CALL NO. 112

CONTRACT ID. 174115

CAMPBELL COUNTY

FED/STATE PROJECT NUMBER HSIP 9010 (271)

DESCRIPTION FLAGG SPRINGS PIKE (KY 10)

WORK TYPE ASPHALT SURFACE WITH GRADE & DRAIN

PRIMARY COMPLETION DATE 5/31/2018

LETTING DATE: May 26,2017

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME May 26,2017. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 15%

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

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SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 06

CONTRACT ID - 174115

HSIP 9010 (271)

COUNTY - CAMPBELL

PCN - 0601900101601
HSIP 9010 (271)

FLAGG SPRINGS PIKE (KY 10) BEGINNING AT KY 1997 (MP 4.42) AND EXTENDING EAST TO THE PENDLETON COUNTY LINE (MP 13.603), A DISTANCE OF 09.18 MILES.ASPHALT SURFACE WITH GRADE & DRAIN SYP NO. 06-09006.00.

GEOGRAPHIC COORDINATES LATITUDE 38:53:56.00 LONGITUDE 84:16:55.00

COMPLETION DATE(S):

COMPLETED BY 05/31/2018 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

Bidder must use the Department's Expedite Bidding Program available on the Internet web site of the Department of Highways, Division of Construction Procurement. (www.transportation.ky.gov/construction-procurement)

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

SPECIAL NOTE FOR COMPOSITE OFFSET BLOCKS

Contrary to the Standard Drawings (2016 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.

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

06/01/16

FEDERAL CONTRACT NOTES

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

102.02 Current Capacity Rating 102.10 Delivery of Proposals
102.8 Irregular Proposals 102.14 Disqualification of Bidders
102.9 Proposal Guaranty

CIVIL RIGHTS ACT OF 1964

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

NOTICE TO ALL BIDDERS

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

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

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

SECOND TIER SUBCONTRACTS

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

DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

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

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

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

DBE GOAL

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

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

OBLIGATION OF CONTRACTORS

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

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

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

CERTIFICATION OF CONTRACT GOAL

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

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

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

DBE PARTICIPATION PLAN

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

The DBE Participation Plan shall include the following:

1 Name and address of DBE Subcontractor(s) and/or supplier(s) intended to be used in the proposed project;
2 Description of the work each is to perform including the work item , unit, quantity, unit price and total amount of the work to be performed by the individual DBE. The Project Code Number (PCN), Category Number, and the Project Line Number can be found in the "material listing" on the Construction Procurement website under the specific letting;
3 The dollar value of each proposed DBE subcontract and the percentage of total project contract value this represents. DBE participation may be counted as follows; a) If DBE suppliers and manufactures assume actual and contractual responsibility, the dollar value of materials to be furnished will be counted toward the goal as follows:

- The entire expenditure paid to a DBE manufacturer;
- 60 percent of expenditures to DBE suppliers that are not manufacturers provided the supplier is a regular dealer in the product involved. A regular dealer must be engaged in, as its principal business and in its own name, the sale of products to the public, maintain an inventory and own and operate distribution equipment; and
- The amount of fees or commissions charged by the DBE firms for a bona fide service, such as professional, technical, consultant, or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, supplies, delivery of materials and supplies or for furnishing bonds, or insurance, providing such fees or commissions are determined to be reasonable and customary.

b) The dollar value of services provided by DBEs such as quality control testing, equipment repair and maintenance, engineering, staking, etc.;

c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;

4 Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and

5 Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, the DBE's certificate of insurance, and an affidavit for bidders, offerors, and contractors from the DBE to the Division of Construction Procurement. The affidavit can be found on the Construction Procurement website. If the DBE is a supplier of materials for the project, a signed purchase order and an affidavit for bidders, offerors, and contractors must be submitted to the Division of Construction Procurement.

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set and nine (9) copies of this information must be received in the office of the Division of Contract Procurement no later than 12:00 noon of the tenth calendar day after receipt of notification that they are the apparent low bidder.

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

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

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

PROMPT PAYMENT

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

CONTRACTOR REPORTING

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to complete and submit a signed and notarized affidavit (TC 18-7) and copies of checks for any monies paid to each DBE subcontractor or supplier utilized to meet a DBE goal. These documents must be submitted within 10 days of being paid by the Cabinet.

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

The Prime Contractor should supply the payment information at the time the DBE is compensated for their work. Form to use is located at:
http://transportation.ky.gov/Construction/Pages/Subcontracts.aspx

The prime contractor should notify the KYTC Office of Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact is Melvin Bynes and the telephone number is (502) 564-3601.

Photocopied payments and completed, signed and notarized affidavit must be submitted by the Prime Contractor to: Office of Civil Rights and Small Business Development
6th Floor West 200 Mero Street
Frankfort, KY 40622

DEFAULT OR DECERTIFICATION OF THE DBE

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

1/27/2017

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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

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

ASPHALT MIXTURE

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

DGA BASE

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

FUEL AND ASPHALT PAY ADJUSTMENT

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

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 NOTES APPLICABLE TO PROJECT
(GENERAL NOTES)

The Bid Items for this Highway Safety Improvement Project are located as indicated on the Plan and Profile sheets, Curve Section Sheets, Pipe Sheets, and as summarized in the Project Item Description Summary Sheets.

Caution
The information in this proposal and shown on the plans, summary sheets, and the type of work listed herein are approximate only and are not to be taken as an accurate evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim for money or time extension will be considered if the conditions encountered are not in accordance with the information shown.

On-Site Inspection
Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

Right-of-Way Limits
Most work is located within the existing right of way. Limit work activities to the Right-of-Way unless a Consent and Release form is obtained. Work and staging areas are to be secured by the Contractor at no additional cost to the Department. Be responsible for all encroachments onto private lands.

Property Damage
Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

Control
Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces, and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion

of the Department's work in general harmony and in a satisfactory manner, and the Engineer's decision shall be final and binding upon the Contractor.

Drop Box Inlets

Modified Drop Box Inlets, unless otherwise specified, are to be field designed, as directed and approved by the Engineer, based on the field conditions encountered at each location. This may include modifying the width and/or height of the chamber from what is shown on the Standard Drawings.

Super Elevation Improvement

There are multiple curves where Superelevation Improvements are being proposed with the intent of bringing a consistent pavement cross slope through the identified curves. Refer to the Proposed Superelevation Summary for locations and approximate quantities. The Contractor will need to utilize Leveling & Wedging and/or Asphalt Base in order to achieve the desired superelevation improvements at the identified curves. In certain areas where the superelevation improvement will only require adding 1-2 inches of additional pavement depth, Leveling & Wedging PG64-22 will be required. In areas where the superelevation improvement will require 3 or more inches of additional pavement depth, Class 2 Asphalt Base 0.75D PG 64-22 will be required. The Engineer will make the final determination as to which bid items will be required at each superelevation improvement area, as well as the appropriate lift thicknesses and number of lifts based on the existing conditions encountered at the time of construction. As a result of these paving operations within the identified curves, the roadside shoulders, fill slopes, and/or ditches will have to be modified to match the final pavement elevations and tie in with the existing ground lines. A quantity of Ditching and Shouldering has been included in the proposal for re-grading the shoulders, fill slopes, and/or ditches within the identified curves.

NOTE: Some field adjustments of the shoulders, fill slopes, ditches, and/or superelevation improvements may be required. The shoulder, fill slope, and ditch grading is intended to occur within Right-Of-Way and not disturb any sensitive obstructions (i.e. fences, tree lines, utility poles, etc.). Superelevation improvements that have sensitive obstructions along the roadside shall still require embankment, but the slope may have to be constructed steeper than shown on the typical section. The desire of the Department is to keep the fill slopes at 3:1 or flatter; however, some 2:1 slopes may be necessary, especially when the existing slope is 2:1 or close to 2:1. Further, if a desired superelevation improvement will result in a fill slope having to be graded steeper than 2:1 in order to not impact a sensitive obstruction, then the superelevation rate should be modified (reduced) in order to reduce the final change in pavement edge elevation, thereby reducing the height of the new fill slope grading, and allowing for a flatter fill slope.

Shouldering

Shouldering shall be completed using compacted earth and DGA, as detailed on the Typical Sections. Waste Material from ditching is to graded to help create shoulder and flatten slopes. Contrary to KYTC Standard Specifications (2012) Section 209 – Ditching, Shouldering and Ditching & Shouldering will be bid per each side as noted on the plans. Shouldering will consist of any necessary grading and/or shaping of the existing shoulder, or providing suitable earth material and grading, shaping, and compacting the earth material, in order to achieve the proposed shoulder dimensions as detailed in the Typical Sections. After any necessary shouldering is completed, a 4" layer of DGA shall be placed along the shoulders and under guardrail, as detailed on the Typical Sections. Two applications of Chip Seal are to be applied on the DGA along the shoulder and on the DGA under the guardrail, as shown on the Typical Sections.

SPECIAL NOTES FOR SIGNAGE

The signing layout, advisory speeds and some sign types will have to be determined after the curve superelevation improvements have been completed. The Contractor will notify the Engineer and District Traffic Engineer when all of the superelevation improvements have been completed. In succession, Engineer and/or District Traffic Engineer will provide the contactor the final sign layout, and quantities, 3 weeks from this notification. After the contractor has received the new layout from the District, they should then proceed according to the Special Note for Staking included in this proposal..

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

All sign sheeting shall be from the Cabinet’s List of Approved Materials.

The following signs and sign components shall be fabricated using Type IX or Type XI sheeting:

- White sign legends on panel signs
- STOP (R1-1) signs
- ALL WAY (R1-3P) signs
- YIELD (R1-2) signs
- DO NOT ENTER (R5-1) signs
- WRONG WAY (R5-1a) signs

The following signs and sign components shall be fabricated using Type IX or Type XI fluorescent yellow sheeting:

- Horizontal Alignment Signs and Plaques, including signs shown in Figure 2C-1 of the MUTCD
- All advisory Speed (W13-1P) plaques

SPECIAL NOTE FOR STAKING

Perform Contractor Staking according to Section 201; except, in addition to the requirements of Section 201, perform the following:

1. Contrary to Section 201, perform items 1-3 usually performed by the Engineer.
2. Establish typical section cross slopes for superelevation improvements, transitions and tapers, and details to align the culvert extensions with the existing pipe and to match the existing roadway alignment and curvature to ensure positive drainage upon completion of the work.
3. Verify the dimensions and quantities of the Culvert Pipe/Culvert Extensions as listed and detailed in the proposal, and determine flow line elevations and slopes necessary to provide positive drainage. Revise as necessary to accommodate the existing site conditions; to provide proper alignment of the culvert pipe with existing stream channels, swales, ditches, and the roadway lines and grades; and to ensure positive drainage upon completion of the work.
4. Prior to incorporating into the work, obtain the Engineers approval of all designs and revisions to be provided by the Contractor,
5. Based on the results of the collected ball-bank data, the Contractor shall refer to Sections 2C.06 through 2C.15; Tables 2C-4, 2C-5, and 2C-6; and Figure 2C-2 from the Manual on Uniform on Traffic Control Devices (MUTCD), current edition, to establish a Signing Plan that will consist of the appropriate locations, distances, and spacing needed for the installation of new curve signs. When establishing the Signing Plan, the Contractor should review all potential sign locations for visibility, obstructions, proper offset from driving lanes, constructability, and proximity to other signage. Once the Contractor is satisfied with the Signing Plan, but prior to submitting the Signing Plan, all sign locations shall be marked using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer. The Contractor shall have 14 calendar days after the completion of the surfacing operations to establish, stake, and submit a Signing Plan to the Engineer and District Traffic Engineer for review. Revise the Signing Plan as directed by the Engineer or District Traffic Engineer. **Before sign installation begins, the Contractor shall obtain final approval of the Signing Plan from the Engineer and/or District Traffic Engineer.** (NOTE: See the Special Note for Signing concerning removal of the existing signs.)
6. Produce and furnish to the Engineer "As Built" plans of the superelevation improvements and the drainage/culvert improvements.
7. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE FOR TREE, STUMP, AND BRUSH REMOVAL

I. DESCRIPTION

All work shall be performed in accordance with the Department's current Standard Specifications for Road and Bridge Construction and applicable Special Provisions except as hereafter specified. Article references are to the Standard Specifications.

This work shall consist furnishing all equipment, labor, materials, and incidentals for the following: (1) Site Preparation; (2) Maintaining and controlling traffic; (3) Temporary erosion control and temporary pollution control; (4) Cutting, trimming, and/or removing trees, stumps, and/or brush as specified or directed by the Project Engineer; (5) Treating all cut stumps required by Project Engineer to prevent re-sprouting; (5) Clean up and disposal of waste; (6) Final dressing and seeding and protection; and (7) all other work specified in the Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Seeding and Protection. Use applicable Seed Mixture as specified per Section 212.03.03.

C. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

A. Maintain and Control Traffic. The Contractor shall maintain and control traffic in accordance with the Traffic Control Plan.

B. Cutting, Trimming, and/or Removing Trees, Stumps, and/or Brush. The Contractor shall cut trees and/or bushes as close to the ground as possible; three inches (3”) or less from ground line. See Tree Canopy Detail. Grinding of all tree stumps within the mowing zone shall be required as directed by the Project Engineer. All stumps that are designated to be treated by mechanical grinding shall be required to be removed to a minimum depth of two (2) inches below the surrounding grade line. Treat, within one hour of cutting, all stumps with the specified herbicide solution. Replace and level any and all soil disturbed during these operations. Leave the soil in a condition suitable for seeding that is level with surrounding soil grade, with no holes or indentions to catch water or present unsafe mowing conditions. This work will be incidental to the bid items

"Remove Trees or Stumps" and "Trim and Remove Trees and Brush." NOTE: Tree cutting restrictions apply. No trees shall be cut or trimmmed before October 15th. See Special Note for Completion Dates & Liquidated Damages concerning damages if trees and/or bushes are cut outside of the specified time frame.

C. Removal of Tree, Stump, and Brush Debris. The Contractor will remove all debris and biomass from the trimming and/or removal of trees, stumps, and/or brush from the work site and dispose of such off the right-of-way in accordance with local, state, and federal solid waste laws and regulations. Cleanup and remove all existing down trees and brush located within the designated areas. At the discretion of the Project Engineer, the contractor may be permitted to chip and blow biomass onto non-mowing zones. Chips shall not be blown onto areas that would potentially restrict the flow of water in drainage ditches. All un-chipped biomass must be removed from roadway rights-of-ways.

The Contractor shall keep the work zone free of accumulated waste material and debris at all times. Remove and dispose of all tree, stump, and brush chips off the rights-of-ways. Remove and dispose of all debris and waste material off the rights-of-ways as work is completed and at the end of each workday. Remove desirable wood pieces from the rights-of-ways at the end of each workday. Stockpile trees and brush off the rights-of-ways. At the discretion of the Project Engineer, the Contractor may be permitted to stockpile trees and brush at approved locations along the rights-of-ways.

The Contractor shall immediately correct any disturbance to all drainage features and structures caused by the Contractor's work.

D. Stump Treatment. Within one hour of cutting, the Contractor shall apply a stump treatment mix consisting of fifty percent (50%) Glyphosate (EPA Reg. No. 524-579) with water and add twelve (12) ounces of Imazapyr (EPA Reg. No. 241-431), as specified, per gallon of solution. The addition of a non-ionic surfactant 5% (v/v) shall be added to the solution to increase uptake of the herbicide solution into the root system. Generic formulations are not acceptable. Mix the herbicide solution in the presence of the Inspector. Include a color indicator in the herbicide solution to mark the treated stumps. Spray or paint the herbicide solution onto all cut stumps within one hour after cutting. Apply the herbicide solution in a manner to avoid drift onto surrounding vegetative ground cover. Stumps in the mowing zone, designated for mechanical grinding treatment, need not receive the herbicide treatment.

Provide herbicide material for the treatment of cut stumps meeting the following criteria:

a. Glyphosate

Active ingredient: (**Glyphosate**)

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its potassium salt	48.7%
Inert ingredients	51.3%
Total	100.0%

* Contains 660 grams per liter or 5.5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its potassium salt. Equivalent to 540 grams per liter or 4.5 pounds per U.S. gallon of the acid, glyphosate.
EPA Reg. No. 524-579

b. Imazapyr

Active ingredient: (**Imazapyr**)

*Isopropylamine salt of Imazapyr 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) 26.7%
Inert ingredients 73.3%
Total 100%
* Equivalent to 21.8 percent 2-[4,5-dihydro-4-methyl-4-(1methylethyl)-5oxo-1H-imidazolyl]-3-pyridinecarboxylic acid or 2 pounds acid per gallon.
EPA Reg. No. 241-431

KRS 217B requires that any individual who applies pesticides to Kentucky Highway Right-of-Way areas must be certified as a Pesticide Applicator under Category 6 guidelines. Comply with all current laws and regulations established by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and by KRS 217B that regulate the handling, use, and application of pesticides.

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

F. Coordination with Utility Companies. NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The Contractor shall have the responsibility for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Utility Owner while they relocate their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations.

G. Right-of-Way Limits. The exact limits of the Right-of-Way have not been established by the Department. Unless otherwise shown on the plans (such as in the vicinity of Shaker Village), Right of Way has been assumed to be twenty (20) feet each side of the centerline, or at the face of the wire, plank, or rock wall fence, whichever is closer to the centerline. The Contractor shall limit his activities to obvious Right-of-Way, permanent or temporary easements, and any work areas secured by consent and release of the adjacent property owners. The Contractor shall be responsible for all encroachments onto private lands.

H. Clean Up, Disposal of Waste. Clean up and dispose of all removed debris by the end of each work day, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for clean up or disposal of waste and debris from the project.

I. Final Dressing, Seeding and Protection. Apply final dressing, class A to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the appropriate Seed Mixture as specified in Section 212.03.03. The Department will NOT make direct payment for final dressing and seeding and protection.

J. Erosion Control. See Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

A. Maintain and Control Traffic. Maintain and Control Traffic will be measured as Lump Sum.

B. Site preparation. Site preparation necessary for trimming and/or removal of trees, stumps, and/or brush will NOT be measured for payment, but shall be incidental to the bid items "Remove Trees or Stumps" and "Trim & Remove Trees & Brush".

C. Remove Trees or Stumps. The Department will measure the quantity as each tree or stump removed. Trees or stumps to be removed under this bid item are those listed on the Plans or in this Proposal, or as directed by the Engineer.

D. Trim & Remove Trees & Brush. The Department will measure the quantity as per linear foot per side of highway. See the Tree Canopy Clearing Detail for horizontal and vertical trimming dimensions. The horizontal width is taken from the edge of the pavement measured perpendicular to the roadway but not to extend beyond the areas outlined in the above mentioned Right-of-Way Limits or as directed by the Engineer.

E. Stump Treatment. The Department will NOT measure for payment the operation of Stump Treatment. This activity shall be incidental to the bid items "Remove Trees or Stumps" and "Trim & Remove Trees & Brush".

F. Clean Up, Disposal of Waste. The Department will NOT measure for payment the operations of Clean Up and Disposal of Waste. These activities shall be incidental to project bid items.

G. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operations of Final Dressing and Seeding and Protection. These activities shall be incidental to Erosion Control.

H. Erosion Control. Erosion Control will be measured as Lump Sum.

V. BASIS OF PAYMENT

A. Maintain and Control Traffic. The Department will pay the quantity as Lump Sum.

B. Site Preparation. The Department will NOT make payment for Site Preparation. Site preparation necessary for the trimming and/or removal of trees, stumps, and/or brush will be incidental to the bid items "Remove Trees or Stumps" and "Trim & Remove Trees & Brush".

C. Remove Trees or Stumps. The Department will make payment for the completed and accepted quantities of each tree or stump removed. (NOTE: Any trees and/or bushes that are cut or trimmed before October 15th will NOT receive payment at the contract unit price.) The Department will consider payment at the contract unit price as full compensation for furnishing all materials, equipment, labor, other expenses, and all incidentals necessary to complete this work to remove the trees and/or stumps.

D. Trim & Remove Trees & Brush. The Department will make payment for the completed and accepted quantities per linear foot. (NOTE: Any trees and/or bushes that are cut or trimmed before October 15th will NOT receive payment at the contract unit price.) The Department will consider payment at the contract unit price as full compensation for furnishing all materials, equipment, labor, other expenses, and all incidentals necessary to complete this work to trim and remove trees and/or brush.

E. Stump Treatment. The Department will NOT make payment for the operation of Stump Treatment. This activity shall be incidental to the bid items "Remove Trees or Stumps" and "Trim & Remove Trees & Brush".

F. Clean Up, Disposal of Waste. The Department will NOT make payment for the operations of Clean Up and Disposal of Waste. These activities shall be incidental to project bid items.

G. Final Dressing, Seeding and Protection. The Department will NOT make payment for the operations of Final Dressing and Seeding and Protection. These activities shall be incidental to Erosion Control.

H. Erosion Control. The Department will pay the quantity as Lump Sum.

SPECIAL NOTE FOR EMBANKMENT SLIDE REPAIR

I. DESCRIPTION

This work shall be performed in accordance with the Department's Current Standard Specifications and applicable Special Provisions except as hereafter specified. Article references are to the Standard Specifications.

This work shall consist of: (1) Do necessary excavation; (2) Furnish and install railroad rails; (3) **Install wall cribbing furnished by the Department of Highways;** (4) Place geotextile material, and backfill the area around the railroad rails and on the fill slope; (5) Reconstruct shoulder area; (6) Install guardrail, as stated in the Special Note for Guardrail; (7) Maintain and control traffic; and (8) any other work as specified by this contract.

Repairs using drilled railroad steel and guardrail cribbing, as shown in the Embankment Repair Detail, are to occur at locations indicated on the Plan Sheets and Summary Sheets. Begin and End limits at each area are to be field verified with approval from the Engineer.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

A. Railroad Rails. Use recycled (used) railroad rails classified with a nominal weight of 130 lb/yd (pounds per yard) size or greater. Use only visibly straight recycled railroad rails with no splices. The Engineer will verify rail nominal weights (Manufacturer's Stamp with lb/yd, date, etc.). Provide Certification for nominal weight if the Manufacturer's Stamp is unidentifiable.

B. Wall Cribbing. Use recycled (used) steel "W" beam guardrail. **Cribbing material will furnished by the Department of Highways.** Wall cribbing will be located at the ***Department of Highways Campbell County Maintenance Facility****, 9615 Alexandria Pike, Alexandria, KY.* The Contractor will be responsible for picking up the cribbing material and delivering it to the project site as an incidental item.

C. Backfill material for Drilled Sockets. Use the following for backfill material for Drilled sockets: concrete, free flowing sand, pea gravel, crushed limestone, or crushed sandstone. Use backfill material with one hundred percent (100%) passing a one-half (1/2) inch sieve. Do not use auger tailings. Engineer will use visual inspection and/or material testing, as applicable to determine acceptability.

D. Fill Material for CRIBBING. Use one of the following backfill materials: Kentucky Aggregate Gradation No. 2's or larger. Backfill material shall meet

requirements of Section 805. The Engineer will use visual inspection and/or material testing, as applicable, to determine acceptability.

E. **DGA.** Furnish Dense Graded Aggregate as per Section 805. Do not use Crushed Stone Base.

F. **Final Dressing, Seed and Protection.** Use Seed Mixture No. 1.

I. **Geotextile Fabric.** Furnish Geotextile Fabric Type IV as per Section 843.

J. **Erosion Control.** See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

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

B. **Staking.** Establish proper slope elevations and ratios, shoulder widths, existing ditch profile and final ditch profile to insure positive drainage. Be responsible for field layout. Positive drainage is required upon completion of the project and is the responsibility of the Contractor.

C. **Site Preparation.** Prepare repair sites. This includes clearing and grubbing, if necessary. Remove all obstructions. Sweep and remove debris, if necessary. The area to be cleared has not been measured by the Department and the bidder must draw his own conclusions. Construct silt checks, temporary silt fence, or other erosion control devices, as necessary to satisfy the BMP, at locations directed by the engineer. The Engineer shall approve all site preparation. The Department will not make direct payment for site preparation.

D. **Installation of Railroad Rails.** See attached summary for site locations and estimated quantities of materials required. Contrary to the attached tables and drawings for drilled railroad rails, Install only 1 Row of RR Rails on 4 foot centers unless otherwise shown on the summary or mentioned in these notes. From a Geotechnical Overview, based on the field review and brief review of the geology, it is anticipated that rock will vary from four to eight feet. No geotechnical borings were advanced, and, as such, rock depths may differ from those estimated above. Therefore the contractor is responsible for determining actual depth to rock and providing to the department to be approved by the engineer. The embankment failures at these sites are caused by erosion from steep slopes and poor drainage.

Install used railroad rail piling in drilled sockets in rock or stable material under the landslides (see figure 1) or the eroded areas (see figure 2) as project location dictates or as directed by the Engineer.

Drill the socket, furnish, and install the railroad rails into holes at slide locations. If the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as "Railroad Rail-Drilled". Drill sockets into solid rock, if possible. The Department will monitor each hole, which will serve as a sounding for the rail to be installed in it. Embed the railroad rail into solid rock no less than one-half the free end length of the rail. (See figure 1 and figure 2). If solid rock cannot be obtained, the Engineer will determine the length of embedment required in other stable foundation. Allow adequate size of the drilled socket to allow free insertion of the railroad rail, but the maximum socket size is 1 foot in diameter.

After each hole is drilled, install railroad rail immediately with the flanges positioned perpendicular to the direction of the landslide or break (see figure 3). Determine the height of rail that is needed to reestablish pavement and shoulder typical section. Cut off excess rail flush with the proposed ground line that is not needed. Use cutoffs elsewhere in the project if possible; unusable cutoffs remain the property of the Contractor.

After railroad rail is installed, immediately backfill the drilled hole with the approved materials. Shovel the backfill material into the hole in small amounts. Avoid bridging between the rail and the sides of the hole. Do not use Auger tailings as backfill material.

When double or triple rows are required, stagger the rows to obtain the required spacing. Keep the spacing between the rows of rails as close as is practical; do not space between the rows of more than 2 feet, if possible. See figure 3 (Case II and Case III) for the diagrams showing two (2) or three (3) rows of rails. Select the spacing as per Table 1 for all 130 pound per yard rail or greater. The Department shall approve the selection prior to work being performed.

Crib any exposed portion of railroad rail before placing backfill.

E. Excavation and Backfill. Excavate each repair area to provide a platform for drilling the used railroad rails, if necessary. Excavate for roadway ditches as necessary for slope, shoulder, and pavement drainage. Place geotextile fabric, and then construct backfill behind railroad rails, cribbing, and on slope, as per Section 206. Construct backfill to the proposed dimensions as shown on the Embankment Repair Detail, or as directed by the Engineer. Construct the backfill in the shoulder area to an elevation 4" below the proposed final edge of pavement elevation.

Finish the shoulder area reconstruction with a 4" layer of DGA to match flush with the final edge of pavement elevation and grade to the dimensions shown on the Embankment Repair Detail, or to a minimum width of 2 Feet at each slide location, or as directed by the Engineer. Do not pond water on the shoulder area or at the shoulder edge. Reconstruct the shoulder before installing guardrail.

DO NOT USE EXCAVATED MATERIAL FROM THE SITE AS FILL MATERIAL. Excess excavation may be wasted at sites on the right-of-way, ONLY if approved by the Engineer. Material may NOT be wasted in flood prone areas or in streams.

If the Engineer deems no suitable sites are available within the right-of-way, the Contractor will be required to waste excess material off the right-of-way at sites obtained by the Contractor at no cost to the Department.

F. Installation of Wall Cribbing. Install Cribbing as shown on Figure 1 or Figure 2 as slide location dictates or as directed by the Engineer. Extend wall cribbing 2 feet below the existing ground line. If bedded rock is encountered, install the cribbing to the bedded rock only. If necessary, the Engineer will direct changes to this procedure. Furnish all labor and equipment to deliver and install wall cribbing on the recycled (used) railroad rail piling. Wall cribbing shall be lapped, bolted, and attached solid to the drilled railroad rails.

G. Final Dressing, Seeding and Protection. Apply Final Dressing, Class A to all disturbed areas, both on and off the right-of-way. Sow with Seed Mixture No. 1. The Department will NOT make direct payment for final dressing, or seeding and protection, but shall be incidental to Erosion Control.

H. On-Site Inspection. Each Contractor submitting a bid for this work shall make a thorough inspection of the site prior to submitting his bid and shall thoroughly familiarize themselves with the existing conditions so that the work can be expeditiously performed after a contract is awarded. Submission of a bid will be considered evidence of this inspection having been made.

I. Right-of-Way Limits. Right-of-Way and easement limits shown on the plans are approximate only. The Contractor shall make every effort to limit his activities to obvious right-of-way and permanent or temporary easements and shall be responsible for encroachments onto private lands.

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

K. Erosion Control. See Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

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

B. **Staking.** See Special Note for Staking.

C. **Site Preparation.** Other than the bid items listed, site preparation will NOT be measured for payment, but shall be incidental to the bid item Excavation and Backfill.

D. **Railroad Rail-Drilled.** The Department will measure the finished in-place length of this item in Linear Feet. Laps, cutoffs, excess, and waste will NOT be measured for payment. If the Engineer determines from the sounding obtained at a drilled socket that railroad rail piling cannot be used in that socket, the depth of the socket shall be measured and 50% of the depth shall be paid as Railroad Rail-Drilled.

E. **Wall Cribbing.** The Department will measure this item in square feet finished in place area. Laps, cutoffs, excess, and waste will not be measured for payment.

F. **Excavation and Backfill.** The Department will measure this item in cubic yards. The Department will measure the quantity in the field as per Section 204 (Roadway Excavation) or other accepted methods of measurement as directed by the Engineer.

G. **DGA.** The Department will measure according to Section 302.

H. **Geotextile Fabric.** The Department will measure Geotextile Fabric Type IV according to Section 214.

I. **Clean Up, Disposal of Waste.** The Department will NOT measure for payment the operations of Clean Up and Disposal of Waste. These activities shall be incidental to project bid items.

J. **Final Dressing, Seeding and Protection.** The Department will NOT measure for payment the operations of Final Dressing and Seeding and Protection. These activities shall be incidental to Erosion Control.

K. **Erosion Control.** See Special Note for Erosion Control.

V. BASIS OF PAYMENT

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

B. **Staking.** See Special Note for Staking.

C. **Railroad Rail-Drilled.** The Department will pay for the completed and accepted quantities under the bid item of Railroad Rail-Drilled. The Department will

consider payment full compensation for all work required in these notes and elsewhere in the Contract.

D. **Excavation and Backfill.** The Department will pay for the completed and accepted quantities under the bid item "Excavation and Backfill." Payment will be based on the quantity measured in the field. The Department will consider payment full compensation for all work and incidentals necessary to excavate and backfill the areas indicated on the plans or as directed by the Engineer.

E. **DGA.** The Department will make payment according to Section 302.

F. **Geotextile Fabric.** The Department will make payment of Geotextile Fabric Type IV according to Section 214.

G. **Wall Cribbing.** The Department will provide the material for all Wall Cribbing. The Department will pay for the completed and accepted quantities under the bid item "Cribbing." Payment will be based on the finished, in place quantity installed in the field. The Department will NOT make separate payment for the hauling of the wall cribbing to the project site. The Department will consider payment full compensation for all work and incidentals necessary to install the cribbing in the areas indicated in the proposal or as directed by the Engineer.

H. **Clean Up, Disposal of Waste.** The Department will NOT make payment for the operations of Clean Up and Disposal of Waste. These activities shall be incidental to project bid items.

I. **Final Dressing, Seeding and Protection.** The Department will NOT make payment for the operations of Final Dressing and Seeding and Protection. These activities shall be incidental to Erosion Control.

J. **Erosion Control.** See Special Note for Erosion Control.

SPECIAL NOTE FOR PIPE REPLACEMENT/EXTENSIONS

Except as provided herein, perform all work in accordance with the Department's 2012 Standard Specifications, interim Supplemental Specifications, Standard and Sepia Drawings, and Special Notes and Special Provisions, current editions. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Constructing pipe extensions; (3) Embankment; (4) Erosion Control; (5) Construct guardrail and end treatments; and (6) any other work as specified by this contract.

II. MATERIALS

Provide for sampling and testing of all materials in accordance with the Department's Sampling Manual. Make materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these notes.

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

B. Culvert Pipe. Furnish pipe meeting the requirements of Section 810. Select pipe for Ph range Medium and minimum fill cover height according to Sepia Drawing 009 and Standard Drawing RDI-035-01. Use flowable fill for pipe backfill according to Section 601.03.03(B).

C. Erosion Control. See Special Note for Erosion Control.

III. CONSTRUCTION METHODS

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

B. Erosion Control. See Special Note for Erosion Control Plan.

C. Site Preparation. Be responsible for all site preparation, including but not limited to saw cutting and removing pavement; clearing and grubbing, and incidental excavation and backfilling; removal of existing pipe, headwalls and any obstructions or items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Perform all site preparation only as approved or directed by the Engineer.

Immediately prior to completion, clean all existing and new culvert pipe and clean ditches. Provide positive drainage of pavement, shoulders, slopes, and ditches at all times during and upon completion of construction.

D. Removing Pipe and Excavation. Remove existing culvert pipe at the approximate location noted on the summary. The Engineer will determine the actual location at the time of construction. Saw cut the existing asphalt pavement, PCC pavement, and base to a neat edge prior to excavation and removal of the existing pipe. Obtain the Engineer's approval of trench width prior to cutting pavement. Excavate trench and remove pipe as directed or approved by the Engineer without disturbing existing underground utilities. Waste excavated materials and removed pipe at approved sites off the right of way obtained by the Contractor at no additional cost to the Department.

E. Pipe. Construct culvert pipe at the location designated by the Engineer. The Engineer will establish final centerline, flow lines and skew to obtain the best fit of the existing ditches and channels. Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings. Use approved connecting bands or concrete anchors as required. Prior to backfilling pipe, obtain the Engineer's approval of the pipe installation. Provide Positive drainage upon completion of pipe installation.

F. Pipe Backfill. See Pipe Backfill Detail.

G. Embankments. Backfill pipe extensions and construct shoulder embankments as shown on the drawings or as directed by the Engineer. Provide positive drainage of slopes and median at all times during and upon completion of construction.

H. Final Dressing, Clean Up, Seeding and Protection, and Restoration. After all work is completed, remove all waste and debris from the job site. Grade all disturbed areas to blend with the adjacent roadway features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Notes for Erosion Control Plan.

I. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

J. Disposal of Waste. Dispose of all removed concrete, pipe, pavement, debris, excess and unsuitable excavation, and all other waste at approved sites off the right of way obtained by the Contractor at no additional cost to the Department (see Special Note for Waste and Borrow

K. On-Site Inspection. Before submitting a bid for the work, make a thorough inspection of the site and determine existing conditions so that the work can be expeditiously performed after a contract is awarded. The Department will consider submission of a bid to be evidence of this inspection having been made. The Department will not honor any claims for money or time extension resulting from site conditions.

L. Right-of-Way Limits. All work is located within the existing right of way. Limit work activities to the Right-of-Way and work and staging areas secured by the Contractor at no additional cost to the Department. Be responsible for all encroachments onto private lands.

M. Caution. The information in this proposal and shown on the plans and the type of work listed herein are approximate only and are not to be taken as an accurate evaluation of the materials and conditions to be encountered during construction; the bidder must draw his own conclusions. The Department does not give any guarantee as to the accuracy of the data and no claim for money or time extension will be considered if the conditions encountered are not in accordance with the information shown.

N. Control. Perform all work under the absolute control of the Department of Highways. Obtain the Engineer's approval of all designs required to be furnished by the Contractor prior to incorporation into the work. The Department reserves the right to have other work performed by other contractors and its own forces and to permit public utility companies and others to do work during the construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of, or adjacent to, the project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the Department's work in general harmony and in a satisfactory manner, and his decision shall be final and binding upon the Contractor.

IV. METHOD OF MEASUREMENT

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

B. Site Preparation. Other than the bid items listed, site preparation will not be measured for payment, but shall be incidental to culvert pipe.

C. Erosion Control. See Special Note for erosion Control.

V. BASIS OF PAYMENT

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

B. Culvert Pipe. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment and incidentals for furnishing and installing new culvert pipe, and furnishing and placing flowable fill.

C. Erosion Control. See Special Note for Erosion Control.

TRAFFIC CONTROL PLAN – SPECIAL NOTES

TRAFFIC CONTROL GENERAL.

Except as provided herein, traffic shall be maintained in accordance with the current editions of the Manual on Uniform Traffic Control Devices (MUTCD), Standard Specifications and the Standard Drawings. Except for the roadway and traffic control bid items listed, all items of work necessary to maintain and control traffic will be paid at the lump sum bid price to "Maintain and Control Traffic".

Contrary to Section 106.01, traffic control devices used on this project may be new, or used in like new condition, at the beginning of the work and maintained in like new condition until completion of the work. Any temporary traffic control items, devices, materials, and incidentals shall remain the property of the contractor unless otherwise addressed, when no longer needed.

PROJECT PHASING & CONSTRUCTION PROCEDURES

At the discretion of the Engineer, days and hours may be specified when lane closures will not be allowed. No lane closures will be allowed on the following dates:

All tree removal/clearing are to be completed after October 15th. Any tree removals that are removed before that date, maybe subject to bat mitigation fees for disturbing or harming of bat hibernaculum's and will solely be the responsibility of the contractor as a non-reimbursable cost.

All work must be completed at all times, maintaining alternating one way traffic during construction operations. The clear lane width shall be 9 feet. With approval of the Engineer, short stoppages of no more than 20 minutes for construction operations can be experienced, however, the contractor shall make all provisions for the passage of all emergency vehicles and school buses on an official run as quickly as possible in less than the 20 minute allowed stoppage time.

Asphalt Leveling and Wedging shall be placed in lifts to insure pavement keep minimal drop offs and 2-lanes of traffic can be maintained overnight. Leveling and Wedging thicknesses shall be approved by the engineer.

Notify the Engineer immediately and obtain approval of any deviations from the previously approved closure schedule. The contractor shall be responsible for road closure barricades and signs; work zone and pavement condition signs; advanced warning signs; additional signs as directed by the Engineer; changeable message signs.

Under special circumstances, KYTC reserves the right to restrict the use of lane closures due to unforeseen special events.

MAINTAIN & CONTROL TRAFFIC.
Will be measured only once for payment.

SIGNS.
Sign Posts and splices shall be compliant with NCHRP 350 or MASH. Manufacturer's documentation validating this compliance shall be provided to the Engineer prior to installation. Signs, including splices, shall be installed according to manufacturer's specifications and installation reccommendations. Contrary to section 112.04.02, only long-term signs (continuously in place for more than 3 days) will be measured for payment. Short term signs (in place for 3 days or less) will not be measured for payment but will be incidental to Maintian and Control Traffic.

VARIABLE MESSAGE SIGNS.
If deemed necessary by the Engineer, variable message signs will be installed, operated and maintained by the Department. Specifically, signs indicating the insufficient lane width for oversized loads may be required.

BARRICADES
Barricades used in lieu of barrels and cones for channelization or delineation will be incidental to Maintain and Control Traffic according to Section 112.04.01. Barricades used to protect pavement removal areas will be bid as each according to Section 112.04.04.

PAVEMENT EDGE DROP-OFFS
A pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation shall not have an elevation difference greater than 1 ½. Warning signs (MUTCD W8-9 or W8-9A, or W8-11) shall be placed in advance of and at 1500 feet intervals throughout the drop-off area. Dual posting on both sides of the traveled way shall be required. All transverse transitions between newly surfaced pavement and the existing pavement areas that traffic may cross shall be wedged with asphalt mixture for leveling and wedging. Remove wedges prior to placement of the final surface course.

Pavement edges that traffic is not expected to cross, except accidentally, shall be treated as follows:
Less than 2” – No protection required.
2” to 4” – Place plastic drums, vertical panels, or barricades every 50 feet. Cones may be used in place of plastic drums, panels, and barricades during daylight hours. Wedge with asphalt mixture for leveling and wedging with a 1:1 or flatter slope in daylight hours, or 3:1 or flatter slope during nighttime hours, when work is not active in the drop-off area.

Temporary drop-offs during working hours, where construction operations are taking place, should be kept to minimum.

TEMPORARY ENTRANCES

The Engineer will not require the Contractor to provide continuous access to farms, single family, duplex, or triplex residential properties during working hours; however, provide reasonable egress and ingress to each such property when actual operations are not in progress at that location. Limit the time during which a farm or residential entrance is blocked to the minimum length of time required for actual operations, not extended for the Contractor's convenience, and in no case exceeding six (6) hours. Notify all residents twenty-four hours in advance of any driveway or entrance closings and make any accommodations necessary to meet the access needs of disabled residents.

Except as allowed by the Phasing as specified above, maintain direct access to all side streets and roads, schools, churches, commercial properties, and apartments or apartment complexes of four or more units at all times. Access to fire hydrants must also be maintained at all times

The Department will measure asphalt materials required to construct and maintain any temporary entrances which may be necessary to provide temporary access; however, the Department will not measure aggregates, excavation, and/or embankment, but shall be incidental to Maintain and Control Traffic. The Engineer will determine the type of surfacing material, asphalt or aggregate, to be used at each entrance.

SPECIAL NOTE FOR GUARDRAIL

I. DESCRIPTION

Except as specified herein, perform all work in accordance with the Department's Standard and Supplemental Specifications and Standard and Sepia Drawings, current editions. Article references are to the Standard Specifications.

Furnish all equipment, labor, materials, and incidentals for the following work items:

(1) Site preparation; (2) Remove existing guardrail systems; (3) Construct Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable; (4) Delineators for guardrail; (5) Maintain and control traffic; and (6) all other work specified as part of this contract.

II. MATERIALS

Except as specified herein, provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual and make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

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

B. Guardrail. Furnish guardrail system components according to section 814 and the Standard Drawings; except use steel posts only, no alternates.

C. Delineators for Guardrail. Furnish white Delineators for Guardrail according to Standard Drawing RBR-055.

D. Erosion Control. See Special Notes for Erosion Control.

III. CONSTRUCTION METHODS

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

B. Site Preparation. Remove existing guardrail system including the guardrail end treatments, Bridge End connectors, and all other elements of the existing guardrail system as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way. Be responsible for all site preparation, including but not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; filling voids left as the result of removing

existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal, of excess and waste materials and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

C. Guardrail. Except as specified herein, construct guardrail system according to Section 719 and the Standard Drawings. Locations listed on the Plan Sheets are approximate only. The Engineer will determine the exact termini for individual guardrail installations at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

Erect guardrail to the lines and grades shown on current Standard Drawings or as directed by the Engineer by any method approved by the Engineer which allows construction of the guardrail to the true grade without apparent sags.

When removing existing guardrail and installing new guardrail, do not leave the blunt end exposed where it would be hazardous to the public. When it is not practical to complete the construction of the guardrail and the permanent end treatments and terminal sections first, provide a temporary end by connecting at least 25 feet of rail to the last post, and by slightly flaring, and burying the end of the rail completely into the existing shoulder. If left overnight, place a drum with bridge panel in advance of the guardrail end and maintain during use.

D. Delineators for Guardrail. Construct Delineators for Guardrail according to the Standard Drawing RBR-055.

E. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Restore damaged roadway features and private property at no additional cost to the Department.

F. Coordination with Utility Companies. Locate all underground, above ground and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of guardrail operations at no additional cost to the Department.

G. Right of Way Limits. The Department has not established exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.

H. Disposal of Waste. Dispose of all removed concrete, debris, and other waste and debris off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department. See Special Note for Waste and Borrow.

I. Final Dressing, Clean Up, and Seeding and Protection. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas according to the Special Note for Erosion Control.

J. Erosion Control. See Special Notes for Erosion Control.

IV. METHOD OF MEASUREMENT

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

B. Site preparation. Other than the bid items listed, the Department will not measure Site Preparation for separate payment, but shall be incidental to the bid items Remove Guardrail, Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable.

C. Guardrail. See Section 719.04.

D. Delineators for Guardrail. See Delineators for Guardrail Sepia Drawing.

E. Erosion Control. See Special Notes for Erosion Control.

V. BASIS OF PAYMENT

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

B. Guardrail. See Section 719.05.

C. Delineators for Guardrail. See Delineators for Guardrail Sepia Drawing.

D. Erosion Control. See Special Notes for Erosion Control.

SPECIAL NOTE FOR SIGNING

I. DESCRIPTION

Except as provided herein, this work shall be performed in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), the Department's current Standard Specifications and Interim Supplemental Specifications, applicable Standard and Sepia Drawings, and applicable Special Provisions, except as hereafter specified. Article references are to the Standard Specifications. This project shall consist of furnishing all labor, equipment, materials, and incidentals for the following:

(1) Maintaining and Controlling Traffic; (2) Furnish, Fabricate, and Erect Signs; (3) all other work specified in the Contract.

II. MATERIALS

All materials shall be sampled and tested in accordance with the Department's Sampling Manual and the materials shall be available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing unless otherwise specified in these Notes.

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

B. Erosion Control. See Special Note for Erosion Prevention and Sediment Control.

III. CONSTRUCTION METHODS

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

B. Site Preparation. All site preparation shall be as approved or directed by the Engineer. Be responsible for all site preparation including, but not limited to; clearing and grubbing, staking, excavation, backfill, and removal of obstructions or any other material not covered by other items. Perform all site preparation only as approved or directed by the Engineer.

C. Staking. See Special Note for Staking.

D. Signs and Posts. Before beginning installation, the Contractor shall furnish to the Engineer drawings, descriptions, manufacturer’s cuts, etc. covering all material to be used. Mill test reports for beams, steel panels, and each different gauge of aluminum or steel sheeting used must be submitted to the Division of Construction and approved prior to erection.

Fabricate sheet signs from .080 or .125 gauge aluminum alloy 5052-H38 or 6061-T6, in accordance with ASTM B-209, and to the size and shape specified. Prepare the side of the sheet to be used as the sign face to receive the retroreflective background material according to the sheeting and retroreflective material manufacturers' recommendations. Sheeting used as background material for sign faces is to be the color specified and visually in accordance with the standard requirements of ASTM D-4956, and meet the requirements of Section 830 of the Standard Specifications. Contrary to Section 830.02.06, only the types and colors of sheeting as specified in the signing summaries will be accepted. All retroreflective material shall be fabricated and assembled in accordance with manufacturer's specifications and/or recommendations.

All hardware for the erection of sheeting signs shall be rust resistant: stainless steel, zinc coated, aluminum, or an Engineer approved material. All beams and posts shall be of sufficient lengths to extend from the top of the sign to the required base embedment. Type I steel posts shall be either standard installation in soil, with soil stabilizer, or Type 'D' (breakaway sign post support system) installation. However, for standard installations, if solid rock is encountered, the Contractor shall drill holes of the required depth into the rock and backfill with concrete. The cost shall be incidental to Type I steel post, and soil stabilizers will not be required. Approved manufacturers for breakaway (Type 'D') post systems have been placed on the list of approved materials. All steel post shall meet the requirements of Section 832 of the standard specifications. All hardware including, but not limited to, sign post anchors, soil stabilizers, nuts, bolts, washers, fasteners, fittings, and bracing, or any other incidentals necessary to erect the signs shall be furnished by the Contractor and be incidental to the work.

New concrete bases, support beams, anchors, etc. are to be installed prior to dismantling any existing sign. The removal of existing signs and supports is to be done concurrently with the installation of new signs and supports under the same lane closure during the same work shift. Completely remove existing sign support anchors or remove them to a minimum depth of six (6) inches below existing ground line and backfill the disturbed area to the existing ground line.

When listed in the summaries, Reflective Sign Post Panel shall be 2" wide x 60" or 72" tall and shall have three 3/8" holes (one hole in the top 3", one hole near the center, and one hole in the bottom 3") that align with holes on the Type I steel post. Sheeting shall be the same Type and color as the sign installed on the post. Examples include:

- Red, fluorescent yellow, and fluorescent yellow-green (Type IX and/or XI Sheeting)
- White and yellow (Type III and/or IV Sheeting).

All manufactured sheeting signs shall be free of visual defects including, but not limited to, cracks, tears, ridges, humps, discoloration, etc., and defective signs shall be replaced at no additional cost to the Department.

All sign blanks shall be hole punched by the manufacturer for either horizontal or vertical installation. Attach all aluminum sheeting signs to square post with 3/8" all steel rivets and nylon washers

Post will be attached to the anchor with 5/16" corner bolts and 5/16" flanged nuts, and all post and anchor cuts shall be treated with a Cold Galvanizing Compound spray.

Sign posts shall be erected vertically by using a level bubble. The tolerance shall be a 2 degree angle in any direction. On signs where there are more than one sign assembly mounted beside each other, the posts shall be spaced to provide approximately six inches (6") of spacing between signs.

E. Property Damage. Be responsible for all damage to public and/or private property resulting from the work. Repair or replace damaged roadway features in like kind materials and design as directed by the Engineer at no additional cost to the Department. Repair or replace damaged private property in like kind materials and design to the satisfaction of the owner and the Engineer at no additional cost to the Department.

F. Coordination with Utility Companies. Locate all underground, above ground, and overhead utilities prior to beginning construction. Be responsible for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Contractor while relocating their facilities. Be responsible for repairing all utility damage that occurs as a result of pipe replacement and pipe extension operations at no additional cost to the Department. NOTIFY THE ENGINEER AND THE UTILITY OWNER(S) IMMEDIATELY WHEN IT IS DISCOVERED OR ANTICIPATED THAT ANY UTILITY CONFLICT COULD DELAY THE CONTRACTOR'S OPERATIONS. Working days will not be charged for those days on which work on the controlling item is delayed, as provided in the Specifications. If the total delay exceeds ten working days, an extension of the specified completion date will be negotiated with the Contractor for delay to the Contractor's work; however, no extension will be granted for any delay caused by the Contractor's failure to notify the Engineer and/or the utility company as specified above when a conflict is discovered or anticipated as specified.

G. Right of Way Limits. The Department has not established exact limits of the Right-of-Way. Unless a consent and release from is obtained from the adjoining property owner, limit work activities to the obvious Right-of-Way and staging areas secured by the Contractor at no additional cost to the Department. In the event that private improvements (i.e. fences, buildings, etc.) encroach upon the Right-of-Way, the contractor shall notify the Engineer and limit work activities in order to NOT disturb the improvements. If they

become necessary, the Department will secure consent and releases from property owners through the Engineer. Be responsible for all encroachments onto private lands.

H. Clean Up, Disposal of Waste. Clean up the project area as work progresses. Dispose of all removed concrete, debris, and other waste as per Section 204.03.08. The Department will incur no cost to obtain the disposal sites. The Department will NOT make direct payment for disposal of waste and debris from the project. Existing anchors, signs, posts, and any other hardware or material removed from the site are to become the property of the Contractor.

I. Final Dressing, and Seeding and Protection, and Restoration. Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Perform Class A Final dressing on all disturbed areas. Seed and protect all disturbed earthen areas according to the Special Note for Erosion Prevention and Sediment Control.

J. Erosion Control. See Special Note for Erosion Prevention and Sediment Control.

IV. METHOD OF MEASUREMENT

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

B. Site Preparation. Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.

C. Signs. The Department will measure the finished in-place area of signs in Square Feet.

D. Sign Posts. The Department will measure the finished in-place length of sign posts in Linear Feet. Laps, cutoffs, excess, and waste will NOT be measured for payment.

E. Clean Up, Disposal of Waste, Final Dressing, Seeding and Protection. The Department will NOT measure for payment the following activities: Clean Up, Disposal of Waste, Final Dressing, and Seeding and Protection. These activities shall be incidental to the project bid items.

F. Remove Sign. The Department will consider all signs attached to one or more connected posts as a single sign. The Department will measure as each assembly removed and NOT each individual sign removed.

G. Items Provided by KYTC. The Department will NOT measure for payment the installation of signs and/or surface mounts provided by KYTC. These activities shall be incidental to the bid item “STEEL POST TYPE I”.

H. Erosion Control. See Special Note for Erosion Prevention and Sediment Control.

V. BASIS OF PAYMENT

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

B. Signs. The Department will make payment for the completed and accepted quantities under the bid item "SBM ALUM SHEET SIGNS .125 IN or .080 IN". The Department will consider payment full compensation for all work and incidentals necessary to erect the signs at the locations indicated in the proposal or as directed by the Engineer.

C. Sign Posts. The Department will make payment for the completed and accepted quantities under the bid item "STEEL POST TYPE I". The Department will consider payment full compensation for all work and incidentals necessary to install the sign posts as required in these notes and elsewhere in the Contract.

D. Remove Sign. The Department will make payment for the completed and accepted quantities under the bid item "REMOVE SIGN". The Department will consider payment full compensation for all work and incidentals necessary to remove the existing signs, posts, anchors, and any other sign material or hardware, from the locations indicated in the proposal as required in these notes and elsewhere in the Contract.

E. Erosion Control. See Special Note for Erosion Prevention and Sediment Control.

SPECIAL NOTE FOR EROSION CONTROL

I. DESCRIPTION

Perform all erosion and water pollution control work in accordance with any other notes in the Proposal, the Department's Standard and Interim Supplemental Specifications, Special Provisions and Special Notes, the Standard and Sepia Drawings, current editions, and as directed by the Engineer. Section references are to the Standard Specifications. This work shall consist of:

(1) Developing and preparing a Best Management Practices Plan (BMP) tailored to suit the specific construction phasing for each site within the project; (2) Preparing the project site for construction, including locating, furnishing, installing, and maintaining temporary and/or permanent erosion and water pollution control measures as required by the BMP prior to beginning any earth disturbing activity on the project site; (3) Clearing and grubbing and removal of all obstructions as required for construction; (4) Removing all erosion control devices when no longer needed; (5) Restoring all disturbed areas as nearly as possible to their original condition; (6) Preparing seedbeds and permanently seeding all disturbed areas; (7) Providing a Kentucky Erosion Prevention and Sediment Control Program (KEPSC) qualified inspector; and (8) Performing any other work to prevent erosion and/or water pollution as specified by this contract, required by the BMP, or as directed by the Engineer.

