

Boone County, Kentucky

BID# BCFY21-0045

PEEL ROAD BRIDGE REPLACEMENT

ACCEPTANCE DATE: **June 03, 2021, 2:00 pm "local time"**

ACCEPTANCE PLACE

Boone County Fiscal Court – Negometrix Platform

<https://app.negometrix.com/buyer/839>.

Opening will be virtual:

Time: Jun 3, 2021 02:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us02web.zoom.us/j/82643777280?pwd=N1p6WU43MWdKZFpWdkNFNyt2OU8ydz09>

Dial by your location 1 646 558 8656 US (New York)

Meeting ID: 826 4377 7280

Passcode: 846142

Find your local number: <https://us02web.zoom.us/j/ken0uNCjAX>

Requests for information related to this Invitation should be directed to *Daniel Menetrey, Project Sponsor* through the Negometrix platform.

Issue Date: May 13, 2021

IF YOU NEED ANY REASONABLE ACCOMMODATION FOR ANY TYPE OF DISABILITY IN ORDER TO PARTICIPATE IN THIS PROCUREMENT, PLEASE CONTACT OUR OFFICE AS SOON AS POSSIBLE.

BOONE COUNTY

DESCRIPTION PEEL ROAD BRIDGE REPLACEMENT

PRIMARY COMPLETION DATE: DECEMBER 1, 2021

DBE CERTIFICATION REQUIREMENT – 0.0%

LETTING DATE: June 03, 2021

Bids for the **Peel Road Bridge** project for the Boone County Public Works Department. Electronic submission of offers will be accepted through the Negometrix Platform until JUNE 03, 2021, 2:00 p.m. (“local time”). Late submissions will not be accepted by Boone County. Results will be published on JUNE 03, 2021 at 2:00 p.m. (“local time”).

Specifications may be obtained via our publications page at:
<https://platform-us.negometrix.com>

Any bidder on the excluded party list (suspended or debarred) will not be considered for the low bid (website: www.sam.gov/portal)

ROAD PLANS

Project will follow Kentucky Standard Specification and Bridge Construction (2019) and all contractors and subcontractors must be prequalified with the Kentucky Transportation Cabinet. Prime contractors and DBE subcontractors must be prequalified at the time of bid opening, all others subcontractors must be prequalified when accepting subcontracts. The project will be awarded to the lowest responsive and responsible bidder and any change orders will require prior approval from Boone County Fiscal Court and KYTC.

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

REQUIRED PERFORMANCE AND PAYMENT BOND: The contractor will be required to provide a Payment and Performance Bond for 100% of the construction bid prior to the contract being awarded to the lowest bid.

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PART I
SCOPE OF WORK

BFY21-0045

PROJECT(S) IDENTIFICATION AND DESCRIPTION:

COUNTY – BOONE COUNTY

ITEM NUMBER – N/A

PEEL ROAD BRIDGE REPLACEMENT

COMPLETION DATE(S):

COMPLETION DATE – DECEMBER 1, 2021

APPLIES TO ENTIRE CONTRACT

Liquidated Damages will be charged at a rate of \$700.00 per day after the completion date.

PROPOSAL ADDENDA

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Boone County Judge Executive. Failure to use the correct and most recent addenda may result in the bid being rejected.

BID SUBMITTAL

Bidder shall submit unit bid cost for each item on the bid item list. The bid package can be submitted to County Judge Executive for Boone County KY.

STANDARD SPECIFICATION PROVISIONS

The project will follow the Kentucky Standard Specifications for Road and Bridge Construction 2019. For their bids to be accepted, bidders and Disadvantaged Business Enterprises (“DBE”) subcontractors must possess a Certificate of Eligibility at the time of the bid opening. All others subcontractors must be prequalified when accepting subcontracts. All bids exceeding \$40,000 must be accompanied with a Bid Bond of not less than 5% of the total construction bid. Project will be awarded to the lowest responsive and responsible bidder and determined by the LPA and the Kentucky Transportation Cabinet. The awarded bidder will be responsible for providing a Performance Bond of 100% and a Payment Bond of 100% of the awarded bid amount payable to the LPA.

JOINT VENTURE BIDDING

Joint venture bidding is permissible. All companies in the joint venture must have experience in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% submitted for both companies or each company may submit a separate bond of 5%. Contractor (s) are required to prequalified with Kentucky Transportation Cabinet and work will be provided based on KYTC Standard Specifications

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.

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2012 edition) the Cabinet will allow 6” composite offset blocks in lieu of wooden offset blocks, except as specified on proprietary end treatments and crash cushions. The composite blocks shall be selected from the Cabinet’s List of Approved Materials.

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

Questions about projects during the advertisement should be submitted in writing to the County representative, Daniel Menetrey, Capital Projects Manager via email at dmenetrey@boonecountky.org. The County will attempt to answer all submitted questions.

The County reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for receiving written questions will be three (3) days before the letting date. The deadline for posting answers will be 3:00 pm "Local Time" (Eastern Daylight Time), the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

ACCESS TO RECORDS

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

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

10/18/2011

ASPHALT MIXTURE

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

SPECIAL PROVISION FOR WASTE AND BORROW SITES

Obtain U.S. Army Corps of Engineer's approval before utilizing a waste or borrow site that involves "Waters of the United States". The Corps of Engineers defines "Waters of the United States" as perennial or intermittent streams, ponds or wetlands. The Corps of Engineers also considers ephemeral streams, typically dry except during rainfall but having a defined drainage channel, to be jurisdictional waters. Direct questions concerning any potential impacts to "Waters of the United States" to the attention of the appropriate District Office for the Corps of Engineers for a determination prior to disturbance. Be responsible for any fees associated with obtaining approval for waste and borrow sites from the U.S. Army Corps of Engineer or other appropriate regulatory agencies.

1-296 Waste & Borrow Sites

01/02/2012

Traffic Control Coordinator

The contractor shall provide a traffic control coordinator for the project and shall identify the person and provide the LPA with contact information. The traffic controller is required to perform all duties identified in the 2012 KYTC specification manual. The traffic controller shall inspect traffic control scheme daily and report any incidents within the work zone to the LPA.

PRE-BID MEETING

A prebid meeting will not be scheduled for this for this project. Any questions shall be submitted in writing to Daniel Menetrey, Capital Projects Manager via email at dmenetrey@boonecountyky.org

PRE-CONSTRUCTION MEETING

A preconstruction meeting will be scheduled with the low bid contractor at a time to be determined between the LPA and the low bid contractor prior to beginning any construction activities. The preconstruction meeting will address any questions the contractor or the LPA have about the project.

CHANGE ORDERS

All change orders will be submitted on the form attached.

PROPRIETARY MATERIALS

No Proprietary Materials will be specified on this project.

BID DOCUMENT SUBMITTAL

FHWA requires Prime Contractor to submit their entire proposal (ALL PAGES).

REQUIRED TO BE SUBMITTED WITH BID

The provisions of KRS 45A.395 required that any bidder or offeror submit a sworn statement in conformity with such statute as a prerequisite to a determination that such bidder or offeror is a responsible bidder.

The undersigned, individually and as the _____

(Office or Title)

of _____

(Bidder or Offeror)

states under penalty of perjury that neither he (she), nor, to the best of his (her) knowledge, anyone acting on behalf of Bidder or Offeror, has knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the Bidder or Offeror will not violate any provision of the campaign finance laws of the Commonwealth. "Knowingly" means, with respect to conduct or to a circumstance described by a statute defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

This the _____ day of _____, 20____.

(Company Name)

(Typed or printed name)

(Signature)

(Title)



Steven L. Beshear
Governor

Commonwealth of Kentucky
Finance and Administration Cabinet
OFFICE OF THE SECRETARY
Room 383, Capitol Annex
702 Capital Avenue
Frankfort, KY 40601-3462
(502) 564-4240
Fax (502) 564-6785

Lori H. Flanery
Secretary

SECRETARY'S ORDER 11-004

FINANCE AND ADMINISTRATION CABINET

Vendor Document Disclosure

WHEREAS, in order to promote accountability and transparency in governmental operations, the Finance and Administration Cabinet believes that a formal review process should be created whereby the Finance and Administration Cabinet would provide oversight and direction to an agency of the Commonwealth that is in a dispute with a vendor regarding documents that it believes are being improperly withheld by the vendor and are necessary to conduct a thorough review of the vendor's activities pursuant to said contract; and

WHEREAS, KRS 42.014 and KRS 12.270 authorizes the Secretary of the Finance and Administration Cabinet to establish the internal organization and assignment of functions which are not established by statute relating to the Finance and Administration Cabinet; further, KRS Chapter 45A.050 and 45A.230 authorizes the Secretary of the Finance and Administration Cabinet to procure, manage and control all supplies and services that are procured by the Commonwealth and to intervene in controversies among vendors and state agencies; and

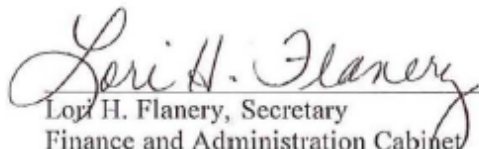
NOW, THEREFORE, pursuant to the authority vested in me by KRS 42.014, KRS 12.270, KRS 45A.050, 45A.230, and 200 KAR 5:314, I, Lori H. Flanery, Secretary of the Finance and Administration Cabinet, do hereby order and direct the following:

- I. Upon the filing of a Petition for Determination with the Finance and Administration Cabinet by an agency of the Commonwealth, the Finance and Administration Cabinet ("FAC") shall formally review any dispute arising where the agency has requested documents from a vendor that holds a state contract and the vendor has refused access to said documents under a claim that said documents are not directly pertinent or relevant to the agency's inquiry upon which the document request was predicated.
- II. Upon the filing of a Petition for Determination from an agency of the Commonwealth, the FAC shall formally review any situation where the agency has requested documents that the agency deems necessary to conduct audits,

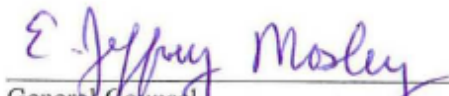
investigations or any other formal inquiry and a dispute has arisen as to what documents are necessary to conclude the inquiry.

- III. Upon the filing of a Petition for Determination by an agency of the Commonwealth pursuant to Section I or Section II, the FAC shall consider the request from the Executive Branch agency and the position of the vendor or party opposing the disclosure of the documents, applying any and all relevant law to the facts and circumstances of the matter in controversy. After FAC's review is complete, FAC shall issue a Determination which sets out FAC's position as to what documents and/or records, if any, should be disclosed to the requesting agency. The Determination shall be issued within 30 days of receipt of the request from the agency. This time period may be extended for good cause.
- IV. If the Determination concludes that documents are being wrongfully withheld by the vendor or other party opposing the disclosure from the state agency, the private vendor shall immediately comply with the FAC's Determination. Should the vendor or other party refuse to comply with FAC's Determination, then the FAC, in concert with the requesting agency, shall pursue any and all options that it possesses to obtain the documents in question, including, but not limited to the following:
 - a. Initiating discussions with the vendor to obtain the documents determined to be necessary for the inquiry;
 - b. Terminating the vendor's contract; or
 - c. Filing an action jointly or singularly against the vendor in a court of appropriate jurisdiction to obtain a court order mandating the disclosure of the documents determined to be necessary for the inquiry.
- V. Any provisions of any prior Order that conflicts with the provisions of this Order shall be deemed null and void.

THIS ORDER SHALL BECOME EFFECTIVE UPON EXECUTION.


 Lori H. Flanery, Secretary
 Finance and Administration Cabinet
 Dated: August 25, 2011

APPROVED FOR FORM AND LEGALITY:


 General Counsel
 Finance and Administration Cabinet

KENTUCKY TRANSPORTATION CABINET

Page

**Local Public Agency
CHANGE ORDER**

Contract ID
Change Order No
Contractor
Contractor
Address

Project Sponsor
County
Project Number
Project Name

Reasons for Proposed Changes:

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PART II
CONTRACT NOTES

TRANSPORTATION CABINET DEPARTMENT OF HIGHWAYS

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

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

I. APPLICATION

1. The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows: These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

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

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

II. NONDISCRIMINATION OF EMPLOYEES

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

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

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and

over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

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

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

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

REVISED: January 25, 2017

Kentucky Equal Employment Opportunity Act of 1978

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

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

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

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

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

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

Minimum Wage Laws in the States

US Department of Labor

<https://www.dol.gov/whd/minwage/america.htm>

PART IV
CERTIFICATIONS

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 1A), the Executive Branch Code of Ethics, which states, in part:

KRS 1A.040 (7) provides:

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

KRS A.040 (9) states:

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

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

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

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

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

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

CERTIFICATION REGARDING

KRS 45A.485

Pursuant to 1994's Senate Bill 258, the bidder/offeror shall reveal to the Commonwealth, prior to the award of a contract, any final determination of a violation by the contractor within the previous five (5) year period of the provisions of KRS Chapter 136, 139, 141, 337, 338, 341 and 342.

For the purpose of complying with the provisions of Senate Bill 258, please list any final determination(s) of violations(s) of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, which have been rendered against the bidder or offeror within the five (5) years preceding the award of this contract. Please include, the date of the determination the state agency issuing the determination. (Please use extra sheets if necessary.)

KRS VIOLATION

DATE

STATE AGENCY

The contractor is further notified that 1994's Senate Bill 258 requires that for the duration of this contract, the contractor shall be in continuous compliance with the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342, which apply to the contractor's operations. Senate Bill 258, further provides that the contractor's failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341 and 342, or failure to comply with the above-cited statutes for the duration of the contract, shall be grounds for the Commonwealth's cancellation of the contract, and the contractor's disqualification from eligibility to bid or submit proposals to the Commonwealth for a period of two (2) years.

NON-COLLUSION CERTIFICATION

C COMMONWEALTH OF KENTUCKY

COUNTY: _____

PROJECT NO. _____

I, _____ under penalty of
(Printed Name of officer signing certification) (Title)
perjury under the laws of the United States, do hereby certify that

(Name of Individual, Co-Partnership, or Corporation submitting bid)
its agent, officers or employees have not directly or indirectly entered into any agreement, participated in any
collusion, or otherwise taken action in restraint of free competitive bidding in connection with this proposal.

(Signature) (Title) (Date)

CERTIFICATION OF ORGANIZATION(S)

COUNTY

NO.

I, _____,

(Name of officer or Authorized Agent)

(Title)

under penalty of perjury under the laws of the United States, do hereby certify that, except as noted below,

,

(Name of Individual, Co-Partnership, or Corporation submitting bid)

any person associated therewith in the capacity of (owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the Administration of Federal Funds):

is not currently under suspension, debarment, voluntarily exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past 3 years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against (it) by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

Please list below any exceptions to the foregoing, to whom it applies, initiating agency and dates of action.

Exceptions:

(Signature)

(Title)

CERTIFICATION OF PERFORMANCE

Certification with regard to the Performance of Previous Contracts or Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports.

The _____, hereby certifies that he _____, participated in previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and the he _____, filed with the Joint Reporting committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the Former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

(Name of Individual, Co-Partnership, or Corporation submitting bid)

(Name of Officer or Authorized Agent)

(Signature)

(Title)

Date: _____

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with the contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-

1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders of their implementing regulation.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

CERTIFICATION FOR FEDERAL-AID CONTRACT

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

1. 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 agent.

2. If any funds other than the 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.

This certification is a material representation of fact 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 Section 1352, Title 31, U.S. Code. 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.

The prospective participation also agrees by submitting his or her bid proposal that he or she shall require the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

(Name of Individual, Co-Partnership, or Corporation submitting bid)

(Name of Officer or Authorized Agent)

<hr/> <p>(Signature)</p>	<hr/> <p>(Title)</p>
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CERTIFICATION OF BID PROPOSAL/ DBE

We (I) proposed to furnish all labor, equipment and materials necessary to construct and/or improve the subject project in accordance with the plans, the Transportation Cabinet's Standard Specifications for Road and Bridge Construction 2019 special provisions, notes applicable to the project as indicated herein and all addenda issued on this project subsequent to purchase of proposal.

We (I) attach a bid guaranty as provided in the special provisions in an amount not less than 5% of the total bid. We agree to execute a contract in accordance with this proposal within 15 calendar days after the receipt of the notice of award for the project.

We (I) have examined the site of proposed work, project plans, specifications, special provisions, and notes applicable to the project referred to herein. We understand that the quantities shown herein are estimated quantities subject to increase or decrease as provided in the specifications.

We (I) acknowledge receipt of all addendum(s) (if applicable) and have made necessary revisions to the bid proposal. We have considered all addendum(s) in calculation of the submitted bid and applied the updated bid items, which are included.

"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."

(Name of Individual, Co-Partnership, or Corporation submitting bid)

(Printed Name of Officer or Authorized Agent and Title)

(Signature of Officer or Authorized Agent) (Date)

When two or more organizations bid as a joint venture, enter names of each organization and an authorized agent for each organization must sign above.

ANNUAL AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

Affidavit Effective Date:

Affidavit Expiration Date:

Maximum Length One-Year

REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS Page 1 of 2
FOR BIDS AND CONTRACTS IN GENERAL:

I. Each bidder or offeror swears and affirms under penalty of perjury, that to the best of their knowledge:

- a. In accordance with [KRS 45A.110](#) and [KRS 45A.115](#), neither the bidder or offeror as defined in [KRS 45A.070\(6\)](#), nor the entity which he/she represents, has knowingly violated any provisions of the campaign finance laws of the Commonwealth of Kentucky; and the award of a contract to the bidder or offeror or the entity which he/she represents will not violate any provisions of the campaign finance laws of the Commonwealth.
- b. The bidder or offeror swears and affirms under penalty of perjury that, to the extent required by Kentucky law, the entity bidding, and all subcontractors therein, are aware of the requirements and penalties outlined in [KRS 45A.485](#); have properly disclosed all information required by this statute; and will continue to comply with such requirements for the duration of any contract awarded.
- c. The bidder or offeror swears and affirms under penalty of perjury that, to the extent required by Kentucky law, the entity bidding, and its affiliates, are duly registered with the Kentucky Department of Revenue to collect and remit the sales and use tax imposed by [KRS Chapter 139](#), and will remain registered for the duration of any contract awarded.
- d. The bidder or offeror swears and affirms under penalty of perjury that the entity bidding is not delinquent on any state taxes or fees owed to the Commonwealth of Kentucky and will remain in good standing for the duration of any contract awarded.
- e. The bidder or offeror swears and affirms under penalty of perjury that the entity bidding, is not currently engaged in, and will not for the duration of the contract engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which Kentucky can enjoy open trade, as defined in Executive Order No. 2018-905.
- f. The bidder or offeror swears and affirms that the entity bidding, and all subcontractors therein, have not violated any of the prohibitions set forth in KRS 11A.236 during the previous ten (10) years, and further pledge to abide by the restrictions set forth in such statute for the duration of the contract awarded.

FOR “NON-BID” CONTRACTS (I.E. SOLE-SOURCE; NOT-PRACTICAL OR FEASIBLE TO BID; OR EMERGENCY CONTRACTS, ETC):

II. Each contractor further swears and affirms under penalty of perjury, that to the best of their knowledge:

- a. In accordance with [KRS 121.056](#), and if this is a non-bid contract, neither the contractor, nor any member of his/her immediate family having an interest of 10% or more in any business entity involved in the performance of any contract awarded, have contributed more than the amount specified in [KRS 121.150](#) the gubernatorial slate elected in the election last preceding the date of contract award the gubernatorial slate elected in the election last preceding the date of contract award.

ANNUAL AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS**REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS** **PAGE 2 OF 2**

- b. In accordance with [KRS 121.330\(1\) and \(2\)](#), and if this is a non-bid contract, neither the contractor, nor officers or employees of the contractor or any entity affiliated with the contractor, nor the spouses of officers or employees of the contractor or any entity affiliated with the contractor, have knowingly contributed more than \$5,000 in aggregate to the campaign of a candidate elected in the election last preceding the date of contract award that has jurisdiction over this contract award.
- c. In accordance with [KRS 121.330\(3\) and \(4\)](#), and if this is a non-bid contract, to the best of his/her knowledge, neither the contractor, nor any member of his/her immediate family, his/her employer, or his/her employees, or any entity affiliated with any of these entities or individuals, have directly solicited contributions in excess of \$30,000 in the aggregate for the campaign of a candidate elected in the election last preceding the date of contract award that has jurisdiction over this contract.

As a duly authorized representative for the bidder, offeror, or contractor, I have fully informed myself regarding the accuracy of all statements made in this affidavit, and acknowledge that the Commonwealth is reasonably relying upon these statements, in making a decision for contract award and any failure to accurately disclose such information may result in contract termination, repayment of funds and other available remedies under law. If the bidder, offeror, or contractor becomes non-compliant with any statements during the affidavit effective period, I will notify the Finance and Administration Cabinet, Office of Procurement Services immediately. I understand that the Commonwealth retains the right to request an updated affidavit at any time.

SIGNATURE_____
Printed Name_____
Title_____
Date_____
Company Name_____
Address

Commonwealth of Kentucky Vendor Code (if known)

Subscribed and sworn to before me by _____,

(Affiant)

(Title)

of _____ this _____ day of _____, 20_____.
(Company Name)_____
Notary Public

[seal of notary]

My commission expires: _____

Contract ID: _____

PART V
SPECIFICATIONS AND STANDARD DRAWINGS

ASPHALT MIXTURE

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

DGA BASE

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

DGA BASE FOR SHOULDERS

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

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

INCIDENTAL SURFACING

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

OPTION B

Be advised that the Department will control and accept compaction of asphalt mixtures furnished on this project under OPTION B in accordance with Sections 402 and 403.

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

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

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

SPECIAL NOTES FOR UTILITY CLEARANCE IMPACT ON CONSTRUCTION

BOONE COUNTY, PEEL ROAD BRIDGE REPLACEMENT PROJECT

GENERAL PROJECT NOTE ON UTILITY PROTECTION

The proposed sidewalk is being constructed over underground utilities. Utility coordination efforts determined that no utility relocation is required to complete the project. There is one water meter that is to be adjusted. All other utilities are Do Not Disturb. Notes are on Plan Sheets that include station and offset for specific utilities not to be disturbed. The utilities contact list provided below is presented for information purposes only. If it becomes necessary to contact a utility owner for any reason, it will be the contractor's responsibility to do so.

NOTE: DO NOT DISTURB THE FOLLOWING UTILITIES LOCATED WITHIN THE PROJECT DISTURB LIMITS

Duke Energy Electric also has electric lines in the vicinity. There are no anticipated impacts on the Electric Company facilities due to this project. All Duke Energy electric facilities are to remain in place and not be disturbed.

Cincinnati Bell Telephone also has telephone lines, including underground lines, in the vicinity. There are no anticipated impacts on the telephone facilities due to this project. All Cincinnati Bell telephone facilities are to remain in place and not be disturbed.

Boone County Water District has services and mains in the vicinity of the construction. There are no anticipated impacts to any of the utility's structures. All Boone County Water facilities are to remain in place and not be disturbed.

Charter Communications has service in the vicinity of the construction. However, there are no impacts or adjustments required of their services. All Charter Communications facilities are to remain in place and not be disturbed.

Windstream KDL has service in the vicinity of the construction. However, there are no impacts or adjustments required of their services. All Windstream KDL facilities are to remain in place and not be disturbed.

There are no railroad facilities or property associated with this project.

SPECIAL NOTES FOR UTILITY CLEARANCE
IMPACT ON CONSTRUCTION

BOONE COUNTY, PEEL ROAD BRIDGE REPLACEMENT PROJECT

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs.

The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities defined may not be inclusive of all utilities in the project scope and are not Level A quality, unless specified as such. It is the contractor's responsibility to verify all utilities and their respective locations before excavating.

BEFORE YOU DIG

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

Please Note: The information presented in this Utility Note is informational in nature and the information contained herein is not guaranteed.

SPECIAL NOTES FOR UTILITY CLEARANCE
IMPACT ON CONSTRUCTION

**BOONE COUNTY,
PEEL ROAD BRIDGE REPLACEMENT PROJECT**

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

**THE FOLLOWING COMPANIES ARE RELOCATING/ADJUSTING THEIR UTILITIES WITHIN THE PROJECT
LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION**

N/A

**THE FOLLOWING COMPANIES HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE COMPANY OR THE
COMPANY'S SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT**

N/A

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

N/A

SPECIAL NOTES FOR UTILITY CLEARANCE
IMPACT ON CONSTRUCTION

BOONE COUNTY, PEEL ROAD BRIDGE REPLACEMENT PROJECT
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AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Information</u>
1. CINCINNATI BELL TELEPHONE Mark Conner (mark.conner@cinbell.com)	513-565-7043
2. DUKE ENERGY ELECTRIC (Electric) Matt Coleman (matt.coleman@duke-energy.com)	513-518-3548
3. CHARTER COMMUNICATIONS Chuck McCarty (Charles.mccarty@twcable.com)	859-283-4217
4. Boone County Water District (Water) Keith Feldhaus (kfeldhaus@fuse.net)	859-586-7270
5. WINDSTREAM (Telephone) Mark Ware (mark.ware@windstream.com)	606-329-6196

Construction Monitoring and Inspection Plan

The “Peel Road Bridge Replacement” project is unique in its scope, size and type which does not require an on-site full time inspector, but rather someone who is available full time to observe construction activities and record daily activities. The following is our proposal for providing inspection service on the project.

PRE CONSTRUCTION:

A pre-construction conference will be conducted with the Contractor, Owner, and Engineer, with an invitation extended to KYTC District 6 personnel. Prior to construction the project area will be completely photographed documenting existing conditions for record purposes. It will be strongly recommended that the contractor do the same for their own records.

DAILY INSPECTIONS:

Daily inspections will be conducted by “Daniel Menetrey, PE”, a representative of “Boone County Fiscal Court”, who is familiar with roadway and sidewalk projects including construction procedures and testing requirements. “Daniel Menetrey, PE” will provide daily observations and prepare daily inspection reports, with duties consisting of:

- Verify Temporary Traffic Control is in compliance with MUTCD and the Temporary Traffic Control Plan
- Verify general compliance with plans and specifications
- Verify construction progress consistent with progress payment requests
- Observe concrete placement
- Observe sub-grade prior to placement of base aggregate
- Verify compacted base
- Verify all disturbed areas are seeded and straw mulched
- Verify site cleanup at the end of each day
- Best Management Practices (BMP) plan available for review as needed
- BMP plan compliance by Contractor and maintain copies of BMP records
- Insure contractor tests concrete as follows:
 - Test first truck each day
 - Test every fourth truck
 - Test for air content, slump, temperature and cylinders (2-6x12’s or 3-4x8’s)

“Will Conkin, PE”, a registered professional engineer, will validate and sign the daily reports.

WEEKLY INSPECTIONS:

Detailed weekly inspections will be provided by “Daniel Menetrey, PE”, a representative of “Boone County Fiscal Court” and will include similar review of site conditions and inspection reports as those for daily inspections with emphasis on construction quality and questions related to design intent.

MONTHLY INSPECTIONS:

Monthly inspections will be conducted by representatives of “Will Conkin, PE, PTOE”, the project designers. Having designed the project “Will Conkin, PE, PTOE” is familiar with site construction details and the sequence of construction events. Inspection duties will include:

- Verify quantity of work completed compared to pay requests
- Verify quality of workmanship
- Verify work is in compliance with plans and specs
- Address contractors questions and concerns

At any time during the construction process that questions come up that “Daniel Menetrey, PE” cannot or do not feel comfortable addressing, “Will Conkin, PE PTOE” will respond. If more than monthly site visits are requested by “Daniel Menetrey, PE”, “Will Conkin, PE, PTOE” will be on site as needed.

CHANGES IN WORK:

“Will Conkin, PE” will be responsible for coordinating changes in work with the contractor. All changes in work must have KYTC concurrence prior to execution of work.

VERIFICATION OF PREVAILING WAGE REQUIREMENTS:

The contractor will submit documentation of adherence to Minimum Wage Requirements to a representative of “Boone County Fiscal Court”. A representative of “Boone County Fiscal Court” will also do interviews with contractor personnel on site to verify these wages.

MATERIAL TESTING:

All tests shall be performed by a certified inspector. Material testing shall be performed by an independent, KYTC prequalified testing facility. Typically, testing will be limited to concrete cylinders as outlined above but may include other testing methods unique to the project to ensure proper quantity and quality. Shop drawings will be required for such items as storm drainage structures. Daily, weekly and monthly reports along with testing results and shop drawings will be made available to Boone County Engineer upon request.

INSPECTION FOR ACCEPTANCE:

Substantial and Final Completion will be as contained in the Specifications, as listed under Payment & Completion, and the Project Closeout. All substantial and final inspections will be coordinated with Boone County personnel and

scheduled so that their personnel can be in attendance at these inspections. This will be performed prior to final project closeout.

PROJECT CONTACTS:

LPA Project Manager

Name: Daniel Menetrey, PE

Agency: Boone County Fiscal Court

Address: 5645 Idlewild Rd, Burlington, KY 41005

Office: 859-334-3580

Cell

Email: dmenetrey@boonecountyky.org

Design Firm Project Manager

Name: Will Conkin, PE

Agency: Palmer Engineering

Address: 541 Buttermilk Pike, Suite 108, Crescent Springs, KY 41017

Office: 859-744-1218

Cell: 859-492-0199

Email: wconkin@palmernet.com

Construction Inspector (list all and list their certifications)

Name	Office
Agency	Cell
Address	Email

Accountant

Name	Office
Agency	Cell
Address	Email

Boone County Fiscal Court (1)

And

_____ (2), Construction

Kentucky Pollutant Discharge Elimination System

Permit KYR10

Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

[PEEL ROAD BRIDGE REPLACEMENT](1)

Project information

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

Owner – Boone County Fiscal Court (1)

Resident Engineer: (2)

Contractor name: (2)

Address: (2)

Phone number: (2)

Contact: (2)

Contractors agent responsible for compliance with the KPDES permit requirements (3):

Project Control Number (2)

Route Address Peel Road (1)

Latitude/Longitude (project mid-point) 39°04' / 84°44' (1)

County (project mid-point) Boone County (1)

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

Projected completion date: (2)

A. Site description:

1. Nature of Construction Activity (from letting project description) **CONSTRUCT PEEL ROAD BRIDGE REPLACEMENT (1)**
2. Order of major soil disturbing activities (2) and (3)
3. Projected volume of material to be moved **755 CY(1)**
4. Estimate of total project area (acres) **0.1 (1)**
5. Estimate of area to be disturbed (acres) **0.1 (1)**
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.(1)
7. Data describing existing soil condition (1) & (2)
8. No information describing existing discharge water quality is available (1) & (2)
9. Receiving water name: **WOOLPER CREEK(1)**
10. TMDLs and Pollutants of Concern in Receiving Waters: **NO TMDLS INVOLVED ON THIS PROJECT(1)**
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:
The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

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

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

- 2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as “Do Not Disturb” until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP’s shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA’s as the work progresses. 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 inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
- Clearing and Grubbing – The following BMP’s will be considered and used where appropriate.
 - Leaving areas undisturbed when possible.
 - Silt basins to provide silt volume for large areas.
 - Silt Traps Type A for small areas.
 - Silt Traps Type C in front of existing and drop inlets which are to be saved

- Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
- Brush and/or other barriers to slow and/or divert runoff.
- Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
- Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
- Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
 - Silt Traps Type B in ditches and/or drainways as they are completed
 - Silt Traps Type C in front of pipes after they are placed
 - Channel Lining
 - Erosion Control Blanket
 - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
 - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
 - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
 - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
 - Additional Channel Lining and/or Erosion Control Blanket.
 - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
 - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
 - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
 - Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are :
PROJECT DOES NOT INCLUDE STORM WATRT BMPS OR FLOW CONTROLS (1)

C. Other Control Measures

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

2. Waste Materials

All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored

in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.

3. Hazardous Waste

All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the 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:**

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

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

➤ **Hazardous Products:**

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

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

The following product-specific practices will be followed onsite:

➤ **Petroleum Products:**

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

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

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

➤ **Fertilizers:**

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

➤ **Paints:**

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

➤ **Concrete Truck Washout:**

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

➤ **Spill Control Practices**

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

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from 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. (1)

E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
 - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. (1)

F. Inspections

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

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have 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.
- Water from 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 conducted as part of this construction project:

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

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

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

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

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

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

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

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

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

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

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

Contractor and Resident Engineer Plan certification

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

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____ title _____, _____
 Typed or printed name² signature

(3) Signed _____ title _____, _____
 Typed or printed name¹ signature

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

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

Sub-Contractor Certification

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

Subcontractor

Name:

Address:

Address:

Phone:

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

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

Signed _____ title _____, _____

Typed or printed name¹

signature

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

**BOONE COUNTY
COMMUNICATING ALL PROMISES (CAP)**

BOONE COUNTY

BOONE COUNTY FISCAL COURT PROVIDED DESIGN PLANS FOR PRECAST CONCRETE BEAM ALTERNATIVE. CONTRACTOR IS PERMITTED TO SELECT OTHER PROVIDED ALTERNATIVE BUT WILL BE REQUIRED TO SUBMIT FINAL PLANS TO ENGINEER FOR APPROVAL.

