type G cabinet and a minimum of 6 feet of wire inside the base mounted Type 170 cabinet.

J. Splicing. Sensor lead-in cable lengths for each sensor shall allow sufficient but not excessive slack for splicing connections. All splices shall conform to the provisions of the NEC unless otherwise shown on the plans. Loop lead-in wire splices to shielded pair cables shall be twisted and soldered. Other splices shall be twisted and soldered or made with mechanical connectors of a type approved by the Engineer. Splices for loop wire shall be protected by either heat shrink tubing or a double spiral wrapping of vinyl electrical tape. For splicing home-run coax cable to the sensor's lead-in cable, the same coax cable, supplied by the manufacturer, shall be used. For coax-cable splices, the contractor shall provide kits (3M Scotchcast 3832 Buried Service Wire Encapsulation Kit or equal) to protect them. All splices are to be made in junction boxes unless approved by a representative of the Division of Planning.

K. Loops. A location table is furnished in the Supplemental Notes, along with an estimate of quantities, to display the approximate location for loop installation in the existing pavement. The contractor and a representative of Planning will verify the precise location on site. The contractor shall be careful to avoid expansion joints and pavement sections where potholes, cracks, or any other roadway flaws exist. This will not only facilitate installation of the equipment, but also will increase the accuracy and service life span of the sensors.

There shall be a minimum of 6 feet between loops in adjacent lanes for 12-foot wide lanes. Unless indicated otherwise, loops in the same lane shall be spaced 16 feet from leading edge to leading edge (see Figure 6). All loop dimensions shall be 6 feet by 6 feet square unless otherwise indicated by the Location Drawing. Center and mark each loop in the lane such that its sides are parallel and perpendicular to the direction of traffic. Make the saw-cut for the loop 1/4-inch wide and at a depth such that the top loop wire is

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a minimum of 1 inch below the surface of rigid (PCC/Concrete) pavement or 3 inches below the surface of asphalt pavement. Drill a 1.5" hole at all four corners of the loop to prevent sharp bends in the wire (see Figure 4).

Make the saw-cut for the home run slot 1/4 inch wide. Since it may contain several lead-in wires, the depth should be such that the top lead-in wire is a minimum of 1 inch below the surface of rigid (concrete) pavement or 3 inches below the surface of bituminous (asphalt) pavement. Depending on the number of road sensors at a particular site, the home run slot will gradually need to be cut deeper as you approach the shoulder in order to maintain the minimum depth for the top lead-in wire and directly enter the buried conduit (6 inch depth).

Clean the mud, debris, water, and loose particles from the slot, roadway and surrounding areas. A high-pressure washer shall be used to wash the area followed by clean (oil free) compressed air.

Measure out the appropriate length of loop lead-in wire to allow slack in the final cabinet or junction box. Insert the loop wire into the loop slot for four rotations (see Figure 5). Push the wire in with a wooden stick, such as a paint stir stick or other blunt wooden object. If the wire insulation is broken, apply heat shrink tubing or a double wrapping of vinyl electrical tape to protect from corrosion. Extend the loop lead-in wire splice-free to the junction box or cabinet. Exceptions to this shall be considered on a case-by-case basis and must be approved by the Engineer. If splices cannot be avoided, every effort shall be made to locate them in a junction box. If loop lead-in cable (Cable No. 14/1 Pair) is specified, loop wires shall be twisted and run to the nearest type Junction Box and the wires twisted and soldered to the lead-in cable. The lead-in cable shall then be run splice free to the cabinet ensuring that extra cable is left in each subsequent junction box that it may be run through as well as the cabinet. All wires and cables shall be labeled in each junction box and cabinet.

Twist each pair of loop lead-in wires, exclusive of shielded coax-cable, with three to five turns per foot before placement into the conduit, junction box, and cabinet. Do not twist different pairs of loop wire together. Once the loop wire is installed in the roadway, apply loop encapsulant by allowing the material to flow slowly into the saw-cut and settle until level with the road surface. Every attempt should be made to alleviate air pockets and low spaces should be refilled. Any excess loop encapsulant shall be cleaned from the roadway via squeegee, etc. to help alleviate tracking. The loop encapsulant shall be incidental to the bid item "Loop Saw Slot and Fill".

Loops shall be cut in the surface asphalt course. They shall not be installed between the intermediate and surface courses, unless approved by the Central Office, Division of Planning Equipment Branch.

All loop inductance readings shall be between 100 and 300 microhenries. The loop inductance between two loops in the same lane shall be within 20 microhenries of each other. Inductance loop conductors shall test free of shorts and unauthorized grounds.

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Upon completion of the project, all loops must pass an insulation resistance test of at least 100 million ohms to ground when tested with a 500 Volt direct current potential in a reasonably dry atmosphere between conductors and ground.

L. Electrical Service. A treated-wood service pole, per Section 820 of the Department's Current Edition Standard Specifications, with a 20-foot minimum length and a 6- to 12-inch diameter, or approved equal, is to be furnished by the Contractor. Install the electrical service pole adjacent to the cabinet at a depth of at least 4 feet while maintaining a 12-foot minimum clearance for the electrical service drop. Compact the backfill material to support the electrical service drop without leaning. Install an appropriate pole support guy wire and anchor if necessary. Install rigid conduit up the length of the pole with three separate insulated conductors (No. 4 copper wire) in the conduit and a weatherhead at the top.

Space the conduit straps 30 inches apart and leave 24 inches of cable for the drip loop. Install a meter-base and a disconnect panel with a 20-ampere circuit breaker inside. A 120-volt, 20-amp GFCI AC duplex receptacle shall be provided in the cabinet. A manufactured weatherproof hub connector is required to connect the meter-base to the disconnect panel. Do not use service entrance cable inside the conduit. The conduit from the disconnect panel is required to be at a depth of 6 inches below grade. Install a 5/8-inch by 8-foot ground rod below the finished grade. Extend the ground wire through a separate hole in the disconnect panel and clamp to the ground rod. Install a 1" rigid conduit to 2 feet above ground level and install a weatherhead at the top opening. This conduit shall be run to and stubbed up into the Cabinet. The conduit shall be attached to the pole at a minimum of 2" from ground level and 2" from the weatherhead.

M. Piezoelectric Sensor, Roadtrax BL Class I or Approved Equal. Determine where on the roadway the piezoelectric sensor will be installed. Roadway ruts shall not be in excess of 1/2 inch under a 4-foot straight edge. Install the piezoelectric sensor perpendicular to traffic. Locate the sensor in the lane as shown on the site detail sheet. Eleven-foot length sensors should be centered in the lane. The following is a typical step by step procedure for the installation of a piezoelectric sensor. Refer specifically to the manufacturer's current instructions provided with the sensor prior to installation.

1. Carefully mark the slot to be cut, perpendicular to the flow of traffic. Ensure that the sensors are properly positioned in the lane.
2. It is strongly recommended that a 3/4" wide diamond blade be used for cutting the slot, or that blades be ganged together to get a single 3/4 inch wide cut. The slot shall be wet cut to minimize damage to the road.
3. Cut a slot 3/4 inch wide ($\pm 1/16$ ") by 1" minimum deep. The slot should be 8" longer than the sensor (including the lead attachment). Drop the saw blade an extra 1/2" down on both ends of the sensor. The lead out should be centered on the slot.
4. Cut the home-run slot for the coax-cable 1/4-inch wide and at a depth so that the cable is a minimum of 1 inch below the road surface in rigid pavement (concrete) or 3 inches below the road surface in bituminous (asphalt) pavement.
5. Sweep and wash out all debris left in the slot and ensure it is clean and dry.

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6. Use high pressure water, or water and oil-free compressed air to clean ALL foreign and loose matter out of the slot and within 1 foot on all sides of the slot.
7. Totally remove excess water and debris from roadway and shoulder area. Debris should be disposed of properly.
8. Carefully 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.
9. Place a strip of duct tape on the pavement along the length of both sides of the sensor slot. Place the 2-4" wide duct tape 1/8" away from the slot.
10. Remove BL sensor from the box. Visually inspect each sensor to ensure it is straight without any twists or curls. Check lead attachment and passive cable for cuts, gaps, cracks and/or bare wire. Verify the correct sensor (type and length) is being installed by checking the data sheet. Verify there is sufficient cable to reach the cabinet.
11. Test the sensor for Capacitance, Dissipation Factor and Resistance, according to the directions enclosed with the sensor. Capacitance and dissipation should be within $\pm 20\%$ of the enclosed data sheet. Resistance (using the 20M setting) should be infinite. Record the sensor serial number and the test results. This information should be stored in the counter cabinet and/or returned to KYTC Planning personnel.
12. Lay the sensor on the tape next to the slot. Ensure that the sensor is straight and flat. Ensure that you are wearing clean protective latex (or equivalent) gloves at all times when handling sensors.
13. Clean sensor with steel wool or emery pad. Wipe down with alcohol and clean lint-free cloth.
14. Place the installation bracket clips on the sensor, about every 6" for the length of the sensor.
15. Bend the end 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)
16. Place the sensor in the slot, with the brass element 3/8" below the road surface along the entire length. The end of the sensor should be at least 2" from the end of the slot and the tip should not touch the bottom of the slot. The top of the plastic installation bracket clips should be 1/8" below the surface of the road. The lead attachment should also not touch the bottom or sides of the slot. Ensure the ends of the sensors are pushed down sufficiently per the manufacturer's instructions.
17. 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).
18. Block off the ends of the slot using plumbers putty. Ensure that there are adequate "dams" at both ends so that the encapsulation material does not flow out. On the passive cable end, the dam should be about 3-5" past the end of the lead attachment area.
19. The encapsulation material should be placed full depth, overfilled, and allowed to cure 10 minutes before shaving level with the surface. Ensure it fills around and underneath the sensor completely and there is not a trough on top.
20. Remove the tape on the sides of the sensor as soon as the adhesive starts to cure.
21. Carefully remove all the plumbers putty from ends of the sensor.

Inductance Loop and Piezoelectric Axle Sensor Installation

Page 13 of 17

22. Route the lead in cable through the slot cut for it, and cover with approved loop sealant.
23. After the encapsulant has hardened, grind the top of the installation using an angle grinder. The profile should be flush with the road surface or with a slight, 1/16" mound. There shall be no concave portion to the mound.
24. Clean up the site. Sealant curing time varies with temperature and humidity. Contractor shall ensure that the complete curing of the encapsulation material has taken place prior to subjecting the sensors to traffic.

After the installation is complete, the minimum output voltages of each piezoelectric sensor shall meet the following: 1.5 Volts (peak) for a 10,000 pound axle and 200 millivolts (peak) for a car axle. The piezoelectric sensor lead-in cable is part of the sensor and can be ordered in different lengths (100' standard). Piezoelectric sensor lead-in cable shall not be spliced.

N. Cleanup and Restoration. The contractor will be responsible for all 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 includes any filling of ruts and leveling ground appropriately. Clean the site and dispose of all waste and debris off the right-of-way at sites obtained by the contractor at no additional cost to the Department. Sow all disturbed earthen areas with Seed Mixture No. I per Section 212.03.03 Permanent Seeding and Protection of the Kentucky Transportation Cabinet, Department of Highways, Standard Specifications for Road and Bridge Construction, Current Edition.

O. On-Site Inspection. Each contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made. The Department will not honor any claims resulting from site conditions.

P. Property Damage. The contractor will be responsible for all damage to public and/or private property resulting from his work.

Q. Caution. 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 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.

R. Utility Clearance. It is not anticipated that utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the contractor while relocating their facilities.

Inductance Loop and Piezoelectric Axle Sensor Installation

Page 14 of 17

S. Site Inspections. All sensors are to be tested by a member of the Central Office Division of Planning equipment staff after the installation is complete to verify that the station is operating properly. Tests shall demonstrate that the system operates in accordance with the plans and specifications. Inductance loop conductors shall test free of shorts and unauthorized grounds and shall have an insulating resistance of at least 100 megaohms when tested with a 500 volt direct current potential in a reasonably dry atmosphere between conductors and ground. If the sensors do not meet the specifications and/or KYTC's traffic recording equipment does not perform properly because of an improperly functioning sensor, the contractor shall be responsible for the replacement of the faulty sensor(s), as soon as practicable at their total cost.

Inductance Loop and Piezoelectric Axle Sensor Installation
Page 15 of 17

IV. BID 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 the 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.

A. Maintain and Control Traffic. See Traffic Control Plan.

B. Junction Box Type 6" x 6" x 4" (or Type 10" x 8" x 4" if noted). Each type junction box shall include furnishing and installing specified junction box in accordance with the specifications. This item includes connectors, splice sleeves, conduit fittings, mounting materials and any other items required to complete this part of the installation. Incidental to this item is furnishing and installing any specified post (wood, channel, metal, etc.) as required for the installation.

C. Junction Box Type A (B or C). Each type junction box shall include furnishing and installing specified junction box in accordance with the specifications. This item includes concrete (if required), #57 aggregate, conduit fittings and backfilling around the unit.

D. Cabinet Type G (NEMA-3R). Cabinet (each) shall include furnishing and installing a Type G cabinet as specified. This item shall include constructing the concrete base or mounting cabinet to pole, installation of duplex receptacle and connection of all detectors (where applicable). Incidental to this item shall be furnishing, installing electrical service conductors, conduits, fused cutout, ground rods, all internal shelving, brackets, any necessary pole mounting hardware and electrical inspection fees.

E. Install Base Mount Enclosure. Install base mount enclosure (each) shall include installing a State-furnished cabinet or enclosure as specified. This item shall include all materials and labor for constructing the concrete base (or, if specified, mounting cabinet to pole), installation of the cabinet, duplex receptacle and connection of all detectors (where applicable). Incidental to this item shall be furnishing, installing electrical service conductors, conduits, fused cutout, ground rods, telephone service conduits from the cabinet to the telephone company disconnect box, all internal shelving, brackets, anchor bolts, any necessary pole mounting hardware and electrical inspection fees if applicable.

F. Galvanized Steel Cabinet. Cabinet (each) shall include furnishing and installing a galvanized steel cabinet and post(s) as specified on the drawing. This item shall include mounting the cabinet to post and the connection of all detectors. Incidental to this item shall be furnishing and installing conductors, conduit, ground rods, any necessary pole mounting hardware and any electrical inspection fees.