II. MATERIALS

Furnish materials in accordance with these notes, the Standard Specifications and Interim Supplemental Specifications, applicable Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions. Provide for all materials to be sampled and tested in accordance with the Department's Sampling Manual. Unless directed otherwise by the Engineer, make the materials available for sampling a sufficient time in advance of the use of the materials to allow for the necessary time for testing.

III. CONSTRUCTION

Be advised, these Erosion Control Notes do not constitute a BMP plan for the project. Jointly with the Engineer, prepare a site specific BMP plan for each drainage area within the project in accordance with Section 213. Provide a unique BMP at each project site using good engineering practices taking into account existing site conditions, the type of work to be performed, and the construction phasing, methods, and techniques to be utilized to complete the work. Be responsible for all erosion prevention, sediment control, and water pollution prevention measures required by the BMP for each site. Represent and warrant compliance with the Clean Water Act (33 USC Section 1251 et seq.), the 404 Permit, the 401 Water Quality Certification, and applicable state and local government agency laws, regulations, rules, specifications, and permits. Contrary to Section 105.05, in case of discrepancy between these notes, the Standard Specifications, Interim Supplemental Specifications, Special Provisions and Special Notes, Standard and Sepia Drawings, and such state and local government agency requirements, adhere to the most restrictive requirement.

Conduct operations in such a manner as to minimize the amount of disturbed ground during each phase of the construction and limit the haul roads to the minimum required to perform the work. Preserve existing vegetation not required to be removed by the work or the contract. Seed and/or mulch disturbed areas at the earliest opportunity. Use silt fence, silt traps, temporary ditches, brush barriers, erosion control blankets, sodding, channel lining, and other erosion control measures in a timely manner as required by the BMP and as directed or approved by the Engineer. Prevent sediment laden water from leaving the project, entering an existing drainage structure, or entering a stream.

Provide for erosion control measures to be in place and functioning prior to any earth disturbance within a drainage area. Compute the volume and size of silt control devices necessary to control sediment during each phase of construction. Remove sediment from silt traps before they become a maximum of ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department (See Special Note for Waste and Borrow).

As work progresses, add or remove erosion control measures as required by the BMP applicable to the Contractor's project phasing and construction methods and techniques. Update the volume calculations and modify the BMP as necessary throughout the duration of the project. Ensure that an updated BMP is kept on site and available for public inspection throughout the life of the project.

After all construction is complete, restore all disturbed areas in accordance with Section 212. Completely remove all temporary erosion control devices not required as part of the permanent erosion control from the construction site. Prior to removal, obtain the Engineer's concurrence of items to be removed. Grade the remaining exposed earth (both on and off the Right of-Way) as nearly as possible to its original condition, or as directed by the Engineer. Prepare the seed bed areas and sow all exposed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.

IV. MEASUREMENT

Erosion Control Blanket. If required by the BMP, the Department will measure Erosion Control Blanket according to Section 212.04.07.

Sodding. If required by the BMP, the Department will measure Sodding according to Section 212.04.08.

Channel Lining. If required by the BMP, the Department will measure Channel Lining according to Sections 703.04.04-703.04.07.

Erosion Control. Contrary to Sections 212.04, 213.04, and 703.04 other than Erosion Control Blanket, Sodding, and Channel Lining, the Department will measure "Erosion Control" as one lump sum. The Department will not measure developing, updating, and maintaining a BMP plan for each site; providing a KEPSC qualified inspector; locating,

furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type "A" and Clean Silt Trap Type "A"; Silt Trap Type "B" and Clean Silt Trap Type "B"; Silt Trap Type "C" and Clean Silt Trap Type "C"; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; Temporary Ditches and clean Temporary Ditches; Geotextile Fabric, and all other erosion and water pollution control items required by the BMP or the Engineer, but shall be incidental to Erosion Control.

V. BASIS OF PAYMENT

Erosion Control Blanket. If not listed as a bid item, but required by the BMP, the Department will pay for Erosion Control Blankets as Extra Work according to Sections 104.03 and 109.04.

Sodding. If not listed as a bid item, but required by the BMP, the Department will pay for Sodding as Extra Work according to Sections 104.03 and 109.04.

Channel Lining. If not listed as a bid item, but required by the BMP, the Department will pay for Channel Lining as Extra Work according to Sections 104.03 and 109.04.

Erosion Control. Contrary to Sections 212.05 and 213.05, other than Erosion Control Blanket, Sodding, and Channel Lining, payment at the Contract lump sum price for "Erosion Control", shall be full compensation for all materials, equipment, labor and incidentals necessary to complete the erosion and water pollution control work as specified in these notes, Sections 212 and 213, the Supplemental Specifications, applicable Special Provisions and Special Notes, and Standard and Sepia Drawings, including but not limited to developing, updating, and maintaining a BMP plan for each site; providing a KEPSC qualified inspector; locating, furnishing, installing, inspecting, maintaining, and removing erosion and water pollution control items; Roadway Excavation, Borrow Excavation, Embankment In Place, Topsoil Furnished and Placed, and Spreading Stockpiled Topsoil; Topdressing Fertilizer, Temporary and Permanent Seeding and Protection, Special Seeding Crown Vetch, and Temporary Mulch; Sedimentation Basin and Clean Sedimentation Basin, Silt Trap Type "A" and Clean Silt Trap Type "A"; Silt Trap Type "B" and Clean Silt Trap Type "B"; Silt Trap Type "C" and Clean Silt Trap Type "C"; Temporary Silt Fence and Clean Temporary Silt Fence; Plants, Vines, Shrubs, and Trees; Gabion and Dumped Stone Deflectors and Riffle Structures; Boulders; Temporary Ditches and clean Temporary Ditches; Geotextile Fabric and all other erosion and water pollution control items required by the BMP or the Engineer.

SPECIAL NOTE FOR DOUBLE ASPHALT SEAL COAT

Use RS-2 or RS-2C asphalt material that is compatible with the seal aggregate. Apply the first course of asphalt seal coat at the rate of 3.2 lbs/sy of asphalt and 30 lbs/sy of size #78 seal coat aggregate. Apply the second course at 2.8 lbs/sy of asphalt and 20 lbs/sy of size #9M seal coat aggregate. The Engineer may adjust the rate of application as conditions warrant. Use caution in applying liquid asphalt material to avoid over spray getting on curbs, gutter, barrier walls, bridges, guardrail, and other roadway appurtenances.

The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

SPECIAL NOTE FOR COMPLETION DATES & LIQUIDATED DAMAGES

Trees and/or bushes shall not be fallen or trimmed between March 15 and October 15. Activities that are a part of this contract that do not involve the initial trimming and/or cutting of trees and/or bushes will be permitted under the ultimate fixed completion date. Failure to adhere to these restrictions shall result in Liquidated Damages in the amount of **$** 250.00 per affected tree as mitigation to the Indiana Bat Conservation Fund for the loss of habitat.

Ultimate fixed completion date for this project will be May 31st, 2018 Liquidated Damages for failure to complete project on time will be assessed following Section 108.09.

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **$2400** per day per occurrence for failure to perform cleanup and removal of debris and wood waste within the required time. Work will be suspended until the debris has been removed from the right-of-way.

Contrary to Section 108.09, Liquidated Damages will be assessed regardless of whether seasonal limitations prohibit the Contractor from performing work on the controlling operation.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

COORDINATION OF WORK WITH OTHER CONTRACTS

Be advised, there may be an active project(s) adjacent to or within this project. The Engineer will coordinate the work of the Contractors. See Section 105.06.

1-3193 Coordination Contracts
01/02/2012

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

TC 62-226
Rev. 01/2016
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RIGHT OF WAY CERTIFICATION

☒ Original ☐ Re-Certification

RIGHT OF WAY CERTIFICATION

ITEM #	COUNTY	PROJECT # (STATE)	PROJECT # (FEDERAL)
6-9006	Campbell	164116	HSIP 9010 121

PROJECT DESCRIPTION

Perform low cost safety improvements on KY 10

☐ **No Additional Right of Way Required**

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

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

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

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

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

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

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

Total Number of Parcels on Project		EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired			
Signed Deed			
Condemnation			
Signed ROE			

Notes/ Comments (Use Additional Sheet if necessary)

LPA RW Project Manager		Right of Way Supervisor	
Printed Name		Printed Name	ERIC J. KINMAN
Signature		Signature	
Date		Date	6-1-16
Right of Way Director		**FHWA**	
Printed Name	DM Log	Printed Name	
Signature		Signature	~~No Signature Required~~ as per FHWA - KYTC 2013 Stewardship Agreement
Date	03 June 2016	Date	

CONSENT RELEASE NOTES

Campbell - KY 10

Parcel 164 - TLGW - Tina Garmon - Station 516+90

Consent and Release obtained to Install a Drop Box inlet at the end of KYTC ROW.

Parcel 105 - A Consent and Release has NOT been obtained to install the DBI.

Do not perform this work if Consent and Release has not been obtained.

Parcel 56 - A Consent and Release has NOT been obtained to install a 3:1 slope

Do not perform 3:1 slope if Consent and Release has not been obtained.

Parcel 236 - A Consent and Release has NOT been obtained to install a 3:1 slope

Do not perform 3:1slope if Consent and Release has not been obtained.

GENERAL UTILITY NOTES AND INSTRUCTIONS APPLICABLE TO ALL UTILITY WORK MADE A PART OF THE ROAD CONSTRUCTION CONTRACT

The contractor should be aware the following utility notes and KYTC Utility Bid Item Descriptions shall supersede, replace and take precedence over any and all conflicting information that may be contained in utility owner supplied specifications contained in the contract, on plans supplied by the utility owner, or any utility owner specifications or information externally referenced in this contract.

Where information may have been omitted from these notes, bid item descriptions, utility owner supplied specifications or plans; the KYTC Standard Specifications for Road and Bridge Construction shall be referenced.

PROTECTION OF EXISTING UTILITIES

The existing utilities shown on the plans are shown as best known at the time the plans were developed and are to be used as a guide only by the Contractor. The Contractor shall use all means at his disposal to accurately locate all existing utilities, whether shown on the plans or not, prior to excavation. The contractor shall protect these utilities during construction. Any damage to existing utilities during construction that are shown or not shown on the plans shall be repaired at the Contractor's expense.

CONSTRUCTION PHASING

Construct point relocations at 269+45, 365+32 and 437+27 first and add a valve at each of these relocations, if necessary. These installations will minimize service disruption and coordinate each of these with Northern Kentucky Water District representative(s).

PREQUALIFIED UTILITY CONTRACTORS

Some utility owners may require contractors that perform relocation work on their respective facilities as a part of the road contract be prequalified or preapproved by the utility owner. Those utility owners with a prequalification or preapproval requirement are as follows:

> **No contractors are required to be prequalified or preapproved by the utility owner(s) to perform utility relocation work under this contract.**

The bidding contractor needs to review the above list and choose from the list of approved subcontractors at the end of these general notes as identified above before bidding. When the list of approved subcontractors is provided, only subcontractors shown on the following list(s) will be allowed to work on that utility as a part of this contract.

When the list of approved subcontractors for the utility work is not provided in these general notes, the utility work can be completed by the prime contractor. If the prime contractor chooses to subcontract the work, the subcontractor shall be prequalified with the KYTC Division of Construction Procurement in the work type of "Utilities" (I33). Those who would like to become prequalified may contact the Division of Construction Procurement at (502) 564-3500. Please note: it could take up to 30 calendar days for prequalification to be approved. The prequalification does not have to be approved prior to the bid, but must be approved before the subcontract will be approved by KYTC and the work can be performed.

CONTRACT ADMINISTRATION RELATIVE TO UTILITY WORK

All utility work is being performed as a part of a contract administered by KYTC; there is not a direct contract between the utility contractor and utility owner. The KYTC Section Engineer is ultimately responsible for the administration of the road contract and any utility work included in the contract.

SUBMITTALS AND CORRESPONDENCE

All submittals and correspondence of any kind relative to utility work included in the road contract shall be directed to the KYTC Section Engineer, a copy of which may also be supplied to the utility owner by the contractor to expedite handling of items like material approvals and shop drawings. All approvals and correspondence generated by the utility owner shall be directed to the KYTC Section Engineer. The KYTC Section Engineer will relay any approvals or correspondence to the utility contractor as appropriate. At no time shall any direct communication between the utility owner and utility contractor without the communication flowing through the KYTC Section Engineer be considered official and binding under the contract.

ENGINEER

Where the word "Engineer" appears in any utility owner specifications included in this proposal, utility owner specifications included as a part of this contract by reference or on the utility relocation plans, it shall be understood the "Engineer" is the Kentucky Transportation Cabinet (KYTC) Section Engineer or designated representative and the utility owner engineer or designated representative jointly. Both engineers must mutually agree upon all decisions made with regard to the utility construction. The Transportation Cabinet, Section Engineer shall make all final decisions in all disputes.

INSPECTOR OR RESIDENT PROJECT REPRESENTATIVE

Where the word "Inspector" or "Resident Project Representative" appears in the utility specifications included in this proposal, utility owner specifications included as a part of this contract by reference or on the utility relocation plans, it shall be understood the "Inspector" or "Resident Project Representative" is the utility owner inspector and KYTC inspector jointly. The Transportation Cabinet, Section Engineer shall make all final decisions in all disputes.

NOTICE TO UTILITY OWNERS OF THE START OF WORK

One month before construction is to start on a utility, the utility contractor shall make notice to the KYTC Section Engineer and the utility owner of when work on a utility is anticipated to start. The utility contractor shall again make confirmation notice to the KYTC Section Engineer and the utility owner one week before utility work is to actually start.

UTILITY SHUTDOWNS

The contractor should be aware that he may be required to perform 2 or 3 water main point relocations and/or valve cut-ins simultaneously. This may be required in order to minimize the number of water outages for customers. Any additional resources, such as labor and/or equipment the contractor may have to procure to comply with such a requirement will be considered incidental to the contract and at the contractor's expense.

The contractor may also be required to perform water main point relocations and/or valve cut-ins at night and/or weekends. Any additional labor costs and/or equipment required shall be considered incidental to the contract and at the contractor's expense.

The Contractor shall not shut down any active and in-service mains, utility lines or services for any reason unless specifically given permission to do so by the utility owner. The opening and closing of valves and operating of other active utility facilities for main, utility line or utility service shut downs are to be performed by the utility owner unless specific permission is given to the contractor by the owner to make shutdowns . If and when the utility owner gives the contractor permission to shutdown mains, utility lines or utility services, the contractor shall do so following the rules, procedures and regulations of the utility owner. Any permission given by the utility owner to the contractor to shutdown active and in-service mains, utility lines or services shall be communicated to the KYTC Section Engineer by the utility owner that such permission has been given.

Notice to customers of utility shut downs is sometimes required to be performed by the utility contractor. The contractor may be required; but, is not limited to, making notice to utility customers in a certain minimum amount of time in advance of the shut down and by whatever means of communication specified by the utility owner. The means of communication to the customer may be; but is not limited to, a door hanger, notice by newspaper ad, telephone contact, or any combination of communication methods deemed necessary, customary and appropriate by the utility owner. The contractor should refer to the utility owner specifications for requirements on customer notice.

Any procedure the utility owner may require the contractor to perform by specification or plan note and any expense the contractor may incur to comply with the utility owner's shut down procedure and notice to customers shall be considered an incidental expense to the utility construction.

CUSTOMER SERVICE AND LATERAL ABANDONMENTS When temporary or permanent abandonment of customer water, gas, or sewer services or laterals are necessary during relocation of utilities included in the contract, the utility contractor shall perform these abandonments as part of the contract as incidental work. No separate payment will be made for service line and lateral abandonments. The contractor shall provide all labor, equipment and materials to accomplish the temporary or permanent abandonment in accordance with the plans, specifications and/or as directed by the engineer. Abandonment

may include, but is not limited to, digging down on a water or gas main at the tap to turn off the tap valve or corporation stop and/or capping or plugging the tap, digging down on a sewer tap at the main and plugging or capping the tap, digging down on a service line or lateral at a location shown on the plans or agreeable to the engineer and capping or plugging, or performing any other work necessary to abandon the service or lateral to satisfactorily accomplish the final utility relocation.

STATIONS AND DISTANCES

All stations and distances, when indicated for utility placement in utility relocation plans or specifications, are approximate; therefore, some minor adjustment may have to be made during construction to fit actual field conditions. Any changes in excess of 6 inches of plan location shall be reviewed and approved jointly by the KYTC Section Engineer or designated representative and utility owner engineer or designated representative. Changes in location without prior approval shall be remedied by the contractor at his own expense if the unauthorized change creates an unacceptable conflict or condition.

RESTORATION

Temporary and permanent restoration of paved or stone areas due to utility construction shall be considered incidental to the utility work. No separate payment will be made for this work. Temporary restoration shall be as directed by the KYTC Section Engineer. Permanent restoration shall be "in-kind" as existing.

Restoration of seed and sod areas will be measured and paid under the appropriate seeding and sodding bid items established in the contract for roadway work.

BELOW ARE NOTES FOR WHEN "INST" ITEMS ARE IN THE CONTRACT MEANING THE UTILITY COMPANY IS PROVIDING CERTAIN MATERIALS FOR UTILITY RELOCATION

MATERIAL

Contrary to Utility Bid Item Descriptions, those bid items that have the text **"Inst"** at the end of the bid item will have the major components of the bid item provided by the utility owner. No direct payment will be made for the major material component(s) supplied by the utility company. All remaining materials required to construct the bid item as detailed in utility bid item descriptions, in utility specifications and utility plans that are made a part of this contract will be supplied by the contractor. The contractor's bid price should reflect the difference in cost due to the provided materials.

The following utility owners have elected to provide the following materials for work under this contract:

> **No materials are being supplied by the utility owner(s). All materials are to be supplied by the contractor per bid item descriptions, utility specifications and utility plans**.

SECURITY OF SUPPLIED MATERIALS

If any utility materials are to be supplied by the utility owner, it will be the responsibility of the utility contractor to secure all utility owner supplied materials after delivery to the project site. The utility contractor shall coordinate directly with the utility owner and their suppliers for delivery and security of the supplied materials. Any materials supplied by the utility owner and delivered to the construction site that are subsequently stolen, damaged or vandalized and deemed unusable shall be replaced with like materials at the contractor's expense.

Standard Water Bid Item Descriptions

W AIR RELEASE VALVE This bid item description shall apply to all air release valve installations of every size except those defined as "Special". This item shall include the air release valve, main to valve connecting line or piping, manhole, vault, structure, access casting or doors, tapping the main, labor, equipment, excavation, proper backfill and restoration required to install the air release valve at the location shown on the plans or as directed in accordance with the specifications and standard drawings complete and ready for use. All air release/vacuum valves on a project shall be paid under one bid item regardless of size. No separate pay items will be established for size variations. Only in the case of the uniqueness of a particular air release valve would a separate bid item be established. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W MAIN POINT RELOCATE This item is intended for payment for horizontal and/or vertical relocation of a short length of an existing main at the locations shown on the plans. This bid item is to be used to relocate an existing water main at point locations such as to clear a conflict at a proposed drainage structure, pipe or any other similar short relocation situation, and where the existing pipe material is to be reused. The contractor shall provide any additional pipe or fitting material needed to complete the work as shown on the plans and specifications. The materials provided shall be of the same type and specification as those that exist. Substitution of alternative materials shall be approved by the engineer in advance on a case by case basis. New polyethylene wrap is to be provided (if wrap exists or is specified in the specifications to be used). If it is necessary that the pipe be disassembled for relay, payment under this item shall also include replacement of joint gaskets as needed. Bedding and backfill shall be provided and performed the same as with any other pipe installation as detailed in the plans and specifications. Payment under this item shall be for each location requiring an existing main to be relocated horizontally or vertically regardless of pipe size or relocation length. No separate pay items will be established for pipe size variations or relocation segment length variations. Water Main Relocate shall not be paid on a linear feet basis; but, shall be Paid EACH (EA) at each location when complete and placed in service. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced.

W METER ADJUST This item includes all labor, equipment, excavation, materials, backfill, restoration, and etc., to adjust the meter casting to finished grade (whatever size exists) at the location shown on the plans or as directed in accordance with the specifications and standard drawings complete and ready for use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

W SERVICE RELOCATE This item is for the relocation of an existing water service line where a meter is not involved, and where an existing service line can easily be adjusted by excavating alongside and moving the line horizontally and/or vertically a short distance without cutting the service line to avoid conflicts with road construction. This item shall include excavation, labor, equipment, bedding, and backfill to relocate the line in accordance with the plans and specifications complete and ready for use. Payment under this item shall be for each location requiring relocation. Payment shall be made under this item regardless of service size or relocation length. No separate pay items will be established for size or length variation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when

complete.

W REMOVE TRANSITE (AC) PIPE This item shall include all labor, equipment, and materials needed for removal and disposal of the pipe as hazardous material. All work shall be performed by trained and certified personnel in accordance with all environmental laws and regulations.
Any and all transite AC pipe removed shall be paid under one bid item included in the contract regardless of size. No separate bid items will be established for size variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

UTILITIES AND RAIL CERTIFICATION NOTE

RD Corridor
Campbell Co. KY-10 (4.42-13.603)
ITEM NO. 6-9006

GENERAL PROJECT NOTE ON UTILITY PROTECTION

Waterline relocation will be necessary at several locations.

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

Damage to Utilities

Any intentional or accidental disruption of service due to damage to any utility service mains caused by any of the contractor's operations without three days advance notice to the utility owner shall be cause for the Cabinet to charge liquidated damages in the amount of five thousand dollars per day ($5,000/day) per occurrence against the contractor until such time as the utility service is restored.

Liquidated damages shall not be charged in addition for service disruptions when a main disruption is involved.

Overhead lines are located along the project. Gas lines are located in the project vicinity as well. These utilities should not be disturbed by the road construction work.

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

None

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

None

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

Waterline is adjacent to several areas where ditching and pipe replacement occurs. Relocation is expected at these locations:

267+58 (6" Water Main)
269+45 (6" Water Main)
289+48 (6" Water Main)
294+30 (6" Water Main)
318+07 (8" Water Main)
342+47 (8" Water Main)
365+32 (8" Water Main)
384+00 (8" Water Main)
398+58 (8" Water Main)

UTILITIES AND RAIL CERTIFICATION NOTE

RD Corridor
Campbell Co. KY-10 (4.42-13.603)
ITEM NO. 6-9006

403+86 (8" Water Main)
418+13 (8" Water Main)
419+07 (8" Water Main)
437+27 (8" Water Main)
441+88 (8" Water Main)
456+95 (8" Water Main)
514+70 (8" Water Main)
563+00 (8" Water Main)

THE FOLLOWING RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☉ No Rail Involved ○ Minimal Rail Involved (See Below) ○ Rail Involved (See Below)

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

UTILITIES AND RAIL CERTIFICATION NOTE

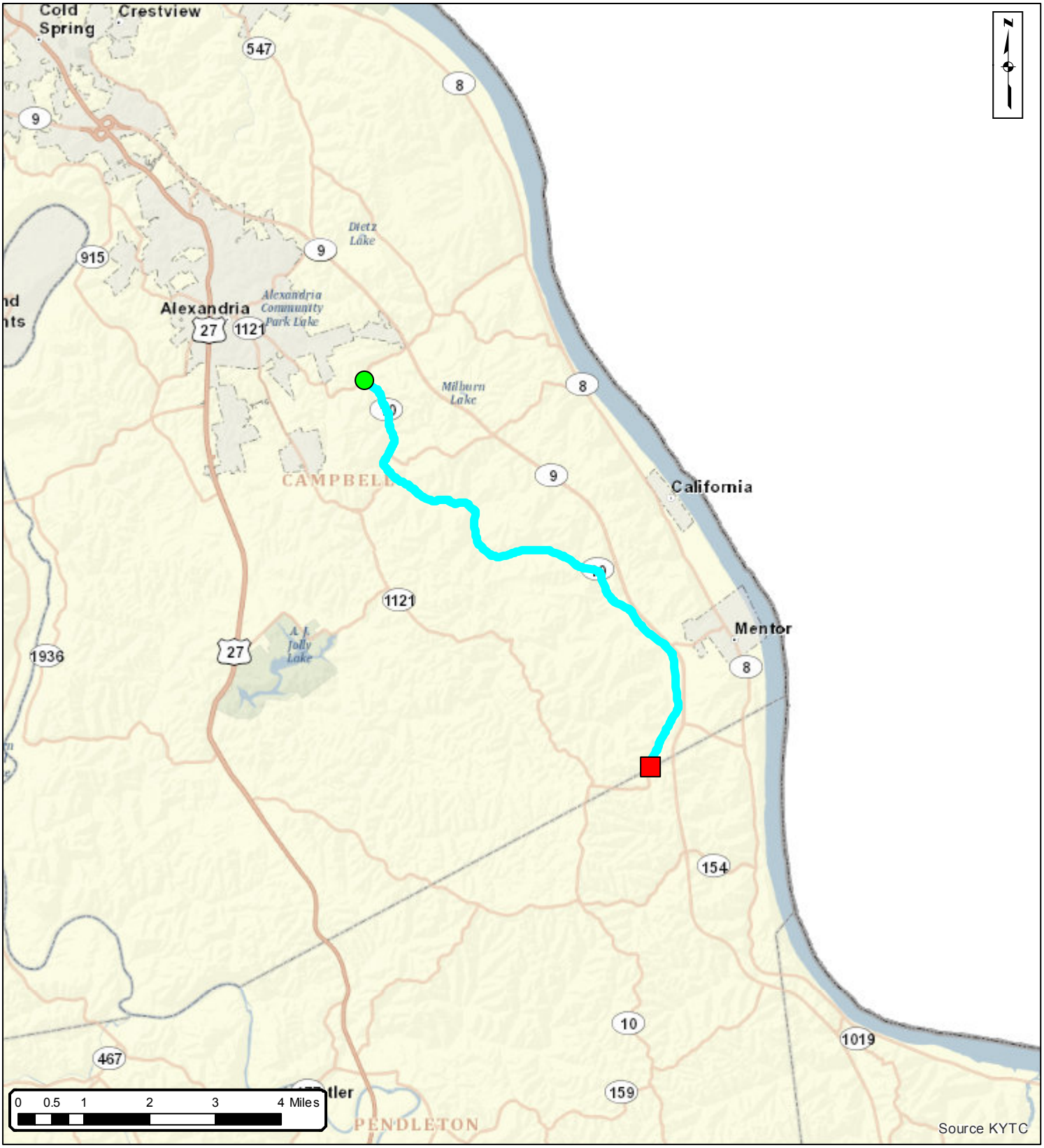
RD Corridor
Campbell Co. KY-10 (4.42-13.603)
ITEM NO. 6-9006

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.

AREA UTILITIES CONTACT LIST

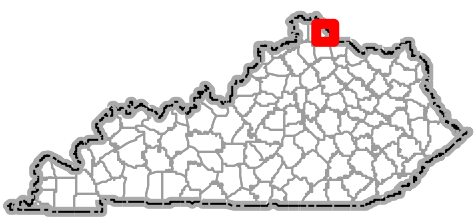
Utility Company/Agency	Contact Name	Contact Information
Northern Kentucky Water District	Kyle Ryan	kryan@nkywater.org 859.426.2713 (office)
Owen Electric Cooperative	Lucas McNally	lmcnally@owenelectric.com 502.563.3494 (office)
Duke Energy Gas	John Perkins	John.Perkins@duke-energy.com 513.287.1276 (office)
Duke Energy Electric	Mary Maschmeyer Schuler	MaryC.MaschmeyerSchuler@duke-energy.com 513.287.3339 (office)
Cincinnati Bell Telephone	Tony Niehaus	tony.niehaus@cinbell.com 513.566.8059 (office)
Time Warner Cable	Chuck McCarty	charles.mccarty@twcable.com 859.687.7045 (office)
East Pendleton Water District	Wayne Lonaker	wayne@epwd.net 859.654.2100 (office)



Campbell Co. KY 10

Date: 6/25/2015

Kentucky Transportation Cabinet
200 Mero St, Suite W-5
Frankfort, KY 40601
Phone:(502) 564-4890



Disclaimer: KYTC Division of Planning provides this map as a reference only. Users are to validate information independently.
v 1.0
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GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	QTY
00001	DGA BASE (6)	TON	1519
00020	TRAFFIC BOUND BASE (1)	TON	684
00100	ASPHALT SEAL AGGREGATE	TON	163
00103	ASPHALT SEAL COAT	TON	20
00221	CL2 ASPH BASE 0.75D PG64-22 (7)(10)	TON	2023
00307	CL2 ASPH SURF 0.38B PG64-22 (8)	TON	1962
00440	ENTRANCE PIPE-15 IN	LF	244
00462	CULVERT PIPE-18 IN	LF	219
00464	CULVERT PIPE-24 IN	LF	149
00466	CULVERT PIPE-30 IN	LF	97
00468	CULVERT PIPE-36 IN	LF	43
00470	CULVERT PIPE-48 IN	LF	7
01497	DROP BOX INLET TYPE 3 (MODIFIED)	EACH	11
01500	DROP BOX INLET TYPE 4 (MODIFIED)	EACH	1
01544	DROP BOX INLET TYPE 11	EACH	4
01728	18" DOUBLE SAFETY BOX INLET	EACH	15
01729	24" DOUBLE SAFETY BOX INLET	EACH	4
01982	DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	EACH	90
02099	CEM CONC ENT PAVEMENT - 6 IN (1)	SQYD	324
02268	REMOVE & REPLACE FENCE (IN LIKE KIND) (13)	LF	300
02360	GUARDRAIL TERMINAL SECTION NO.1	EACH	8
02367	GUARDRAIL END TREATMENT TYPE 1	EACH	15
2381	REMOVE GUARDRAIL (3)	LF	4915
02391	GUARDRAIL END TREATMENT TYPE 4A	EACH	4
02483	CHANNEL LINING CLASS II (4)	TON	256
02562	TEMPORARY SIGNS	SQFT	225
02569	DEMOBILIZATION	LS	1
02575	DITCHING AND SHOULDERING (12)	LF	26265
02585	EDGE KEY (2)	LF	1963
02650	MAINTAIN & CONTROL TRAFFIC	LS	1
02726	STAKING	LS	1
03234	RAILROAD RAILS-DRILLED	LF	4750
03236	CRIBBING	SF	750
03269	TRIM & REMOVE TREES & BRUSH	LF	4400
05950	EROSION CONTROL BLANKET (5)	SQYD	16000
2363	GUARDRAIL TO BRIDGE END CONNECTOR TY A	EACH	8
06514	PAVE STRIPING-PERM PAINT-4 IN	LF	76184
06567	PAVE MARKING-THERMO STOP BAR-12IN	LF	10
06569	PAVE MARKING-THERMO CROSS-HATCH	SQFT	710
08801	GUARDRAIL - STEEL W BEAM - S FACE "BR"	LF	100
		DOLL	
21373ND	REMOVE SIGN	EA	60
21802EN	G/R STEEL W BEAM S FACE (7 FT POST)	LF	5871
21415ND	EROSION CONTROL	LS	1
24575ES610	HEADWALL (SLOPED AND MITERED CONC. - 18" PIPE)	EACH	2
2599	GEOTEXTILE FABRIC IV	SY	540
8808	GUARDRAIL-BRIDGE CASE II	LF	50
3235	EXCAVATION AND BACKFILL	CY	270
6406	SBM ALUM SHEET SIGN .080	SF	510
6410	STEEL POST TY 1	LF	600
24584EC	BARCODE SIGN INVENTORY	EACH	55

NOTES:

(1) FOR ENTRANCES

(2) BEG/END OF SUPERELEVATION CORRECTIONS AND PIPE REPLACEMENTS

(3) GUARDRAIL REMOVED SHALL BE TRANSPORTED TO THE BAILEY BRIDGE LOT @ 1224 WILKINSON BLVD. IN FRANKFORT, KY.

(4) FROM PIPE SUMMARY

(5) FOR DITCHES

(6) 81 TONS FOR ENTRANCES

(7) 36 TONS FOR ENTRANCES

(8) 27 TONS FOR ENTRANCES

(9) APRON REMOVED FROM FILL SLOPE SIDE OF DBI

(10) INCLUDES LEVELING & WEDGING QTYS

(12) DEPT. WILL MEASURE QTY AS LT. OR RT. OF ℄

(13) INCLUDES 100 L.F. 5 STRAND BARB. WIRE FENCE AND 200 L.F. PLANK FENCE

GENERAL SUMMARY

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	

ITEM	DESCRIPTION	UNIT	QTY
3495	AIR RELEASE VALVE	EACH	12
3427	ADJUST WATER METER	EACH	1
14024	WATER MAIN POINT LOCATE	EACH	17
14076	REMOVE TRANSITE (AC) PIPE	LF	100
14081	WATER SERVICE RELOCATE	EACH	4
14105	W VALVE 6"	EACH	1
15106	W VALVE 8"	EACH	2
1204	PIPE CULVERT HEADWALL - 18" (STD. HEADWALL)	EACH	1
24575ES610	HEADWALL (SLOPED AND MITERED CONC. - 24" PIPE)	EACH	2
2457ES610	HEADWALL (SLOPED AND MITERED CONC. - 30" PIPE)	EACH	2
2731	REMOVE STRUCTURE	EACH	1
496	CULVERT PIPE - 36" EQUIV.	LF	36
	PIPE CULVERT HEADWALL - 15" (STD. HEADWALL)	EACH	1

NOTES:

Campbell - KY 10 Item No. 6-9006.00

QTY: Pavement

AEI

Project: Highway Safety Improvement Plan
Date: 4/19/2016
Route Name: Flags Springs Pike
Classification: Rural Secondary

						Bid Items:	00307	00221				
Mile Point	X-Sec Reference	Curve #	Begin Sta.	End Sta.	Total Length	Surface (Tons)	CL 2 Base 0.75D PG64-22	Lt X-slope	Rt X-Slope	Proposed Lt X-slope	Proposed Rt X-Slope
4.78	transition	4	252+01	252+77	76	11					
4.79	transition	4	252+77	253+04	27	4					
4.85	256+00.00	4	253+04	259+05	601	87	173	-0.65%	-6.53%	-6.00%	6.00%
4.91	transition	4	259+05	259+32	27	4					
4.92	transition	4	259+32	260+08	76	11					
5.18	transition	6	273+12	273+88	76	11					
5.19	transition	6	273+88	274+42	54	8					
5.25	279+74.00	6	274+42	279+60	518	75	149	0.22%	-2.28%	-4.80%	4.80%
5.30	transition	6	279+60	280+14	54	8					
5.31	transition	6	280+14	280+90	76	11					
5.40	transition	7	284+60	285+32	72	10					
5.41	transition	7	285+32	286+04	72	10					
5.48	286+65.00	7	286+04	292+83	679	99	195	0.86%	-3.92%	6.00%	-6.00%
5.55	transition	7	292+83	293+55	72	10					
5.56	transition	7	293+55	294+10	55	8					
5.58	transition	8	294+10	294+78	68	10					
5.59	transition	8	294+78	295+50	72	10					
5.60	296+14.00	8	295+50	296+12	62	9	18	-1.51%	-2.71%	-6.00%	6.00%
5.62	transition	8	296+12	296+84	72	10					
5.63	transition	8	296+84	297+56	72	10					
5.65	transition	9	297+93	298+69	76	11					
5.66	transition	9	298+69	299+37	68	10					
5.68	300+00.00	9	299+37	300+42	105	15	30	-4.47%	-2.02%	5.60%	-5.60%
5.70	transition	9	300+42	301+11	69	10					
5.71	transition	9	301+11	301+87	76	11					
5.83	transition	11	307+63	308+18	55	8					
5.84	transition	11	308+18	308+69	51	7					
5.85	308+66.00	11	308+69	309+00	31	4	9	-2.54%	0.50%	-6.00%	6.00%
5.88	309+68.00	11	309+00	311+67	267	39	77	-8.02%	1.56%	-6.00%	6.00%
5.91	transition	11	311+67	312+19	52	8					
5.92	transition	11	312+19	312+73	54	8					
6.12	transition	12	322+80	323+46	66	10					
6.13	transition	12	323+46	324+13	67	10					
6.15	324+82.00	12	324+13	325+63	150	22	43	-5.37%	0.85%	-6.00%	6.00%
6.17	transition	12	325+63	326+30	67	10					
6.19	transition	12	326+30	326+96	66	10					
6.34	transition	13	334+40	335+15	75	11					
6.35	transition	13	335+15	335+92	77	11					
6.36	335+45.00	13	335+92	336+20	28	4	8	-1.58%	-6.55%	6.00%	-6.00%
6.37	transition	13	336+20	336+97	77	11					
6.39	transition	13	336+97	337+73	76	11					
6.53	transition	15	344+63	345+23	60	9					
6.55	transition	15	345+23	346+00	77	11					
6.59	349+00.00	15	346+00	350+25	425	62	122	1.65%	-1.65%	-6.00%	6.00%
6.64	transition	15	350+25	351+01	76	11					
6.66	transition	15	351+01	351+78	77	11					
6.78	transition	17	357+45	358+11	66	10					

Campbell - KY 10 Item No. 6-9006.00

QTY: Pavement

AEI

Project: Highway Safety Improvement Plan
Date: 4/19/2016
Route Name: Flags Springs Pike
Classification: Rural Secondary

Bid Items:	00307	00221

Mile Point	X-Sec Reference	Curve #	Begin Sta.	End Sta.	Total Length	Surface (Tons)	CL 2 Base 0.75D PG64-22	Lt X-slope	Rt X-Slope	Proposed Lt X-slope	Proposed Rt X-Slope
6.79	transition	17	358+11	358+78	67	10					
6.81	361+07.00	17	358+78	360+61	183	27	53	-3.33%	-3.38%	-6.00%	6.00%
6.84	transition	17	360+61	361+28	67	10					
6.85	transition	18	361+28	362+04	76	11					
6.87	362+08.00	18	362+04	362+96	92	13	26	-8.00%	0.00%	-6.00%	6.00%
6.88	transition	18	362+96	364+05	109	16					
6.90	transition	19	364+05	365+04	99	14					
6.92	365+32.00	19	365+04	365+38	34	5	10	-2.00%	-8.00%	6.00%	-6.00%
6.93	transition	19	365+38	366+05	67	10					
6.94	transition	19	366+05	366+71	66	10					
7.03	transition	21	371+02	371+56	54	8					
7.04	transition	21	371+56	372+07	51	7					
7.06	373+03.00	21	372+07	373+32	125	18	36	-0.49%	-0.90%	5.80%	-5.80%
7.08	transition	21	373+32	373+84	52	8					
7.09	transition	21	373+84	374+39	55	8					
7.71	transition	27	406+48	407+17	69	10					
7.72	transition	27	407+17	407+81	64	9					
7.74	409+03.00	27	407+81	409+60	179	26	51	-1.91%	-2.46%	-6.00%	6.00%
7.76	transition	27	409+60	410+28	68	10					
7.78	transition	27	410+28	410+93	65	9					
8.05	425+04.00	31	424+04	426+04	200	29	57	-0.12%	-1.88%	-4.00%	4.00%
8.07	transition	31	426+04	426+43	39	6					
8.08	transition	31	426+43	427+20	77	11					
8.26	transition	34	435+92	436+50	58	8					
8.27	transition	34	436+50	437+05	55	8					
8.29	438+00.00	34	437+05	438+59	154	22	44	-0.64%	0.64%	6.00%	-6.00%
8.31	transition	34	438+59	439+12	53	8					
8.32	transition	34	439+12	439+72	60	9					
8.35	transition	35	440+61	441+33	72	10					
8.37	transition	35	441+33	442+05	72	10					
8.39	442+45.00	35	442+05	444+26	221	32	64	-4.05%	-0.68%	-6.00%	6.00%
8.42	transition	35	444+26	444+98	72	10					
8.43	transition	35	444+98	445+71	73	11					
8.78	transition	38	463+42	464+07	65	9					
8.80	465+00.00	38	464+07	465+70	163	24	47	0.00%	-2.56%	5.80%	-5.80%
8.83	transition	38	465+70	466+34	64	9					
8.84	transition	38	466+34	467+00	66	10					
9.42	transition	42	496+80	497+46	66	10					
9.44	498+25.00	42	497+80	498+60	80	12	23	-1.92%	-1.04%	4.00%	-4.00%
9.45	transition	42	498+60	498+83	23	3					
9.46	transition	42	498+93	499+60	67	10					
9.62	transition	44	507+42	508+18	76	11					
9.63	transition	44	508+18	508+76	58	8					
9.72	513+00.00	44	508+76	518+12	936	136	269	-2.05%	-1.95%	-5.00%	5.00%
9.82	transition	44	518+12	518+70	58	8					
9.83	transition	44	518+70	519+46	76	11					
10.29	transition	47	543+09	543+85	76	11					
10.31	transition	47	543+85	544+62	77	11					

Campbell - KY 10 Item No. 6-9006.00

QTY: Pavement

AEI

Project: Highway Safety Improvement Plan
Date: 4/19/2016
Route Name: Flags Springs Pike
Classification: Rural Secondary

					Bid Items:	00307	00221				
Mile Point	**X-Sec Reference**	**Curve #**	**Begin Sta.**	**End Sta.**	**Total Length**	**Surface (Tons)**	**CL 2 Base 0.75D PG64-22**	**Lt X-slope**	**Rt X-Slope**	**Proposed Lt X-slope**	**Proposed Rt X-Slope**
10.34	546+00.00	47	544+62	547+56	294	43	84	-3.16%	-2.49%	-6.00%	6.00%
10.38	transition	47	547+56	548+33	77	11					
10.39	transition	47	548+33	549+09	76	11					
11.54	transition	52	608+82	609+58	76	11					
11.55	transition	52	609+58	610+08	50	7					
11.59	609+73.00	52	610+08	613+96	388	56	112	-4.74%	-3.73%	4.60%	-4.60%
11.63	transition	52	613+96	614+46	50	7					
11.64	transition	52	614+46	615+22	76	11					
12.53	transition	56	661+01	661+73	72	10.5					
12.54	transition	56	661+73	662+45	72	10.5					
12.59	665+00.00	56	662+45	667+22	477	69.2	137	1.15%	-9.77%	6.00%	-6.00%
12.64	transition	56	667+22	667+94	72	10.5					
12.66	transition	56	667+94	668+67	73	10.6					
13.14	transition	58	693+35	694+11	76	11.0					
13.15	transition	58	694+11	694+88	77	11.2					
13.18	696+00.00	58	694+88	696+40	152	22.1	44	-3.58%	-1.82%	-6.00%	6.00%
13.20	transition	58	696+40	697+17	77	11.2					
13.21	transition	58	697+17	697+93	76	11.0					
13.27	transition	59	700+22	700+98	76	11.0					
13.28	transition	59	700+98	701+75	77	11.2					
13.31	703+00.00	59	701+75	703+72	197	28.6	57	-1.76%	-2.17%	6.00%	-6.00%
13.34	transition	59	703+72	704+48	76	11.0					
13.35	transition	59	704+48	705+24	76	11.0					
13.45	transition	60	710+12	710+70	58	8.4					
13.47	transition	60	710+70	711+28	58	8.4					
13.49	711+61.00	60	711+28	713+01	173	25.1	50	-3.03%	0.42%	-6.00%	6.00%
13.51	transition	60	713+01	713+59	58	8.4					
13.52	transition	60	713+59	714+17	58	8.4					
						00307	00221				
TOTAL:						1935	1987				

Campbell - KY 10 Item No. 6-9006.00

QTY: Trim/Remove Trees

Project:	Highway Safety Improvement Plan	*Route Name:*	Flagg Springs Pike
Date:	4/22/2016	*Classification:*	Rural Secondary

Bid Item: 3269

Beg.Mile Point	End Mile Point	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
13.13	13.64	693+00	720+00	2700	LEFT
13.13	13.45	693+00	710+00	1700	RIGHT
0.00	0.00				
0.00	0.00				
0.00	0.00				
0.00	0.00				
			Sub Total	**4400**	

County Route													
REMOVE GUARDRAIL							INSTALL GUARDRAIL						
LANE	END TREAT.	BEGIN MILEPOINT	END MILEPOINT	END TREAT.	LIN FEET	REMARKS	LANE	END TREAT.	BEGIN MILEPOINT	END MILEPOINT	END TREAT.	LIN FEET	REMARKS
NB	Radius	11.676	11.666	TY A	75		NB	Radius	11.676	11.666	TY A	75	2 - Radius Rail
NB	TY A	11.656	11.641	Ty 4	79		NB	TY A	11.656	11.641	Ty 4A	79	
NB	TY 1	10.939	10.900	TY 1	206		NB	TY 1	10.939	10.900	TY 1	206	25' - Guardrail Case II
NB	TES	9.126	9.116	Bridge Rail	75		NB	TY 1	9.126	9.116	TY A	75	1 - Radius Rail
NB	Bridge Rail	9.111	9.081	TS	158		NB	TY A	9.111	9.081	TES	158	1 - Radius Rail
NB	TES	7.539	7.515	TY 7	127		NB	TES	7.539	7.515	TY 1	127	1 - Radius Rail
-	-	-	-	-	-		NB	TY 1	11.878	11.713	TY 1	871	
SB	TY 1	4.893	4.908	Existing	79		SB	TY 1	4.883	4.908	Exsiting	132	1-Radius Rail. End before bridge
SB	Existing	4.913	5.143	TY 7	1214		SB	Existing	4.913	5.143	TY 1	1214	1-Radius Rail. Begin after bridge
SB	TY 7	5.273	5.305	TES	169		SB	TY 1	5.273	5.305	TES	169	1 - Radius Rail
SB	TES	5.317	5.388	TES	375		SB	TES	5.317	5.388	TES	375	2 - Radius Rail
SB	TES	5.393	5.583	TY 1	1003		SB	TES	5.393	5.583	TY 1	1003	1 - Radius Rail
SB	TY 7	6.072	6.137	TY 7	343		SB	TY 1	6.072	6.137	TY 1	343	
SB	TY 7	7.518	7.549	TY 7	164		SB	Ty 4A	7.518	7.554	TY 4A	190	
SB	TY 1	9.072	9.113	Bridge Rail	216		SB	TY 1	9.072	9.113	TY A	216	
SB	Bridge Rail	9.118	9.153	TY 4	185		SB	TY A	9.118	9.153	TY 4A	185	
SB	TY 1	10.900	10.939	TY 1	206		SB	TY 1	10.900	10.939	TY 1	206	25' - Guardrail Case II
SB	TES	11.653	11.663	TY A	53		SB	TES	11.653	11.663	TY A	53	1 - Radius Rail
SB	TY A	11.673	11.708	TES	185		SB	TY A	11.673	11.708	TES	185	1 - Radius Rail

Terminal End Sections	8	Each
End Treatment TY A	8	Each
End Treatment TY 4A	4	Each
End Treatment TY 1	15	Each
Guardrail (7 Ft) Posts	5871	LF
Remove Guardrail	4915	LF
Guardrail Case II	50	LF

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project: Highway Safety Improvement Plan
Route Name: Flagg Springs Pike
Contents: QUANTITIES - Shouldering
Classification: Rural Secondary
Date: 4/22/2016
Side: LEFT

Bid Item: 2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
2.56	235+00.00	1	234+50	235+50	100	Entire Superelevation Correction
2.65	240+00.00	2				
4.67	246+73.24	3	246+00	250+00	400	Entire Superelevation Correction
4.68	247+00.00					
4.71	248+79.84					
4.79	252+99.15	4	257+00	258+50	150	
4.85	256+00.00					
4.88	257+75.00					
4.99	263+59.90	tangent	262+50	264+40	190	
5.03	265+62.00	5	264+40	268+60	420	Entire Superelevation Correction
5.07	267+57.80					
5.10	269+45.41	tangent	268+60	272+00	340	
5.17	272+97.00	tangent	272+00	274+00	200	
5.24	276+69.50	6	276+50	277+00	50	Pipe Location Only
5.30	279+74.00		279+25	281+50	225	
5.31	280+43.91	tangent				
5.40	285+01.61	tangent				
5.43	286+65.00	7	284+00	294+00	1000	Entire Superelevation Correction
5.44	287+33.00					
5.48	289+47.53					
5.55	292+83.50					
5.57	294+30.40	tangent				
5.59	295+27.00	8	296+00	296+75	75	
5.61	296+14.00					
5.65	298+39.26	tangent				
5.68	300+00.00	9	298+30	301+50	320	Entire Superelevation Correction
5.71	301+26.40					
5.84	308+10.00	tangent				
5.85	308+66.00	11	307+75	310+00	225	
5.85	309+14.00					
5.86	309+51.27					
5.87	309+68.00					
5.99	316+03.00	tangent	315+50	316+50	100	
6.02	318+07.00	tangent	317+50	320+50	300	
6.03	318+16.00					
6.06	319+82.70					
6.11	322+55.20	tangent	320+50	322+75	225	Pipe Location Only
6.15	324+82.00	12	322+75	325+25	250	
6.19	326+69.10	tangent	325+25	327+25	200	
6.28	331+78.00	tangent	327+25	332+25	500	
6.35	335+44.70	13	332+25	337+40	515	Entire Superelevation Correction
6.40	337+93.00	tangent	337+40	341+10	370	
6.45	340+36.00	tangent				
6.49	342+47.00	14	341+10	344+50	340	Entire Superelevation Correction
6.50	343+00.00					
6.55	345+88.50		344+50	346+25	175	

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Shouldering
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary
Side: LEFT

Bid Item:	2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
6.61	349+00.00	15	348+50	350+75	225	
6.63	350+23.40					
6.74	355+63.60	tangent				
6.84	361+07.00	tangent				
6.86	362+08.00	18	361+30	364+05	275	Entire Superelevation Correction
6.92	365+31.70	19	364+05	366+50	245	Entire Superelevation Correction
6.95	367+21.00	tangent	366+50	367+50	200	
7.04	371+91.00	21	371+20	374+20	300	Entire Superelevation Correction
7.05	372+42.80					
7.06	373+03.00					
7.09	374+58.70	tangent				
7.14	377+12.00	22				
7.27	384+00.00	23			500	
7.33	386+82.30	24	385+00	388+25	325	Entire Superelevation Correction
7.33	387+00.00					
7.36	388+49.00	25	388+25	391+50	325	Entire Superelevation Correction
7.39	390+00.00					
7.53	397+64.80	26	397+20	399+00	180	Entire Superelevation Correction
7.54	398+00.00					
7.55	398+57.70					
7.56	399+23.00	tangent	399+00	400+00	100	
7.65	403+86.40	tangent	403+00	404+50	150	
7.73	408+13.40	27	407+00	410+25	325	
7.75	409+03.00					
7.83	413+17.90	tangent	412+75	414+00	125	
7.86	414+87.00	tangent	414+00	415+50	150	
		28	415+50	417+50	200	
7.92	418+13.40	tangent	417+50	418+75	125	
7.94	419+06.90	tangent	418+75	420+00	125	
7.96	420+50.00	29	420+00	421+00	100	
8.02	423+50.00	30			100	
8.05	425+04.00	31				
8.09	427+12.20	tangent	426+50	427+50	100	
8.13	429+27.50	tangent	428+75	429+75	100	
8.23	434+52.40	33	434+00	435+00	100	
8.26	435+97.00	tangent				
8.28	437+26.50	34	436+75	437+75	100	
8.30	438+00.00					
8.36	441+43.00	tangent	440+75	441+50	75	
8.37	441+88.00	35	441+50	444+00	250	
8.38	442+45.00					
8.47	447+14.20	tangent	446+14	448+14	200	
8.51	449+48.00	36				
8.55	451+30.10	tangent	450+75	451+75	100	
8.58	452+95.30	tangent				
8.58	453+16.00	tangent				

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project:	Highway Safety Improvement Plan	*Route Name:*	Flagg Springs Pike
Contents:	QUANTITIES - Shouldering	*Classification:*	Rural Secondary
Date:	4/22/2016	*Side:*	LEFT

Bid Item:	2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
8.65	456+95.40	tangent	456+50	459+00	250	
8.75	461+96.00	tangent	461+50	462+50	100	
8.78	463+71.50	tangent				
8.81	465+00.00	38	463+10	467+00	390	Entire Superelevation Correction
8.88	469+01.10	tangent				
8.97	473+83.60	40	473+00	475+00	200	
9.06	478+24.70					
9.12	481+30.90	41	480+75	481+75	200	
9.17	484+00.00					
9.19	485+24.40		484+75	485+75	100	
9.25	488+25.30	tangent	487+75	488+75	100	
9.31	491+46.70	tangent				
9.39	496+02.00	tangent	495+50	496+50	100	
9.44	498+25.00	42	497+75	498+75	100	
9.45	499+17.00	tangent	498+75	499+25	50	
9.46	499+38.70	tangent	499+25	499+75	50	
9.47	499+76.00	tangent				
9.49	501+22.80	tangent				
9.53	503+08.60	tangent				
9.63	508+23.40	tangent	508+75	509+75	100	
9.68	511+28.40	44	516+25	517+25	100	
9.72	513+00.00					
9.75	514+70.00					
9.77	515+67.52					
9.79	516+89.90					
9.88	521+69.47	tangent				
9.93	524+45.77	tangent				
10.01	528+35.00	45	526+70	531+70	500	Entire Superelevation Correction
10.01	528+42.90					
10.06	530+99.00					
10.15	535+90.00	tangent	535+50	536+50	100	
10.18	537+39.50	tangent				
10.23	540+40.50	tangent				
10.34	546+00.00	47				
10.43	550+59.00	tangent				
10.52	555+25.00	48				
10.64	561+80.00	tangent	561+25	562+25	100	
10.66	562+99.80	tangent				
10.75	567+80.00	tangent	567+25	568+25	100	
10.79	569+69.60	tangent				
10.83	572+00.00	49	571+50	572+50	100	
10.95	577+90.00	tangent	575+00	578+00	300	
11.02	582+00.00	50				
11.06	583+96.00	tangent				
11.12	587+21.00	tangent				
11.23	593+11.00	51	592+75	593+75	100	