Insert Supplemental Specifications to the Standard Specifications for Road and Bridge Construction, 2019 Edition

The current KYTC Supplemental Specifications can be found through the following link:

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

PART IV

INSURANCE

INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

Coverage	Minimum Limits of Liability, Terms and Coverage
Commercial General Liability	\$1,000,000 bodily injury and property damage each occurrence, including advertising and personal injury, products and completed operations
	\$5,000,000 products/completed operations, independent Contractor's liability, contractual liability, and coverage for property damage from perils of explosion, collapse, or damage to underground utilities, commonly known as XCU
	\$5,000,000 general annual aggregate
Auto Liability Insurance	\$1,000,000 each person, bodily injury and property damage, including owned, non-owned and hired auto liability
Workers' Compensation	Statutory Limitations
Employer's Liability	\$1,000,000 bodily injury by accident, each accident
	\$1,000,000 bodily injury by disease, each employee
	\$1,000,000 bodily injury by disease, policy aggregate
Umbrella/Excess Liability	\$5,000,000 each occurrence and annual aggregate
	Underlying coverage shall include General Liability, Auto Liability, and Employer's Liability
	\$1,000,000 annual aggregate covering damages or liability arising or resulting from Contractor's services rendered, or which should have been rendered, pursuant to the Contract
Property	The Contractor shall purchase and maintain property insurance covering machinery, equipment, mobile equipment, and tools used or owned by the Contractor in the performance of services under the Contract. The County shall in no circumstance be responsible or liable for the loss or damage to, or disappearance of, any machinery, equipment, mobile equipment and tools used or owned by the Contractor in the performance of services under the Contract.

- 1) 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."
- 2) KENTUCKY WORKMEN'S COMPENSATION INSURANCE. The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.
- 3) On all liability policies of insurance, bidder/proposer shall have ***Boone County Fiscal Court*** named as an additional insured and shall further require that their liability carrier(s) notify the County at least thirty (30) days prior to the effective date of any change(s) in or cancellations of said insurance policies. A current copy of proposer's insurance certificate providing proof of insurance as stated above must be on file in the Purchasing Department prior to the proposal award. Submission of an Evidence of Insurability from your provider or an Insurance Certificate copy may be included with the proposal package.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

PART V

BID ITEMS

SPECIAL NOTE FOR BID OF ALTERNATE STRUCTURE TYPES

Boone County Fiscal Court has provided complete design plans for a precast concrete beam bridge. However, if a contractor chooses, a contractor is permitted to select and bid one of three additional alternative bridge types as identified in the project plans. Basic information and design parameters for these alternates are identified on plan pages R7, R8, R9, S15, S16 & S17.

The information included on these sheets identify preliminary and undeveloped scenarios for alternate structure types. If a contractor intends to bid an alternate structure type, then finalized design plans for the alternate will need to be prepared and submitted by a qualified professional engineer. The County will review submitted plans and issue approval for construction when the design and plans are deemed complete and acceptable.

Alternate structure types will be bid using 2 separate bid items that correspond to the selected alternate.

- 1 Lump Sum bid item for Structure Design – This item should include **ALL** necessary costs to complete an approved structure design and issue construction plans. The alternate design shall be at least equivalent to the full precast beam design provided. All specifications, design loads, material specifications and relevant assumptions must be equal. Design alterations to the roadway portions of the plans may be necessary and associated costs shall be included here. If the alternate design encompasses utility relocations, the contractor shall be responsible for all costs related to the relocation. Final construction plans shall detail individual quantities of all materials necessary for construction and include a progress chart showing completion percentage for payment purposes.
- 1 Lump Sum bid item for Structure Construction - This item should include **ALL** necessary costs for labor, equipment, materials and incidentals necessary to complete construction of the approved design.

Contractor's electing to bid an alternate structure type that requires design shall be aware that no additional time will be allowed for completion of the project. In addition change orders will not be approved if a contract is awarded for a project that includes additional design.

All bidders should bid sections 0001 and 0006 on the bid sheet. Bidders should only bid the appropriate corresponding section out of sections 0002, 0003, 0004 and 0005.

ITEM #	Item	Unit	Quantity	Unit Bid Price	Cost
Section: 0001 - ROADWAY					
00221	CL 2 ASPH BASE 0.75D PG64-22	TON	93	\$0.00	\$0.00
00301	CL 2 ASPH SURF 0.38D PG64-22	TON	18	\$0.00	\$0.00
02200	ROADWAY EXCAVATION	CUYD	100	\$0.00	\$0.00
02231	STRUCTURE GRANULAR BACKFILL	CUYD	61	\$0.00	\$0.00
02351	GUARDRAIL-STEEL W BEAM-S FACE	LF	100	\$0.00	\$0.00
02371	GUARDRAIL END TREATMENT TYPE 7	EACH	4	\$0.00	\$0.00
02545	CLEARING AND GRUBBING	LS	1	\$0.00	\$0.00
02585	EDGE KEY	LF	36	\$0.00	\$0.00
02650	MAINTAIN & CONTROL TRAFFIC	LS	1	\$0.00	\$0.00
02726	STAKING	LS	1	\$0.00	\$0.00
02731	REMOVE STRUCTURE	LS	1	\$0.00	\$0.00
05985	SEEDING AND PROTECTION	SQYD	1000	\$0.00	\$0.00
21415ND	EROSION CONTROL	LS	1	\$0.00	\$0.00
Section: 0002 - BRIDGE ALT 1-PRECAST BOX BEAM BRIDGE					
03299	ARMORED EDGE FOR CONCRETE	LF	48	\$0.00	\$0.00
08001	STRUCTURE EXCAVATION-COMMON	CUYD	217	\$0.00	\$0.00
08002	STRUCTURE EXCAV-SOLID ROCK	CUYD	438	\$0.00	\$0.00
08019	CYCLOPEAN STONE RIP RAP	TON	159	\$0.00	\$0.00
08100	CONCRETE CLASS A	CUYD	176	\$0.00	\$0.00
08104	CONCRETE CLASS AA	CUYD	11	\$0.00	\$0.00
08150	STEEL REINFORCEMENT	LB	19975	\$0.00	\$0.00
08151	STEEL REINFORCEMENT - EPOXY COATED	LB	1529	\$0.00	\$0.00
08661	PRECAST PC BOX BEAM CB12-48	LF	174	\$0.00	\$0.00
Section: 0003 - BRIDGE ALT 2 - ARCH CULVERT					
	ARCH CULVERT DESIGN	LS	1	\$0.00	\$0.00
	ARCH CULVERT CONSTRUCTION	LS	1	\$0.00	\$0.00
Section: 0004 - BRIDGE ALT 3 - BOX CULVERT					
	BOX CULVERT DESIGN	LS	1	\$0.00	\$0.00
	BOX CULVERT CONSTRUCTION	LS	1	\$0.00	\$0.00
Section: 0005 -BRIDGE ALT 4 - STEEL BEAM BRIDGE					
	STEEL BEAM BRIDGE DESIGN	LS	1	\$0.00	\$0.00
	STEEL BEAM BRIDGE CONSTRUCTION	LS	1	\$0.00	\$0.00
Section: 0006 - DEMOBILIZATION / MOBILIZATION					
02568	MOBILIZATION (Max 5% of Total)	LS	1	\$0.00	\$0.00
02569	DEMOBILIZATION (Min 1.5% of Total)	LS	1	\$0.00	\$0.00

KENTUCKY PREFERENCE LAWS

The scoring of bids/bids is subject to Reciprocal preference for Kentucky resident bidders and Preferences for a Qualified Bidder or the Department of Corrections, Division of Prison Industries. ***Vendors not claiming resident bidder or qualified bidder status need not submit the corresponding affidavit.**

Reciprocal preference for Kentucky resident bidders

KRS 45A.490 Definitions for KRS 45A.490 to 45A.494.

As used in KRS 45A.490 to 45A.494:

- (1) "Contract" means any agreement of a public agency, including grants and orders, for the purchase or disposal of supplies, services, construction, or any other item; and
- (2) "Public agency" has the same meaning as in KRS 61.805.

KRS 45A.492 Legislative declarations.

The General Assembly declares:

- (1) A public purpose of the Commonwealth is served by providing preference to Kentucky residents in contracts by public agencies; and
- (2) Providing preference to Kentucky residents equalizes the competition with other states that provide preference to their residents.

KRS 45A.494 Reciprocal preference to be given by public agencies to resident bidders -- List of states -- Administrative regulations.

- (1) Prior to a contract being awarded to the lowest responsible and responsive bidder on a contract by a public agency, a resident bidder of the Commonwealth shall be given a preference against a nonresident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident bidder.
- (2) A resident bidder is an individual, partnership, association, corporation, or other business entity that, on the date the contract is first advertised or announced as available for bidding:
 - (a) Is authorized to transact business in the Commonwealth; and
 - (b) Has for one (1) year prior to and through the date of the advertisement, filed Kentucky corporate income taxes, made payments to the Kentucky unemployment insurance fund established in KRS 341.490, and maintained a Kentucky workers' compensation policy in effect.
- (3) A nonresident bidder is an individual, partnership, association, corporation, or other business entity that does not meet the requirements of subsection (2) of this section.
- (4) If a procurement determination results in a tie between a resident bidder and a nonresident bidder, preference shall be given to the resident bidder.
- (5) This section shall apply to all contracts funded or controlled in whole or in part by a public agency.
- (6) The Finance and Administration Cabinet shall maintain a list of states that give to or require a preference for their own resident bidders, including details of the preference given to such bidders, to be used by public agencies in determining resident bidder preferences. The cabinet shall also promulgate administrative regulations in accordance with KRS Chapter 13A establishing the procedure by which the preferences required by this section shall be given.
- (7) The preference for resident bidders shall not be given if the preference conflicts with federal law.
- (8) Any public agency soliciting or advertising for bids for contracts shall make KRS 45A.490 to 45A.494 part of the solicitation or advertisement for bids.

The reciprocal preference as described in KRS 45A.490-494 above shall be applied in accordance with 200 KAR 5:400.

Determining the residency of a bidder for purposes of applying a reciprocal preference

Any individual, partnership, association, corporation, or other business entity claiming resident bidder status shall submit along with its response the attached Required Affidavit for Bidders, Offerors, and Contractors Claiming Resident Bidder Status. The BIDDING AGENCY reserves the right to request documentation supporting a bidder's claim of resident bidder status. Failure to provide such documentation upon request shall result in disqualification of the bidder or contract termination.

A nonresident bidder shall submit, along with its response, its certificate of authority to transact business in the Commonwealth as filed with the Commonwealth of Kentucky, Secretary of State. The location of the principal office identified therein shall be deemed the state of residency for that bidder. If the bidder is not required by law to obtain said certificate, the state of residency for that bidder shall be deemed to be that which is identified in its mailing address as provided in its bid.

Preferences for a Qualified Bidder or the Department of Corrections, Division of Prison Industries.

Pursuant to 200 KAR 5:410, and KRS 45A.470, Kentucky Correctional Industries will receive a preference equal to twenty (20) percent of the maximum points awarded to a bidder in a solicitation. In addition, the following "qualified bidders" will receive a preference equal to fifteen (15) percent of the maximum points awarded to a bidder in a solicitation: Kentucky Industries for the Blind, any nonprofit corporation that furthers the purposes of KRS Chapter 163 and any qualified nonprofit agencies for individuals with severe disabilities as defined in KRS 45A.465(3). Other than Kentucky Industries for the Blind, a bidder claiming "qualified bidder" status shall submit along with its response to the solicitation a notarized affidavit which affirms that it meets the requirements to be considered a qualified bidder-affidavit form included. If requested, failure to provide documentation to a public agency proving qualified bidder status may result in disqualification of the bidder or contract termination.

**REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS CLAIMING
RESIDENT BIDDER STATUS (Not required)**

FOR BIDS AND CONTRACTS IN GENERAL:

The bidder or offeror hereby swears and affirms under penalty of perjury that, in accordance with KRS 45A.494(2), the entity bidding is an individual, partnership, association, corporation, or other business entity that, on the date the contract is first advertised or announced as available for bidding:

Is authorized to transact business in the Commonwealth;

Has for one year prior to and through the date of advertisement

Filed Kentucky income taxes;

Made payments to the Kentucky unemployment insurance fund established in KRS 341.49; and

Maintained a Kentucky workers' compensation policy in effect.

The BIDDING AGENCY reserves the right to request documentation supporting a bidder's claim of resident bidder status. Failure to provide such documentation upon request shall result in disqualification of the bidder or contract termination.

Signature

Printed Name

Title

Date

Company Name

Address

Subscribed and sworn to before me by

(Affiant)

(Title)

of _____ this ____ day of _____, 20__.
(Company Name)

Notary Public

[seal of notary]

My commission expires: _____

REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS CLAIMING QUALIFIED BIDDER STATUS (Not Required)

FOR BIDS AND CONTRACTS IN GENERAL:

I. The bidder or offeror swears and affirms under penalty of perjury that the entity bidding, and all subcontractors therein, meets the requirements to be considered a “qualified bidder” in accordance with [200 KAR 5:410\(3\)](#); and will continue to comply with such requirements for the duration of any contract awarded. Please identify below the particular “qualified bidder” status claimed by the bidding entity.

_____ A nonprofit corporation that furthers the purposes of KRS Chapter 163

_____ Per KRS 45A.465(3), a "Qualified nonprofit agency for individuals with severe disabilities" means an organization that:

- (a) Is organized and operated in the interest of individuals with severe disabilities; and
- (b) Complies with any applicable occupational health and safety law of the United States and the Commonwealth; and
- (c) In the manufacture or provision of products or services listed or purchased under KRS 45A.470, during the fiscal year employs individuals with severe disabilities for not less than seventy-five percent (75%) of the man hours of direct labor required for the manufacture or provision of the products or services; and
- (d) Is registered and in good standing as a nonprofit organization with the Secretary of State.

The BIDDING AGENCY reserves the right to request documentation supporting a bidder’s claim of qualified bidder status. Failure to provide such documentation upon request may result in disqualification of the bidder or contract termination.

_____ Signature	_____ Printed Name
_____ Title	_____ Date
Company Name _____	
Address _____ _____ _____	

Subscribed and sworn to before me by _____ (Affiant) _____ (Title)

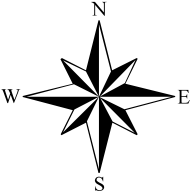
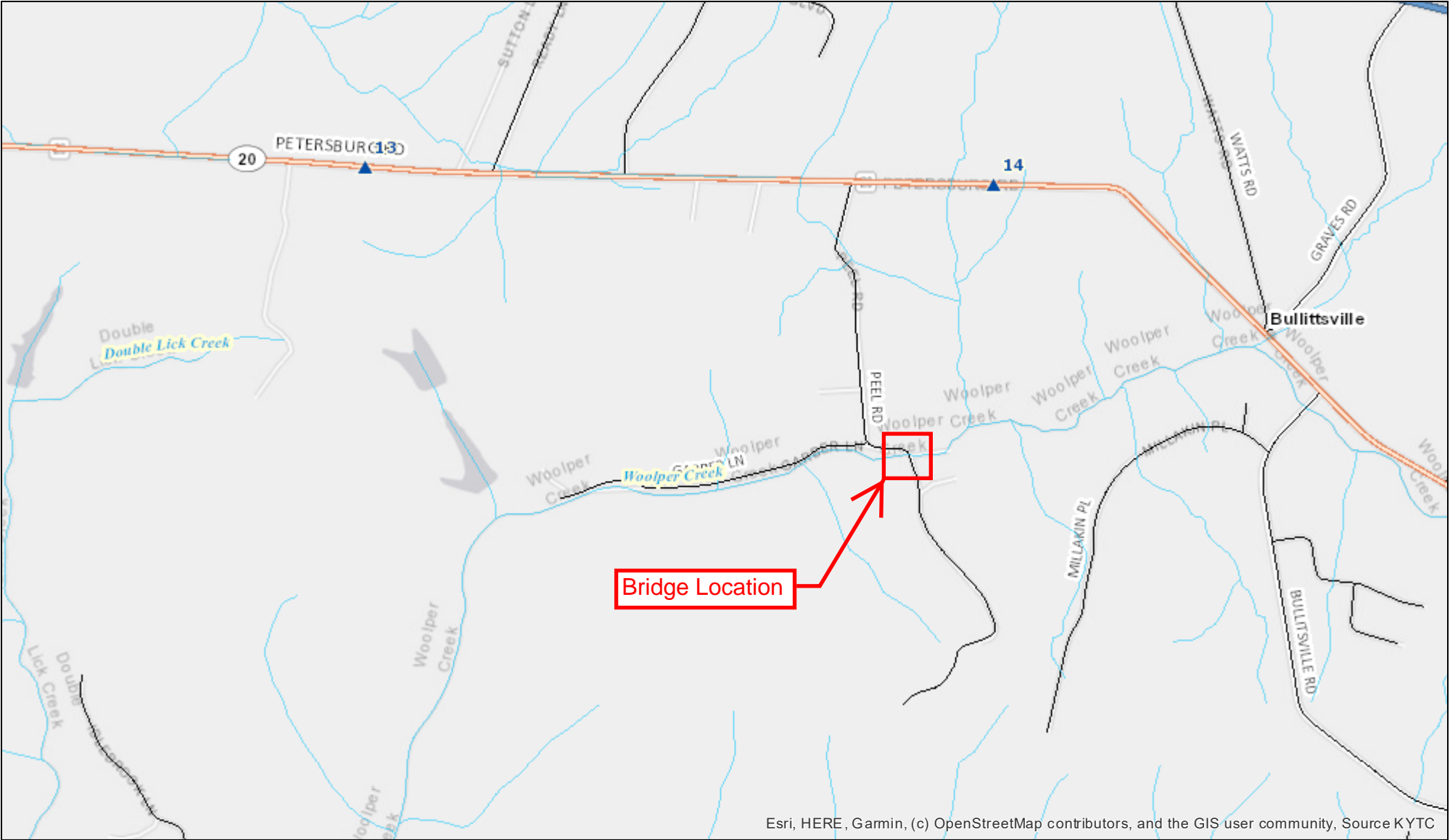
of _____ this ____ day of _____, 20____.

(Company Name)

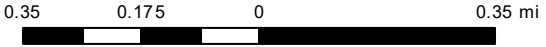
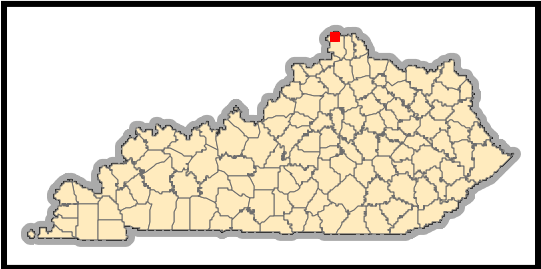
Notary Public

[seal of notary] My commission expires: _____

Peel Road Bridge



Legend		
Kentucky	Ohio River Shoreline	Kentucky
City	Streams	Interstate
Populated Place	Local Parks	Parkway
Active Rail	State Parks	US Highway
County	Corporate Boundary	State Road
Lake	DBNF_Proclamation_Bnd	Local Road



Author: Author
Date: 10/23/2020



COUNTY OF	ITEM NO.	SHEET NO.
BOONE	-	R1



BOONE COUNTY FISCAL COURT

PLANS OF PROPOSED PROJECT

BRIDGE REPLACEMENT PEEL ROAD @ WOOLPER CREEK

SHEET NO.	DESCRIPTION
R1	LAYOUT SHEET
R2 - R2B	TYPICAL SECTIONS-SUMMARY OF QUANTITIES
R3	PLAN AND PROFILE SHEETS
R4	TRAFFIC CONTROL SHEETS
R5	EROSION CONTROL SHEETS
R6 - R9	PIPE DRAINAGE SHEETS
S1 - S17	STRUCTURE PLANS
X1 - X4	CROSS SECTION SHEETS

SHEETS NOT INCLUDED IN TOTAL SHEETS

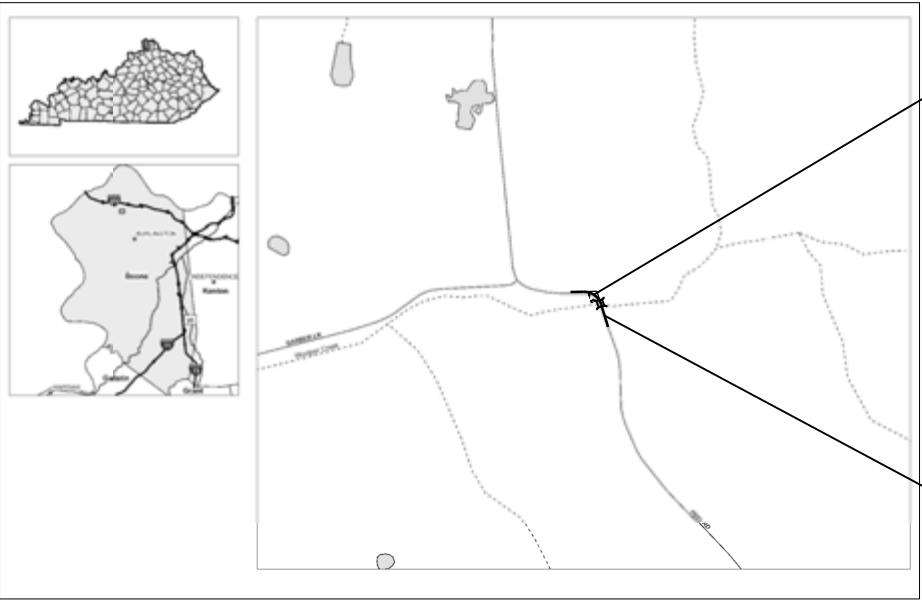
R2A, R2B

STANDARD DRAWINGS

NUMBER

RPM-115-10
RBR-005-11
RBR-010-06
RBR-015-06
RBR-050-08
RBR-051-01
RDD-040-05
RDI-040-01
RDX-210-03
RDX-220-05
RDX-225-01
RDX-230-01
RPM-110-07
TTC-150-04

TOTAL STANDARD DRAWINGS: 14



END CONSTRUCTION
STA. 3+50

BEGIN CONSTRUCTION
STA. 2+50

DESIGN CRITERIA

CLASS OF HIGHWAY	LOCAL RD	-
TYPE OF TERRAIN	ROLLING	-
DESIGN SPEED	N/A	-
REQUIRED NPSD	N/A	-
REQUIRED PSD	N/A	-
LEVEL OF SERVICE	N/A	-
ADT PRESENT (-)	N/A	-
ADT FUTURE (-)	N/A	-
DHV	N/A	-
D %	N/A	-
T %	N/A	-

GEOGRAPHIC COORDINATES

LATITUDE 39° DEGREES 04 MINUTES 21.2 SECONDS NORTH
LONGITUDE 84° DEGREES 44 MINUTES 57.2 SECONDS WEST

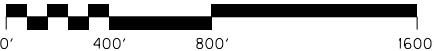
DESIGNED

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

PEEL ROAD

LENGTH 100 LIN. FT. 0.18 MILES
ADDED FOR EQUALITIES 0 LIN. FT.
DEDUCTED NOT INCLUDED
RAILROAD CROSSINGS NO. 0 LIN. FT.
BRIDGES 48 LIN. FT.

LAYOUT MAP



BOONE COUNTY FISCAL COURT
COUNTY OF

BOONE

ITEM NO. _____
PROJECT _____
NUMBER: _____

RECOMMENDED BY: _____ PROJECT MANAGER DATE: _____

PREPARED BY
PALMER ENGINEERING COMPANY



Signed: _____
Date: _____

FILE NAME: C:\PW\WORKDIR\STEPHEN SEWELL\00107385\TYP.DGN

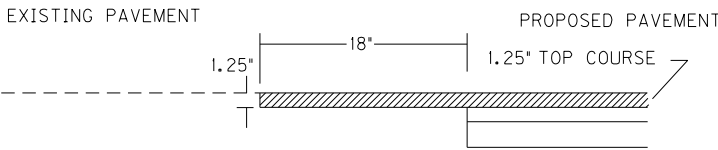
USER: stephen
DATE PLOTTED: May 4, 2021

E-SHEET NAME: R0020A1S

Power InRoads v8.11.9.397

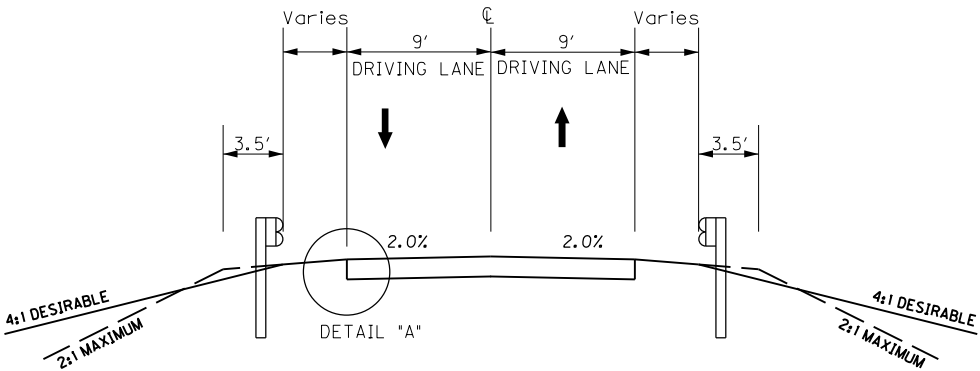
COUNTY OF	ITEM NO.	SHEET NO.
BOONE	-	R2

TYPICAL SECTIONS

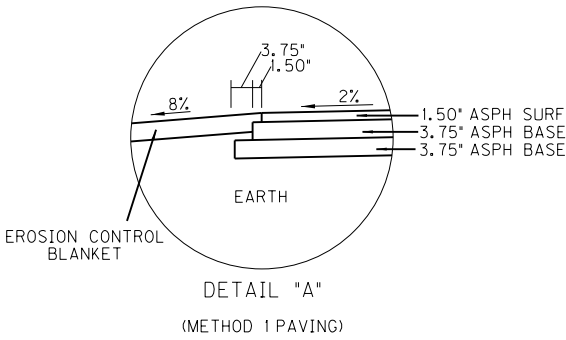


EDGE KEY DETAIL

WORK UNDER THIS ITEM SHALL INCLUDE CUTTING OUT THE EXISTING BITUMINOUS SURFACE TO A MINIMUM DEPTH AND WIDTH AS SHOWN, SO THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR "EDGE KEY" SHALL INCLUDE ALL NECESSARY MATERIALS, LABOR, EQUIPMENT, ETC. TO PERFORM THE WORK AND DISPOSE OF THE BITUMINOUS MATERIAL REMOVED.



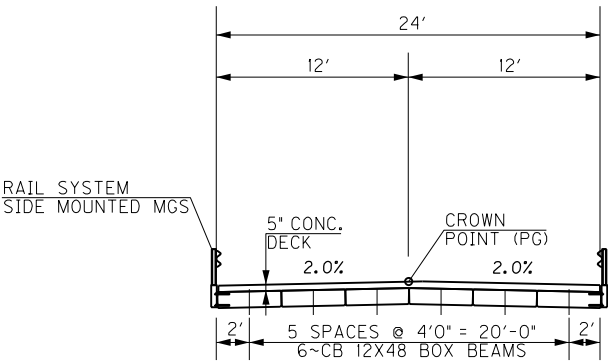
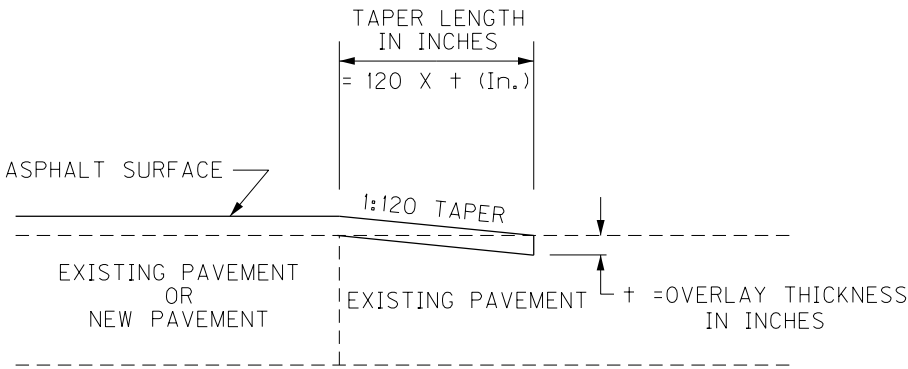
PEEL ROAD NORMAL SECTION



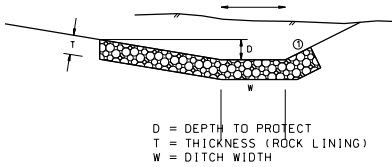
* CONTRACTOR MAY ELECT TO PERFORM PAVING ACCORDING TO METHOD 2 AT NO ADDITIONAL COST

PEEL ROAD PAVEMENT DESIGN

1.25" SURFACE	1.50" DEPTH CLASS 2 ASPHALT SURFACE 0.38D PG 64-22
9.00" BASE	7.50" DEPTH CLASS 2 ASPHALT BASE 0.75D PG 64-22 (3.75"+3.75")



BRIDGE NORMAL SECTION



MAINLINE TYPICAL ROADWAY DITCH (NORMAL AND SPECIAL DITCH)

① WHERE CLASS IV LINING IS USED IN NORMAL & SPECIAL DITCHES ITS GRADATION AND PLACEMENT SHALL BE DONE TO A HIGHER STANDARD THAN DETAILED IN THE STANDARD SPECIFICATIONS SUCH THAT ITS SURFACE DOES NOT VARY MORE THAN 4" FROM TRUE PLANE AND THE DITCH SLOPE ALONG THE FLOW PATH IS PRESERVED

GENERAL SUMMARY

ITEM CODE	ITEM	UNIT	PEEL ROAD				TOTAL PROJECT
2200	ROADWAY EXCAVATION	CUYD	100				
2231	STRUCTURAL GRAINULAR BACKFILL	CY	61				
2351	GUARDRAIL-STEEL W BEAM-S FACE	LF	100				
2371	GUARDRAIL END TREATMENT TYPE 7	EACH	4				
2545	CLEARING AND GRUBBING	LS	1				
2568	MOBILIZATION	LS	1				
2585	EDGE KEY	LF	36				
2650	MAINTAIN AND CONTROL TRAFFIC ②③	LS	1				
2726	STAKING	LS	1				
2731	REMOVE STRUCTURE ④	LS	1				
3299	ARMORED EDGE FOR CONCRETE	LF	48				
5985	SEEDING AND PROTECTION	SOYD	1000				
21415ND	EROSION CONTROL ②	LS	1				
8001	STRUCTURAL EXCAVATION (COMMON)	CY	217				
8002	STRUCTURAL EXCAVATION (SOLID ROCK)	CY	438				
8019	CYLCOPEAN STONE RIP RAP	TON	159				
8100	CONCRETE CLASS "A"	CY	176				
8104	CONCRETE CLASS "AA"	CY	11				
8150	STEEL REINFORCEMENT	LBS	19975				
8151	STEEL REINFORCEMENT EPOXY COATED	LBS	1529				
8661	PRECAST PC BOX BEAMS CB12-48	LF	174				
25017ED	RAIL SYSTEM SIDE MOUNTED MGS	LF	52				

NOTES

ALL ASPHALT MIXTURES SHALL BE ESTIMATED AT 110 LBS. PER SQ. YD. PER INCH OF DEPTH, UNLESS NOTED OTHERWISE.