G. Wood Post. Wood post (each) shall include furnishing and installing a wood post as specified. This item includes excavation, concrete (if required), and backfilling around the unit.

Inductance Loop and Piezoelectric Axle Sensor Installation
Page 16 of 17

H. Conduit. Conduit shall include furnishing and installing specified conduit in accordance with specifications. This item includes conduit fittings, bodies, boxes, expansion joints, couplings, duct seal, bonding straps and any other necessary hardware. Conduit will be measured in linear feet.

I. Wire (or Cable). Wire or cable shall include furnishing and installing specified wire or cable within conduit, saw slot, or overhead as indicated on the detail sheets. This can include, but is not limited to: loop wire, Cable No. 14/1 Pair, etc. Incidental to this item shall be the labeling of all wires and cables in each junction box, cabinet and splice box; furnishing and installing of splice boots, cable rings or other hardware required for installing cable. Loop wire and cable will be measured in linear feet.

J. Loop Saw Slot and Fill. Loop saw slot and fill shall include sawing, cleaning and filling saw slots for induction loops, lead-in wires, etc. with loop sealant or specified approved material. Sawing and filling slot for wire will be measured in linear feet.

K. Trenching and Backfilling. Trenching and backfilling shall include excavation, backfilling, temporary erosion control, seeding, protection and restoration of disturbed areas to original condition. This item includes concrete, asphalt or approved replacement material for sidewalks, curbs, roadways, etc. (if required). Trenching and backfilling will be measured in linear feet.

L. Electrical Service. Electrical services shall include all related work, labor, materials (e.g. meter, straps, conduit, fittings, wire, etc.) and fees towards furnishing and installing an electrical service, which has passed all required inspections. This will be measured in individual units each.

M. Telephone Service. Telephone services shall include all related work, labor, materials (e.g. meter, straps, conduit, fittings, wire, etc.) and fees towards furnishing and installing a telephone service, which has passed all required inspections. This will be measured in individual units each.

N. Piezoelectric Sensor or Approved Equal. Piezoelectric sensor (each) shall include furnishing and installing a Class I Piezoelectric Sensor in accordance with the specifications. Lead-in wire, splice kits, encapsulation material, grout, testing, and accessories shall be incidental to this bid item.

REFERENCES

1. Kentucky Transportation Cabinet, Department of Highways Standard Specifications for Road and Bridge Construction, Current Edition, and Supplemental Specifications.
2. National Electrical Code (NEC), latest edition.
3. International Municipal Signal Association (IMSA) Specification No. 51-7- latest edition.
4. FHWA Manual of Uniform Traffic Control Devices, latest edition.
5. "Roadside Design Guide", developed in 1996 by the American Association of State Highway and Transportation Officials (AASHTO).
6. Kentucky Department of Highways Standard Drawings, current editions, as applicable:

TTC-115	Lane Closure Case I
TTC-135	Shoulder Closure
TTD-100	Miscellaneous Traffic Control Devices (sheet 1)
TTD-105	Miscellaneous Traffic Control Devices (sheet 2)
TTD-110	Post Splicing Detail
TTD-115	Flashing Arrow

7. Kentucky Department of Highways Sepia Drawings:

Silt Fence

Updated: April 11, 2006

GENERAL NOTES
WHITLEY COUNTY – I-75
TRAFFIC DATA COLLECTION STATION 515 – MP 11.242

The Division of Planning needs to re-establish a Traffic Data Collection Station within a section of a construction project in Whitley County on I-75. Planning is requesting to have service replaced at a site with an approximate mile-point of 11.242, with the installation of traffic loop and piezo sensors in the newly paved roadway surface. Exact location will be determined in the field.

Contractor shall install two (2) loop sensors and two (2) piezo in each lane. All wires shall be run splice free through Type-A junction boxes and directly into the 10"x8"x4" cabinets as shown in Figure 1. All new materials shall be used in this reconstruction.

Therefore, the contractor will install a total of eight (8) loop sensors and eight (8) piezos in the roadway. Installation shall be coordinated with and approved by appropriate Division of Planning staff. Reference "Special Notes for Installation of Traffic Counting Inductance Loops and Axle Sensors" for materials, construction and installation details and "Standard Details for Installation of Traffic Counting Inductance Loops and Sensors". Also see the Standard Details for Installation of Traffic Counting Inductance Loops and Axle Sensors, Location Drawings, Location Table and Estimate of Quantities, in regard to this specific project.

NOTE:

The Special Notes for Traffic Counting Inductance Loops and Axle Sensors are generic. Only the sections that pertain to the specified location and the bid items listed in this summary are applicable.

SPECIAL NOTES:

The location listed in the proposal is approximate only. Contractor will need to contact the utility companies to verify locations to underground service prior to beginning work. The Engineer, in coordination with the Central Office Division of Planning, will designate the exact location at the time of construction.

Notify the Central Office Division of Planning (502-564-7183, Equipment Management Team) a minimum of 14 days prior to beginning work in order for them to have the option to be present during sensor installation. The Engineer will contact and maintain liaison with the District Planning Engineer and the Central Office Division of Planning in order to coordinate the work.

**LOCATION TABLE
WHITLEY COUNTY – I-75
TRAFFIC DATA COLLECTION STATION 515 MP 11.242**

STATION	DESCRIPTION	MP BEGIN	LOCATION	MP END	LANES	PIEZOS	LOOPS	PROJECT MP LIMITS
515	2 loops, 2 piezo/lane	10.548	11.242	15.456	4	8	8	11 - 14

TRAFFIC DATA COLLECTION STATION 515 is located on I-75 at approximately the 11.242 mile-point (MP) with the final location confirmed by appropriate Division of Planning staff. This station has four (4) lanes of traffic, two (2) Northbound lanes (loops#1-4) and (piezos 1-4) and two (2) Southbound lanes (loops #1-4) and (piezos 1-4). Each lane will have a loop-piezo-loop-piezo combination of sensors installed as depicted in Figure 1. The contractor shall install the sensors in each lane and run their lead-ins splice-free through the Type-A junction boxes and into the 10"x8"x4" cabinets as depicted in Figure 1. All new materials shall be utilized in the construction of this project.

*Piezoelectric Sensor includes eight Class I (6') sensors. Note that the sensors should be ordered with 100-foot lead-ins unless the site requires longer lead-in lengths. (up to 500' available).

ESTIMATE OF QUANTITIES

CODE	DESCRIPTION	UNIT	QUANTITY
2562	Signs	SQ FT	160
2650	Maintain And Control Traffic	LUMP SUM	1
2775	Flashing Arrow	EACH	1
4795	Conduit 2 inch Rigid	EACH	100
4820	Trenching And Backfilling	LINEAR FEET	90
4829	Piezoelectric Sensor	EACH	8
4830	Loop Wire	LINEAR FEET	1436
4895	Loop Saw Slot And Fill	LINEAR FEET	496
20360ES818	4"x4" Wood Post	EACH	1
20391ES835	Junction Box Type-A	EACH	4
20468EC	Junction Box 10'x8'x4"	EACH	2

Contractor is responsible for the above materials listing. Specifications on materials and installation instructions for loops are found in the Special Notes for Installation of Traffic Counting Inductance Loops and Axle Sensors.

Special Note For: Erosion Prevention and Sediment Control NH 0751 (074) I-75 Whitley Co.

The Contractor shall be responsible for filing the Kentucky Pollution Discharge Elimination System (KPDES) KYR10 permit Notice of Intent (NOI) with the Kentucky Division of Water (DOW) and any KPDES local Municipal Separate Storm Sewer System (MS4) program that has jurisdiction. The NOI shall name the contractor as the Facility Operator and include the KYTC Contract ID Number (CID) for reference.

The Contractor shall perform all temporary erosion/sediment control functions including: providing a Best Management Practice (BMP) Plan, conducting required inspections, modifying the BMP plan documents as construction progresses and documenting the installation and maintenance of BMPs in conformance with the KPDES KYR10 permit dated September 30, 2003 or a permit re-issued to replace the KYR10 permit. This work shall be conducted in conformance with the requirements of Section 213 of KYTC 2008 Department of Highways, Standard Specifications for Road and Bridge Construction.

Contrary to Section 213.03.03, paragraph 2, the Engineer shall conduct inspections as needed to verify compliance with Section 213 of KYTC 2008 Department of Highways, Standard Specifications for Road and Bridge Construction. The Engineer's inspections shall be performed a minimum of once per month and within seven days after a storm of ½ inch or greater. Copies of the Engineer's inspections shall not be provided to the contractor unless improvements to the BMP's are required. The contractor shall initiate corrective action within 24 hours of any reported deficiency and complete the work within 5 days. The Engineer shall use Form TC 63-61 A for this report. Inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit.

Contrary to Section 213.05, bid items for temporary BMPs will not be listed and will be replaced with one lump sum item for the services. Payment will be pro-rated based on the Project Schedule as submitted by the Contractor and as agreed to by the Engineer.

The contractor shall be responsible for applying "good engineering practices" as required by the KPDES permit. The contractor may use any temporary BMPs with the approval of the KYTC Engineer.

The contractor shall provide the Engineer copies of all documents required by the KPDES permit at the time they are prepared.

The contractor shall be responsible for the examination of the soils to be encountered and make his own independent determination of the temporary BMPs that will be required to accomplish effective erosion prevention and sediment control.

The Contractor shall be responsible for filing the KPDES permit Notice of Termination (NOT) with the Kentucky DOW and any local MS4 program that has jurisdiction. The NOT shall be filed after the Engineer agrees that the project is stabilized or the project has been formally accepted.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

The contractor is advised that it is their responsibility to gain U.S. Army Corp of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". "Waters of the United States" are defined as perennial or intermittent streams, ponds or wetlands. Ephemeral streams are also considered jurisdictional waters, and are typically dry except during rainfall, but have a defined drainage channel. Questions concerning any potential impacts to "Waters..." should be brought to the attention of the appropriate District Office for the Corps of Engineers for a determination, prior to disturbance. Any fees associated with obtaining approval from the U.S. Army Corp of Engineer or other appropriate regulatory agencies for waste and borrow sites is the responsibility of the contractor.

01/01/2009

Right-of-Way Certification Form

Revised 5/27/09

Federal Funded

Original

State Funded

Re-Certification

This form must be completed and submitted to FHWA with the PS&E package for federal-aid funded Interstate, Appalachia, and Mega projects. This form shall also be submitted to FHWA for **all** federal-aid projects that fall under conditions No. 2 & 3 outlined elsewhere in this form. For all other federal-aid projects, this form shall be completed and retained in the KYTC project file.

Date: 06-03-09

Project #: _____

County: WHITLEY

Item #: 11-2030.00

Federal #: IM 75-1(074)

Letting Date: July 22, 2009

Description of Project: pavement rehabilitation on North bound and South bound 1-75

Projects that require **NO** new or additional right-of-way acquisitions and/or relocations

The proposed transportation improvement will be built within the existing rights-of-way and there are no properties to be acquired, individuals and families ("relocatees") to be relocated, or improvements to be removed as a part of this project.

Projects that require new or additional right-of-way acquisitions and/or relocations

Per 23 CFR 635.309, the KYTC hereby certify that all relocatees have been relocated to decent, safe, and sanitary housing or that KYTC has made available to relocatees adequate replacement housing in accordance with the provisions of the current FHWA directive(s) covering the administration of the Highway Relocation Assistance Program **and** that at least one of the following three conditions has been met. **(Check those that apply.)**

1. All necessary rights-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 these improvements and enter on all land. **Fair market value has been paid or deposited with the court.**

2. Although all necessary rights-of-way have 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. Trial or appeal of some parcels may be pending in court and on other parcels full legal possession has not been obtained, but an Interlocutory Judgment has been granted, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish these improvements. **Fair market value has been paid or deposited with the court for most parcels. Fair market value for all pending parcels will be paid or deposited with the court prior to start of construction. (See note.)**

Note: The KYTC shall re-submit a right-of-way re-certification form for this project prior to the start of construction (**Notice to Proceed**), verifying that fair market value for all parcels has been paid or deposited with the court.

Right-of-Way Certification Form



3. The acquisition or right of occupancy and use of a **few** remaining parcels are not complete and/or some parcels still have occupants. However, all remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. The KYTC is hereby requesting authorization to advertise this project for bids and to proceed with physical construction even though the necessary rights-of-way will not be fully acquired, and/or some occupants will not be relocated, and/or the fair marked value will not be paid or deposited with the court for some parcels at the start of construction. KYTC will fully meet all the requirements outlined in 23 CFR 309(c) (3) and 49 CFR 102(j) and will expedite completion of all acquisitions, relocations, and full payments after construction starts. A full explanation and reason for this request, including identification of each such parcel and dates on which acquisitions, payments, and relocations will be completed, is attached to this certification form for FHWA consideration and approval. (See note.)

Note: The KYTC may request authorization on this basis only in unique and unusual circumstances. Proceeding to construction of projects on this basis shall be the exception and never become the rule. In all FHWA-approved cases, the KYTC shall make extraordinary efforts to expedite completion of the acquisition, payment for all affected parcels, and the relocation of all relocatees promptly 30 days after start of construction.

Approved: David Hensly Date 6/3/2009 District ROW Supervisor
Name

Approved: Ralph [Signature] Date 6/15/09 Director of ROW & Utilities
Name or Designee

Approved: Mary [Signature] Date 6/9/2009 FHWA, Right-of-Way Officer
Name

Right-of-Way Certification Form

Date: 06-03-09

Project #: _____

County: WHITLEY

Item #: 11-2030.00

Federal #: IM 75-1 (074)

Letting Date: _____

This project has 0 Total number of parcels acquired, and 0 Total number of individual or families relocated, as well as 0 Total number of businesses relocated.

- _____ Parcels were acquired by a signed fee simple deed and fair market value has been paid **(Type 1)**
- _____ Parcels have been acquired through condemnation and IOJ granted by the court and fair market value has been deposited with the court **(Type 1 certification)**
- _____ Parcels have **not been acquired at this time** but can be Re-certified as acquired prior to Notice to Proceed for construction. *(explain below for each parcel)* **(Type 2 certification)**
- _____ Parcels have been acquired or have a "right of Entry" but the fair market value has not been paid or has not been posted with the court, and they can not be re-certified prior to construction. (These parcels require an explanation below for each one as well as FHWA approval. **(Type 3 only)**)
- _____ Relocatees have not been relocated from parcels. *(explain below for each parcel)*

Parcel #	Name	Explanation for delayed acquisition, delayed relocation, or delayed payment of fair market value	Proposed date of payment or of relocation

There are 0 billboards and/or 0 cemeteries involved on this project.
 There are 0 water or monitoring wells on parcels.