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project:	Highway Safety Improvement Plan	*Route Name:*	Flagg Springs Pike
Contents:	QUANTITIES - Shouldering	*Classification:*	Rural Secondary
Date:	4/22/2016	*Side:*	LEFT

Bid Item:	2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
11.38	600+94.00	tangent				
11.46	605+15.30	tangent				
11.55	609+73.00	tangent	609+25	610+25	100	
11.64	614+51.00	tangent				
11.74	619+70.00	53	618+00	627+00	900	
11.75	620+30.00					
11.76	620+86.00					
11.77	621+33.00					
11.78	621+75.00					
11.86	626+21.60	tangent				
11.93	629+84.00	tangent	629+25	630+50	125	
11.97	631+82.00	tangent	630+50	632+25	50	
12.28	648+43.30	tangent			175	
12.46	657+68.40	tangent	658+00	661+00	300	
12.51	660+53.80	tangent				
12.59	665+00.00	56	661+00	665+50	450	
12.66	668+53.40	tangent				
12.70	670+38.00	tangent	669+75	670+75	100	
12.79	675+16.50	tangent				
12.81	676+35.00	57	675+50	676+75	125	
12.85	678+56.80	tangent				
12.89	680+84.90	tangent	680+25	681+00	75	
12.90	681+30.00	tangent	681+00	681+75	75	
12.95	683+83.40	tangent				
12.97	684+76.50	tangent				
12.99	685+84.80	tangent	685+25	686+25	100	
13.00	686+40.00	tangent				
13.11	692+31.00	tangent				
13.12	692+59.60	tangent	692+25	693+25	100	
13.18	696+00.00	58				
13.22	697+94.00	tangent	697+50	698+50	100	
13.25	699+39.50	tangent				
13.30	702+17.40	59	700+60	704+90	430	Entire Superelevation Correction
13.31	703+00.00					
13.33	704+01.80					
13.42	708+46.30	tangent				
13.46	710+71.60	tangent				
13.48	711+61.00	60	711+25	712+25	100	
13.56	716+20.00	tangent			100	
Sub Total: (left side)					**18415**	

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Ditching & Shouldering
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary
Side: RIGHT

Bid Item: 2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
2.56	235+00.00	1			0	
4.38 - 4.55		2	231+50	240+00	850	
4.67	246+73.24	3	246+50	247+50	100	
4.68	247+00.00					
4.71	248+79.84					
4.79	252+99.15	4	255+00	264+00	900	
4.85	256+00.00					
4.88	257+75.00					
4.99	263+59.90	tangent	264+00	266+50	250	
5.03	265+62.00	5	266+50	268+50	200	
5.07	267+57.80					
5.10	269+45.41	tangent	268+50	270+50	200	
5.17	272+97.00	tangent			0	
5.24	276+69.50	6	273+80	280+50	670	Entire Superelevation Correction
5.30	279+74.00					
5.31	280+43.91	tangent			0	
5.40	285+01.61	tangent			0	
5.43	286+65.00	7	285+50	287+50	200	Entire Superelevation Correction
5.44	287+33.00					
5.48	289+47.53					
5.55	292+83.50					
5.57	294+30.40	tangent	292+00	294+00	200	
5.59	295+27.00	8	295+00	298+50	350	Entire Superelevation Correction
5.61	296+14.00					
5.65	298+39.26	tangent			0	
5.68	300+00.00	9	301+00	301+50	50	
5.71	301+26.40					
5.84	308+10.00	tangent	307+00	308+20	120	
5.85	308+66.00	11	308+20	312+20	400	Entire Superelevation Correction
5.85	309+14.00					
5.86	309+51.27					
5.87	309+68.00					
5.99	316+03.00	tangent	315+50	317+50	200	
6.02	318+07.00	tangent	317+50	320+00	250	
6.03	318+16.00					
6.06	319+82.70					
6.11	322+55.20	tangent	320+00	323+40	340	
6.15	324+82.00	12	323+40	326+30	290	
6.19	326+69.10	tangent	326+30	327+25	95	
6.28	331+78.00	tangent			0	
6.35	335+44.70	13			0	
6.40	337+93.00	tangent			0	
6.45	340+36.00	tangent			0	
6.49	342+47.00	14			0	
6.50	343+00.00					
6.55	345+88.50	15	345+20	351+10	590	Entire Superelevation Correction
6.61	349+00.00					

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Ditching & Shouldering
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary
Side: RIGHT

Bid Item: 2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
6.63	350+23.40					
6.74	355+63.60	tangent			0	
6.84	361+07.00	tangent			0	
6.86	362+08.00	18	361+30	364+30	300	Entire Superelevation Correction
6.92	365+31.70	19	364+75	365+75	100	
6.95	367+21.00	tangent			0	
7.04	371+91.00	21	371+75	372+25	50	Pipe Location Only
7.05	372+42.80					
7.06	373+03.00					
7.09	374+58.70	tangent			0	
7.14	377+12.00	22	375+60	378+60	300	Entire Superelevation Correction
7.27	384+00.00	23	381+80	384+80	300	Entire Superelevation Correction
7.33	386+82.30	24			0	
7.33	387+00.00					
7.36	388+49.00	25			0	
7.39	390+00.00					
7.53	397+64.80	26	397+20	400+00	280	
7.54	398+00.00					
7.55	398+57.70					
7.56	399+23.00	tangent			0	
7.65	403+86.40	tangent	403+00	404+50	150	
7.73	408+13.40	27	406+00	410+30	430	Entire Superelevation Correction
7.75	409+03.00					
7.83	413+17.90	tangent			0	
7.86	414+87.00	tangent	414+00	415+50	150	
7.92	418+13.40	tangent	417+50	418+75	125	
7.94	419+06.90	tangent	418+75	420+00	125	
7.96	420+50.00	29	420+00	421+00	100	
8.02	423+50.00	30	422+20	424+70	250	Entire Superelevation Correction
8.05	425+04.00	31	424+70	426+50	180	Entire Superelevation Correction
8.09	427+12.20	tangent	426+50	427+50	100	
8.13	429+27.50	tangent	428+75	429+75	100	
8.23	434+52.40	33	432+60	435+40	280	Entire Superelevation Correction
8.26	435+97.00	tangent	435+50	436+50	100	
8.28	437+26.50	34	436+50	439+20	270	Entire Superelevation Correction
8.30	438+00.00					
8.36	441+43.00	tangent	440+75	441+30	55	
8.37	441+88.00	35	441+30	445+00	370	Entire Superelevation Correction
8.38	442+45.00					
8.47	447+14.20	tangent			0	
8.51	449+48.00	36	449+00	450+00	100	
8.55	451+30.10	tangent	450+75	451+75	100	
8.58	452+95.30	tangent			0	
8.58	453+16.00	tangent			0	
8.65	456+95.40	tangent			0	
8.75	461+96.00	tangent	461+50	462+50	100	
8.78	463+71.50	tangent			0	

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Ditching & Shouldering
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary
Side: RIGHT

	Bid Item:	2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
8.81	465+00.00	38			100	
8.88	469+01.10	tangent			0	
8.97	473+83.60	40	473+25	474+25	100	
9.06	478+24.70					
9.12	481+30.90	41	478+50	479+00	50	
9.17	484+00.00		483+25	487+75	450	
9.19	485+24.40				0	
9.25	488+25.30	tangent	487+75	488+75	100	
9.31	491+46.70	tangent			0	
9.39	496+02.00	tangent	495+00	497+00	200	
9.44	498+25.00	42	497+75	498+75	100	
9.45	499+17.00	tangent	498+75	499+25	50	
9.46	499+38.70	tangent			0	
9.47	499+76.00	tangent			0	
9.49	501+22.80	tangent			0	
9.53	503+08.60	tangent			0	
9.63	508+23.40	44	508+20	518+70	1050	Entire Superelevation Correction
9.68	511+28.40					
9.72	513+00.00					
9.75	514+70.00					
9.77	515+67.52					
9.79	516+89.90					
9.88	521+69.47	tangent			0	
9.93	524+45.77	tangent			0	
10.01	528+35.00	45			0	
10.01	528+42.90					
10.06	530+99.00					
10.15	535+90.00	tangent			0	
10.18	537+39.50	tangent			0	
10.23	540+40.50	tangent			0	
10.34	546+00.00	47	543+80	548+40	460	Entire Superelevation Correction
10.43	550+59.00	tangent			0	
10.52	555+25.00	48	552+90	556+70	380	Entire Superelevation Correction
10.64	561+80.00	tangent	561+25	562+25	100	
10.66	562+99.80	tangent			0	
10.75	567+80.00	tangent	567+25	568+25	100	
10.79	569+69.60	tangent			0	
10.83	572+00.00	49	571+50	572+50	100	
10.95	577+90.00	tangent	575+00	578+00	300	
11.02	582+00.00	50	580+60	584+20	360	Entire Superelevation Correction
11.06	583+96.00					
11.12	587+21.00	tangent			0	
11.23	593+11.00	51	593+30	596+60	330	Entire Superelevation Correction
11.38	600+94.00	tangent			0	
11.46	605+15.30	tangent			0	
11.55	609+73.00	tangent	609+25	610+25	100	
11.64	614+51.00	tangent			0	

Campbell - KY 10 Item No. 6-9006.00

QTY: Ditching & Shouldering

Project:	Highway Safety Improvement Plan	*Route Name:*	Flagg Springs Pike
Contents:	QUANTITIES - Ditching & Shouldering	*Classification:*	Rural Secondary
Date:	4/22/2016	*Side:*	RIGHT

Bid Item:	2575

Mile Point	X-Sec Reference	Curve # Reference	Begin Sta.	End Sta.	Total Length (L.F.)	Comments
11.74	619+70.00	53	618+00	623+00	500	
11.75	620+30.00					
11.76	620+86.00					
11.77	621+33.00					
11.78	621+75.00					
11.86	626+21.60	tangent			0	
11.93	629+84.00	tangent			0	
11.97	631+82.00	tangent	630+50	632+25	175	
12.28	648+43.30	tangent			0	
12.46	657+68.40	tangent			0	
12.51	660+53.80	tangent			0	
12.59	665+00.00	56			0	
12.66	668+53.40	tangent			0	
12.70	670+38.00	tangent	669+75	675+75	600	
12.79	675+16.50	tangent			0	
12.81	676+35.00	57	675+75	676+75	100	
12.85	678+56.80	tangent			0	
12.89	680+84.90	tangent			0	
12.90	681+30.00	tangent	680+00	681+75	175	
12.95	683+83.40	tangent			0	
12.97	684+76.50	tangent			0	
12.99	685+84.80	tangent			0	
13.00	686+40.00	tangent			0	
13.11	692+31.00	tangent	691+75	692+75	100	
13.12	692+59.60	tangent			0	
13.18	696+00.00	58	694+10	697+50	340	Entire Superelevation Correction
13.22	697+94.00	tangent	697+50	698+50	100	
13.25	699+39.50	tangent			0	
13.30	702+17.40	59			0	
13.31	703+00.00					
13.33	704+01.80					
13.42	708+46.30	tangent			0	
13.46	710+71.60	tangent			0	
13.48	711+61.00	60	710+70	713+60	290	Entire Superelevation Correction
13.56	716+20.00	tangent	715+75	716+75	100	
Sub Total: (right side)					**17850**	

Campbell - KY 10 Item No. 6-9006.00

QTY: Cribbing

Project: Highway Safety Improvement Plan
Contents: **Wall Cribbing - Quantities**
Date: 4/1/2016

Description	Begin MP	End MP	Begin	End	QTY (SQ. FT.)	Offset	Comment
Retaining Wall	10.02	10.06	529+00.00	531+00.00	330.00	RT	Embankment Slope Repair **(Drilled Railroad Steel - Assume 40')**
Retaining Wall	11.73	11.78	619+50.00	622+00.00	420.00	LT	Embankment Slope Repair **(Drilled Railroad Steel - Assume 40')**

Campbell - KY 10 Item No. 6-9006.00

QTY: Drainage

Project: Highway Safety Improvement Plan
Route Name: Flagg Springs Pike
Contents: QUANTITIES - Pipes
Classification: Rural Secondary
Date: 3/30/2016
Posted Speed: None

ITEM CODE:		00440	00462	00464	00466	00468	00470	02483	24575ES610	01497	01500	01544	01728	01729	
Mile Point	Pipe Section	15" ENT. (L.F.)	18" CMP (L.F.)	24" CMP (L.F.)	30" CMP (L.F.)	36"CMP (L.F.)	48" CMP (L.F.)	CL II CHANNEL LINING (TONS)	HEADWALL	DBI TYPE 3 MOD	DBI TYPE 4 MOD	DBI TYPE 11	18" DOUBLE SAFETY BOX INLET	24" DOUBLE SAFETY BOX INLET	NOTE
4.67	246+73														
4.71	248+80														
4.79	252+99														
4.99	263+60														
5.07	267+58			4				2		1					EXTEND PIPE
5.10	269+45							2		1					
5.24	276+70							3							
5.31	280+44							34							
5.40	285+02														
5.44	287+33														
5.48	289+48		4					5					1		EXTEND PIPE
5.55	292+84							5						1	
5.57	294+30							2					1		
5.59	295+27							2							
5.65	298+39														
5.71	301+26							4							
5.84	308+10							4					1		
5.86	309+51														
5.99	316+03		13					4					1		EXTEND PIPE
6.02	318+07		4					8					1		EXTEND PIPE
6.06	319+83	36						2					1		REPLACE ENTR. PIPE
6.11	322+55		8					4					1		EXTEND PIPE
6.19	326+69		6					2							EXTEND PIPE
6.28	331+78														
6.35	335+45							4					1		
6.40	337+93							2							
6.45	340+36							2							
6.48	342+25	36													REPLACE ENTR. PIPE
6.49	342+47			34				5		1					REPLACE PIPE
6.49	342+75	36													REPLACE ENTR. PIPE
6.55	345+89			40				2	2						24" SLOPED/MITRED
6.63	350+23		10					2							EXTEND PIPE
6.74	355+64					4		2							EXTEND PIPE
6.86	362+08			6				2							EXTEND PIPE
6.92	365+32	36		6				4		1					EXT. PIPE/ REPL. ENTR. PIPE
7.04	371+91	36													REPLACE ENTR. PIPE
7.05	372+43														
7.09	374+59							2					1		
7.33	386+82							3							
7.53	397+65														
7.55	398+58							2			1				
7.55	398+70	28													REPLACE ENTR. PIPE
7.65	403+86				8			2							EXTEND PIPE
7.73	408+13		36					4					1		REPLACE PIPE
7.83	413+18	36		32				2							REPLACE PIPE & ENTR. PIPE
7.92	418+13							4					1		
7.94	419+07			4				4		1					EXTEND PIPE
8.09	427+12					39		5							REPLACE PIPE
8.13	429+28							4					1		
8.23	434+52		10					4							EXTEND PIPE
8.28	437+27			10				5		1					EXTEND PIPE
8.37	441+88							2		1					
8.55	451+30						7	5							EXTEND PIPE
8.58	452+95														
8.65	456+95							4		1					
8.78	463+72				38			10							REPLACE PIPE
8.88	469+01		4					4							EXTEND PIPE
8.97	473+84							4							
9.06	478+25		4					2							EXTEND PIPE
9.12	481+31							2							
9.19	485+24														
9.25	488+25		4					2							EXTEND PIPE

Campbell - KY 10 Item No. 6-9006.00

QTY: Drainage

Project: Highway Safety Improvement Plan
Route Name: Flagg Springs Pike
Contents: QUANTITIES - Pipes
Classification: Rural Secondary
Date: 3/30/2016
Posted Speed: None

ITEM CODE:		00440	00462	00464	00466	00468	00470	02483	24575ES610	01497	01500	01544	01728	01729	
Mile Point	Pipe Section	15" ENT. (L.F.)	18" CMP (L.F.)	24" CMP (L.F.)	30" CMP (L.F.)	36" ELL (L.F.)	48" CMP (L.F.)	CL II CHANNEL LINING (TONS)	HEADWALL	DBI TYPE 3 MOD	DBI TYPE 4 MOD	DBI TYPE 11	18" DOUBLE SAFETY BOX INLET	24" DOUBLE SAFETY BOX INLET	NOTE
9.31	491+47				41			2	2						REPL. PIPE, 30 "MITRED HDWL
9.39	496+02		4					5					1		EXTEND PIPE
9.46	499+39								1						18" STD. HEADWALL
9.49	501+23							4						1	
9.53	503+09														
9.63	508+23														
9.68	511+28														
9.75	514+70							6				2			
9.77	515+68											1			
9.79	516+90		7					2	1			1			EXT. PIPE, 18" MITRED HDWL
9.88	521+69							2					1		
9.93	524+46							2						1	
10.01	528+43							2							
10.06	530+99					36		9							REMOVE CULVERT. REPLACE WITH 36" ELLIPTICAL PIPE
10.18	537+40														
10.23	540+41														
10.43	550+59														
10.66	563+00		47					6	1				1		REPL. PIPE, 18" MITRED HDWL
10.79	569+70														
11.06	583+96														
11.38	600+94							14							
11.46	605+15														
11.72	619+00		50					3		3					REPLACE PIPE
11.86	626+22							2	1						15" STD. HEADWALL
11.93	629+84							3							
12.28	648+43														
12.46	657+68			4				2							EXTEND PIPE
12.51	660+54														
12.66	668+53														
12.79	675+17														
12.85	678+57														
12.89	680+85				6			4						1	EXTEND PIPE, MITRED HDWL
12.95	683+83														
12.97	684+77				4										EXTEND PIPE
12.99	685+85			9				2							EXTEND PIPE
13.12	692+60														
13.25	699+40														
13.30	702+17		8					2							EXTEND PIPE
13.33	704+02														
13.42	708+46														
13.46	710+72														
TOTALS:		244	219	149	97	43	7	256	8	11	1	4	15	4	

Campbell - KY 10 Item No. 6-9006.00

QTY: Entrance Surface

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Entrance Pavement
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary

				Bid Items:	00307	00221	00001	02099	00020
Mile Point	**Pipe Section**	**Exist. Surface Type**	**SIDE (LT/RT)**	**CL2 Asphalt Surface**	**CL 2 Asphalt Base**	**DGA**	**Cem Conc Ent Pave-6 IN**	**Traffic Bound Base**	
				(Tons)	**(Tons)**	**(Tons)**	**(SQYD)**	**(Tons)**	
4.47	236+08.00	GRAVEL	LT					9	
4.48	236+38.00	ASPHALT	LT	3	4	9			
4.50	237+81.00	CONCRETE	RT				54		
4.55	240+00.00	GRAVEL	RT					9	
4.64	244+85.00	GRAVEL	LT					9	
4.70	248+09.00	GRAVEL	RT					9	
4.71	248+70.00	GRAVEL	LT					9	
4.71	248+87.00	GRAVEL	RT					9	
4.80	253+55.00	GRAVEL	LT					9	
4.82	254+72.00	GRAVEL	LT					9	
5.17	272+79.00	GRAVEL	LT					9	
5.24	276+48.00	GRAVEL	LT					9	
5.64	297+72.00	CONCRETE	LT				54		
5.66	298+75.00	GRAVEL	LT					9	
5.73	302+77.00	GRAVEL	LT					9	
5.74	302+99.00	GRAVEL	RT					9	
5.75	303+39.00	GRAVEL	LT					9	
5.79	305+46.00	GRAVEL	LT					9	
5.80	306+22.00	GRAVEL	LT					9	
5.90	311+69.00	GRAVEL	LT					9	
5.92	312+72.00	GRAVEL	LT					9	
6.03	318+37.00	GRAVEL	LT					9	
6.06	320+15.00	GRAVEL	LT					9	
6.09	321+79.00	GRAVEL	LT					9	
6.25	329+80.00	GRAVEL	LT					9	
6.29	332+00.00	GRAVEL	LT					9	
6.41	338+43.00	GRAVEL	LT					9	
6.45	340+54.00	GRAVEL	LT					9	
6.48	342+36.00	GRAVEL	LT					9	

Campbell - KY 10 Item No. 6-9006.00

QTY: Entrance Surface

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Entrance Pavement
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary

				Bid Items:	00307	00221	00001	02099	00020
Mile Point	**Pipe Section**	**Exist. Surface Type**	**SIDE (LT/RT)**	**CL2 Asphalt Surface**	**CL 2 Asphalt Base**	**DGA**	**Cem Conc Ent Pave-6 IN**	**Traffic Bound Base**
				(Tons)	**(Tons)**	**(Tons)**	**(SQYD)**	**(Tons)**
6.49	342+79.00	GRAVEL	LT					9
6.56	346+27.00	GRAVEL	LT					9
6.72	354+88.00	GRAVEL	LT					9
6.74	356+11.00	GRAVEL	LT					9
6.85	361+92.00	GRAVEL	LT					9
6.86	362+38.00	GRAVEL	LT					9
6.92	365+16.00	GRAVEL	LT					9
7.04	371+94.00	GRAVEL	LT					9
7.28	384+12.00	GRAVEL	LT					9
7.31	386+17.00	GRAVEL	LT					9
7.35	388+14.00	GRAVEL	LT					9
7.37	389+35.00	GRAVEL	LT					9
7.43	392+36.00	GRAVEL	LT					9
7.44	392+90.00	GRAVEL	LT					9
7.55	398+86.00	ASPHALT	LT	3	4	9		
7.58	400+20.00	ASPHALT	LT	3	4	9		
7.66	404+31.00	GRAVEL	LT					9
7.73	408+35.00	GRAVEL	LT					9
7.82	413+09.00	GRAVEL	LT					9
7.83	413+46.00	GRAVEL	LT					9
8.05	425+24.00	GRAVEL	LT					9
8.07	426+13.00	GRAVEL	LT					9
8.13	429+01.00	CONCRETE	LT				54	
8.17	431+24.00	CONCRETE	LT				54	
8.22	433+76.00	GRAVEL	LT					9
8.33	439+65.00	GRAVEL	LT					9
8.43	444+96.00	ASPHALT	LT	3	4	9		
8.44	445+54.00	ASPHALT	LT	3	4	9		
8.72	460+26.00	ASPHALT	LT	3	4	9		

Campbell - KY 10 Item No. 6-9006.00

QTY: Entrance Surface

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Entrance Pavement
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary

				Bid Items:	00307	00221	00001	02099	00020
Mile Point	**Pipe Section**	**Exist. Surface Type**	**SIDE (LT/RT)**	**CL2 Asphalt Surface**	**CL 2 Asphalt Base**	**DGA**	**Cem Conc Ent Pave-6 IN**	**Traffic Bound Base**	
				(Tons)	**(Tons)**	**(Tons)**	**(SQYD)**	**(Tons)**	
8.91	470+54.00	GRAVEL	LT					9	
8.98	474+18.00	CONCRETE	LT				54		
9.17	484+04.00	GRAVEL	LT					9	
9.20	486+01.00	GRAVEL	LT					9	
9.31	491+71.00	GRAVEL	LT					9	
9.55	504+33.00	GRAVEL	LT					9	
9.61	507+55.00	ASPHALT	LT	3	4	9			
9.82	518+60.00	ASPHALT	LT	3	4	9			
9.87	520+96.00	GRAVEL	LT					9	
9.87	521+38.00	GRAVEL	LT					9	
9.95	525+38.00	GRAVEL	LT					9	
9.99	527+62.00	GRAVEL	LT					9	
10.06	531+27.00	GRAVEL	LT					9	
10.11	533+83.00	GRAVEL	LT					9	
10.30	543+81.00	GRAVEL	LT					9	
9.89	522+07.00	GRAVEL	LT					9	
10.78	569+44.00	GRAVEL	LT					9	
11.05	583+40.00	GRAVEL	LT					9	
11.27	595+21.00	GRAVEL	RT					9	
11.30	596+69.00	GRAVEL	RT					9	
11.31	597+41.00	GRAVEL	RT					9	
11.35	599+26.00	GRAVEL	RT					9	
11.36	599+82.00	ASPHALT	RT	3	4	9			
11.40	602+02.00	GRAVEL	RT					9	
11.46	604+86.00	GRAVEL	RT					9	
11.50	607+45.00	GRAVEL	RT					9	
11.59	611+88.00	GRAVEL	RT					9	
11.65	614+88.00	GRAVEL	RT					9	
12.45	657+39.00	CONCRETE	LT				54		

Campbell - KY 10 Item No. 6-9006.00

QTY: Entrance Surface

AEI

Project: Highway Safety Improvement Plan
Contents: QUANTITIES - Entrance Pavement
Date: 4/22/2016

Route Name: Flagg Springs Pike
Classification: Rural Secondary

			Bid Items:	00307	00221	00001	02099	00020
Mile Point	**Pipe Section**	**Exist. Surface Type**	**SIDE (LT/RT)**	**CL2 Asphalt Surface**	**CL 2 Asphalt Base**	**DGA**	**Cem Conc Ent Pave-6 IN**	**Traffic Bound Base**
				(Tons)	**(Tons)**	**(Tons)**	**(SQYD)**	**(Tons)**
12.92	682+14.00	GRAVEL	LT					9
12.99	685+88.00	GRAVEL	RT					9
13.11	692+39.00	GRAVEL	LT					9
13.34	704+61.00	GRAVEL	LT					9
TOTALS				27	36	81	324	684

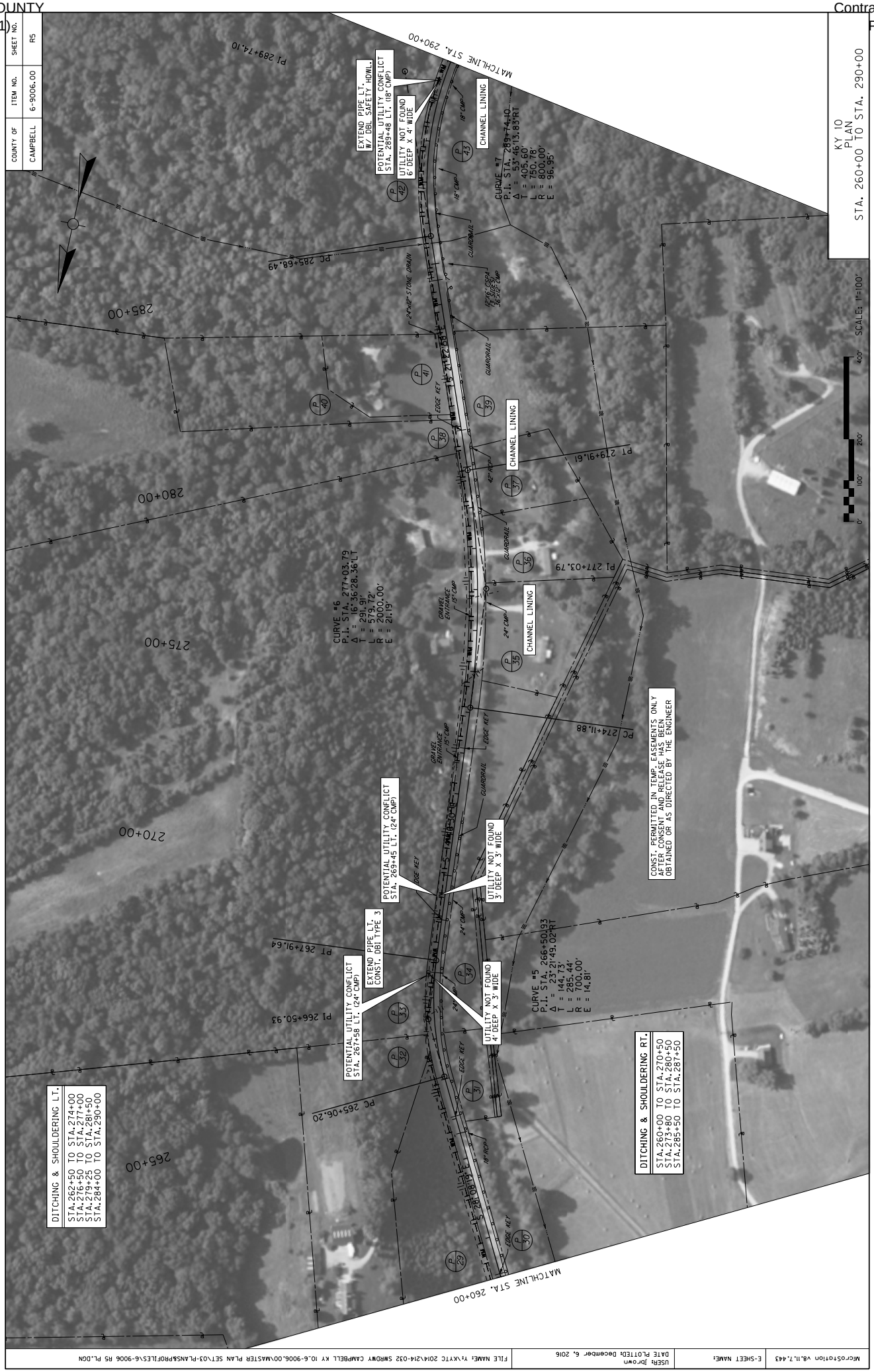
Existing Signs - KY 10 Campbell

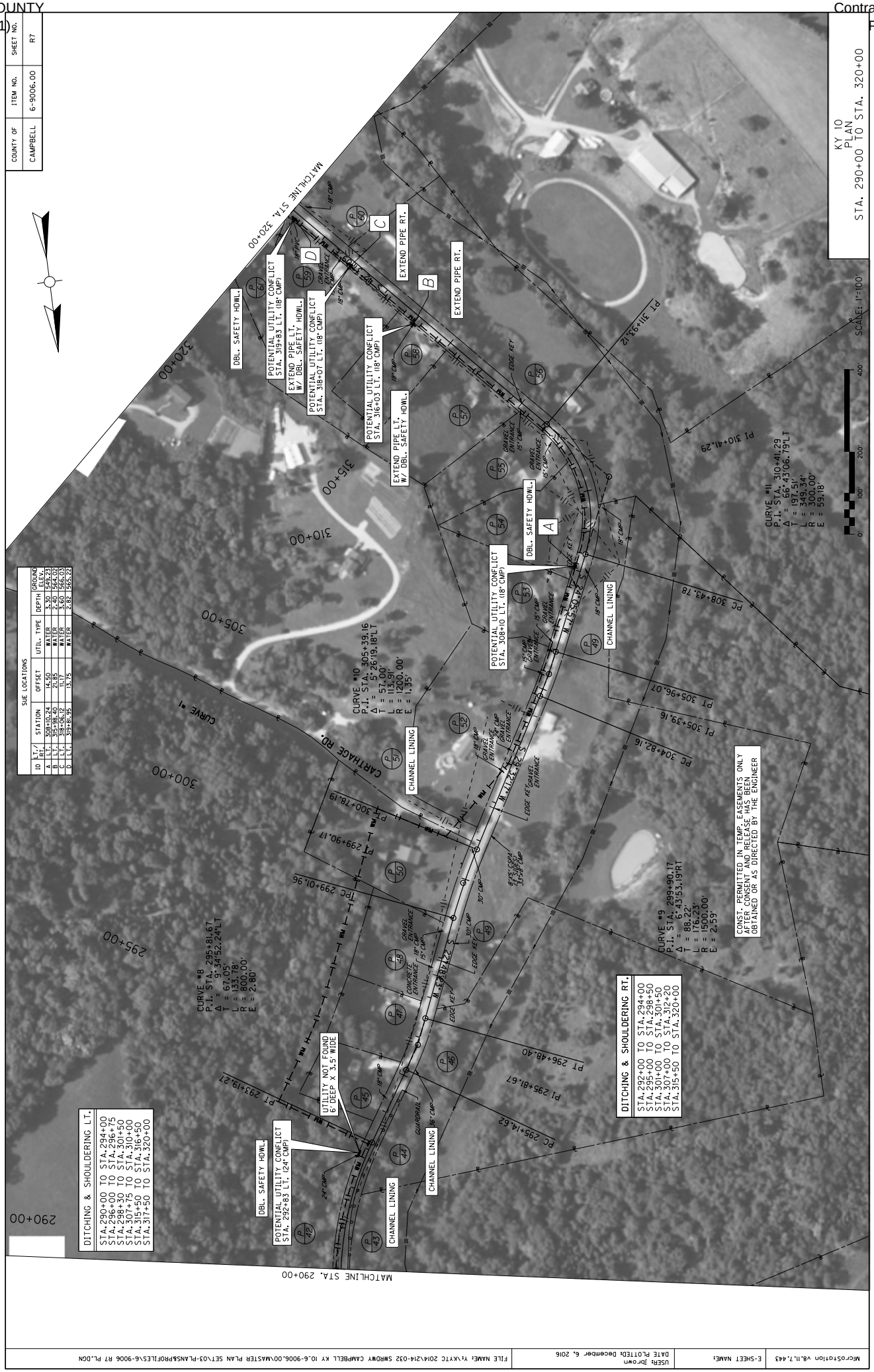
Direction	Milepoint	Sign	Speed (W1-13P)
EB	4.558	W1-2R	35
EB	5.332	W1-2R	N/A
EB	5.758	W1-1L	25
EB	6.098	W1-2L	N/A
EB	6.418	W1-4R	N/A
EB	6.708	W1-4L	35
EB	6.938	W1-4R	35
EB	7.243	W1-2R	35
EB	7.443	W1-1R	20
EB	7.513	W1-1a (20 MPH)	
EB	7.633	W1-2R	N/A
EB	7.818	W1-4L	N/A
EB	7.963	W1-1L	N/A
EB	8.197	W1-2L	N/A
EB	9.072	W1-2R	N/A
EB	9.289	W1-2R	N/A
EB	9.575	W1-2L	N/A
EB	9.91	W1-1R	30
EB	10.215	W1-2L	N/A
EB	11.201	W1-2L	N/A
EB	11.623	W1-2R	N/A
EB	12.474	W1-2R	N/A
EB	13.391	W1-4L	N/A

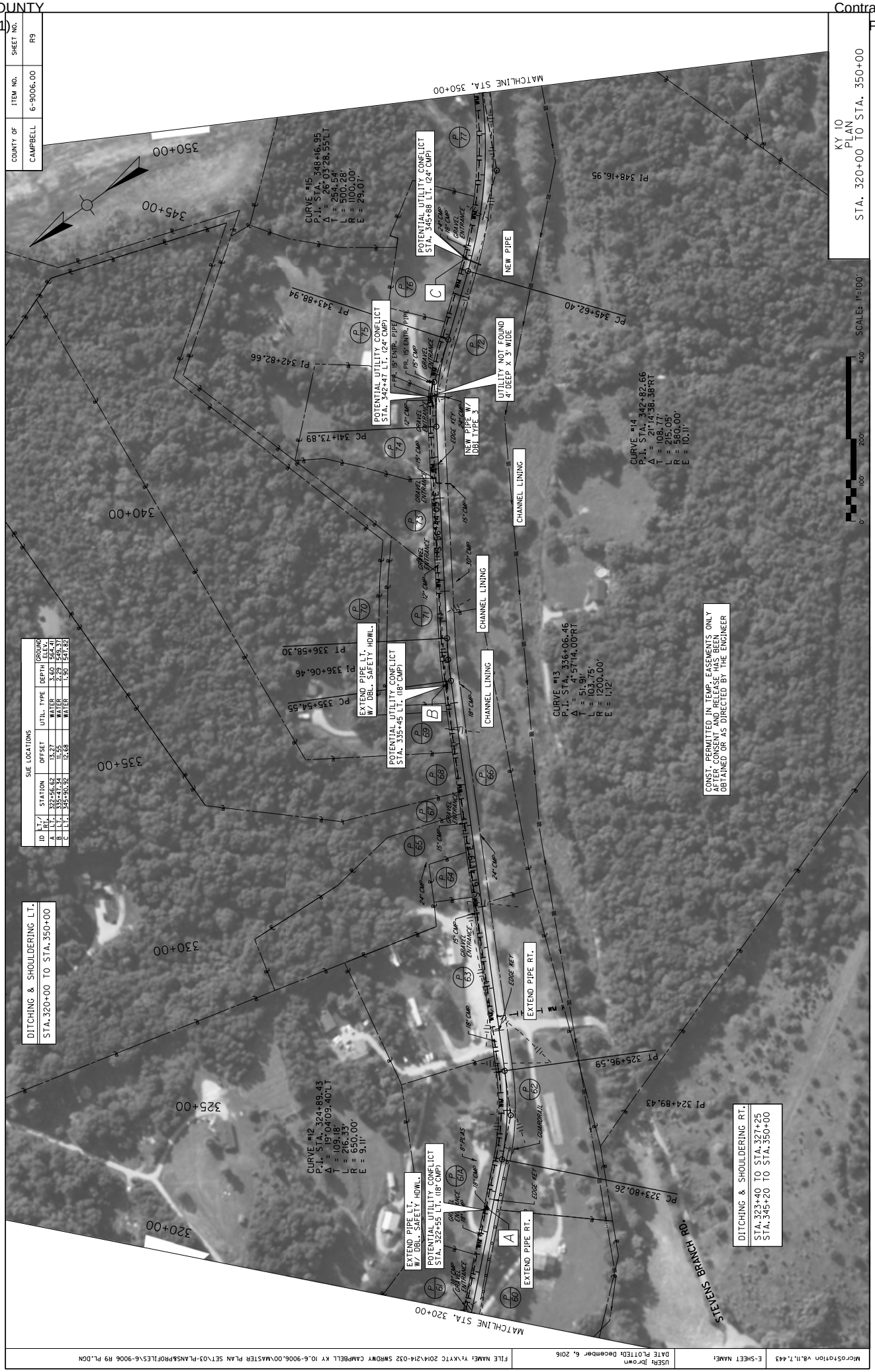
Direction	Milepoint	Sign	Speed (W1-13P)
WB	13.388	W1-4L	N/A
WB	12.746	W1-2L	N/A
WB	11.885	W1-2L	N/A
WB	11.335	W1-2R	N/A
WB	10.974	W1-2L	35
WB	10.6	W1-2R	N/A
WB	9.912	W1-2R	N/A
WB	9.245	W1-2L	N/A
WB	8.485	W1-2R	N/A
WB	8.125	W1-1R	N/A
WB	7.989	W1-4L	N/A
WB	7.814	W1-2R	N/A
WB	7.644	W1-1L	20
WB	7.569	W1-1a (20 MPH)	
WB	7.455	W1-2L	35
WB	7.25	W1-4R	N/A
WB	6.98	W1-4L	25
WB	6.699	W1-4R	N/A
WB	6.014	W1-1R	25
WB	5.599	W1-2L	35
WB	5.164	W1-2L	N/A
WB	4.628	W1-4R	N/A

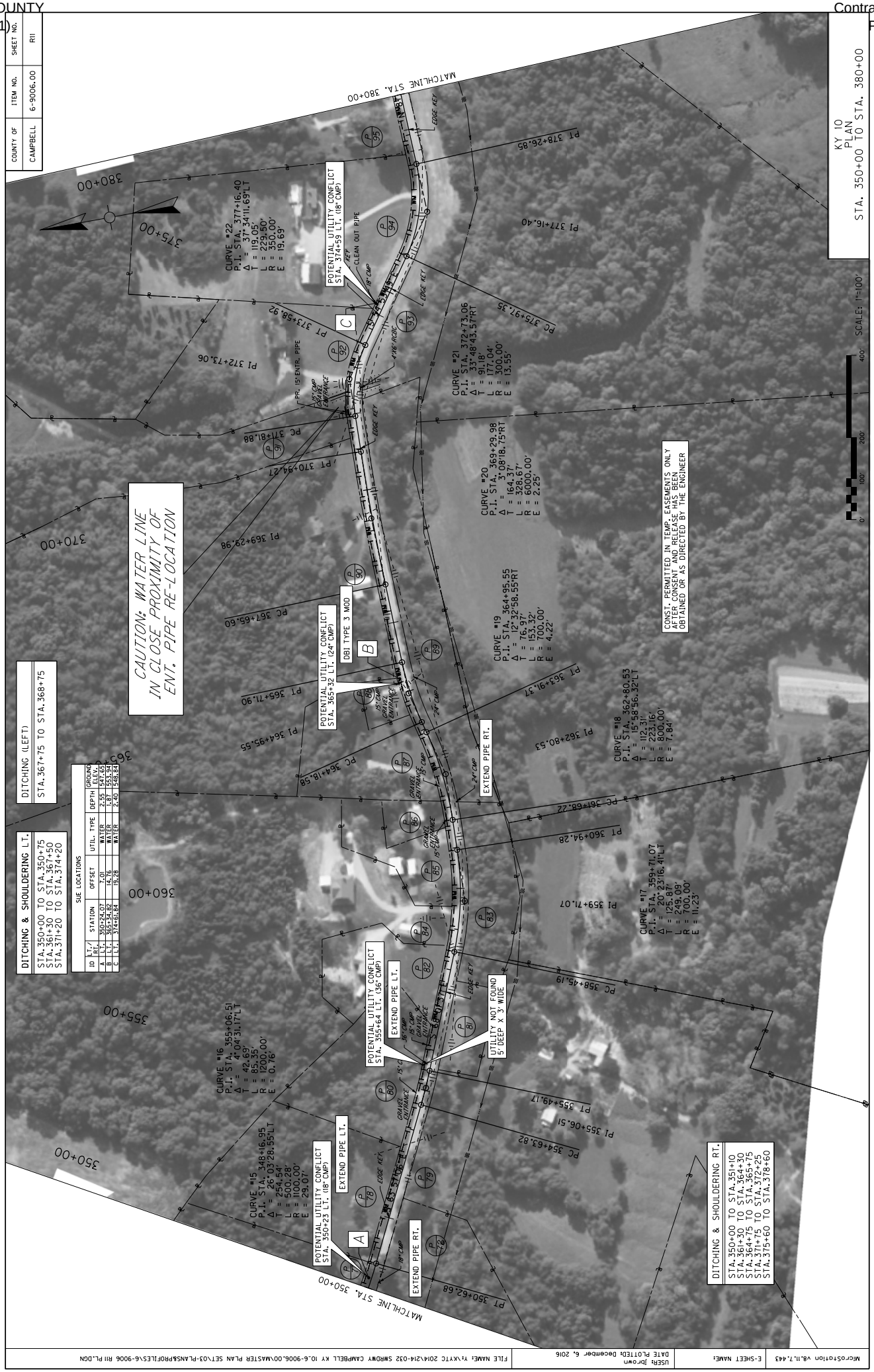
All listed signs should be evaluated post superelevation mitigation or paving activities. Each installation should have a proper speed advisory plaque unless the ball bank is 50 MPH. Curves that bank at a speed of 45 mph or less shall also have Chevrons (W1-8) installed in the curve at the spacing listed on Table 2C-6 of the 2009 MUTCD.

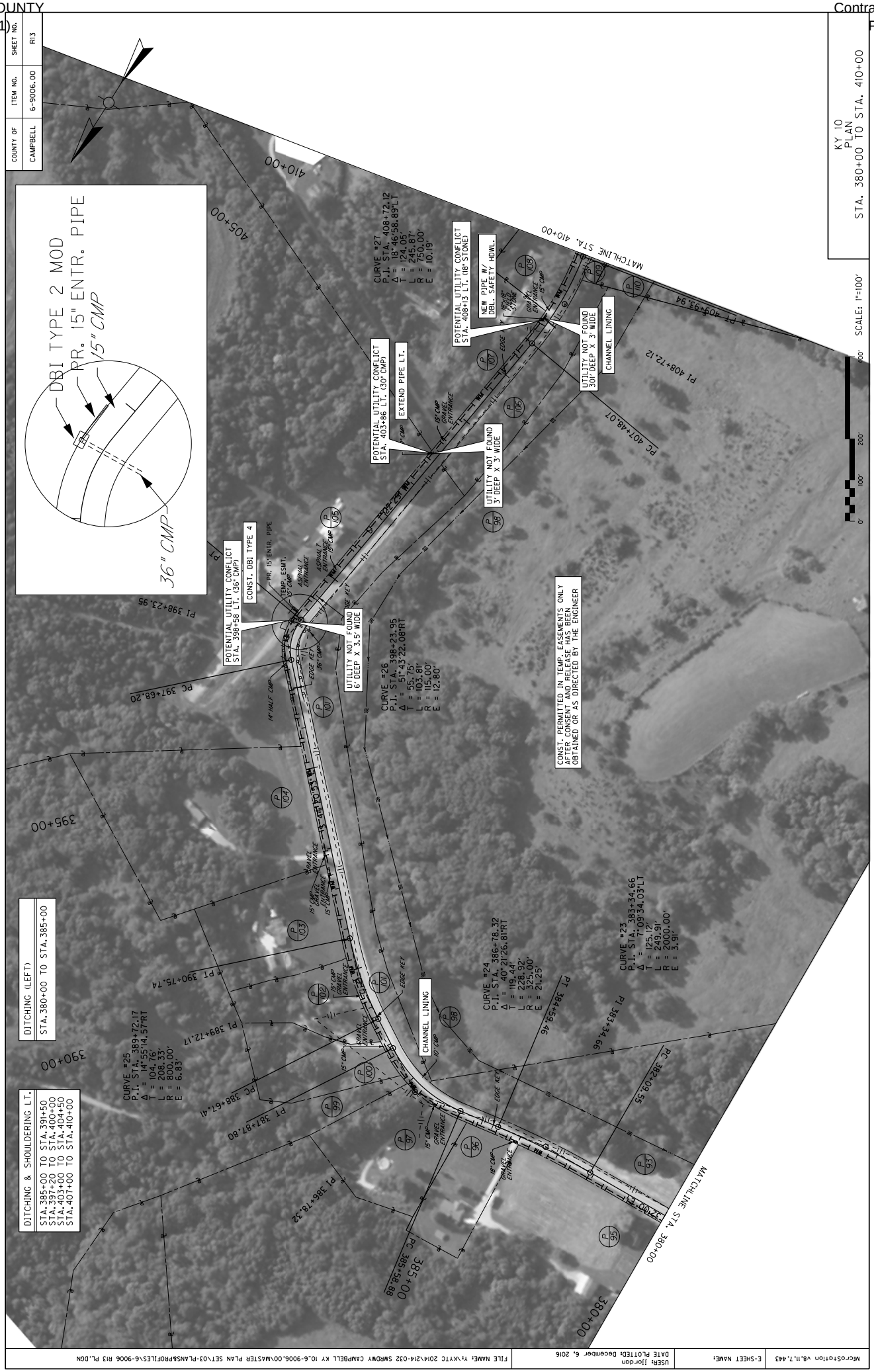

COUNTY OF
CAMPBELL
ITEM NO.
6-9006.00
SHEET NO.
R3
KY 10
PLAN
STA. 231+62 TO STA. 260+00
SCALE: 1"=100'
MATCHLINE STA. 260+00
CRYAR RD.
STONEHOUSE RD.
BEGIN PROJECT
MP 4.42
STA. 233+37.60
PC 232+59.17
PI 234+57.11
PI 236+26.79
PC 238+40.67
PI 239+11.13
PI 240+99.00
PC 244+39.05
PI 247+02.88
PI 249+46.43
PC 252+82.46
PI 256+05.92
PI 259+27.55
CURVE #1
P.I. STA. 234+57.11
Δ = 52°39'21.2"RT
T = 197.94'
L = 367.62'
R = 400.00'
E = 46.30'
CURVE #2
P.I. STA. 239+71.13
Δ = 19°44'04.49"LT
T = 130.45'
L = 258.33'
R = 750.00'
E = 11.26'
CURVE #3
P.I. STA. 247+02.88
Δ = 38°45'39.64"RT
T = 263.83'
L = 507.38'
R = 750.00'
E = 45.05'
CURVE #4
P.I. STA. 256+05.92
Δ = 10°33'37.05"LT
T = 323.46'
L = 645.09'
R = 350.00'
E = 14.92'
NOTE: NO WORK BETWEEN STA.238+50 TO STA.246+00
DITCHING & SHOULDERING LT.
STA.234+50 TO STA.235+50
STA.236+00 TO STA.238+00
STA.257+00 TO STA.258+50
DITCHING & SHOULDERING RT.
STA.246+50 TO STA.247+50
STA.255+00 TO STA.260+00
DITCHING (RIGHT)
STA.231+50 TO STA.240+00
POB 231+62.52
58.14 - 3 SPAN CONCRETE BRIDGE
24" RCP
18" CMP
15" CMP
12" CMP
7'X6' CULVERT
GUARDRAIL
EDGE KEY
GRAVEL ENTRANCE
ASPHALT ENTRANCE
CONCRETE ENTRANCE
235+00
240+00
245+00
250+00
255+00
260+00
0
100'
200'
400'


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R5
KY 10 PLAN STA. 260+00 TO STA. 290+00
SCALE: 1"=100'
MATCHLINE STA. 290+00
MATCHLINE STA. 260+00
PI 289+74.10
PC 285+68.49
PT 279+91.61
PI 277+03.79
PI 274+11.88
PT 267+91.64
PI 266+50.93
PC 265+06.20
285+00
280+00
275+00
270+00
265+00
EXTEND PIPE LT. W/ DBL. SAFETY HDWL.
POTENTIAL UTILITY CONFLICT STA. 289+48 LT. (18" CMP)
UTILITY NOT FOUND 6' DEEP X 4' WIDE
CHANNEL LINING
CURVE #7
P.I. STA. 289+74.10
Δ = 53°46'13.83"RT
T = 405.60'
L = 750.78'
R = 800.00'
E = 96.95'
CURVE #6
P.I. STA. 277+03.79
Δ = 16°36'28.36"LT
T = 291.91'
L = 579.72'
R = 2000.00'
E = 21.19'
POTENTIAL UTILITY CONFLICT STA. 269+45 LT. (24" CMP)
UTILITY NOT FOUND 3' DEEP X 3' WIDE
EXTEND PIPE LT. CONST. DBI TYPE 3
POTENTIAL UTILITY CONFLICT STA. 267+58 LT. (24" CMP)
UTILITY NOT FOUND 4' DEEP X 3' WIDE
CURVE #5
P.I. STA. 266+50.93
Δ = 23°21'49.02"RT
T = 144.73'
L = 285.44'
R = 700.00'
E = 14.81'
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
DITCHING & SHOULDERING LT.
STA.262+50 TO STA.274+00
STA.276+50 TO STA.277+00
STA.279+25 TO STA.281+50
STA.284+00 TO STA.290+00
DITCHING & SHOULDERING RT.
STA.260+00 TO STA.270+50
STA.273+80 TO STA.280+50
STA.285+50 TO STA.287+50
GUARDRAIL
EDGE KEY
CHANNEL LINING
GRAVEL ENTRANCE
24"x42" STONE DRAIN
12'x6' CGCP 4:1 SIDES 36"x24" CMP
18" RCP
0' 100' 200' 400'
MicroStation V8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\14-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R5 PL.DGN