- ① ESTIMATED AT 115 LBS. PER SQ. YD. PER INCH OF DEPTH.
- ② ALL INCEDENTAL ITEMS REQUIRED BY CONTRACTOR. INCLUDING BARRIER WALL AND STIFFFING DEVICES
- ③ INCLUDES SIGNS FOR MOT
- ④ INCLUDES REMOVAL OF EXISTING PIPE CROSSING

EARTHWORK TOTALS:

655	CY STRUCTURAL EXCAVATION
100	CY EXCAVATION
65	CY EMBANKMENT
35	CY TOTAL WASTE

NOTE: EARTHWORK VOLUMES ARE APPROXIMATE THE ACTUAL VOLUMES ARE THE RESPONSIBILITY OF THE CONTRACTOR

NOTE: CONTRACTOR RESPONSIBLE FOR LOCATING DISPOSAL SITE FOR EXCESS MATERIAL AND STRUCTURE DEMOLITION

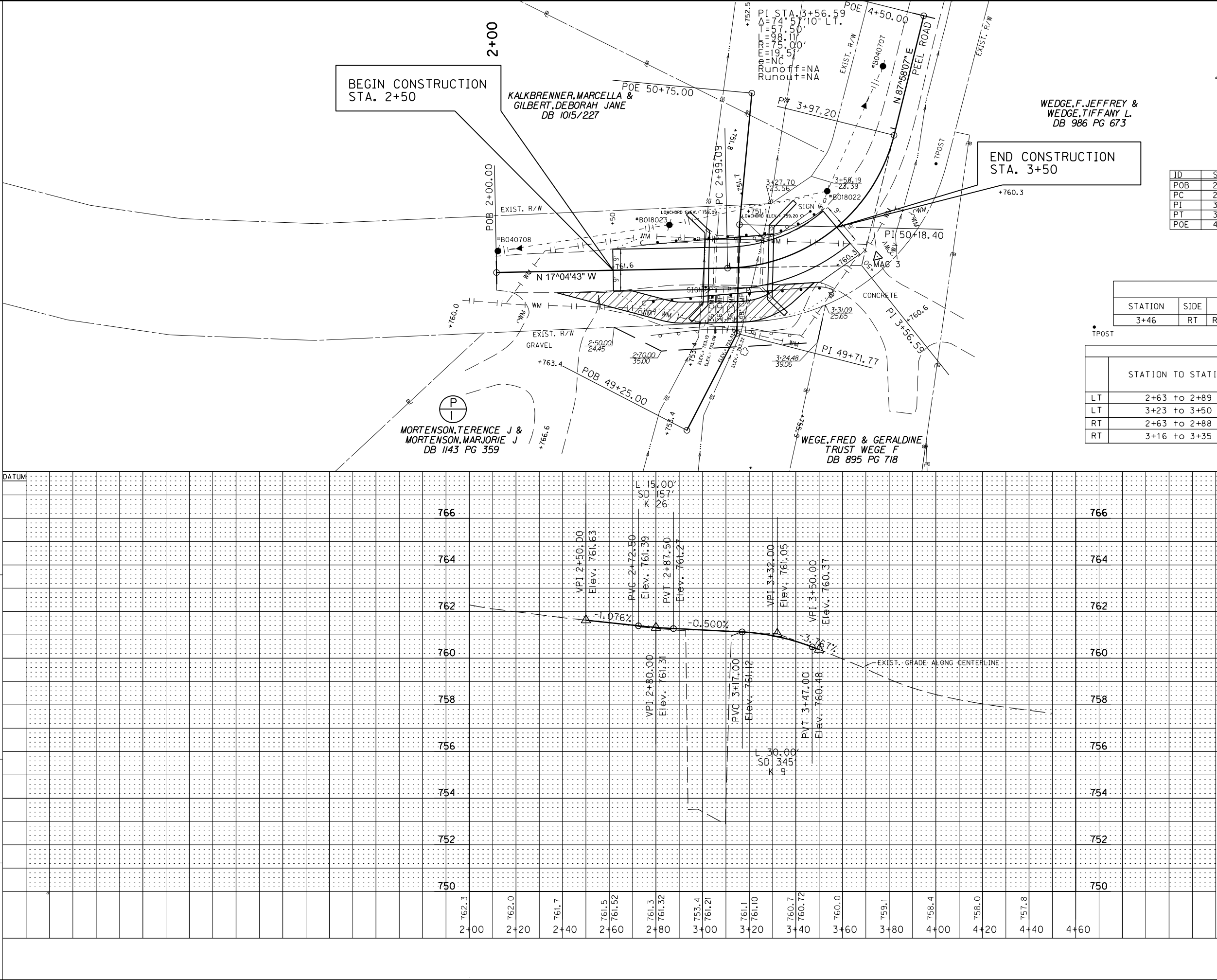
PAVING AREAS

ITEM	PEEL ROAD				TOTAL PROJECT
	S Q U A R E Y A R D S				
1.50" CL2 ASPH SURF 0.38D PG 64-22	221				221
3.75" CL2 ASPH BASE 0.75D PG 64-22	224				224
3.75" CL2 ASPH BASE 0.75D PG 64-22	229				229

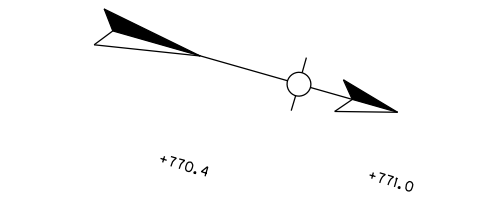
PAVING SUMMARY

ITEM CODE	ITEM	UNIT	PEEL ROAD				TOTAL PROJECT
221	CL2 ASPH BASE 0.75D PG64-22	TONS	93				93
301	CL2 ASPH SURF 0.38D PG64-22	TONS	18				18

Power InRoads v8.11.9.397	E-SHEET NAME:	USER: stephen DATE PLOTTED: May 4, 2021	FILE NAME: C:\PW\WORKDIR\STEPHEN SEWELL\00107383\GENERAL NOTES.DGN	GENERAL NOTES			COUNTY OF	ITEM NO.	SHEET NO.
							BOONE		R2B
BEFORE YOU DIG									
<p>THE CONTRACTOR IS INSTRUCTED TO CALL 1-800-752-6007 TO REACH KY 811, THE ONE-CALL SYSTEM FOR INFORMATION ON THE LOCATION OF EXISTING UNDERGROUND UTILITIES. THE CALL IS TO BE PLACED A MINIMUM OF TWO (2) AND NO MORE THAN TEN (10) BUSINESS DAYS PRIOR TO EXCAVATION. THE CONTRACTOR SHOULD BE AWARE THAT OWNERS OF UNDERGROUND FACILITIES ARE NOT REQUIRED TO BE MEMBERS OF THE KY 811 ONE-CALL BEFORE-U-DIG (BUD) SERVICE. THE CONTRACTOR MUST COORDINATE EXCAVATION WITH THE UTILITY OWNERS, INCLUDING THOSE WHOM DO NOT SUBSCRIBE TO KY 811. IT MAY BE NECESSARY FOR THE CONTRACTOR TO CONTACT THE COUNTY COURT CLERK TO DETERMINE WHAT UTILITY COMPANIES HAVE FACILITIES IN THE AREA.</p>									
DEPARTMENT OF THE ARMY PERMIT AND WATER QUALITY CERTIFICATION APPROVALS									
<p>A DEPARTMENT OF THE ARMY (DA) PERMIT, WHICH MAY REQUIRE APPROVAL OF A STATE WATER QUALITY CERTIFICATION FROM THE KENTUCKY DIVISION OF WATER, REGULATES THIS PROJECT AT ONE OR MORE LOCATIONS. PERFORM ALL APPLICABLE WORK IN COMPLIANCE WITH THE CONDITIONS STATED IN THE DA PERMIT AND THE APPROVED WATER QUALITY CERTIFICATION. POST A COPY OF THE DA PERMIT AND THE WATER QUALITY CERTIFICATION IN A CONSPICUOUS PLACE AT THE PROJECT SITE. IF A DA PERMIT OR WATER QUALITY CERTIFICATION APPROVAL IS PENDING, DO NOT WORK IN OR DISTURB THE DESIGNATED AREA(S) UNTIL OBTAINING THE APPROPRIATE APPROVAL(S). REFER TO NOTICE(S) CONTAINED IN THE CONTRACT BID PROPOSAL FOR DESIGNATED AREA(S) WHERE WORK IS PROHIBITED BY THE ABSENCE OF APPROVAL.</p>									
COMPACTION OF ASPHALT MIXTURES									
<p>WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED FOR DRIVING LANES AT ONE INCH (25 MM) OR GREATER ON THIS PROJECT BY OPTION A ACCORDING TO SUBSECTIONS 402 AND 403 OF THE CURRENT STANDARD SPECIFICATIONS. USE JOINT CORES AS DESCRIBED IN SUBSECTION 402.03.02 FOR SURFACE MIXTURES ONLY. WILL ACCEPT THE COMPACTION OF ALL OTHER ASPHALT MIXTURES BY OPTION B.</p>									
CONSTRUCTION EDGE									
<p>THIS WORK INCLUDES MILLING THE EXISTING ASPHALT SURFACE TO A MINIMUM DEPTH AND WIDTH AS DETAILED ELSEWHERE IN THE PLANS SO THAT THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE WORK WILL BE PAID FOR AS MILLING AND TEXTURING AND INCLUDES ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND DISPOSE OF THE REMOVED ASPHALT MATERIAL.</p>									
STANDARD DRAWINGS									
<p>STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES IN FRANKFORT, KY. AT (502) 564-3670</p>									
REMOVAL OF ROADWAY SIGNS									
<p>CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL ROADWAY SIGNS WITHIN THE PROJECT LIMITS. CONTRACTOR SHALL HOLD AND REPLACE ALL SIGNS AT NO COST TO THE OWNER.</p>									
<p>MAILBOXES CONTRACTOR IS RESPONSIBLE FOR MAINTAINING MAILBOX ACCESS DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER AND PROPERTY OWNER FOR PLACEMENT OF TEMPORARY MAILBOXES</p>									
<p>COMPLETION OF THE STRUCTURE: THE CONTRACTOR IS REQUIRED TO COMPLETE THE STRUCTURE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL, LABOR, OR CONSTRUCTION OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COFFERDAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PARTS OF EXISTING STRUCTURES, PHASE CONSTRUCTION, INCIDENTAL MATERIALS, LABOR, CULVERT JOINT MATERIAL AND SHEAR CONNECTORS, GEOTEXTILE FABRICS, LIFTING APPARATUSES, AND ANYTHING ELSE REQUIRED TO COMPLETE THE STRUCTURE.</p>									
<p>SPECIFICATIONS: ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE 2019 EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WITH SUPPLEMENTAL SPECIFICATIONS EFFECTIVE WITH THE CURRENT LETTING.</p>									
<p>TEMPORARY SHORING: TEMPORARY SHEETING, SHORING, COFFERDAMS, AND/OR DEWATERING METHODS MAY BE REQUIRED FOR THE INSTALLATION OF THE BRIDGE AND HEADWALLS AND TO MAINTAIN TRAFFIC DURING CONSTRUCTION. COST SHALL BE INCIDENTAL TO HEADWALLS. THE CONTRACTORS SHALL BE RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY AND STABILITY OF THE ROADWAYS AND SURROUNDING PROPERTIES DURING CONSTRUCTION.</p>									
<p>ON-SITE INSPECTION: EACH CONTRACTOR SUBMITTING A BID FOR THIS WORK SHALL MAKE A THOROUGH INSPECTION OF THE PROJECT SITE PRIOR TO SUBMITTING A BID AND SHALL BE THOROUGHLY FAMILIARIZED WITH EXISTING CONDITIONS SO THAT WORK CAN BE EXPEDITIOUSLY PERFORMED AFTER A CONTRACT IS AWARDED. 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 OWNER.</p>									
<p>EXISTING CONDITIONS: THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS. ANY DISCREPANCIES BETWEEN FIELD AND THE DIMENSIONS SPECIFIED IN THE PLANS SHALL BE REPORTED TO THE ENGINEER.</p>									
<p>CONSTRUCTION SHALL BE COMPLETED ON EXISTING R/W OR THE TEMPORARY CONSTRUCTION EASEMENT OBTAINED FOR PARCEL 1. ACCESS TO ANY OTHER PROPERTIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.</p>									
								PEEL ROAD GENERAL NOTES	



COUNTY OF	ITEM NO.	SHEET NO.
BOONE		R03



ID	STATION	NORTHING	EASTING
POB	2+00.00	4279730.7246	5205447.0821
PC	2+99.09	4279825.4447	5205417.9810
PI	3+56.59	4279880.4094	5205401.0941
PT	3+97.20	4279878.3713	5205343.6299
POE	4+50.00	4279876.4999	5205290.8656

CONSTRUCT ENTRANCE						
STATION	SIDE	TYPE	WIDTH (LF)	ENT. PAVING TYPE	ENT. PAVING (SQYD)	ENT PIPE LF SIZE
3+46	RT	RESIDENTIAL	18	ASPHALT	21	

STEEL "W" BEAM GUARDRAIL CONSTRUCTION CHART					
	STATION TO STATION	SINGLE	DOUBLE	END TREATMENT	
		FACE (ft)	FACE (ft)	TERMINAL SECT NO. 1	TY 7 (eq)
LT	2+63 to 2+89	25			1
LT	3+23 to 3+50	25			1
RT	2+63 to 2+88	25			1
RT	3+16 to 3+35	25			1

SCALE: 1"=20'


SCALE: 1"= 20' HORIZONTAL
1"= 2' VERTICAL


DESIGNED BY: _____
DATE SUBMITTED: _____

**BOONE COUNTY
FISCAL COURT
COUNTY OF
BOONE**

PROJECT _____
NUMBERS: _____

PEEL ROAD
PLAN / PROFILE
STA. 2+00 TO STA. 4+50

 PHASE 1 TRAFFIC

 PHASE 2 TRAFFIC

PAVEMENT EDGE DROP-OFFS

Difference in Elevation for Travel Lanes
A pavement edge that traffic is expected to cross in a lane change situation shall not have an elevation difference greater than 1 1/2 inches. This may be increased to 2 inches for low speed situations. Warning signs shall be placed in advance and throughout the drop-off area when drop-offs are greater than 1/2 inch. Modifications will be as directed by the engineer.

Pavement edges that traffic is not expected to cross, shall be treated as follows; or, as directed by the engineer:

Less than 1/2 inch - No protection required.

1/2 to 2 inches - Warning signs shall be placed in advance and throughout the drop-off area.

2 to 4 inches - Plastic drums, vertical panels, or barricades shall be placed every 50 feet for speeds less than 50 miles per hour and every 100 feet for speeds of 50 miles per hour and greater. Cones may be used in place of plastic drums, vertical panels, and barricades during daylight hours. Spacing for tapers shall be in accordance with the Manual on Uniform Traffic Control Devices.

4 inches and Greater - Positive separation needed or wedge with 3:1 or flatter slope. If there is 8 feet or more distance between the edge of pavement and drop-off, plastic drums, vertical panels or barricades may be used. If concrete barriers are used, special reflective devices or steady burn lights shall be used for overnight installations.

For temporary conditions, drop-offs 4 inches and greater may be protected with plastic drums, vertical panels, or barricades for short distances during daylight hours while work is being done in the drop-off area.

Material used for pavement drop-off wedging considered incidental to the maintenance of traffic bid item.

GENERAL NOTES

Traffic shall be maintained in accordance with the current editions of the Manual of Uniform Traffic Control Devices, the Standard Specifications for Road and Bridge Construction, and the Kentucky Department of Highways Standard Drawings.

Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor, unless otherwise addressed, when no longer needed.

The contractor shall completely cover any signs, either existing, permanent, or temporary which do not properly apply to the current traffic phasing, and shall maintain the covering until the signs are applicable or removed. Existing speed limit signs should be covered in the areas of reduced speed.

In general, all traffic control devices shall be placed starting and proceeding in the direction of the flow of traffic and removed starting and proceeding in the direction opposite to the flow of traffic.

The Engineer and the contractor, or their authorized representatives, shall review the signing before traffic is allowed to use any lane closure, crossover, or detour. All signing shall be approved by the Engineer before work can be started by the contractor.

If the contractor desires to deviate from the traffic control scheme, an alternate plan shall be prepared and presented in writing to the Engineer. This alternate plan can be used only after review and approval by the Engineer.

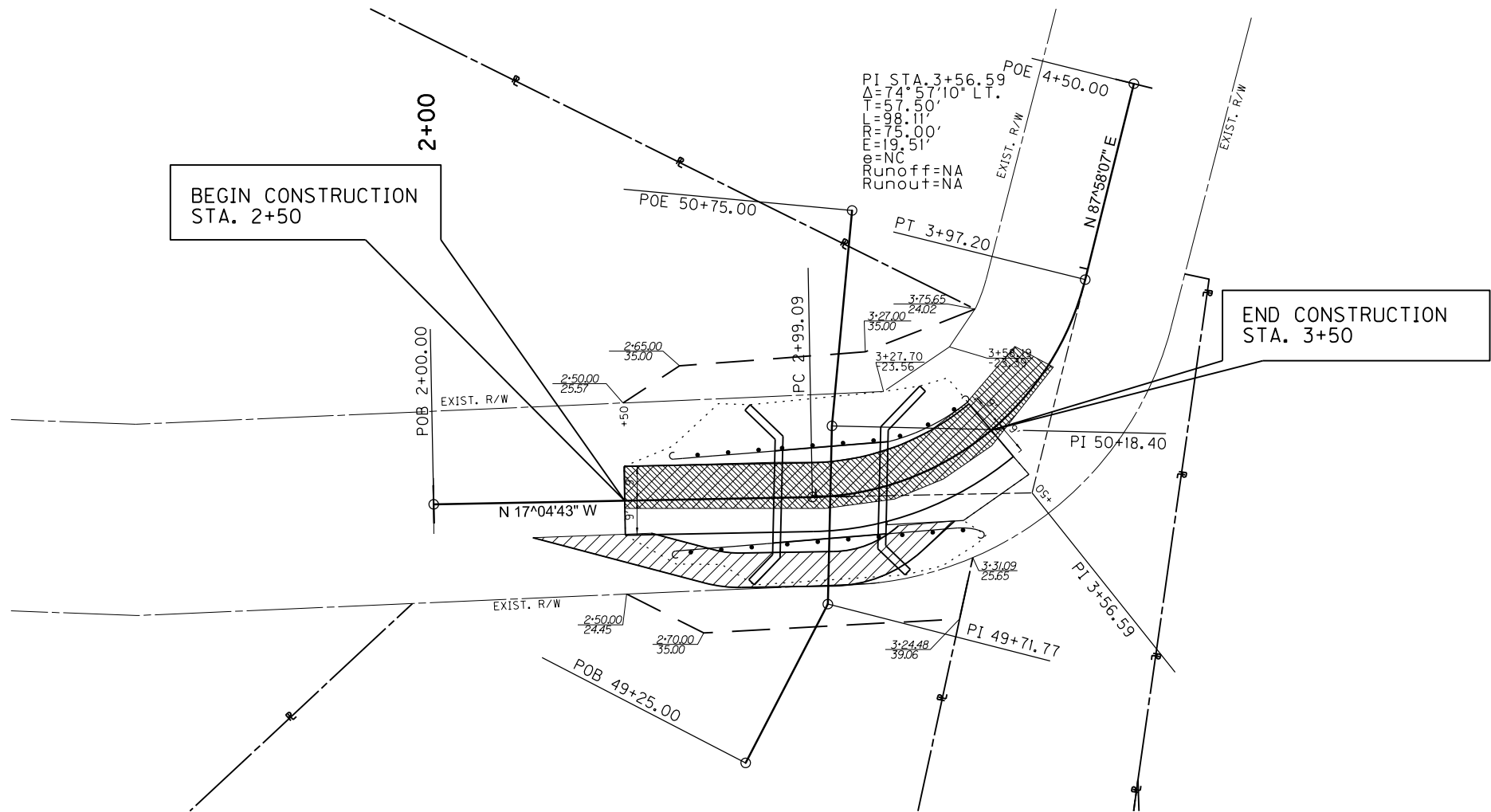
Variable message boards are suggested in advance of the work zone area.

PHASE 1

Install signs along Peel Road
Maintain traffic on existing run-around
Remove existing structure as necessary for construction
Construct new structure - part width

PHASE 2

Shift traffic to new structure - maintain 1 lane
Construct remaining bridge width
Pour Concrete Deck while maintaining 1 lane
Install guardrail
Remove remainder of structure



SCALE: 1"=20'

PEEL ROAD
MAINTENANCE OF TRAFFIC

		<h1>EROSION CONTROL NOTES</h1>																									
		<p>ALL SILT CONTROL DEVICES SHALL BE SIZED TO RETAIN A VOLUME OF 3,600 CUBIC FEET PER DISTURBED CONTRIBUTING ACRE.</p> <p>THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED GROUND DURING EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL COMPUTE THE VOLUME NECESSARY TO CONTROL SEDIMENT DURING EACH PHASE OF CONSTRUCTION. AS WORK PROCEEDS, SILT TRAPS MAY BE ADDED OR REMOVED IN ORDER TO ACHIEVE THE BEST MANAGEMENT PLAN. THE REQUIRED VOLUME AT EACH ADDED SILT TRAP SHALL BE COMPUTED AS UP GRADIENT CONTRIBUTING AREAS ARE DISTURBED OR ARE STABILIZED TO THE SATISFACTION OF THE ENGINEER. THE REQUIRED VOLUME CALCULATION FOR EACH SILT TRAP SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER. THE REQUIRED VOLUME AT EACH SILT TRAP MAY BE REDUCED BY THE FOLLOWING AMOUNTS:</p> <ul style="list-style-type: none">- UPGRADIENT AREAS NOT DISTURBED (ACRES).- UPGRADIENT AREAS THAT HAVE BEEN RECLAIMED AND PROTECTED BY EROSION CONTROL BLANKET OR OTHER GROUND PROTECTION MATERIAL SUCH AS TEMPORARY MULCH.(ACRES).- THE USE OF TEMPORARY MULCH IS ENCOURAGED.- UPGRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT FENCE (ACRES).- AREAS PROTECTED BY SILT FENCE SHALL BE COMPUTED AT A MAXIMUM RATE OF 100 SQUARE FOOT PER LINEAR FOOT OF SILT FENCE.- UPGRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT TRAPS (ACRES). <p>THE EROSION CONTROL PLAN SHALL BE ANNOTATED AS THE WORK PROCEEDS BY THE CONTRACTOR TO DETAIL THE SELECTION OF EACH EROSION CONTROL DEVICE USED AND THE VOLUME PROVIDED BY EACH SILT TRAP IN ACCORDANCE WITH THE DOCUMENTATION PROCEDURES ESTABLISHED BY THE DIVISION OF CONSTRUCTION.</p> <p>IF A SILT BASIN IS NOT USED THEN ONE SILT TRAP TYPE A,ALTERNATE NUMBER 2 OR SILT TRAP TYPE B SHALL ALWAYS BE PLACED AT THE MOST REMOTE DOWNSTREAM COLLECTION POINT PRIOR TO DISCHARGING INTO A BLUE LINE STREAM OR ONTO AN ADJACENT PROPERTY OWNER. WHERE OVERLAND FLOW EXIST, A SILT FENCE OR OTHER FILTER DEVICES MAY BE USED OR THE OVERLAND FLOW MAY BE DIVERTED TO ONE OF THE AFOREMENTIONED SILT BASIN OR TRAPS.</p> <p>THE EROSION CONTROL PLANS DO NOT CONSTITUTE A BMP BY THEMSELVES. THEY PROVIDE A STARTING POINT FOR THE CONTRACTOR AND RESIDENT ENGINEER TO DEVELOP THE BMP ACCORDING TO SECTION 213.03.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,AND THE SUPPLEMENTAL SPECS EFFECTIVE WITH THE AUGUST, 2014 LETTING.</p> <p>EROSION CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONING PRIOR TO ANY EXCAVATION OR DISTURBANCE WITHIN A DRAINAGE AREA.</p> <p>THE CONTRACTOR SHALL BE REQUIRED TO CLEAN OUT (REMOVE SEDIMENT FROM) SILT TRAPS AND SILT FENCES WHENEVER THEY BECOME ONE-THIRD FULL AND PROPERLY DISPOSE OF THE MATERIAL AT SITES APPROVED BY THE RESIDENT ENGINEER.</p> <p>EROSION CONTROL MEASURES EMPLOYED BY THE CONTRACTOR WILL BE UNIQUE TO THE PROJECT AND WORK CONDITIONS AND SHALL BE APPROVED BY THE RESIDENT ENGINEER. THE DEVELOPMENT AND UTILIZATION OF THESE MEASURES WILL BE RECORDED AS PART OF THE BMP,KEPT ON SITE,AND AVAILABLE FOR PUBLIC INSPECTION.</p>																									
		<div><div>EROSION CONTROL LEGEND</div><table><tr><td>SILT TRAP TYPE A ALTERNATE 1</td><td></td></tr><tr><td>SILT TRAP TYPE A ALTERNATE 2</td><td></td></tr><tr><td>SILT TRAP TYPE B</td><td></td></tr><tr><td>SILT TRAP TYPE C</td><td></td></tr><tr><td>SILT FENCE</td><td></td></tr><tr><td>TEMPORARY SILT DITCH</td><td></td></tr><tr><td>DISTURBED DRAINAGE AREA</td><td></td></tr><tr><td>OVERLAND SHEET FLOW</td><td></td></tr><tr><td>PROPOSED R/W</td><td></td></tr><tr><td>PROPOSED EASEMENT</td><td></td></tr><tr><td colspan="2">DATUM</td></tr></table></div>				SILT TRAP TYPE A ALTERNATE 1		SILT TRAP TYPE A ALTERNATE 2		SILT TRAP TYPE B		SILT TRAP TYPE C		SILT FENCE		TEMPORARY SILT DITCH		DISTURBED DRAINAGE AREA		OVERLAND SHEET FLOW		PROPOSED R/W		PROPOSED EASEMENT		DATUM	
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THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED GROUND DURING EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN THE DISTURBED AREAS TO THE SATISFACTION OF THE ENGINEER. EACH PHASE OF CONSTRUCTION, AS WORK PROCEEDS, SILT TRAPS MAY BE ADDED OR REMOVED IN ORDER TO ACHIEVE THE BEST MANAGEMENT PLAN. THE REQUIRED VOLUME OF SILT TRAP SHALL BE DETERMINED BY THE ENGINEER. THE REQUIRED VOLUME OF SILT TRAP SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER. THE REQUIRED VOLUME AT EACH SILT TRAP MAY BE REDDED BY THE FOLLOWING AMOUNTS:

- UPGRADEMENT AREAS NOT DISTURBED (ACRES).
- UPGRADEMENT AREAS THAT HAVE BEEN RECLAIMED AND PROTECTED BY EROSION CONTROL BLANKET OR OTHER GROUND PROTECTION MATERIAL SUCH AS TEMPORARY MULCH.(ACRES).
- THE USE OF TEMPORARY MULCH IS ENCOURAGED.
- UPGRADEMENT AREAS THAT HAVE BEEN PROTECTED BY SILT FENCE (ACRES).
- AREAS PROTECTED BY SILT FENCE SHALL BE COMPUTED AT A MAXIMUM RATE OF 100 SQUARE FOOT PER LINEAR FOOT OF SILT FENCE.
- UPGRADEMENT AREAS THAT HAVE BEEN PROTECTED BY SILT TRAPS (ACRES).

THE EROSION CONTROL PLAN SHALL BE ANNOTATED AS THE WORK PROCEEDS BY THE CONTRACTOR TO DETAIL THE SELECTION OF EACH EROSION CONTROL DEVICE USED AND THE VOLUME PROVIDED BY EACH SILT TRAP IN ACCORDANCE WITH THE DOCUMENTATION PROCEDURES ESTABLISHED BY THE DIVISION OF CONSTRUCTION.

IF A SILT BASIN IS NOT USED THEN ONE SILT TRAP TYPE A, ALTERNATE NUMBER 2 OR SILT TRAP TYPE B SHALL ALWAYS BE PLACED AT THE MOST REMOTE DOWNSTREAM COLLECTION POINT PRIOR TO DISCHARGING INTO A BLUE LINE STREAM OR ONTO AN ADJACENT PROPERTY OWNER, WHERE OVERLAND FLOW EXISTS, A SILT FENCE OR OTHER FILTER DEVICES MAY BE USED OR THE OVERLAND FLOW MAY BE DIVERTED TO ONE OF THE AFOREMENTIONED SILT BASIN OR TRAPS.















THE EROSION CONTROL PLANS DO NOT CONSTITUTE A BMP BY THEMSELVES. THEY PROVIDE A STARTING POINT FOR THE CONTRACTOR AND RESIDENT ENGINEER TO DEVELOP THE BMP ACCORDING TO SECTION 213.03.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE SUPPLEMENTAL SPECS EFFECTIVE WITH THE AUGUST, 2014 LETTING.

EROSION CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONING PRIOR TO ANY EXCAVATION OR DISTURBANCE WITHIN A DRAINAGE AREA.

THE CONTRACTOR SHALL BE REQUIRED TO CLEAN OUT (REMOVE SEDIMENT FROM) SILT TRAPS AND SILT FENCES WHENEVER THEY BECOME ONE-THIRD FULL AND PROPERLY DISPOSE OF THE MATERIAL AT SITES APPROVED BY THE RESIDENT ENGINEER.

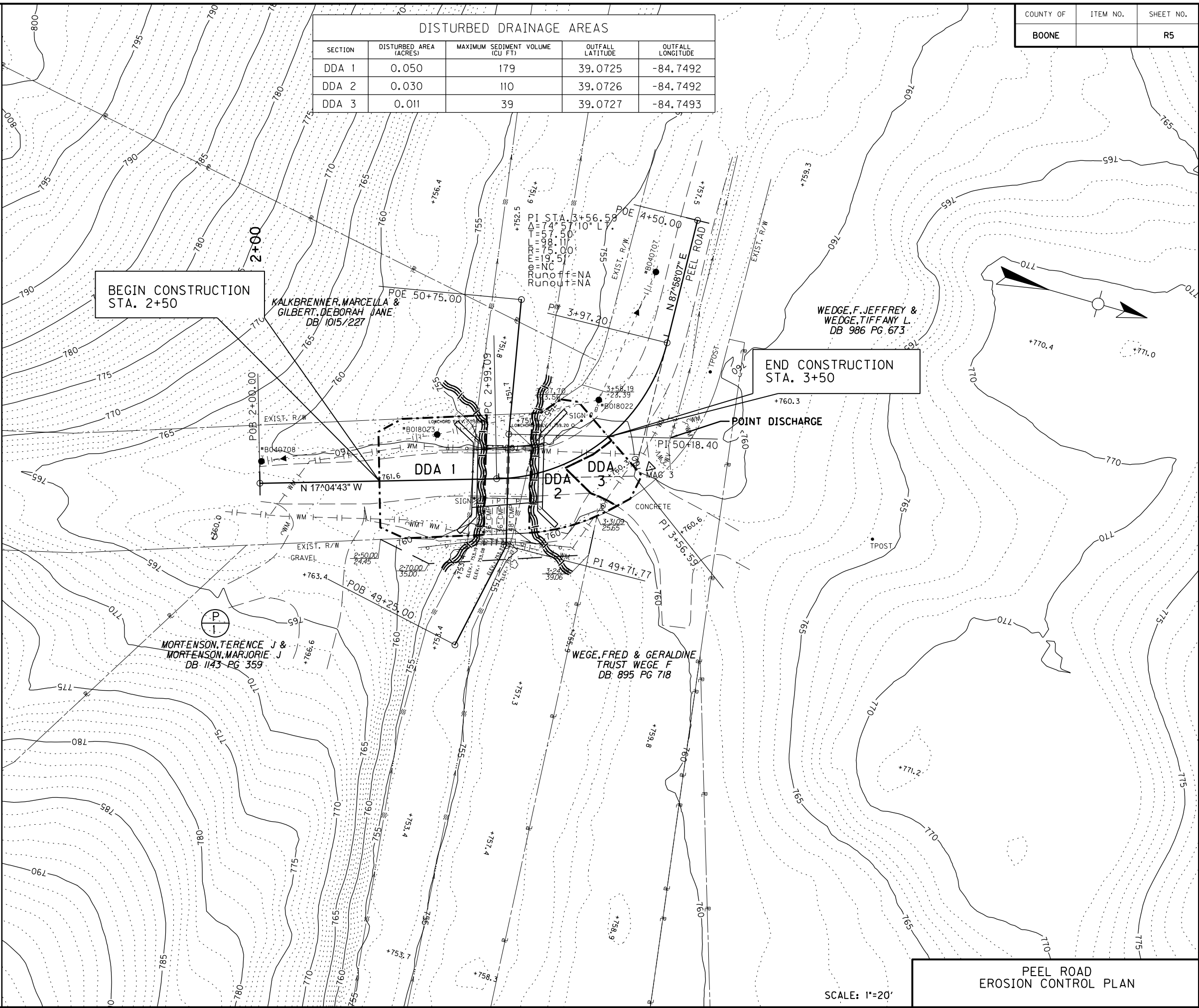
EROSION CONTROL MEASURES EMPLOYED BY THE CONTRACTOR WILL BE UNIQUE TO THE PROJECT AND WORK CONDITIONS AND SHALL BE APPROVED BY THE RESIDENT ENGINEER. THE DEVELOPMENT AND UTILIZATION OF THESE MEASURES WILL BE RECORDED AS PART OF THE BMP, KEPT ON SITE, AND AVAILABLE FOR PUBLIC INSPECTION.

EROSION CONTROL LEGEND

SILT TRAP TYPE A ALTERNATE 1	
SILT TRAP TYPE A ALTERNATE 2	
SILT TRAP TYPE B	 
SILT TRAP TYPE C	 
SILT FENCE	 SF 
TEMPORARY SILT DITCH	
DISTURBED DRAINAGE AREA	
OVERLAND SHEET FLOW	
PROPOSED R/W	
PROPOSED EASEMENT	
DATUM	

NOTE: ADDITIONAL EXCAVATION, GRADING, OR OTHER SOIL
DISTURBING ACTIVITIES OUTSIDE THE DISTURB LIMITS AS
SHOWN TO BE ADDRESSED BY THE CONTRACTOR. EROSION
PREVENTION AND SEDIMENT CONTROLS FOR THOSE ACTIVITIES
TO BE SHOWN ON LATER VERSIONS OF THE BMP KEPT ON SITE.