UTILITY NOTES TO BE INCLUDED IN THE PROPOSAL
SPECIAL NOTES FOR UTILITY CLEARANCE
IMPACT ON CONSTRUCTION

WHITLEY COUNTY, IM 75-1 (74)
FD52 118 0075 011-020
Tennessee State Line – Lexington Road (I-75)
Item No. 11-2030.00

There are no utility facilities involved on the subject project.

There are no railroad facilities on the subject project.

PROTECTION OF UTILITIES

The location of utilities provided in the contract documents has been furnished by the facility owners and/or by reviewing record drawings and may not be accurate. It will be the roadway contractor's responsibility to locate utilities before excavating by calling the various utility owners and by examining any supplemental information supplied by the cabinet. If necessary, the roadway contractor shall determine the exact location and elevation of utilities by hand digging to expose utilities before excavating in the area of a utility. The cost for repair and any other associated costs for any damage to utilities caused by the roadway contractor's operations shall be borne by the roadway contractor.

The contractor is advised to contact the BUD one-call system; however, the Contractor should be aware that owners of underground facilities are not required to be members of the BUD on-call system. It may be necessary for the Contractor to contact the County Court Clerk to determine what utility companies have facilities in the project area.

KyTC BMP Plan for Project PCN ## - ####



Kentucky Transportation Cabinet

Highway District __ 11

And

_____ (2), Construction

**Kentucky Pollutant Discharge Elimination System
Permit KYR10**

Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

**Whitley County
I-75 Pavement Rehab.
From MP 11 to MP 20**

**Project: PCN ## - ####
SYP Item 11-2030.00**

KyTC BMP Plan for Project PCN ## -

Project information

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

1. Owner – Kentucky Transportation Cabinet, District __ 11
2. Resident Engineer: (2)
3. Contractor name: (2)
Address: (2)

Phone number: (2)
Contact: (2)
Contractors agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number (2)
5. Route (Address) I-75
6. Latitude/Longitude (project mid-point) 36-47-00, 84-10-00
7. County (project mid-point) **Whitley**
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KyTC BMP Plan for Project PCN ## -

A. Site description:

1. Nature of Construction Activity (from letting project description) Pavement Rehab with Bridge overlay
2. Order of major soil disturbing activities (2) and (3)
3. Projected volume of material to be moved: 28,208 cu yds.
4. Estimate of total project area (acres) 278 Acres (all Area within R/W)
5. Estimate of area to be disturbed (acres) 57 Acres (all median area)
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.
7. Data describing existing soil condition: **No information for this item.**
8. Data describing existing discharge water quality: **No information for this item.**
9. Receiving water name: **Cumberland River**
10. TMDLs and Pollutants of Concern in Receiving Waters: **No TMDL's were involved on this project.**
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:

The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing

KyTC BMP Plan for Project PCN ## -

and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

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

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

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP's shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMP's in place before being disturbed.
3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
 - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
 - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be

KyTC BMP Plan for Project PCN ## -

inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.

- Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
 - Leaving areas undisturbed when possible.
 - Silt basins to provide silt volume for large areas.
 - Silt Traps Type A for small areas.
 - Silt Traps Type C in front of existing and drop inlets which are to be saved
 - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
 - Brush and/or other barriers to slow and/or divert runoff.
 - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
 - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
 - Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
 - Silt Traps Type B in ditches and/or drainways as they are completed
 - Silt Traps Type C in front of pipes after they are placed
 - Channel Lining
 - Erosion Control Blanket
 - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
 - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
 - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
 - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
 - Additional Channel Lining and/or Erosion Control Blanket.
 - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
 - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
 - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to

KyTC BMP Plan for Project PCN ## -

control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.

- Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : **None**

C. Other Control Measures

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

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

3. Hazardous Waste

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

4. Spill Prevention

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

- **Good Housekeeping:**

KyTC BMP Plan for Project PCN ## -

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

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

➤ **Hazardous Products:**

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

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

The following product-specific practices will be followed onsite:

➤ **Petroleum Products:**

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

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

KyTC BMP Plan for Project PCN ## -

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

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

➤ **Fertilizers:**

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

➤ **Paints:**

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

➤ **Concrete Truck Washout:**

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

➤ **Spill Control Practices**

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

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

KyTC BMP Plan for Project PCN ## -

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

D. Other State and Local Plans

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

E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
 - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. **None**

F. Inspections

KyTC BMP Plan for Project PCN ## -

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

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have received KyTC Grade Level II training or other qualification as prescribed by the cabinet that includes instruction concerning sediment and erosion control.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 70 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

G. Non – Storm Water discharges

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

- Water from water line flushings.

KyTC BMP Plan for Project PCN ## -

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

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

H. Groundwater Protection Plan (3)

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

- Contractors statement: (3)

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

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

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

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

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

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

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

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

KyTC BMP Plan for Project PCN ## -

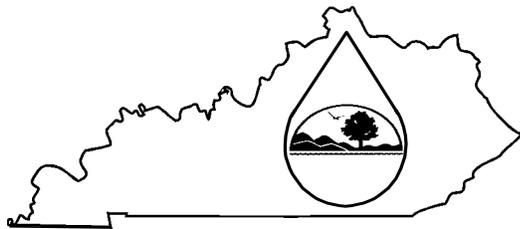
_____ There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

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

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

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

KPDES FORM NOI-SW



Kentucky Pollutant Discharge Elimination System
(KPDES)
Notice of Intent (NOI)
for Storm Water Discharges
Associated with Industrial Activity Under the
KPDES General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a KPDES permit issued for storm water discharges associated with industrial activity. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit.

ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM (See Instructions on back)

I. Facility Operator Information

Name:	KYTC District 11	Phone:	606.549.3760
Address:	Railroad Avenue P.O. Box 250	Status of Owner/Operator:	S
City, State, Zip Code:	Manchester, Ky. 40962-0250		

II. Facility/Site Location Information

Name:	KYTC PCN ##-####, KYTC Item No. 11-2030.00		
Address:	I-75 Pavement Rehabilitation		
City, State, Zip Code:	Williamsburg, KY 40769		
County:	Whitley		
Site Latitude: (degrees/minutes/seconds)	36-47-00	Site Longitude: (degrees/minutes/seconds)	84-10-00

III. Site Activity Information

MS4 Operator Name:	City of Williamsburg/Whitley County Fiscal Court		
Receiving Water Body:	Cumberland River		
Are there existing quantitative data?	Yes <input type="checkbox"/> If Yes, submit with this form. No <input checked="" type="checkbox"/>		
SIC or Designated Activity Code Primary	1611	2nd	3rd
4th			
If this facility is a member of a Group Application, enter Group Application Number:			
If you have other existing KPDES Permits, enter Permit Numbers:	N/A		

IV. Additional Information Required FOR CONSTRUCTION ACTIVITIES ONLY

Project Start Date:		Completion Date:	
Estimated Area to be disturbed (in acres):	57 Acres		
Is the Storm Water Pollution Prevention Plan in Compliance with State and/or Local Sediment and Erosion Plans?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

V. Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed or Typed Name:	Cass "Tom" Napier, P.E. Chief District Engineer, Department of Highways, District Eleven		
Signature:		Date:	

**Kentucky Pollutant Discharge Elimination System (KPDES)
Instructions
Notice of Intent (NOI) for Storm Water Discharges Associated with Industrial Activity
To Be Covered Under The KPDES General Permit**

WHO MUST FILE A NOTICE OF INTENT (NOI) FORM

Federal law at 40 CFR Part 122 prohibits point source discharges of stormwater associated with industrial activity to a water body of the Commonwealth of Kentucky without a Kentucky Pollutant Discharge Elimination System (KPDES) permit. The operator of an industrial activity that has such a storm water discharge must submit a NOI to obtain coverage under the KPDES Storm Water General Permit. If you have questions about whether you need a permit under the KPDES Storm Water program, or if you need information as to whether a particular program is administered by the state agency, call the **Storm Water Contact, Industrial Section, Kentucky Division of Water at (502) 564-3410.**

WHERE TO FILE NOI FORM

NOIs must be sent to the following address:

**Section Supervisor
Inventory & Data Management Section
KPDES Branch, Division of Water
Frankfort Office Park
14 Reilly Road
Frankfort, KY 40601**

COMPLETING THE FORM

Type or print legibly in the appropriate areas only. If you have any questions regarding the completion of this form call the **Storm Water Contact, Industrial Section, at (502) 564-3410.**

SECTION I - FACILITY OPERATOR INFORMATION

Give the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same as the name of the facility. The responsible party is the legal entity that controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name. Enter the complete address and telephone number of the operator.

Enter the appropriate letter to indicate the legal status of the operator of the facility.

F = Federal M = Public (other than federal or state)
S = State P = Private

SECTION II - FACILITY/SITE LOCATION INFORMATION

Enter the facility's or site's official or legal name and complete street address, including city, state, and ZIP code.

SECTION III - SITE ACTIVITY INFORMATION

If the storm water discharges to a municipal separate storm sewer system (MS4), enter the name of the operator of the MS4 (e.g., municipality name, county name) and the receiving water of the discharge from the MS4. (A MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a state, city, town, borough, county, parish, district, association, or other public body which is designed or used for collecting or conveying storm water.)

If the facility discharges storm water directly to receiving water(s), enter the name of the receiving water.

Indicate whether or not the owner or operator of the facility has existing quantitative data that represent the characteristics and concentration of pollutants in storm water discharges. If data is available submit with this form.

List, in descending order of significance, up to four 4-digit standard industrial classification (SIC) codes that best describe the principal products or services provided at the facility or site identified in Section II of this application.

If the facility listed in Section II has participated in Part 1 of an approved storm water group application and a group number has been assigned, enter the group application number in the space provided.

If there are other KPDES permits presently issued for the facility or site listed in Section II, list the permit numbers.

SECTION IV - ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION ACTIVITIES ONLY

Construction activities must complete Section IV in addition of Sections I through III. Only construction activities need to complete Section IV.

Enter the project start date and the estimated completion date for the entire development plan.

Provide an estimate of the total number of acres of the site on which soil will be disturbed (round to the nearest acre).

Indicate whether the storm water pollution prevention plan for the site is in compliance with approved state and/or local sediment and erosion plans, permits, or storm water management plans.

SECTION V - CERTIFICATION

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

JUNE 2009 LETTING

**KENTUCKY TRANSPORTATION CABINET
COMMUNICATING ALL PROMISES (CAP)**

WHITLEY COUNTY

11-2030.00

(NO CAPS INVOLVED IN PROJECT)

PART II
SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to the *Standard Specifications for Road and Bridge Construction, Edition of 2004*, and *Standard Drawings, Edition of 2000* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2008* and *Standard Drawings, Edition of 2003 with the 2008 Revision*.

**Supplemental Specifications to The Standard Specifications
for Road and Bridge Construction, 2008 Edition**
(Effective with the July 24, 2009 Letting)

<p>SUBSECTION: REVISION:</p>	<p>101.02 Abbreviations. Insert the following abbreviation and text into the section: KEPSC Kentucky Erosion Prevention and Sediment Control</p>
<p>SUBSECTION: REVISION:</p>	<p>101.03 Definitions. Replace the definition for Specifications – <i>Special Provisions</i> with the following: Additions and revisions to the Standard and Supplemental Specifications covering conditions peculiar to and individual project.</p>
<p>SUBSECTION: REVISION:</p>	<p>102.07.01 General. Replace the first sentence with the following: Submit the Bid Proposal on forms furnished on the Department internet website (http://transportation.ky.gov/contract/), including the Bid Packet and disk created from the Expedite Bidding Program.</p>
<p>SUBSECTION: REVISION:</p>	<p>102.07.02 Computer Bidding. Replace the first paragraph with the following: Subsequent to ordering a Bid Proposal for a specific project, use the Department’s Expedite Bidding Program on the internet website of the Department of Highways, Division of Construction Procurement (http://transportation.ky.gov/contract/). Download the bid file from the Department’s website to prepare a Bid Proposal for submission to the Department. Include the completed Bid Packet produced by the Expedite Bidding Program and submit it along with the disk created by said program. Replace the second paragraph with the following: In case of a dispute, the printed Bid Proposal and bid item sheets created by the Expedite Bidding Program take precedence over any bid submittal.</p>
<p>SUBSECTION: REVISION:</p>	<p>102.08 IRREGULAR BID PROPOSALS. Replace point four of the first paragraph with the following: 4) fails to submit a disk created from the Expedite Bidding Program. Replace point one of the second paragraph with the following: 1) when the Bid Proposal is on a form other than that furnished by the Department or printed from other than the Expedite Bidding Program, or when the form is altered or any part is detached; or</p>
<p>SUBSECTION: REVISION:</p>	<p>103.02 AWARD OF CONTRACT. Replace the first sentence of the third paragraph with the following: The Department will normally award the Contract within 10 working days after the date of receiving Bid Proposals unless the Department deems it best to hold the Bid Proposals of any or all bidders for a period not to exceed 60 calendar days for final disposition of award.</p>

**Supplemental Specifications to The Standard Specifications
for Road and Bridge Construction, 2008 Edition**
(Effective with the July 24, 2009 Letting)