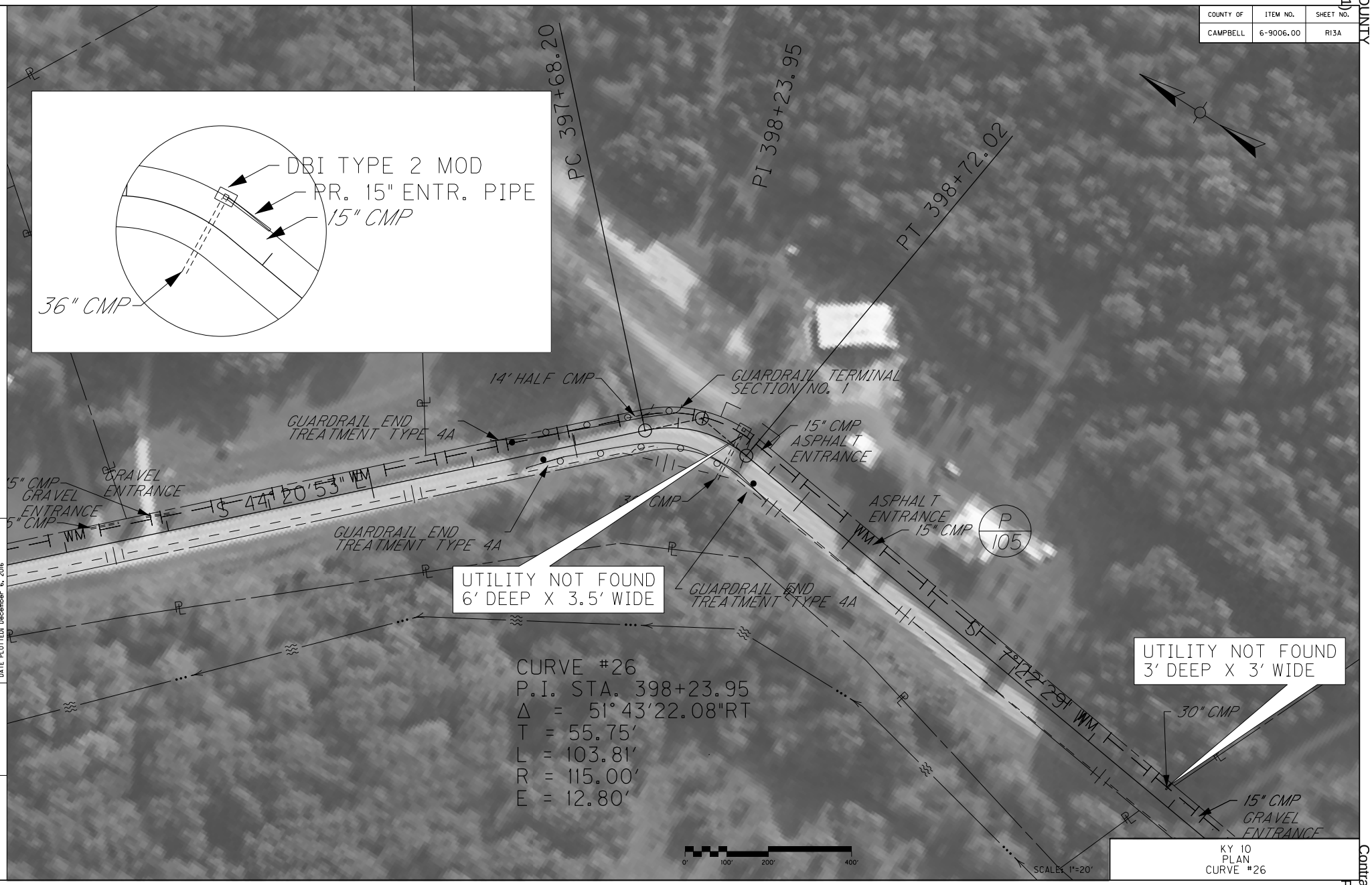

COUNTY OF
CAMPBELL
ITEM NO.
6-9006.00
SHEET NO.
R7
KY 10
PLAN
STA. 290+00 TO STA. 320+00
SCALE: 1"=100'
MATCHLINE STA. 320+00
MATCHLINE STA. 290+00
SUE LOCATIONS
ID | LT./RT. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | LT. | 308+10.24 | 14.50 | WATER | 3.30 | 1549.23
B | LT. | 313+96.40 | 21.85 | WATER | 2.40 | 1564.03
C | LT. | 318+86.12 | 21.70 | WATER | 2.60 | 1566.20
D | LT. | 319+81.95 | 13.75 | WATER | 2.82 | 1565.22
DITCHING & SHOULDERING LT.
STA. 290+00 TO STA. 294+00
STA. 296+00 TO STA. 296+75
STA. 298+30 TO STA. 301+50
STA. 307+75 TO STA. 310+00
STA. 313+50 TO STA. 316+50
STA. 311+50 TO STA. 320+00
DITCHING & SHOULDERING RT.
STA. 292+00 TO STA. 294+00
STA. 295+00 TO STA. 298+50
STA. 301+00 TO STA. 301+50
STA. 307+00 TO STA. 312+20
STA. 315+50 TO STA. 320+00
CURVE #8
P.I. STA. 295+81.67
Δ = 9° 34'52.24"LT
T = 67.05'
L = 133.78'
R = 800.00'
E = 2.80'
CURVE #9
P.I. STA. 299+90.17
Δ = 6° 43'53.19"RT
T = 88.22'
L = 176.23'
R = 1500.00'
E = 2.59'
CURVE #10
P.I. STA. 305+39.16
Δ = 5° 26'19.18"LT
T = 57.00'
L = 113.91'
R = 1200.00'
E = 1.35'
CURVE #11
P.I. STA. 310+41.29
Δ = 16° 43'06.79"LT
T = 196.54'
L = 349.34'
R = 300.00'
E = 59.18'
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
CARTHAGE RD.
DBL. SAFETY HDWL.
POTENTIAL UTILITY CONFLICT STA. 319+83 LT. (18" CMP)
EXTEND PIPE LT. W/ DBL. SAFETY HDWL.
POTENTIAL UTILITY CONFLICT STA. 318+07 LT. (18" CMP)
POTENTIAL UTILITY CONFLICT STA. 316+03 LT. (18" CMP)
EXTEND PIPE LT. W/ DBL. SAFETY HDWL.
EXTEND PIPE RT.
EXTEND PIPE RT.
DBL. SAFETY HDWL.
POTENTIAL UTILITY CONFLICT STA. 308+10 LT. (18" CMP)
CHANNEL LINING
CHANNEL LINING
CHANNEL LINING
CHANNEL LINING
UTILITY NOT FOUND 6' DEEP x 3.5' WIDE
POTENTIAL UTILITY CONFLICT STA. 292+83 LT. (24" CMP)
DBL. SAFETY HDWL.
GRAVEL ENTRANCE
CONCRETE ENTRANCE
EDGE KEY
PC 308+43.78
PT 305+96.07
PT 305+39.16
PC 304+82.16
PT 300+78.19
PT 299+90.17
PC 299+01.96
PT 296+48.40
PT 296+81.67
PC 295+14.62
PT 293+19.27
PT 311+93.12
PT 310+41.29
290+00
295+00
300+00
305+00
310+00
315+00
320+00


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R9
KY 10 PLAN STA. 320+00 TO STA. 350+00
SCALE: 1"=100'
MATCHLINE STA. 350+00
MATCHLINE STA. 320+00
STEVENS BRANCH RD.
CURVE #15 P.I. STA. 348+46.95 Δ = 26°03'28.55"LT T = 254.54' L = 500.28' R = 1100.00' E = 29.07'
CURVE #14 P.I. STA. 342+82.66 Δ = 21°14'38.38"RT T = 108.77' L = 215.05' R = 580.00' E = 10.11'
CURVE #13 P.I. STA. 336+06.46 Δ = 41°57'14.00"RT T = 513.97' L = 803.75' R = 1200.00' E = 112'
CURVE #12 P.I. STA. 324+89.43 Δ = 19°04'09.40"LT T = 109.18' L = 216.33' R = 650.00' E = 9.11'
PI 348+16.95
PC 345+62.40
PI 343+88.94
PI 342+82.66
PC 341+73.89
PI 336+58.30
PI 336+06.46
PC 335+54.55
PI 325+96.59
PC 323+80.26
PI 324+89.43
POTENTIAL UTILITY CONFLICT STA. 345+88 LT. (24" CMP)
NEW PIPE
POTENTIAL UTILITY CONFLICT STA. 342+47 LT. (24" CMP)
PR. 15" ENTR. PIPE
UTILITY NOT FOUND 4' DEEP X 3' WIDE
NEW PIPE W/ DBL TYPE 3
CHANNEL LINING
EXTEND PIPE LT. W/ DBL. SAFETY HDWL.
POTENTIAL UTILITY CONFLICT STA. 335+45 LT. (18" CMP)
EXTEND PIPE RT.
POTENTIAL UTILITY CONFLICT STA. 322+55 LT. (18" CMP)
EXTEND PIPE LT. W/ DBL. SAFETY HDWL.
EXTEND PIPE RT.
GUARDRAIL
EDGE KEY
GRAVEL ENTRANCE
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
DITCHING & SHOULDERING LT.
STA. 320+00 TO STA. 350+00
DITCHING & SHOULDERING RT.
STA. 323+40 TO STA. 327+25
STA. 345+20 TO STA. 350+00
SUE LOCATIONS
ID | LT./RT. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | L.T. | 322+56.62 | 13.27 | WATER | 3.60 | 564.41
B | L.T. | 335+47.34 | 11.55 | WATER | 2.29 | 549.37
C | L.T. | 345+90.92 | 12.68 | WATER | 1.90 | 547.82
MicroStation v8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\14-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R9 PL.DGN


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R11
KY 10 PLAN STA. 350+00 TO STA. 380+00
SCALE: 1"=100'
MATCHLINE STA. 380+00
MATCHLINE STA. 350+00
CAUTION: WATER LINE IN CLOSE PROXIMITY OF ENT. PIPE RE-LOCATION
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSTRUCTION LIMITS ARE OBTAINED OR AS DIRECTED BY THE ENGINEER
DITCHING (LEFT)
STA.367+75 TO STA.368+75
DITCHING & SHOULDERING LT.
STA.350+00 TO STA.350+75
STA.361+30 TO STA.367+50
STA.371+20 TO STA.374+20
DITCHING & SHOULDERING RT.
STA.350+00 TO STA.351+10
STA.361+30 TO STA.364+30
STA.364+75 TO STA.365+75
STA.371+75 TO STA.372+25
STA.375+60 TO STA.378+60
SUE LOCATIONS
ID | LT./RT. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | LT. | 350+24.87 | 4.06 | WATER | 2.85 | 544.95
B | LT. | 366+32.42 | 14.76 | WATER | 2.80 | 545.94
C | LT. | 374+01.84 | 19.28 | WATER | 2.40 | 548.84
CURVE #22 P.I. STA. 377+16.40 Δ = 37° 34'11.69"LT T = 119.05' L = 229.50' R = 350.00' E = 19.69'
CURVE #21 P.I. STA. 372+73.06 Δ = 33°48'43.57"RT T = 91.18' L = 177.04' R = 300.00' E = 13.55'
CURVE #20 P.I. STA. 369+29.98 Δ = 3°08'18.75"RT T = 164.37' L = 328.67' R = 6000.00' E = 2.25'
CURVE #19 P.I. STA. 364+95.55 Δ = 12°32'58.55"RT T = 76.97' L = 153.32' R = 700.00' E = 4.22'
CURVE #18 P.I. STA. 362+80.53 Δ = 15°58'56.32"LT T = 112.31' L = 223.16' R = 800.00' E = 7.84'
CURVE #17 P.I. STA. 359+71.07 Δ = 20°23'16.41"LT T = 125.87' L = 249.09' R = 700.00' E = 11.23'
CURVE #16 P.I. STA. 355+06.51 Δ = 4°04'31.17"LT T = 42.69' L = 85.35' R = 1200.00' E = 0.76'
CURVE #15 P.I. STA. 348+16.95 Δ = 26°03'28.55"LT T = 254.54' L = 500.28' R = 1100.00' E = 29.01'
POTENTIAL UTILITY CONFLICT STA. 374+59 LT. (18" CMP)
POTENTIAL UTILITY CONFLICT STA. 365+32 LT. (24" CMP)
POTENTIAL UTILITY CONFLICT STA. 355+64 LT. (36" CMP)
POTENTIAL UTILITY CONFLICT STA. 350+23 LT. (18" CMP)
EXTEND PIPE LT.
EXTEND PIPE RT.
UTILITY NOT FOUND 5' DEEP x 3' WIDE
DBL TYPE 3 MOD
A
B
C
PI 378+26.85
PI 377+16.40
PT 375+91.35
PC 375+58.92
PT 373+58.92
PI 372+73.06
PC 371+81.88
PT 370+94.27
PI 369+29.98
PC 367+65.60
PT 365+71.90
PI 364+95.55
PC 364+18.58
PT 363+91.37
PI 362+80.53
PC 361+68.22
PT 360+94.28
PI 359+71.07
PC 358+45.19
PT 355+49.17
PI 355+06.51
PC 354+63.82
PT 350+62.68
PI 372+16.40
PI 371+81.88
PI 370+94.27
PI 369+29.98
PI 367+65.60
PI 365+71.90
PI 364+95.55
PI 364+18.58
PI 363+91.37
PI 362+80.53
PI 361+68.22
PI 360+94.28
PI 359+71.07
PI 358+45.19
PI 355+49.17
PI 355+06.51
PI 354+63.82
PI 350+62.68
380+00
375+00
370+00
365+00
360+00
355+00
350+00
0'
100'
200'
400'
MicroStation V8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\14-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R11 PL.DGN


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R13
KY 10 PLAN STA. 380+00 TO STA. 410+00
SCALE: 1"=100'
DBI TYPE 2 MOD
PR. 15" ENTR. PIPE
15" CMP
36" CMP
DITCHING (LEFT)
STA. 380+00 TO STA. 385+00
DITCHING & SHOULDERING LT.
STA. 385+00 TO STA. 391+50
STA. 397+20 TO STA. 400+00
STA. 403+00 TO STA. 404+50
STA. 407+00 TO STA. 410+00
MATCHLINE STA. 380+00
MATCHLINE STA. 410+00
CURVE #23
P.I. STA. 383+34.66
Δ = 7°09'34.03"LT
T = 125.12'
L = 249.91'
R = 2000.00'
E = 3.91'
CURVE #24
P.I. STA. 386+78.32
Δ = 40°21'26.81"RT
T = 119.44'
L = 228.92'
R = 325.00'
E = 21.25'
CURVE #25
P.I. STA. 389+72.17
Δ = 14°55'14.57"RT
T = 104.76'
L = 208.33'
R = 800.00'
E = 6.83'
CURVE #26
P.I. STA. 398+23.95
Δ = 51°43'22.08"RT
T = 55.75'
L = 103.81'
R = 115.00'
E = 12.80'
CURVE #27
P.I. STA. 408+72.12
Δ = 18°46'58.89"LT
T = 124.05'
L = 245.87'
R = 750.00'
E = 10.19'
CHANNEL LINING
UTILITY NOT FOUND 6' DEEP X 3.5' WIDE
UTILITY NOT FOUND 3' DEEP X 3' WIDE
UTILITY NOT FOUND 30' DEEP X 3' WIDE
POTENTIAL UTILITY CONFLICT STA. 398+58 LT. (36" CMP)
CONST. DBI TYPE 4
PR. 15" ENTR. PIPE
TEMP. ESMT.
POTENTIAL UTILITY CONFLICT STA. 403+86 LT. (30" CMP)
EXTEND PIPE LT.
POTENTIAL UTILITY CONFLICT STA. 408+13 LT. (18" STONE)
NEW PIPE W/ DBL. SAFETY HDWL.
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
PC 382+09.55
PT 384+59.46
PI 383+34.66
PC 385+58.88
PT 387+87.80
PI 386+78.32
PC 388+67.41
PI 389+72.17
PI 390+75.74
PC 397+68.20
PI 398+23.95
PT 403+93.94
PI 408+72.12
PC 407+48.07
0' 100' 200'

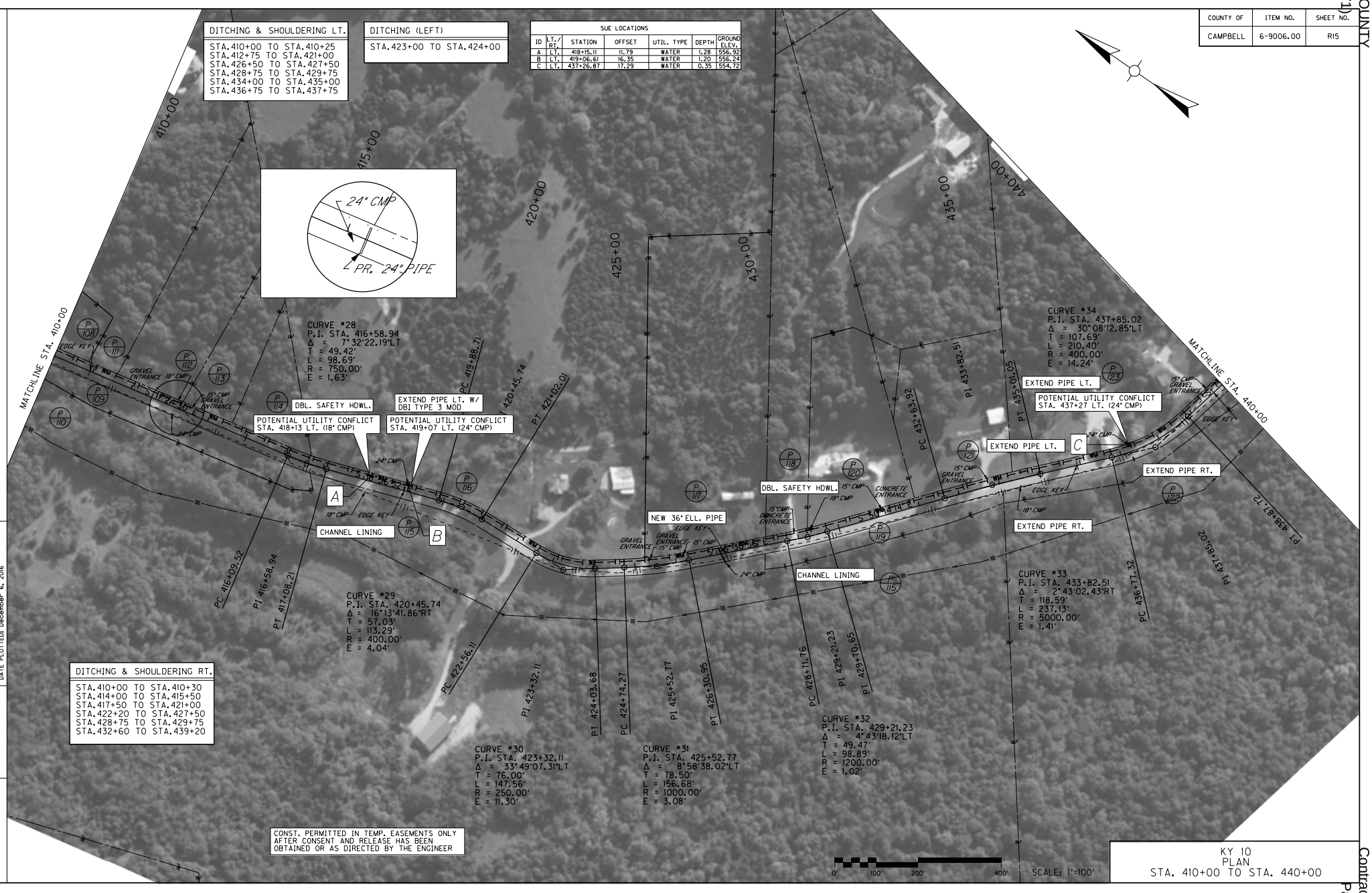
COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	RI3A



KY 10
PLAN
CURVE #26

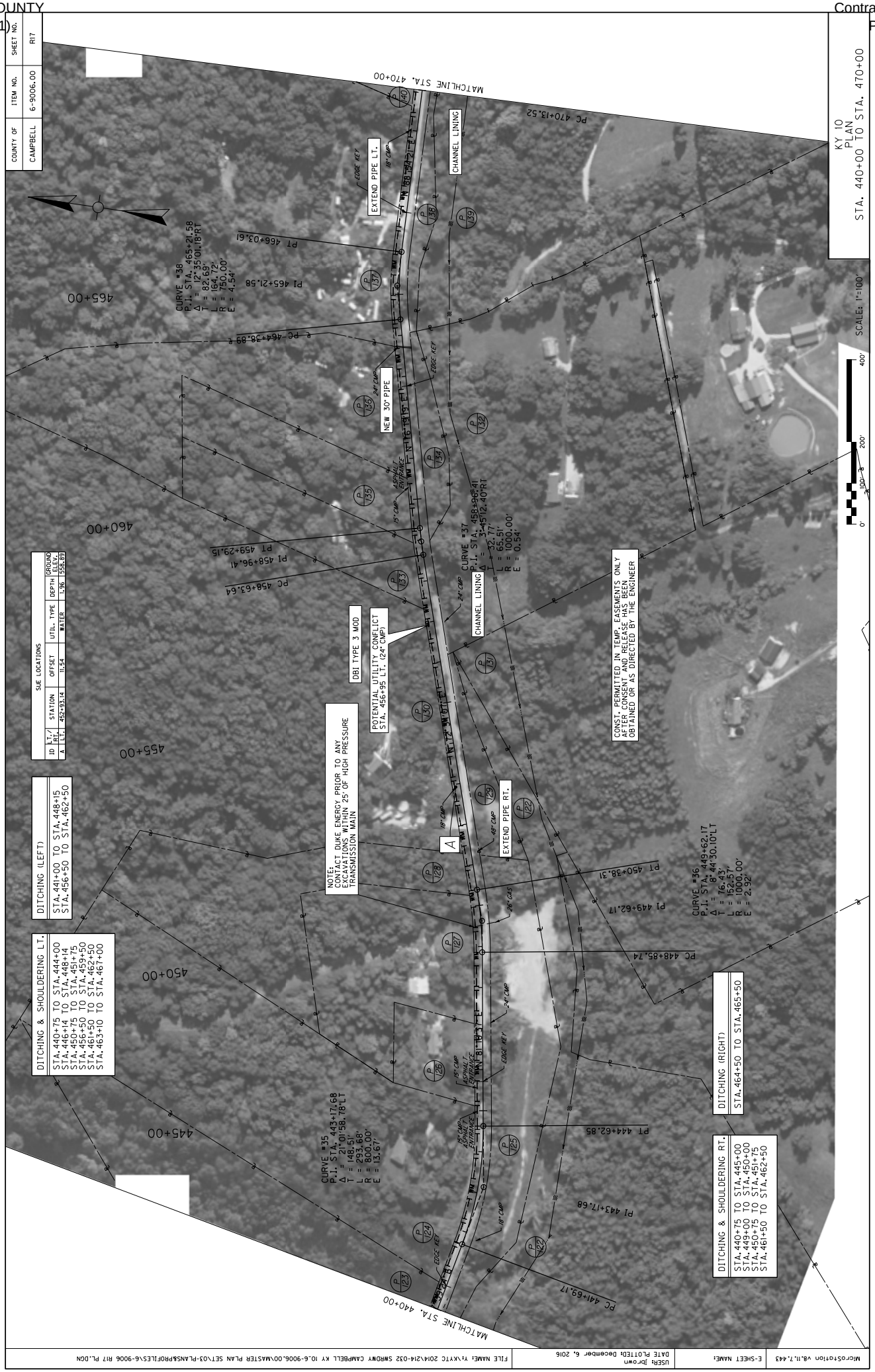
MicroStation v8.11.7.443
E-SHEET NAME:
USER: jjordon
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROW\ CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 RI3A PL.DGN

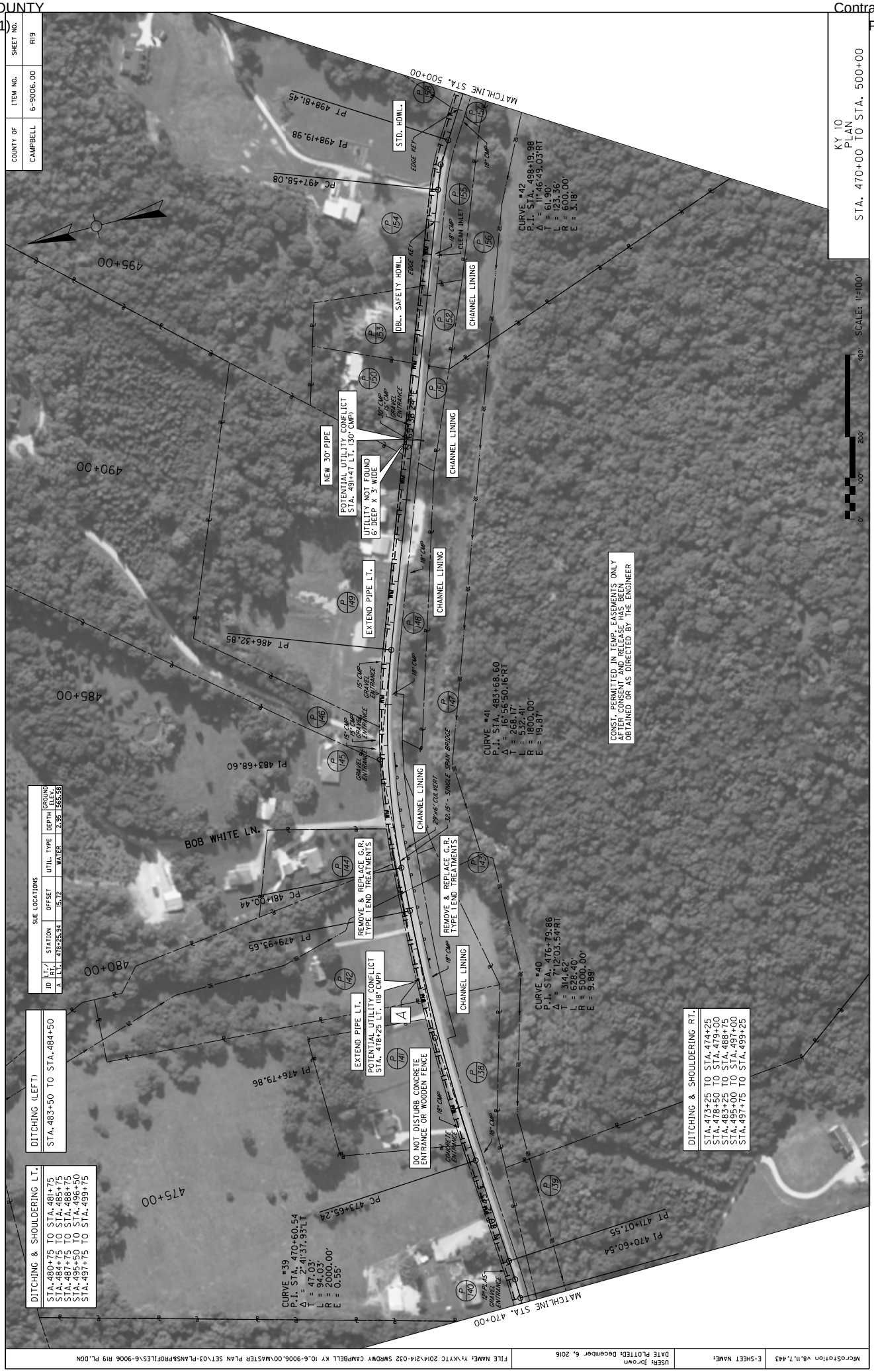
COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	R15

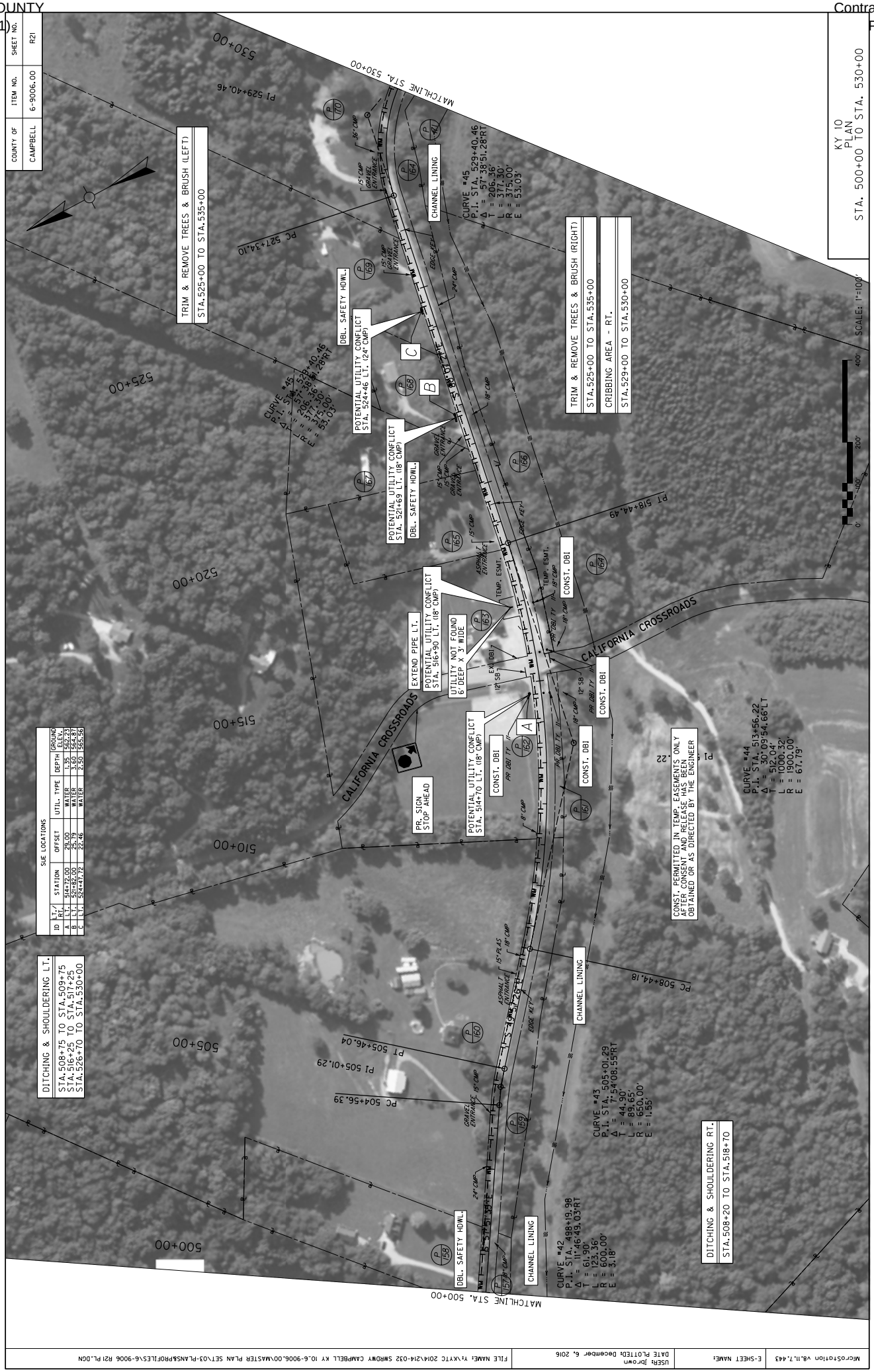


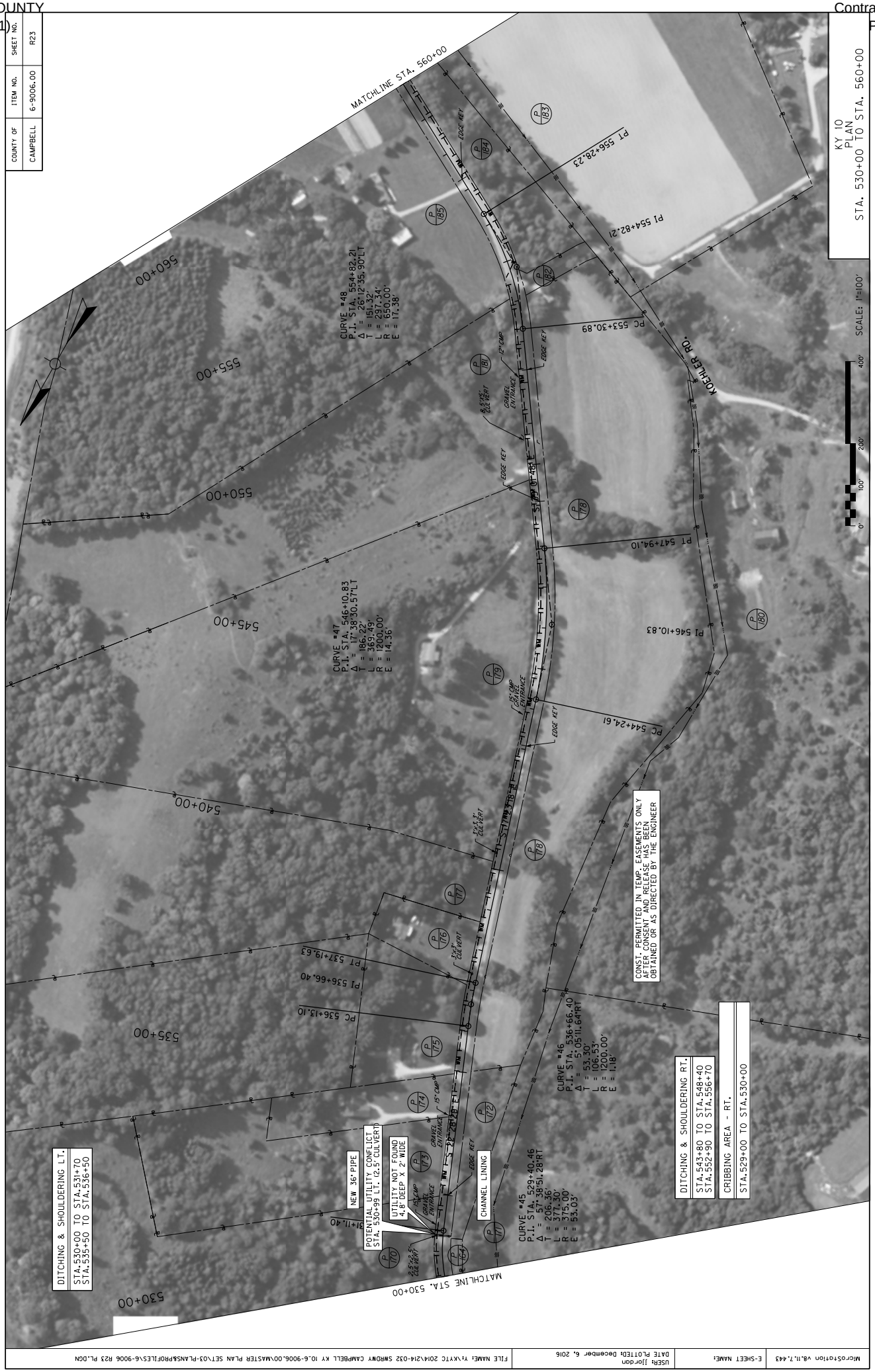
KY 10
PLAN
STA. 410+00 TO STA. 440+00

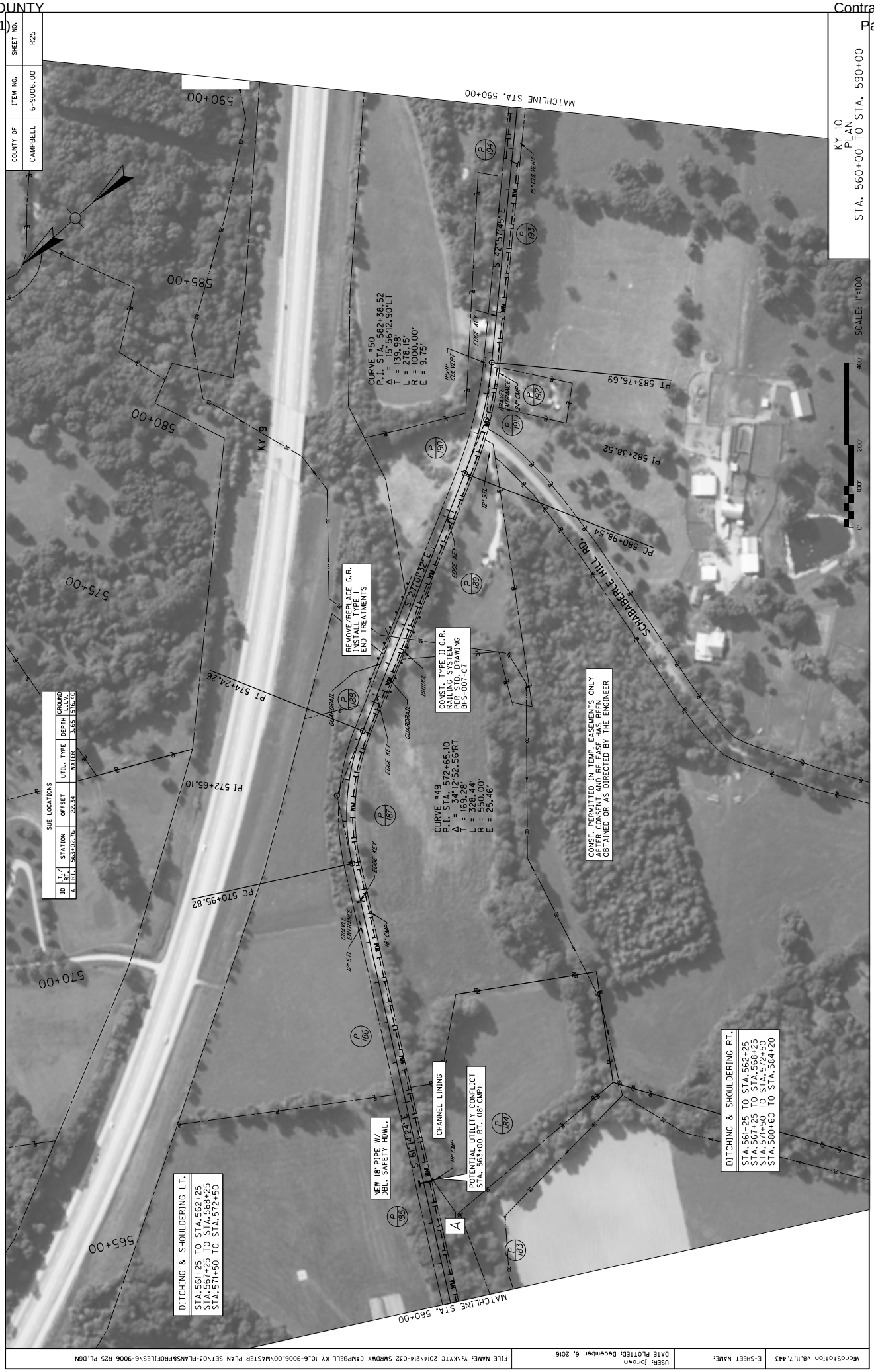
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USER: jbrown
DATE PLOTTED: December 6, 2016
E-SHEET NAME:
MicroStation v8.11.7.443


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R17
KY 10 PLAN STA. 440+00 TO STA. 470+00
SCALE: 1"=100'
MATCHLINE STA. 470+00
MATCHLINE STA. 440+00
PC 470+13.52
CURVE #38 P.I. STA. 465+21.58 Δ = 12°35'01.18"RT T = 82.69' L = 164.72' R = 750.00' E = 4.54'
PT 466+03.61
PI 465+21.58
PC 464+38.89
CURVE #37 P.I. STA. 458+96.41 Δ = 3°45'12.40"RT T = 32.77' L = 65.51' R = 1000.00' E = 0.54
PT 459+29.15
PI 458+96.41
PC 458+63.64
CURVE #36 P.I. STA. 449+62.17 Δ = 8°44'30.10"LT T = 76.43' L = 152.57' R = 1000.00' E = 2.92'
PT 450+38.31
PI 449+62.17
PC 448+85.74
CURVE #35 P.I. STA. 443+17.68 Δ = 21°01'38.78"LT T = 148.59' L = 293.68' R = 800.00' E = 13.67'
PT 444+62.85
PI 443+17.68
PC 441+69.17
465+00
460+00
455+00
450+00
445+00
EXTEND PIPE LT.
CHANNEL LINING
NEW 30" PIPE
ASPHALT ENTRANCE
EDGE KEY
DBI TYPE 3 WOD
POTENTIAL UTILITY CONFLICT STA. 456+95 (LT. (24" CMP)
NOTE: CONTACT DUKE ENERGY PRIOR TO ANY EXCAVATIONS WITHIN 25' OF HIGH PRESSURE TRANSMISSION MAIN
EXTEND PIPE RT.
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
SUE LOCATIONS
ID | L.T./R.T. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | LT | 452+93.14 | 11.54 | WATER | L.96 | 1558.88
DITCHING (LEFT)
STA. 441+00 TO STA. 448+15
STA. 456+50 TO STA. 462+50
DITCHING & SHOULDERING LT.
STA. 440+75 TO STA. 444+00
STA. 446+14 TO STA. 448+14
STA. 450+75 TO STA. 451+75
STA. 456+50 TO STA. 459+50
STA. 461+50 TO STA. 462+50
STA. 463+10 TO STA. 467+00
DITCHING (RIGHT)
STA. 464+50 TO STA. 465+50
DITCHING & SHOULDERING RT.
STA. 440+75 TO STA. 445+00
STA. 449+00 TO STA. 450+00
STA. 450+75 TO STA. 451+75
STA. 461+50 TO STA. 462+50
MicroStation V8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R17 PL.DGN

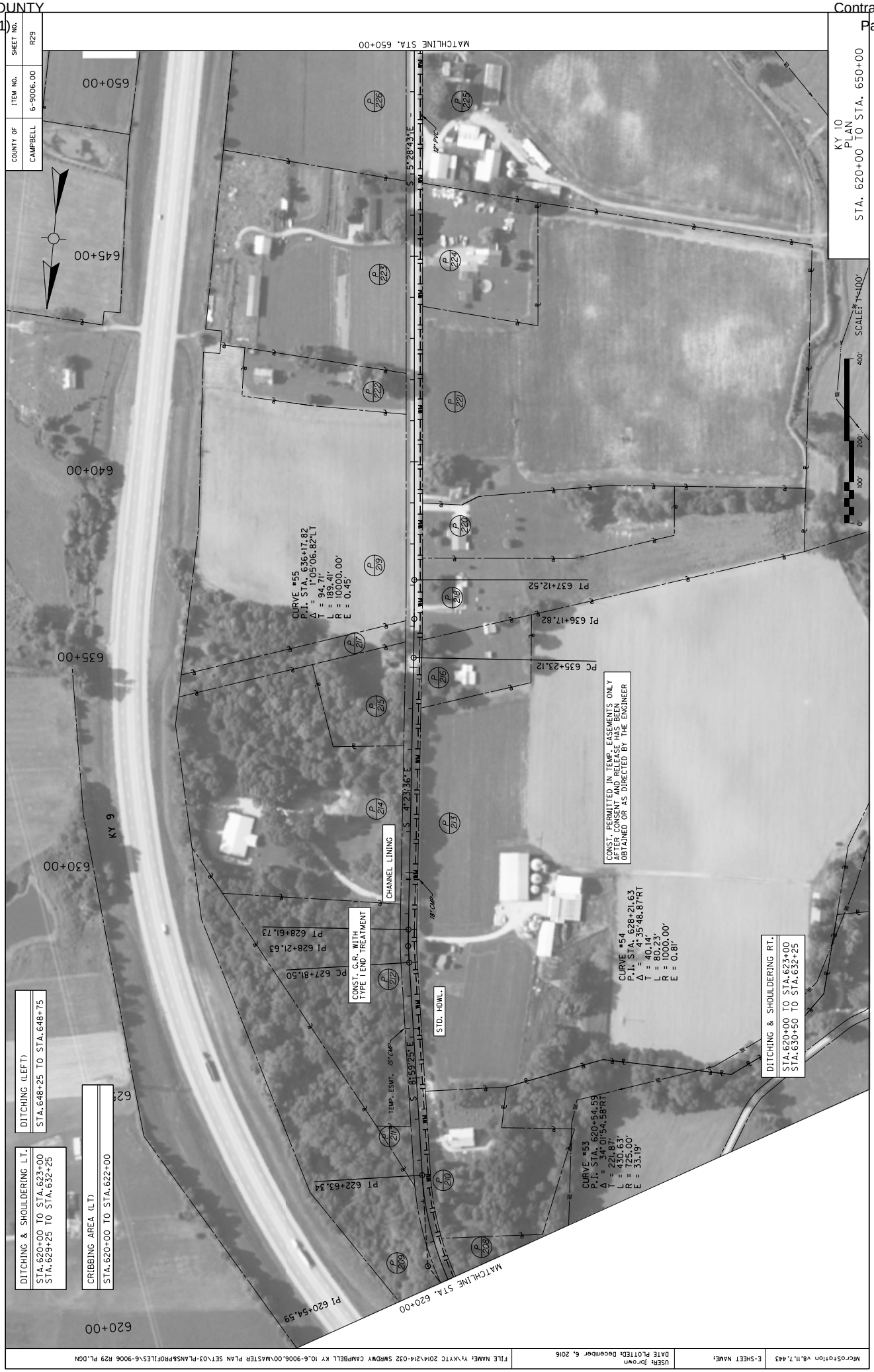

COUNTY OF
CAMPBELL
ITEM NO.
6-9006.00
SHEET NO.
R19
KY 10
PLAN
STA. 470+00 TO STA. 500+00
SCALE: 1"=100'
MATCHLINE STA. 500+00
MATCHLINE STA. 470+00
BOB WHITE LN.
DITCHING (LEFT)
STA. 483+50 TO STA. 484+50
DITCHING & SHOULDERING LT.
STA. 480+75 TO STA. 481+75
STA. 484+75 TO STA. 485+75
STA. 487+75 TO STA. 488+75
STA. 495+50 TO STA. 496+50
STA. 497+75 TO STA. 499+75
DITCHING & SHOULDERING RT.
STA. 473+25 TO STA. 474+25
STA. 478+50 TO STA. 479+00
STA. 483+25 TO STA. 488+75
STA. 495+00 TO STA. 497+00
STA. 497+75 TO STA. 499+25
SUE LOCATIONS
ID | LT./RT. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | LT. | 478+25.94 | 15.72 | WATER | 2.95 | 565.58
CURVE #39
P.I. STA. 470+60.54
Δ = 2°41'37.93"LT
T = 47.03'
L = 94.03'
R = 2000.00'
E = 0.55'
CURVE #40
P.I. STA. 476+79.86
Δ = 7°12'03.54"RT
T = 314.62'
L = 628.40'
R = 5000.00'
E = 9.89'
CURVE #41
P.I. STA. 483+68.60
Δ = 16°56'50.16"RT
T = 268.17'
L = 532.41'
R = 1800.00'
E = 19.87'
CURVE #42
P.I. STA. 498+19.98
Δ = 11°46'49.03"RT
T = 61.90'
L = 123.36'
R = 600.00'
E = 3.18'
PC 473+65.24
PI 476+79.86
PC 481+00.44
PI 483+68.60
PT 486+32.85
PC 491+58.08
PI 498+19.98
PT 498+81.45
PI 479+93.65
PI 470+60.54
PT 471+07.55
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
EXTEND PIPE LT.
POTENTIAL UTILITY CONFLICT STA. 478+25 LT., (18" CMP)
DO NOT DISTURB CONCRETE ENTRANCE OR WOODEN FENCE
REMOVE & REPLACE G.R. TYPE I END TREATMENTS
EXTEND PIPE LT.
NEW 30" PIPE
POTENTIAL UTILITY CONFLICT STA. 491+47 LT. (30" CMP)
UTILITY NOT FOUND 6' DEEP X 3' WIDE
CHANNEL LINING
DBL. SAFETY HDWL.
STD. HDWL.
EDGE KEY
18" CMP
CLEAN INLET
15" CMP GRAVEL ENTRANCE
18" CMP GRAVEL ENTRANCE
24"x18" CMP GRAVEL ENTRANCE
CONCRETE ENTRANCE
29"x46" CSA VERT
32.15'- SINGLE SPAN BRIDGE
MicroStation v8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R19 PL.DGN


COUNTY OF
CAMPBELL
ITEM NO.
6-9006.00
SHEET NO.
R21
KY 10
PLAN
STA. 500+00 TO STA. 530+00
SCALE: 1"=100'
MATCHLINE STA. 530+00
MATCHLINE STA. 500+00
CALIFORNIA CROSSROADS
TRIM & REMOVE TREES & BRUSH (LEFT)
STA.525+00 TO STA.535+00
TRIM & REMOVE TREES & BRUSH (RIGHT)
STA.525+00 TO STA.535+00
CRIBBING AREA - RT.
STA.529+00 TO STA.530+00
DITCHING & SHOULDERING LT.
STA.508+75 TO STA.509+75
STA.516+25 TO STA.517+25
STA.526+70 TO STA.530+00
DITCHING & SHOULDERING RT.
STA.508+20 TO STA.518+70
CURVE #45
P.I. STA. 529+40.46
Δ = 57°38'51.28"RT
T = 206.36'
L = 377.30'
R = 375.00'
E = 53.03'
CURVE #44
P.I. STA. 513+56.22
Δ = 30°09'54.66"LT
T = 512.04'
L = 1000.32'
R = 1900.00'
E = 67.79'
CURVE #43
P.I. STA. 505+01.29
Δ = 7°54'08.55"RT
T = 44.90'
L = 89.65'
R = 650.00'
E = 1.55'
CURVE #42
P.I. STA. 498+19.98
Δ = 11°46'49.03"RT
T = 61.90'
L = 123.36'
R = 600.00'
E = 3.18'
PC 521+34.10
PI 529+40.46
PT 518+44.49
PC 508+44.18
PI 505+01.29
PT 505+46.04
PC 504+56.39
SUE LOCATIONS
ID | LT./RT. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | LT. | 514+72.00 | 29.00 | WATER | 1.35 | 562.23
B | LT. | 521+80.00 | 25.79 | WATER | 2.60 | 564.87
C | LT. | 524+47.22 | 22.46 | WATER | 2.50 | 565.55
POTENTIAL UTILITY CONFLICT STA. 524+46 LT. (24" CMP)
POTENTIAL UTILITY CONFLICT STA. 521+69 LT. (18" CMP)
POTENTIAL UTILITY CONFLICT STA. 516+90 LT. (18" CMP)
POTENTIAL UTILITY CONFLICT STA. 514+70 LT. (18" CMP)
UTILITY NOT FOUND 6' DEEP X 3' WIDE
EXTEND PIPE LT.
PR. SIGN STOP AHEAD
DBL. SAFETY HDWL.
CHANNEL LINING
CONST. DBI
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSTRUCTION RELEASES ARE OBTAINED OR AS DIRECTED BY THE ENGINEER
TEMP. ESMT.
ASPHALT ENTRANCE
GRAVEL ENTRANCE
EDGE KEY
15" CMP
18" CMP
24" CMP
36" CMP
15" PLAS
12" SB
EX. UBI
PR. UBI TY. II
PROJECT LIMITS
0'
100'
200'
400'


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R23
KY 10 PLAN STA. 530+00 TO STA. 560+00
SCALE: 1"=100'
MATCHLINE STA. 560+00
MATCHLINE STA. 530+00
KOCHLER RD.
CURVE #48 P.I. STA. 554+82.21 Δ = 26°12'35.90"LT T = 151.32' L = 299.34' R = 650.00' E = 17.38'
CURVE #47 P.I. STA. 546+10.83 Δ = 17°38'30.57"LT T = 186.22' L = 369.49' R = 1200.00' E = 14.36'
CURVE #46 P.I. STA. 536+66.40 Δ = 5°05'11.64"RT T = 53.30' L = 106.53' R = 1200.00' E = 1.18'
CURVE #45 P.I. STA. 529+40.46 Δ = 57°38'51.28"RT T = 206.36' L = 377.30' R = 375.00' E = 53.03'
PC 553+30.89
PT 556+28.23
PI 554+82.21
PT 547+94.10
PI 546+10.83
PC 544+24.61
PT 537+19.63
PI 536+66.40
PC 536+13.10
PI 531+11.40
EDGE KEY
CHANNEL LINING
GRAVEL ENTRANCE
2'x2'x2' CURB INLET
2'x3'x2' CURB INLET
NEW 36" PIPE
POTENTIAL UTILITY CONFLICT STA. 530+99 LT. (2.5' CULVERT)
UTILITY NOT FOUND 4.8' DEEP X 2' WIDE
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
DITCHING & SHOULDERING LT.
STA. 530+00 TO STA. 531+70
STA. 535+50 TO STA. 536+50
DITCHING & SHOULDERING RT.
STA. 543+80 TO STA. 548+40
STA. 552+90 TO STA. 556+70
CRIBBING AREA - RT.
STA. 529+00 TO STA. 530+00
MicroStation V8.11.7.443
E-SHEET NAME:
USER: jlordan
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\14-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R23 PL.DGN