DISTURBED DRAINAGE AREAS				
SECTION	DISTURBED AREA (ACRES)	MAXIMUM SEDIMENT VOLUME (CU FT)	OUTFALL LATITUDE	OUTFALL LONGITUDE
DDA 1	0.050	179	39.0725	-84.7492
DDA 2	0.030	110	39.0726	-84.7492
DDA 3	0.011	39	39.0727	-84.7493



SCALE: 1"=20'

PEEL ROAD
EROSION CONTROL PLAN

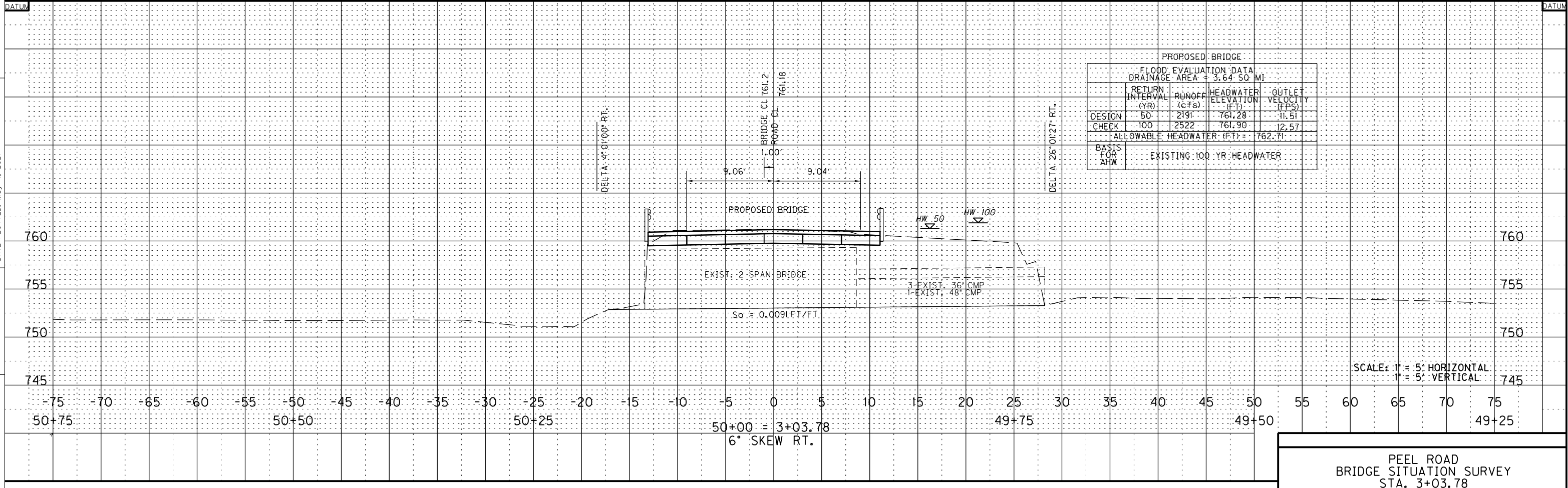
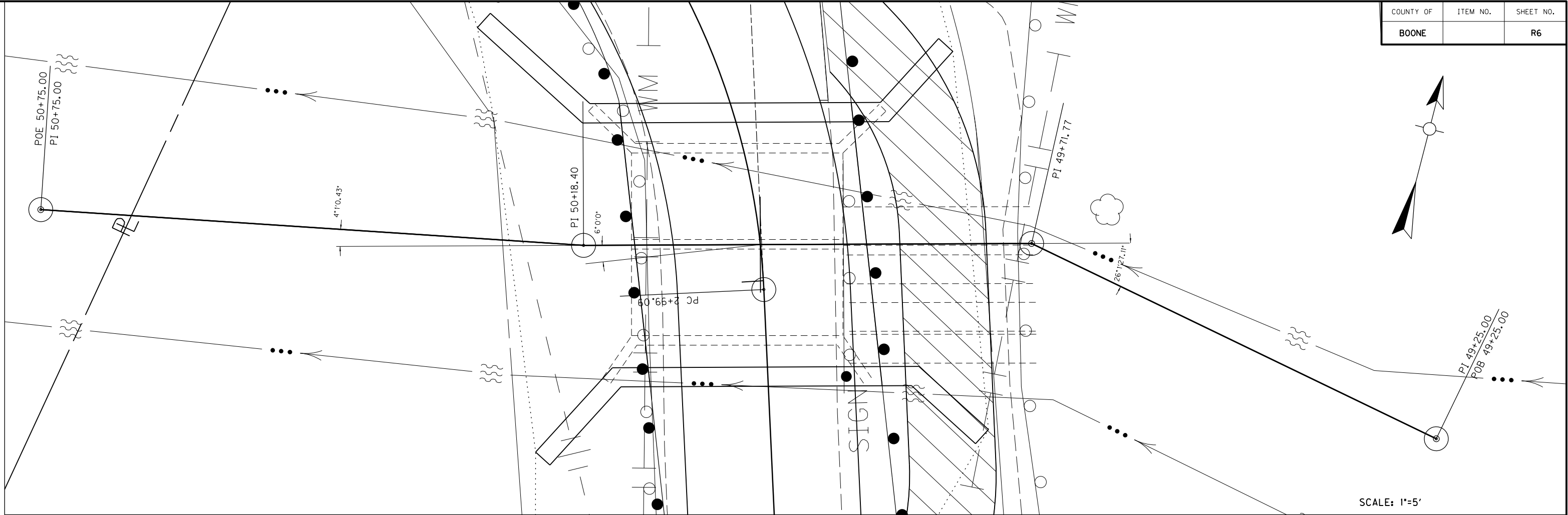
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USER: stephen
DATE PLOTTED: May 4, 2021

E-SHEET NAME:

Power InRoads v8.11.9.397

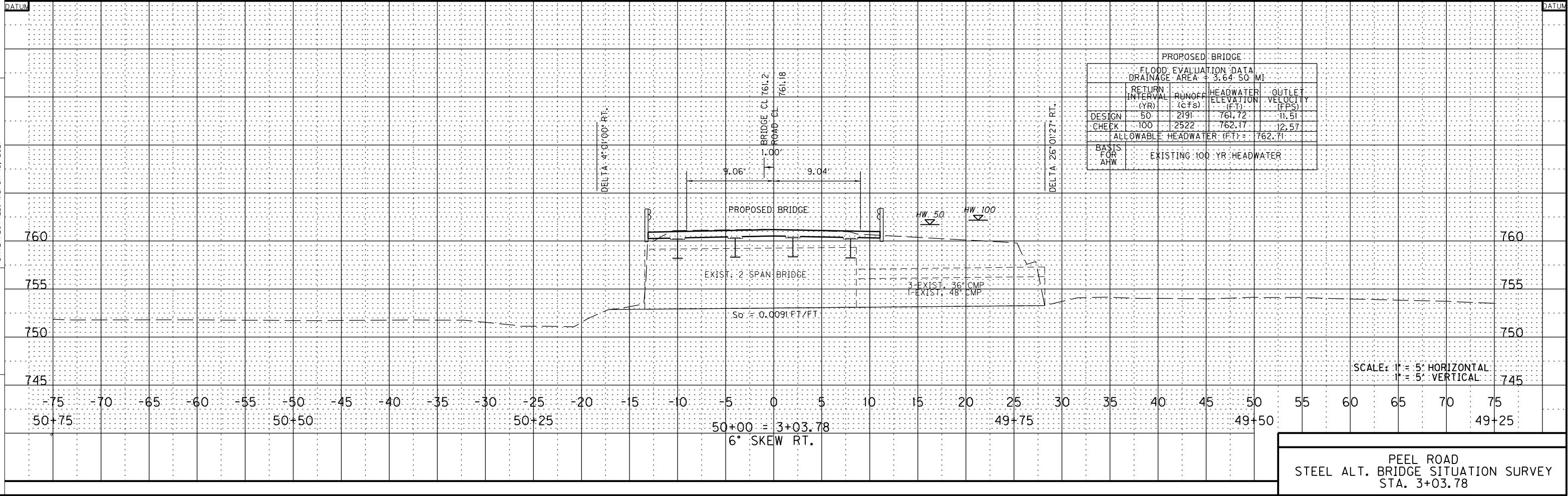
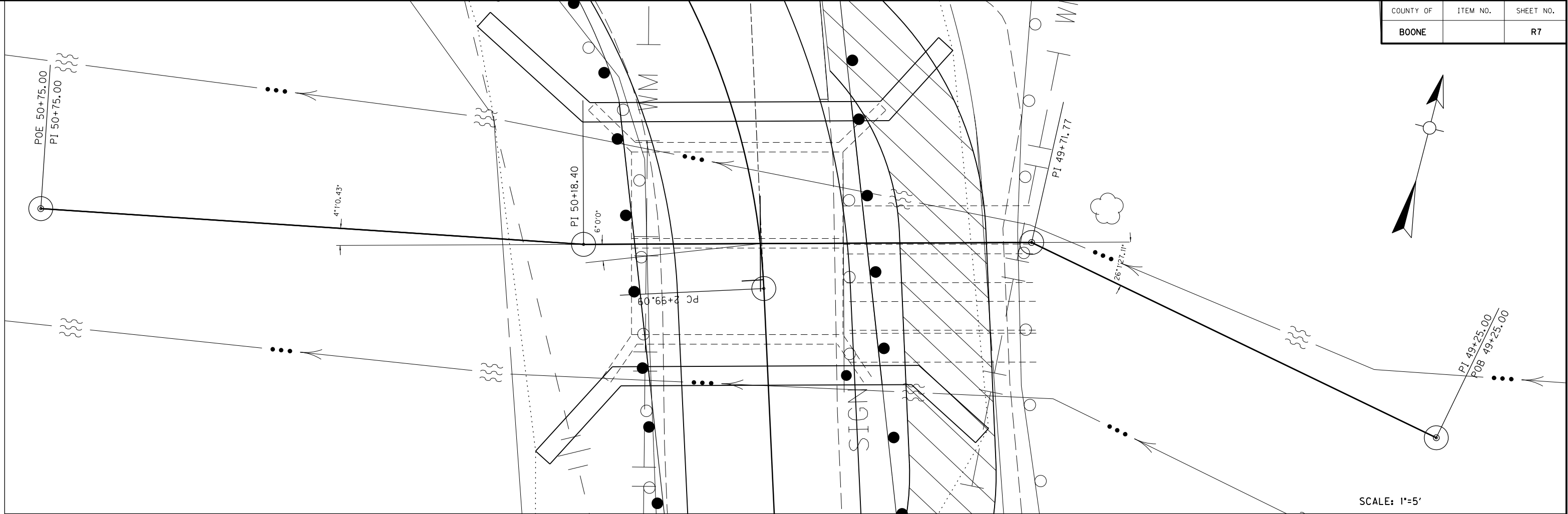
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BOONE		R6



PEEL ROAD
BRIDGE SITUATION SURVEY
STA. 3+03.78

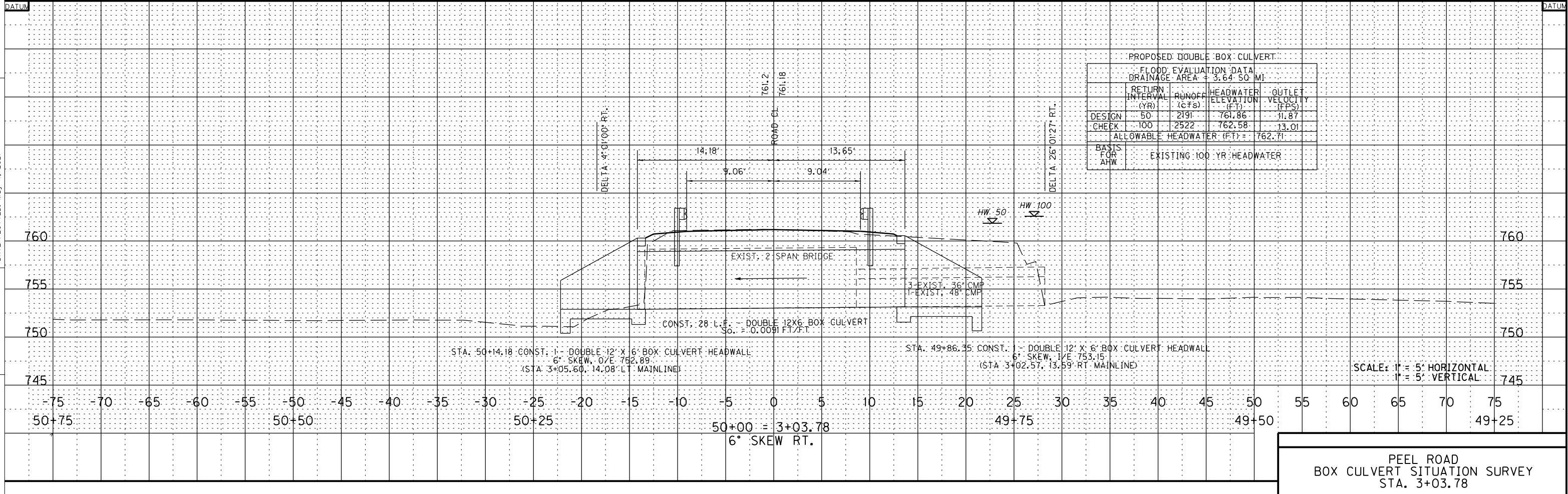
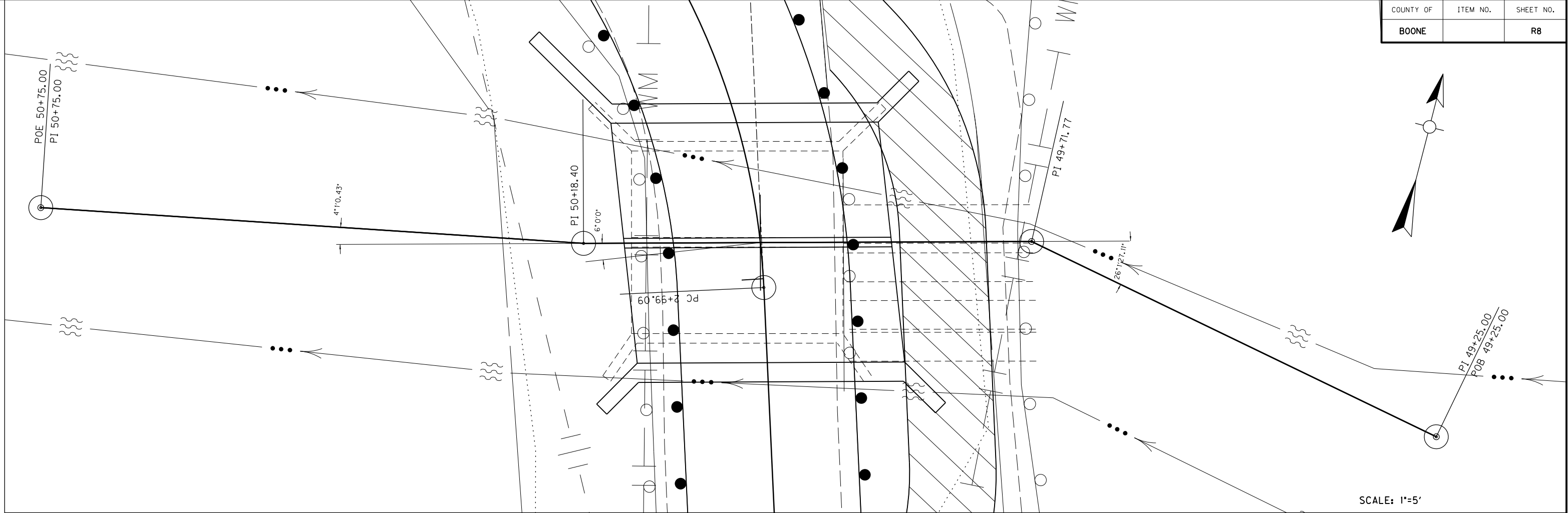
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USER: stephen
DATE PLOTTED: March 15, 2021
Power InRoads v8.11.9.397 E-SHEET NAME:

COUNTY OF	ITEM NO.	SHEET NO.
BOONE		R7



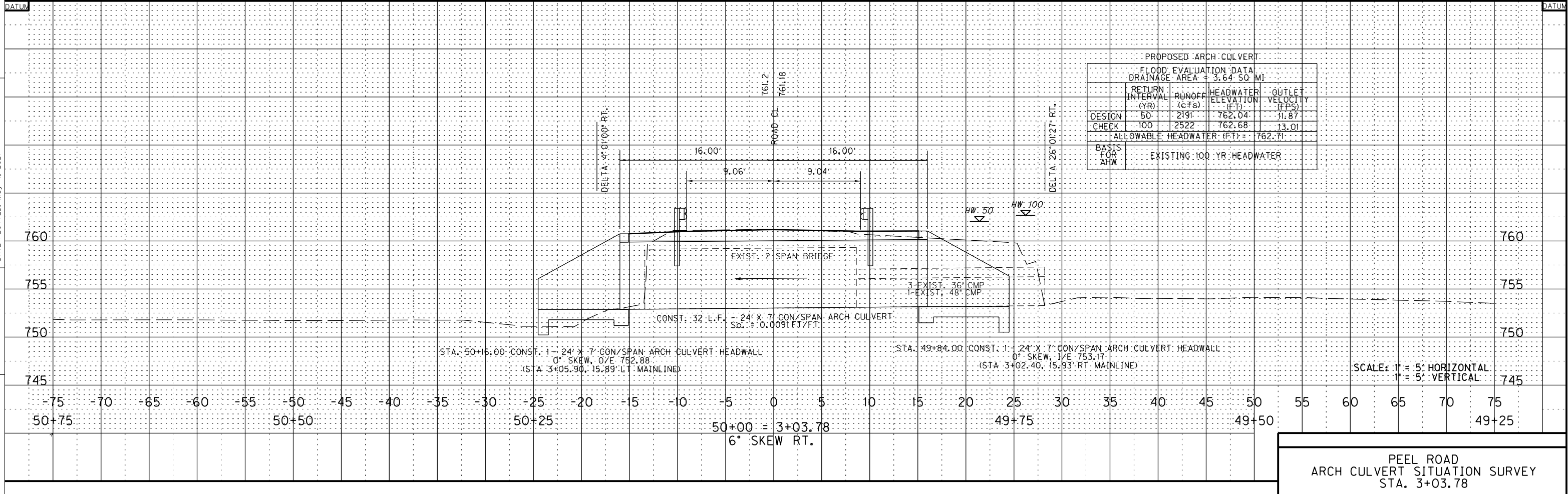
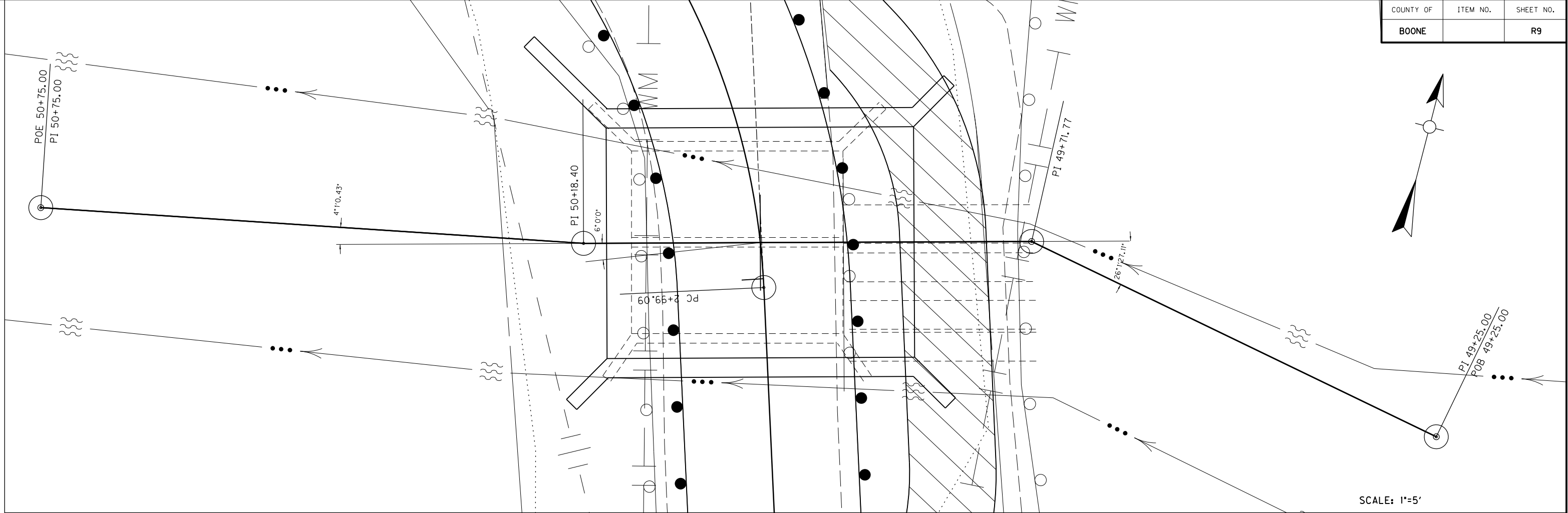
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USER: stephen
DATE PLOTTED: May 4, 2021
Power InRoads v8.11.9.397 E-SHEET NAME:

COUNTY OF	ITEM NO.	SHEET NO.
BOONE		R8



FILE NAME: C:\PW\WORKDIR\STEPHEN SEWELL\00107375\ARCH CULVERT SITUATION SHEET.DGN
USER: stephen
DATE PLOTTED: May 4, 2021
Power InRoads v8.11.9.397 E-SHEET NAME:

COUNTY OF	ITEM NO.	SHEET NO.
BOONE		R9



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4/27/2021

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FILE NAME: C:\PW\WORKDIR\DO107428\PEEL_BORDER.dgn

USER: jeff-r
DATE PLOTTED: September 18, 2012

E-SHEET NAME:

MicroStation v8.1i.9.536

SPECIFICATIONS:

All references to the Standard Specifications are to the 2019 edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, with current supplemental specifications. All references to the AASHTO Specifications are to the 9th edition (2020) of the AASHTO LRFD Bridge Design Specifications.

LIVE LOAD:

This bridge is designed for KYHL-93 which is 1.25 times the HL-93 live load.

WIND LOAD:

This bridge is designed for a wind load based on a 3 second gust wind speed of 115 mph.

FUTURE WEARING SURFACE:

The bridge has been designed for a future wearing surface weight of 15 psf.

MATERIAL DESIGN SPECIFICATIONS:

For Class "A" Reinforced Concrete: f'c = 3500 PSI
For Class "AA" Reinforced Concrete: f'c = 4000 PSI
For Steel Reinforcement: fy = 60,000 PSI

CONCRETE:

Class "AA" concrete is to be used throughout the Slab.
Prestressed girder concrete shall be in accordance with KYTC Std. Dwg. BDP-006-05.
All other concrete shall be Class "A" unless otherwise noted.

FOUNDATION DATA:

See Geotechnical Sheet.

DIMENSIONS:

Dimensions are for a normal temperature of 60 degrees F. Layout dimensions are horizontal measurements. Stationing and elevations are in feet.

REINFORCEMENT:

Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2 inches unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with Section 811.10 of the Standard Specifications.

Any reinforcing bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup bar for purposes of bend diameters.

All reinforcement placed in Class "AA" concrete shall be epoxy coated in accordance with section 811.10 of the Specifications.

ELASTOMERIC BEARING PADS:

Elastomeric bearing pads shall conform to Type A1 and B1 of Standard drawings BBP-003-02 and BDP-002-03.

Cost of bearing pads is to be included in the unit price bid per linear foot of precast beams.

SHOP DRAWINGS:

Submit shop drawings that are required by the plans and specifications directly to the Consultant. If changes in the design plans are proposed by a fabricator or supplier, submit those changes to the designer through the county. Submit all final, approved shop drawings to the Boone County Judge Executive.

CONSTRUCTION IDENTIFICATION:

The names of the prime contractor and the sub-contractor shall be imprinted in the concrete with 1" letters at a location designated by the engineer. The contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

ON-SITE INSPECTION:

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

TEMPORARY SUPPORTS:

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

BEVELED EDGES:

All exposed edges shall be beveled $\frac{3}{4}$ " unless otherwise shown.

COMPLETION OF THE STRUCTURE:

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

QUANTITIES:

Quantities shown on the cover sheet under "Estimate of Quantities" are approximate only and the Contractor is responsible for furnishing enough material to complete the work in accordance with the Plans and Specifications .

COFFERDAMS:

Cofferdams, sheeting, or shoring necessary for the construction of any phase of work shall be incidental to the lump sum bid for "Bridge Replacement".

INCIDENTAL MATERIAL:

The structure is to be completed in accordance with the plans and specifications. Materials or labor not otherwise specified are to be considered incidental to the contract.

REMOVE EXISTING STRUCTURE:

The Contractor is responsible for removing the existing structure and disposing of it completely away from the site. The stream shall be restored as nearly as possible to its original section at the location of the existing structure.

SLOPE PROTECTION:

Slope protection shall be Cyclopean Stone slope protection in accordance with the plans and specifications.

SPREAD FOOTINGS ON ROCK:

Solid rock excavation will be necessary in order to found the base of footing elevations into competent unweathered bedrock.

All footing excavations in bedrock shall be cut neat so that no forming or backfilling is necessary in the construction of the portions of the footings located in rock. Alternatively, the bedrock could be over-excavated and backfilled with low-strength concrete to establish the footing subgrade. Concrete and steel should be placed directly against the cut rock faces. Any excavation outside of the footing perimeter shall be backfilled to the original rock surface with mass concrete. Where the tops of footings are below the original rock surface, mass concrete shall be placed from the top of the footing to the top of the rock.

It is recommended to place a low-strength concrete mud-mat over the bedrock if excavations must remain open for roughly a day or more. It is recommended that the geotechnical engineer be retained to observe the foundation bearing materials.

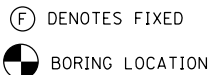
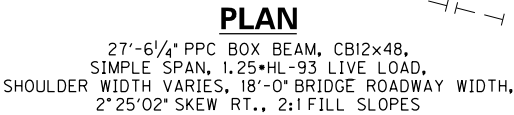
Temporary sheeting or shoring and a dewatering method may be required for installation of the footings. Dewatering shall be the responsibility of the contractor.

STRUCTURE ALTERNATES:

The Contractor shall be responsible for any additional design if a structure alternate is chosen for construction.

REVISION	DATE
DATE: APRIL, 2021	CHECKED BY
DESIGNED BY: L.M. SALLEE	S.A. SERGENT
DETAILED BY: J.A. ROSE	L.M. SALLEE
BOONE COUNTY BRIDGE REPLACEMENT	
ROUTE PEEL DRIVE	
CROSSING WOOLPER CREEK	
GENERAL NOTES	
PREPARED BY	SHEET NO.
PALMER ENGINEERING CO.	S02
	DRAWING NO.
	28426

MicroStation v8.11.9.536



REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY: L.M. SALLEE		S.A. SERGENT	
DETAILED BY: J.A. ROSE		L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
BRIDGE LAYOUT			
PREPARED BY PALMER ENGINEERING CO.		SHEET NO. S03 DRAWING NO. 28426	

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4/27/2021

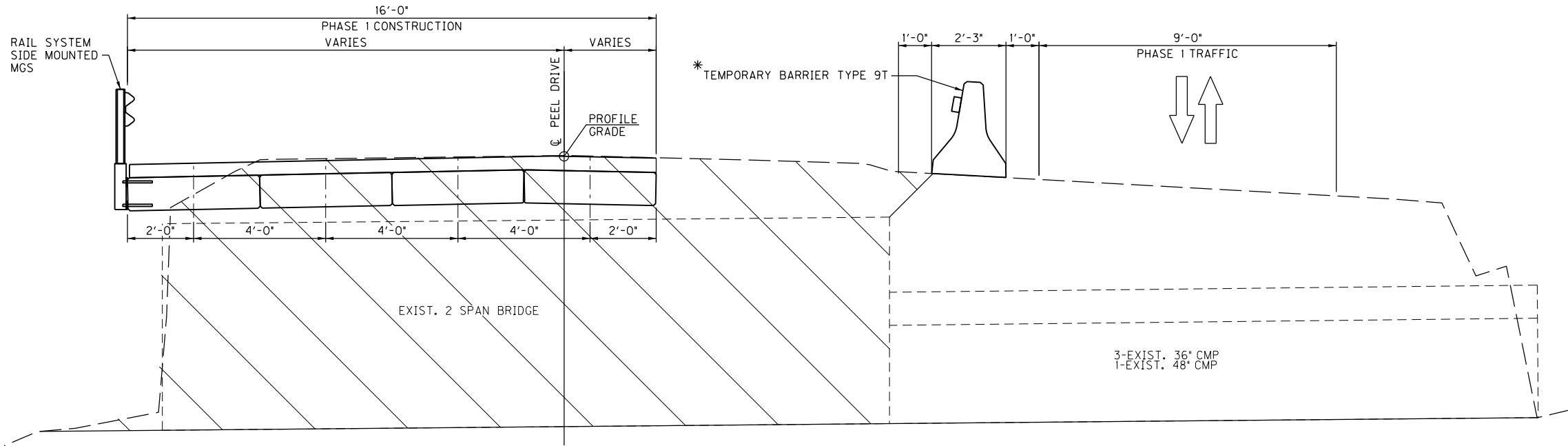
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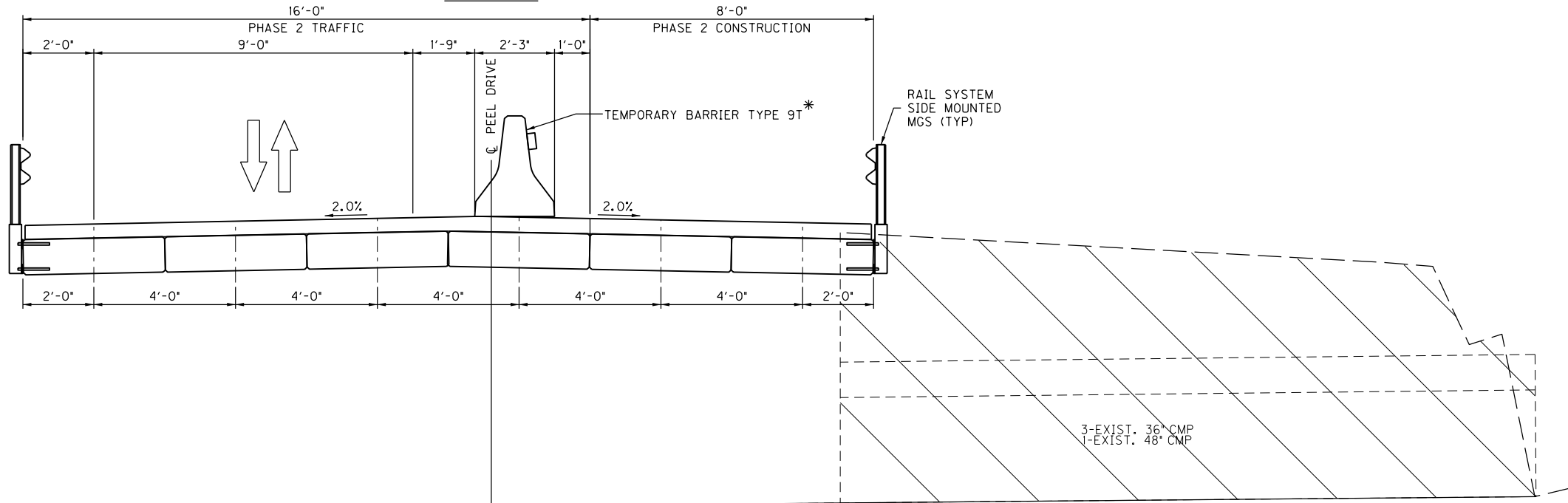
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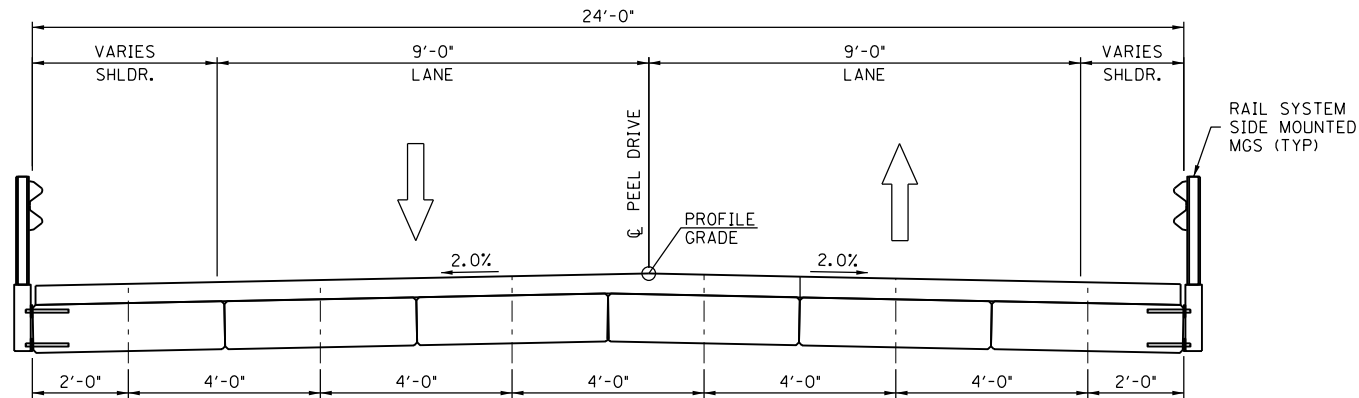
USER: jeff-r
DATE PLOTTED: September 18, 2012



PHASE 1

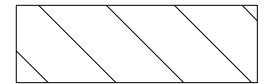


PHASE 2



FINAL CONDITION

(6~CB 12X48 BOX BEAMS)