<p>SUBSECTION: 105.12 FINAL INSPECTION AND ACCEPTANCE OF WORK. REVISION:</p>	<p>Insert the following paragraphs after the first paragraph:</p> <p>Notify the Engineer when all electrical items are complete. A notice of the electrical work completion shall be made in writing to the Contractor. Electrical items will be inspected when the electrical work is complete and are not subject to waiting until the project as a whole has been completed. The Engineer will notify the Division of Traffic Operations within 3 days that all electrical items are complete and ready for a final inspection. A final inspection will be completed within 90 days after the Engineer notifies the Division of Traffic Operations of the electrical work completion.</p> <p>Energize all electrical items prior to notifying the Engineer that all electrical items are complete. Electrical items must remain operational until the Division of Traffic Operations has inspected and accepted the electrical portion of the project. Payment for the electrical service is the responsibility of the Contractor from the time the electrical items are energized until the Division of Traffic Operations has accepted the work.</p> <p>Complete all corrective work within 90 calendar days of receiving the original electrical inspection report. Notify the Engineer when all corrective work is complete. The Engineer will notify the Division of Traffic Operations that the corrective work has been completed and the project is ready for a follow-up inspection. Upon re-inspection, if additional corrective work is required, complete within the same 90 calendar day allowance. The Department will not include time between completion of the corrective work and the follow up electrical inspection(s). The 90 calendar day allowance is cumulative regardless of the number of follow-up electrical inspections required.</p> <p>The Department will assume responsibility for the electrical service on a project once the Division of Traffic Operations gives final acceptance of the electrical items on the project. The Department will also assume routine maintenance of those items. Any damage done to accepted electrical work items by other Contractors shall be the responsibility of the Prime Contractor. The Department will not be responsible for repairing damage done by other contractors during the construction of the remaining project.</p> <p>Failure to complete the electrical corrective work within the 90 calendar day allowance will result in penalties assessed to the project. Penalties will be assessed at ½ the rate of liquidated damages established for the contract.</p> <p>Delete the fifth paragraph from the section.</p>
<p>SUBSECTION: 105.13 CLAIM RESOLUTION PROCESS. REVISION:</p>	<p>Delete the last paragraph from the section.</p>
<p>SUBSECTION: 106.10 FIELD WELDER CERTIFICATION REQUIREMENTS. REVISION:</p>	<p>Insert the following sentence before the first sentence of the first paragraph:</p> <p>All field welding must be performed by a certified welder unless otherwise noted.</p>
<p>SUBSECTION: 112.03.11 Temporary Pavement Markings. PART: B) Placement and Removal of Temporary Striping. REVISION:</p>	<p>Replace the 2nd sentence of the first paragraph with the following:</p> <p>On interstates and parkways, and other roadways approved by the State Highway Engineer, install pavement striping that is 6 inches in width.</p>
<p>SUBSECTION: 112.03.12 Project Traffic Coordinator (PTC). REVISION:</p>	<p>Add the following at the end of the subsection:</p> <p>After October 1, 2008 the Department will require the PTC to have successfully completed the applicable qualification courses. Personnel that have not successfully completed the applicable courses by that date will not be considered qualified. Prior to October 1, 2008, conform to Subsection 108.06 A) and ensure the designated PTC has sufficient skill and experience to properly perform the task.</p>

**Supplemental Specifications to The Standard Specifications
for Road and Bridge Construction, 2008 Edition**
(Effective with the July 24, 2009 Letting)

SUBSECTION: REVISION:	206.03.02 Embankment Replace the last paragraph with the following: When rock roadbed is specified, construct the upper 2 feet of the embankment according to Subsection 204.03.09 A).
SUBSECTION: REVISION:	213.03.03 Inspection and Maintenance. Insert the following paragraph after the second paragraph: When the Contractor is required to obtain the KPDES permit, it is their responsibility to ensure compliance with the inspection and maintenance requirements of the permit. The Engineer will perform verification inspections a minimum of once per month and within 7 days of a ½ inch or greater rainfall event. The Engineer will document these inspections using Form TC 63-61 A. The Engineer will provide copies of the inspection only when improvements to the BMP's are required. Verification inspections performed by the Engineer do not relieve the Contractor of any responsibility for compliance with the KPDES permit. Initiate corrective action within 24 hours of any noted deficiency and complete the work within 5 days.
SUBSECTION: PART: REVISION:	213.03.05 Temporary Control Measures. F) Temporary Mulch. Replace the last sentence with the following: Place temporary mulch to an approximate 2-inch loose depth (2 tons per acre) and anchor it into the soil by mechanically crimping it into the soil surface or applying tackifier to provide a protective cover. Regardless of the anchoring method used, ensure the protective cover holds until disturbance is required or permanent controls are in installed.
SUBSECTION: REVISION:	303.05 PAYMENT. Replace the second paragraph of the section with the following: The Department will make payment for Drainage Blanket-Type II (ATDB) according to the Lot Pay Adjustment Schedule for Specialty Mixtures in Section 402.
SUBSECTION: PART: REVISION:	401.02.04 Special Requirements for Dryer Drum Plants. F) Production Quality Control. Replace the first sentence with the following: Stop mixing operations immediately if, at any time, a failure of the automatic electronic weighing system of the aggregate feed, asphalt binder feed, or water injection system control occurs.
SUBSECTION: REVISION:	401.02.04 Special Requirements for Dryer Drum Plants. Add the following: Part G) Water Injection System. Provided each system has prior approval as specified in Subsection 402.01.01, the Department will allow the use of water injection systems for purposes of foaming the asphalt binder and lowering the mixture temperature for production of Warm Mix Asphalt (WMA). Ensure the equipment for water injection meets the following requirements: 1) Injection equipment computer controls are automatically coupled to the plants controls (manual operation is not permitted); 2) Injection equipment has variable controls that introduce water ratios based on production rates of mixtures; 3) Injects water into the flow of asphalt binder prior to contacting the aggregate; 4) Provides alarms on the water injection system that operate when the flow of water is interrupted or deviates from the prescribed water rate.
SUBSECTION: REVISION:	401.03.01 Preparation of Mixtures. Replace the last sentence of the second paragraph with the following: Do not use asphalt binder while it is foaming in a storage tank.

**Supplemental Specifications to The Standard Specifications
for Road and Bridge Construction, 2008 Edition**
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<p>SUBSECTION: 401.03.01 Preparation of Mixtures. REVISION: Replace the third paragraph and Mixing and Laying Temperature table with the following:</p> <p>Maintain the temperature of the component materials and asphalt mixture within the ranges listed in the following table:</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">MIXING AND LAYING TEMPERATURES (°F)</th> </tr> <tr> <th colspan="2" style="text-align: left;">Material</th> <th style="text-align: center;">Minimum</th> <th style="text-align: center;">Maximum</th> </tr> </thead> <tbody> <tr> <td colspan="2">Aggregates</td> <td style="text-align: center;">240</td> <td style="text-align: center;">330</td> </tr> <tr> <td colspan="2">Aggregates used with Recycled Asphalt Pavement (RAP)</td> <td style="text-align: center;">240</td> <td style="text-align: center;">—</td> </tr> <tr> <td rowspan="2">Asphalt Binders</td> <td>PG 64-22</td> <td style="text-align: center;">230</td> <td style="text-align: center;">330</td> </tr> <tr> <td>PG 76-22</td> <td style="text-align: center;">285</td> <td style="text-align: center;">350</td> </tr> <tr> <td rowspan="4">Asphalt Mixtures at Plant (Measured in Truck)</td> <td>PG 64-22 HMA</td> <td style="text-align: center;">250</td> <td style="text-align: center;">330</td> </tr> <tr> <td>PG 76-22 HMA</td> <td style="text-align: center;">310</td> <td style="text-align: center;">350</td> </tr> <tr> <td>PG 64-22 WMA</td> <td style="text-align: center;">230</td> <td style="text-align: center;">275</td> </tr> <tr> <td>PG 76-22 WMA</td> <td style="text-align: center;">250</td> <td style="text-align: center;">300</td> </tr> <tr> <td rowspan="4">Asphalt Mixtures at Project (Measured in Truck When Discharging)</td> <td>PG 64-22 HMA</td> <td style="text-align: center;">230</td> <td style="text-align: center;">330</td> </tr> <tr> <td>PG 76-22 HMA</td> <td style="text-align: center;">300</td> <td style="text-align: center;">350</td> </tr> <tr> <td>PG 64-22 WMA</td> <td style="text-align: center;">210</td> <td style="text-align: center;">275</td> </tr> <tr> <td>PG 76-22 WMA</td> <td style="text-align: center;">240</td> <td style="text-align: center;">300</td> </tr> </tbody> </table>	MIXING AND LAYING TEMPERATURES (°F)				Material		Minimum	Maximum	Aggregates		240	330	Aggregates used with Recycled Asphalt Pavement (RAP)		240	—	Asphalt Binders	PG 64-22	230	330	PG 76-22	285	350	Asphalt Mixtures at Plant (Measured in Truck)	PG 64-22 HMA	250	330	PG 76-22 HMA	310	350	PG 64-22 WMA	230	275	PG 76-22 WMA	250	300	Asphalt Mixtures at Project (Measured in Truck When Discharging)	PG 64-22 HMA	230	330	PG 76-22 HMA	300	350	PG 64-22 WMA	210	275	PG 76-22 WMA	240	300
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<p>SUBSECTION: 402.01 Description. REVISION: Replace the paragraph with the following:</p>	<p>Provide the process control and acceptance testing of all classes and types of asphalt mixtures which may be furnished either as hot mix asphalt (HMA) or warm mix asphalt (WMA) produced with water injection systems.</p>																																																	
<p>SUBSECTION: 402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. REVISION: Add the following subsection:</p>	<p>402.01.01 Warm Mix Asphalt (WMA) Evaluation and Approval. The Department will evaluate trial production of WMA by use of a water injection system provided the system is installed according to the manufacturer's requirements and satisfies the requirements of Section 401. Evaluation will include production and placement of WMA to demonstrate adequate mixture quality including volumetric properties and density by Option A as specified in Subsection 402.03.02 D). Do not place WMA for evaluation on Department projects. Provided production and placement operations satisfy the applicable quality levels, the Department will approve WMA production on Department projects using the water injection system as installed on the specific asphalt mixing plant evaluated.</p>																																																	
<p>SUBSECTION: 402.05.02 Asphalt Mixtures and Mixtures With RAP. REVISION: Replace Subsection Title as below:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP.</p>																																																	
<p>SUBSECTION: 402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. REVISION: Replace the paragraph with the following:</p>	<p>The Department will pay for the mixture at the Contract unit bid price and apply a Lot Pay Adjustment for each lot placed based on the degree of compliance with the specified tolerances. Using the appropriate Lot Pay Adjustment Schedule, the Department will assign a pay value for the applicable properties within each subplot and average the subplot pay values to determine the pay value for a given property for each lot. The Department will apply the Lot Pay Adjustment for each lot to a defined unit price of \$50.00 per ton. The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.</p>																																																	

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<p>SUBSECTION: PART: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. C) Conventional and RAP Mixtures Placed on Shoulders. Replace title with the following: HMA, WMA, and RAP Mixtures Placed on Shoulders.</p>												
<p>SUBSECTION: PART: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. D) Conventional and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge. Replace the title with the following: HMA, WMA, and RAP Mixtures Placed Monolithically as Asphalt Pavement Wedge.</p>												
<p>SUBSECTION: PART: TABLES: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Base and Binder Mixtures VMA Replace the VMA table with the following:</p> <table border="1"> <thead> <tr> <th colspan="2">VMA</th> </tr> <tr> <th>Pay Value</th> <th>Deviation From Minimum</th> </tr> </thead> <tbody> <tr> <td>1.00</td> <td>≥ min. VMA</td> </tr> <tr> <td>0.95</td> <td>0.1-0.5 below min.</td> </tr> <tr> <td>0.90</td> <td>0.6-1.0 below min.</td> </tr> <tr> <td>⁽¹⁾</td> <td>> 1.0 below min.</td> </tr> </tbody> </table>	VMA		Pay Value	Deviation From Minimum	1.00	≥ min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	⁽¹⁾	> 1.0 below min.
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<p>SUBSECTION: PART: TABLES: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option A, Surface Mixtures VMA Replace the VMA table with the following:</p> <table border="1"> <thead> <tr> <th colspan="2">VMA</th> </tr> <tr> <th>Pay Value</th> <th>Deviation From Minimum</th> </tr> </thead> <tbody> <tr> <td>1.00</td> <td>≥ min. VMA</td> </tr> <tr> <td>0.95</td> <td>0.1-0.5 below min.</td> </tr> <tr> <td>0.90</td> <td>0.6-1.0 below min.</td> </tr> <tr> <td>⁽¹⁾</td> <td>> 1.0 below min.</td> </tr> </tbody> </table>	VMA		Pay Value	Deviation From Minimum	1.00	≥ min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	⁽¹⁾	> 1.0 below min.
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<p>SUBSECTION: PART: TABLE: REVISION:</p>	<p>402.05.02 Asphalt Mixtures, HMA and WMA, Including Mixtures With RAP. Lot Pay Adjustment Schedule, Compaction Option B Mixtures VMA Replace the VMA table with the following:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">VMA</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Deviation From Minimum</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">≥min. VMA</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">0.1-0.5 below min.</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">0.6-1.0 below min.</td> </tr> <tr> <td style="text-align: center;">⁽²⁾</td> <td style="text-align: center;">> 1.0 below min.</td> </tr> </tbody> </table>	VMA		Pay Value	Deviation From Minimum	1.00	≥min. VMA	0.95	0.1-0.5 below min.	0.90	0.6-1.0 below min.	⁽²⁾	> 1.0 below min.											
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<p>SUBSECTION: PART: NUMBER: REVISION:</p>	<p>403.03.03 Preparation of Mixture. C) Mix Design Criteria. 1) Preliminary Mix Design. Replace the last two sentences of the paragraph and table with the following:</p> <p>Complete the volumetric mix design at the appropriate number of gyrations as given in the table below for the number of 20-year ESAL's. The Department will define the relationship between ESAL classes, as given in the bid items for Superpave mixtures, and 20-year ESAL ranges as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2" style="text-align: center;">Class</th> <th rowspan="2" style="text-align: center;">ESAL's (millions)</th> <th colspan="3" style="text-align: center;">Number of Gyration</th> </tr> <tr> <th style="text-align: center;">$N_{initial}$</th> <th style="text-align: center;">N_{design}</th> <th style="text-align: center;">N_{max}</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">< 3.0</td> <td style="text-align: center;">6</td> <td style="text-align: center;">50</td> <td style="text-align: center;">75</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">3.0 to < 30.0</td> <td style="text-align: center;">7</td> <td style="text-align: center;">75</td> <td style="text-align: center;">115</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">≥ 30.0</td> <td style="text-align: center;">8</td> <td style="text-align: center;">100</td> <td style="text-align: center;">160</td> </tr> </tbody> </table>	Class	ESAL's (millions)	Number of Gyration			$N_{initial}$	N_{design}	N_{max}	2	< 3.0	6	50	75	3	3.0 to < 30.0	7	75	115	4	≥ 30.0	8	100	160
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<p>SUBSECTION: PART: REVISION:</p>	<p>403.03.09 Leveling and Wedging, and Scratch Course. A) Leveling and Wedging. Replace the first sentence of the first paragraph with the following:</p> <p>Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.</p>																							
<p>SUBSECTION: PART: REVISION:</p>	<p>403.03.09 Leveling and Wedging, and Scratch Course. B) Scratch Course. Replace the second sentence of the first paragraph with the following:</p> <p>Conform to the gradation requirements (control points) of AASHTO M 323 for base, binder, or surface as the Engineer directs.</p>																							
<p>SUBSECTION: REVISION:</p>	<p>407.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:</p> <p>Construct a pavement wedge composed of a hot-mixed or warm-mixed asphalt mixture.</p>																							
<p>SUBSECTION: REVISION:</p>	<p>409.01 DESCRIPTION. Replace the first sentence of the paragraph with the following:</p> <p>Use reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) provided mixture requirements are satisfied.</p>																							
<p>SUBSECTION: REVISION:</p>	<p>410.01 DESCRIPTION. Delete the second sentence of the paragraph.</p>																							