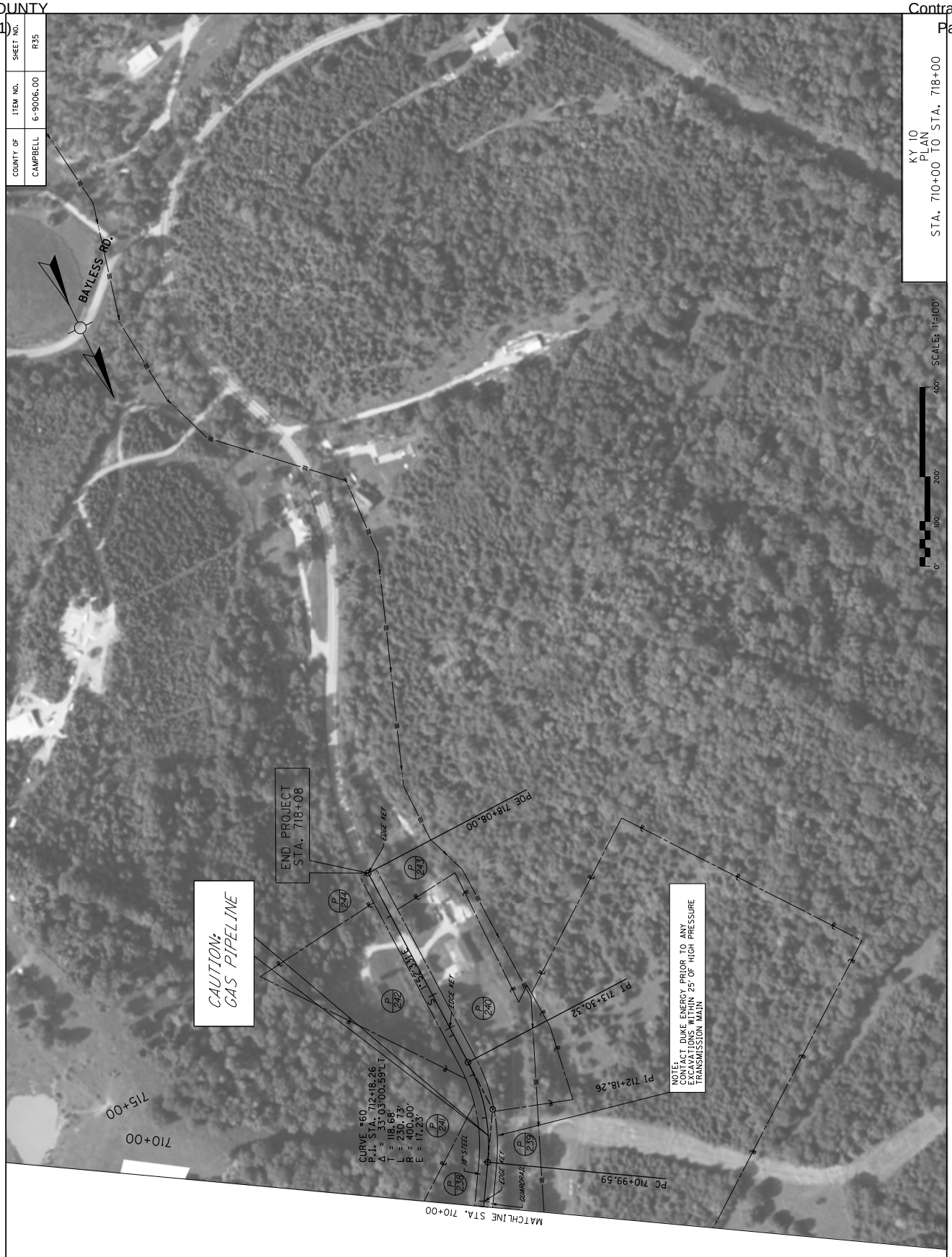

COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R25
KY 10 PLAN
STA. 560+00 TO STA. 590+00
SCALE: 1"=100'
MATCHLINE STA. 590+00
MATCHLINE STA. 560+00
590+00
585+00
580+00
575+00
570+00
565+00
KY 9
SCHLABERLE HILL RD.
CURVE #50
P.I. STA. 582+38.52
Δ = 15°56'12.90"LT
T = 139.98'
L = 278.15'
R = 1000.00'
E = 9.75'
CURVE #49
P.I. STA. 572+65.10
Δ = 34°12'52.56"RT
T = 169.28'
L = 328.44'
R = 550.00'
E = 25.46'
PT 583+76.69
PI 582+38.52
PC 580+98.54
PT 574+24.26
PI 572+65.10
PC 570+95.82
S 27°01'32" E
S 42°57'45" E
S 12°44'19" E
REMOVE/REPLACE G.R. INSTALL TYPE 1 END TREATMENTS
CONST. TYPE II G.R. RAILING SYSTEM PER STD. DRAWING BHS-007-07
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
NEW 18" PIPE W/ DBL. SAFETY HDWL.
CHANNEL LINING
POTENTIAL UTILITY CONFLICT STA. 563+00 RT. (18" CMP)
SUE LOCATIONS
ID | L.T./R.T. | STATION | OFFSET | UTIL. TYPE | DEPTH | GROUND ELEV.
A | RT. | 563+02.76 | 22.34 | WATER | 3.65 | 916.40
DITCHING & SHOULDERING LT.
STA.561+25 TO STA.562+25
STA.567+25 TO STA.568+25
STA.571+50 TO STA.572+50
DITCHING & SHOULDERING RT.
STA.561+25 TO STA.562+25
STA.567+25 TO STA.568+25
STA.571+50 TO STA.572+50
STA.580+60 TO STA.584+20
0' 100' 200' 400'
Microstation v8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R25 PL.DGN


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R27
CRIBBING AREA - LT.
STA.619+50 TO STA.620+00
KY 10
PLAN
STA. 590+00 TO STA. 620+00
SCALE: 1"=100'
MATCHLINE STA. 620+00
MATCHLINE STA. 590+00
SMITH RD.
DOBBS LN.
WASHINGTON TRACE RD.
KY 9
620+00
615+00
610+00
605+00
600+00
595+00
590+00
PC 618+32.72
PT 614+25.02
PI 612+02.98
PC 608+79.41
PT 596+19.35
PI 594+97.62
PC 593+75.05
S 49° 01' 20" E
S 54° 37' 38" E
CURVE #53
P.I. STA. 620+54.59
Δ = 34° 01' 54.58" RT
T = 221.87'
L = 430.63'
R = 725.00'
E = 33.19'
CURVE #52
P.I. STA. 612+02.98
Δ = 11° 36' 18.77" RT
T = 223.57'
L = 445.61'
R = 2200.00'
E = 11.33'
CURVE #51
P.I. STA. 594+97.62
Δ = 11° 39' 53.67" LT
T = 122.58'
L = 244.31'
R = 1200.00'
E = 6.24'
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
DITCHING & SHOULDERING LT.
STA.592+75 TO STA.593+75
STA.609+25 TO STA.610+25
STA.618+00 TO STA.620+00
DITCHING & SHOULDERING RT.
STA.593+30 TO STA.596+60
STA.609+25 TO STA.610+25
STA.618+00 TO STA.620+00
GUARDRAIL
TEMP. ESMT.
BRIDGE
EDGE KEY
GRAVEL ENTRANCE
ASPHALT ENTRANCE
74' - SINGLE SPAN BRIDGE
15" CMP
18" CMP
18" CPP
18" STEEL CULVERT
18" CUL VERT


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R29
KY 10
PLAN
STA. 620+00 TO STA. 650+00
SCALE 1"=100'
MATCHLINE STA. 650+00
MATCHLINE STA. 620+00
KY 9
S 5°28'43"E
S 4°23'36"E
S 8°59'25"E
CURVE #55
P.I. STA. 636+17.82
Δ = 1°05'06.82"LT
T = 94.71'
L = 189.41'
R = 10000.00'
E = 0.45'
PT 637+12.52
PI 636+17.82
PC 635+23.12
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
CURVE #54
P.I. STA. 628+21.63
Δ = 4°35'48.87"RT
T = 40.14'
L = 80.23'
R = 1000.00'
E = 0.81'
CHANNEL LINING
CONST. G.R. WITH TYPE I END TREATMENT
PT 628+61.73
PI 628+21.63
PC 627+81.50
STD. HDWL.
TEMP. ESMT.
CURVE #53
P.I. STA. 620+54.59
Δ = 34°07'54.58"RT
T = 221.87'
L = 430.63'
R = 725.00'
E = 33.19'
PT 622+63.34
PI 620+54.59
DITCHING & SHOULDERING RT.
STA.620+00 TO STA.623+00
STA.630+50 TO STA.632+25
DITCHING (LEFT)
STA.648+25 TO STA.648+75
DITCHING & SHOULDERING LT.
STA.620+00 TO STA.623+00
STA.629+25 TO STA.632+25
CRIBBING AREA (LT)
STA.620+00 TO STA.622+00
650+00
645+00
640+00
635+00
630+00
625
620+00
P 229
P 228
P 227
P 226
P 225
P 224
P 223
P 222
P 221
P 220
P 219
P 218
P 217
P 216
P 215
P 214
P 213
P 212
P 211
P 210
P 209
P 208
0'
100'
200'
400'
MicroStation v8.11.7.443
E-SHEET NAME:
USER: jbrown
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\14-032 SWROWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R29 PL.DGN

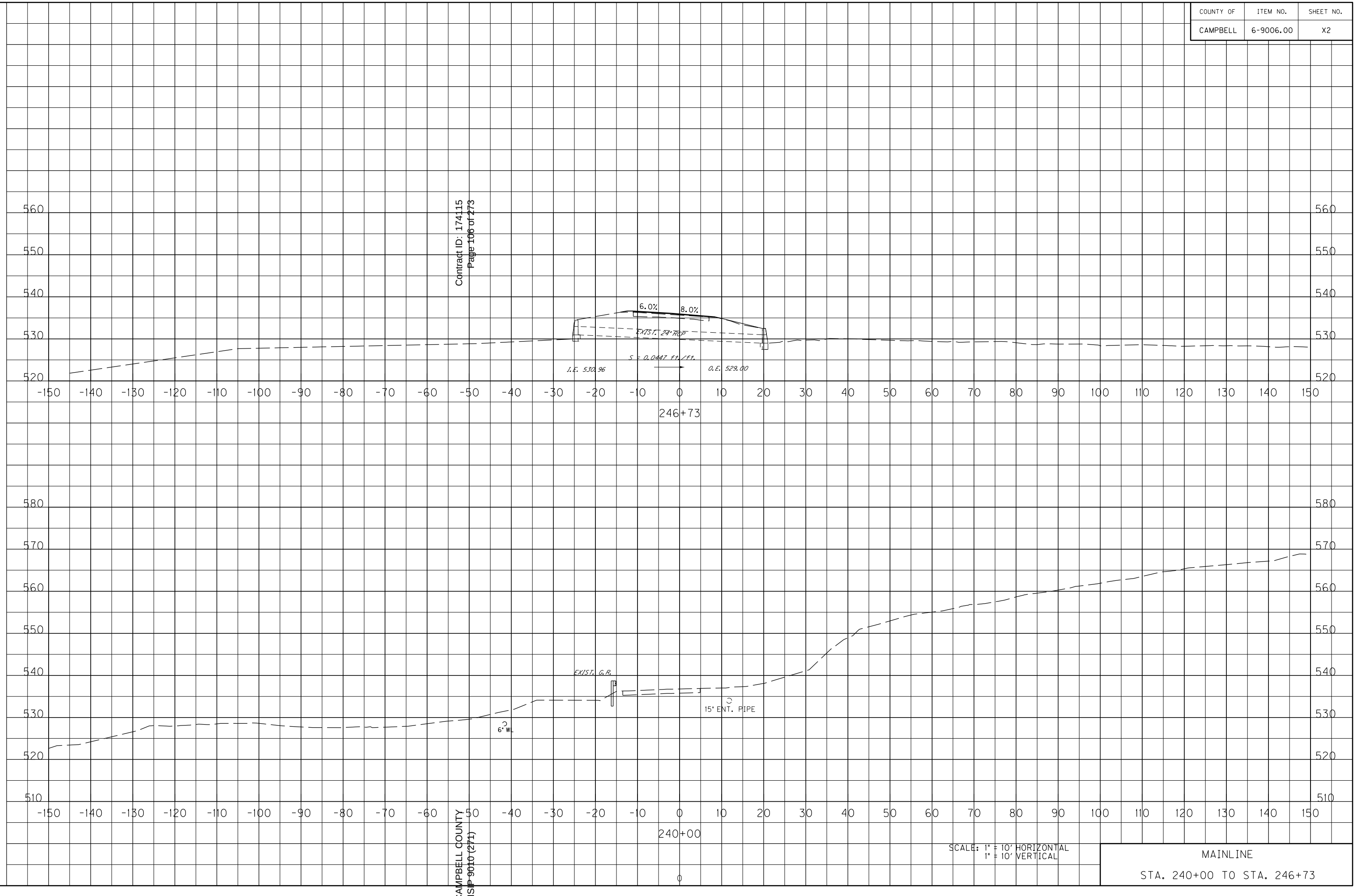

COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R31
KY 10 PLAN
STA. 650+00 TO STA. 680+00
SCALE: 1"=100'
MATCHLINE STA. 680+00
MATCHLINE STA. 650+00
CURVE #57
P.I. STA. 676+14.42
Δ = 0°55'34.74"LT
T = 40.42'
L = 80.84'
R = 5000.00'
E = 0.16'
PC 675+74.00
PI 676+14.42
PT 676+54.83
S 29°58'14" W
CURVE #56
P.I. STA. 665+32.12
Δ = 34°34'30.14"RT
T = 241.20'
L = 467.67'
R = 775.00'
E = 36.67'
PT 667+58.59
PI 665+32.12
PC 662+90.92
P.I. STA. 658+01.66
Δ = 0°52'26.66"RT
PI 658+01.66
SHORTCUT RD.
KENNEDY RD.
KY 9
EXTEND PIPE LT.
CHANNEL LINING
DITCHING & SHOULDERING LT.
STA.658+00 TO STA.665+50
STA.669+75 TO STA.670+75
STA.675+75 TO STA.676+75
DITCHING & SHOULDERING RT.
STA.669+75 TO STA.676+75
30" CMP
6'x6' RCBX
16'X7' BOX CULVERT
EDGE KEY
18" RCP
24" STL
12" STEEL
18" CMP
P 232
P 233
P 231
P 228
P 230
P 229
P 227
P 226
670+00
675+00
680+00
665+00
660+00
655+00
650+00
400'
200'
100'
0'

COUNTY OF
CAMPBELL
ITEM NO.
6-9006.00
SHEET NO.
R33
KY 10
PLAN
STA. 680+00 TO STA. 710+00
SCALE: 1"=100'
MATCHLINE STA. 710+00
MATCHLINE STA. 680+00
DITCHING & SHOULDERING LT.
STA.711+25 TO STA.712+25
DITCHING (LEFT)
STA.715+75 TO STA.716+75
DITCHING & SHOULDERING RT.
STA.710+70 TO STA.713+60
STA.715+75 TO STA.716+75
DITCHING & SHOULDERING LT.
STA.680+25 TO STA.681+75
STA.685+25 TO STA.686+25
STA.692+25 TO STA.693+25
STA.697+50 TO STA.698+50
STA.700+60 TO STA.704+90
DITCHING & SHOULDERING RT.
STA.680+00 TO STA.681+75
STA.691+75 TO STA.692+75
STA.694+10 TO STA.697+20
STA.697+50 TO STA.698+50
CONST. PERMITTED IN TEMP. EASEMENTS ONLY AFTER CONSENT AND RELEASE HAS BEEN OBTAINED OR AS DIRECTED BY THE ENGINEER
CURVE #58
P.I. STA. 695+64.40
Δ = 10°52'57.66"LT
T = 114.31'
L = 227.93'
R = 1200.00'
E = 5.43'
CURVE #59
P.I. STA. 702+73.88
Δ = 13°00'45.91"RT
T = 136.66'
L = 272.34'
R = 1200.00'
E = 7.78'
PC 694+50.09
PI 695+64.40
PT 696+78.02
PC 701+37.02
PI 702+73.88
PT 704+09.56
EXTEND PIPE LT.
TEMP. ESMT.
CHANNEL LINING
GRAVEL ENTRANCE
EDGE KEY
GUARDRAIL
S 31°10'27" W
S 18°09'41" W
S 29°02'39" W
DANIELS RD.
W. KENNEDY RD.
P 232
P 233
P 234
P 235
P 236
P 237
P 238
P 239
680+00
685+00
690+00
695+00
700+00
710+00
0'
100'
200'
400'


COUNTY OF CAMPBELL
ITEM NO. 6-9006.00
SHEET NO. R35
KY 10
PLAN
STA. 710+00 TO STA. 718+00
SCALE: 1"=100'
0' 100' 200' 400'
BAYLESS RD.
END PROJECT STA. 718+08
POE 718+08.00
EDGE KEY
CAUTION GAS PIPELINE
P 244
P 243
P 242
P 241
P 240
P 239
P 238
EDGE KEY
18" STEEL
EDGE KEY
GUARDRAIL
CURVE #60
P.I. STA. 712+18.26
Δ = 118°58'
T = 230.73'
L = 400.00'
R = 17.23'
PI 713+30.32
PI 712+18.26
PC 710+99.59
MATCHLINE STA. 710+00
715+00
710+00
NOTE:
CONTACT DUKE ENERGY PRIOR TO ANY EXCAVATIONS WITHIN 25' OF HIGH PRESSURE TRANSMISSION MAIN
MicroStation V8.11.7.443
E-SHEET NAME:
USER: Scoots
DATE PLOTTED: December 6, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\03-PLANS&PROFILES\6-9006 R35 PL.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X2

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 240+00 TO STA. 246+73

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X00200XS | USER: Scoots | DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

MAINLINE

STA. 247+00 TO STA. 248+80

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

247+00

248+80

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

520 530 540 550 560 570

6.0% 8.0% 4:1 3:1

6"ML

E.L. 536.64 O.E. 530.43

S = 0.097ft /ft.

EXIST. 12"CMP

6.0% 8.0%

SUPERELEVATION CORRECTION

CAMPBELL COUNTY
HSIP 9010(271)

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COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X3

MicroStation v8.11.7.443

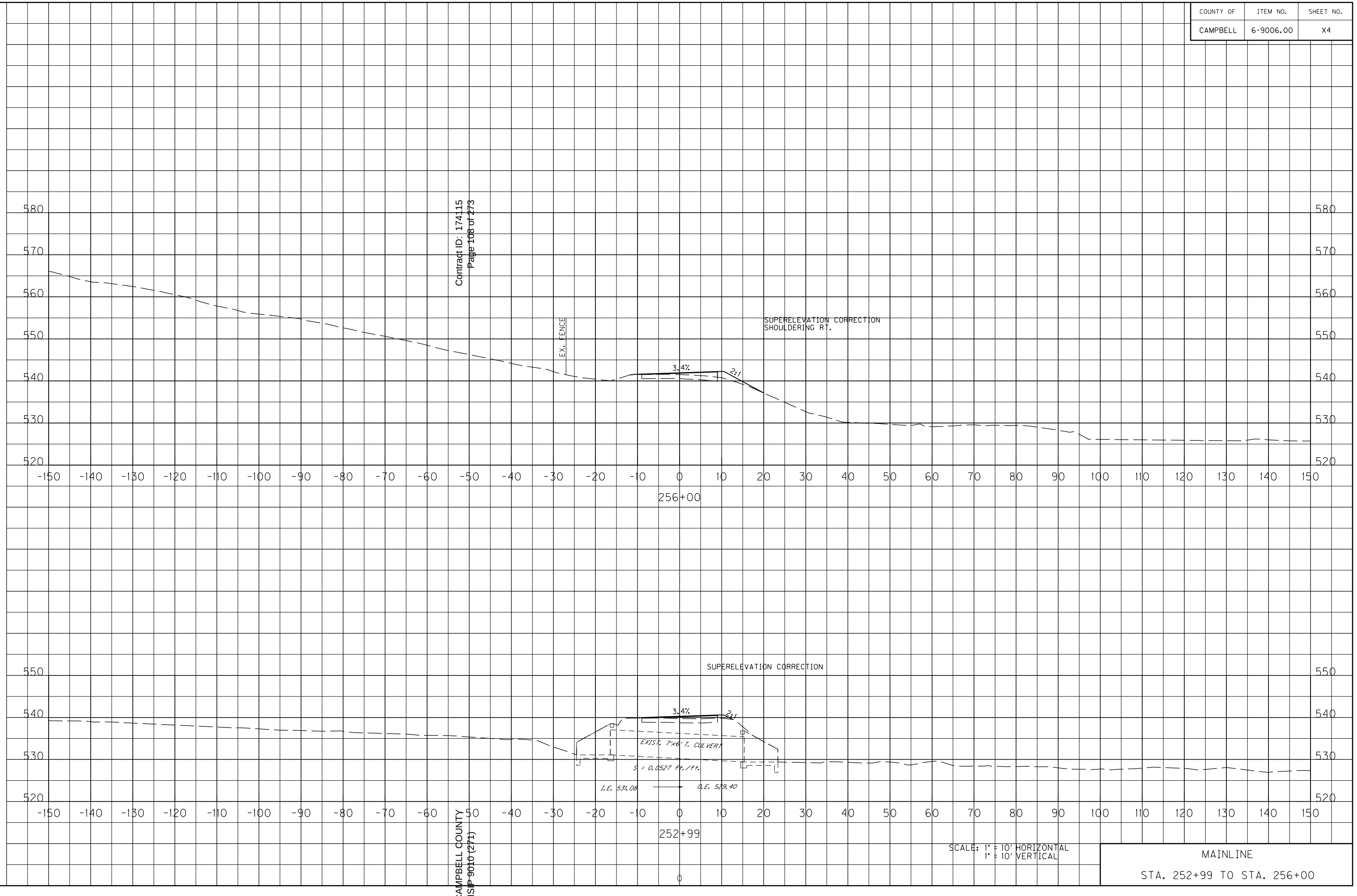
E-SHEET NAME: X00300XS

USER: Scoots
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY IO.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY IO MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X4

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 252+99 TO STA. 256+00

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X00400XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X5

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SUPERELEVATION CORRECTION
SHOULDERING RT.

2.0% 2.0% 3:1

EP/ST. 18' HMP

6" WL

S = 0.0974 ft./ft.

I.E. 540.44 → O.E. 537.16

263+60

SUPERELEVATION CORRECTION
SHOULDERING RT.

3:1 3.4% 2:1

257+75

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

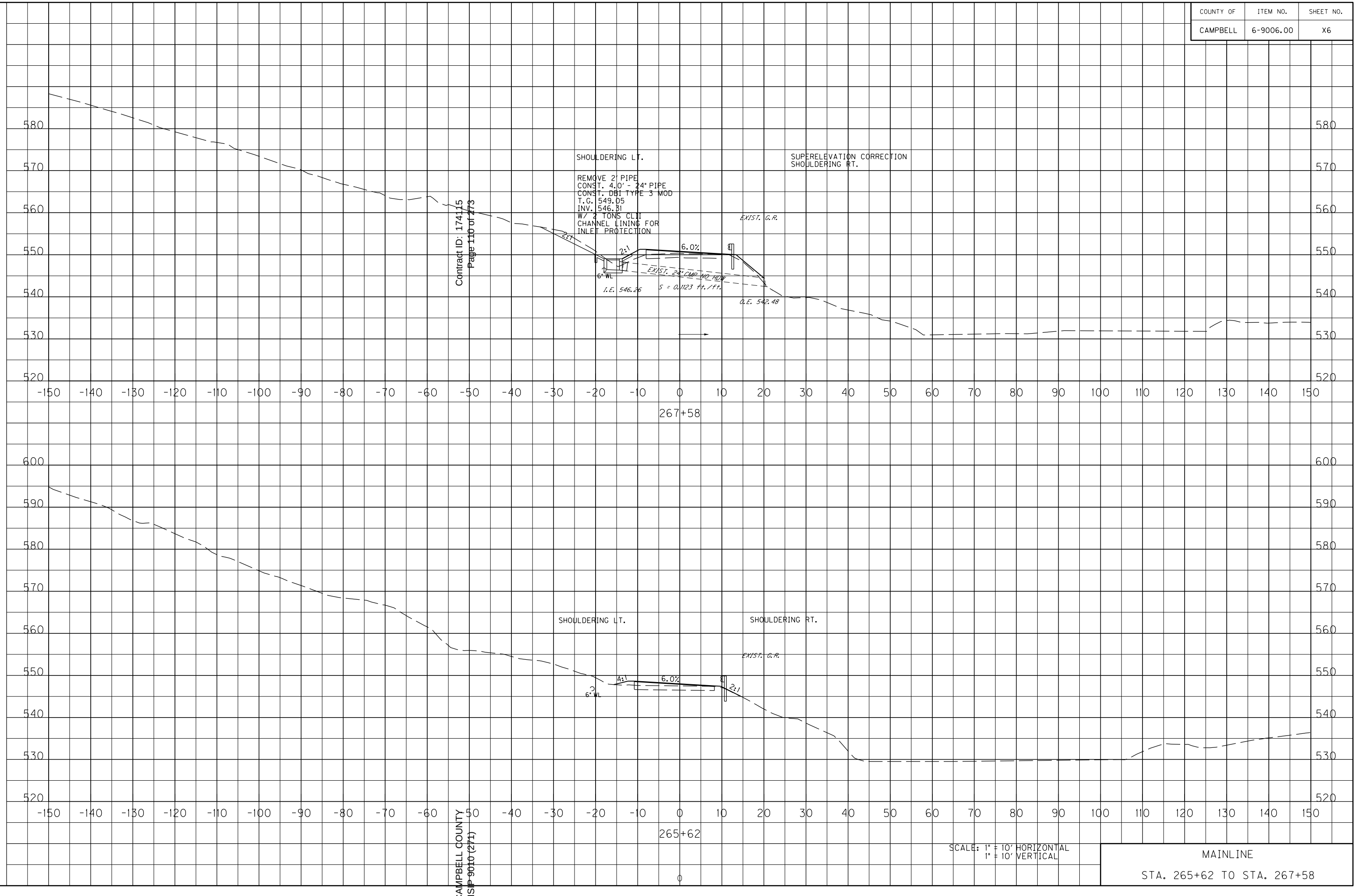
MAINLINE

STA. 257+75 TO STA. 263+60

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X005OOXS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X6



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CAMPBELL COUNTY
HSIP 9010 (271)

MAINLINE

STA. 265+62 TO STA. 267+58

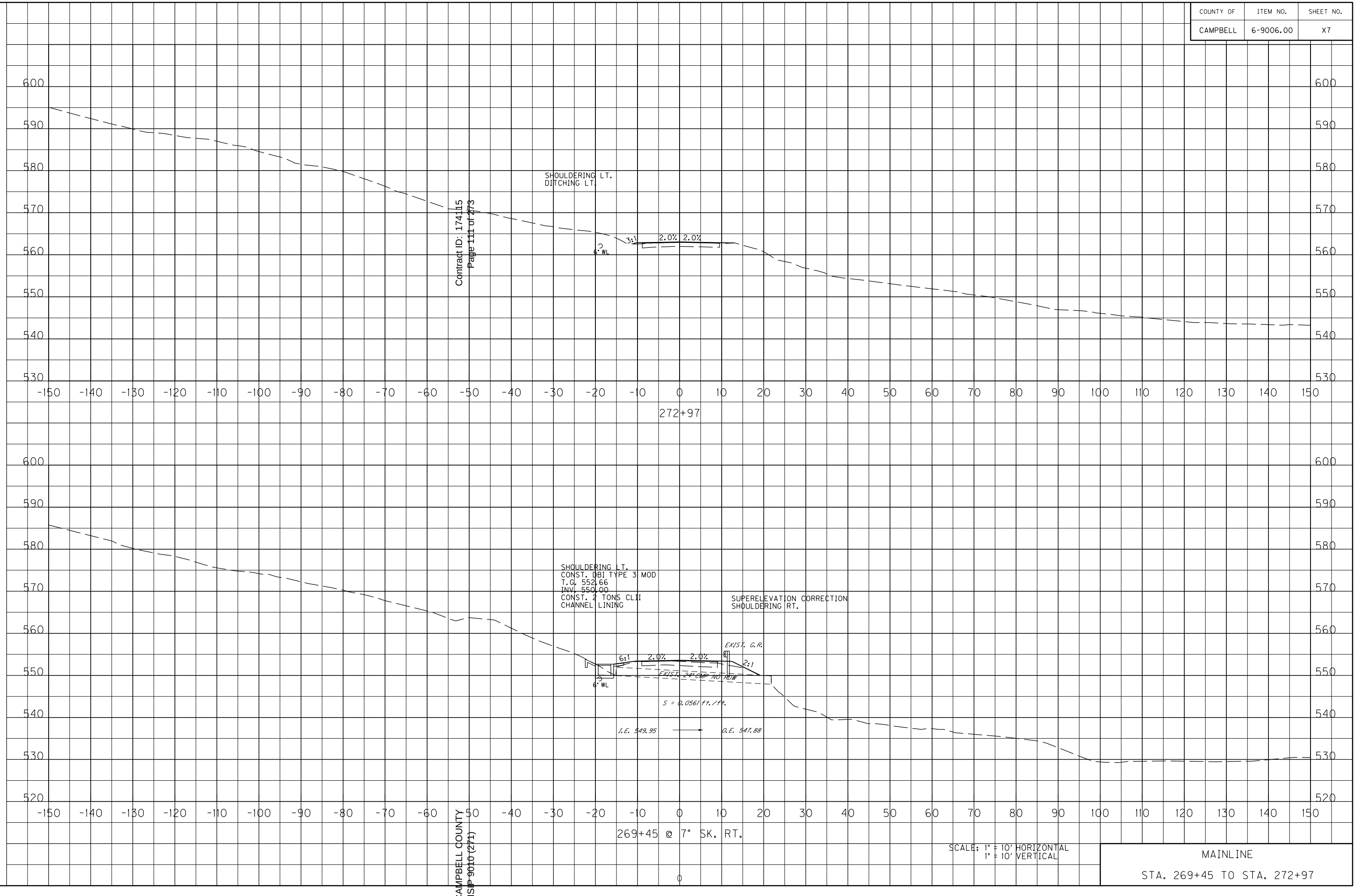
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USER: Scoots
DATE PLOTTED: August 5, 2016

E-SHEET NAME: X0060005

MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X7



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CAMPBELL COUNTY
HSIP 9010 (271)

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 269+45 TO STA. 272+97

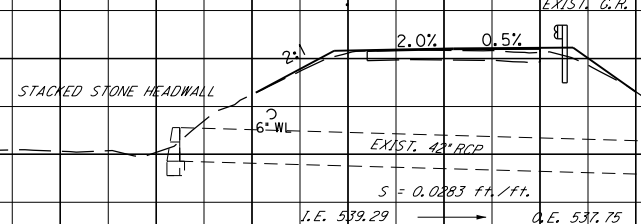
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USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X007OOXS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X8

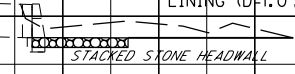
SHOULDERING LT.

SUPERELEVATION CORRECTION
SHOULDERING RT.

CONST. 3 TONS CLII STONE FOR
SLOPE PROTECTION (D=1.0', T=1.25', W=25.0', L=16.0')

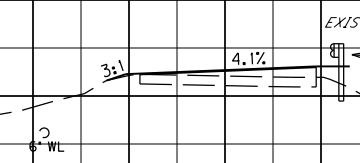


CONST. 3 TONS CLII CHANNEL
LINING (D=1.0', T=1.25', W=4.0')



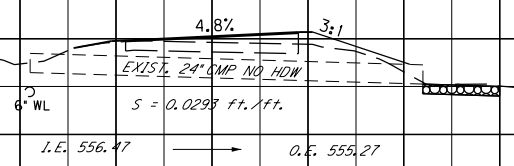
280+44

SUPERELEVATION CORRECTION
SHOULDERING RT.



279+74

SUPERELEVATION CORRECTION
SHOULDERING RT.
CONST. 3 TONS CLII
CHANNEL LINING



276+69

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 276+69 TO STA. 280+44

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CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X0080OXS
MicroStation v8.11.7.443

CAMPBELL COUNTY
HSIP 9010(271)

MAINLINE
STA. 285+02 TO STA. 287+33

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

285+02

286+65

287+33

SUPERELEVATION CORRECTION
SHOULDERING LT.

SHOULDERING RT.

EXIST. G.R.

6.0%

4:1

6"WL

E.C. 533.92

E.C. 534.08

EXIST. 6'X12' PIPE ARCH
S = 0.0031 ft./ft.

0.3%

2.0%

3:1

E.C. 545.52

E.C. 542.27

EXIST. 18" CMP TRT WALL
S = 0.0602 ft./ft.

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X9

Contract ID: 174115
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MicroStation v8.11.7.443

E-SHEET NAME: X009006XS

USER: Scootts
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SMRDWY CAMPBELL KY IO.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY IO MAINLINE XSECTIONS.DGN

MAINLINE

STA; 289+48 TO STA. 292+83

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CAMPBELL COUNTY
HSIP 9010(271)

289+48

292+83

SUPERELEVATION CORRECTION
SHOULDERING LT.

REMOVE 1' PIPE
CONST. 4' - 18" PIPE
W/ 18" DBL. SAFETY
BOX INLET
CONST. 2 TONS CLII
CHANNEL LINING FOR
INLET PROTECTION

SHOULDERING RT.

CONST. 3 TONS CLII
CHANNEL LINING

EXIST. G.R.

6.0%

3:1

2:1

EXIST. 18" CMP NO HDW

6" ML

S = 0.0499 Ft./Ft.

L.E. 546.05

O.E. 544.39

2ft

(ADJUST G.R. TO PROPOSED GRADE)

EXIST. G.R.

2:1

EXIST. 24" CMP

S = 0.0524 Ft./Ft.

L.E. 543.31

O.E. 541.68

CMLM

SUPERELEVATION CORRECTION
SHOULDERING LT.
DITCHING LT.

CONST. 24" DBL. SAFETY
BOX INLET W/
2 TONS CLII CHANNEL
LINING FOR INLET PROTECTION

SHOULDERING RT.

CONST. 3 TONS CLII
CHANNEL LINING

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X10

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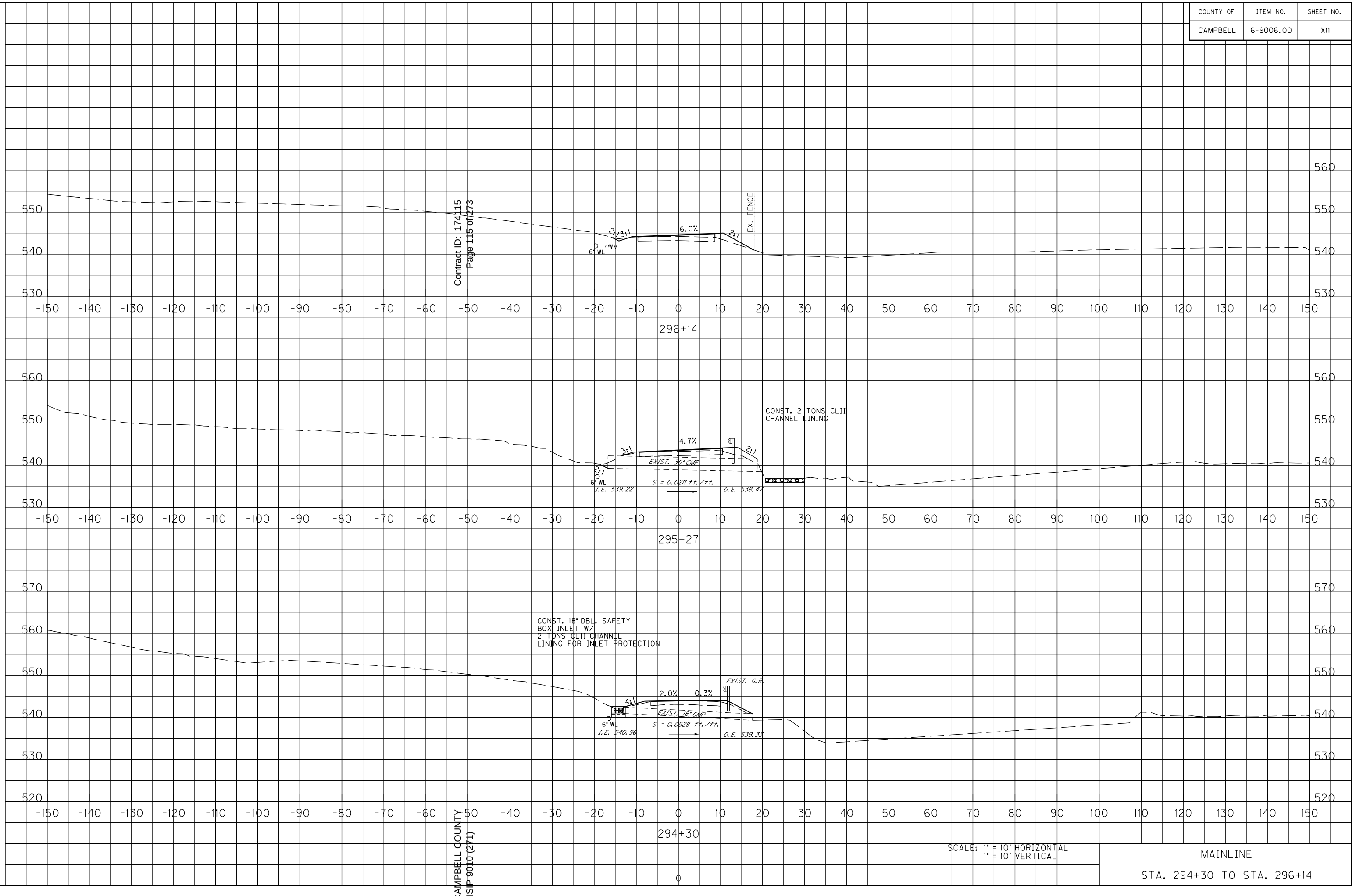
E-SHEET NAME: XO1000XS

USER: Scootts
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SMRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X11

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 294+30 TO STA. 296+14

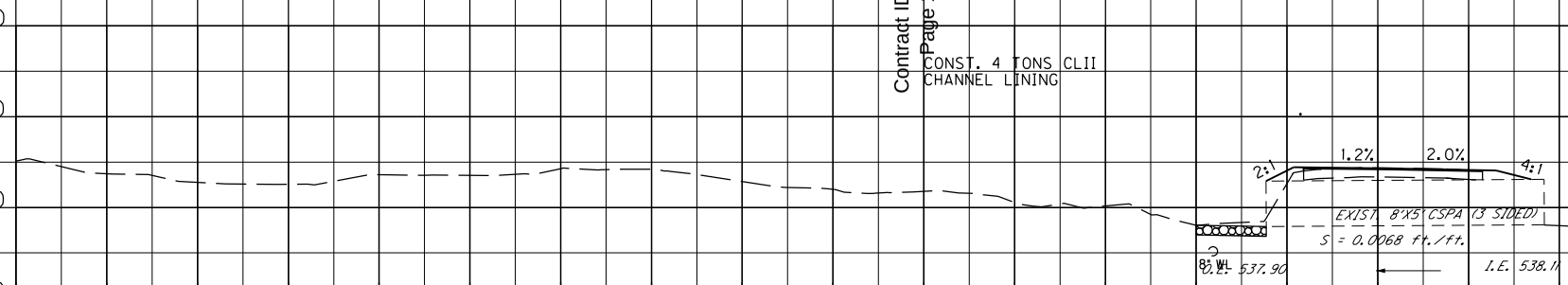
CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X0110OXS
MicroStation v8.11.7.443

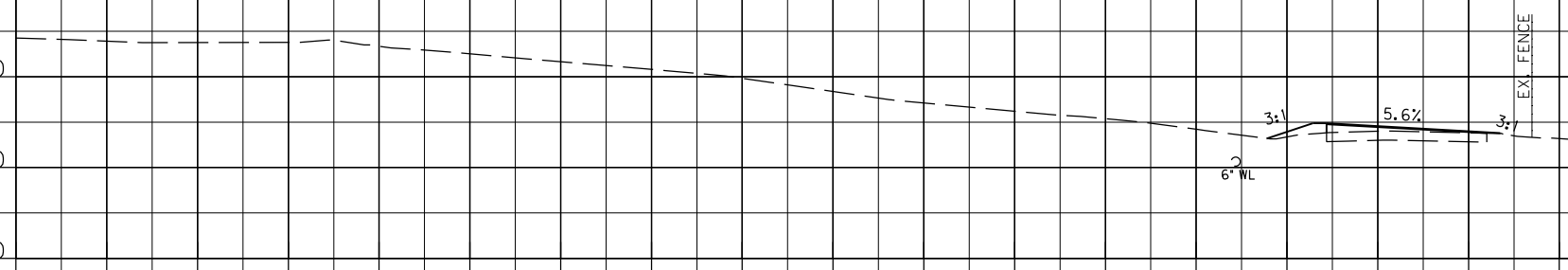
COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X12

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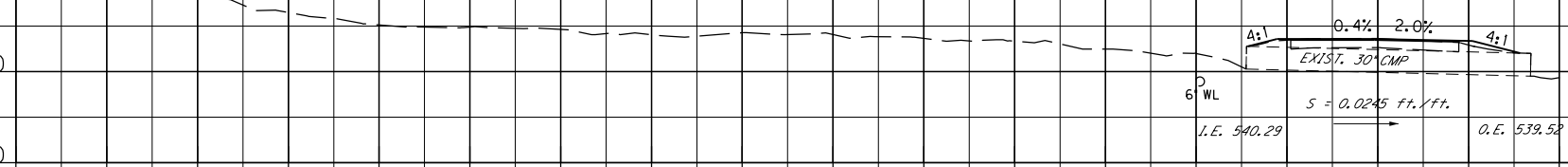
CONST. 4 TONS CLII
CHANNEL LINING



301+26



300+00



298+39

0

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

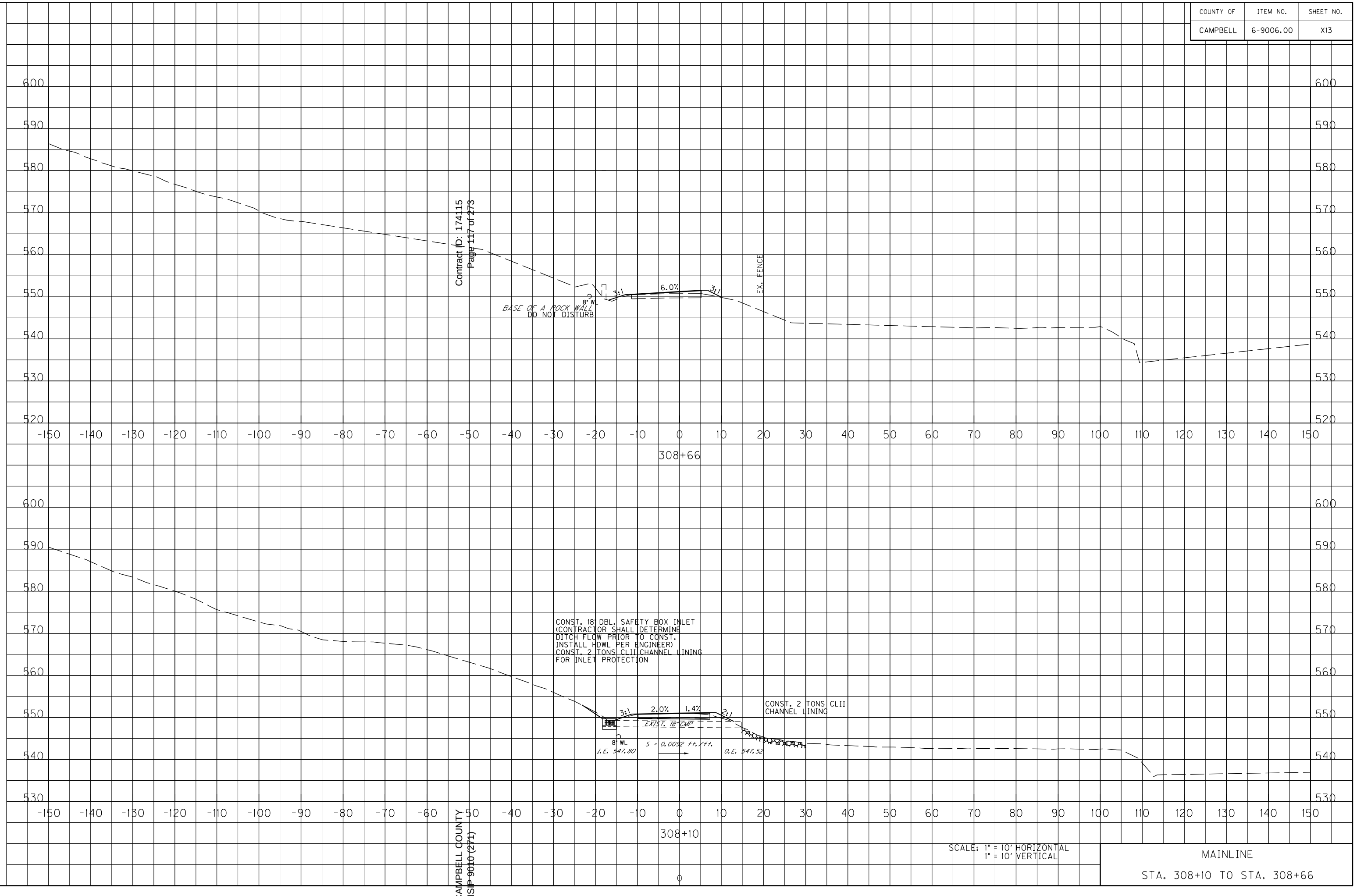
STA. 298+39 TO STA. 301+26

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X0120OXS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X13

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

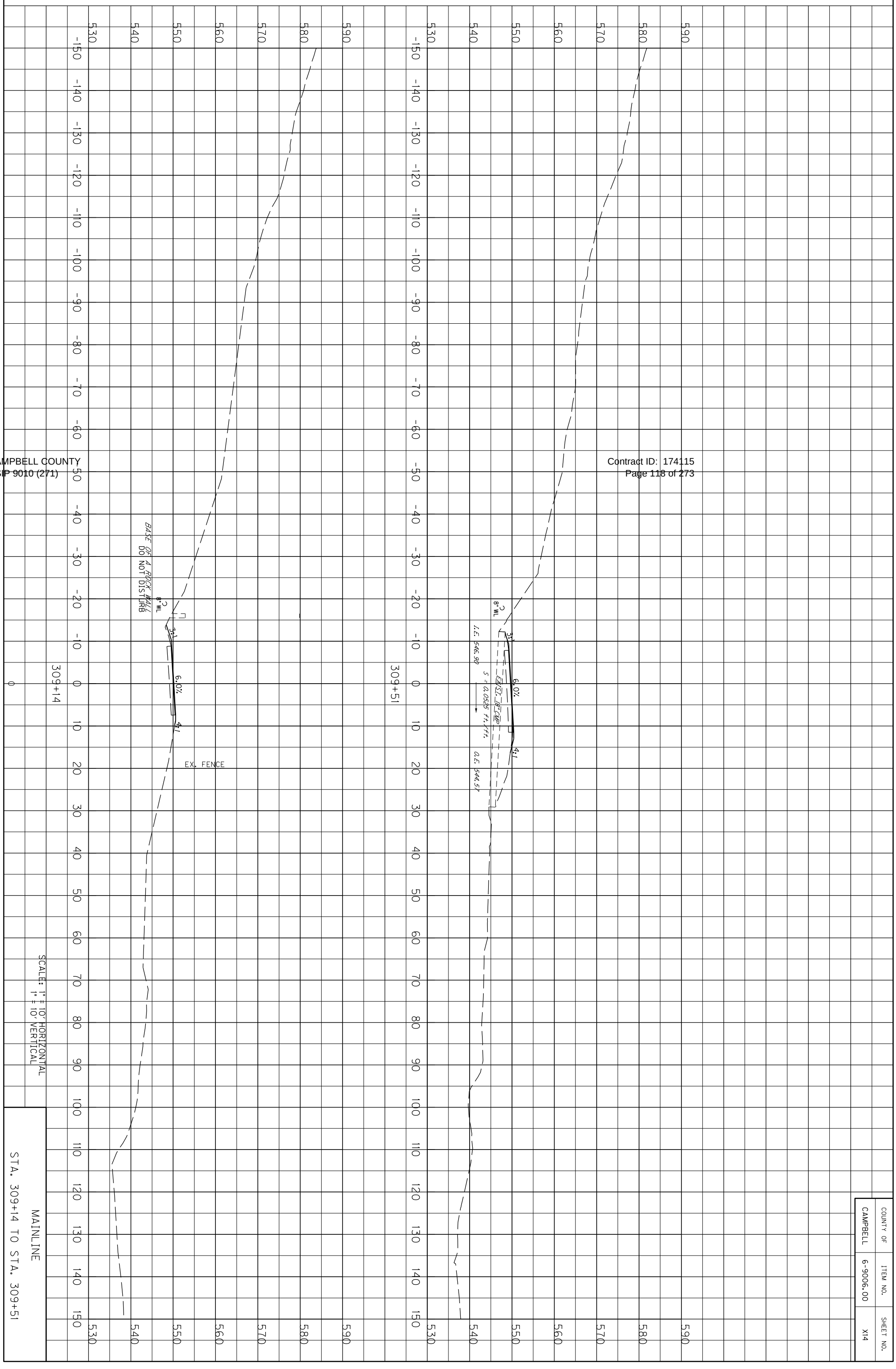
MAINLINE

STA. 308+10 TO STA. 308+66

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X0130OXS
MicroStation v8.11.7.443

MicroStation v8.11.7.443	E-SHEET NAME: X01400XS	USER: Scoots DATE PLOTTED: August 5, 2016	FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN



COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X14

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X15

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REMOVE 1' PIPE
CONST. 4' - 18" PIPE
W/ 18" DBL. SAFETY BOX INLET
CONST. 2 TONS CLII CHANNEL
LINING FOR INLET PROTECTION

REMOVE 1' PIPE
CONST. 9' - 18" PIPE
CONST. 2 TONS CLII
CHANNEL LINING

3:1 2.0% 2.0% 2:1

EXIST. 18" CMP

8" WL

S = 0.1064 ft./ft.