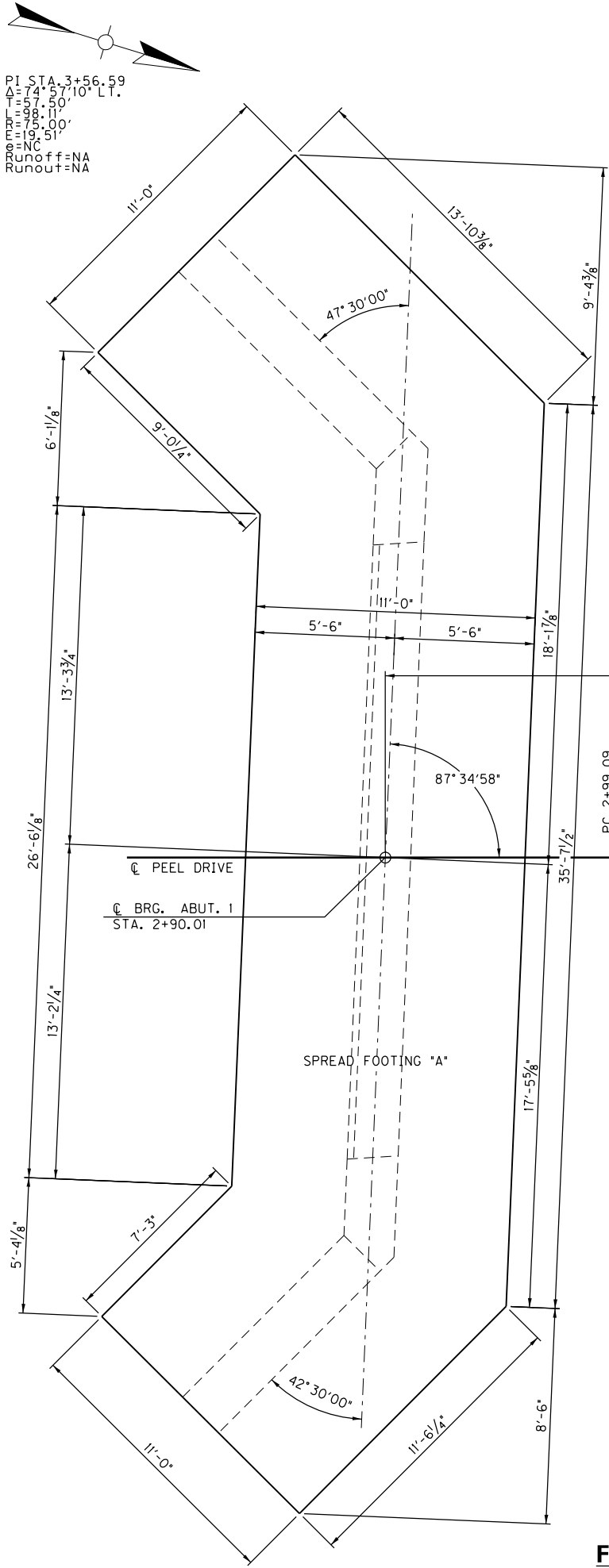


INDICATES REMOVAL LIMITS

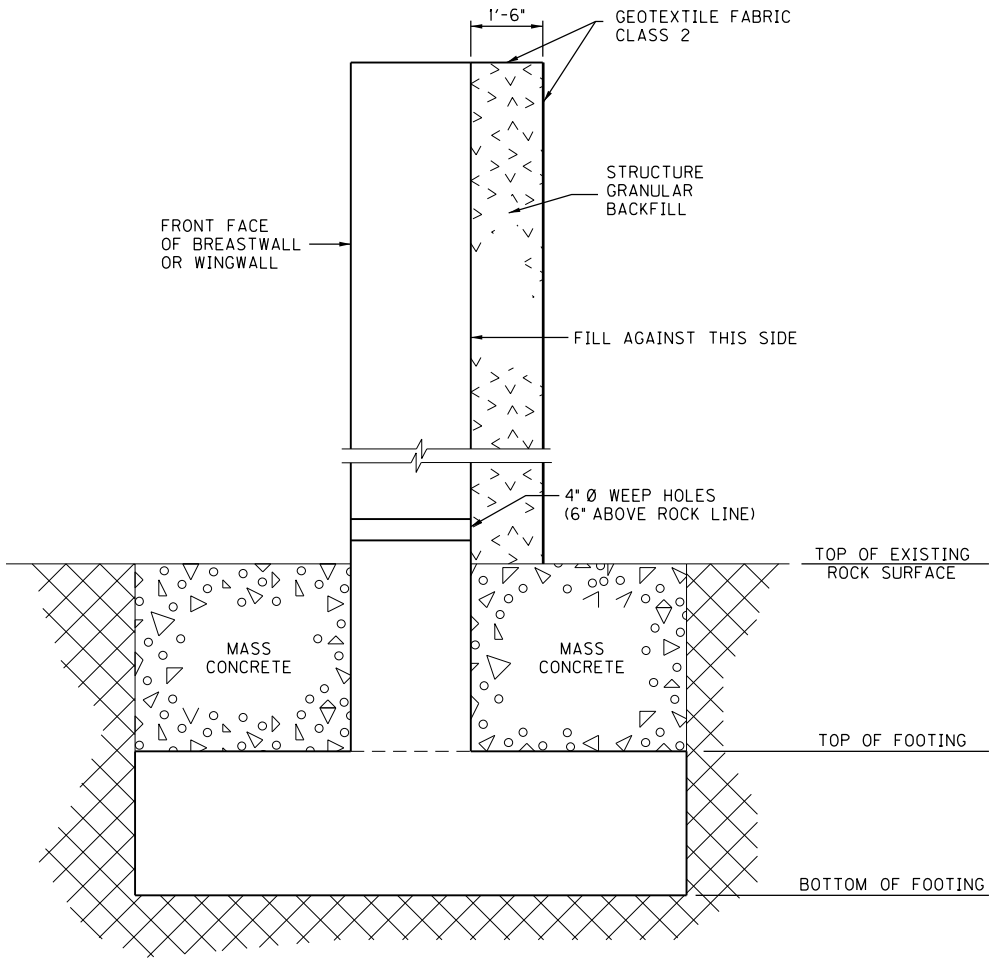
* USE BOX BEAM STIFFENING WITH TYPE 9T BARRIERS IN ACCORDANCE WITH KYTC STD. DWG. RBM-120,c.e.

REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY: L.M. SALLEE		S.A. SERGENT	
DETAILED BY: J.A. ROSE		L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
MAINTENANCE OF TRAFFIC			
PREPARED BY		SHEET NO.	
PALMER ENGINEERING CO.		S04	
		DRAWING NO.	
		28426	

PI STA. 3+56.59
Δ=74°57'10" Lt.
T=57.50'
B=98.01'
E=15.00'
e=NC
Runoff=NA
Runout=NA



FOUNDATION PLAN



ABUTMENT BACKFILL DETAIL

SPREAD FOOTING RECORD

FOOTING	PLAN FOOTING ELEVATION	AS-BUILT FTG. ELEVATION
A	747.00	
B	747.00	

THE ALLOWABLE BEARING CAPACITY IS 20 KSF
FOOTING IS DESIGNED FOR A MAXIMUM
SERVICE PRESSURE OF 8.0 KSF

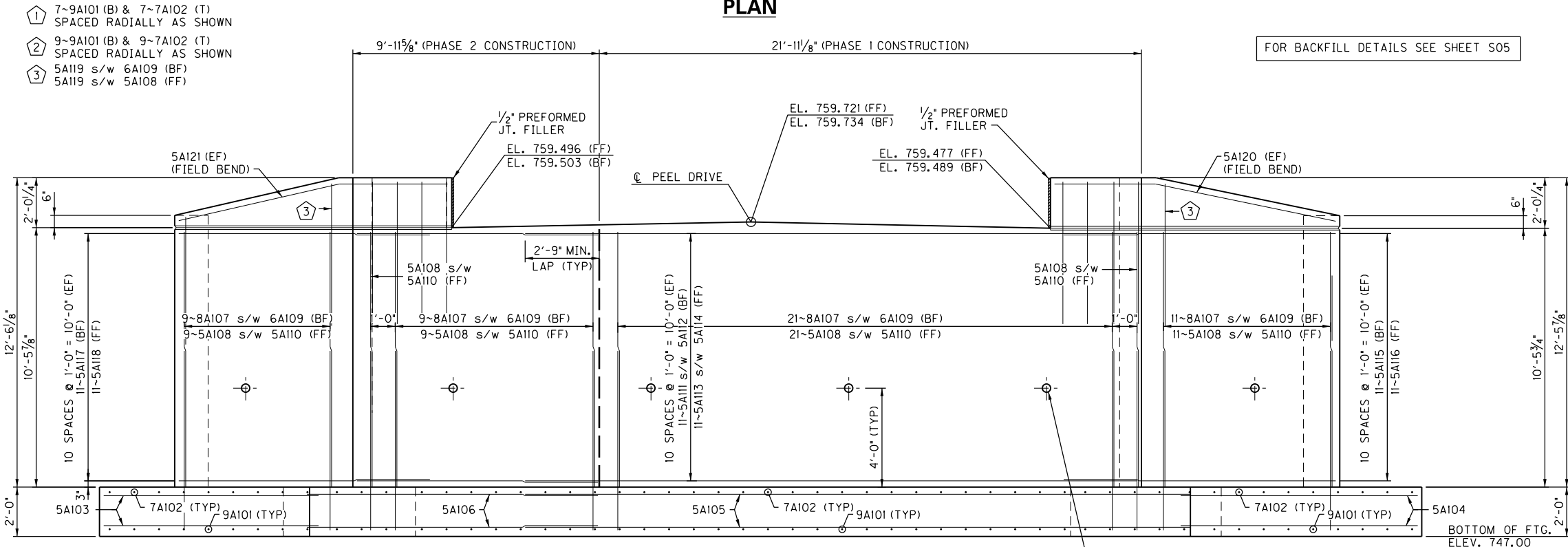
NOTE: AFTER ALL FOUNDATIONS HAVE BEEN PLACED, THE PROJECT
RESIDENT ENGINEER SHALL RECORD THE BOTTOM OF FOOTING
ELEVATION "AS BUILT" AND SHALL SUBMIT ONE COPY OF THIS SHEET
WITH THIS DATA TO:

JUDGE / EXECUTIVE
2950 WASHINGTON STREET
BURLINGTON, KY 41005

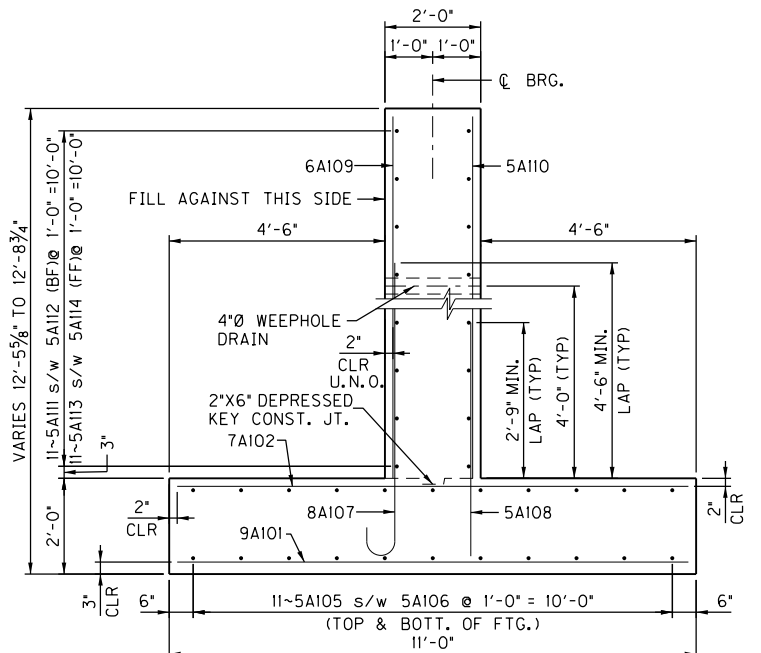
NOTE: IF THE SPREAD FOOTING FOUNDATION IS STEPPED DUE TO
UNSUITABLE MATERIAL FOUND AT THE GIVEN ELEVATION, THE
LOCATION AND ELEVATION OF THE STEP SHALL BE SHOWN ON THIS
SHEET AND SUBMITTED ALONG WITH AS-BUILT ELEVATIONS.

NOTE: SEE BACKFILL DETAIL ON THIS SHEET FOR MASS CONCRETE
REQUIREMENTS IF TOP OF FOOTING IS BELOW EXISTING ROCK LINE.

REVISION		DATE
DATE: APRIL, 2021	CHECKED BY	
DESIGNED BY: L.M. SALLEE	S.A. SERGENT	
DETAILED BY: J.A. ROSE	L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT		
ROUTE PEEL DRIVE		
CROSSING WOOLPER CREEK		
FOUNDATION LAYOUT		
PREPARED BY		SHEET NO. S05
PALMER ENGINEERING CO.		DRAWING NO. 28426

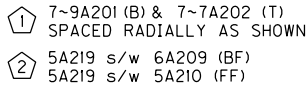


4" Ø WEEP HOLE DRAINS AT 8'-0" CENTERS AT SUCH ELEVATION AS TO AFFORD BEST DRAINAGE OF BACKFILL, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. (6" ABOVE ROCK LINE OR APPROX. ELEV. 753.00)



(EF) - EACH FACE
(BF) - BACK FACE
(FF) - FRONT FACE
s/w - SPLICE WITH
(T) - TOP
(B) - BOTTOM
(LW) - LONG WING
(SW) - SHORT WING

REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY: L.M. SALLEE		S.A. SERGENT	
DETAILED BY: J.A. ROSE		L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
<i>ABUTMENT 1</i>			
PREPARED BY		SHEET NO. S06	
<i>PALMER ENGINEERING CO.</i>		DRAWING NO. 28426	



PLAN

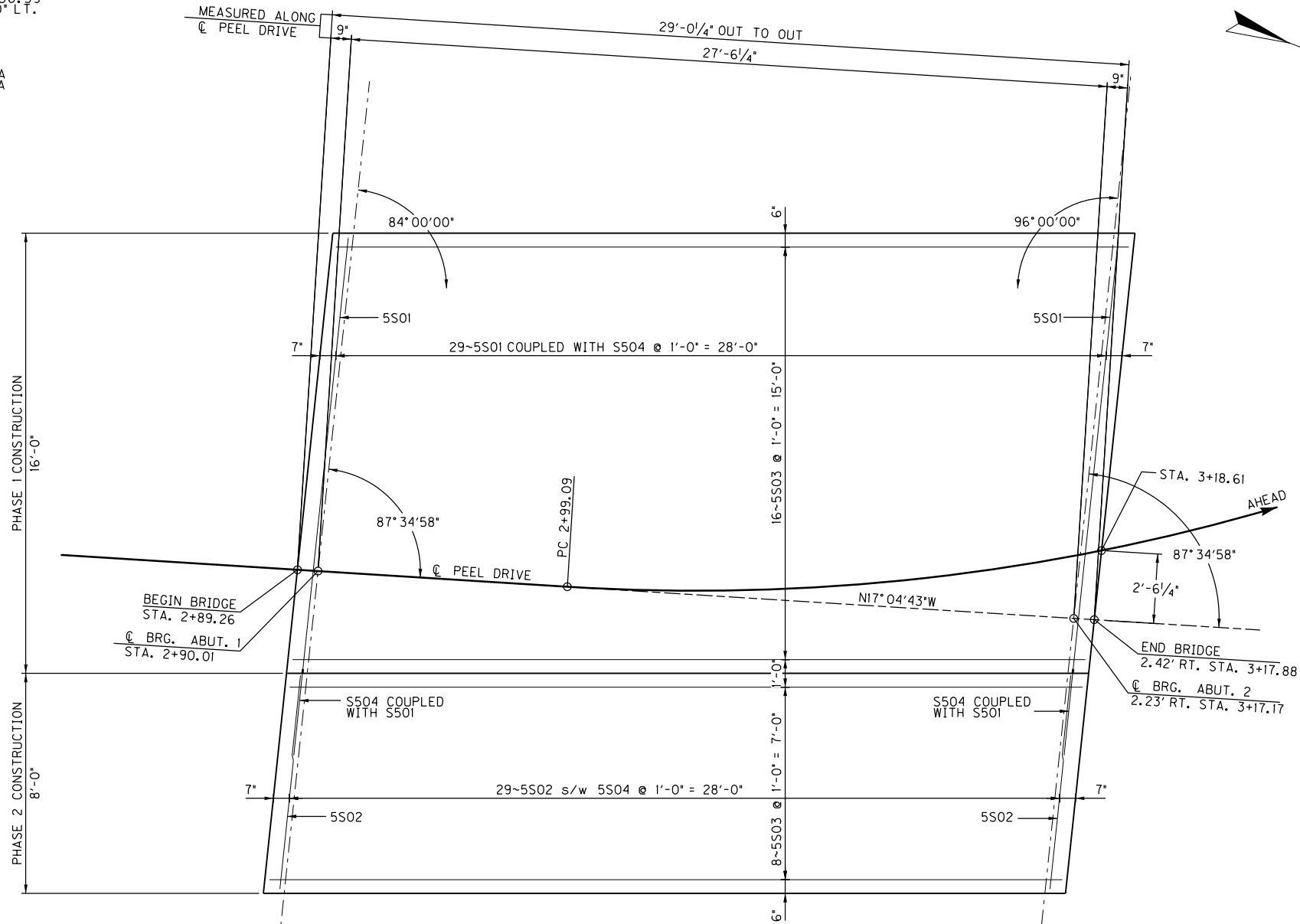
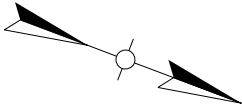


4" Ø WEEP HOLE DRAINS AT 8'-0" CENTERS AT SUCH ELEVATION AS TO AFFORD BEST DRAINAGE OF BACKFILL, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. (6" ABOVE ROCK LINE OR APPROX. ELEVATION 752.00)

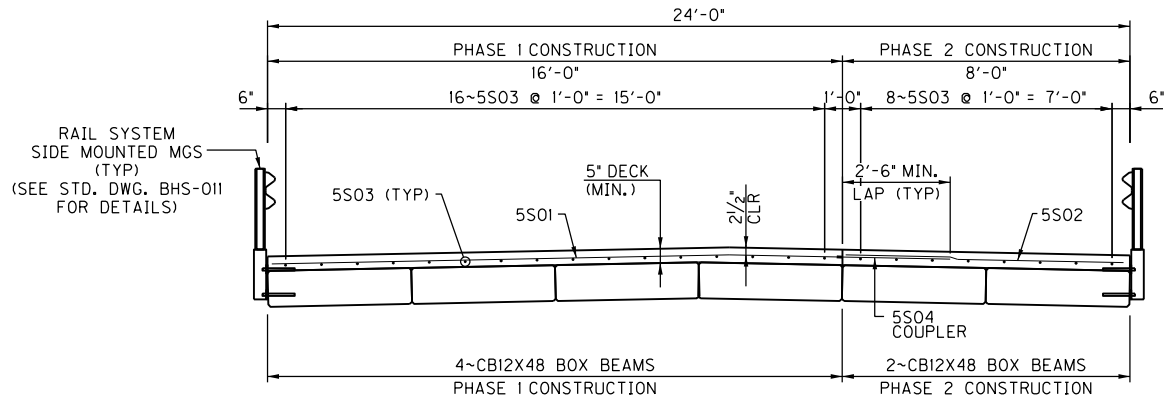


REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY: L.M. SALLEE		S.A. SERGENT	
DETAILED BY: J.A. ROSE		L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
ABUTMENT 2			
PREPARED BY PALMER ENGINEERING CO.			
		SHEET NO S07 DRAWING N 2842	

PI STA. 3+56.59
Δ=74°57'10" LT.
T=87.50'
L=89.11'
R=75.00'
E=19.51'
e=NC
Runoff=NA
Runout=NA



DECK PLAN

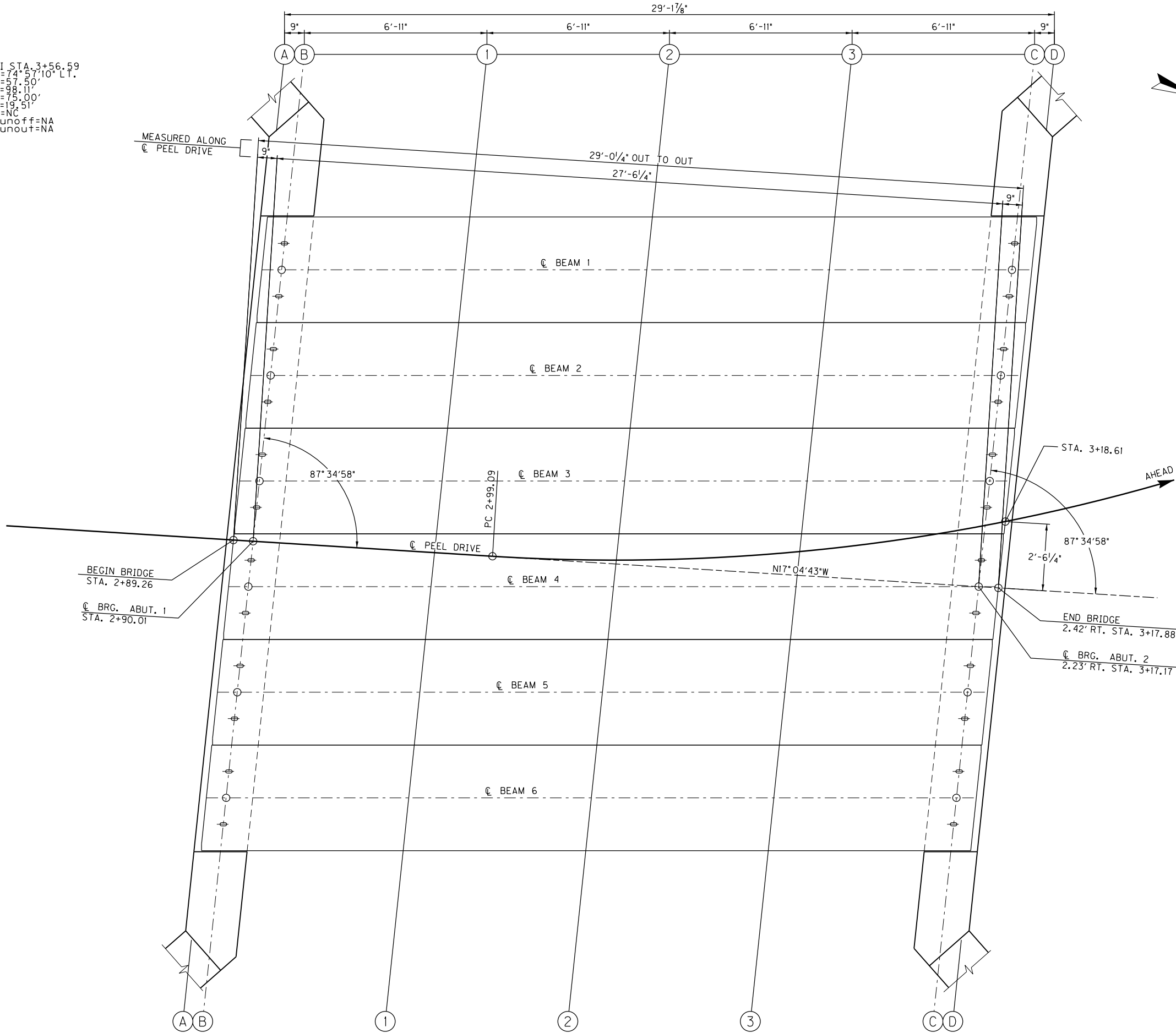


TYPICAL DECK SECTION

MINIMUM LAP SPLICES
*5 BARS - 2'-6"

REVISION		DATE
DATE: APRIL, 2021	CHECKED BY	
DESIGNED BY: L.M. SALLEE	S.A. SERGENT	
DETAILED BY: J.A. ROSE	L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT		
ROUTE PEEL DRIVE		
CROSSING WOOLPER CREEK		
DECK DETAILS		
PREPARED BY		SHEET NO. S09
PALMER ENGINEERING CO.		DRAWING NO. 28426

PI STA. 3+56.59
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N=19.51'
Runoff=NA
Runout=NA

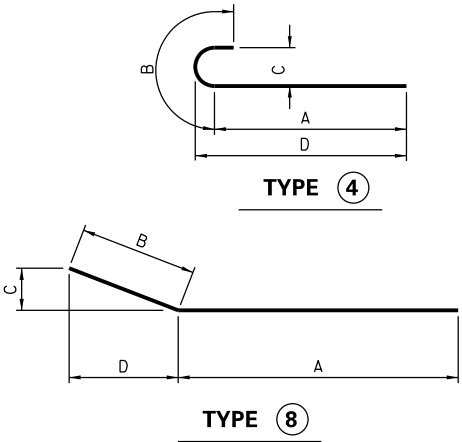


CONSTRUCTION ELEVATIONS GRID

REVISION	
DATE	
DATE: APRIL, 2021	CHECKED BY
DESIGNED BY: R.M. DAMON	S.A. SERGENT
DETAILED BY: J.A. ROSE	R.M. DAMON
BOONE COUNTY BRIDGE REPLACEMENT	
ROUTE PEEL DRIVE	
CROSSING WOOLPER CREEK	
CONSTRUCTION ELEVATIONS	
PREPARED BY	
PALMER ENGINEERING CO.	
SHEET NO. S10	
DRAWING NO. 28426	

[illegible]

REINFORCING BARS DESIGNATED WITH THE SUFFIX (S)
IN PLANS ARE STIRRUP BARS.



REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY: L.M. SALLEE		S.A. SERGENT	
DETAILED BY: J.A. ROSE		L.M. SALLEE	
<p align="center">BOONE COUNTY BRIDGE REPLACEMENT</p>			
<p align="center">ROUTE PEEL DRIVE</p>			
<p align="center">CROSSING WOOLPER CREEK</p>			
<p align="center"><i>BILL OF REINFORCEMENT</i></p>			
<p align="center">PREPARED BY</p> <p align="center"><i>PALMER ENGINEERING CO.</i></p>		<p align="center">SHEET NO. S12</p> <p align="center">DRAWING NO. 28426</p>	

BORING LOG NO. B-1												Page 1 of 1					
PROJECT: Peel Road Bridge Over Woolper Creek						CLIENT: Palmer Engineering Company Crescent Springs, KY											
SITE: Peel Road Burlington, KY																	
MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 39.072620° Longitude: -84.749292° Surface Elev.: 760.0 (Ft.)				DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	ATTERBERG LIMITS			
		ELEVATION (Ft.)												LL-PL-PI			
		0.7 ASPHALT CONCRETE (8 INCHES) 759.5															
		1.0 GRAVEL BASE (4 INCHES) 759															
		FILL - LEAN CLAY (CL) with sand, trace silt and iron-oxide stains, brown and gray, stiff							78	18-7-6 N=13		3.0 (HP)	20.3				
		-Rock fragments between 3.5 to 6"															
									33	7-4-6 N=10		1.5 (HP)	25.5				
									33	3-2-4 N=6			13.4				
		8.5 SHALE brown, trace gray, highly weathered, very weak 751.5															
		9.0 INTERBEDDED SHALE AND LIMESTONE 751							100	50/1"		1.2					
		Shale (40%): gray, moderately weathered, weak Limestone (60%): light gray, slightly weathered, weak to medium strong. Maximum bedding thickness of 11.5 inches							90		0						
									100		46		4.8				
		15.0 INTERBEDDED SHALE AND LIMESTONE 745															
		Shale (40%): gray, moderately weathered, weak Limestone (60%): light gray, slightly weathered, weak to medium strong. Maximum bedding thickness of 11.5 inches							96		74		5.0				
		20.0 Boring Terminated at 20 Feet 740															
Stratification lines are approximate. In-situ, the transition may be gradual.														Hammer Type: Automatic			
Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers 2-inch Split-Barrel Sampler NQ2 Rock Core Barrel						See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any). See Supporting Information for explanation of symbols and abbreviations. Elevation Reference: Leica Zeno GPS Survey						Notes: Water was added as drilling fluid during rock coring operation and may have affected the ground-water reading recorded at the completion of drilling.					
Abandonment Method: Boring backfilled with Auger Cuttings Surface capped with concrete																	
WATER LEVEL OBSERVATIONS No water observed during drilling Water observed at 5.3' after drilling						Terracon 611 Lunken Park Dr Cincinnati, OH						Boring Started: 02-12-2021 Drill Rig: CME 55 TRACK Project No.: N1215009			Boring Completed: 02-12-2021 Driller: CK		

BORING LOG NO. B-2												Page 1 of 1					
PROJECT: Peel Road Bridge Over Woolper Creek						CLIENT: Palmer Engineering Company Crescent Springs, KY											
SITE: Peel Road Burlington, KY																	
MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 39.072479° Longitude: -84.749226° Surface Elev.: 761.0 (Ft.)				DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	FIELD TEST RESULTS	RQD (%)	LABORATORY HP (tsf)	WATER CONTENT (%)	ATTERBERG LIMITS			
		ELEVATION (Ft.)												LL-PL-PI			
		0.7 ASPHALT CONCRETE (8 INCHES) 760.5															
		1.0 GRAVEL BASE (4 INCHES) 760															
		LEAN CLAY (CL) with sand, trace silt and iron-oxide stains, brown and gray, stiff							100	4-5-5 N=10		2.0 (HP)	0.8				
		-Rock fragments between 3.5 to 6"															
									5	4-4-6 N=10			5.7				
									100	4-5-5 N=10		1.0 (HP)	22.7	33-23-10			
		8.5 SHALE brown, trace gray, highly weathered, very weak 752.5															
		9.0 INTERBEDDED SHALE AND LIMESTONE 752							33	50/3"			11.1				
		Shale (50%): gray, moderately weathered, weak Limestone (50%): light gray, slightly weathered, weak to medium strong. Maximum bedding thickness of 13.5 inches							100		0						
									100		52		3.0				
		15.0 INTERBEDDED SHALE AND LIMESTONE 746															
		Shale (50%): gray, moderately weathered, weak Limestone (50%): light gray, slightly weathered, weak to medium strong. Maximum bedding thickness of 11.5 inches							100		68		3.9				
		20.0 Boring Terminated at 20 Feet 741															
Stratification lines are approximate. In-situ, the transition may be gradual.												Hammer Type: Automatic					
Advancement Method: 3.25-inch Continuous-Flight Hollow-Stem Augers 2-inch Split-Barrel Sampler NQ2 Rock Core Barrel						See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any). See Supporting Information for explanation of symbols and abbreviations. Elevation Reference: Leica Zeno GPS Survey						Notes: Water was added as drilling fluid during rock coring operation and may have affected the groundwater reading recorded at the completion of drilling.					
Abandonment Method: Boring backfilled with Auger Cuttings Surface capped with concrete																	
WATER LEVEL OBSERVATIONS No water observed during drilling Water observed at 4' after drilling						Boring Started: 02-12-2021 Drill Rig: CME 55 TRACK Project No.: N1215009			Boring Completed: 02-12-2021 Driller: CK								
Terracon 611 Lunken Park Dr Cincinnati, OH																	

REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY: L.M. SALLEE		R.M. DAMON	
DETAILED BY: J.A. ROSE		L.M. SALLEE	
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
GEOTECHNICAL INFORMATION			
PREPARED BY			SHEET NO.
PALMER ENGINEERING CO.			S13
			DRAWING NO.
			28426

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4/27/2021

... \Dgn\PEEL_S14_Geotech-02.dgn

MicroStation v8.11.9.536

FILE NAME: C:\PW\WORKDIR\DO107428\PEEL_BORDER.DGN







USER: jelff-r
DATE PLOTTED: September 18, 2012

E-SHEET NAME:

GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS
Peel Road Bridge Over Woolper Creek ■ Burlington, KY
Terracon Project No. N1215009



SAMPLING	WATER LEVEL	FIELD TESTS
 Rock Core  Standard Penetration Test	 Water Initially Encountered	N Standard Penetration Test Resistance (Blows/Ft.)
	 Water Level After a Specified Period of Time	(HP) Hand Penetrometer
	 Water Level After a Specified Period of Time	(T) Torvane
	 Cave In Encountered	(DCP) Dynamic Cone Penetrometer
	Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	UC Unconfined Compressive Strength
		(PID) Photo-Ionization Detector
		(OVA) Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION
Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES
Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS						
RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance		CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			BEDROCK	
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu _u (tsf)	Standard Penetration or N-Value Blows/Ft.	Standard Penetration or N-Value Blows/Ft.	Descriptive Term (Consistency)
Very Loose	0 - 3	Very Soft	less than 0.25	0 - 1	< 20	Weathered
Loose	4 - 9	Soft	0.25 to 0.50	2 - 4	20 - 29	Firm
Medium Dense	10 - 29	Medium Stiff	0.50 to 1.00	4 - 8	30 - 49	Medium Hard
Dense	30 - 50	Stiff	1.00 to 2.00	8 - 15	50 - 79	Hard
Very Dense	> 50	Very Stiff	2.00 to 4.00	15 - 30	>79	Very Hard
		Hard	> 4.00	> 30		

RELEVANCE OF SOIL BORING LOG
The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

DESCRIPTION OF ROCK PROPERTIES

WEATHERING	
Term	Description
Unweathered	No visible sign of rock material weathering, perhaps slight discoloration on major discontinuity surfaces.
Slightly weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock material may be discolored by weathering and may be somewhat weaker externally than in its fresh condition.
Moderately weathered	Less than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a continuous framework or as corestones.
Highly weathered	More than half of the rock material is decomposed and/or disintegrated to a soil. Fresh or discolored rock is present either as a discontinuous framework or as corestones.
Completely weathered	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely intact.
Residual soil	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.