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<p>SUBSECTION: REVISION:</p>	<p>410.03.01 Corrective Work. Replace the last sentence of the paragraph with the following: Provide a final surface comparable to the adjacent pavement that does not require corrective work in respect to texture, appearance, and skid resistance.</p>														
<p>SUBSECTION: PART: NUMBER: REVISION:</p>	<p>410.03.02 Ride Quality. B) Requirements. 1) Category A. Replace the last sentence of the first paragraph with the following: At the Department's discretion, a pay deduction of \$1200 per 0.1-lane-mile section may be applied in lieu of corrective work.</p>														
<p>SUBSECTION: PART: NUMBER: REVISION:</p>	<p>410.03.02 Ride Quality. B) Requirements. 2) Category B. Replace the second and third sentence of the first paragraph with the following: When the IRI is greater than 90 for a 0.1-mile section, perform corrective work, or remove and replace the pavement to achieve the specified IRI. At the Department's discretion, a pay deduction of \$750 per 0.1-lane-mile section may be applied in lieu of corrective work.</p>														
<p>SUBSECTION: REVISION:</p>	<p>410.05 PAYMENT. Add the following sentence to the end of the first paragraph: The sum of the pay value adjustments for ride quality shall not exceed \$0 for the project as a whole.</p>														
<p>SUBSECTION: REVISION:</p>	<p>413.05.02 CL3 SMA BASE 1.00D PG76-22. Insert the following sentence between the first and second sentence of the first paragraph: The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.</p>														
<p>SUBSECTION: TABLE: REVISION:</p>	<p>413.05.02 CL3 SMA BASE 1.00D PG 76-22. JOINT DENSITY TABLE Replace the joint density table with the following:</p> <table border="1"> <thead> <tr> <th colspan="2">LANE DENSITY</th> </tr> <tr> <th>Pay Value</th> <th>Test Result (%)</th> </tr> </thead> <tbody> <tr> <td>1.05</td> <td>95.0-96.5</td> </tr> <tr> <td>1.00</td> <td>93.0-94.9</td> </tr> <tr> <td>0.95</td> <td>92.0-92.9 or 96.6-97.0</td> </tr> <tr> <td>0.90</td> <td>91.0-91.9 or 97.1-97.5</td> </tr> <tr> <td>(1)</td> <td>< 91.0 or > 97.5</td> </tr> </tbody> </table>	LANE DENSITY		Pay Value	Test Result (%)	1.05	95.0-96.5	1.00	93.0-94.9	0.95	92.0-92.9 or 96.6-97.0	0.90	91.0-91.9 or 97.1-97.5	(1)	< 91.0 or > 97.5
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<p>SUBSECTION: REVISION:</p>	<p>413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22. Insert the following sentence between the first and second sentence of the first paragraph: The Department will calculate the Lot Pay Adjustment using all possible incentives and disincentives but will not allow the overall pay value for a lot to exceed 1.00.</p>														

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<p>SUBSECTION: TABLE: REVISION:</p>	<p>413.05.03 CL3 SMA SURF 0.50A PG76-22 and CL3 SMA SURF 0.38A PG76-22. JOINT DENSITY TABLE Replace the joint density table with the following:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="3" style="text-align: center;">DENSITY</th> </tr> <tr> <th style="text-align: center;">Pay Value</th> <th style="text-align: center;">Lane Density Test Result (%)</th> <th style="text-align: center;">Joint Density Test Result (%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.05</td> <td style="text-align: center;">95.0-96.5</td> <td style="text-align: center;">92.0-96.0</td> </tr> <tr> <td style="text-align: center;">1.00</td> <td style="text-align: center;">93.0-94.9</td> <td style="text-align: center;">90.0-91.9</td> </tr> <tr> <td style="text-align: center;">0.95</td> <td style="text-align: center;">92.0-92.9 or 96.6-97.0</td> <td style="text-align: center;">89.0-89.9 or 96.1-96.5</td> </tr> <tr> <td style="text-align: center;">0.90</td> <td style="text-align: center;">91.0-91.9 or 97.1-97.5</td> <td style="text-align: center;">88.0-88.9 or 96.6-97.0</td> </tr> <tr> <td style="text-align: center;">0.75</td> <td style="text-align: center;">----</td> <td style="text-align: center;">< 88.0 or > 97.0</td> </tr> <tr> <td style="text-align: center;"><i>(1)</i></td> <td style="text-align: center;">< 91.0 or > 97.5</td> <td style="text-align: center;">----</td> </tr> </tbody> </table>	DENSITY			Pay Value	Lane Density Test Result (%)	Joint Density Test Result (%)	1.05	95.0-96.5	92.0-96.0	1.00	93.0-94.9	90.0-91.9	0.95	92.0-92.9 or 96.6-97.0	89.0-89.9 or 96.1-96.5	0.90	91.0-91.9 or 97.1-97.5	88.0-88.9 or 96.6-97.0	0.75	----	< 88.0 or > 97.0	<i>(1)</i>	< 91.0 or > 97.5	----
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<p>SUBSECTION: REVISION:</p>	<p>501.05.02 Ride Quality. Add the following sentence to the end of the first paragraph: The sum of the pay value adjustments for the ride quality shall not exceed \$0 for the project as a whole.</p>																								
<p>SUBSECTION: REVISION:</p>	<p>505.03.04 Detectable Warnings. Replace the first sentence with the following: Install detectable warning pavers at all sidewalk ramps and on all commercial entrances according to the Standard Drawings.</p>																								
<p>SUBSECTION: REVISION:</p>	<p>505.04.04 Detectable Warnings. Replace the paragraph with the following: The Department will measure the quantity in square feet. All retrofit applications for maintenance projects will require the removal of existing sidewalks to meet the requirements of the standard drawings applicable to the project. The cost associated with the removal of the existing sidewalk will be incidental to the detectable warnings bid item or incidental to the bid item for the construction of the concrete sidewalk unless otherwise noted.</p>																								
<p>SUBSECTION: REVISION:</p>	<p>505.05 PAYMENT. Add the following to the bid item table:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;"><u>Code</u></th> <th style="text-align: left;"><u>Pay Item</u></th> <th style="text-align: left;"><u>Pay Unit</u></th> </tr> </thead> <tbody> <tr> <td>23158ES505</td> <td>Detectable Warnings</td> <td>Square Foot</td> </tr> </tbody> </table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23158ES505	Detectable Warnings	Square Foot																		
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<p>SUBSECTION: REVISION:</p>	<p>509.01 DESCRIPTION. Replace the second paragraph with the following: The Department may allow the use of similar units that conform to the National Cooperative Highway Research Program (NCHRP) 350 Test Level 3 (TL-3) requirements and the typical features depicted by the Standard Drawings. Obtain the Engineers approval prior to use. Ensure the barrier wall shape, length, material, drain slot dimensions and locations typical features are met and the reported maximum deflection is 3 feet or less from the NCHRP 350 TL-3 for Test 3 – 11 (pickup truck impacting at 60 mph at a 25-degree angle.)</p>																								
<p>SUBSECTION: REVISION:</p>	<p>601.03.02 Concrete Producer Responsibilities. Add the following to the first paragraph: If a concrete plant becomes unqualified during a project and there are no other qualified plants in the region, the Department will provide qualified personnel to witness and ensure the producer follows the required specifications. The Department will assess the Contractor a \$100 per hour charge for this service.</p>																								

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<p>SUBSECTION: REVISION:</p>	<p>606.02.11 Coarse Aggregate. Replace with the following: Conform to Section 805, size No. 8 or 9-M.</p>
<p>SUBSECTION: REVISION:</p>	<p>609.04.06 Joint Sealing. Replace Subsection 601.04 with the following: Subsection 606.04.08.</p>
<p>SUBSECTION: REVISION:</p>	<p>609.05 Payment. Replace the Pay Unit for Joint Sealing with the following: See Subsection 606.05.</p>
<p>SUBSECTION: REVISION:</p>	<p>701.03.06 Initial Backfill. Replace the first sentence of the last paragraph with the following: When the Contract specifies, perform quality control testing to verify compaction according to KM 64-512.</p>
<p>SUBSECTION: REVISION:</p>	<p>701.03.08 Testing of Pipe. Replace and rename the subsection with the following:</p> <p>701.03.08 Inspection of Pipe. The engineer will visually inspect all pipe. The Department will require camera/video inspection on a minimum of 50 percent of the linear feet of all installed pipe structures. Conduct camera/video inspection according to KM 64-114. The pipe to be installed under pavement will be selected first. If the total linear feet of pipe under pavement is less than 50 percent of the linear feet of all pipe installed, the Engineer will randomly select installations from the remaining pipe structures on the project to provide for the minimum inspection requirement. The pipe will be selected in complete runs (junction-junction or headwall-headwall) until the total linear feet of pipe to be inspected is at least 50 percent of the total linear feet of all installed pipe on the project.</p> <p>Unless the Engineer directs otherwise, schedule the inspections no sooner than 30 days after completing the installation and completion of earthwork to within 1 foot of the finished subgrade. When final surfacing conflicts with the 30-day minimum, conduct the inspections prior to placement of the final surface. The contractor must ensure that all pipe are free and clear of any debris so that a complete inspection is possible.</p> <p>Notify the Engineer immediately if distresses or locations of improper installation are discovered. When camera testing shows distresses or improper installation in the installed pipe, the Engineer may require additional sections to be tested. Provide the video and report to the Engineer when testing is complete in accordance with KM 64-114.</p> <p>Pipes that exhibit distress or signs of improper installation may necessitate repair or removal as the Engineer directs. These signs include, but are not limited to: deflection, cracking, joint separation, sagging or other interior damage. If corrugated metal or thermoplastic pipes exceed the deflection and installation thresholds indicated in the table below, provide the Department with an evaluation of each location conducted by a Professional Engineer addressing the severity of the deflection, structural integrity, environmental conditions, design service life, and an evaluation of the factor of safety using Section 12, "Buried Structures and Tunnel Liners," of the AASHTO LRFD Bridge Design Specifications. Based on the evaluation, the Department may allow the pipe to remain in place at a reduced unit price as shown in the table below. Provide 5 business days for the Department to review the evaluation. When the pipe shows deflection of 10 percent or greater, remove and replace the pipe. When the camera/video or laser inspection results are called into question, the Department may require direct measurements or mandrel testing.</p> <p>The Cabinet may elect to conduct Quality Assurance verifications of any pipe inspections.</p>