I.E. 563.60

O.E. 560.44

316+03

ELECTRIC/TELEPHONE POLE

BASE OF A ROCK WALL
DO NOT DISTURB 8" WL

3:1 5.8% 4:1

EX. FENCE

309+68

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

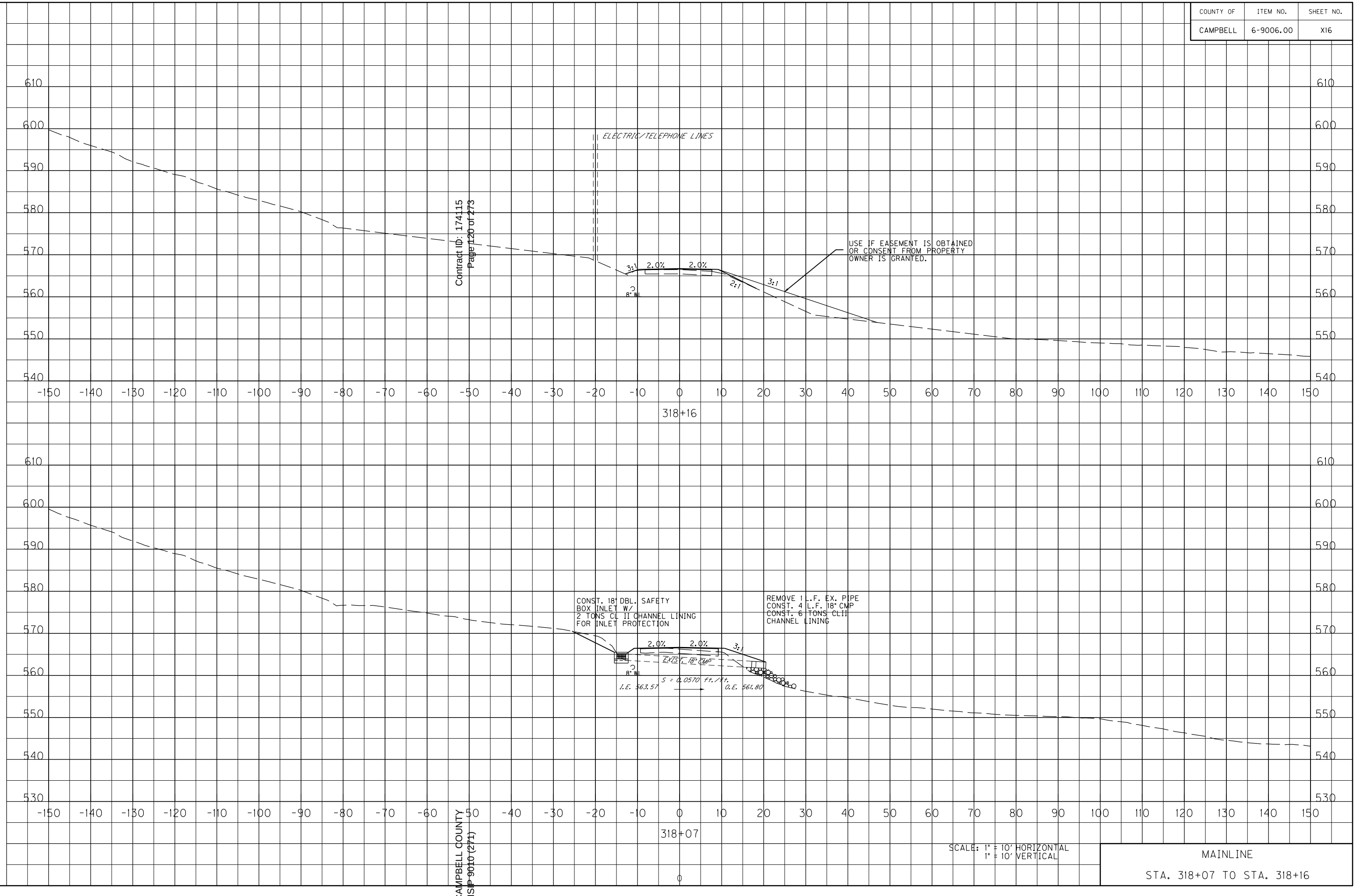
MAINLINE

STA. 309+68 TO STA. 316+03

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X0150XS | USER: Scoots
DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X16



MAINLINE

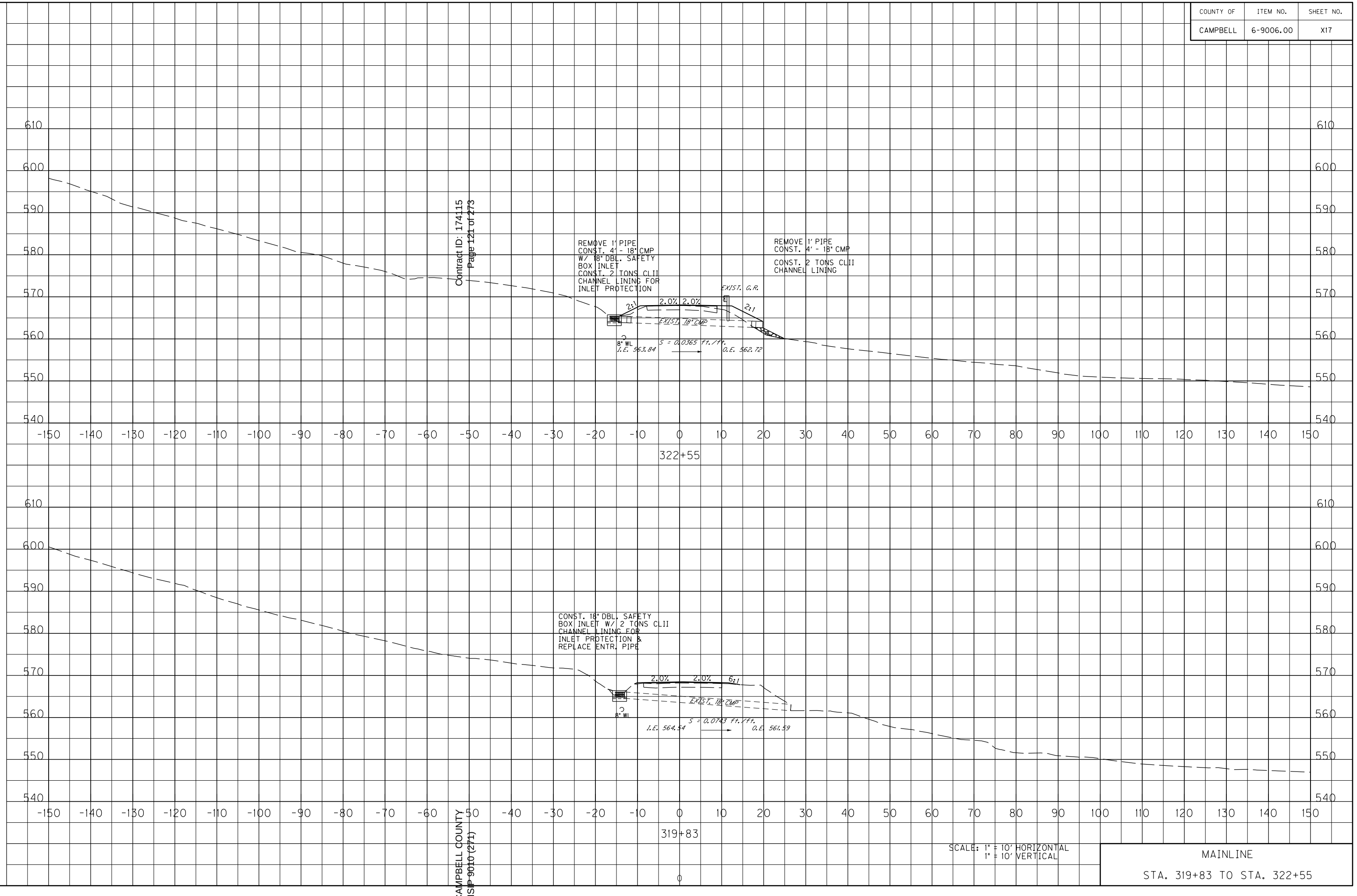
STA. 318+07 TO STA. 318+16

Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X0160DXS | USER: Scoots | DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X17



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

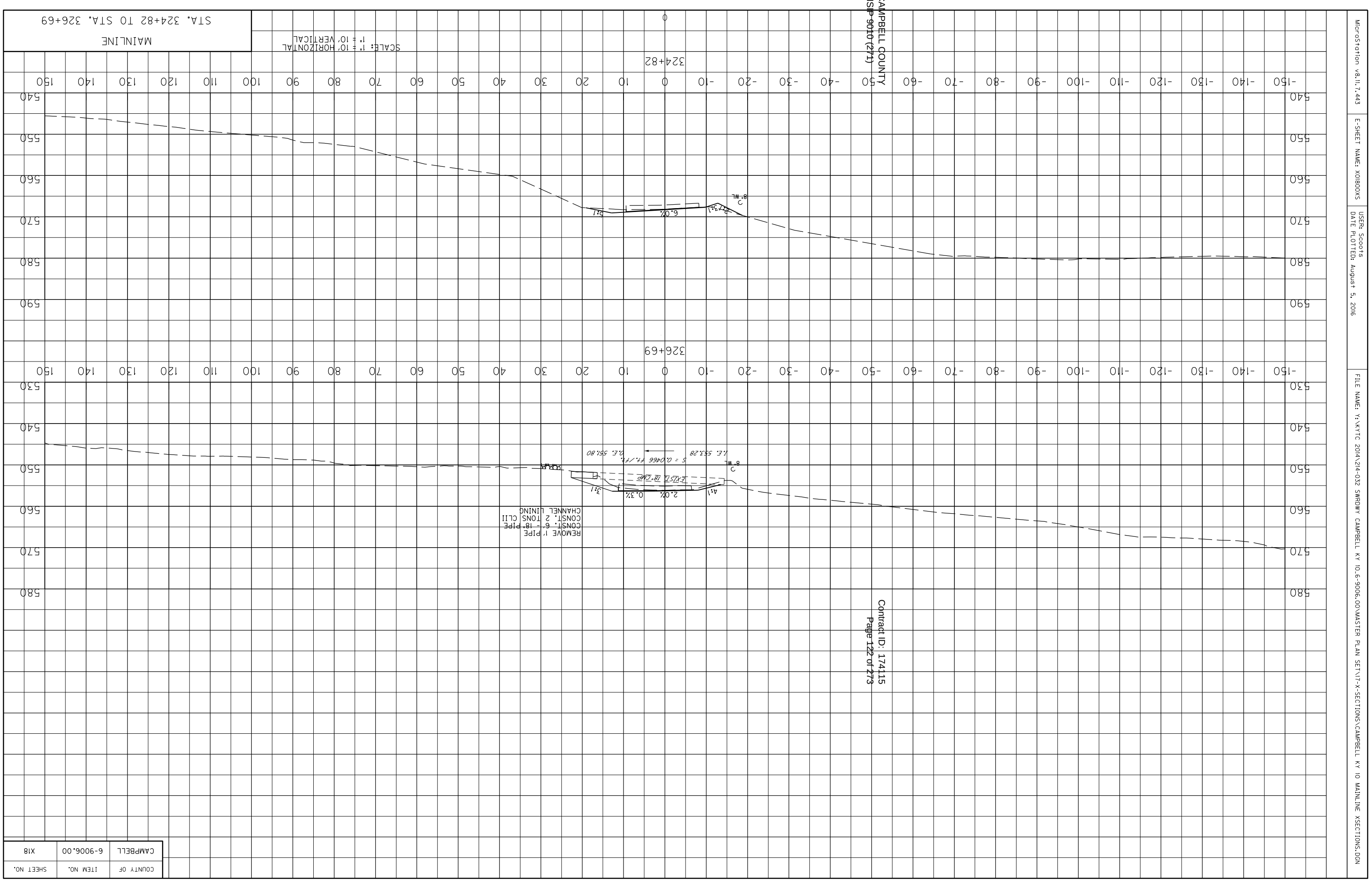
MAINLINE

STA. 319+83 TO STA. 322+55

Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X0170OXS
MicroStation v8.11.7.443



COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X18

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MicroStation v8.11.7.443

E-SHEET NAME: XOIBOXYS

USER: Scootts
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY IO.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY IO MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X19

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CONST. 18' DBL. SAFETY BOX INLET W/ 2 TONS CLII CHANNEL LINING FOR INLET PROTECTION

CONST. 2 TONS CLII CHANNEL LINING

2.5% 7.6%
EXIST. 18" CMP
8' W
S = 0.0720 ft./ft.
I.E. 549.36 O.E. 547.10

335+45

2:1 2.0% 2.0% 6:1
EXIST. 24" CMP
8' WL
S = 0.0353 ft./ft.
I.E. 545.05 O.E. 543.63

331+78

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

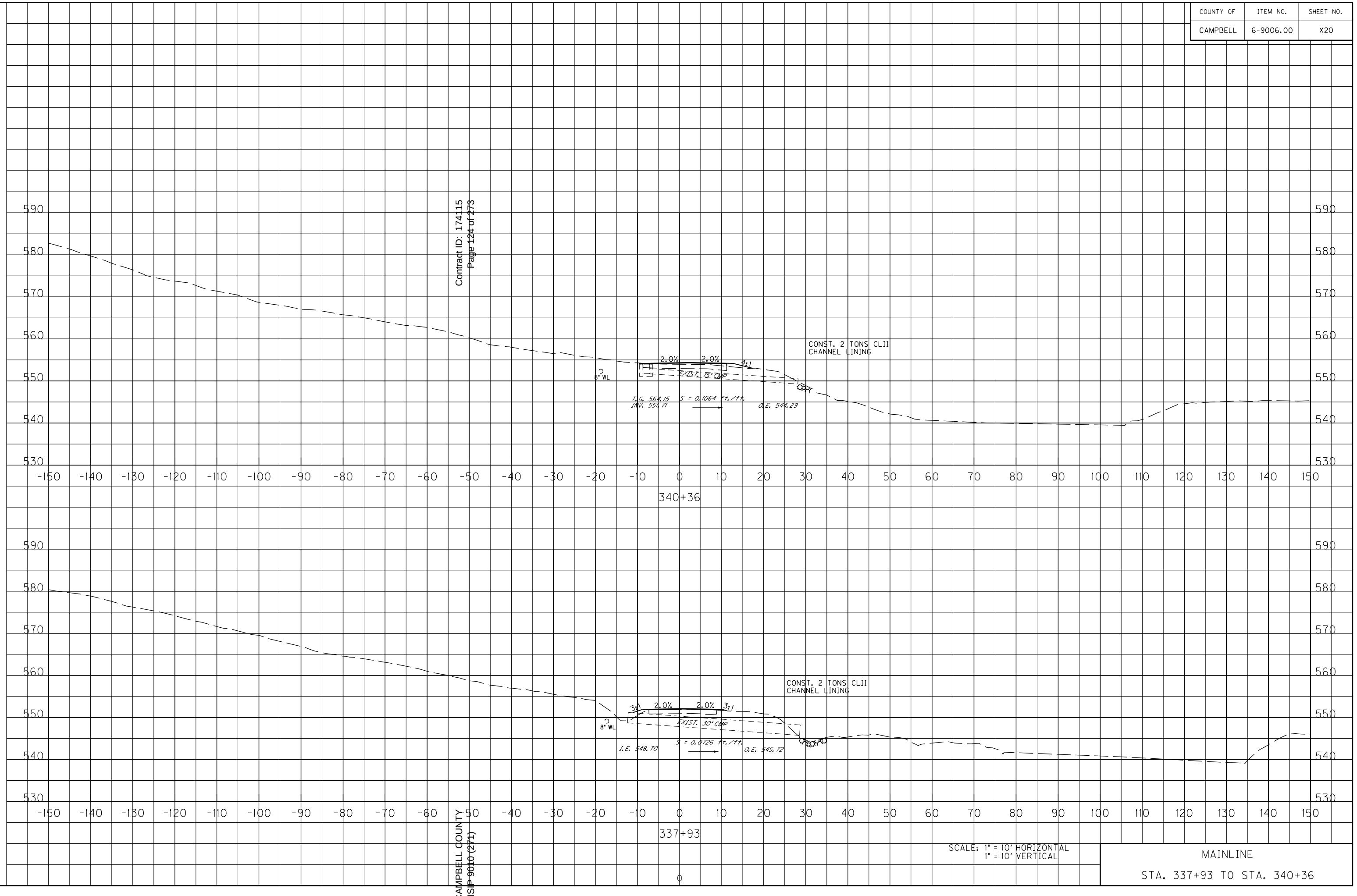
STA. 331+78 TO STA. 335+45

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X01900XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X20

Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010 (271)

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

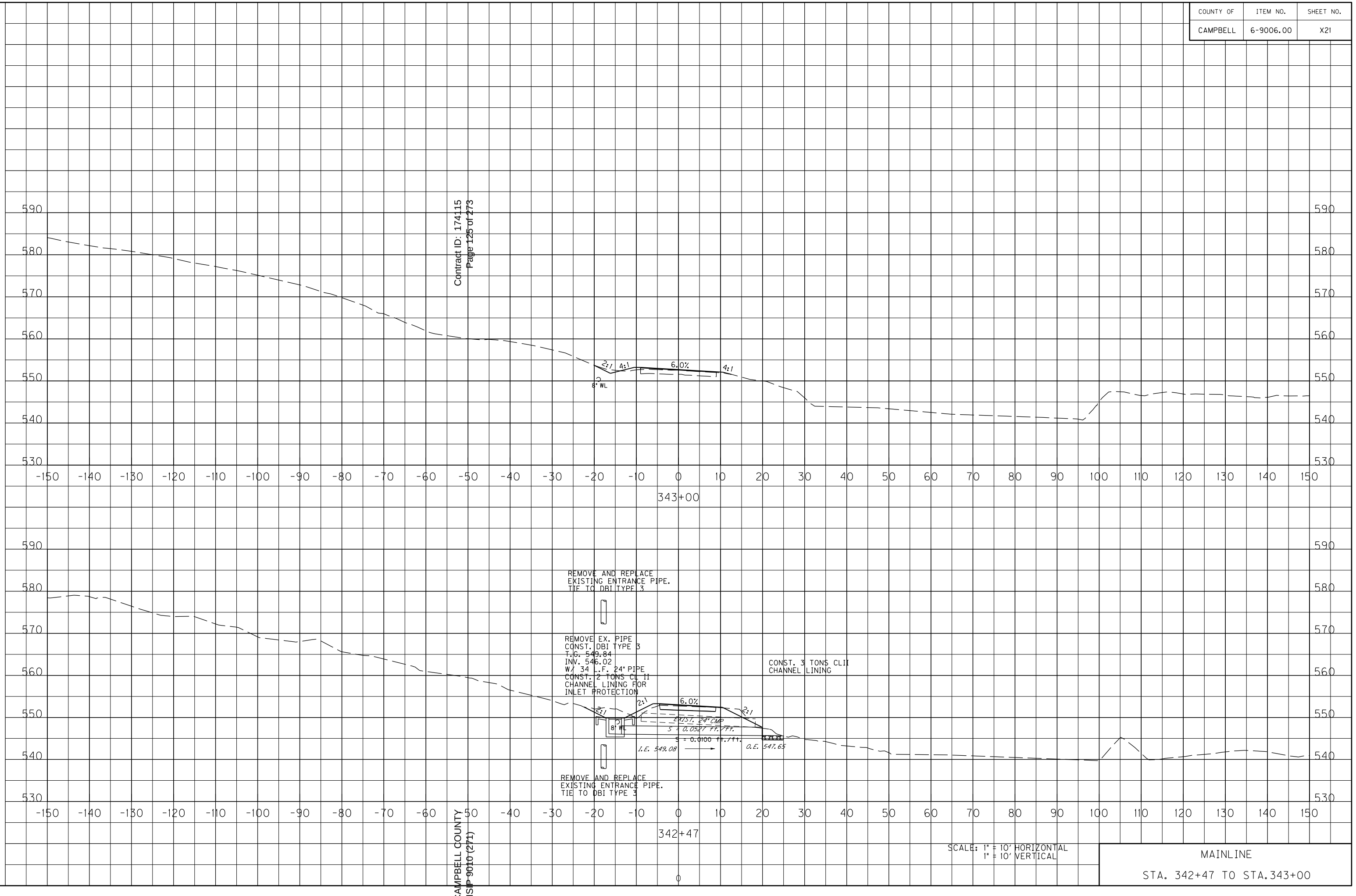
MAINLINE

STA. 337+93 TO STA. 340+36

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X02000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X21

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 342+47 TO STA.343+00

CAMPBELL COUNTY
HSIP 9010(271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X02100XS
MicroStation v8.11.7.443

CAMPBELL COUNTY
HSIP 9010(271)

MAINLINE
STA. 345+88 TO STA. 349+00

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

345+88
349+00

REMOVE EX. PIPE
CONST. 40' - 24" PIPE
W/ CONC. SLOPED HDWLS

CONST. 2 TONS CLII
CHANNEL LINING

EXIST. 24" CMP

8" WL
L.E. 547.91
S = 0.0428 Ft./Ft.
O.E. 546.46

5.4%
4:1
3:1
2:1
6.0%
2:1
2:1
8" WL

ELECTRIC POLE

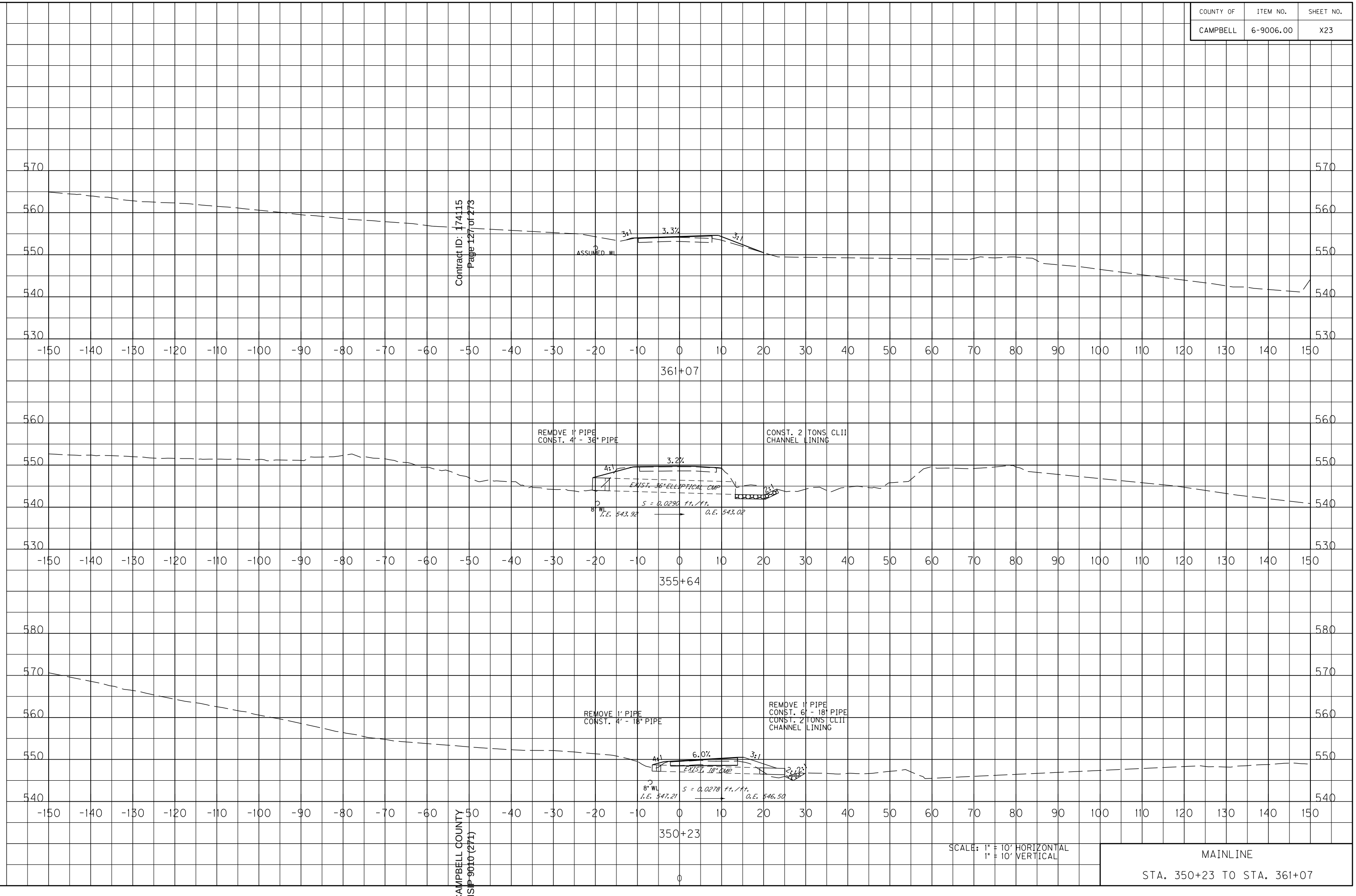
COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X22

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MicroStation v8.11.7.443
E-SHEET NAME: X02200XS
USER: Scootts
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X23

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 350+23 TO STA. 361+07

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X02300XS
MicroStation v8.11.7.443

CAMPBELL COUNTY
HSIP 9010(271)

MAINLINE
STA. 362+08 TO STA. 365+32

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

362+08

365+32

REMOVE 7' PIPE
CONST. 5.5'- 24" PIPE
CONST. 2 TONS CLII
CHANNEL LINING

EXIST. 24" CMP

S = 0.0392 ft./ft.

L.E. 549.90

O.E. 548.72

6.0%

3:1

2:1

8' WL

REMOVE & REPLACE
15' ENTR. PIPE
(TIE TO DBI)

S = 0.0548 ft./ft.

L.E. 552.91

O.E. 550.65

EX. 15' ENTR PIPE
(TIE TO DBI)

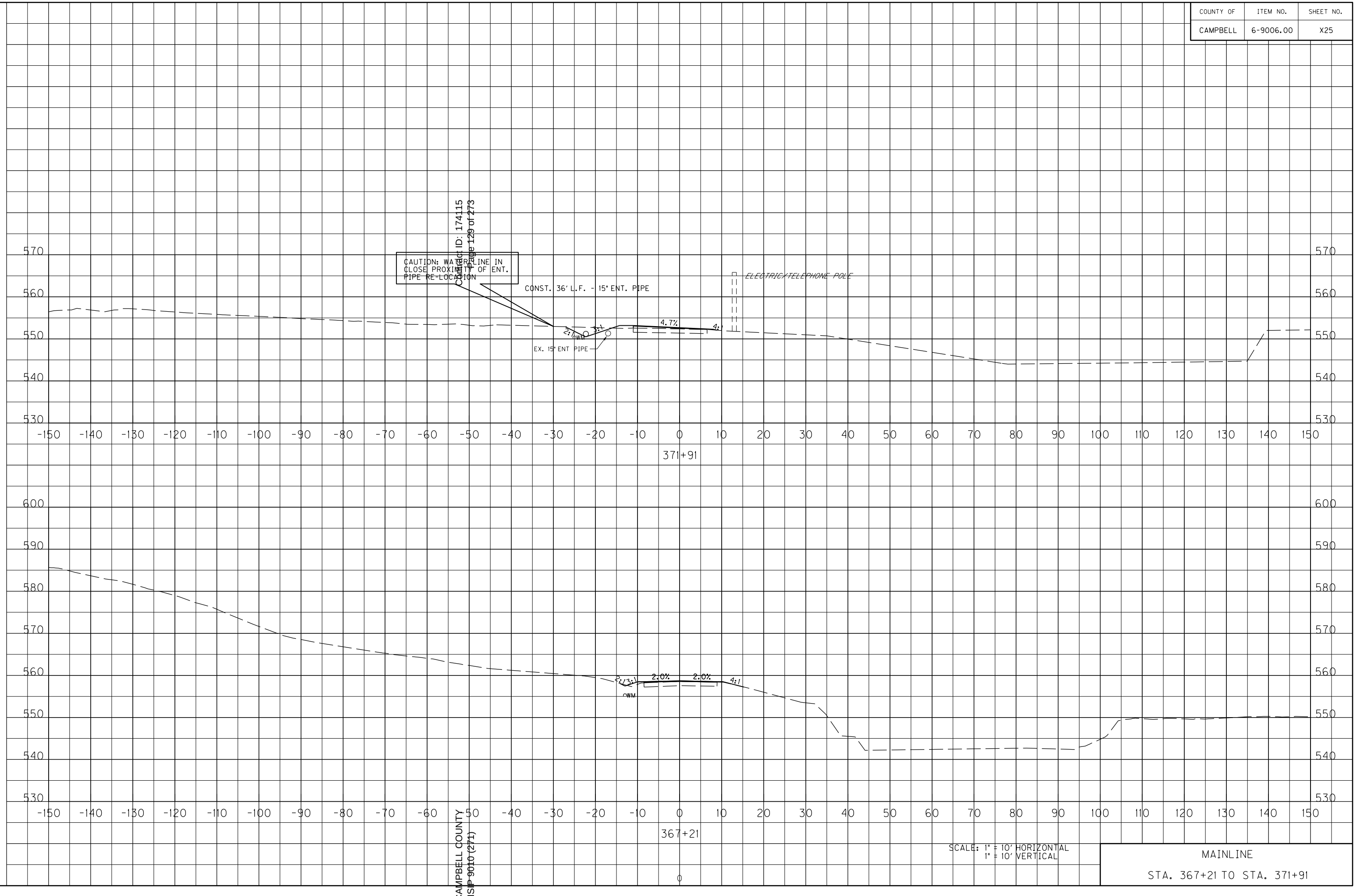
CONST. DBI TYPE 3 MOD
(TO BE FORMED IN FIELD)
T.C. 555.60
INV. 552.91
2 TONS CLII CHANNEL LINING
FOR INLET PROTECTION

CONST. 2 TONS CLII
CHANNEL LINING

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X24

MicroStation v8.11.7.443
E-SHEET NAME: X02400XS
USER: Scoots
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\24-032 SMRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X25



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 367+21 TO STA. 371+91

Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X025001XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X26

CAUTION: PRIVATE ELECTRICAL LINE

CONST. 18" DBL. SAFETY BOX INLET W/ 2 TONS CLII CHANNEL LINING FOR INLET PROTECTION

2:1 2.0% 2.0% 4:1

EXIST. 18" CMP

8" WL

I.E. 548.06 S = 0.0018 Ft./Ft. O.E. 547.99

374+59

2:1 3:1 4.0%

8" WL

373+03

8" WL

3 SIDED CULVERT W/ ROCK SLAB TOP I.E. 546.28 S = 0.0360 Ft./Ft. O.E. 545.23 4'X6' ELLIPTICAL PIPE

372+43

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 372+43 TO STA. 374+59

CAMPBELL COUNTY
HSIP 9010 (271)

Contract ID: 174115
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FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X026000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X27

STA. 380+00 TO STA. 387+00 LT.
CONST. DITCHING

6.0%
2:1
2:1
8" WL

387+00

STA. 380+00 TO STA. 387+00 LT.
CONST. DITCHING

CONST. 3 TONS CLII
CHANNEL LINING

2:1
6.0%
2:1
EXIST. 10' CULVERT
S = 0.0151 Ft./Ft.
U.E. 542.73
O.E. 542.15
8" WL

386+82

STA. 380+00 TO STA. 387+00 LT.
CONST. DITCHING

8" WL
15" ENT. PIPE

384+00

STA. 380+00 TO STA. 387+00 LT.
CONST. DITCHING

2:1
3:1
6.0%
7.0%
4:1
8" WM

377+12

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

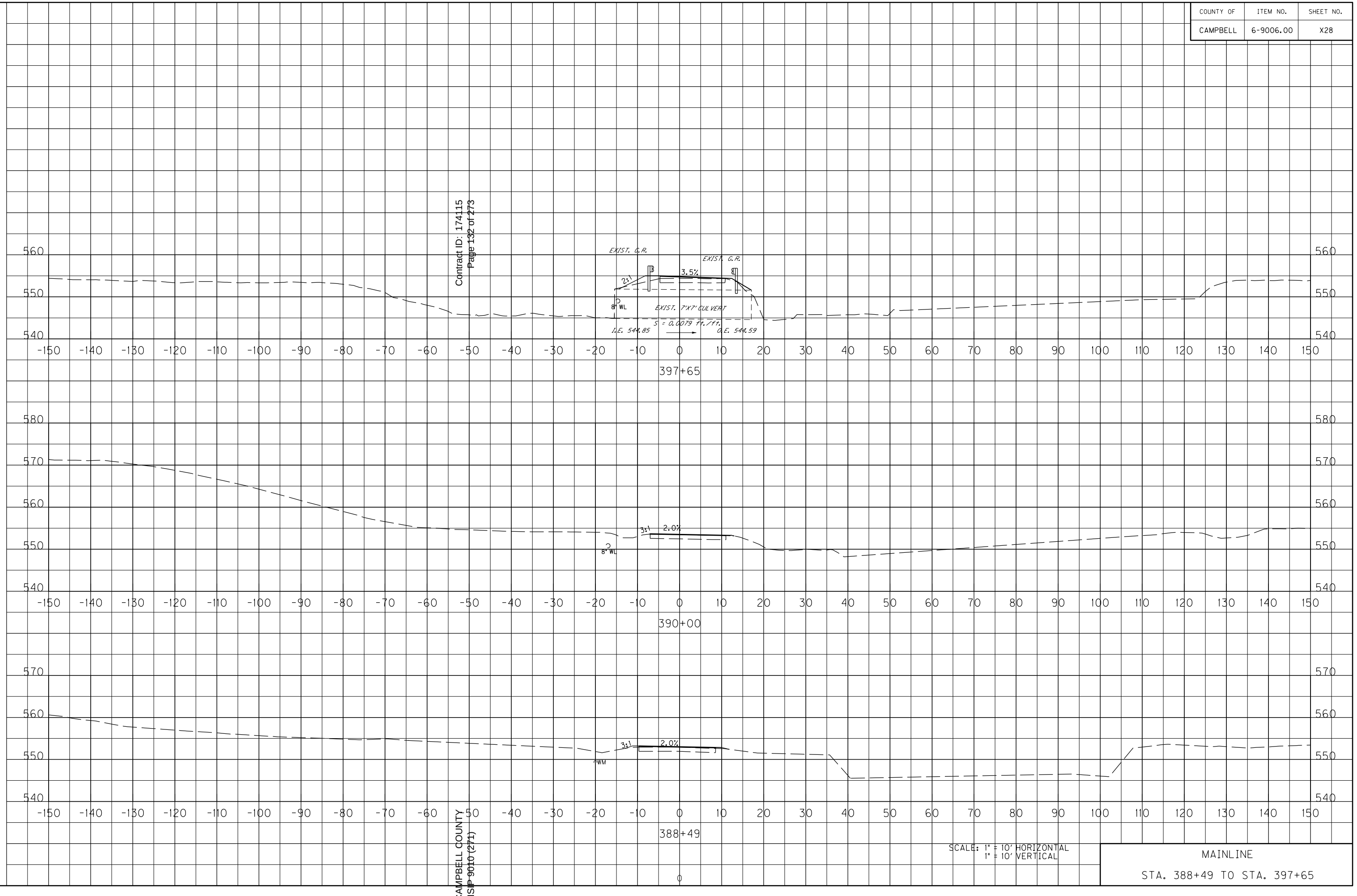
STA. 377+12 TO STA. 387+00

CAMPBELL COUNTY
HSIP 9010 (271)

Contract ID: 174115
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MicroStation v8.11.7.443
E-SHEET NAME: X027000XS
USER: Scoots
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X28



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 388+49 TO STA. 397+65

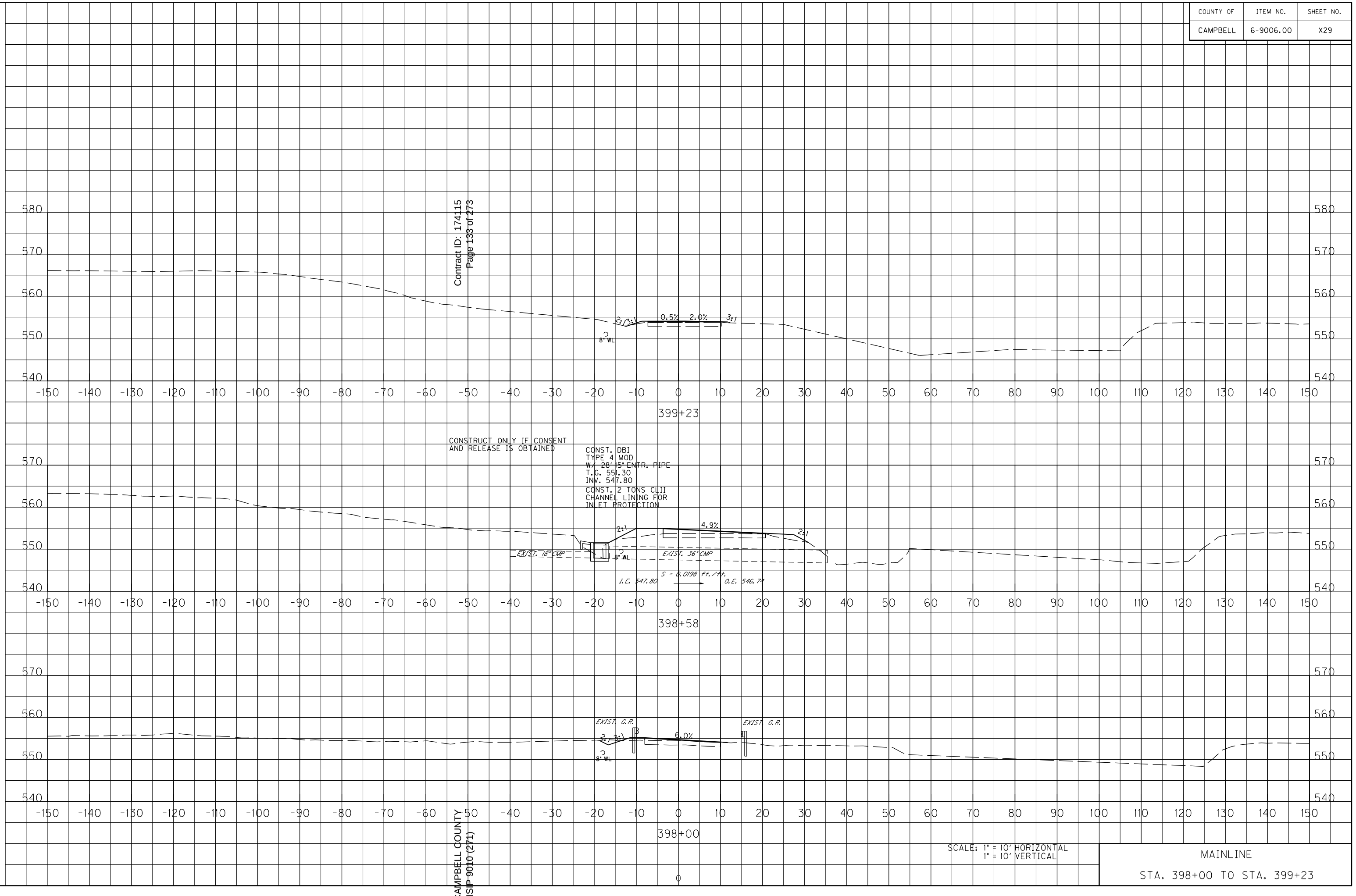
CAMPBELL COUNTY
HSIP 9010 (271)

Contract ID: 174115
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MicroStation v8.11.7.443 | E-SHEET NAME: X02800XS | USER: Scoots | DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X29

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

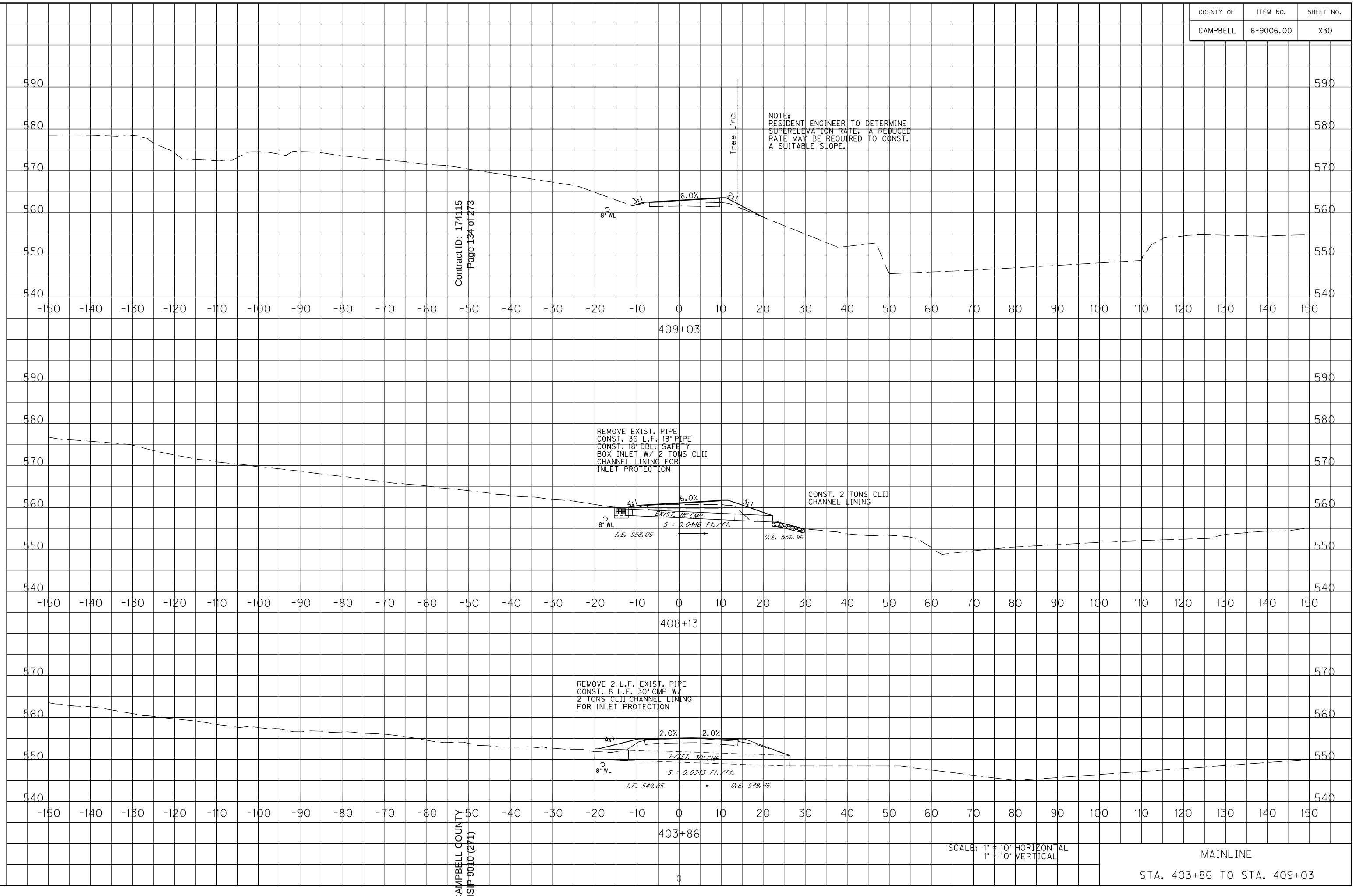
MAINLINE

STA. 398+00 TO STA. 399+23

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X02900XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X30



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 403+86 TO STA. 409+03

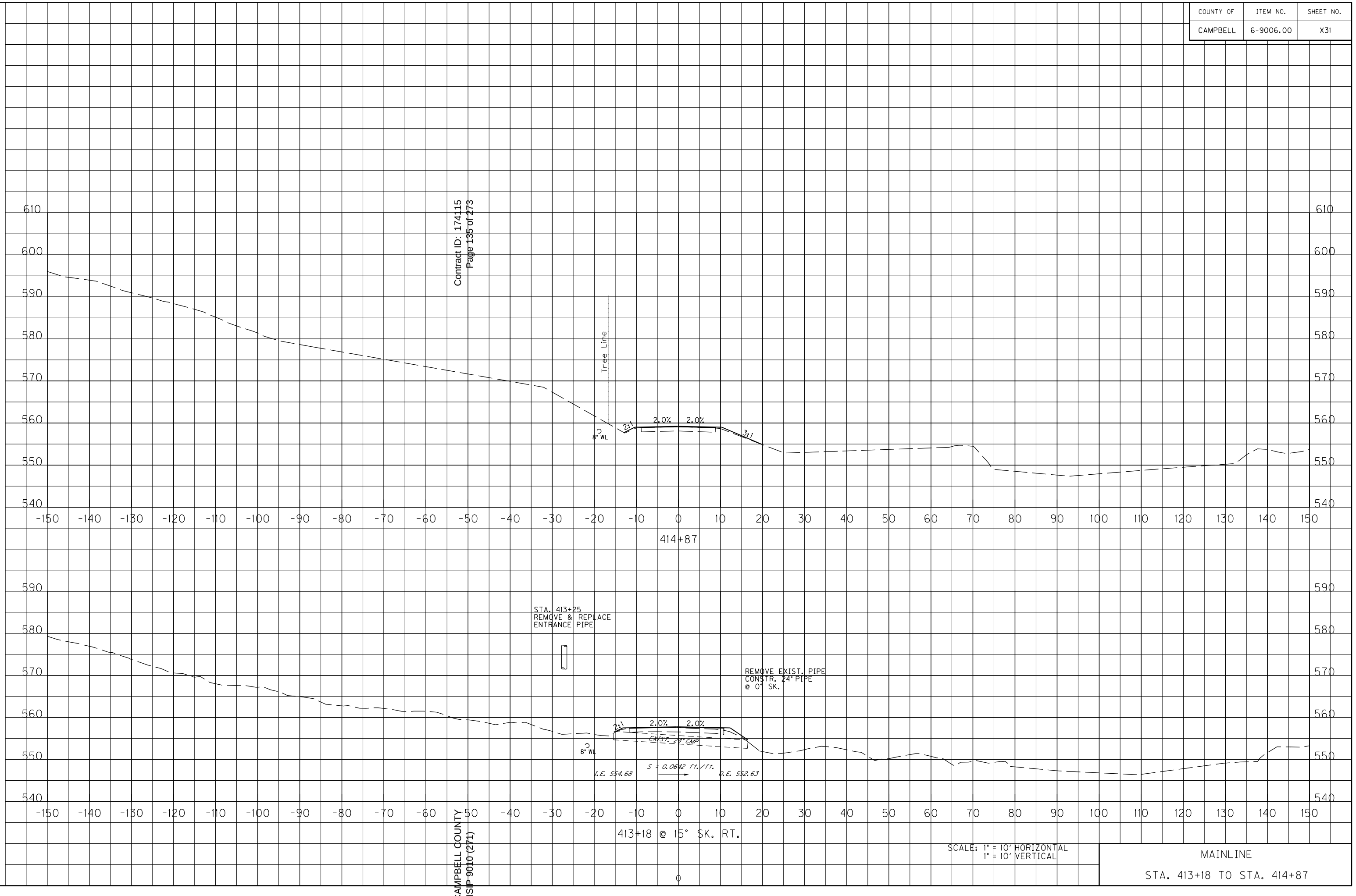
Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010(271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X03000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X31

Contract ID: 174115
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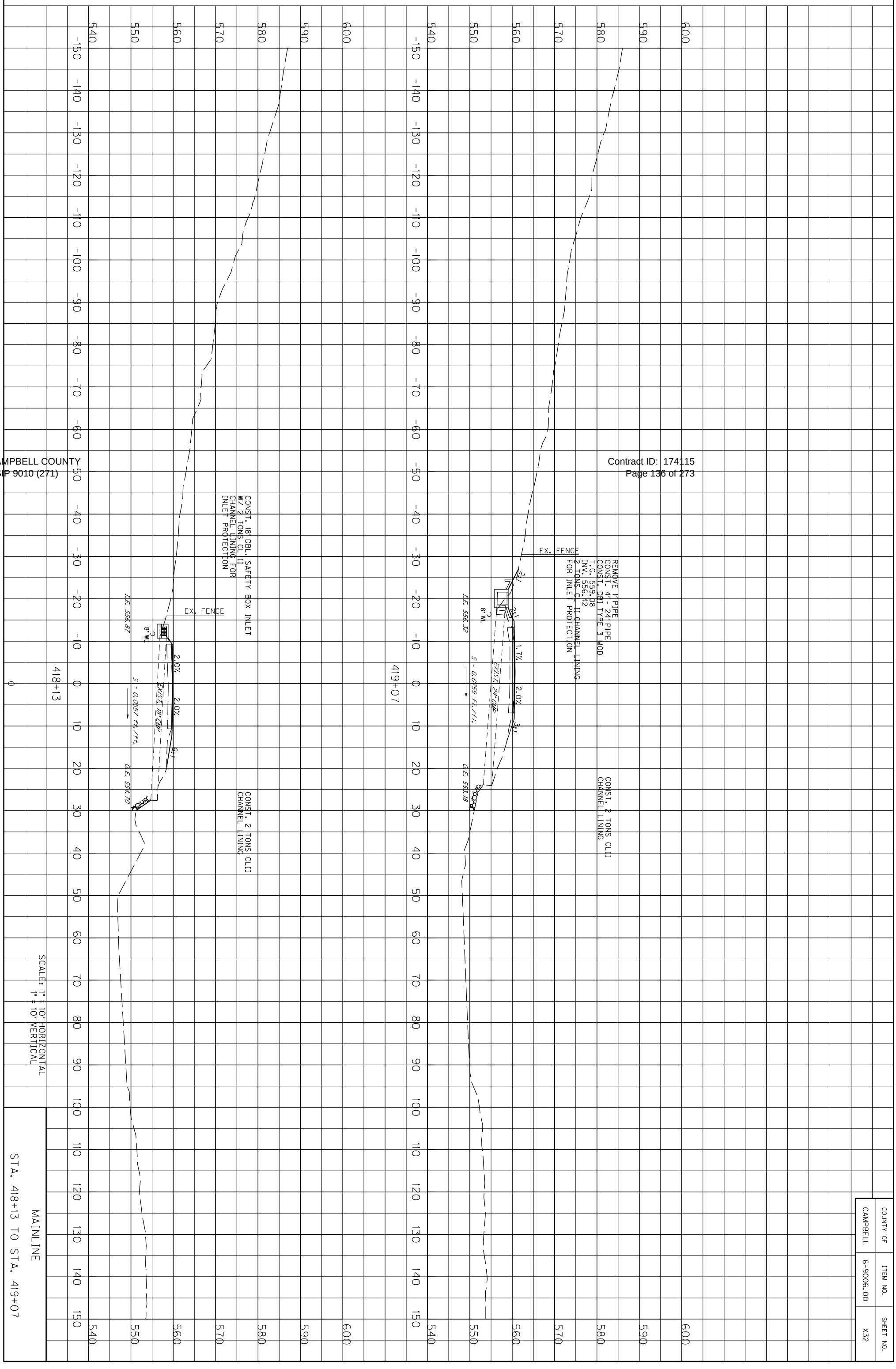
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 413+18 TO STA. 414+87

CAMPBELL COUNTY
HSIP 9010 (271)

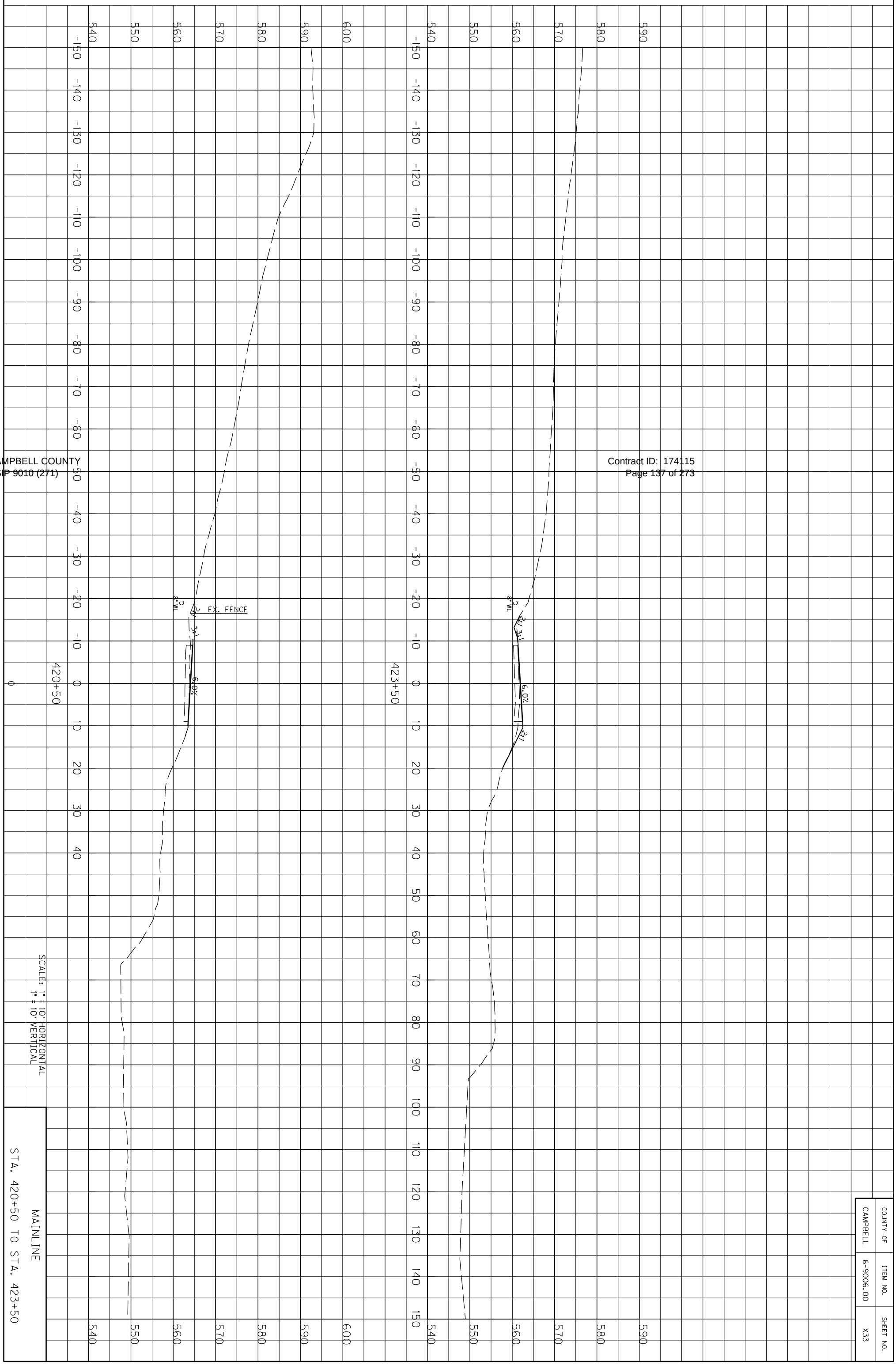
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USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X031000XS
MicroStation v8.11.7.443



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE
STA. 418+13 TO STA. 419+07

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X32



COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X33

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X34

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CONST. 18" DBL. SAFETY BOX INLET W/ 2 TONS CL II CHANNEL LINING FOR INLET PROTECTION

CONST. 2 TONS CLII CHANNEL LINING

6.0% 4:1 4:1

EXIST. 18" CMP

2' WL

I.E. 551.99 S = 0.0066 ft./ft. O.E. 551.77

429+27

REMOVE EXIST. PIPE
CONST. 39' - 36" ELLIPTICAL PIPE

CONST. 5 TONS CLII CHANNEL LINING

3:1 2.0% 1.4% 3:1

EXIST. 24" CMP

8' WL

I.E. 553.57 S = 0.0109 ft./ft. O.E. 551.01

427+12

DO NOT DISTURB FENCE

EX. FENCE

4.0% 2:1

8' WL

425+04

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

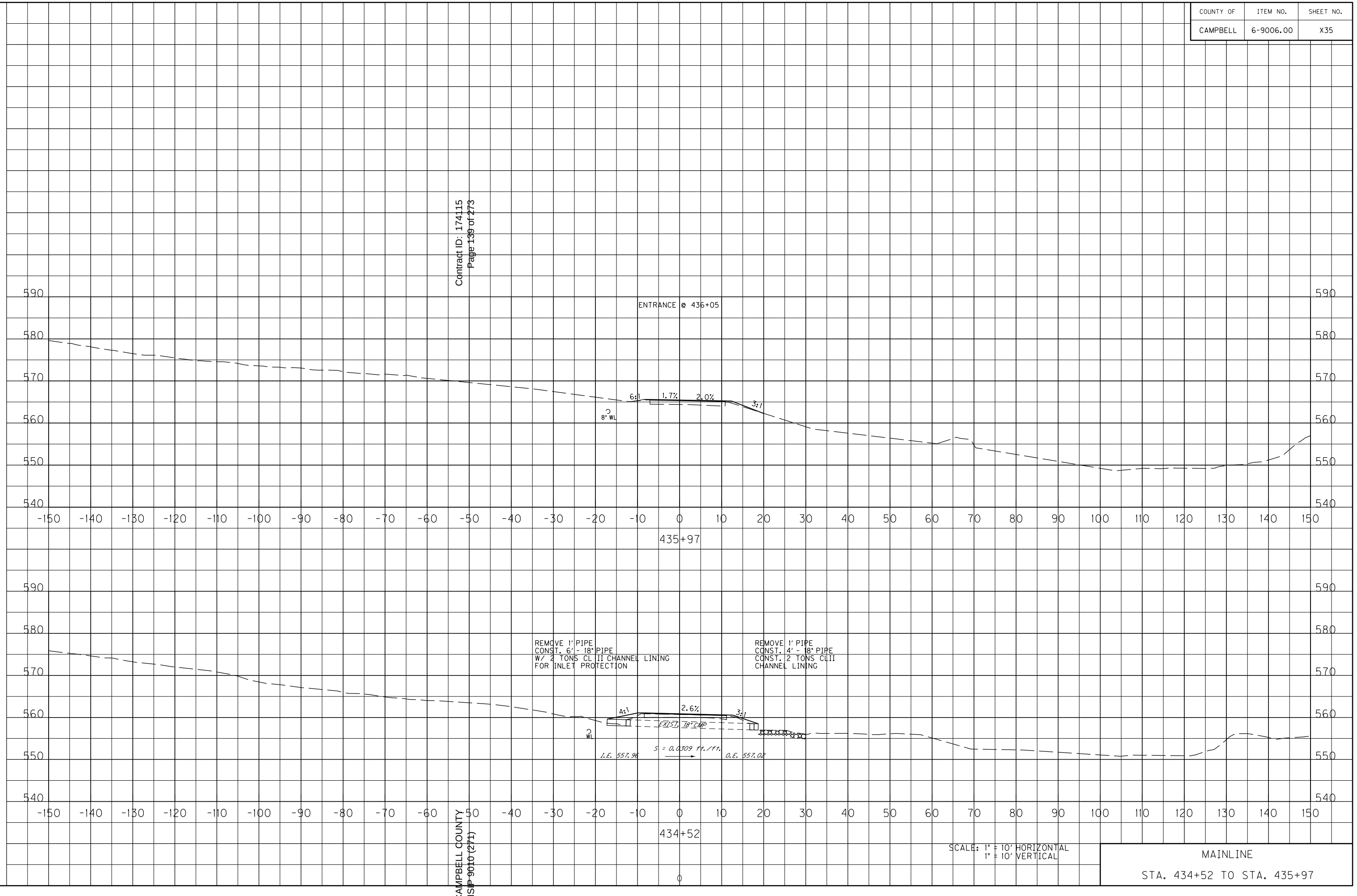
STA. 425+04 TO STA. 429+27

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X03400XS | USER: Scoots | DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X35