STRENGTH OR HARDNESS		
Description	Field Identification	Uniaxial Compressive Strength, psi (MPa)
Extremely weak	Indented by thumbnail	40-150 (0.3-1)
Very weak	Crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife	150-700 (1-5)
Weak rock	Can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer	700-4,000 (5-30)
Medium strong	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer	4,000-7,000 (30-50)
Strong rock	Specimen requires more than one blow of geological hammer to fracture it	7,000-15,000 (50-100)
Very strong	Specimen requires many blows of geological hammer to fracture it	15,000-36,000 (100-250)
Extremely strong	Specimen can only be chipped with geological hammer	>36,000 (>250)

DISCONTINUITY DESCRIPTION			
Fracture Spacing (Joints, Faults, Other Fractures)		Bedding Spacing (May Include Foliation or Banding)	
Description	Spacing	Description	Spacing
Extremely close	< ¼ in (<19 mm)	Laminated	< ½ in (<12 mm)
Very close	¾ in – 2-1/2 in (19 - 60 mm)	Very thin	½ in – 2 in (12 – 50 mm)
Close	2-1/2 in – 8 in (60 – 200 mm)	Thin	2 in – 1 ft. (50 – 300 mm)
Moderate	8 in – 2 ft. (200 – 600 mm)	Medium	1 ft. – 3 ft. (300 – 900 mm)
Wide	2 ft. – 6 ft. (600 mm – 2.0 m)	Thick	3 ft. – 10 ft. (900 mm – 3 m)
Very Wide	6 ft. – 20 ft. (2.0 – 6 m)	Massive	> 10 ft. (3 m)

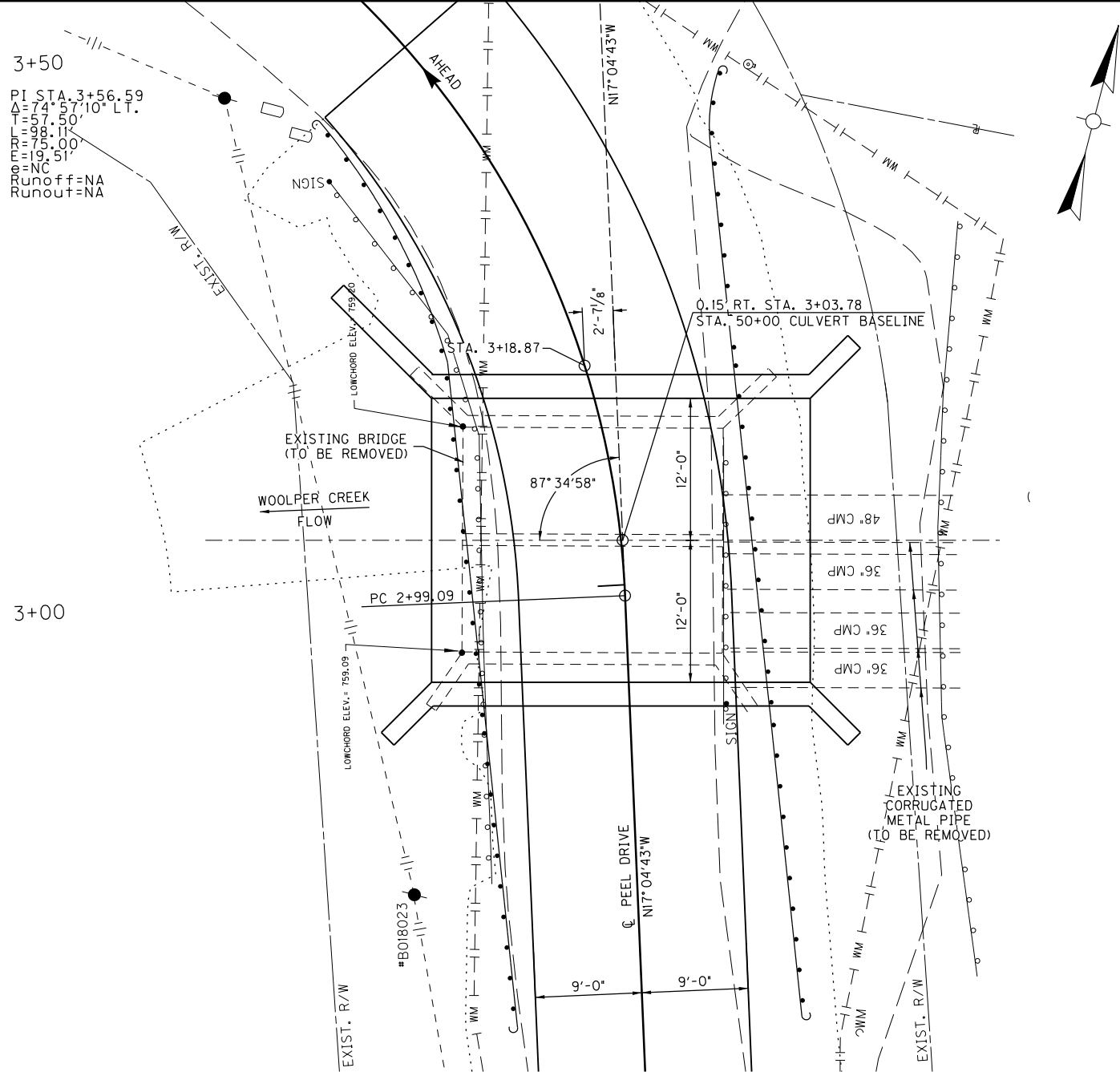
Discontinuity Orientation (Angle): Measure the angle of discontinuity relative to a plane perpendicular to the longitudinal axis of the core. (For most cases, the core axis is vertical; therefore, the plane perpendicular to the core axis is horizontal.) For example, a horizontal bedding plane would have a 0-degree angle.

ROCK QUALITY DESIGNATION (RQD) ¹	
Description	RQD Value (%)
Very Poor	0 - 25
Poor	25 – 50
Fair	50 – 75
Good	75 – 90
Excellent	90 - 100

1. The combined length of all sound and intact core segments equal to or greater than 4 inches in length, expressed as a percentage of the total core run length.

Reference: U.S. Department of Transportation, Federal Highway Administration, Publication No FHWA-NHI-10-034, December 2009
Technical Manual for Design and Construction of Road Tunnels – Civil Elements

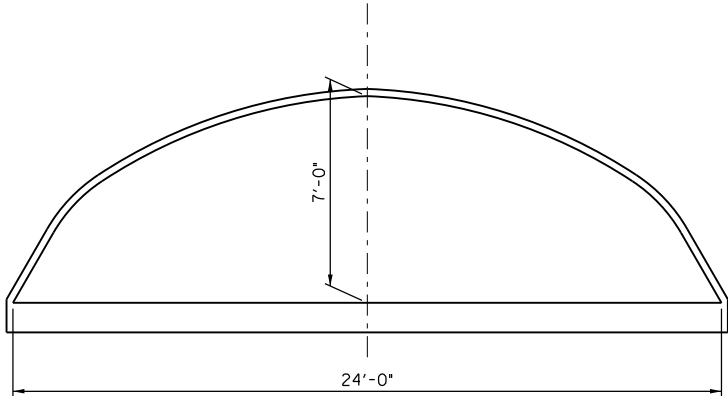
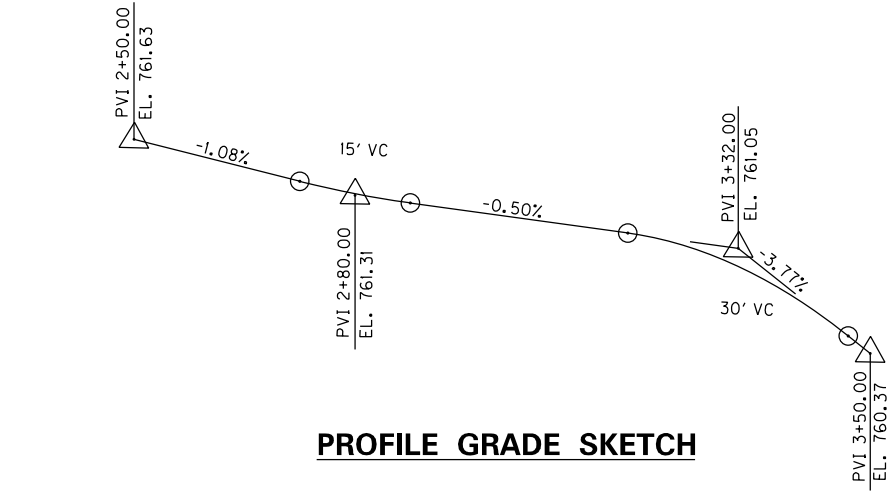
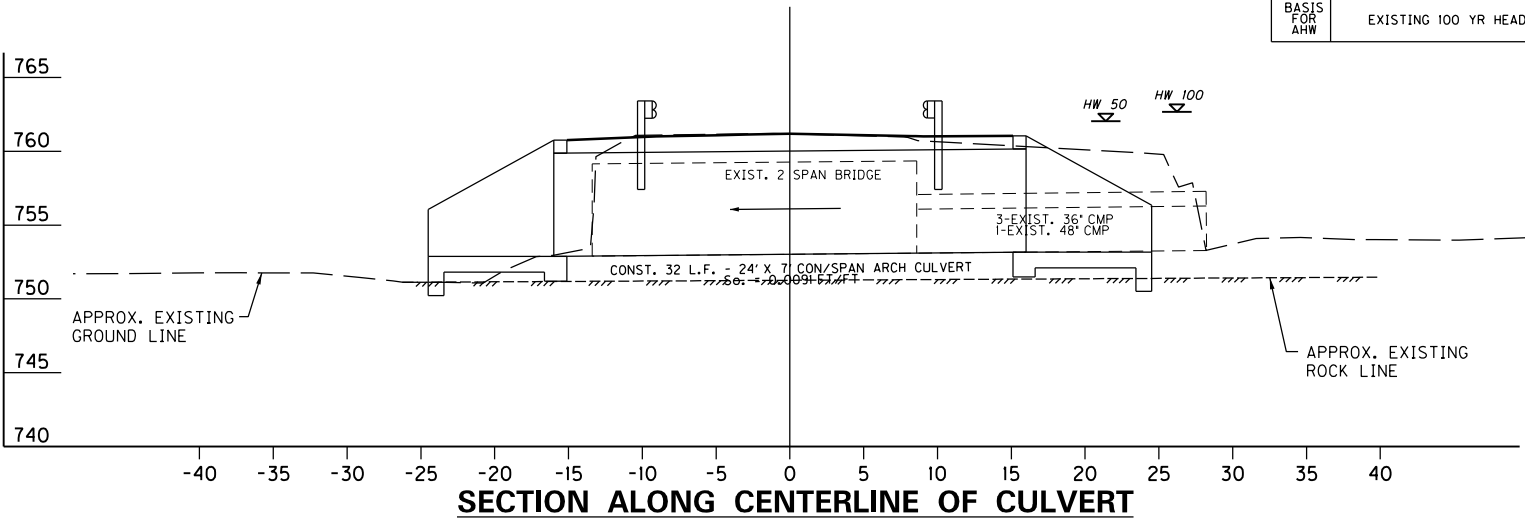
REVISION	DATE
DATE: APRIL, 2021	CHECKED BY
DESIGNED BY: L.M. SALLEE	R.M. DAMON
DETAILED BY: J.A. ROSE	L.M. SALLEE
BOONE COUNTY BRIDGE REPLACEMENT	
ROUTE PEEL DRIVE	
CROSSING WOOLPER CREEK	
GEOTECHNICAL INFORMATION	
PREPARED BY	SHEET NO.
PALMER ENGINEERING CO.	S14
	DRAWING NO.
	28426



PLAN

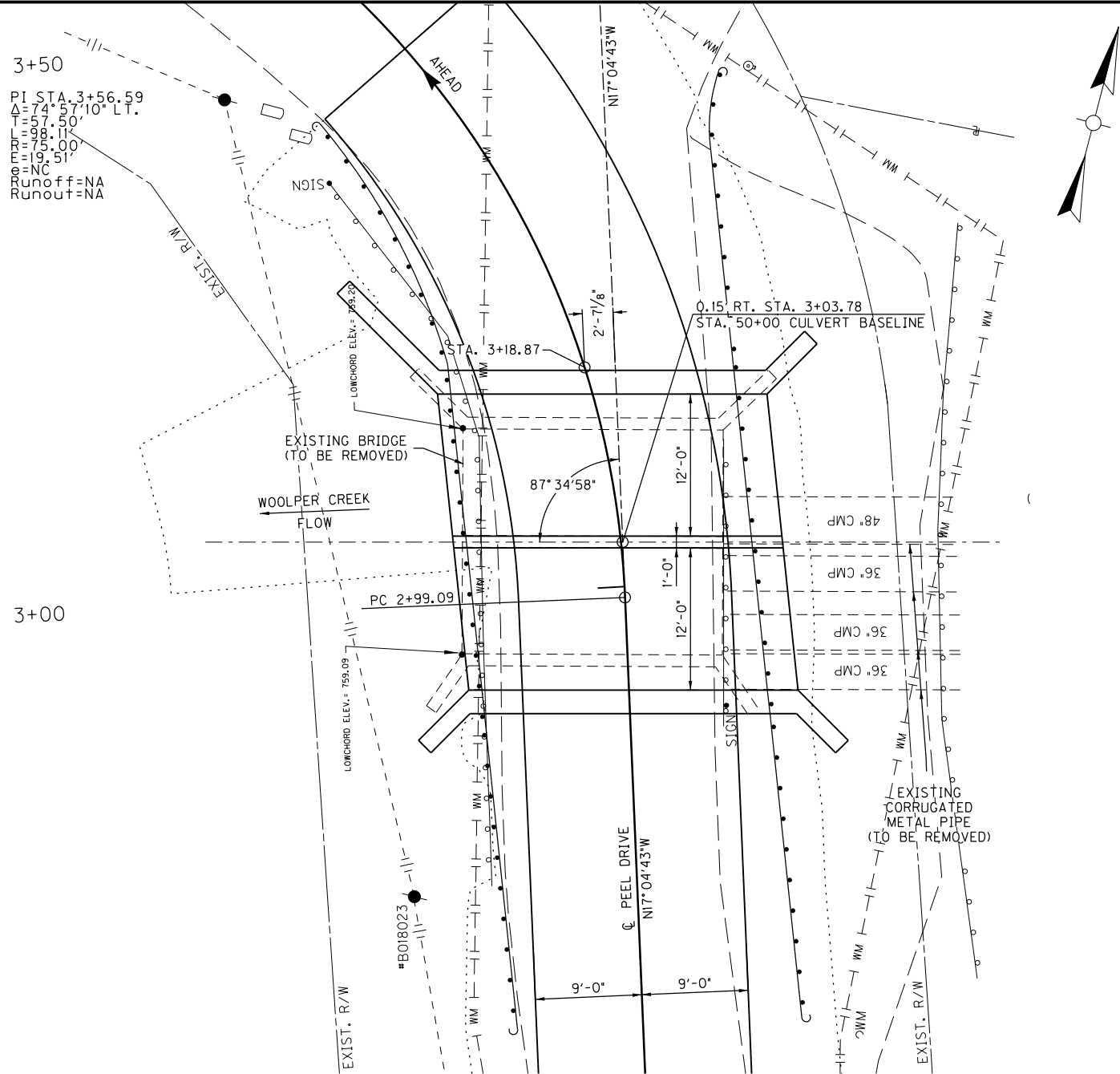
24'-0" x 7'-0" CON/SPAN ARCH CULVERT,
UNYIELDING FOUNDATION, 6° SKEW RT.,
2:1 FILL SLOPES, KY HL-93 LOADING
SHOULDER WIDTH VARIES

PROPOSED ARCH ULVERT				
FLOOD EVALUATION DATA				
DRAINAGE AREA = 3.64 SQ. MI				
	RETURN INTERVAL (YR)	RUNOFF (cfs)	HEADWATER ELEVATION (FT)	OUTLET VELOCITY (FPS)
DESIGN	50	2191	762.04	11.87
CHECK	100	2522	762.68	13.01
ALLOWABLE HEADWATER (FT) = 762.71				
BASIS FOR AHW	EXISTING 100 YR HEADWATER			



NOTE: ARCH CULVERT TO BE DESIGNED BY OTHERS.

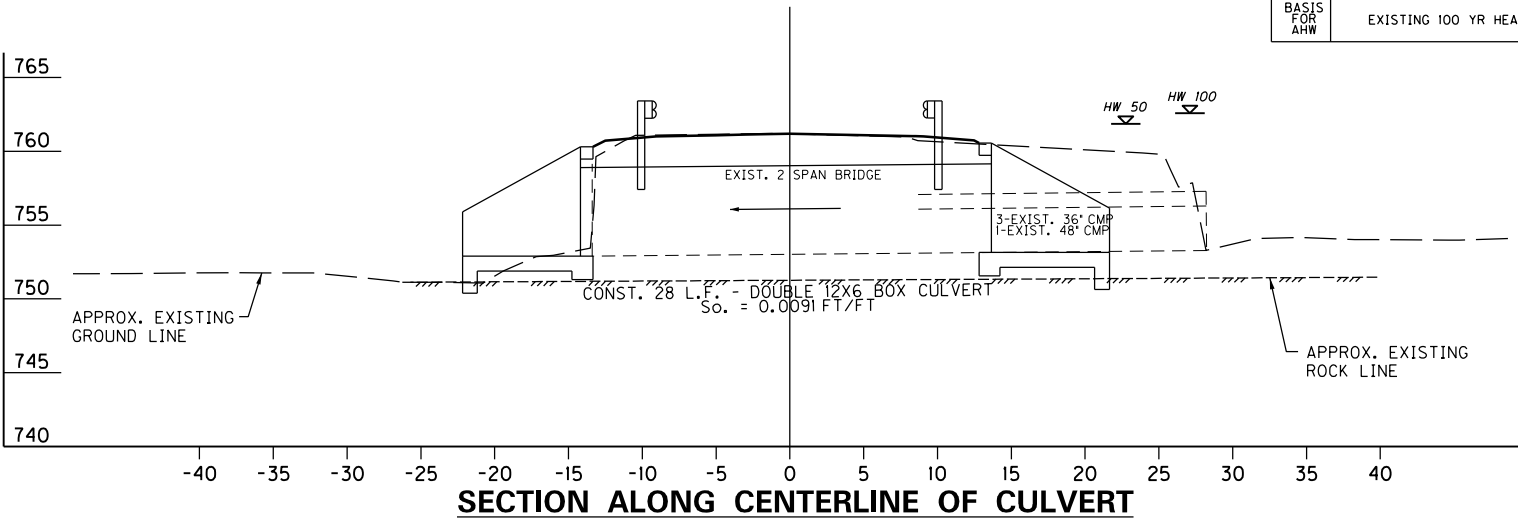
REVISION		DATE	
DATE: APRIL, 2021		CHECKED BY	
DESIGNED BY:			
DETAILED BY: J.A. ROSE			
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
CON/SPAN ARCH CULVERT ALT.			
PREPARED BY		SHEET NO.	
PALMER ENGINEERING CO.		S15	
		DRAWING NO.	
		28426	



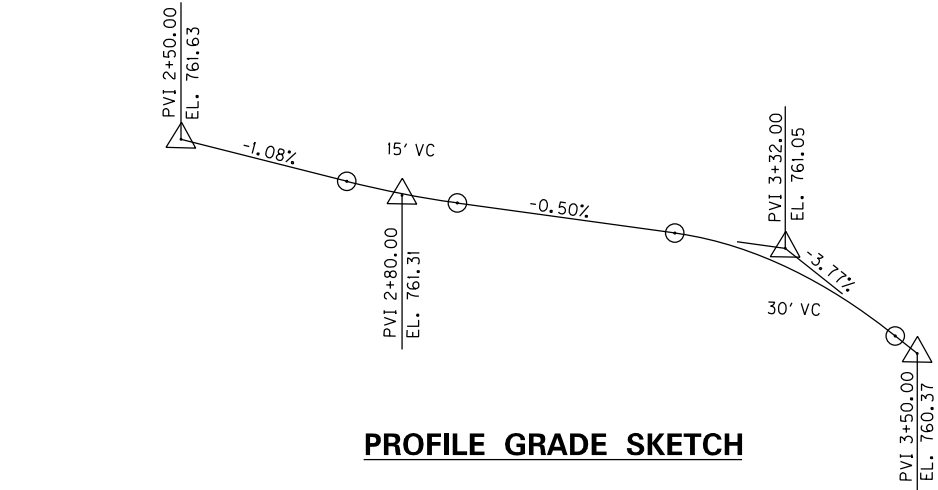
PLAN

DBL. 12'-0" x 6'-0" R.C.B.C.,
UNYIELDING FOUNDATION, 6° SKEW RT.,
2:1 FILL SLOPES, KY HL-93 LOADING
SHOULDER WIDTH VARIES

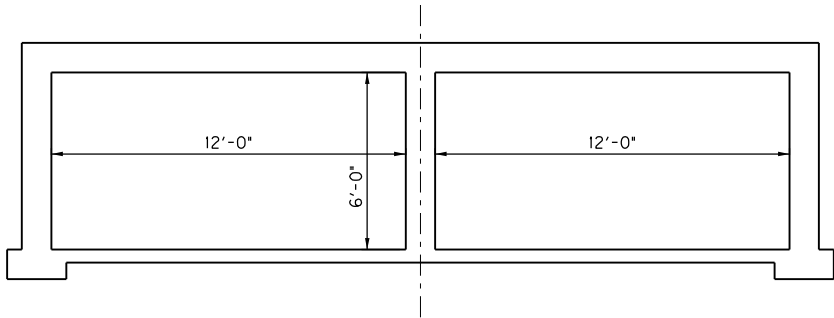
PROPOSED DOUBLE BOX CULVERT				
FLOOD EVALUATION DATA				
DRAINAGE AREA = 3.64 SQ. MI				
	RETURN INTERVAL (YR)	RUNOFF (cfs)	HEADWATER ELEVATION (FT)	OUTLET VELOCITY (FPS)
DESIGN	50	2191	761.86	11.87
CHECK	100	2522	762.58	13.01
ALLOWABLE HEADWATER (FT) = 762.71				
BASIS FOR AHW	EXISTING 100 YR HEADWATER			



SECTION ALONG CENTERLINE OF CULVERT



PROFILE GRADE SKETCH

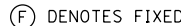
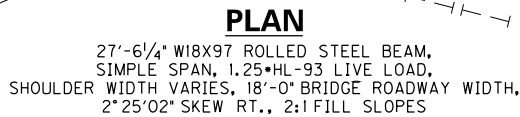


APPROXIMATE BARREL SECTION

NOTE: SEE KYTC STANDARD DRAWING BSC-005 FOR
CULVERT DETAILS WITH 12'-0" CULVERT WIDTH.

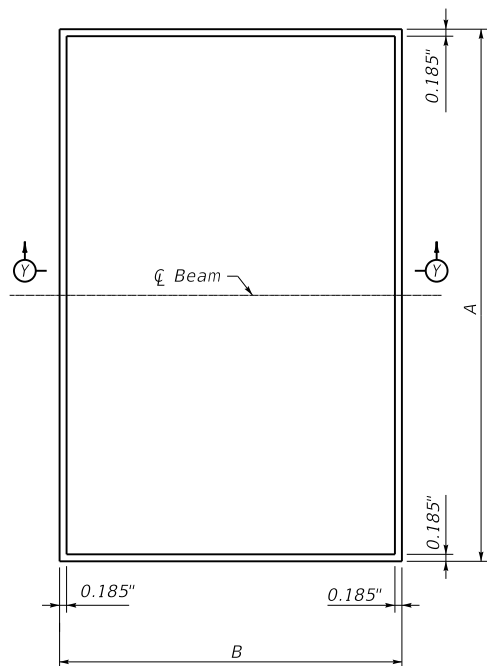
REVISION		DATE	
DATE: APRIL, 2021	CHECKED BY		
DESIGNED BY:			
DETAILED BY: J.A. ROSE			
BOONE COUNTY BRIDGE REPLACEMENT			
ROUTE PEEL DRIVE			
CROSSING WOOLPER CREEK			
BOX CULVERT ALTERNATE			
PREPARED BY			SHEET NO. S16
PALMER ENGINEERING CO.			DRAWING NO. 28426

MicroStation v8.11.9.536



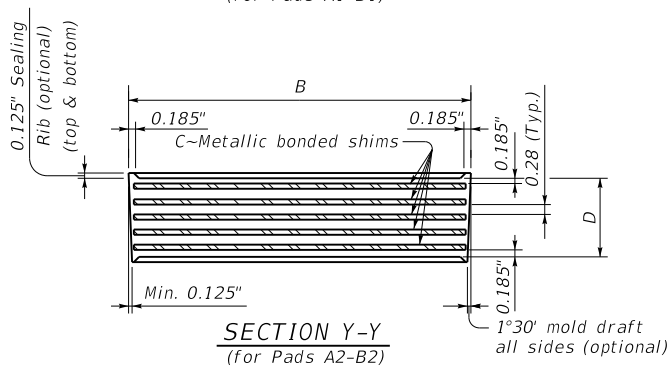
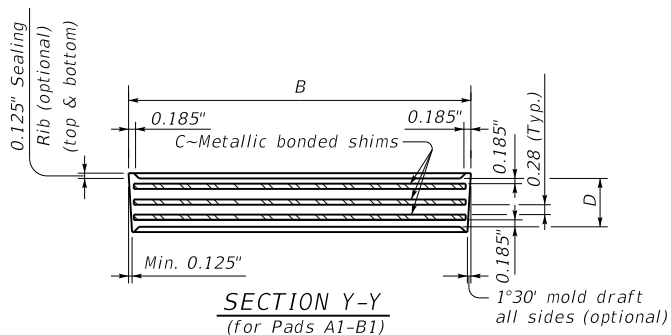
NOTE: SEE KYTC STANDARD DRAWINGS BSB-101 THRU BSB-105
FOR COMPOSITE STEEL BEAM SUPERSTRUCTURE DETAILS.

REVISION	DATE
DATE: APRIL, 2021	CHECKED BY
DESIGNED BY:	
DETAILED BY: J.A. ROSE	
BOONE COUNTY BRIDGE REPLACEMENT	
ROUTE PEEL DRIVE	
CROSSING WOOLPER CREEK	
STEEL ALTERNATE	
PREPARED BY PALMER ENGINEERING CO.	SHEET NO. S17 DRAWING NO. 28426



DIMENSIONS FOR BOX-BEAM PADS						
PAD	A	B	C	D	*MAXIMUM REACTION	MAXIMUM MOVEMENT (One Direction)
A1	1'-10"	7"	3~0.12" x 21.630" x 6.630"	1.290"	173k	0.500"
A2	1'-10"	7"	5~0.12" x 21.630" x 6.630"	2.090"	173k	0.750"
B1	11"	7"	3~0.12" x 10.630" x 6.630"	1.290"	69k	0.500"
B2	11"	7"	5~0.12" x 10.630" x 6.630"	2.090"	69k	0.750"

* These reactions are based on service loads, use actual reactions to determine anchorage requirements for pads.



GENERAL NOTES

SPECIFICATIONS: Fabricate the Elastomeric Bearing Pads to the design and dimensions as shown on these drawings and to AASHTO LRFD Bridge Construction Specifications, Section 18.

Ensure bearings are low temperature Grade 3 with durometer hardness of 50 and subjected to the load testing requirements corresponding to Design Method A.

Include the price of bearing pads in the bid for the beams.

KENTUCKY
DEPARTMENT OF HIGHWAYS
ELASTOMERIC BEARING
PADS FOR
BOX BEAMS

STANDARD DRAWING NO. BBP-003-02
SUBMITTED BY *B. J. Allen* DATE 02-26-20
APPROVED BY *B. J. Allen* DATE 02-26-20
STATE OF KENTUCKY ENGINEER

PRECAST PRESTRESSED BOX BEAMS

General Notes

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

DESIGN LOADS: Beam sections are designed for 1.25*HL93 (KYHL93) Live Load.

DESIGN LOAD DISTRIBUTION: Contrary to AASHTO LRFD Bridge Design Specifications, the design moment and shear distribution for all beams is 0.5 lanes.

FUTURE WEARING SURFACE: These beams are designed for a 15 PSF future wearing surface load.

SUBSTRUCTURE DESIGN LOADS: Unfactored design reaction forces per beam end.

DC (kips): Beam, Slab (if applicable), and Type II railing dead loads.

DW (kips): Future wearing surface.

LL (kips): Beam Live Load reaction per lane x Design load distribution.

LL+I (kips): LL with Dynamic load allowance.

DESIGN DEFLECTIONS:

Δd (in.): Sum of the downwards deflections caused by the design 5" deck, railing, and future wearing surface. (Positive Downwards)

Δc (in.): Upwards midspan camber of the beam caused by prestressing minus the downward deflection of the beam due to self weight. (Positive Upwards)

MATERIAL DESIGN SPECIFICATIONS:

for Steel Reinforcement

FY = 60000 PSI

for Prestressed Girder Concrete (Typ. U.N.O.)

F'C = 7000 PSI

for Class "AA" Concrete

F'CI = 5500 PSI

for Prestressing Steel

F'C = 4000 PSI

F'S = 270000 PSI

DESIGN LENGTH: Beam lengths shown in the Standards represent total beam length. Use the next greater designed section for non-Standard lengths.

CONSTRUCTION METHOD: Transferring bond stress to the concrete will not be allowed, nor releasing of end anchors until the concrete has attained a minimum compressive strength of F'CI as shown by standard cylinders made and cured identically with the girders; attain F'C at or prior to 28 days. Apply an initial prestress force of 33817 lbs. per low relaxation strand. Beams with honeycomb of such extent as to affect the strength of resistance to deterioration will not be accepted. The allowance of .0005L (length) is made for shortening of beams due to shrinkage and elastic change. Furnish shop plans showing a detensioning plan by numbering, in sequence, the strand pattern.

PRESTRESSING STRANDS: Ensure prestressing strands to be 1/8" oversize (0.167 sq. in.) uncoated seven-wire stress relieved, low-relaxation strands conforming to AASHTO M 203, Grade 270. If an alternate strand arrangement or strand type is preferred by the Contractor, the designer that developed the original plans will provide the design and also revise the original plans to reflect the changes. These design and plan modifications will be done at the Contractor's expense.

CORROSION INHIBITOR: Provide a corrosion inhibitor for B-type (non-composite) beams from the list of approved materials.

BEVELED EDGES: Bevel all exposed edges 3/4".

BEAM SEALER: For composite box beams (CB Beams), seal the full length of the exterior face of all exterior beams with the extent from the top of the beam to 1'-0" underneath the beam. For non-composite box beams (B beams), seal all faces of all beams, except take care to ensure the grout pockets are not sealed. Use an approved silane sealer as specified by the Division of Structural Design.

REINFORCEMENT: Dimensions shown from the face of concrete to reinforcement are clear distances. Spacing of reinforcement is from center to center of reinforcement. All steel reinforcement is to be epoxy coated in accordance with Section 811.10 of the Specifications. Consider bars marked "C" to be a stirrup for purposes of bend diameters. Non-epoxy reinforcement may be used for fabrication purposes, only, provided that the steel is not used in the top 5 1/2" of the beam and the location of the steel is indicated on the shop drawings.

FABRICATION: Beams shall not be fabricated more than 120 days before the deck is to be poured.

GROUT: Provide non-shrink grout for anchor dowels, shear keys, and tensioning rod block-outs conforming with Section 601.03.03 of the Specifications. When side by side superstructure is utilized, grouting will be completed after lateral tension rods have been fully tightened and before leveling devices have been removed. Include the cost of furnishing and placing grout in the price of beam.

RAILING SYSTEM TYPE II: Furnish this material per these specifications.

ITEM	DESCRIPTION	MATERIAL SPECIFICATION	COATING SPECIFICATION
Post	W6x25	ASTM A36 or A572	A123
Channel	C7x9.8	ASTM A36 or A572	A123
Plate	1/2" x 7"	ASTM A36 or A572	A123
Tubing	8x4x0.1875	ASTM A500 or A501	A123
Bolts	5/8"	ASTM A307	A153
Nuts	for 5/8"	ASTM A563, Grade A or better	A153
Washers	for 5/8"	ASTM A563, Grade A or better	A153
Stud	1 1/4"	ASTM A108 (1045 C.D. Bar)	B633, Type II, Class 25
Ferrule	2 1/2" x 5"	ASTM A108 (11L17 Steel)	B633, Type II, Class 25
Wire	3/8"	ASTM A510 (1018 Steel)	B633, Type II, Class 25
Nut	for 1 1/4" Bolt	ASTM A108 (12L14 Steel)	B633, Type II, Class 25
Nut	for 1 1/4" Stud	ASTM A325M	B633, Type II, Class 25
Washers	for 1 1/4" Stud	ASTM A325M	B633, Type II, Class 25

Use the current edition of the references listed below with these standards.