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<p>SUBSECTION: REVISION:</p>	<p>701.04.07 Testing. Replace and rename the subsection with the following:</p> <p align="center">701.04.07 Pipeline Video Inspection. The Department will measure the quantity in linear feet along the pipe invert of the structure inspected. When inspection above the specified 50 percent is performed due to a disagreement or suspicion of additional distresses and the Department is found in error, the Department will measure the quantity as Extra Work according to Subsection 104.03. However, if additional distresses or non-conformance is found, the Department will not measure the additional inspection for payment.</p>												
<p>SUBSECTION: REVISION:</p>	<p>701.05 PAYMENT. Add the following pay item to the list of pay items:</p> <table border="0"> <tr> <td><u>Code</u></td> <td><u>Pay Item</u></td> <td><u>Pay Unit</u></td> </tr> <tr> <td>23131ER701</td> <td>Pipeline Video Inspection</td> <td>Linear Foot</td> </tr> </table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23131ER701	Pipeline Video Inspection	Linear Foot						
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23131ER701	Pipeline Video Inspection	Linear Foot											
<p>SUBSECTION: TABLE: REVISION:</p>	<p>701.05 PAYMENT PIPE DEFLECTION DETERMINED BY CAMERA TESTING Replace this table with the following table and note:</p> <table border="1"> <thead> <tr> <th colspan="2">PIPE DEFLECTION</th> </tr> <tr> <th>Amount of Deflection (%)</th> <th>Payment</th> </tr> </thead> <tbody> <tr> <td>0.0 to 5.0</td> <td>100% of the Unit Bid Price</td> </tr> <tr> <td>5.1 to 9.9</td> <td>50% of the Unit Bid Price ⁽¹⁾</td> </tr> <tr> <td>10 or greater</td> <td>Remove and Replace</td> </tr> </tbody> </table> <p>⁽¹⁾ Provide Structural Analysis as indicated above. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price.</p>	PIPE DEFLECTION		Amount of Deflection (%)	Payment	0.0 to 5.0	100% of the Unit Bid Price	5.1 to 9.9	50% of the Unit Bid Price ⁽¹⁾	10 or greater	Remove and Replace		
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<p>SUBSECTION: TABLE: REVISION:</p>	<p>701.05 PAYMENT PIPE DEFLECTION DETERMINED BY MANDREL TESTING Delete this table.</p>												
<p>SUBSECTION: REVISION:</p>	<p>713.02.01 Paint. Replace with the following:</p> <p>Conform to Section 842 and Section 846.</p>												
<p>SUBSECTION: REVISION:</p>	<p>713.03 CONSTRUCTION. Replace the first sentence of the second paragraph with the following:</p> <p>On interstates and parkways, and other routes approved by the State Highway Engineer, install pavement striping that is 6 inches in width.</p>												
<p>SUBSECTION: REVISION:</p>	<p>713.03.03 Paint Application. Replace the second paragraph with the following table:</p> <table border="1"> <thead> <tr> <th>Material</th> <th>Paint Application Rate</th> <th>Glass Beads Application Rate</th> </tr> </thead> <tbody> <tr> <td>4 inch waterborne paint</td> <td>Min. of 16.5 gallons/mile</td> <td>Min. of 6 pounds/gallon</td> </tr> <tr> <td>6 inch waterborne paint</td> <td>Min. of 24.8 gallons/mile</td> <td>Min. of 6 pounds/gallon</td> </tr> <tr> <td>6 inch durable waterborne paint</td> <td>Min. of 36 gallons/mile</td> <td>Min. of 6 pounds/gallon</td> </tr> </tbody> </table>	Material	Paint Application Rate	Glass Beads Application Rate	4 inch waterborne paint	Min. of 16.5 gallons/mile	Min. of 6 pounds/gallon	6 inch waterborne paint	Min. of 24.8 gallons/mile	Min. of 6 pounds/gallon	6 inch durable waterborne paint	Min. of 36 gallons/mile	Min. of 6 pounds/gallon
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SUBSECTION: REVISION:	713.03.04 Marking Removal. Replace the last sentence of the paragraph with the following: Vacuum all marking material and removal debris concurrently with the marking removal operation.									
SUBSECTION: REVISION:	713.05 PAYMENT. Insert the following codes and pay items below the Pavement Striping – Permanent Paint: <table border="0"> <thead> <tr> <th><u>Code</u></th> <th><u>Pay Item</u></th> <th><u>Pay Unit</u></th> </tr> </thead> <tbody> <tr> <td>23159EN</td> <td>Durable Waterborne Marking – 6 IN W</td> <td>Linear Foot</td> </tr> <tr> <td>23160EN</td> <td>Durable Waterborne Marking – 6 IN Y</td> <td>Linear Foot</td> </tr> </tbody> </table>	<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>	23159EN	Durable Waterborne Marking – 6 IN W	Linear Foot	23160EN	Durable Waterborne Marking – 6 IN Y	Linear Foot
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SUBSECTION: REVISION:	714.03 CONSTRUCTION. Insert the following paragraph at the end of the third paragraph: Use Type I Tape for markings on bridge decks, JPC pavement and JPC intersections. Thermoplastic should only be used for markings on asphalt pavement									
SUBSECTION: REVISION:	714.03.07 Marking Removal. Replace the third sentence of the paragraph with the following: Vacuum all marking material and removal debris concurrently with the marking removal operation.									
SUBSECTION: REVISION:	716.01 DESCRIPTION. Insert the following after the first sentence: Energize lighting as soon as it is fully functional and ready for inspection. Ensure that lighting remains operational until the Division of Traffic Operations has provided written acceptance of the electrical work.									
SUBSECTION: REVISION:	716.02.01 Roadway Lighting Materials. Replace the third sentence of the paragraph with the following: Submit for material approval an electronic file of descriptive literature, drawings, and any requested design data.									
SECTION: REVISION:	717 – THERMOPLASTIC INTERSECTION MARKINGS. Replace the section name with the following: INTERSECTION MARKINGS.									
SUBSECTION: REVISION:	717.01 DESCRIPTION: Replace the paragraph with the following: Furnish and install thermoplastic or Type I tape intersection markings (Stop Bars, Crosswalks, Turn Arrows, etc.) Thermoplastic markings may be installed by either a machine applied, screed extrusion process or by applying preformed thermoplastic intersection marking material.									
SUBSECTION: REVISION:	717.02 MATERIALS AND EQUIPMENT. Insert the following subsection: 717.02.06 Type I Tape. Conform to Section 836.									
SUBSECTION: REVISION:	717.03.03 Application. Insert the following part to the subsection: B) Type I Tape Intersection Markings. Apply according to the manufacturer’s recommendations. Cut all tape at pavement joints when applied to concrete surfaces.									

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<p>SUBSECTION: PART: REVISION:</p>	<p>717.03.05 Proving Period. A) Requirements. Insert the following to this section:</p> <p>2) Type I Tape. During the proving period, ensure that the pavement marking material shows no signs of failure due to blistering, excessive cracking, bleeding, staining, discoloration, oil content of the pavement materials, drippings, chipping, spalling, poor adhesion to the pavement, loss of retroreflectivity, vehicular damage, and normal wear. Type I Tape is manufactured off site and warranted by the manufacturer to meet certain retroreflective requirements. As long as the material is adequately bonded to the surface and shows no signs of failure due to the other items listed in Subsection 714.03.06 A) 1), retroreflectivity readings will not be required. In the absence of readings, the Department will accept tape based on a nighttime visual observation.</p>																																							
<p>SUBSECTION: REVISION:</p>	<p>717.03.06 Marking Removal. Replace the third sentence of the paragraph with the following:</p> <p>Vacuum all marking material and removal debris concurrently with the marking removal operation.</p>																																							
<p>SUBSECTION: REVISION:</p>	<p>717.05 PAYMENT. Insert the following bid item codes:</p> <table border="0"> <thead> <tr> <th><u>Code</u></th> <th><u>Pay Unit</u></th> <th><u>Pay Item</u></th> </tr> </thead> <tbody> <tr> <td>06563</td> <td>Pave Marking – R/R X Bucks 16 IN</td> <td>Linear Foot</td> </tr> <tr> <td>20782NS714</td> <td>Pave Marking Thermo – Bike</td> <td>Each</td> </tr> <tr> <td>23251ES717, 23264ES717</td> <td>Pave Mark TY I Tape X-Walk, Size</td> <td>Linear Foot</td> </tr> <tr> <td>23252ES717, 23265ES717</td> <td>Pave Mark TY I Tape Stop Bar, Size</td> <td>Linear Foot</td> </tr> <tr> <td>23253ES717</td> <td>Pave Mark TY I Tape Cross Hatch</td> <td>Square Foot</td> </tr> <tr> <td>23254ES717</td> <td>Pave Mark TY I Tape Dotted Lane Extension</td> <td>Linear Foot</td> </tr> <tr> <td>23255ES717</td> <td>Pave Mark TY I Tape Arrow, Type</td> <td>Each</td> </tr> <tr> <td>23268ES717-23270ES717</td> <td></td> <td></td> </tr> <tr> <td>23256ES717</td> <td>Pave Mark TY I Tape- ONLY</td> <td>Each</td> </tr> <tr> <td>23257ES717</td> <td>Pave Mark TY I Tape- SCHOOL</td> <td>Each</td> </tr> <tr> <td>23266ES717</td> <td>Pave Mark TY 1 Tape R/R X Bucks-16 IN</td> <td>Linear Foot</td> </tr> <tr> <td>23267ES717</td> <td>Pave Mark TY 1 Tape-Bike</td> <td>Each</td> </tr> </tbody> </table>	<u>Code</u>	<u>Pay Unit</u>	<u>Pay Item</u>	06563	Pave Marking – R/R X Bucks 16 IN	Linear Foot	20782NS714	Pave Marking Thermo – Bike	Each	23251ES717, 23264ES717	Pave Mark TY I Tape X-Walk, Size	Linear Foot	23252ES717, 23265ES717	Pave Mark TY I Tape Stop Bar, Size	Linear Foot	23253ES717	Pave Mark TY I Tape Cross Hatch	Square Foot	23254ES717	Pave Mark TY I Tape Dotted Lane Extension	Linear Foot	23255ES717	Pave Mark TY I Tape Arrow, Type	Each	23268ES717-23270ES717			23256ES717	Pave Mark TY I Tape- ONLY	Each	23257ES717	Pave Mark TY I Tape- SCHOOL	Each	23266ES717	Pave Mark TY 1 Tape R/R X Bucks-16 IN	Linear Foot	23267ES717	Pave Mark TY 1 Tape-Bike	Each
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<p>SUBSECTION: REVISION:</p>	<p>805.01 GENERAL. Replace the second paragraph with the following:</p> <p>The Department’s List of Approved Materials includes the Aggregate Source List, the list of Class A and Class B Polish-Resistant Aggregate Sources, and the Concrete Restriction List.</p>																																							
<p>SUBSECTION: REVISION:</p>	<p>805.04 CONCRETE. Replace the “AASHTO T 160” reference in first sentence of the third paragraph with “KM 64-629”</p>																																							
<p>SUBSECTION: TABLE: PART: REVISION:</p>	<p>805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE. AGGREGATE SIZE USE Cement Concrete Structures and Incidental Construction Replace “9-M for Waterproofing Overlays” with “8 or 9-M for Waterproofing Overlays”</p>																																							

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SUBSECTION: 805.15 GRADATION ACCEPTANCE OF NON-SPECIFICATION COARSE AGGREGATE.
REVISION: Replace the "SIZES OF COARSE AGGREGATES" table in with the following:

Aggregate Size	Sieve Nominal ⁽¹⁾ Maximum Aggregate Size	AMOUNTS FINER THAN EACH LABORATORY SIEVE (SQUARE OPENINGS) PERCENTAGE BY WEIGHT															
		4 inch	3 1/2 inch	3 inch	2 1/2 inch	2 inch	1 1/2 inch	1 inch	3/4 inch	1/2 inch	3/8 inch	No. 4	No. 8	No. 16	No. 30	No. 100	No. 200
1	3 1/2 inch	100	90-100		25-60		0-15		0-5								
2	2 1/2 inch			100	90-100	35-70	0-15		0-5								
23	2 inch			100		40-90	0-15		0-5								
3	2 inch				100	90-100	35-70	0-15		0-5							
357	2 inch				100	95-100		10-30			0-5						
4	1 1/2 inch				100	90-100	20-55	0-15		0-5							
467	1 1/2 inch				100	95-100	35-70	10-30		0-5							
5	1 inch				100	90-100	20-55	0-10		0-5							
57	1 inch				100	95-100		25-60			0-10	0-5					
610	1 inch				100	85-100		40-75			15-40						
67	3/4 inch						100	90-100		20-55	0-10	0-5					
68	3/4 inch						100	90-100		30-65	5-25	0-10	0-5				
710	3/4 inch						100	80-100		30-75	0-30						
78	1/2 inch						100	90-100		40-75	5-25	0-10	0-5				
8	3/8 inch						100	85-100		10-30	10-30	0-10	0-5				
9-M	3/8 inch						100	75-100		0-25	0-25	0-5					
10 ⁽²⁾	No. 4									100	85-100			10-30			
11 ⁽²⁾	No. 4									100	40-90	10-40			0-5		
DENSE GRADED AGGREGATE ⁽³⁾	3/4 inch						100	70-100		50-80	30-65			10-40		4-13	
CRUSHED STONE BASE ⁽⁴⁾	1 1/2 inch				100			60-95		30-70	15-55			5-20		0-8	

⁽¹⁾ Gradation performed by wet sieve KM 64-620 or AASHTO T 11/T 27.
⁽²⁾ Sizes shown for convenience and are not to be considered as coarse aggregates.
⁽³⁾ Nominal Maximum Size is the largest sieve on the gradation table for an aggregate size on which any material may be retained.
 Note: The Department will allow blending of same source/same type aggregate when precise procedures are used such as cold feed, belt, or equivalent and combining of sizes or types of aggregate using the weigh hopper at concrete plants or controlled feed belts at the pugmill to obtain designated sizes.

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<p>SUBSECTION: REVISION:</p>	<p>805.16 SAMPLING AND TESTING. Replace the "AASHTO T 160" method with the "KM 64-629" method for the Concrete Beam Expansion Test. Replace the "ASTM D 3042" method with the "KM 64-625" method for Insoluble Residue.</p>									
<p>SUBSECTION: REVISION:</p>	<p>810.04.01 Coating Requirements. Replace the "Subsection 806.07" references with "Subsection 806.06"</p>									
<p>SUBSECTION: PART: REVISION:</p>	<p>810.06.01 Polyvinyl Chloride (PVC) Pipe. B) Culvert and Entrance Pipe. Replace the title with the following: B) Culvert Pipe, Storm Sewer, and Entrance Pipe.</p>									
<p>SUBSECTION: REVISION:</p>	<p>837.03 APPROVAL. Replace the last sentence with the following: The Department will sample and evaluate for approval each lot of thermoplastic material delivered for use per contract prior to installation of the thermoplastic material. Do not allow the installation of thermoplastic material until it has been approved by the Division of Materials. Allow the Department a minimum of 10 working days to evaluate and approve thermoplastic material.</p>									
<p>SUBSECTION: REVISION:</p>	<p>837.03.01 Composition. COMPOSITION Table: Replace <table border="1"> <tr> <td>Lead Chromate</td> <td>0.0 max.</td> <td>4.0 min.</td> </tr> <tr> <td colspan="3">with</td> </tr> <tr> <td>Heavy Metals Content</td> <td colspan="2">Comply with 40 CFR 261</td> </tr> </table> </p>	Lead Chromate	0.0 max.	4.0 min.	with			Heavy Metals Content	Comply with 40 CFR 261	
Lead Chromate	0.0 max.	4.0 min.								
with										
Heavy Metals Content	Comply with 40 CFR 261									
<p>SECTION: REVISION:</p>	<p>DIVISION 800 MATERIAL DETAILS Add the following section in Division 800 SECTION 846 – DURABLE WATERBORNE PAINT 846.01 DESCRIPTION. This section covers quick-drying durable waterborne pavement striping paint for permanent applications. The paint shall be ready-mixed, one-component, 100% acrylic waterborne striping paint suitable for application on such traffic-bearing surfaces as Portland cement concrete, bituminous cement concrete, asphalt, tar, and previously painted areas of these surfaces. 846.02 Approval. Select materials that conform to the composition requirements below. Provide independent analysis data and certification for each formulation stating the total concentration of each heavy metal present, the test method used for each determination, and compliance to 40 CFR 261 for leachable heavy metals content. Submit initial samples for approval before beginning striping operations. The initial sample may be sent from the manufacture of the paint. The Department will randomly sample and evaluate the paint each week that the striping operations are in progress. The non-volatile portion of the vehicle shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis. The acrylic resin used shall be a 100% cross-linking acrylic as evidenced by infrared peaks at wavelengths 1568, 1624, and 1672 cm-1 with intensities equal to those produced by an acrylic resin known to be 100% cross-linking.</p>									

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PAINT COMPOSITION		
Property and Test Method	Yellow	White
Daytime Color (CIELAB) Spectrophotometer using illuminant D65 at 45° illumination and 0° viewing with a 2° observer	L* 81.76 a* 19.79 b* 89.89 Maximum allowable variation 2.0ΔE*	L* 93.51 a* -1.01 b* 0.70 Maximum allowable variation 2.0ΔE*
Nighttime Color (CIELAB) Spectrophotometer using illuminant A at 45° illumination and 0° viewing with a 2° observer	L* 86.90 a* 24.80 b* 95.45 Maximum allowable variation 2.0ΔE*	L* 93.45 a* -0.79 b* 0.43 Maximum allowable variation 2.0ΔE*
Heavy Metals Content	Comply with 40 CFR 261	Comply with 40 CFR 261
Titanium Dioxide ASTM D 4764	NA	10% by weight of pigment min.
VOC ASTM D 2369 and D 4017	1.25 lb/gal max.	1.25 lb/gal max.
Contrast Ratio (at 15 mils wft)	0.97	0.99

846.02.01 Manufacturers Certification. Provide a certification of analysis for each lot of traffic paint produced stating conformance to the requirements of this section. Report the formulation identification, traffic paint trade name, color, date of manufacturer, total quantity of lot produced, actual quantity of traffic paint represented, sampling method utilized to obtain the samples, and data for each sample tested to represent each lot produced.