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

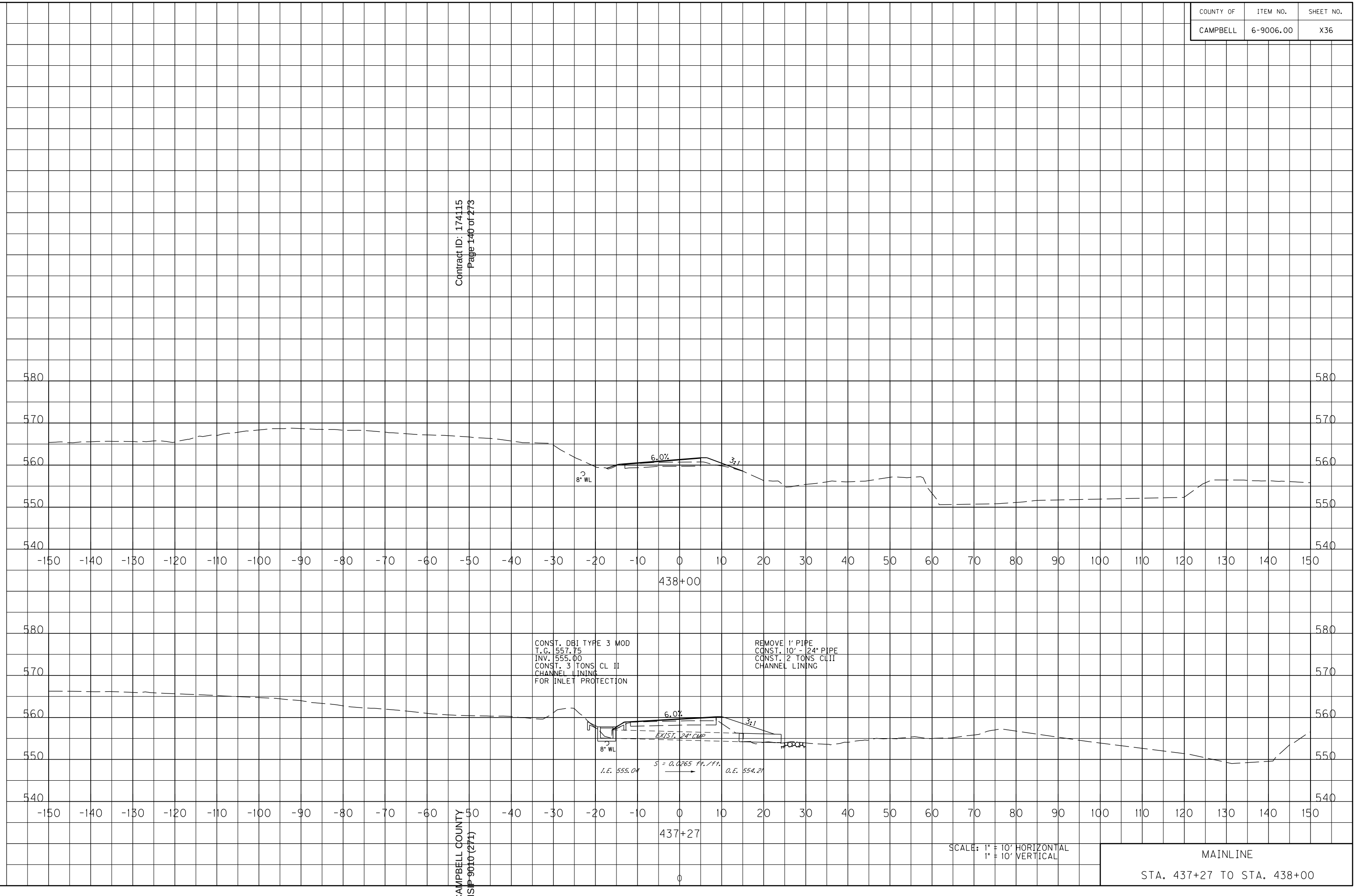
STA. 434+52 TO STA. 435+97

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X03500XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X36

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 437+27 TO STA. 438+00

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X036000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X37

Contract ID: 174115
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SHOULDERING & DITCHING 200'

BARB. WIRE FENCE REMOVAL & EASEMENT REQUIRED

EX. FENCE

CONST. DBI TYPE 3 MOD
T.G. 560.60
INV. 558.35
CONST. 2 TONS CL II CHANNEL LINING FOR INLET PROTECTION

2:1

5.1%

4:1

EXIST. PIPE

SHOULDERING & DITCHING 100'

CAUTION: WATER LINE

441+88

EX. FENCE

8" WL

2:1

2.6%

3:1

441+43

CAMPBELL COUNTY
HSIP 9010 (271)

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 441+43 TO STA. 441+88

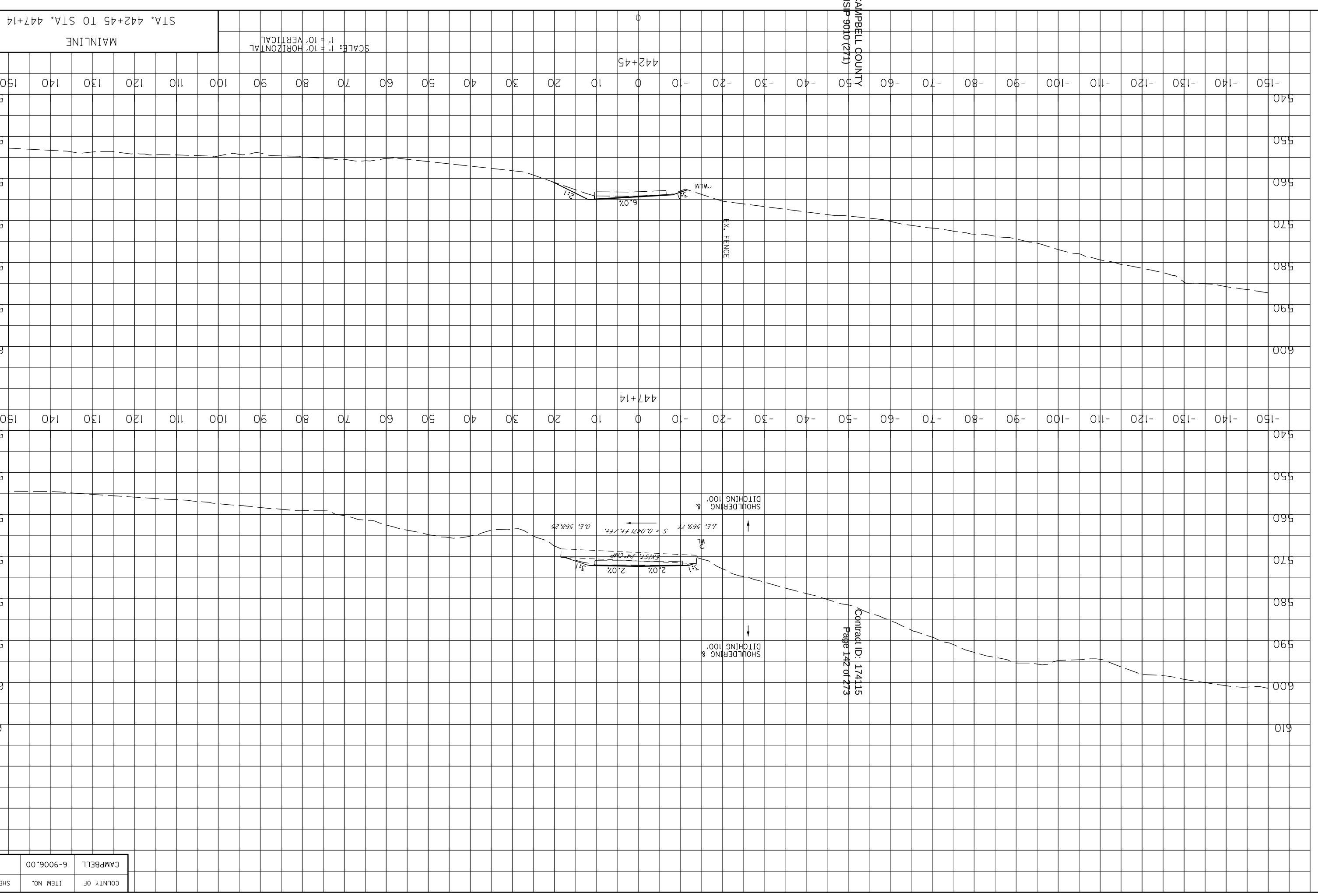
FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X03700XS
MicroStation v8.11.7.443

MAINLINE

STA. 442+45 TO STA. 447+14

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CAMPBELL COUNTY
HSIP 9010(271)



COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X38

Contract ID: 174115
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MicroStation v8.11.7.443

E-SHEET NAME: X038OOXS

USER: Scootts
DATE PLOTTED: August 5, 2016

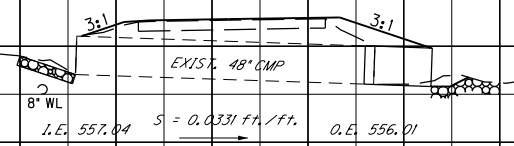
FILE NAME: Y:\KYTC 2014\214-032 SMRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X39

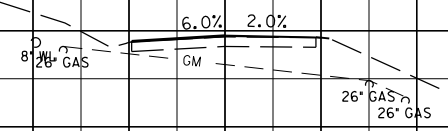
Contract ID: 174115
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CONST. 3 TONS CL II
CHANNEL LINING

REMOVE 1' PIPE
CONST. 7' - 48" PIPE
CONST. 2 TONS CLII
CHANNEL LINING



NOTE:
CONTACT DUKE ENERGY PRIOR TO ANY
EXCAVATIONS WITHIN 25' OF HIGH
PRESSURE TRANSMISSION MAIN



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

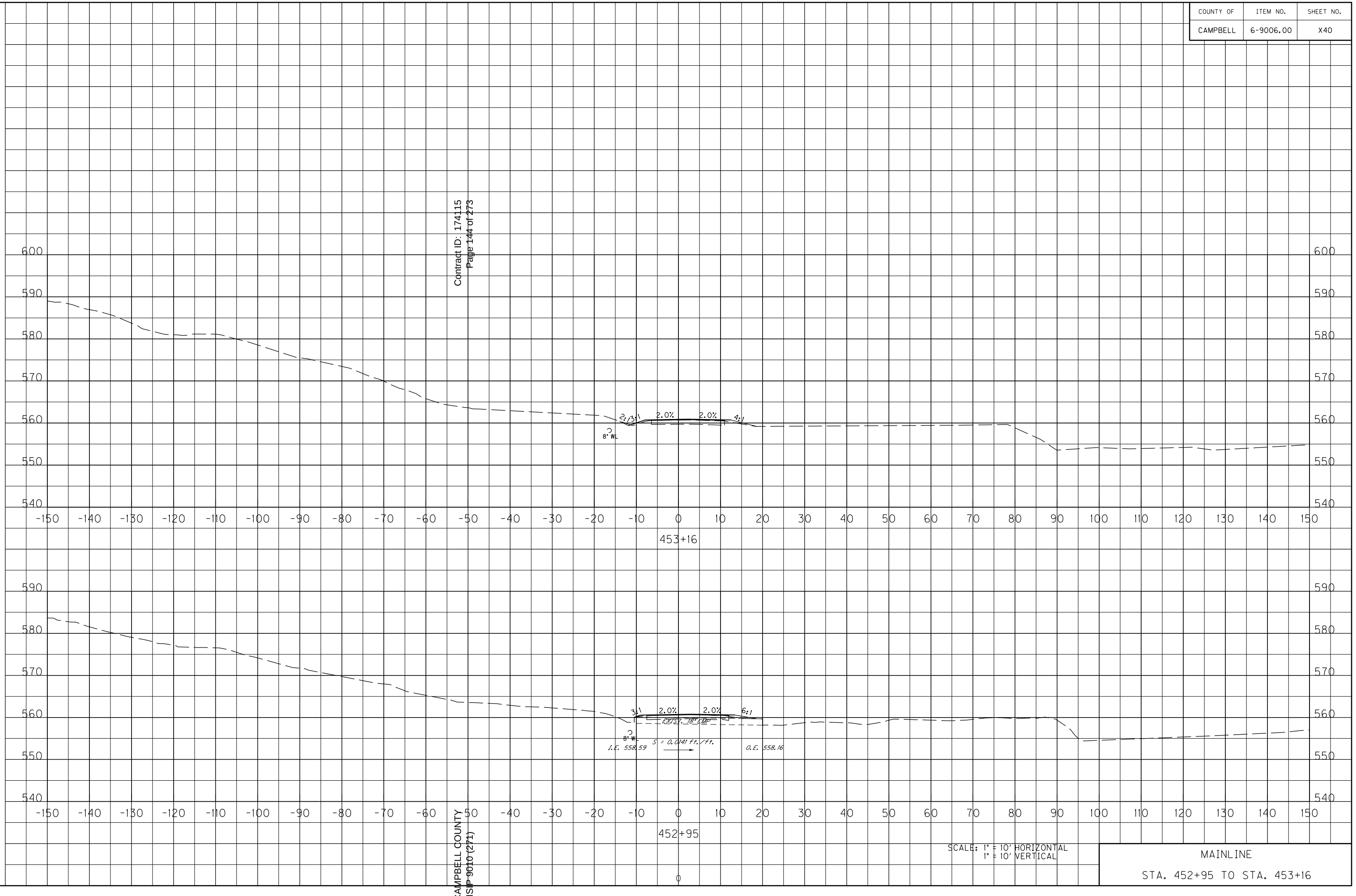
STA. 449+48 TO STA. 451+30

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X03900XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X40

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

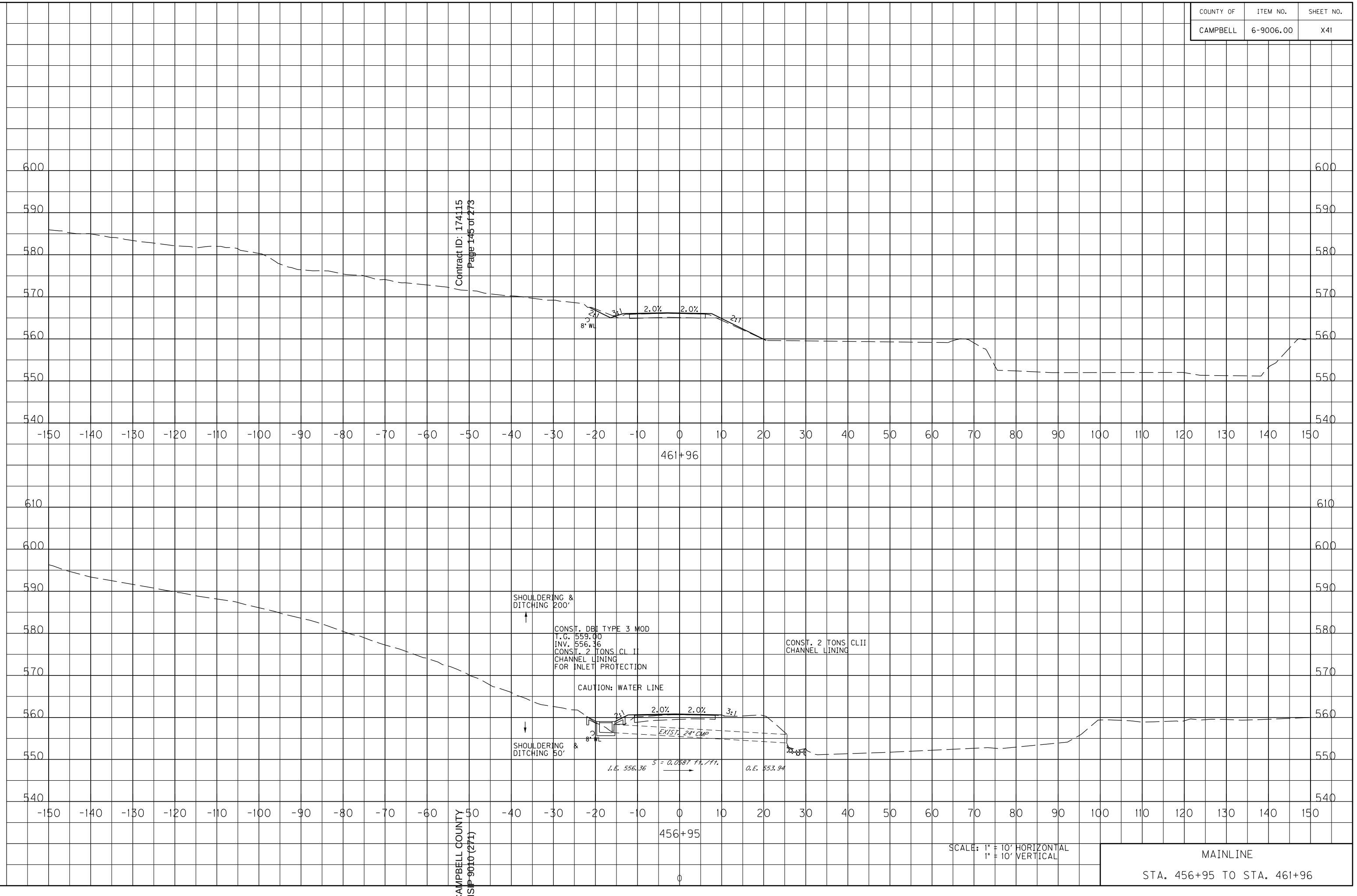
STA. 452+95 TO STA. 453+16

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X04000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X41

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

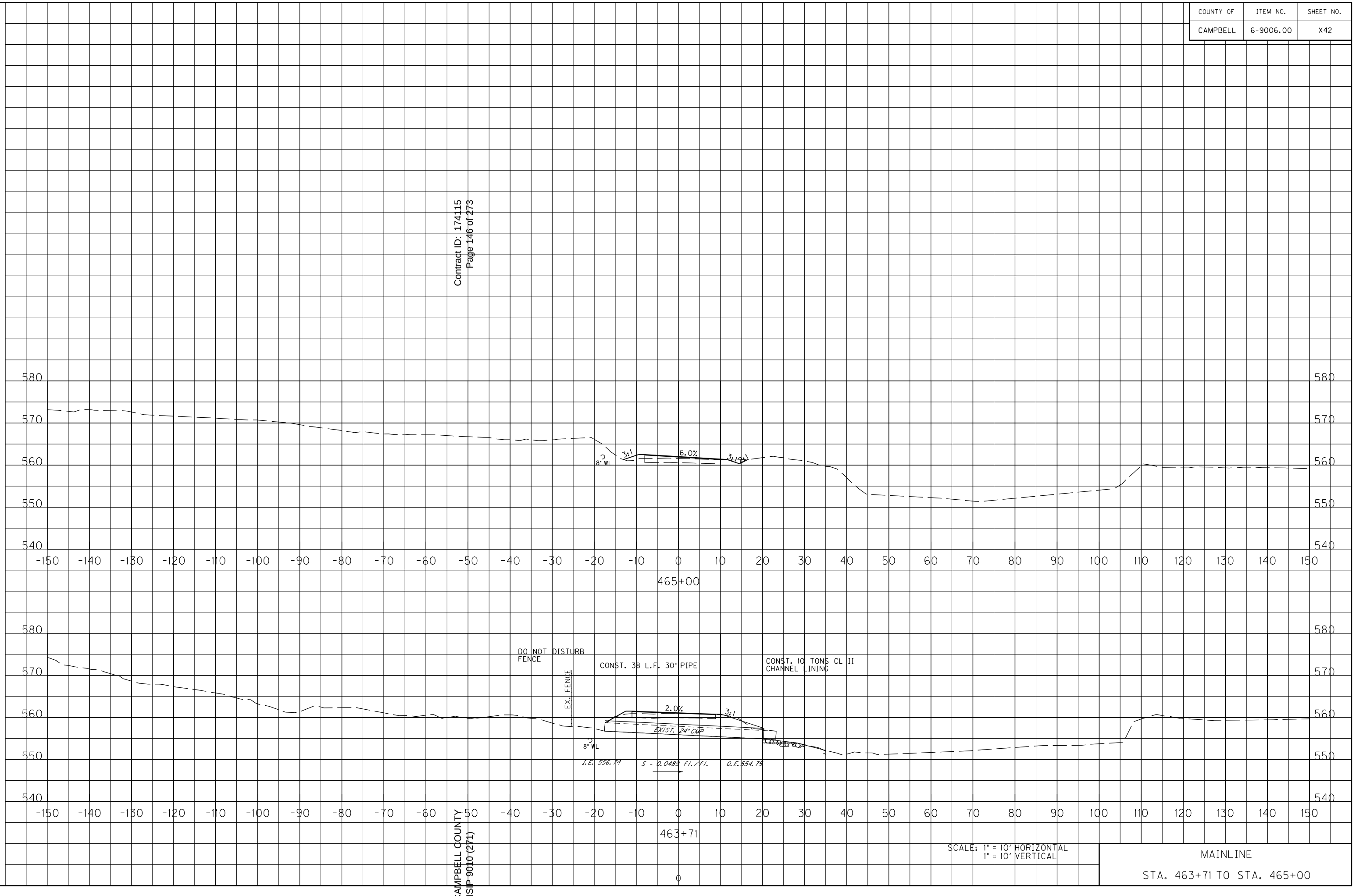
STA. 456+95 TO STA. 461+96

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: XO410OXS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X42

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

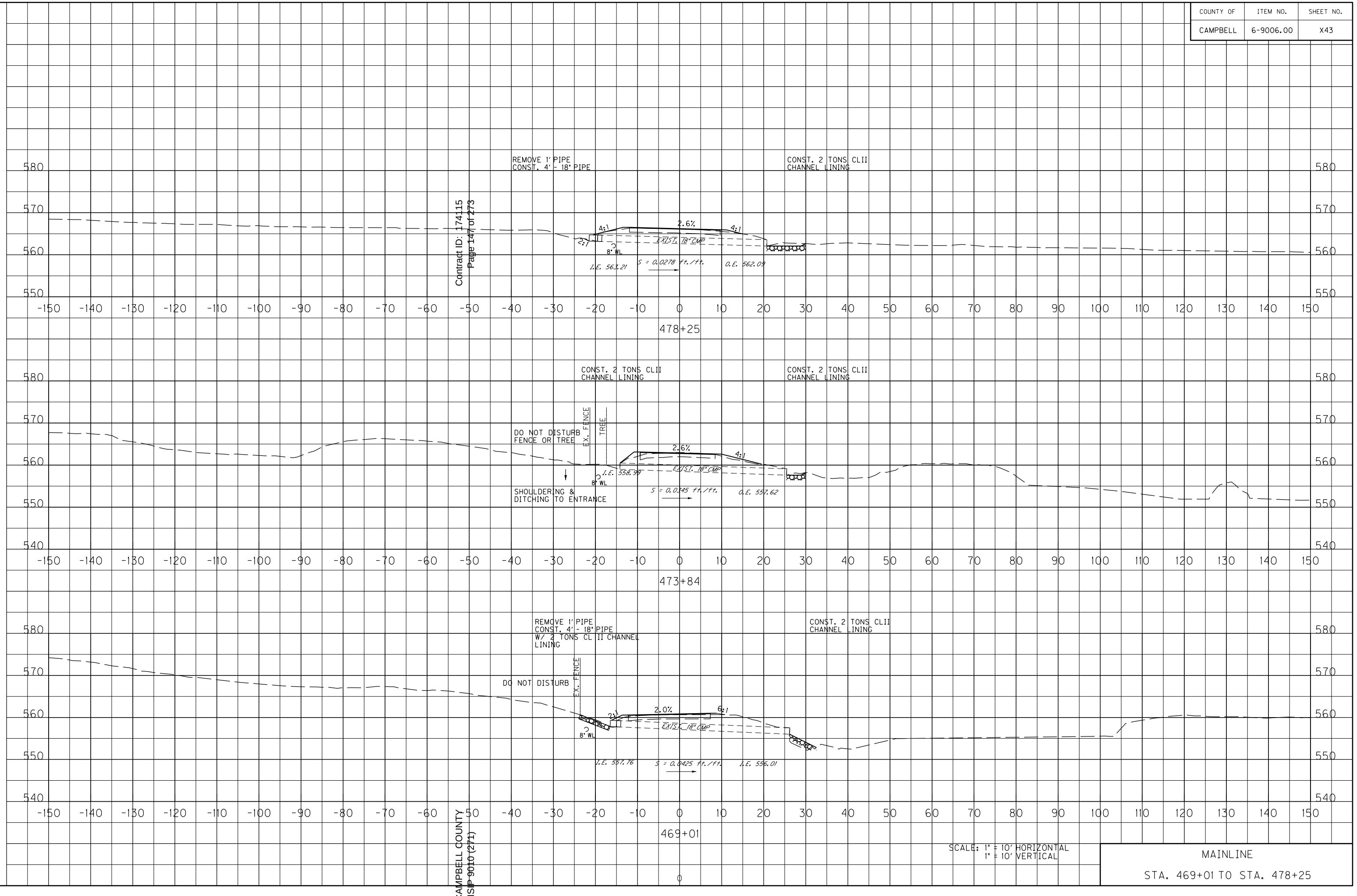
MAINLINE

STA. 463+71 TO STA. 465+00

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X04200XS | USER: Scoots DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X43



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 469+01 TO STA. 478+25

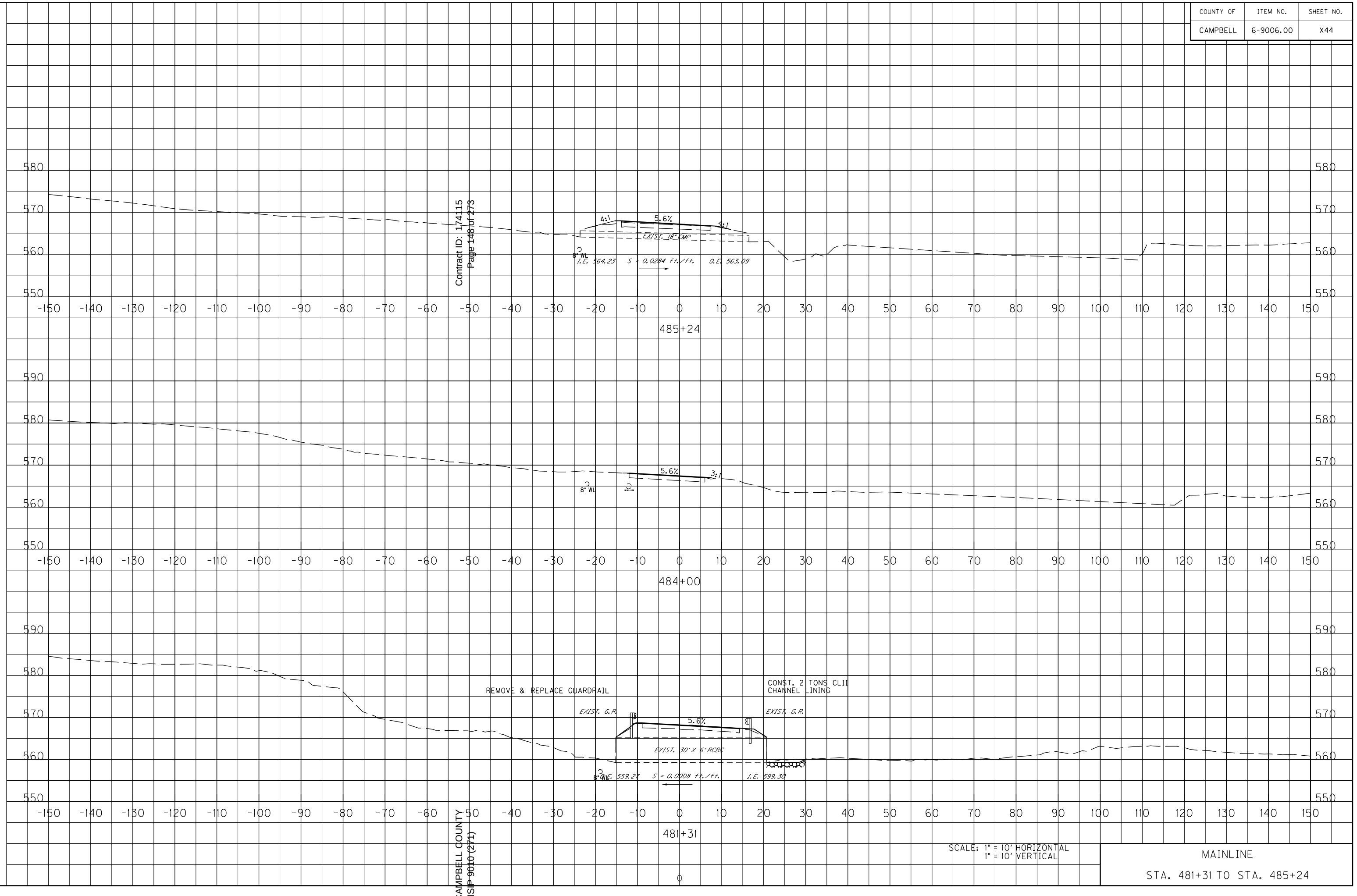
Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010(271)

MicroStation v8.11.7.443 | E-SHEET NAME: X04300XS | USER: Scoots DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X44

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 481+31 TO STA. 485+24

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X04400XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X45

Contract ID: 174115
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CONST. 18" DBL. SAFETY BOX INLET. ANGLE BETWEEN BOX WALLS TO BE DETERMINED AND FIT IN FIELD.
CONST. 2 TONS CL II CHANNEL LINING FOR INLET PROTECTION

EX. FENCE

2.0% 2.0% 3:1

EXIST. 18" CMP

8" WL

I.E. 563.94

S = 0.0180 ft./ft.

O.E. 563.39

REMOVE 1' PIPE
CONST. 4' - 18" PIPE
CONST. 3 TONS CLII CHANNEL LINING

SHOULDERING & DITCHING 100'

SHOULDERING & DITCHING 100'

496+02

REMOVE EXIST. PIPE
CONST. 41' - 30" PIPE W/ 30" CONC. SLOPED & MITERED HDWL.

4:1 2.0% 2.0% 4:1

EXIST. 30" CMP

8" WL

I.E. 562.84

S = 0.0161 ft./ft.

O.E. 562.18

CONST. 30" CONC. SLOPED & MITERED HDWL.
CONST. 2 TONS CLII CHANNEL LINING

491+47

REMOVE 1' PIPE
CONST. 4' - 18" PIPE

EX. FENCE

2:1 3:1 2.0% 2.0% 3:1

EXIST. 18" CMP

8" WL

I.E. 562.65

S = 0.0292 ft./ft.

O.E. 561.45

CONST. 2 TONS CLII CHANNEL LINING

488+25

0

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 488+25 TO STA. 496+02

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X04500XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X46

Contract ID: 174115
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CONST. 18" STANDARD HDWL.

EX. FENCE

8" WL

3:1 0.8% 2.0% 3:1

EXIST. 18" CMP

I.E. 562.40 S = 0.0425 ft./ft. O.E. 560.75

580 570 560 550

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

499+39

EX. FENCE

8" WL

2:1 0.5% 2.0% 3:1

580 570 560 550

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

499+17

DITCHING & SHOULDERING
FENCE REMOVAL & REPLACEMENT
REQUIRED (PLANK FENCE)

EX. FENCE

8" WL

2:1 3:1 4.0% 4:1

590 580 570 560 550

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

498+25

0

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 498+25 TO STA.499+39

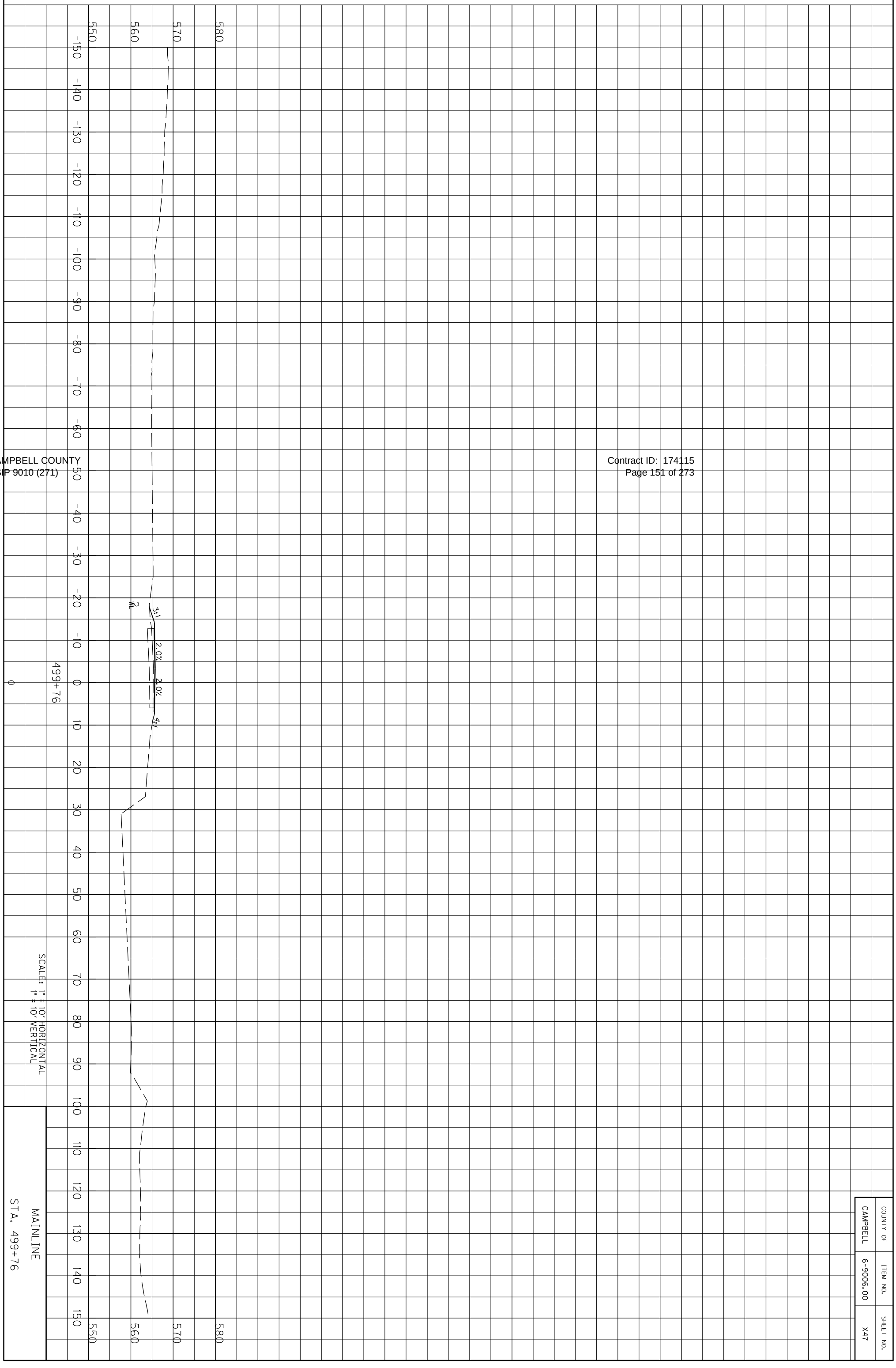
CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

USER: Scoots
DATE PLOTTED: August 5, 2016

E-SHEET NAME: X04600XS

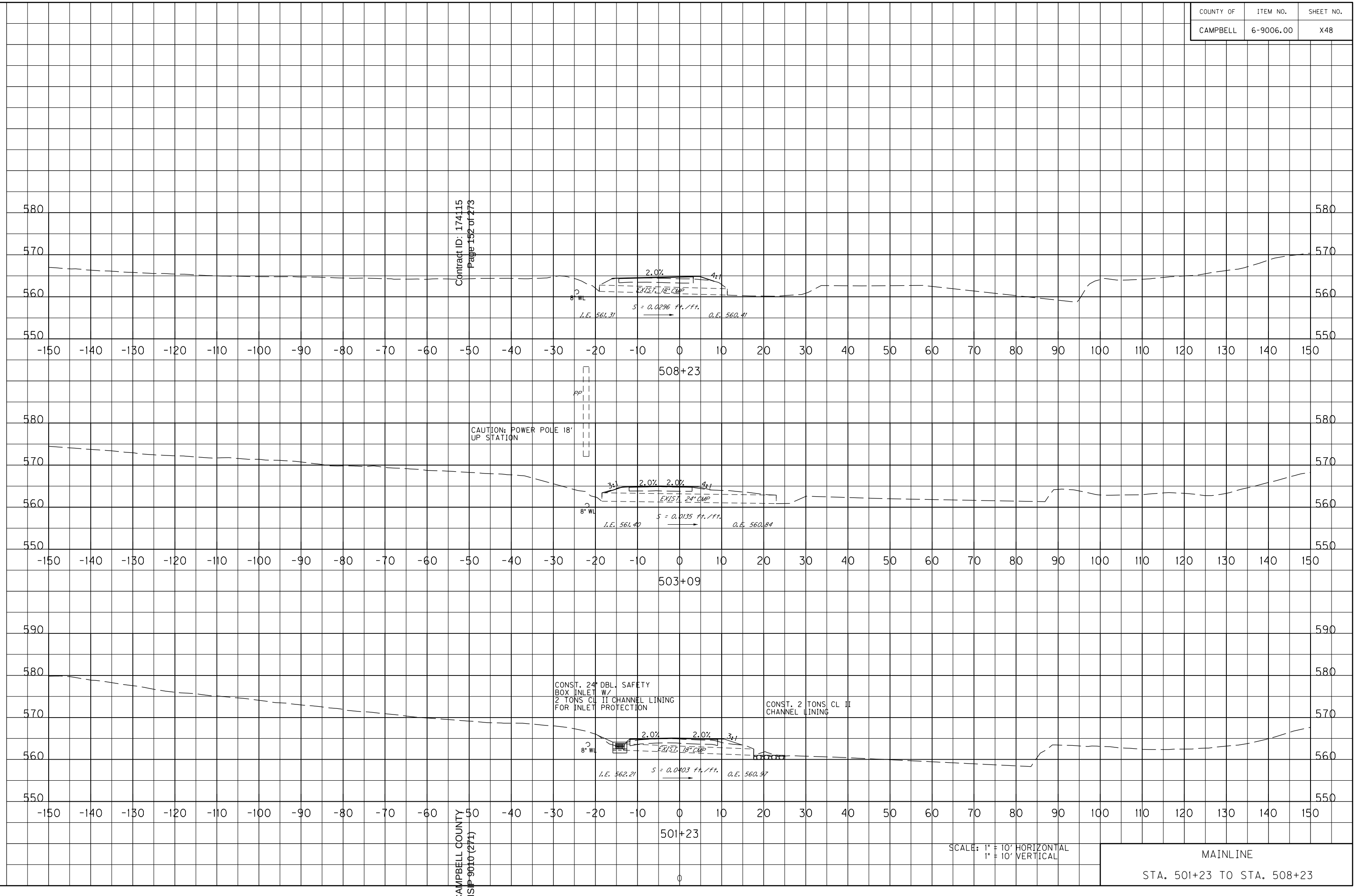
MicroStation v8.11.7.443



COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X47

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X48

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

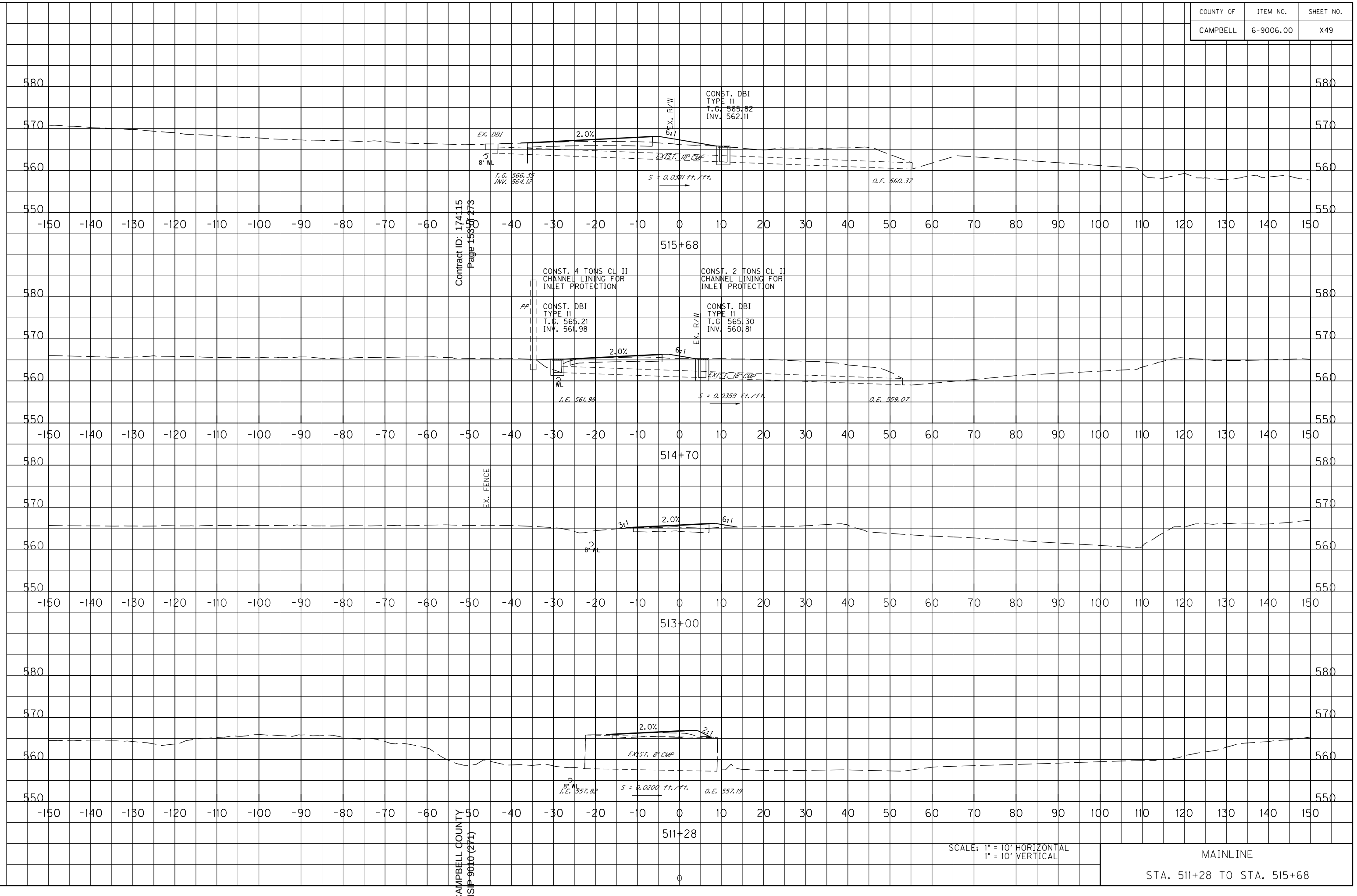
MAINLINE

STA. 501+23 TO STA. 508+23

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X04800XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X49



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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

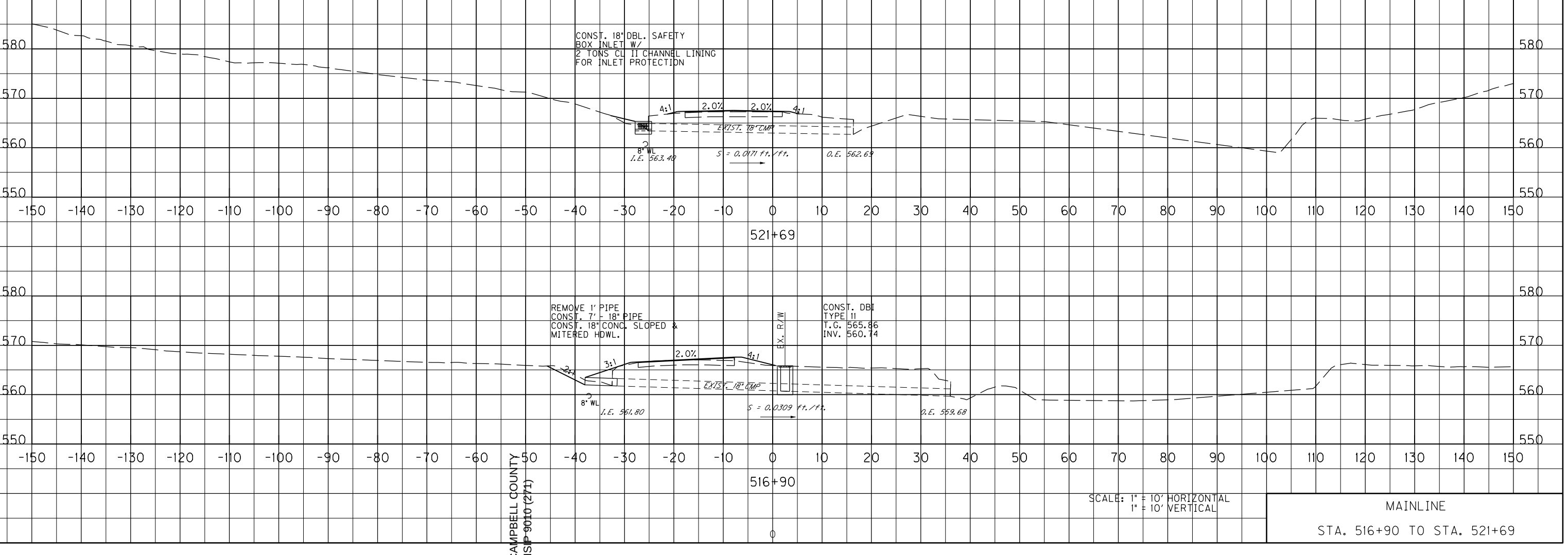
STA. 511+28 TO STA. 515+68

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X04900XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X50

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

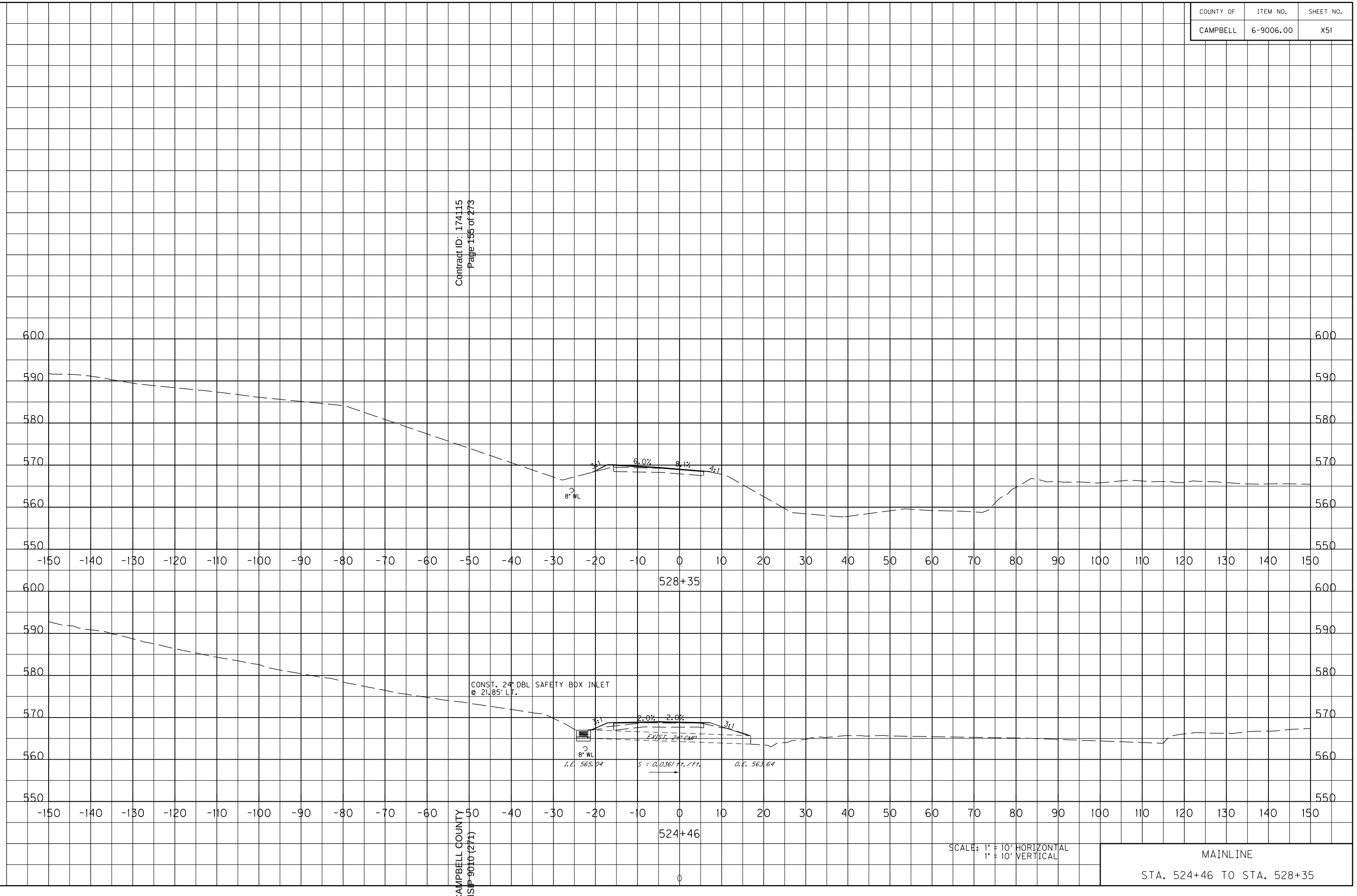
STA. 516+90 TO STA. 521+69

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X050000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X51

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 524+46 TO STA. 528+35

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: XOS10OXS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X52

Contract ID: 174115
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EX. R/W

2:1

4.8%

EXIST. 2.5'X 2.5' RCBC

8' WL
I.E. 563.07

S = 0.0111 ft./ft.

O.E. 562.75

REMOVE EXIST. RCBC
CONST. 36' - 36"

CONST. 9 TONS CLII CHANNEL LINING

530+99

CONST. 2 TONS CLII
CHANNEL LINING

10:1

6.0%

8.1%

3:1

EXIST. 36" CMP

8' WL
I.E. 566.07

S = 0.0711 ft./ft.