STANDARD DRAWINGS

BBP-003	Elastomeric Bearing Pads
BHS-007	Railing System Type II
BJE-001	Armored Edge & Neoprene Joints
RBR-001	Steel Beam Guardrail
RBR-005	Guardrail Components

SPECIAL NOTES

for Corrosion Inhibitors

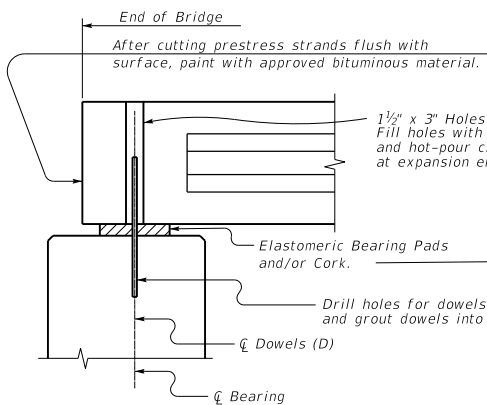
KENTUCKY
DEPARTMENT OF HIGHWAYS

BOX BEAM
GENERAL NOTES
AND REFERENCES

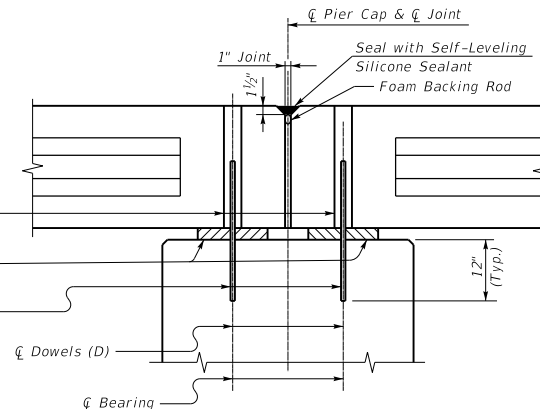
STANDARD DRAWING NO. BDP-001-06

SUBMITTED *B. J. Ash* 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

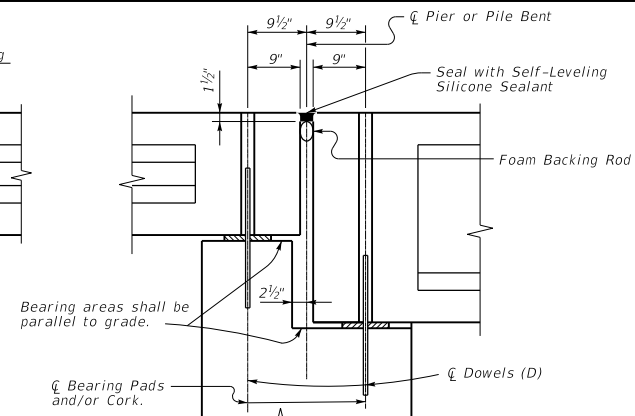
APPROVED *[Signature]* 02-26-20
STATE PROJECT ENGINEER DATE



ABUTMENT OR END BENT



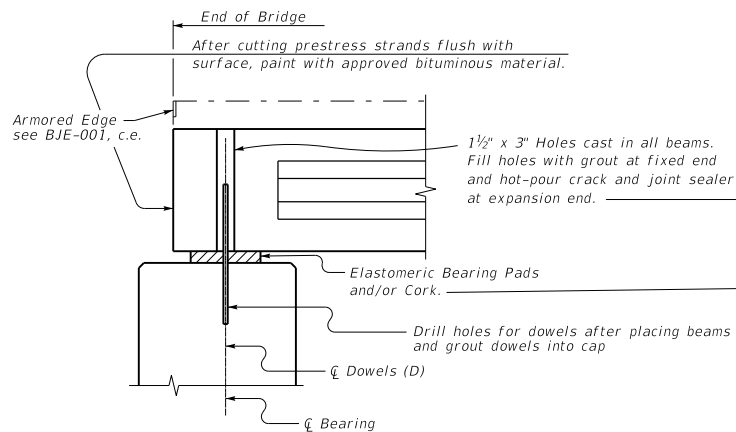
PIER OR PILE BENT



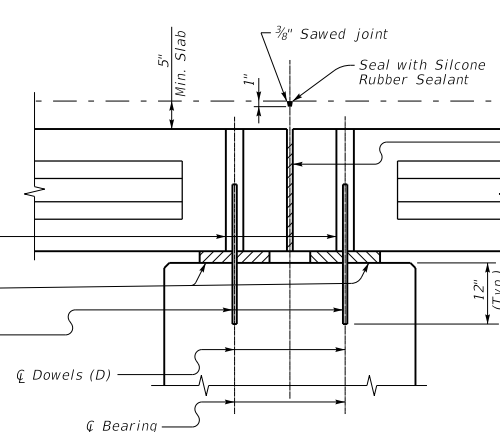
STEPPED PIER OR PILE BENT

(Showing Location & Placement of Box Beams)

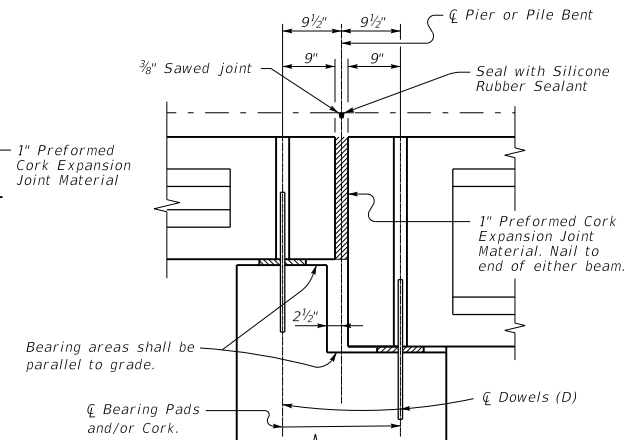
TYPICAL BEARING DETAILS (NON-COMPOSITE)



ABUTMENT OR END BENT



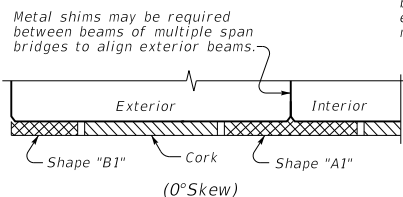
PIER OR PILE BENT



STEPPED PIER OR PILE BENT

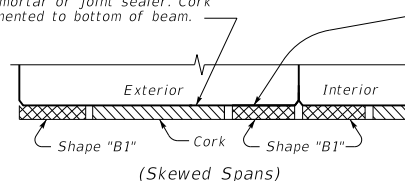
(Showing Location & Placement of Box Beams)

TYPICAL BEARING DETAILS (COMPOSITE)



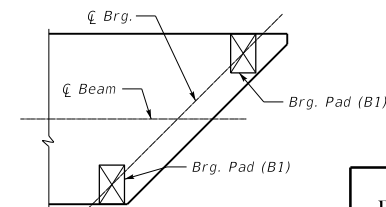
For Elastomeric Bearing Pad Details of Shapes A1 & B1, see Std. Dwg. BBP-003, c.e.

Preformed Cork Expansion Joint Material 1'-6" wide placed between Bearing Pads and beneath dowel pin holes to prevent the escape of mortar or joint sealer. Cork may be cemented to bottom of beam.



(Skewed Spans)

Metal shims (8" x 12") may be required over bearing pads or cork on skewed bridges to insure uniform bearing.



PAD PLACEMENT FOR SKEWS

Pads "B1" are to always be placed perpendicular to \bar{C} beam with center of pad over \bar{C} bearing.

GENERAL NOTES

Provide metal shims conforming to ASTM A36 and galvanize in accordance with ASTM A123. As alternates, cork, polymer, or elastomer shims may be used. Include the cost of furnishing and placing these shims in the price per beam.

SHOWING PADS FOR BEAM TYPES B27-B42 & CB27-CB42

Use 1/2" x 1'-6" preformed cork for beam types B12-B21 & CB12-CB21 for bearing.

KENTUCKY
DEPARTMENT OF HIGHWAYS

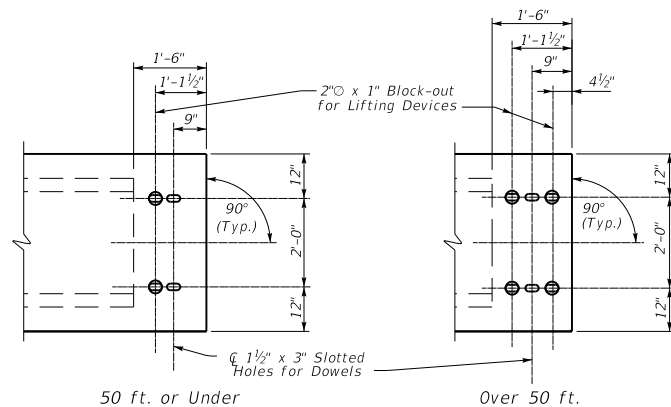
BOX BEAM
BEARING
DETAILS

STANDARD DRAWING NO. BDP-002-03

SUBMITTED *B. J. Baker* 02-26-20

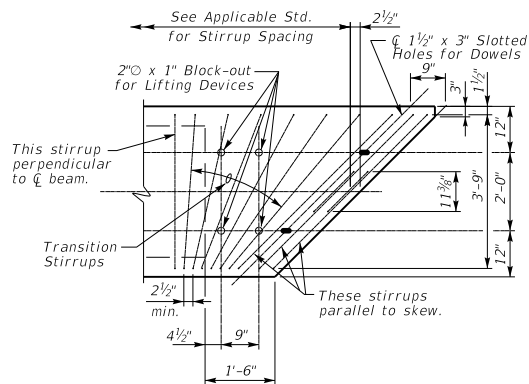
APPROVED *B. J. Baker* 02-26-20

DATE



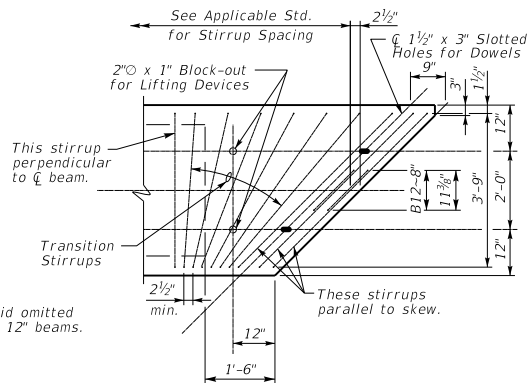
NOTE: Void omitted on 12" beams.

TYPICAL STRAIGHT END



TYPICAL SKEWED END FOR BEAMS OVER 50 FEET

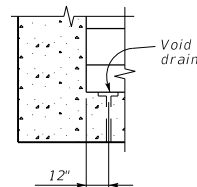
(Right Skew Shown, Left Opposite Hand)



NOTE: Void omitted on 12" beams.

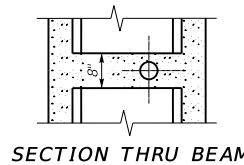
TYPICAL SKEWED END FOR BEAMS 50 FEET OR LESS

(Right Skew Shown, Left Opposite Hand)



VOID DRAIN DETAIL

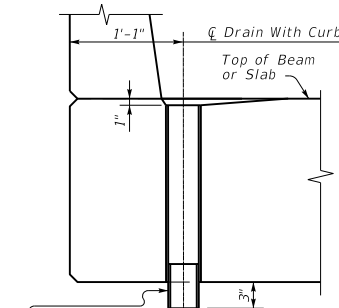
Locate two drains at each end of each void. Provide 1"Ø drains of a type approved by the Division of Materials.



SECTION THRU BEAM

Diaphragms may be omitted if void is cut to allow drain to be encased with a minimum 2" of concrete.

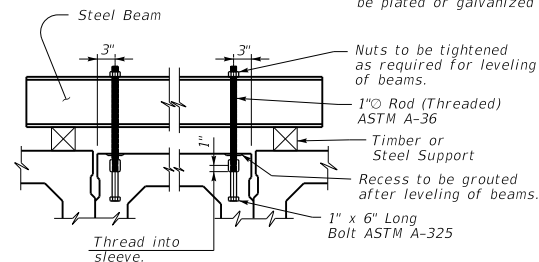
Provide drains on both sides of bridge with normal crown and on low side only for superelevated bridges. Space drains at maximum 12'-6" on centers with a minimum of one placed each gutter line per span. Omit drains when span crosses over a highway or railroad. Include the cost of pipe and fittings in the price of beam.



SECTION THRU DRAIN EXTERIOR BOX BEAM

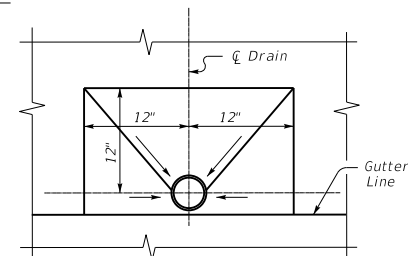
(Showing coupling in barrier)

NOTE: Inserts are to be plated or galvanized



LEVELING DEVICE DETAILS

Locate inserts at the center of beams up to 50 ft. and at diaphragm locations of beams over 50 ft. Include the cost of materials and labor involved in leveling beams in the price for beams. Submit alternate leveling devices to the Division of Bridge Design for approval.

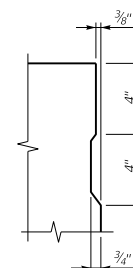


TOP VIEW OF DRAIN

DRAIN DETAILS

(For Spans With Curbs)

NOTE: Omit shear key on exterior face of exterior beam.



SHEAR KEY DETAIL

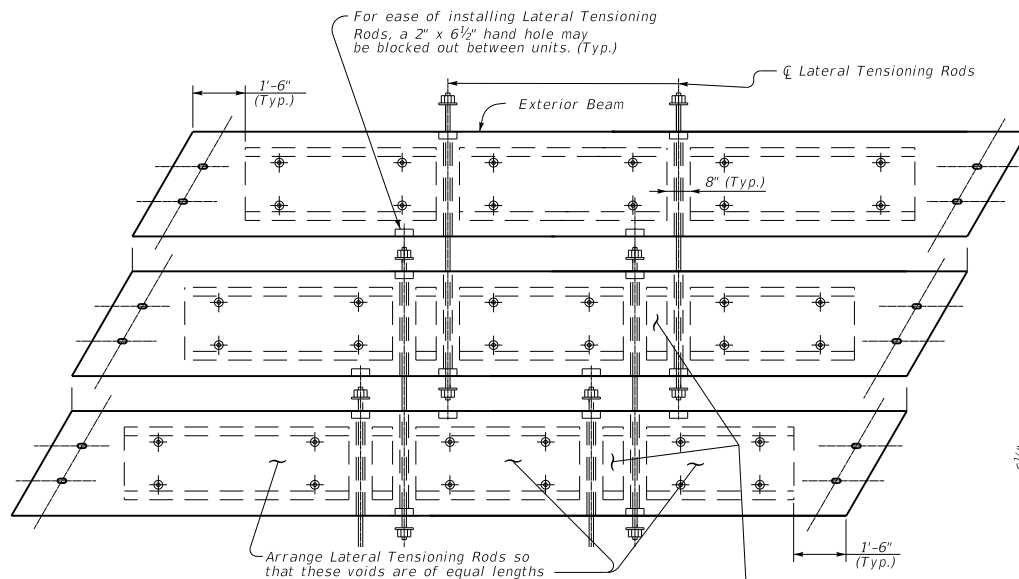
KENTUCKY
DEPARTMENT OF HIGHWAYS

BOX BEAM
MISCELLANEOUS
DETAILS

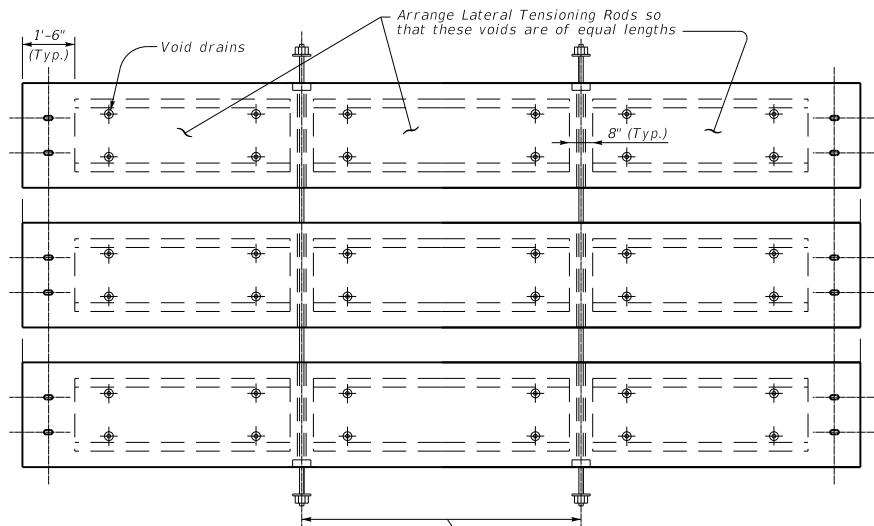
STANDARD DRAWING NO. BDP-003-03

SUBMITTED *B. J. Ash* 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

APPROVED *[Signature]* 02-26-20
STATE ENGINEER DATE



SECTIONAL PLAN SHOWING LATERAL TENSIONING METHOD FOR SKEWED SPANS

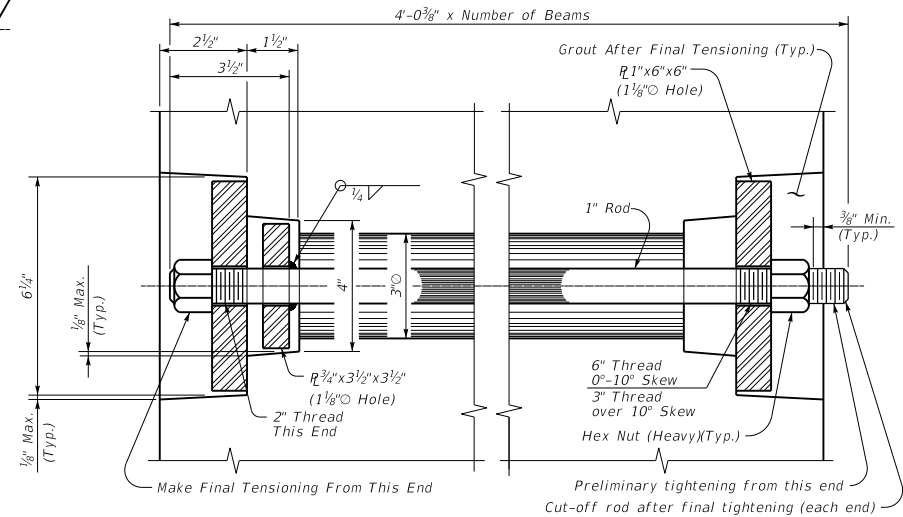


SECTIONAL PLAN SHOWING LATERAL TENSIONING METHOD FOR STRAIGHT SPANS

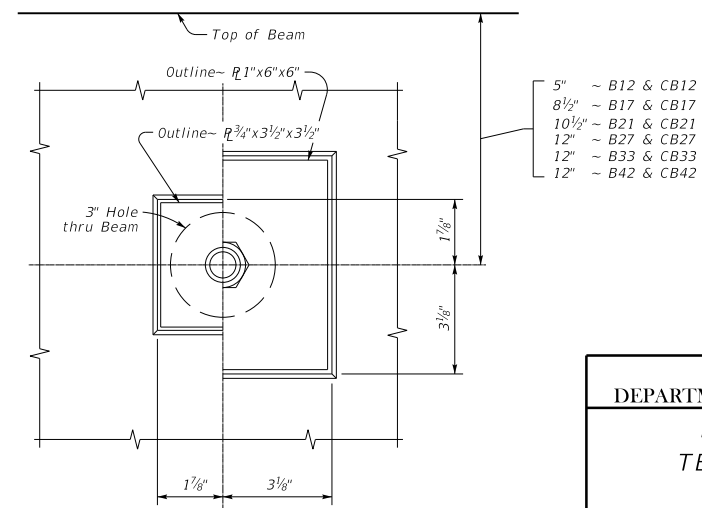
(The above arrangement is applicable from 0° skews to and including 10° skews)

GENERAL NOTES

LATERAL TENSIONING RODS: After the deck units are in place, apply a preliminary tension to the lateral tensioning rods. Perform final tensioning that yields 20,000 psi as developed by a torque of 200 ft./lbs. Provide lateral tensioning rods and plates conforming to ASTM A36 with heavy hex nuts conforming to ASTM A307. All tension rods, plates, and nuts to be galvanized in accordance with ASTM A123 or A153 as applicable.



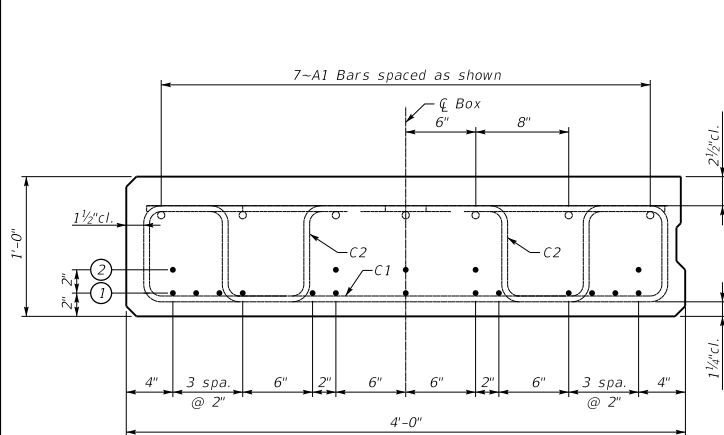
SECTION THRU LATERAL TENSIONING ROD



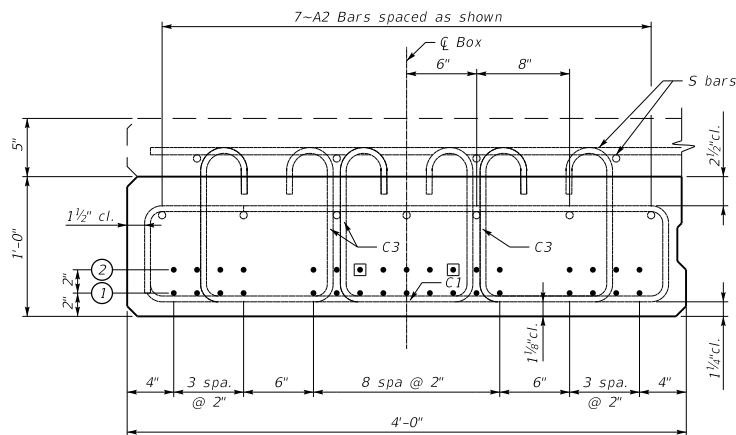
SECTIONAL END PLAN
(Lateral Tension Rod Details)

KENTUCKY
DEPARTMENT OF HIGHWAYS
BOX BEAM
TENSION ROD
DETAILS

STANDARD DRAWING NO. BDP-004-04
SUBMITTED *B. J. Ash* 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE
APPROVED *B. J. Ash* 02-26-20
STATE ENGINEER DATE

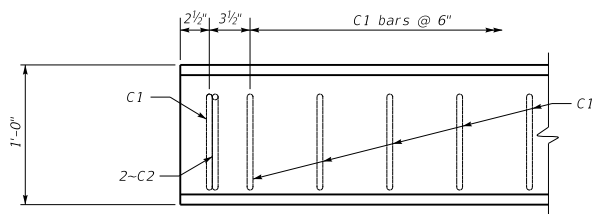


B12 BEAM

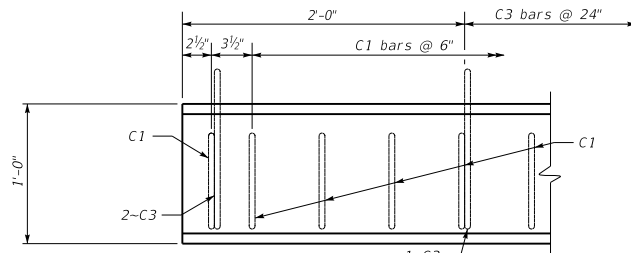


CB12 BEAM

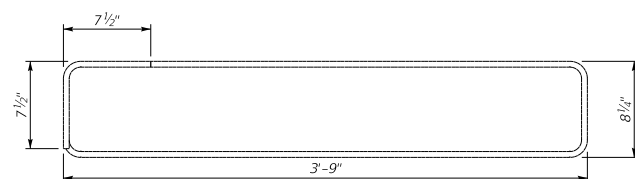
□ Debond these strands 4'-0" at each end of beam -CB12-34 Only



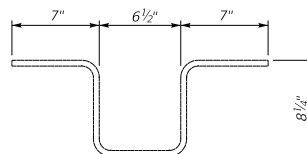
B12 ELEVATION OF 0° SKEW
(Refer to BDP-003,c.e. for skewed details)



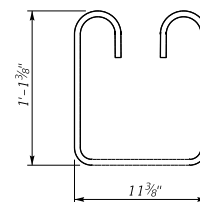
CB12 ELEVATION OF 0° SKEW
(Refer to BDP-003,c.e. for skewed details)



C1(e) Bar
#4 Stirrup



C2(e) Bar
#4 Stirrup



C3(e) Bar
#5 Stirrup

TABLE OF STRAND DATA

Beam Type	Beam Length (feet)	Number of Strands Required		Concrete Strength	
		Row ①	Row ②	F'CI (psi)	F'C (psi)
B12	12	9	1		
	14	10	1		
	16	11	1		
	18	12	1		
	20	12	1		
	22	12	2		
CB12	24	13	2		
	26	13	5		
	12	7			
	14	8			
	16	8			
	18	9			
	20	10			
	22	10			
	24	10			
	26	12			
	28	13			
	30	14	9		
	32	14	13	6000	7100
	34	15	17	7000	8000

BAR QUANTITIES

DESIGN DATA

Beam Type	Beam Length (feet)	C1	C2	C3	DC (Kips)	DW (Kips)	LL (Kips)	LL+I (Kips)	Δd (in.)	Δc (in.)
B12	12	25	2		3.9	0.4	27.8	36.3		
	14	29	2		4.6	0.4	29.1	37.8		
	16	33	2		5.2	0.5	30.1	39.1		
	18	37	2		5.8	0.5	31.0	40.1		
	20	41	2		6.5	0.6	31.8	41.0		
	22	45	2		7.1	0.6	32.5	41.9		
CB12	24	49	2		7.8	0.7	33.2	42.6		
	26	53	2		8.4	0.7	33.8	43.4		
	12	25		9	5.4	0.4	27.8	36.3	0.1	0.1
	14	29		10	6.3	0.4	29.1	37.8	0.1	0.1
	16	33		11	7.2	0.5	30.1	39.1	0.1	0.2
	18	37		12	8.1	0.5	31.0	40.1	0.1	0.2
	20	41		13	9.0	0.6	31.8	41.0	0.1	0.3
	22	45		14	9.9	0.6	32.5	41.9	0.1	0.3
	24	49		15	10.8	0.7	33.2	42.6	0.1	0.3
	26	53		16	11.6	0.8	33.8	43.4	0.1	0.5
	28	57		17	12.5	0.8	35.1	44.9	0.2	0.5
	30	61		18	13.4	0.9	36.4	46.4	0.2	0.9
	32	65		19	14.3	0.9	37.7	48.1	0.2	1.0
	34	69		20	15.2	1.0	38.9	49.6	0.3	1.3

Straight Reinforcement

MARK	SIZE	LENGTH
A1(E)	#5	Beam Length Minus 3"
A2(E)	#4	Beam Length Minus 3"
D(E)	#8	2'-0"

KENTUCKY
DEPARTMENT OF HIGHWAYS

BOX BEAM
B12 & CB12
DETAILS

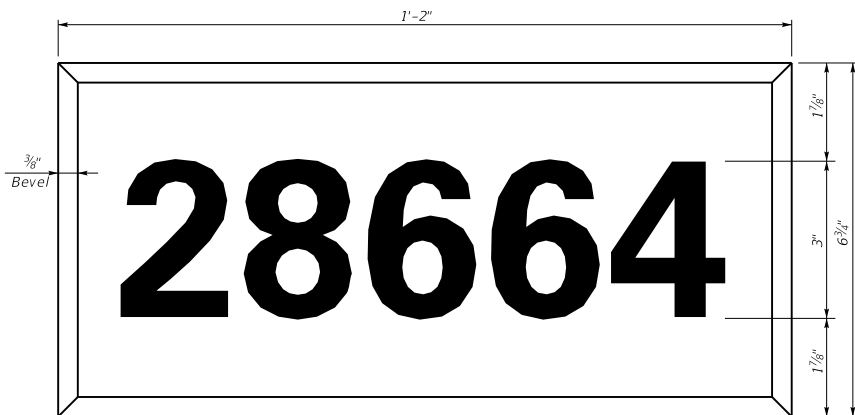
STANDARD DRAWING NO. BDP-006-05

SUBMITTED *B. J. Allen* 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

APPROVED *[Signature]* 02-26-20
STATE ENGINEER DATE



STENCIL FOR YEAR AND DESIGN LOADING
When year only is used place year in center of plate



STENCIL FOR DRAWING NUMBER

GENERAL NOTES

STENCILS: Fabricate all stencils from recessed panels with beveled edges with raised letters and figures in accordance with Subsection 601.03.19 of the Specifications.

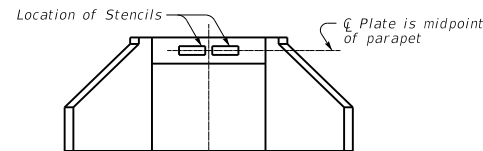
YEAR AND DESIGN LOADING STENCIL: Show the year that the contract is executed and the design load as shown on the contract plans. The design load is required on all structures classified as bridges by Subsection 101.03 of the Specifications and on other structures as referenced on plans.

DRAWING NUMBER STENCIL: Use this stencil on all structures. The number to be placed on the stencil shall be taken from the contract plans.

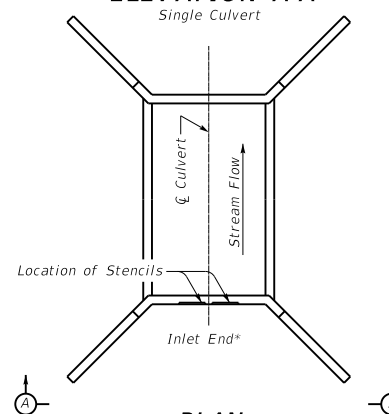
CONTRACTOR STENCIL: Place on all bridges, the name of the prime contractor and subcontractor(s), when applicable, in proximity to other stencils required.



CONTRACTOR STENCIL

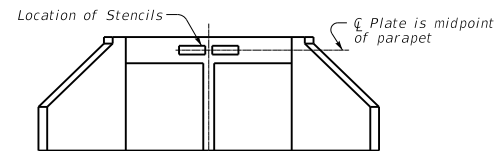


ELEVATION A-A
Single Culvert

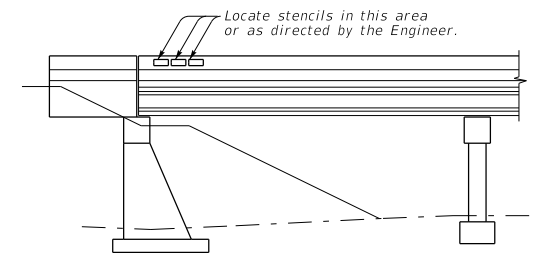


PLAN

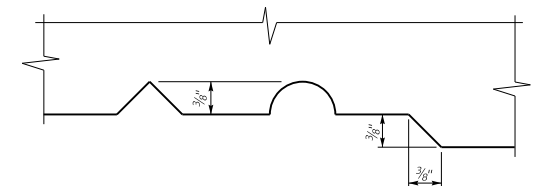
Location of Stencils on all
Culverts (Single or Multiple)
and Arches



ELEVATION A-A
Multiple span Culvert



**LOCATION OF STENCILS
ON BRIDGES**



TYPE OF LETTERS

* Use the outlet end for
outlet only extensions

KENTUCKY
DEPARTMENT OF HIGHWAYS

STENCILS
FOR STRUCTURE

STANDARD DRAWING NO. BGX-006-10

SUBMITTED *B. A. H.* 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

APPROVED *R. B.* 02-26-20
STATE ENGINEER DATE

Description of Soil Compactness or Consistency

SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF PENETRATION RESISTANCE	RANGE OF UNCONFINED COMPRESSIVE STRENGTH
Coarse grained soils (More than half of material is larger than No. 200 sieve size.)	Very loose Loose Medium compact Compact Very compact	Less than 4 blows per ft. 4 to 10 10 to 30 30 to 50 Greater than 50	Not applicable
Fine grained soils (More than half of material is smaller than No. 200 sieve size.)	Very soft Soft Medium stiff Stiff Very stiff Hard	Not applicable	Less than 0.25 tsf 0.25 to 0.50 0.50 to 1.0 1.0 to 2.0 2.0 to 4.0 Greater than 4.0

AI
 LI
 N
 S+C(%)

Activity Index
 Liquidity Index
 Penetration Resistance
 Material finer than No. 200 sieve
 Rockline Soundings
 Disturbed Sample Boring
 Undisturbed Sample Boring
 Undisturbed Sample Boring & Rock Core
 Rock Core
 Slope Inclinometer Installation
 typical applications:
 Approximate Footing Elevation

OW

<

UU (psi)

Qu (psi)

w (%)

RQD (%)

SDI (JS)

Rec. (%)

\emptyset

\emptyset Effective Angle of Internal Friction

c (psi)

\bar{c} (psi)

γ

RDZ

OB

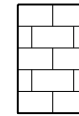
IB

R

NR

VS (psi)

7-Day (or greater) Water Table & Date
 Thin-walled Tube Sample
 Standard Penetration Test Sample
 Unconsolidated, Undrained Triaxial Test
 Unconfined Compressive Strength
 Moisture Content
 Rock Quality Designation
 Slake Durability Index (Jar Slake Test)
 Core Recovery
 Angle of Internal Friction
 Cohesion
 Effective Cohesion
 Total Unit Weight
 Rock Disintegration Zone
 Overburden Bench
 Intermediate Bench
 Refusal
 Refusal Not Encountered
 Field Vane Shear Strength



LIMESTONE



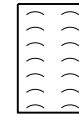
SANDSTONE



COAL



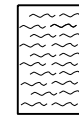
NONDURABLE
SHALES
(SDI < 90)



DURABLE
SHALES
(SDI ≥ 90)



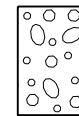
TALUS OR
MINE WASTE OR
FILL MATERIAL



ROADWAY FILL-
GRANULAR
EMBANKMENT



STRUCTURE
GRANULAR
BACKFILL



SLOPE
PROTECTION

Unified Soil Classifications

MAJOR DIVISION	SYMBOL	NAME
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW Well-graded gravels or gravel-sand mixtures, little or no fines.
		GP Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GM Silty gravels, gravel-sand-silt mixtures.
		GC Clayey gravels, gravel-sand-clay mixtures.
	SAND AND SANDY SOILS	SW Well graded sands or gravelly sands, little or no fines.
		SP Poorly graded sands or gravelly sands, little or no fines.
		SM Silty sands, sand-silt mixtures.
		SC Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS	SILTS AND CLAYS LL IS LESS THAN 50	ML Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays silty clays, lean clays.
	SILTS AND CLAYS LL IS GREATER THAN 50	MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH Inorganic clays of high plasticity, fat clays.
UNCLASSIFIED MATERIAL	NONE	Non-classified material (i.e. overburden, pavement, slag, etc.) include visual desc.