846.03 ACCEPTANCE PROCEDURES FOR NON-SPECIFICATION DURABLE WATERBORNE PAVEMENT STRIPING PAINT. When non-specification paint is inadvertently incorporated into the work the Department will accept the material with a reduction in pay. The percentage deduction is cumulative based on its compositional properties, but will not exceed 60 percent. The Department will calculate the payment reduction on the unit bid price for the routes where the non-specification paint was used.

DURABLE WATERBORNE PAVEMENT STRIPING PAINT REDUCTION SCHEDULE						
Non-conforming Property	Resin	Color	Contrast	TiO₂	VOC	Heavy Metals Content
Reduction Rate	60%	10%	10%	10%	60%	60%

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.

2.0 MATERIALS.

2.1 General. Use LED or flip disk/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) Allow direct wiring for operation of the sign or arrow board from an external power source when desired.
- 7) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 8) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 9) 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.
- 10) 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.
- 11) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.

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- 12) Provide a photocell control to provide automatic dimming.
- 13) Allow an on-off flashing sequence at an adjustable rate.
- 14) Provide a sight to aim the message.
- 15) Provide a LED display color of approximately 590 nm amber.
- 16) Provide the following 3-line messages preprogrammed and available for use when the sign unit begins operation:

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

*Insert numerals as directed by the Engineer.

Add other messages during the project when required by the Engineer.

2.3 Requirements for Flip-Disc Type Signs. Flip-disc type signs will have the following additional requirements:

- 1) Disc faces are fluorescent yellow on one side, and flat black on the reverse.
- 2) Discs are at least 3.5 square inches with a minimum character size of 5 discs horizontally by 7 discs vertically.
- 3) Discs are designed to operate without lubrication for at least 200 million operations.
- 4) Line change speed of 600 milliseconds or less.
- 5) When power is lost, the sign automatically becomes blank or displays a preprogrammed default message.

2.4 Power.

- 1) Design solar panels to yield 10 percent or greater additional charge than sign consumption. 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.
- 2) Diesel Power Source. Ensure the following is provided for:
 - a) At least 24 spare bulbs available on the project for quick replacement of burned out bulbs.
 - b) Black light at both top and bottom of each line to illuminate discs for visibility at night or under adverse weather conditions, for flip disk signs.
 - c) Diesel generator and electric start assembly, including batteries and a fuel capacity adequate to provide at least 72 hours continuous operation without refueling.
 - d) Fuel gage.
 - e) Provide all other specific features, such as bulb size, protection from sun glare, and shock protection for electronics and bulbs, to the

satisfaction of the Engineer.

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. Unless the Contract specifies flip-disk signs, use Class I signs on interstates and parkways.

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 or disk.

When the sign is not needed, move it outside the clear zone or where the Engineer directs.

4.0 MEASUREMENT. The final quantity of Variable Message Sign will be the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
02671	Portable Changeable Message Sign	Each

January 1, 2008

9Y

SPECIAL NOTE FOR MATERIAL TRANSFER VEHICLE

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

1.0 DESCRIPTION. Provide and use a Material Transfer Vehicle (MTV) to place asphalt mixtures.

2.0 MATERIALS AND EQUIPMENT. In addition to the equipment specified in Subsection 403.02, provide a MTV with the following minimum characteristics:

- 1) A system to independently deliver asphalt mixtures from the hauling equipment to the paving equipment;
- 2) A high capacity truck unloading system, capable of 600 tons per hour, that will receive asphalt mixtures from the hauling equipment;
- 3) A minimum combined capacity, including the MTV storage bin and paver hopper, of 25 tons of asphalt mixture;
- 4) An auger system in the storage bin to continuously blend the asphalt mixture prior to discharge to the conveyor system; and
- 5) A discharge conveyor, with the ability to swivel, to deliver the mixture to the paving spreader while allowing the MTV to operate from an adjacent lane.

3.0 CONSTRUCTION. When constructing driving lanes, use a MTV to place asphalt mixtures. When the Engineer determines the use of the MTV is not practical for a portion of the project he may waive its requirement for that portion.

4.0 MEASUREMENT.

4.1 Asphalt Placement with MTV. The Department will not measure the MTV for payment and will consider its use incidental to the asphalt mixture.

4.2 Asphalt Mixture. The Department will measure the quantity according to Section 402.

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

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
----	Asphalt Mixture, Type	Ton

March 12, 2008

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

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

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ATTACHMENTS

- A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)

I. GENERAL

1. 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.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

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

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4, and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 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 DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

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 and 41 CFR 60) 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 Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American 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 State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his 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, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO 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 minority group employees.

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 minority groups 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 minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group 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, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group 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 his 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 his avenues of appeal.

6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

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. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

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 minority group and women employees 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 his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. 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 best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best 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 SHA 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 minority and women 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 minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) 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 SHA.

8. 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.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. 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 completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

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

(1) The number 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;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA 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. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers 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 (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 paragraphs 4 and 5 of this Section IV.

b. 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.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour 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.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional 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. Said 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

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. 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 or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a 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.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) 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 DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/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 Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees 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 employee 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 listed in 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 or subcontractor 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-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) 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 journeyman-level 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) 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 DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. 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.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level 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-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor 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. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wagedetermination for the classification of work actually performed.

5. 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.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor 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, as 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 SHA contracting officer 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.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her 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, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies 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 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof 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. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

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

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such 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 the Regulations, 29 CFR 3;

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

e. 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 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, 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 SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

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 State. 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).

a. "Its own organization" shall be construed to include only workers employed and paid directly 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, assignee, or agent of the prime contractor.

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 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 VII 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 SHA 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 SHA 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 SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

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 SHA 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. 333).

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. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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, the following notice 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:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

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 not more than \$10,000 or imprisoned not more than 5 years or both."

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

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

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

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

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

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary 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 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 primary 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 department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary 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," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which

this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary 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 primary 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 Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. 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.

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement 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;

c. 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 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary 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 Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

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," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

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.

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 may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

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 Covered Transactions:

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 participation in this transaction 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.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(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 his or her bid or proposal that he or she 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.

**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 (between forty and seventy); 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 (between forty and seventy). 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, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin 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 (between forty and seventy), in admission to, or employment in any program established to

provide apprenticeship or other training.

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

REVISED: 12-3-92

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 (6) provides:

No present or former public servant shall, within six (6) months of 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 the state in matters in which he was directly involved during 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, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved 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.

KRS 11A.040 (8) states:

A former public servant shall not represent a person in a matter before a state agency in which the former public servant was directly involved, 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, Room 136, Capitol Building, 700 Capitol Avenue, Frankfort, Kentucky 40601; telephone (502) 564-7954.

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
TRAINING SPECIAL PROVISIONS

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under these special provisions and in this contract is shown in "Special Notes Applicable to Project" in the bid proposal.

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction the contractor shall submit to the Kentucky Transportation Cabinet, Department of Highways for its approval, an acceptable training program on forms provided by the Cabinet indicating the number of trainees to be trained in each selected classification. Failure to provide the Cabinet with the proper documentation evidencing an acceptable training program prior to commencing construction shall cause the Cabinet to suspend the operations of the contractor with (if applicable) working days being charged as usual against the contract time or (if applicable), no additional contract time being granted for the suspension period. The Cabinet will not be liable for the payment of any work performed during the suspension period due to the failure of the contractor to provide an acceptable training program. Said suspension period shall be terminated when an acceptable training program is received by the Cabinet. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case. The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Kentucky Transportation Cabinet, Department of Highways and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs

registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed for each hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

HIGHWAY BASIC HOURLY RATES	FRINGE BENEFIT PAYMENTS COMBINED
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CRAFTS

Boilermakers	24.65.....	12.94
Bricklayers:.....	20.35.....	7.80
Stone Mason	18.95.....	7.80
Carpenters:	20.60.....	8.30
Cement Masons:	18.70.....	7.80
Electricians:	*26.36.....	10.04

*When workmen are required to work from bosum chairs, trusses, stacks, tanks, scaffolds, catwalks, radio and T. V. towers, structural steel (open, unprotected, unfloored raw steel), and bridges or similar hazardous locations where workmen are subject to a direct fall, except where using JLG's and bucket trucks up to 75 feet: Add 25% to workman's base rate for 50 to 75 feet, and add 50% to workman's base rate for over 75 feet.

Ironworkers, Structural:.....	20.70.....	8.30
Ironworkers, Reinforcing:	20.50.....	8.30
Painters		
All Excluding Bridges	19.92.....	9.57
Bridges	23.92.....	10.07
Piledrivers:.....	20.25.....	8.30
Plumbers.....	22.52.....	7.80
Sheet Metal Worker.....	20.40.....	7.80

Welders - Receive rate for craft in which welding is incidental.

LABORERS:

General laborer, Flagperson, Steam Jenny.	BASE RATE	18.65
	FRINGE BENEFITS	8.30

Batch Truck Dumper,	BASE RATE	18.90
Deck Hand or Scow Man, Hand Blade Operator.	FRINGE BENEFITS	8.30

Power driven Tool Operator of the following: Wagon Drill, Chain Saw, Sand Blaster, Concrete Chipper, Pavement Breaker, Vibrator, Power Wheelbarrow and Power Buggy, Sewer Pipe Layer, Bottom Men, Dry Cement Handler, Concrete Rubber, Mason Tender.

BASE RATE	19.00
FRINGE BENEFITS	8.30

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

LABORERS: (continue)

Asphalt Lute and Rakerman, Side Rail Setter.	BASE RATE19.05 FRINGE BENEFITS 8.30
Gunnite Nozzle Man, Gunnite Operator.	BASE RATE19.15 FRINGE BENEFITS 8.30
Tunnel Laborer (Free Air).	BASE RATE19.20 FRINGE BENEFITS 8.30
Tunnel Mucker (Free Air).	BASE RATE19.25 FRINGE BENEFITS 8.30
Tunnel Miner, Blaster and Driller (Free Air).	BASE RATE19.60 FRINGE BENEFITS 8.30
Caisson Worker.	BASE RATE20.15 FRINGE BENEFITS 8.30
Powderman.	BASE RATE20.25 FRINGE BENEFITS 8.30
Drill Operator of percussion type drills which are both powered and propelled by an independent air supply.	BASE RATE21.45 FRINGE BENEFITS 8.30

TRUCK DRIVERS:

Truckhelper and Warehouseman.	BASE RATE18.90 FRINGE BENEFITS 8.30
Driver, Winch Truck and A-Frame when used in transporting materials.	BASE RATE19.00 FRINGE BENEFITS 8.30

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

Driver, (Semi-Trailer or Pole Trailer), Driver (Dump Truck, Tandem Axle), Driver of Distributor.	BASE RATE19.10 FRINGE BENEFITS 8.30
Driver on Mixer Trucks (All Types).	BASE RATE19.15 FRINGE BENEFITS 8.30
Truck Mechanic	BASE RATE19.20 FRINGE BENEFITS 8.30
Driver (3 tons and under), Tire Changer and Truck Mechanic Helper.	BASE RATE19.23 FRINGE BENEFITS 8.30
Driver on Pavement Breakers.	BASE RATE19.25 FRINGE BENEFITS 8.30
Driver (over 3 tons), Driver (Truck Mounted Rotary Drill).	BASE RATE19.44 FRINGE BENEFITS 8.30
Driver, Euclid and other Heavy Earth Moving Equipment, Low boy	BASE RATE20.01 FRINGE BENEFITS 8.30
Greaser on Greasing Facilities.	BASE RATE20.10 FRINGE BENEFITS 8.30

OPERATING ENGINEERS:

Group A

Auto Patrol, Batch Plant, Bituminous Paver, Cable-Way, Clamshell, Concrete Mixer (21 cu. ft. or over), Concrete Pump, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Engineer, Elevator (regardless of ownership when used for hoisting any building material), Elevating Grader and all types of Loaders, Hoe-Type Machine, Hoisting Engine, Locomotive, LeTourneau or Carry-All Scoop, Bulldozer, Mechanic, Orangepeel Bucket, Piledriver, Power Blade, Roller (Bituminous), Roller (Earth), Roller (Rock), Scarifier, Shovel, Tractor Shovel, Truck Crane, Well Points, Winch Truck, Push Dozer, Grout Pump, High Lift, Fork lift (regardless of lift height), all types of Boom Cats, Multiple Operator, Core Drill, Tow or Push Boat, A-Frame Winch Truck, Concrete Paver, Gradeall, Hoist, Hyster, Material Pump, Pumpcrete, Ross Carrier, Sheep Foot, Sideboom, Throttle-Valve Man, Rotary Drill, Power Generator, Mucking Machine, Rock Spreader attached to equipment, Scoopmobile, KeCal Loader, Tower Cranes (French, German and other types), Hydrocrane,

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

OPERATING ENGINEERS: (continued)

Tugger, Backfiller, Gurries, Self-Propelled Compactor, Self –Contained Hydraulic Percussion Drill.

BASE RATE23.30
FRINGE BENEFITS 8.30

Group B

All Air Compressors (200 cu. ft. per min. or greater capacity), Bituminous Mixer, Concrete Mixer (under 21 cu. ft.), Welding Machine, Form Grader, Tractor (50 H.P. and over), Bull Float, Finish Machine, Outboard Motor Boat, Brakeman, Whirly Oiler, Tractair and Road Widening Trencher, Articulating Trucks, Mechanic Helper.

BASE RATE20.40
FRINGE BENEFITS 8.30

Group B2

Greaser on grease facilities servicing heavy equipment

BASE RATE20.60
FRINGE BENEFITS 8.30

Group C

Bituminous distributor, Cement Gun, Conveyor, Mud Jack, Paving Joint Machine, Pump, Tamping Machine, Tractors (under 50 H.P.), Vibrator, Oiler, Air Compressors (under 200 cu. ft. per min. capacity), Concrete Saw, Burlap and Curing Machine, Hydro Seeder, Power Form Handling Equipment, Deckhand Oiler, Hydraulic Post Driver.

BASE RATE19.99
FRINGE BENEFITS 8.30

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 the General Laborer except those classified as bona fide apprentices.

These rates are listed pursuant to the Kentucky Determination No. CR-07-II-HWY dated July 3, 2008 and/or Federal Decision No. KY 20080026 dated February 8, 2008.

NOTE: Both Kentucky Determination No. CR-07-II-HWY and Federal Decision No. KY20080026 dated February 8, 2008 apply to this project. This set of wage rates contains a combination of these two wage decisions.

**TRANSPORTATION CABINET
DIVISION OF CONSTRUCTION PROCUREMENT
COMPLIANCE SECTION
PROJECT WAGE RATES**

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 after an employee works eight (8) hours a day or forty (40) hours a week, whichever gives the employee the greater wages. At least time and one-half the base rate is required for all overtime. A laborer, workman or mechanic and an employer may enter into a written agreement or a collective bargaining agreement to work more than eight (8) hours a calendar day but not more than ten (10) hours a calendar day for the straight time hourly rate.

Wage violations or questions should be directed to the designated Engineer or to the undersigned.

Ryan Griffith, Director
Division of Construction Procurement
Frankfort, Kentucky 40622

**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
4.5%	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 Whitley County.

PART IV
INSURANCE

INSURANCE

The Contractor shall carry the following insurance in addition to the insurance required by law:

1. Contractor's Public Liability Insurance not less than \$100,000.00 for damages arising out of bodily injuries to or death to one person. Not less than \$300,000.00 for damages arising out of bodily injuries to or death to two or more persons.
2. Contractor's Property Damages Liability Insurance. Not less than \$100,000.00 for all damages arising out of injury or destruction of property in any one accident. Not less than \$300,000.00 for all damages during the policy period.
3. Contractor's Protective Public Liability and Property Damage Insurance. The contractor shall furnish evidence with respect to operations performed for him by subcontractors that he carries in his own behalf for the above stipulated amounts.
4. The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
 - a. "policy contains no deductible clauses."
 - b. "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
5. WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

PART V
BID ITEMS

CONTRACT ID: 091037
COUNTY: WHITLEY
PROPOSAL: NH 75-1 (074)

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LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
SECTION 0001 ROADWAY						
0010	00001	DGA BASE	54,318.000	TON		
0020	00078	CRUSHED AGGREGATE SIZE NO 2	128.000	TON		
0030	00100	ASPHALT SEAL AGGREGATE	1,824.000	TON		
0040	00190	LEVELING & WEDGING PG64-22	750.000	TON		
0050	00205	CL3 ASPH BASE 1.50D PG64-22	28,101.000	TON		
0060	00208	CL4 ASPH BASE 1.50D PG64-22	89,541.000	TON		
0070	00214	CL3 ASPH BASE 1.00D PG64-22	20,724.000	TON		
0080	00214	CL3 ASPH BASE 1.00D PG64-22 EDGE DRAIN PIPE TRENCH	3,384.000	TON		
0090	00219	CL4 ASPH BASE 1.00D PG76-22	59,327.000	TON		
0100	00291	EMULSIFIED ASPHALT RS-2	219.000	TON		
0110	00339	CL3 ASPH SURF 0.38D PG64-22	7,521.000	TON		
0120	00342	CL4 ASPH SURF 0.38A PG76-22	23,307.000	TON		
0130	00491	CULVERT PIPE-18 IN EQUIV	84.000	LF		
0140	00492	CULVERT PIPE-24 IN EQUIV	40.000	LF		
0150	00494	CULVERT PIPE-30 IN EQUIV	24.000	LF		
0160	01000	PERFORATED PIPE-4 IN	107,686.000	LF		
0170	01001	PERFORATED PIPE-6 IN	90,622.000	LF		
0180	01010	NON-PERFORATED PIPE-4 IN	5,580.000	LF		
0190	01011	NON-PERFORATED PIPE-6 IN	4,385.000	LF		
0200	01015	INSPECT & CERTIFY EDGE DRAIN SYSTEM	(1.00)	LS		

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COUNTY: WHITLEY
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LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
0210	01020	PERF PIPE HEADWALL TY 1-4 IN	89.000	EACH		
0220	01024	PERF PIPE HEADWALL TY 2-4 IN	44.000	EACH		
0230	01028	PERF PIPE HEADWALL TY 3-4 IN	44.000	EACH		
0240	01029	PERF PIPE HEADWALL TY 3-6 IN	21.000	EACH		
0250	01032	PERF PIPE HEADWALL TY 4-4 IN	13.000	EACH		
0260	01450	S & F BOX INLET-OUTLET-18 IN	1.000	EACH		
0270	01451	S & F BOX INLET-OUTLET-24 IN	1.000	EACH		
0280	01452	S & F BOX INLET-OUTLET-30 IN	1.000	EACH		
0290	01496	DROP BOX INLET TYPE 3	3.000	EACH		
0300	01705	REMOVE CURB & GUTTER BOX INLET	10.000	EACH		
0310	01719	ADJUST INLET	2.000	EACH		
0320	01740	CORED HOLE DRAINAGE BOX CON-4 IN	50.000	EACH		
0330	01741	CORED HOLE DRAINAGE BOX CON-6 IN	131.000	EACH		
0340	01891	ISLAND HEADER CURB TYPE 2	100.000	LF		
0350	01904	REMOVE CURB	1,695.000	LF		
0360	01982	DELINEATOR FOR GUARDRAIL-WHITE	320.000	EACH		
0370	01983	DELINEATOR FOR GUARDRAIL-YELLOW	50.000	EACH		
0380	02091	REMOVE PAVEMENT	5,825.000	SQYD		
0390	02107	BREAKING AND SEATING PAVEMENT	258,371.000	SQYD		
0400	02165	REMOVE PAVED DITCH	588.000	SQYD		
0410	02230	EMBANKMENT IN PLACE	28,208.000	CUYD		

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LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
0420	02237	DITCHING	27,660.000	LF		
0430	02351	GUARDRAIL-STEEL W BEAM-S FACE	45,075.000	LF		
0440	02352	GUARDRAIL-STEEL W BEAM-D FACE	550.000	LF		
0450	02363	GUARDRAIL CONNECTOR TO BRIDGE END TY A	6.000	EACH		
0460	02365	CRASH CUSHION TYPE IX-A	4.000	EACH		
0470	02367	GUARDRAIL END TREATMENT TYPE 1	41.000	EACH		
0480	02369	GUARDRAIL END TREATMENT TYPE 2A	54.000	EACH		
0490	02381	REMOVE GUARDRAIL	50,323.000	LF		
0500	02483	CHANNEL LINING CLASS II	150.000	TON		
0510	02484	CHANNEL LINING CLASS III	525.000	TON		
0520	02545	CLEARING AND GRUBBING 3.5 ACRES	(1.00)	LS		
0530	02562	SIGNS	1,500.000	SQFT		
0540	02599	FABRIC-GEOTEXTILE TYPE IV	6,700.000	SQYD		
0550	02650	MAINTAIN & CONTROL TRAFFIC	(1.00)	LS		
0560	02671	PORTABLE CHANGEABLE MESSAGE SIGN	4.000	EACH		
0570	02677	ASPHALT PAVE MILLING & TEXTURING	5,600.000	TON		
0580	02775	ARROW PANEL	2.000	EACH		
0590	05950	EROSION CONTROL BLANKET	144,822.000	SQYD		
0600	05966	TOPDRESSING FERTILIZER	18.250	TON		
0610	05985	SEEDING AND PROTECTION	254,791.000	SQYD		
0620	06417	FLEXIBLE DELINEATOR POST-W	175.000	EACH		

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LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
0630	06418	FLEXIBLE DELINEATOR POST-Y	50.000	EACH		
0640	06427	TRENCHING	2,400.000	LF		
0650	06511	PAVE STRIPING-TEMP PAINT-6 IN	484,473.000	LF		
0660	06517	PAVE STRIPING-PERM PAINT-12 IN	920.000	LF		
0670	06592	PAVEMENT MARKER TYPE V-B W/R	981.000	EACH		
0680	06593	PAVEMENT MARKER TYPE V-B Y/R	20.000	EACH		
0690	06600	REMOVE PAVEMENT MARKER TYPE V	50.000	EACH		
0700	08100	CONCRETE-CLASS A	36.000	CUYD		
0710	10020NS	FUEL ADJUSTMENT	220,000.000	DOLL	1.00	220,000.00
0720	10030NS	ASPHALT ADJUSTMENT	220,000.000	DOLL	1.00	220,000.00
0730	20072ES805	GRANULAR EMBANKMENT	6,534.000	TON		
0740	20314ED	MILLED RUMBLE STRIPS	96,900.000	LF		
0750	20411ED	LAW ENFORCMENT OFFICER	384.000	HOURL		
0760	20629NS719	THRIE BEAM TO W BEAM CONNECTOR	11.000	EACH		
0770	21380ES719	GUARDRAIL THRIE BEAM	3,369.000	LF		
0780	21597EN	REMOVE PERF PIPE HEADWALL	15.000	EACH		
0790	22854EN	PAVE STRIPE PERM-6 IN HD21-WHITE	109,520.000	LF		
0800	22855EN	PAVE STRIPE PERM-6 IN HD21-YELLOW	96,900.000	LF		
0810	23143ED	KPDES PERMIT AND TEMP EROSION CONTROL	(1.00)	LS		
0820	23496EC	MEDIAN CROSSOVER REMOVAL EXTRA WORK	2.000	EACH		
0830	23497EC	REMOVE CULVERT PIPE HEADWALL EXTRA WORK	6.000	EACH		
SECTION 0002		BRIDGE-B00046 CRIPPLE CREEK				

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LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
0840	01992	INSTALL TEMP CONC MED BARR	2,720.000	LF		
0850	02003	RELOCATE TEMP CONC BARRIER	2,720.000	LF		
0860	03294	EXPAN JOINT REPLACE 1 1/2 IN	196.000	LF		
0870	03298	EXPAN JOINT REPLACE 4 IN	60.000	LF		
0880	03299	ARMORED EDGE FOR CONCRETE	196.000	LF		
0890	03300	ELIMINATE TRANSVERSE JOINT	120.000	LF		
0900	08150	STEEL REINFORCEMENT	2,111.000	LB		
0910	08504	EPOXY SAND SLURRY	1,206.600	SQYD		
0920	08526	CONC CLASS M FULL DEPTH PATCH	11.000	CUYD		
0930	08534	CONCRETE OVERLAY-LATEX	23.600	CUYD		
0940	08549	BLAST CLEANING	6,112.800	SQYD		
0950	08551	MACHINE PREP OF SLAB	4,529.500	SQYD		
0960	20377EC	BRIDGE HANDRAIL REPAIR	25.000	LF		
0970	23494EC	INSPECTION WALKWAY EXTRA WORK-NB-RETROFIT 1	72.000	LF		
0980	23494EC	INSPECTION WALKWAY EXTRA WORK-NB-RETROFIT 2	60.000	LF		
0990	23494EC	INSPECTION WALKWAY EXTRA WORK-SB-RETROFIT 1	52.000	LF		
1000	23494EC	INSPECTION WALKWAY EXTRA WORK-SB-RETROFIT 2	80.000	LF		
1010	23495EC	INSPECTION WALKWAY EXTRA WORK-NB-RETROFIT 3	206.000	EACH		
1020	23495EC	INSPECTION WALKWAY EXTRA WORK-SB-RETROFIT 3	204.000	EACH		
1030	23495EC	INSPECTION WALKWAY EXTRA WORK-SB-RETROFIT 4	2.000	EACH		
1040	23495EC	INSPECTION WALKWAY EXTRA WORK-SB-RETROFIT 5	1.000	EACH		

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LINE NO	ITEM	DESCRIPTION	APPROXIMATE QUANTITY	UNIT	UNIT PRICE	AMOUNT
1050 AA1	21138ED	ASPHALT WATERPROOFING MIX	460.000	TON		
1060 AA2	08534	CONCRETE OVERLAY-LATEX	176.000	CUYD		
SECTION 0003 TRAFFIC LOOPS						
1070	04795	CONDUIT-2 IN	100.000	LF		
1080	04820	TRENCHING AND BACKFILLING	90.000	LF		
1090	04829	PIEZOELECTRIC SENSOR	8.000	EACH		
1100	04850	CABLE-NO. 14/1 PAIR	1,436.000	LF		
1110	04895	LOOP SAW SLOT AND FILL	496.000	LF		
1120	20360ES818	WOOD POST	1.000	EACH		
1130	20391NS835	JUNCTION BOX TYPE A	4.000	EACH		
1140	20468EC	JUNCTION BOX-10 X 8 X 4	2.000	EACH		
SECTION 0004 TRAINEES						
1150	02742	TRAINEE PAYMENT REIMBURSEMENT 2 CLASS A OR B OPERATOR TRAINEES	3,200.000	HOUR		
SECTION 0005 DEMOB AND MOB						
1160	02568	MOBILIZATION (NO MORE THAN 5%)		LUMP		
1170	02569	DEMOBILIZATION (AT LEAST 1.5%)		LUMP		
TOTAL BID						