Relation of RQD and in situ Rock Quality

RQD (%)	Rock Quality
90 - 100	Excellent
75 - 90	Good
50 - 75	Fair
25 - 50	Poor
0 - 25	Very Poor

KENTUCKY
DEPARTMENT OF HIGHWAYS

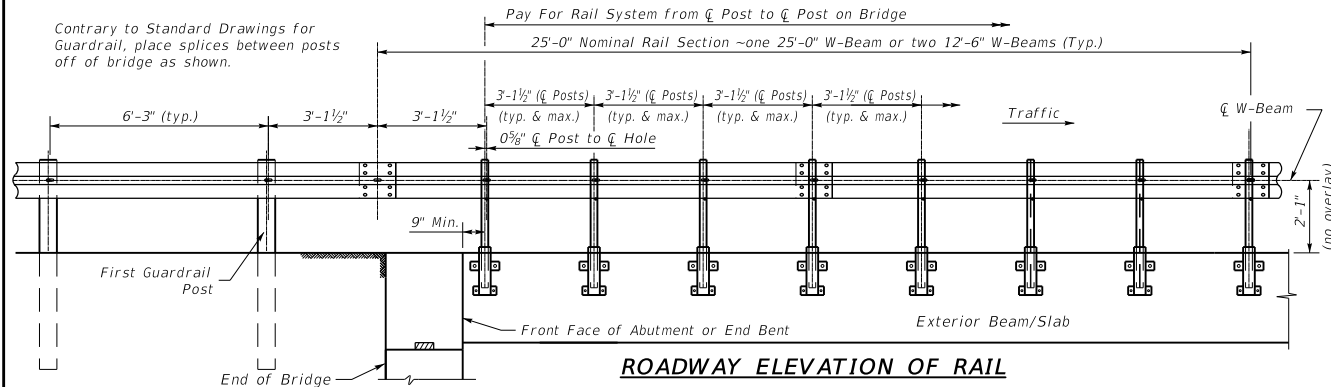
GEOTECHNICAL
LEGEND

STANDARD DRAWING NO. BGX-012-02

SUBMITTED 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

APPROVED 02-26-20
STATE PROFESSIONAL ENGINEER DATE

Contrary to Standard Drawings for
Guardrail, place splices between posts
off of bridge as shown.



TRANSITION AND END TREATMENT NOTES:

This traffic railing must be anchored by a minimum of 25 feet of guardrail. This 25 feet at each corner of the bridge is to be paid with the roadway plans. See roadway plans for layout.

CONSTRUCTION NOTES:

Face of rail post must be plumb unless otherwise approved by the Engineer. Post must be perpendicular to adjacent roadway grade. Fully anchored guardrail must be attached to each end of rail. Typical guardrail construction as indicated above and not to scale. Dimensions and details of guardrail construction must be the bridge plans show rail post locations. Round or chamfer exposed ends of rail posts and backer Plate to approximately $\frac{1}{8}$ " by grinding. Shop drawings are not required. Threaded rod may be cast in the beam/slab or may be drilled and epoxy grouted. Epoxy grout must conform to Section 826 and must have a minimum compressive strength of 1,305 psi. Follow all manufacturer's recommendations for installation.

MATERIAL NOTES:

All components must be supplied galvanized including fasteners, anchor rods, threaded rods, etc. Galvanize all steel components after fabrication in accordance with ASTM A123. W-beam must meet the requirements of Std. Dwg. RBR-001, c.e. except as modified in these plans. The contractor may furnish rail elements of 25'-0" or 12'-6" (Nominal) lengths. W-beam must have slotted holes at 3'-1½".

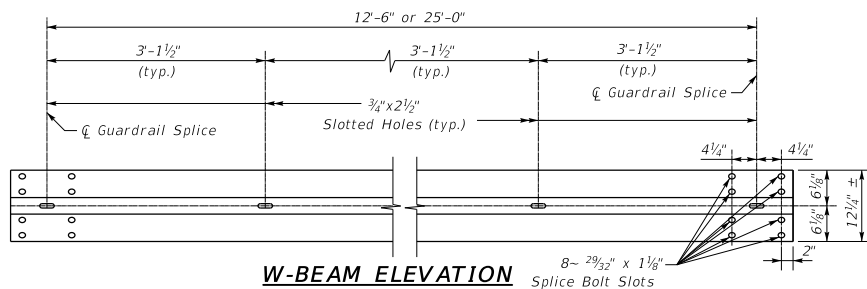
GENERAL NOTES:

This railing has been successfully evaluated by full scale crash test to meet MASH T-3 criteria. This railing can be used in lengths up to 45 feet.

This rail is designed to deflect approximately 4'-0" - 4'-6" as it contains and redirects the errant vehicle. This rail may not be installed on top of or behind curbs that project above finished grade, or on retaining walls that are subject to more than 5° of movement, on retaining walls, or on grade separations and interchanges.

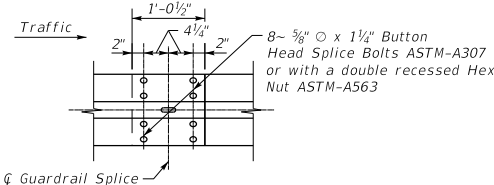
Impact on the post and mounting bracket unit are not permitted. Replace all impact-damaged posts with a new post. If mounting bracket is visibly damaged, replace the bracket with a new one.

Average weight of railing with no overlay: 19 plf total.

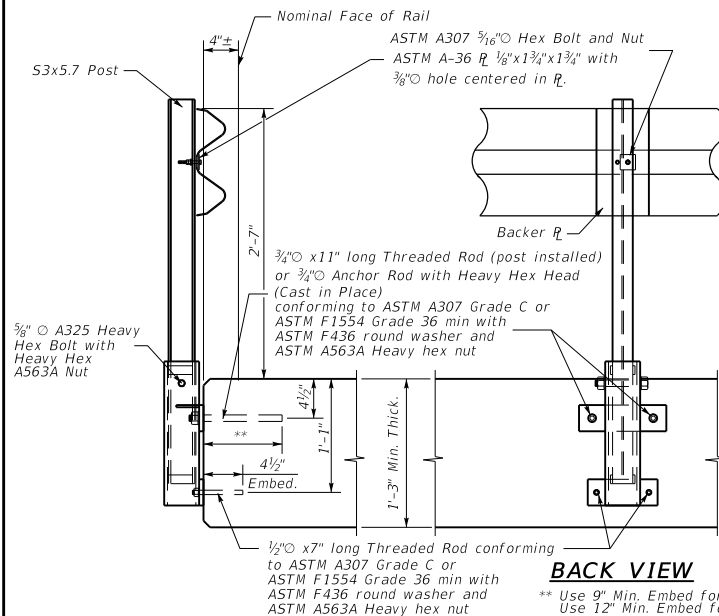


W-BEAM ELEVATION

Splice Bolt Slots



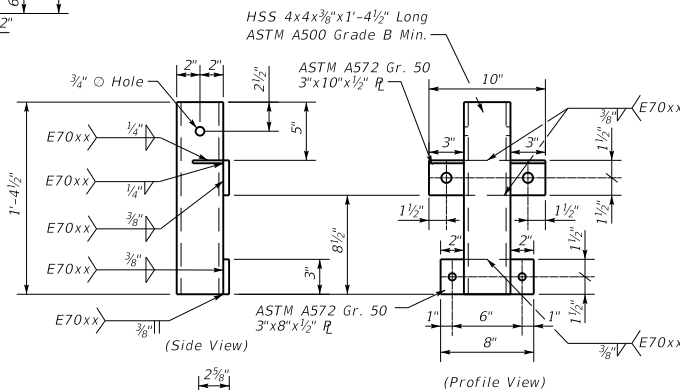
W-BEAM SPLICE ELEVATION



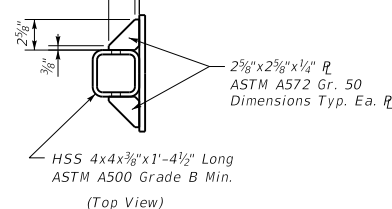
X-SECTION VIEW

BACK VIEW

** Use 9" Min. Embed for Threaded Rod post installed
Use 12" Min. Embed for Headed Anchors Cast in Place

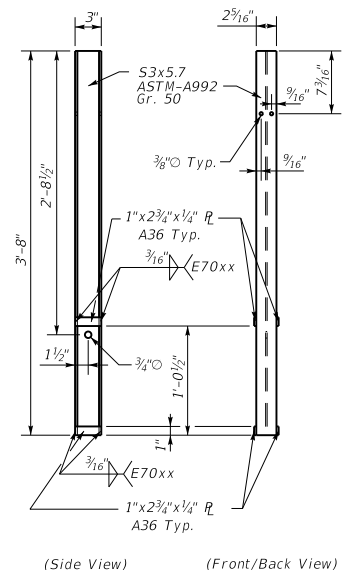


MOUNTING BRACKET



ELEVATION SIDE VIEW

ELEVATION SIDE VIEW
(Backer Plate) (Backer Plate)



POST ELEVATION

KENTUCKY DEPARTMENT OF HIGHWAYS

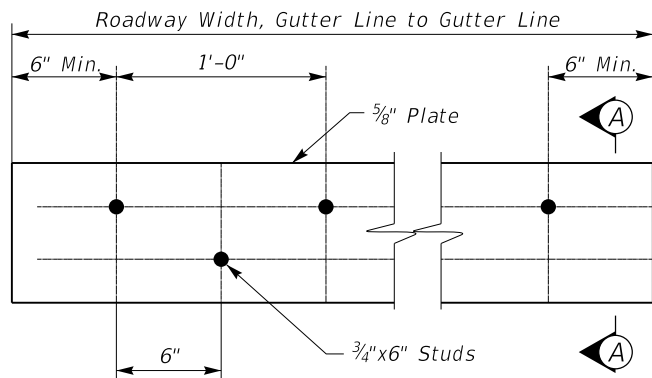
RAILING SYSTEM SIDE MOUNTED MGS DETAILS

STANDARD DRAWING NO. BHS-011

SUBMITTED Bert Asher 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

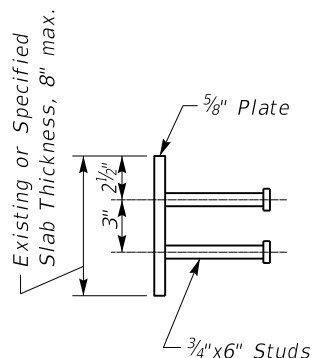
APPROVED [Signature] 02-26-20
STATE HIGHWAY ENGINEER DATE

Note: Fabricator may elect to provide a 3/4" ASTM A563A heavy hex sleeve nut with a minimum length of 2 1/4" and minimum 1/4" across the flats along with threaded rod and the Anchor Rod. Maintain 12" minimum embedment with the 3/4" Anchor Rod behind the sleeve nut. The fabricator may elect to provide a 1/2" ferrule insert for the bottom anchors with a minimum length of 2 3/4" and a safe working load of 2000 lbs in tension and shear along with the threaded rod. Alternatively, the bottom anchors may also be supplied with a 1/2" ASTM A563A heavy hex sleeve nut with a minimum length of 1 1/2" and a minimum of 7/8" across the flats. Maintain 4 1/2" embedment behind the sleeve nut. All costs for sleeve nuts, threaded rods, anchor rods, etc. are incidental to the price bid for the Railing System Side Mounted MGS.

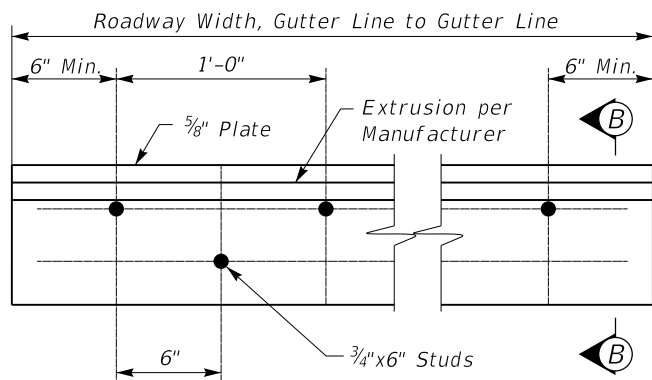


ARMORED EDGE

(For 1'-3" Expansion Dams and Bridge End)

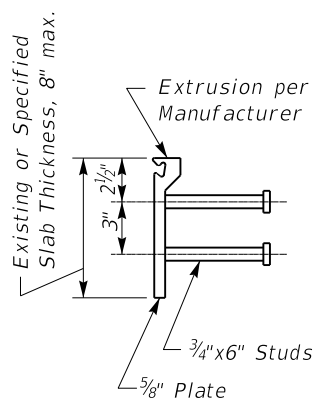


SECTION A-A

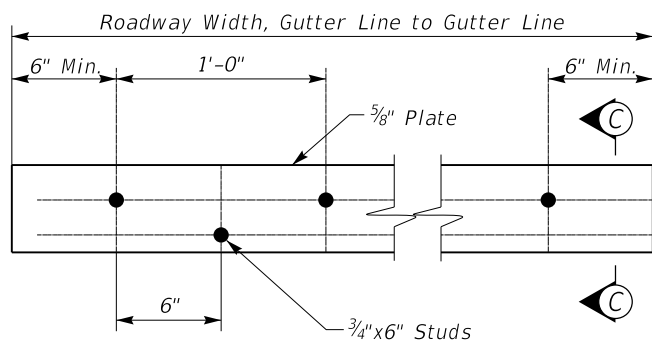


ARMORED EDGE

(For 4" & 5" Expansion Dams)

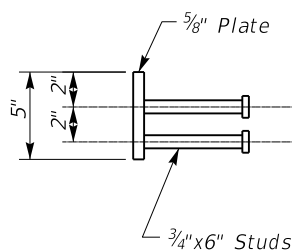


SECTION B-B



ARMORED EDGE

(For 5" Composite Box Beam Slab Ends)



SECTION C-C

General Notes

SPECIFICATIONS: All references to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Design Specifications.

WELDING SPECIFICATIONS: Ensure techniques and welding procedure comply with current joint specification ANSI/AASHTO/AWS D1.5 Bridge Welding Code.

MATERIALS:

- Structural Steel. Use new, commercial grade steel suitable for welding. The Engineer will base acceptance on visual inspection.
- Stud Anchors. The armored edge stud anchors are $\frac{3}{4}$ " embedded stud shear connectors conforming to ASTM A108, Grade 1015.

LOCATION: Locate armored edges and/or expansion dams in accordance with detail plans, proposals and applicable Standard Drawings.

PAINT: Clean and paint all structural steel in accordance with the requirement of Section 607, except that surfaces to come in contact with concrete are not to be painted and no field coating will be required.

SHOP DRAWINGS: Contrary to the Specifications, no shop plans are required.

PLACEMENT: Fabricate and place new armored edges to match original or new grade.

STAGE CONSTRUCTION: If installation of armored edges in two or more stages is necessary. Join the armored edges at or near the centerline of the roadway or lane line, field weld and grind smooth.

BASIS OF PAYMENT:

- ARMORED EDGE AT END OF BRIDGE:** Payment at the contract unit price bid for Armored Edge for Concrete shall be full compensation for furnishing and installing the armored edge as specified. Measurement shall be in linear feet from gutter line to gutter line with concrete barrier or curb type railing or existing parapet applications and from fascia to fascia of slab for metal or guardrail type railing systems and no curb.
- ARMORED EDGE AT EXPANSION JOINTS:** Payment for armored edge at expansion joints shall be included in the unit price bid for the specified application and joint size.

KENTUCKY
DEPARTMENT OF HIGHWAYS

ARMORED EDGES

STANDARD DRAWING NO. BJE-001-14

SUBMITTED *Est. 1/1/14* 02-26-20
DIRECTOR DIVISION OF STRUCTURAL DESIGN DATE

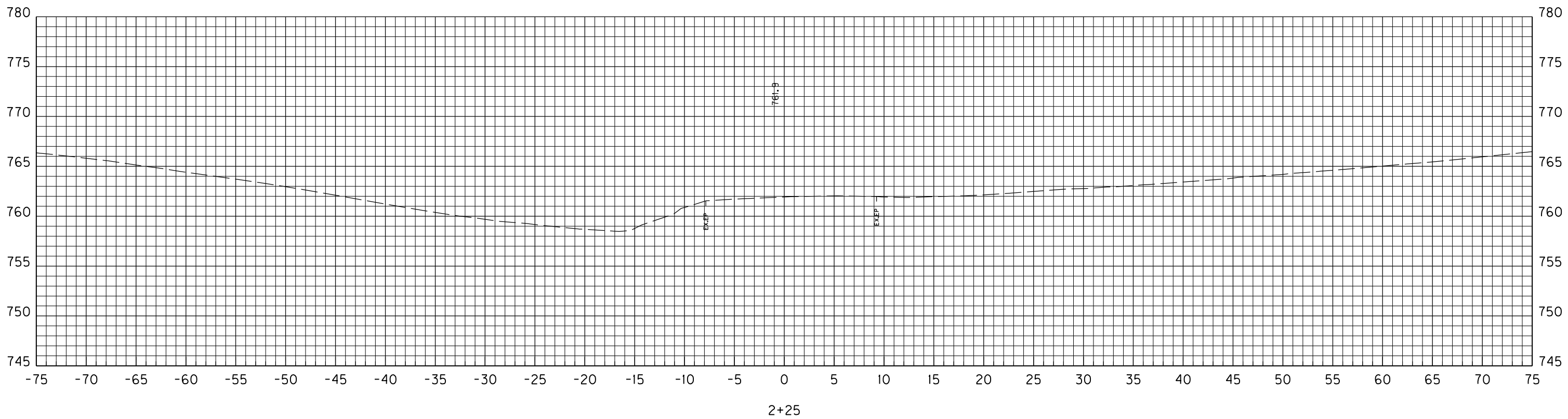
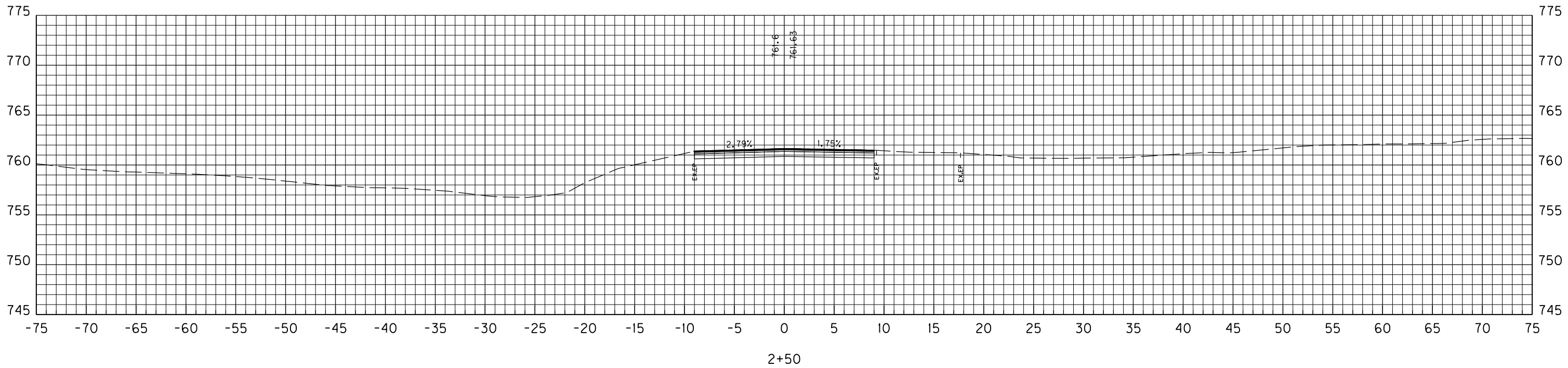
APPROVED *[Signature]* 02-26-20
STATE HIGHWAY ENGINEER DATE

COUNTY OF	ITEM NO.	SHEET NO.
BOONE		X1

FILE NAME: C:\PW\WORKDIR\STEPHEN SEWELL\00107368\CROSS SECTIONS.DGN

USER: Stephen
DATE PLOTTED: May 4, 2021

Power InRoads v8.11.9.337 E-SHEET NAME:



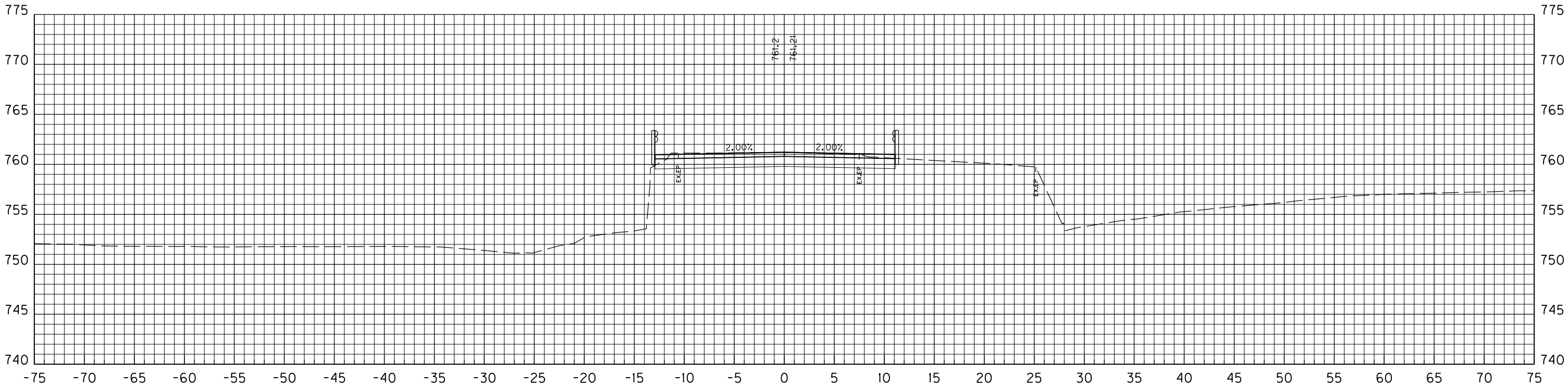
SCALE: 1"=10'

PEEL ROAD CROSS SECTIONS
STA. 2+25 TO STA. 2+50

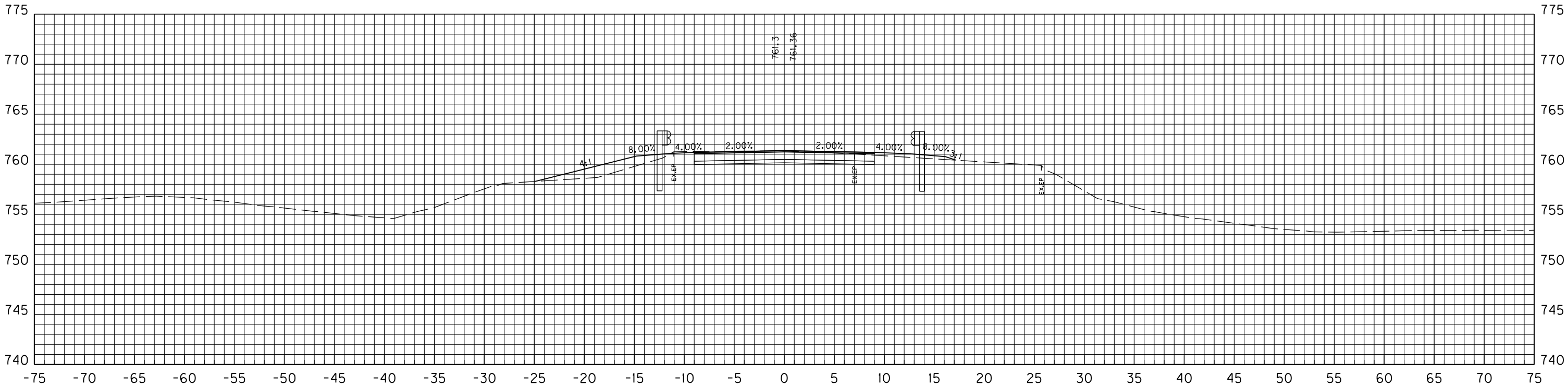
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USER: Stephen
DATE PLOTTED: May 4, 2021

Power InRoads v8.11.9.397
E-SHEET NAME:



3+00



2+75

SCALE: 1"=10'

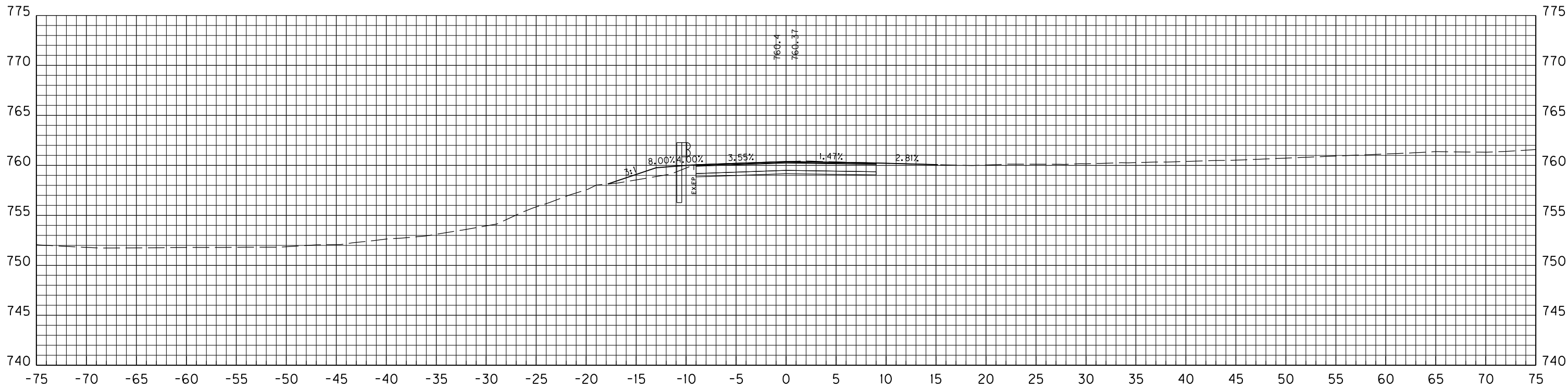
PEEL ROAD CROSS SECTIONS
STA. 2+75 TO STA. 3+00

FILE NAME: C:\PW\WORKDIR\STEPHEN SEWELL\00107368\CROSS SECTIONS.DGN

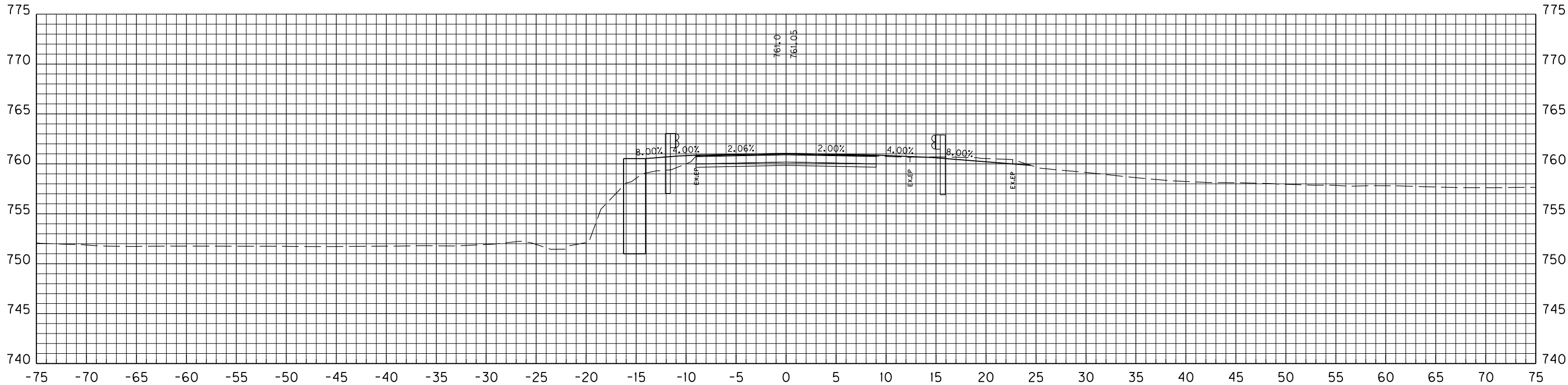
USER: Stephen
DATE PLOTTED: May 4, 2021

E-SHEET NAME:

Power InRoads v8.11.9.337



3+50



3+25

SCALE: 1"=10'

PEEL ROAD CROSS SECTIONS
STA. 3+25 TO STA. 3+50

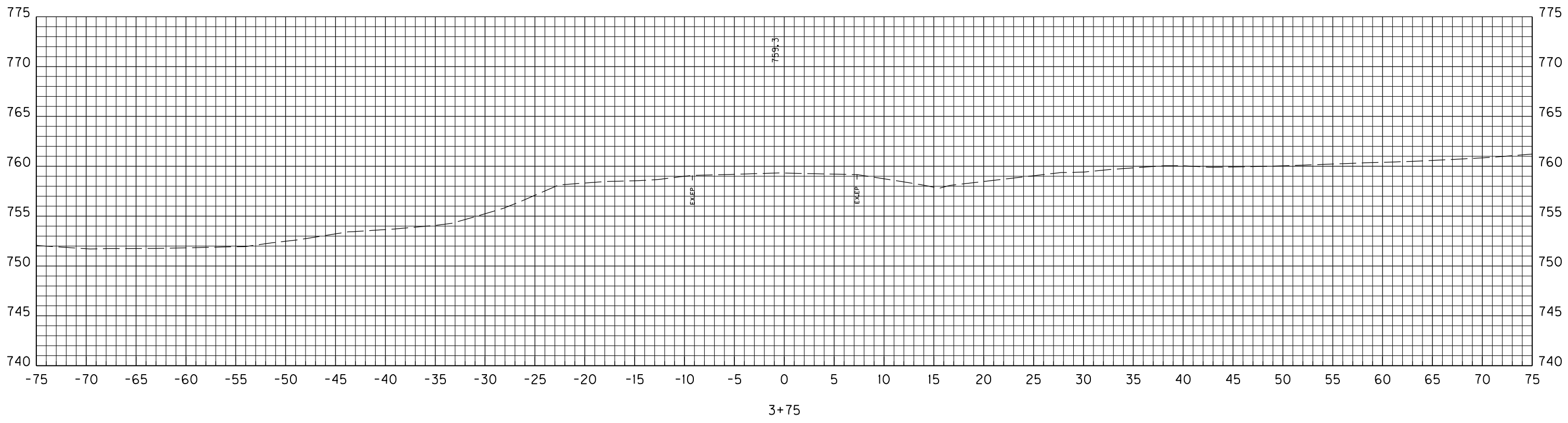
COUNTY OF	ITEM NO.	SHEET NO.
BOONE		X4

Power InRoads v8.11.9.337

E-SHEET NAME:

USER: Stephen
DATE PLOTTED: May 4, 2021

FILE NAME: C:\PW\WORKDIR\STEPHEN SEWELL\00107368\CROSS SECTIONS.DGN



SCALE: 1"=10'

PEEL ROAD CROSS SECTIONS
STA. 3+75 TO STA. 3+75