O.E. 562.14

2:1

528+43

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

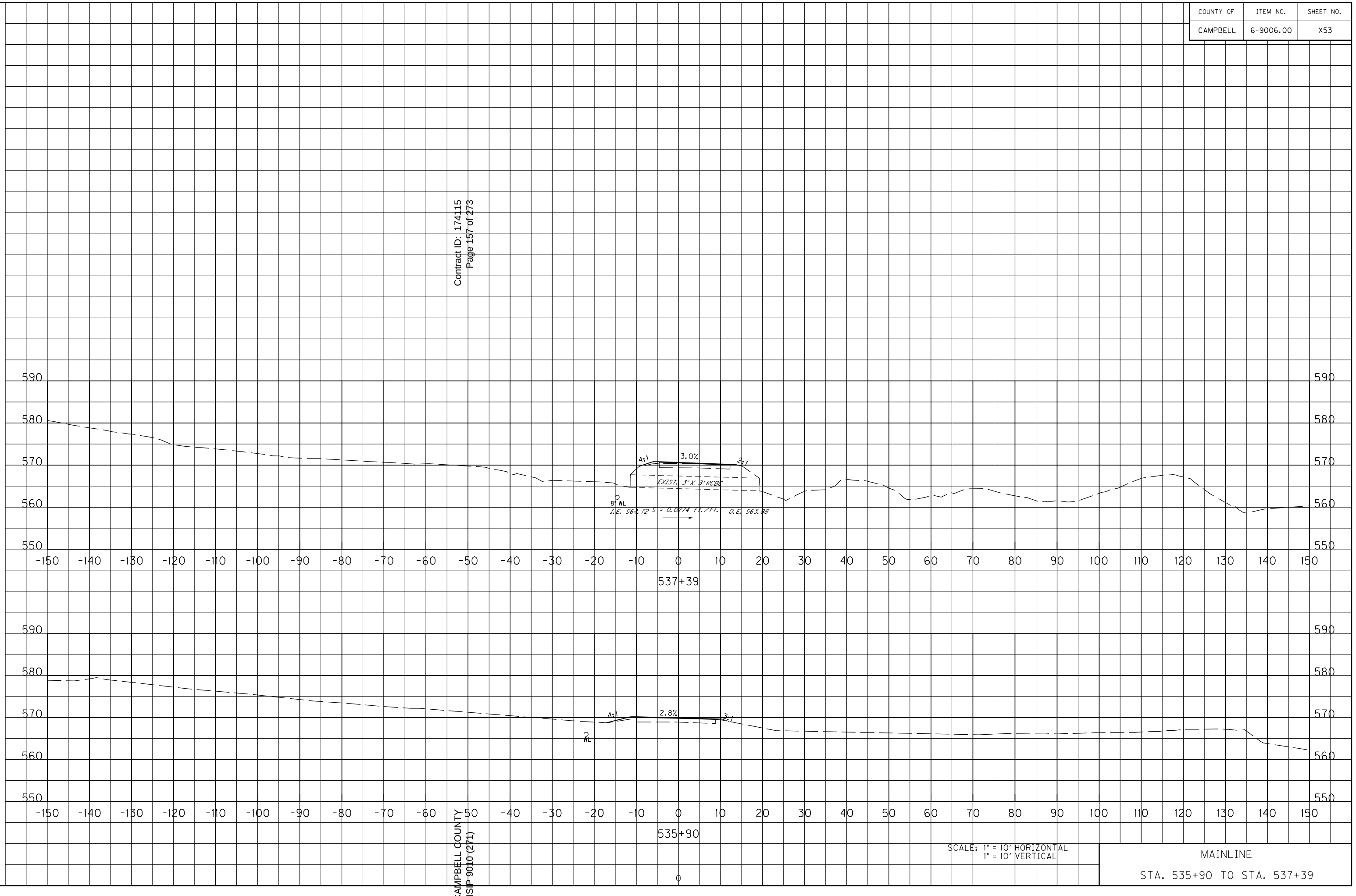
STA. 528+43 TP STA. 530+99

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X05200XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X53

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

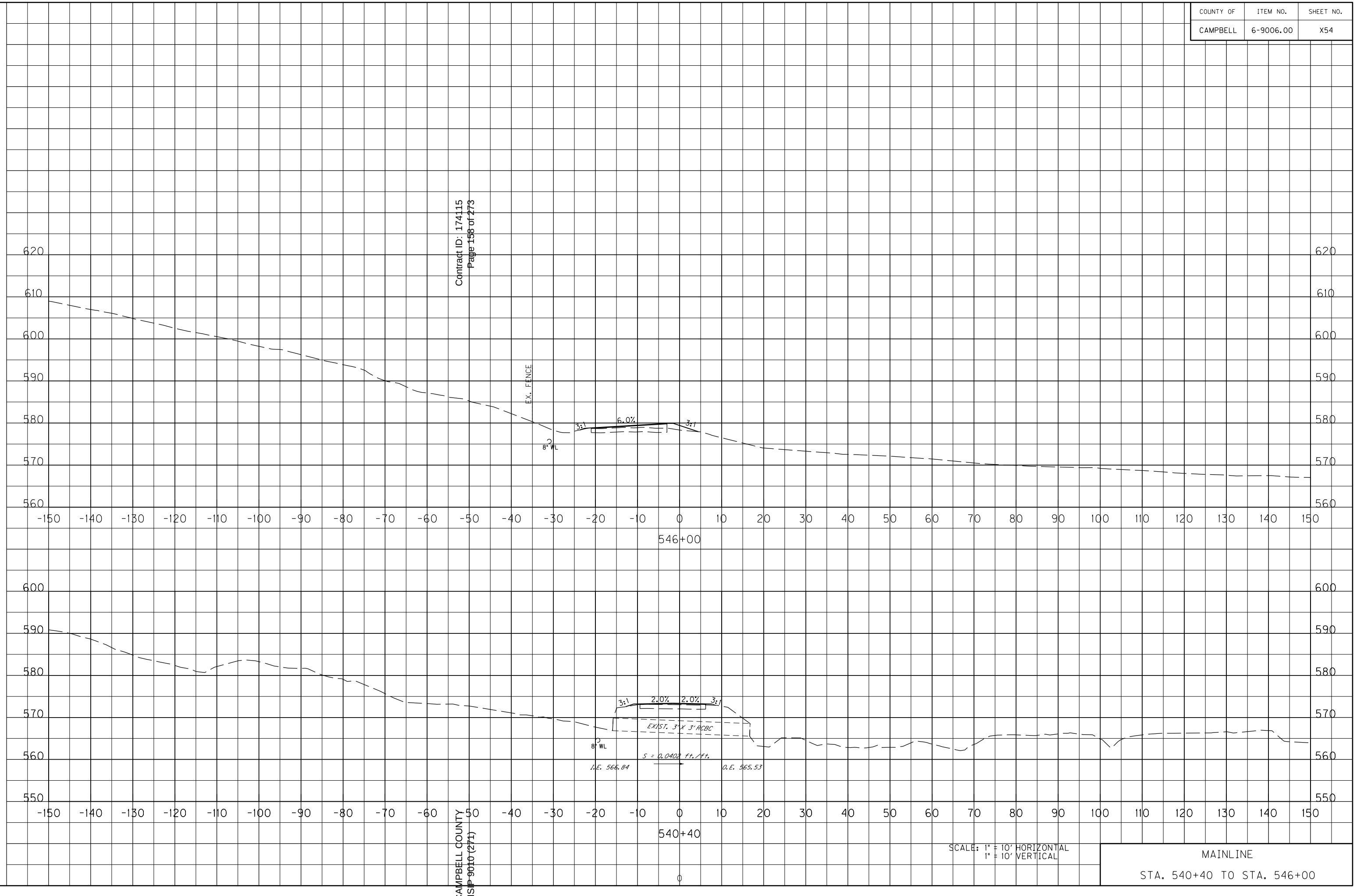
STA. 535+90 TO STA. 537+39

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X05300XS | USER: Scoots | DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X54

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

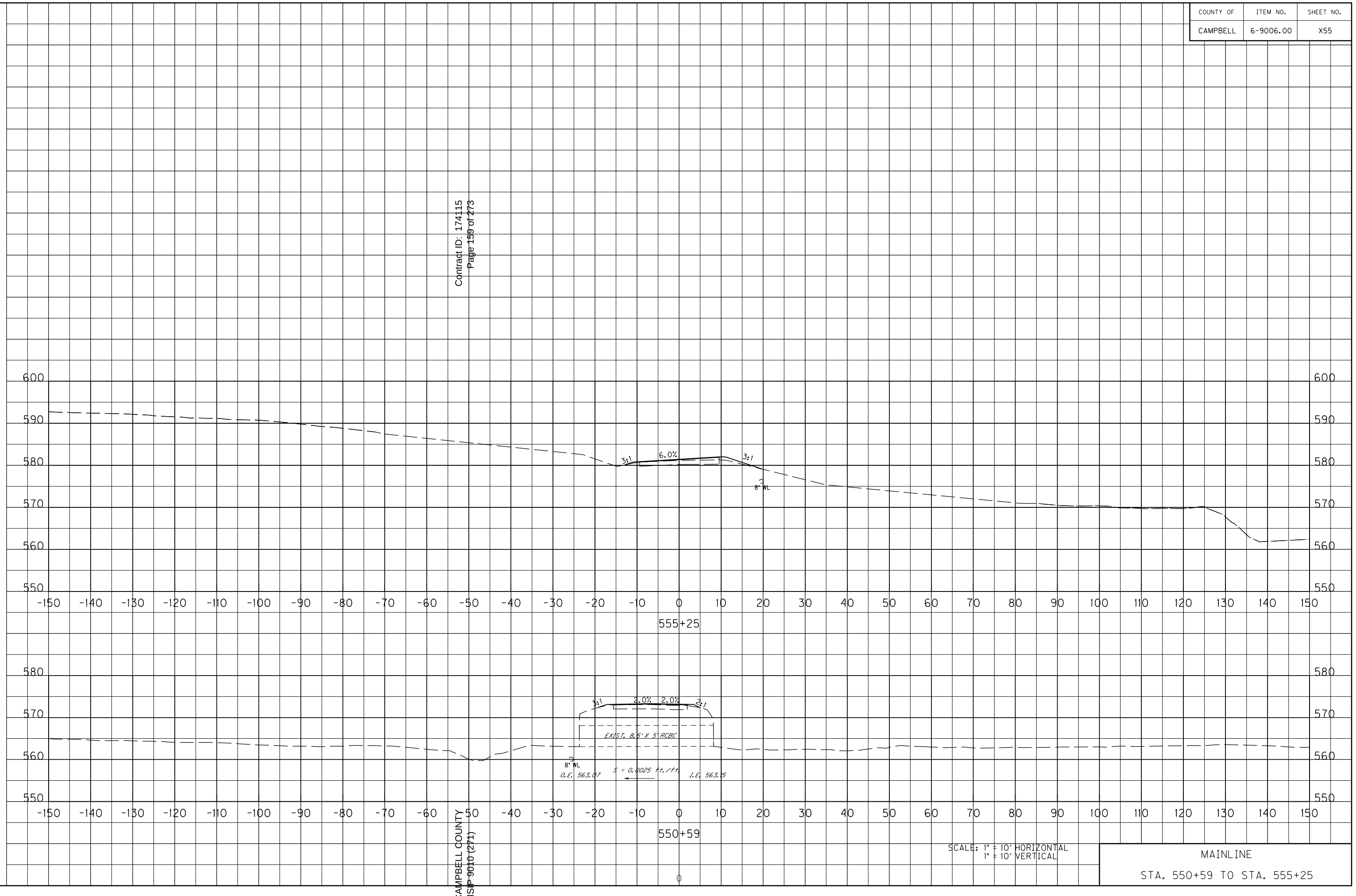
STA. 540+40 TO STA. 546+00

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X05400XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X55

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 550+59 TO STA. 555+25

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X05500XS | USER: Scoots DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X56

Contract ID: 174115
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CONST. 47' - 18" CULVERT PIPE
CONST. 18" DBL SAFETY BOX INLET
W/ 2 TONS CLII CHANNEL LINING
FOR INLET PROTECTION

CONST. 18' SLOPED & MITERED HDWL.
W/ 4 TONS CLII CHANNEL LINING

2:1 2.0% 2.0% 3:1

EXIST. 18" CMP

8" WL

O.E. 570.89 S = 0.039 ft./ft. I.E. 572.31

563+00

3:1 4:1

8" WL

561+80

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 561+80 TO STA. 563+00

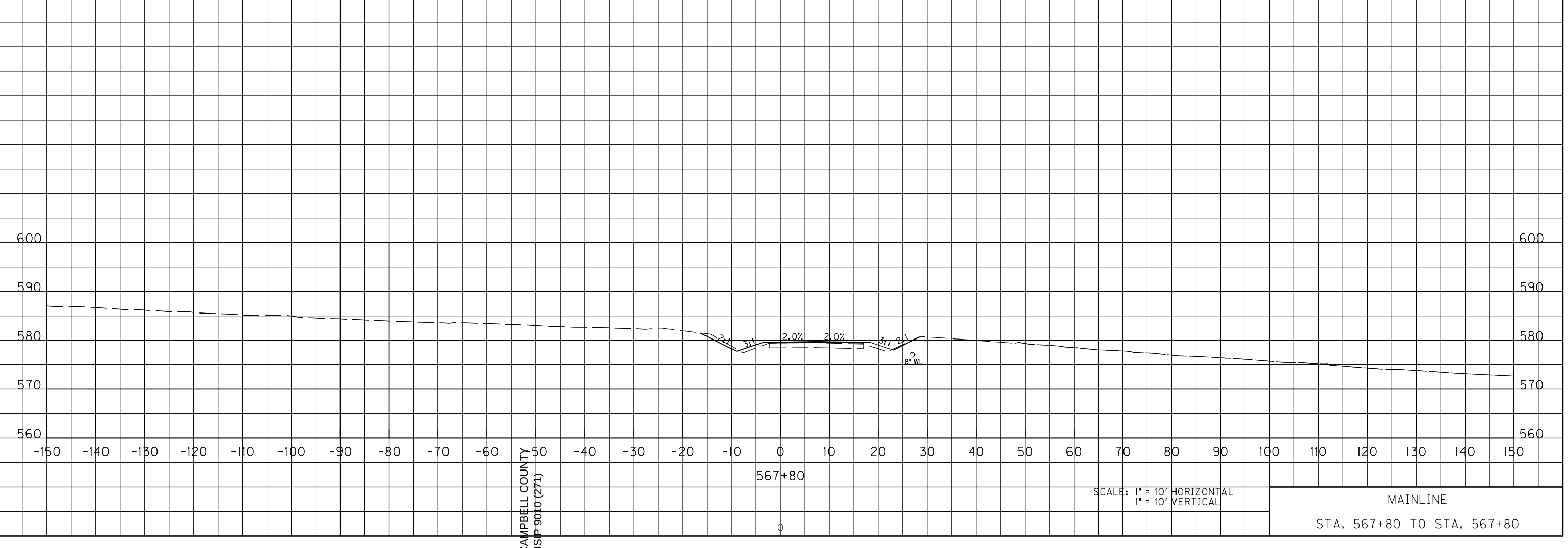
CAMPBELL COUNTY
HSIP 9010 (271)

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FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X056000XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X57

Contract ID: 174115
Page 161 of 273



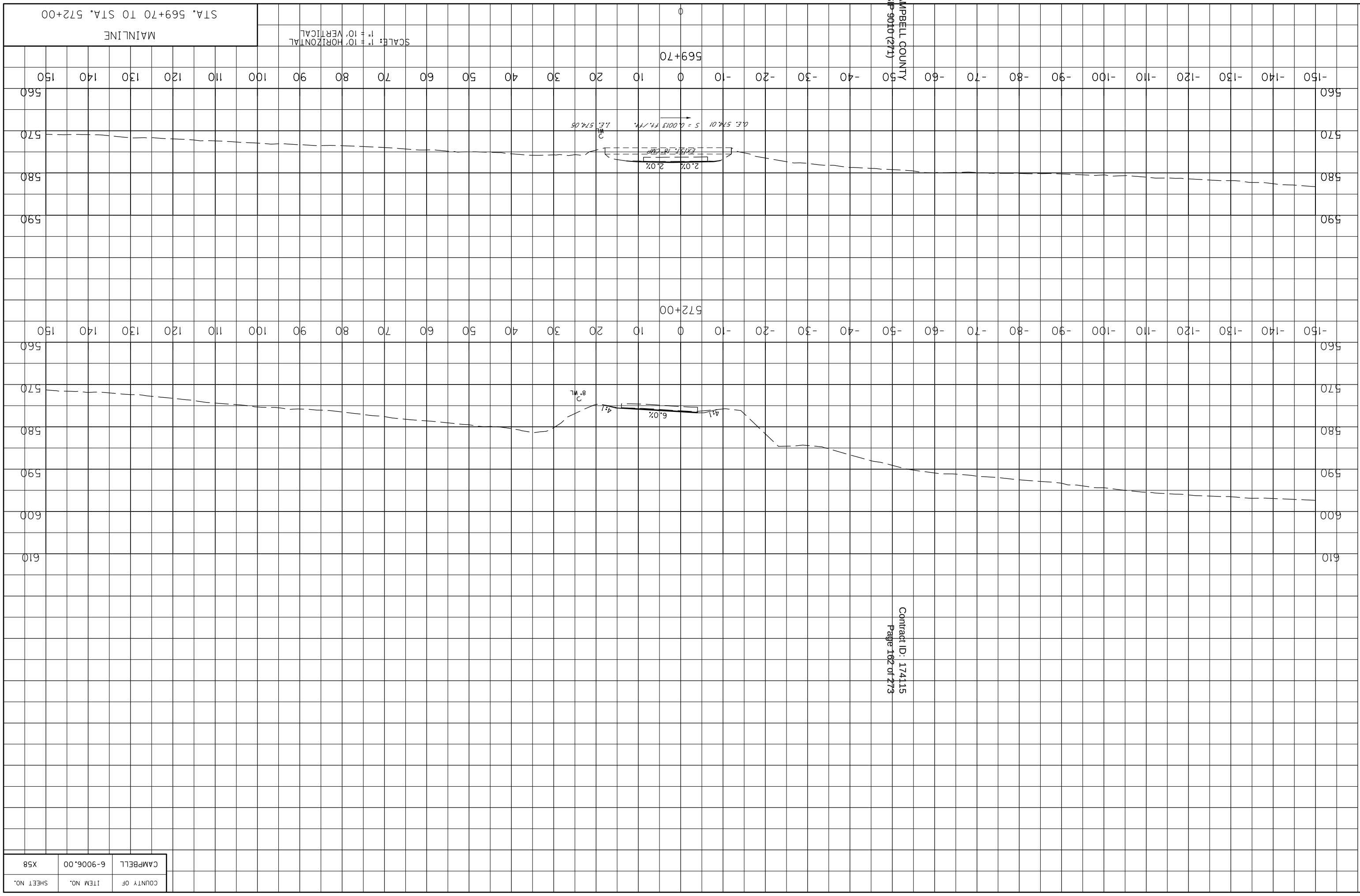
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 567+80 TO STA. 567+80

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X057000XS
MicroStation v8.11.7.443

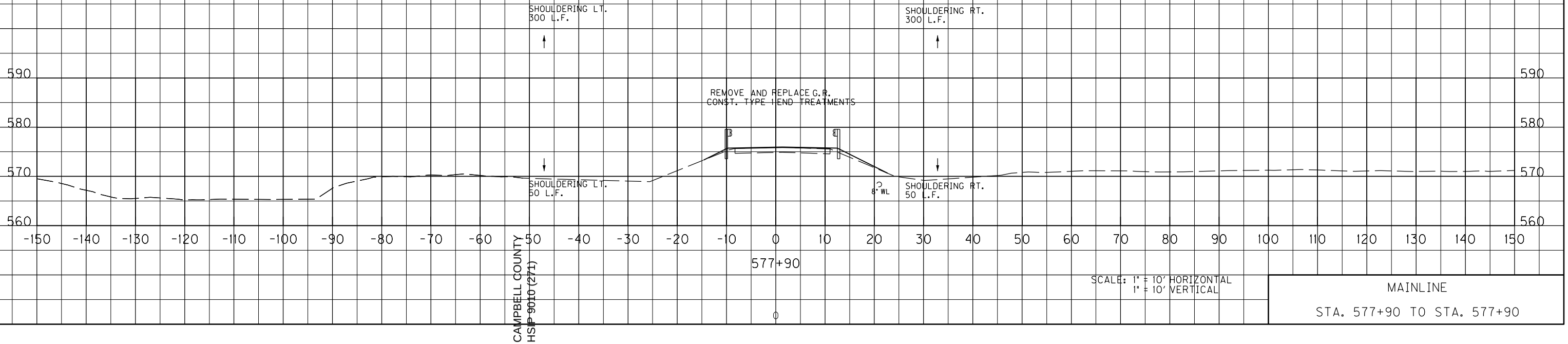


COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X58

MicroStation v8.11.7.443
E-SHEET NAME: X058000XS
USER: Scoots
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\24-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X59

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

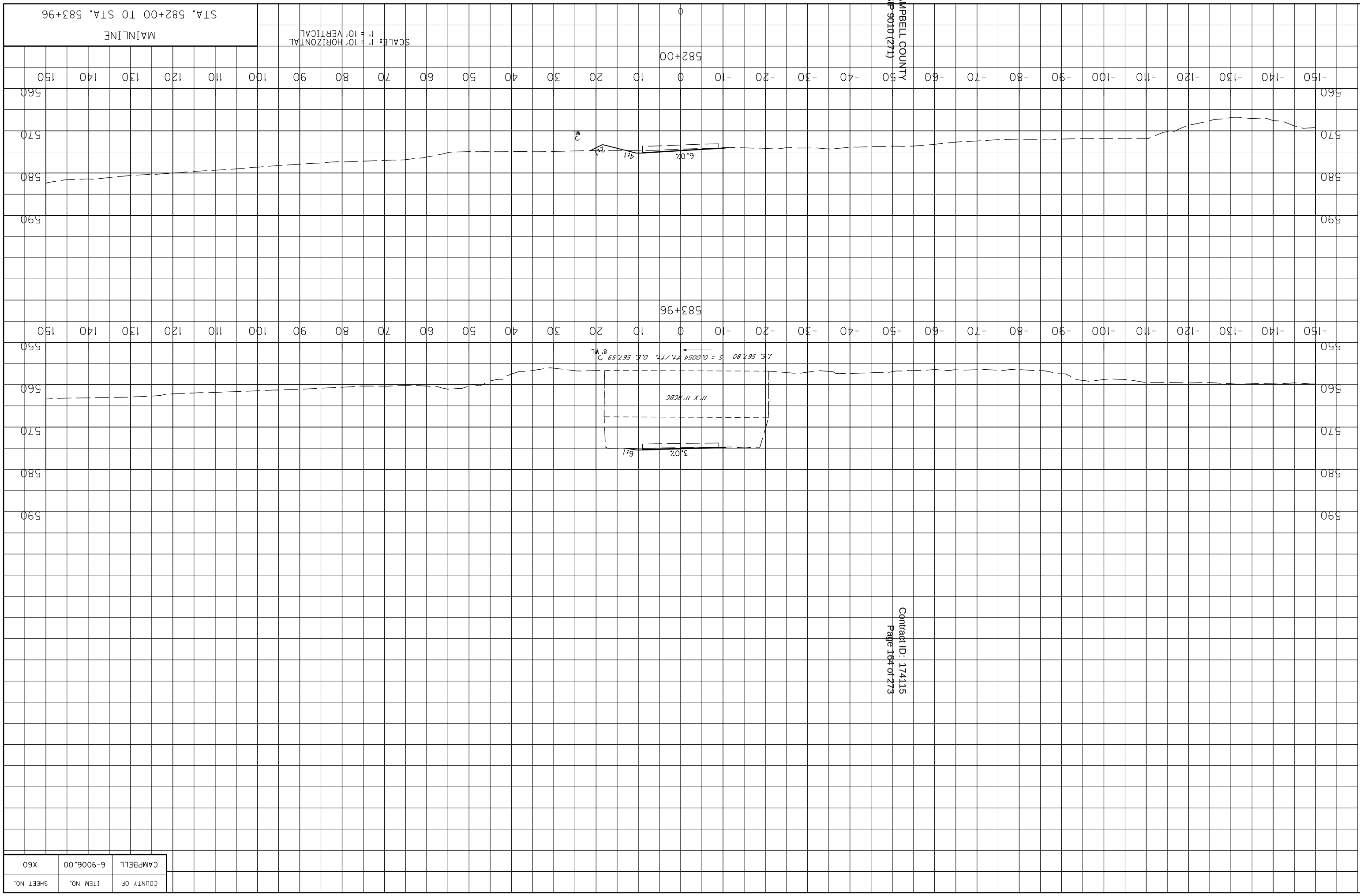
STA. 577+90 TO STA. 577+90

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: XOS900XS
MicroStation v8.11.7.443

MAINLINE
STA. 582+00 TO STA. 583+96

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

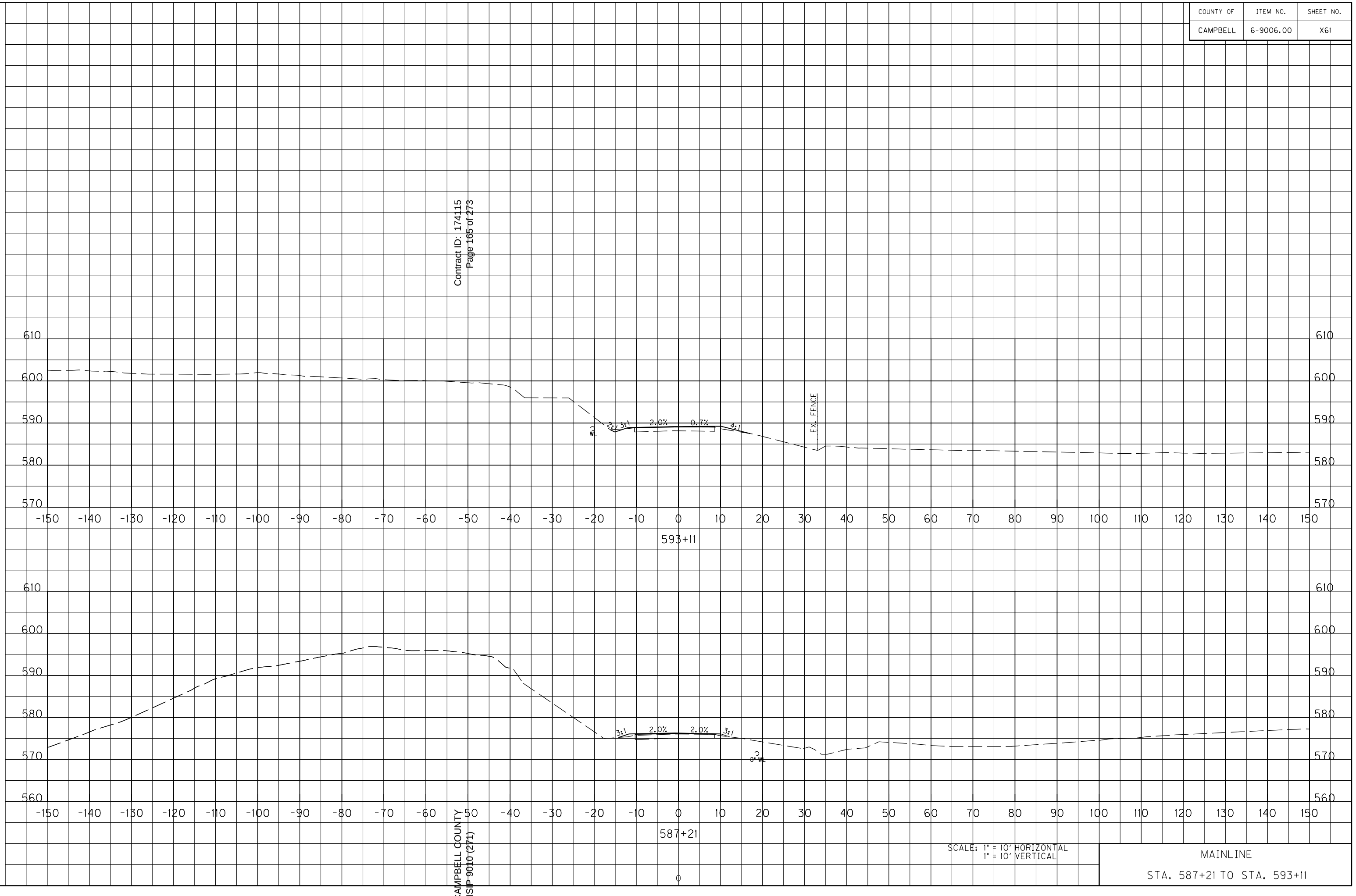


COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X60

MicroStation v8.11.7.443
E-SHEET NAME: X06000XS
USER: Scootts
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROMY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X61

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

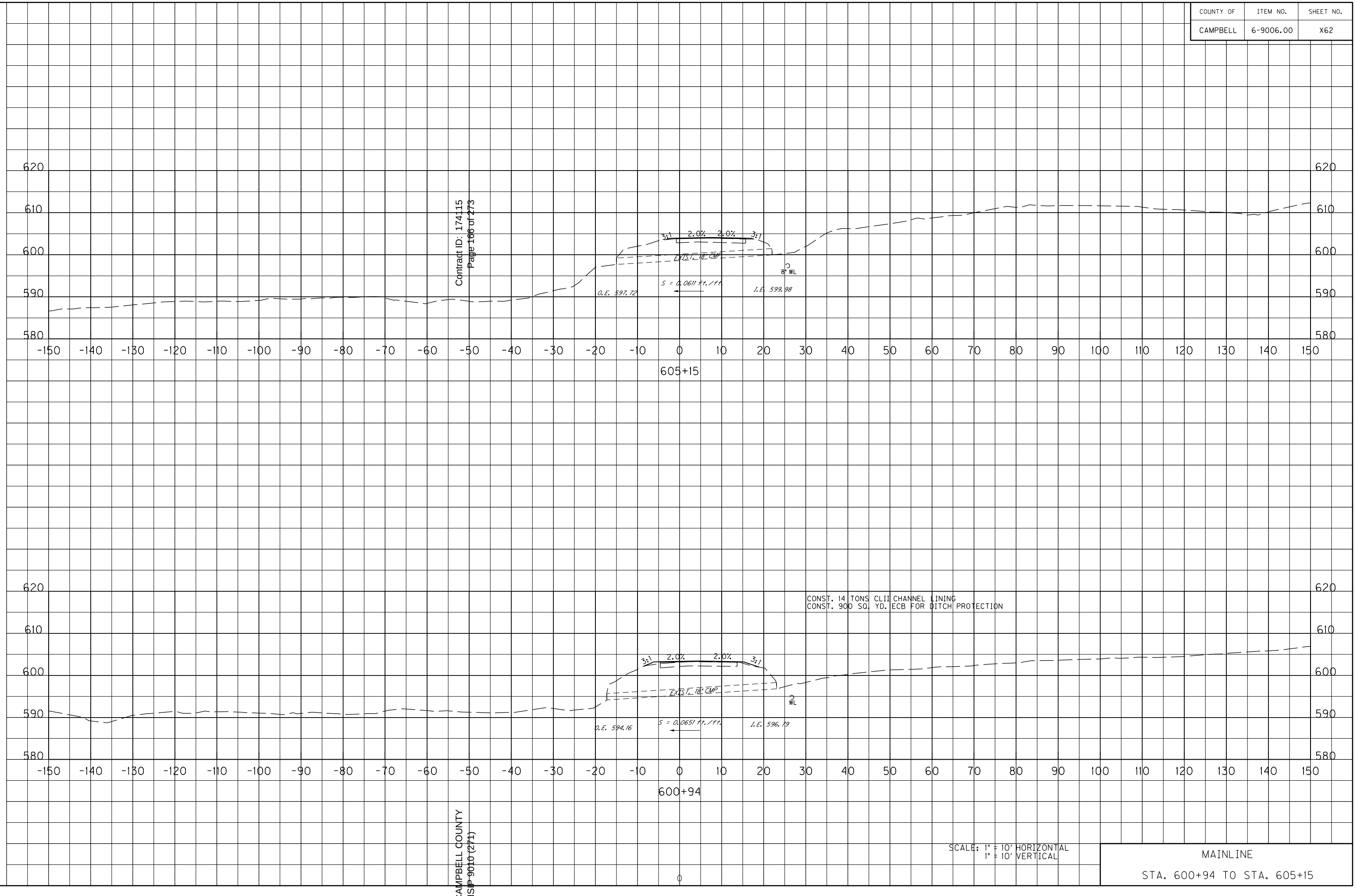
MAINLINE

STA. 587+21 TO STA. 593+11

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X06100XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X62



Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010(271)

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

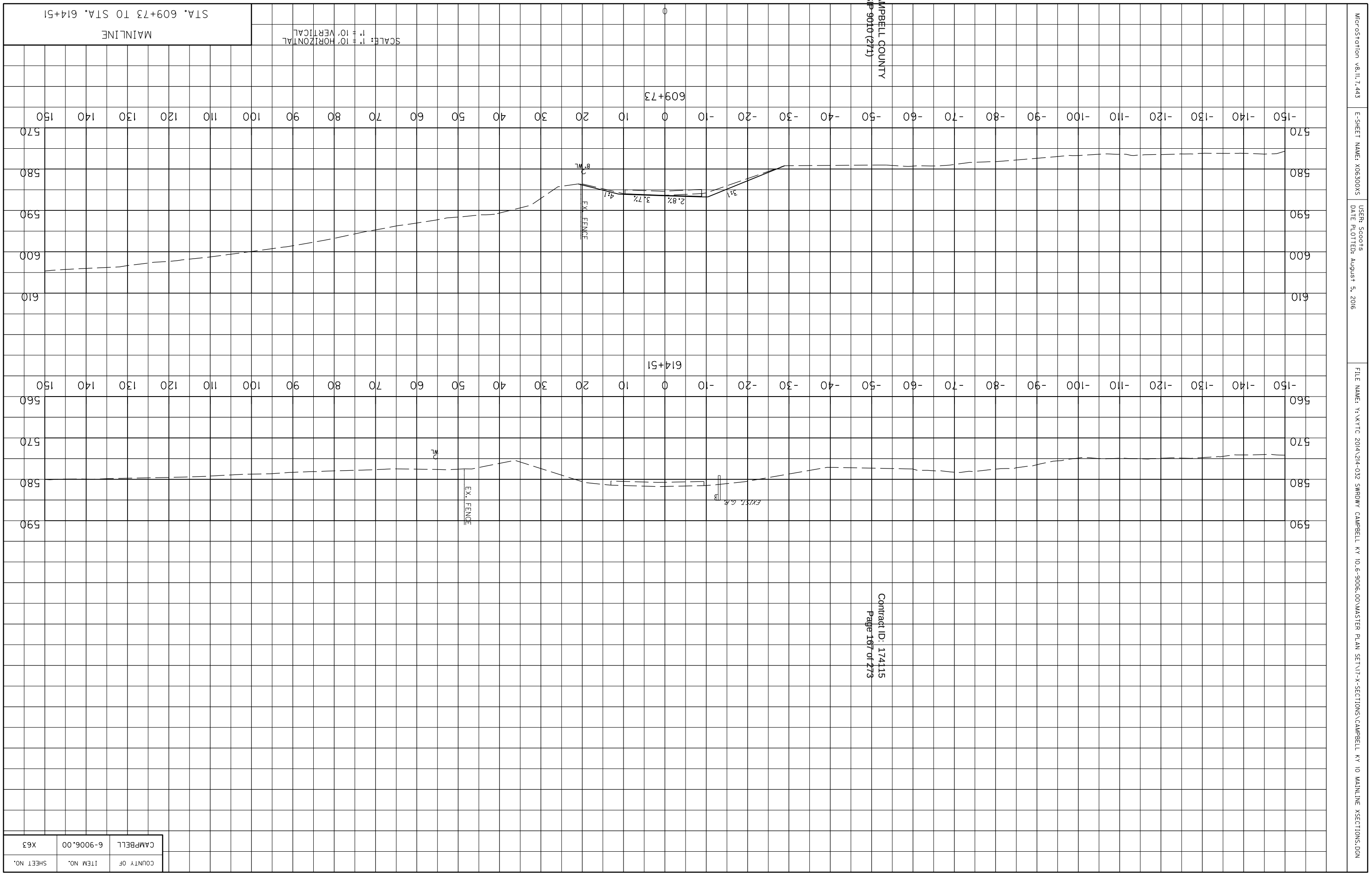
STA. 600+94 TO STA. 605+15

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

USER: Scoots
DATE PLOTTED: August 5, 2016

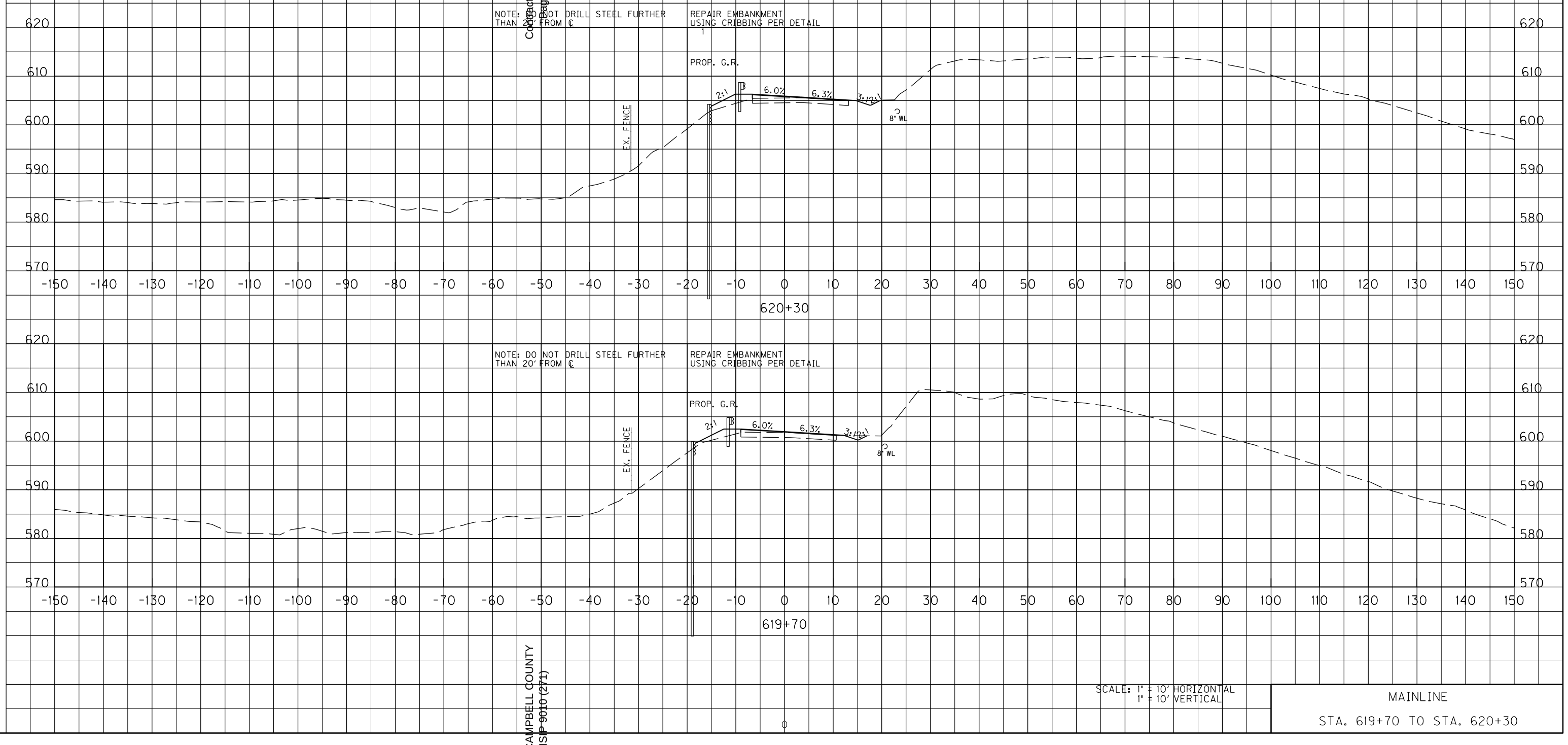
E-SHEET NAME: X06200XS

MicroStation v8.11.7.443


MAINLINE
STA. 609+73 TO STA. 614+51
SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL
609+73
614+51
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
-130
-140
-150
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
570
580
590
600
610
560
8'WL
EX. FENCE
2.8%
3.7%
4:1
3:1
EXIST. G.R.
CAMPBELL COUNTY
HSIP 9010(271)
Contract ID: 174115
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Microstation v8.11.7.443
E-SHEET NAME: X063OOXS
USER: Scootts
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROMY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
COUNTY OF
CAMPBELL
ITEM NO.
6-9006.00
SHEET NO.
X63

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X64

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

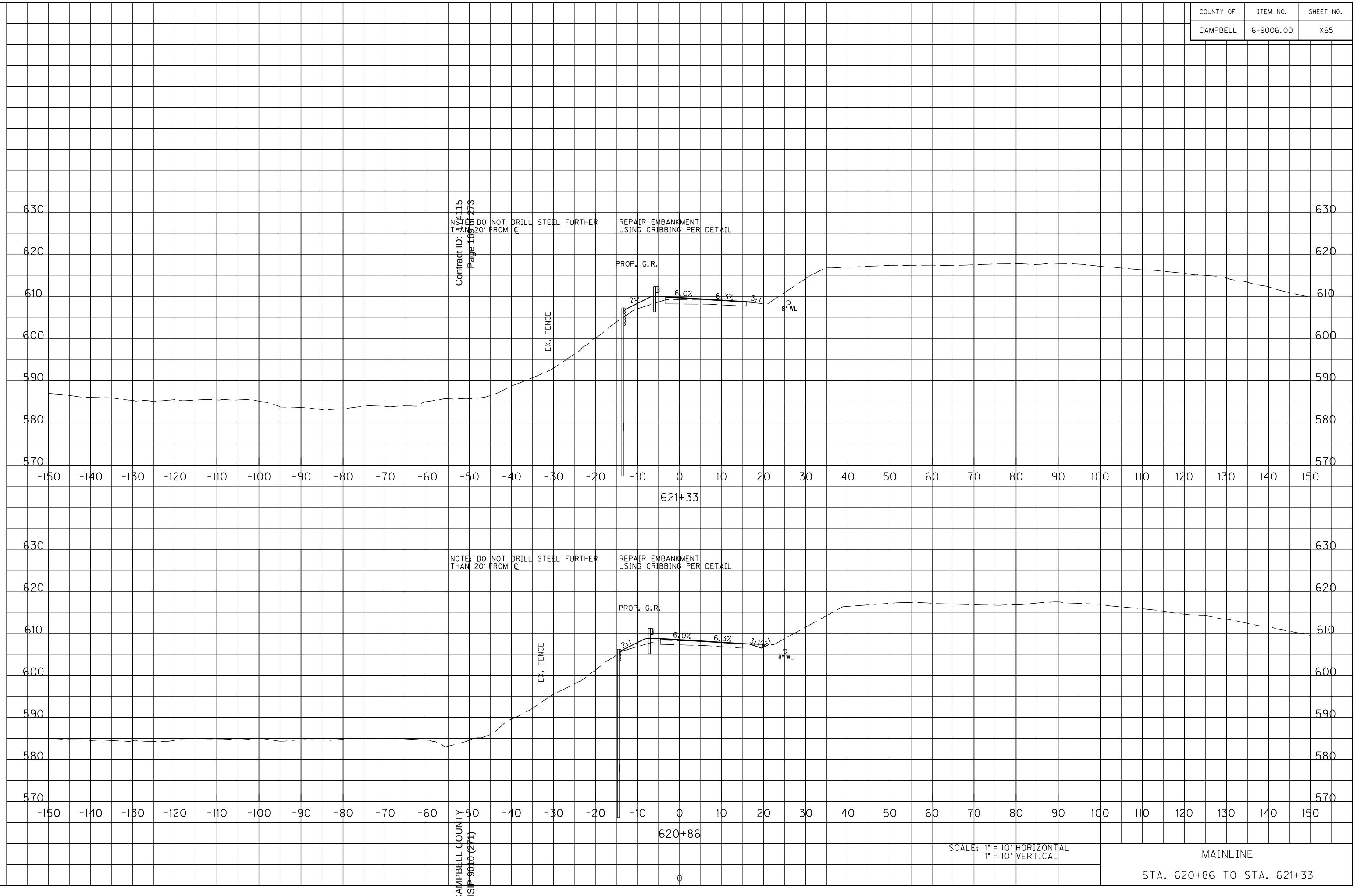
STA. 619+70 TO STA. 620+30

CAMPBELL COUNTY
HSIP 9010 (271)

0

MicroStation v8.11.7.443 | E-SHEET NAME: X06400XS | USER: Scoots | DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X65



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

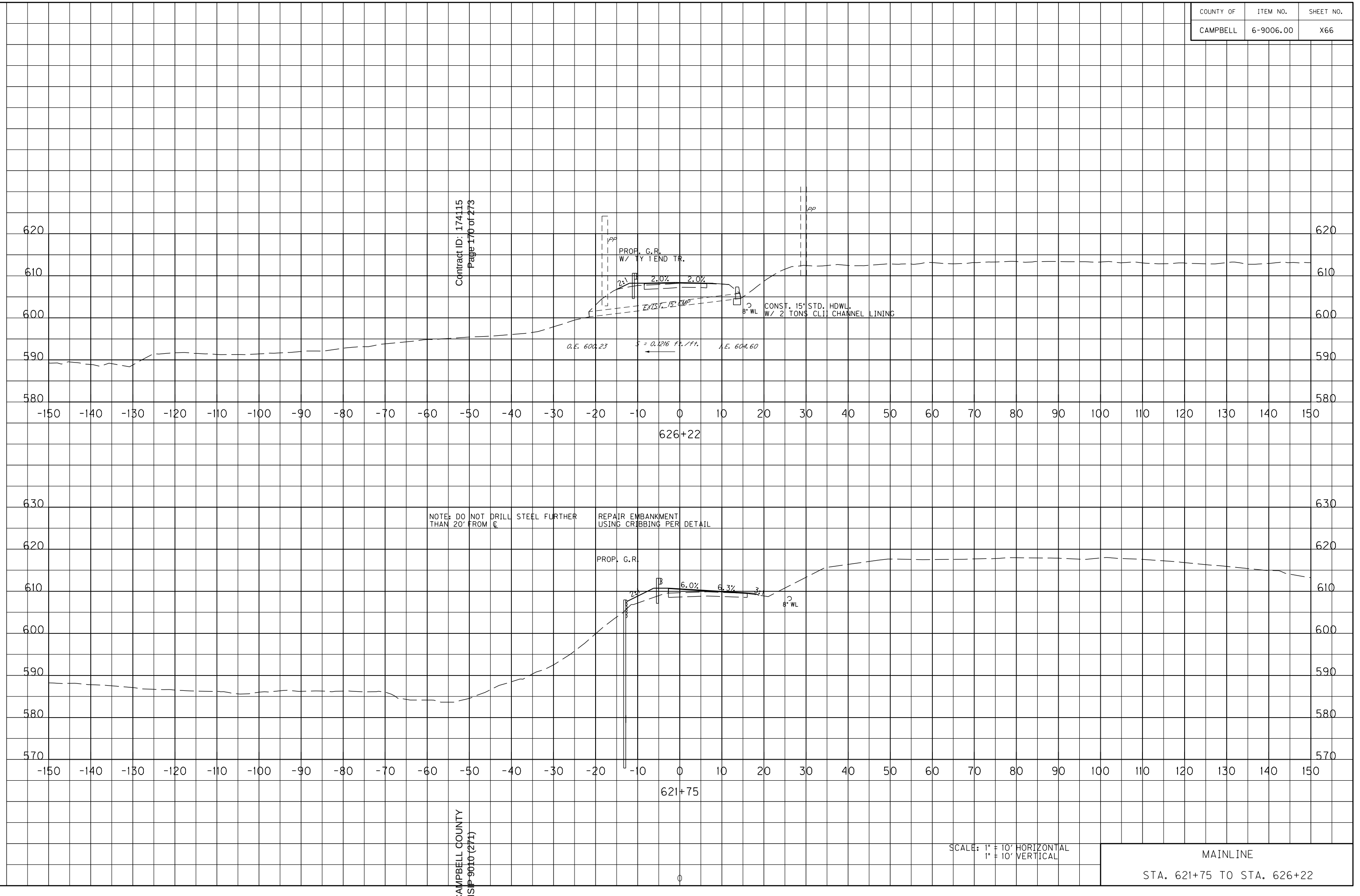
STA. 620+86 TO STA. 621+33

Contract ID: 124115
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CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443
E-SHEET NAME: X06500XS
USER: Scoots
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X66



SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

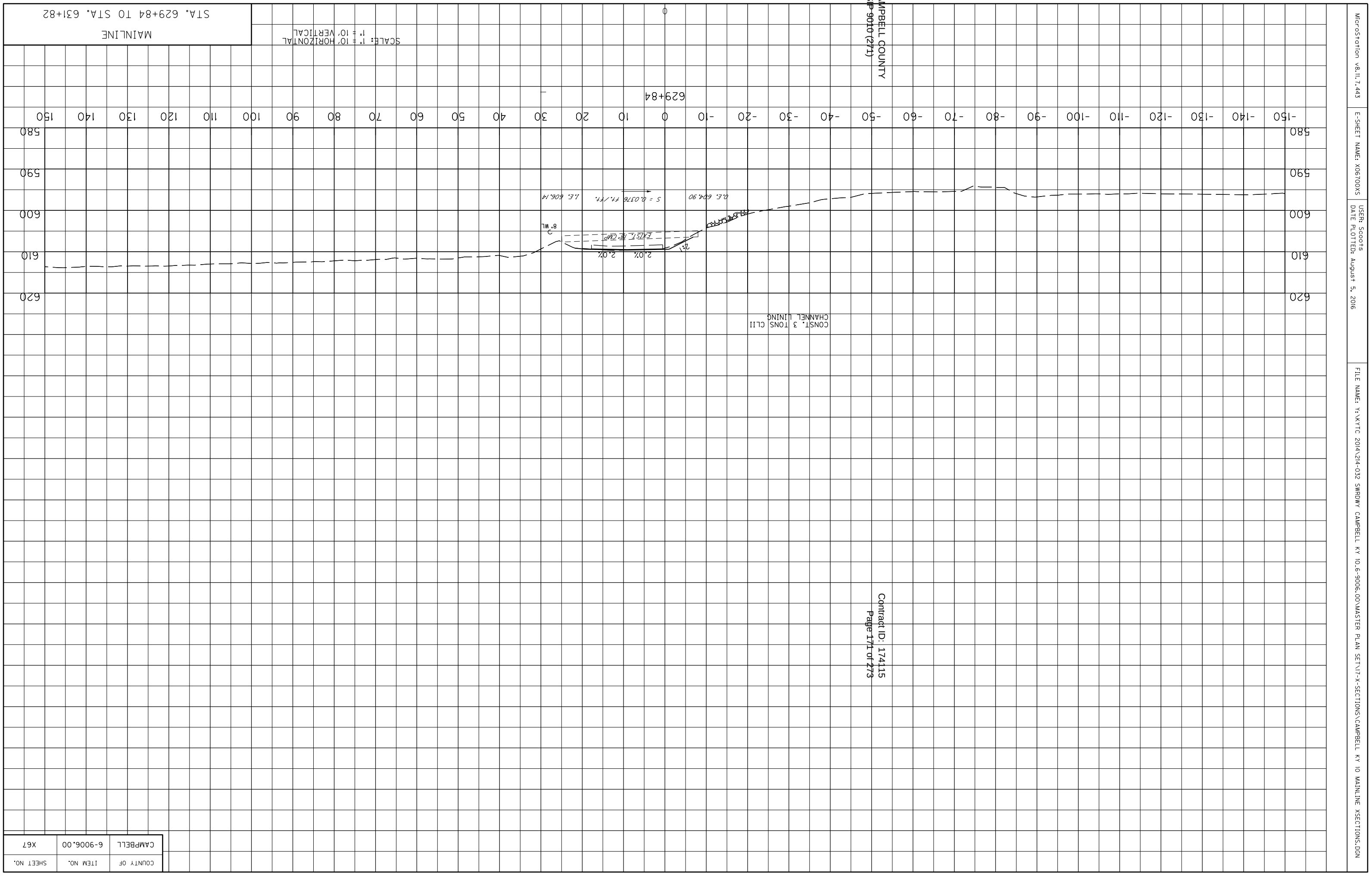
MAINLINE

STA. 621+75 TO STA. 626+22

Contract ID: 174115
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CAMPBELL COUNTY
HSIP 9010(271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X06600XS
MicroStation v8.11.7.443



COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X67

Microstation v8.11.7.443

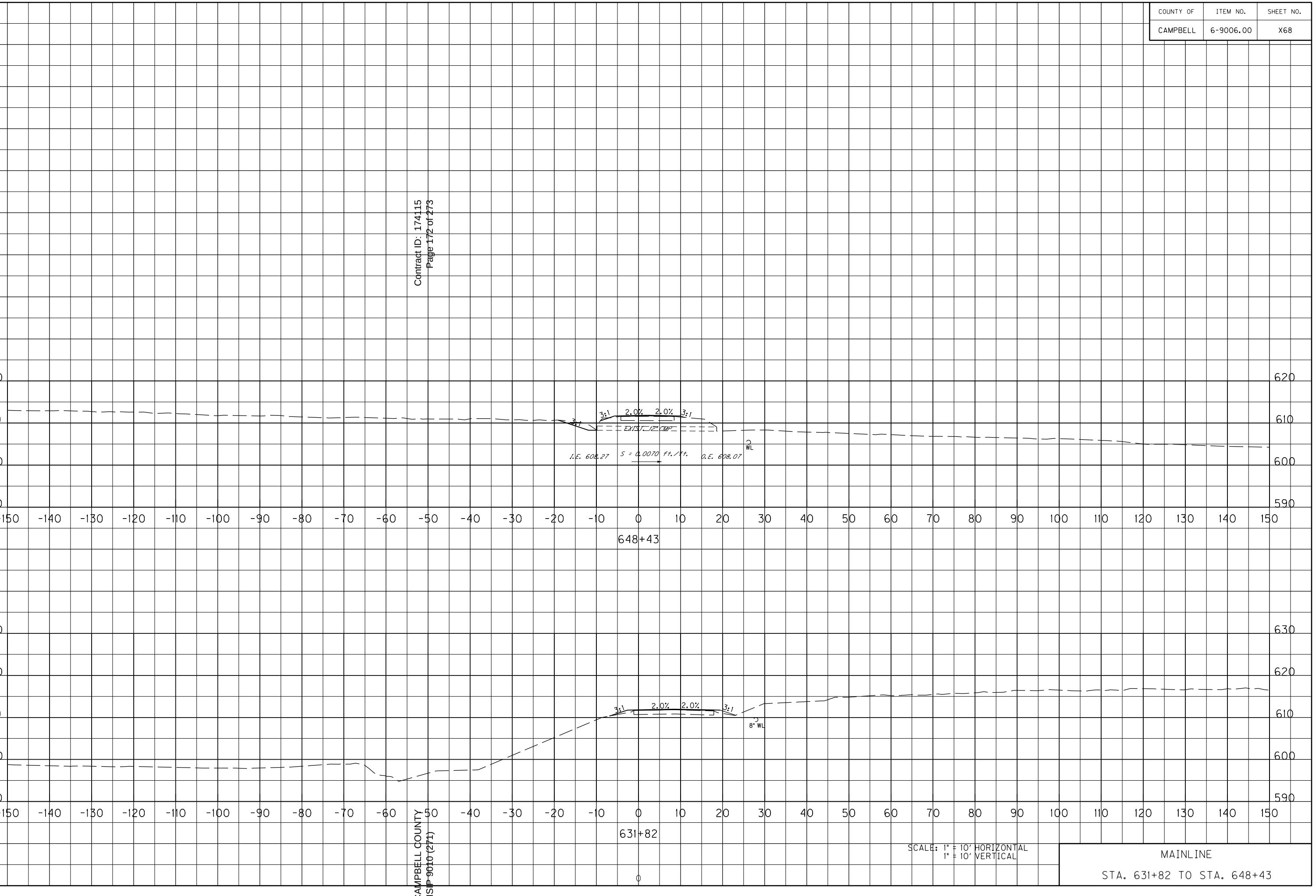
E-SHEET NAME: X067OOXS

USER: Scoots
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SWROMY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X68

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

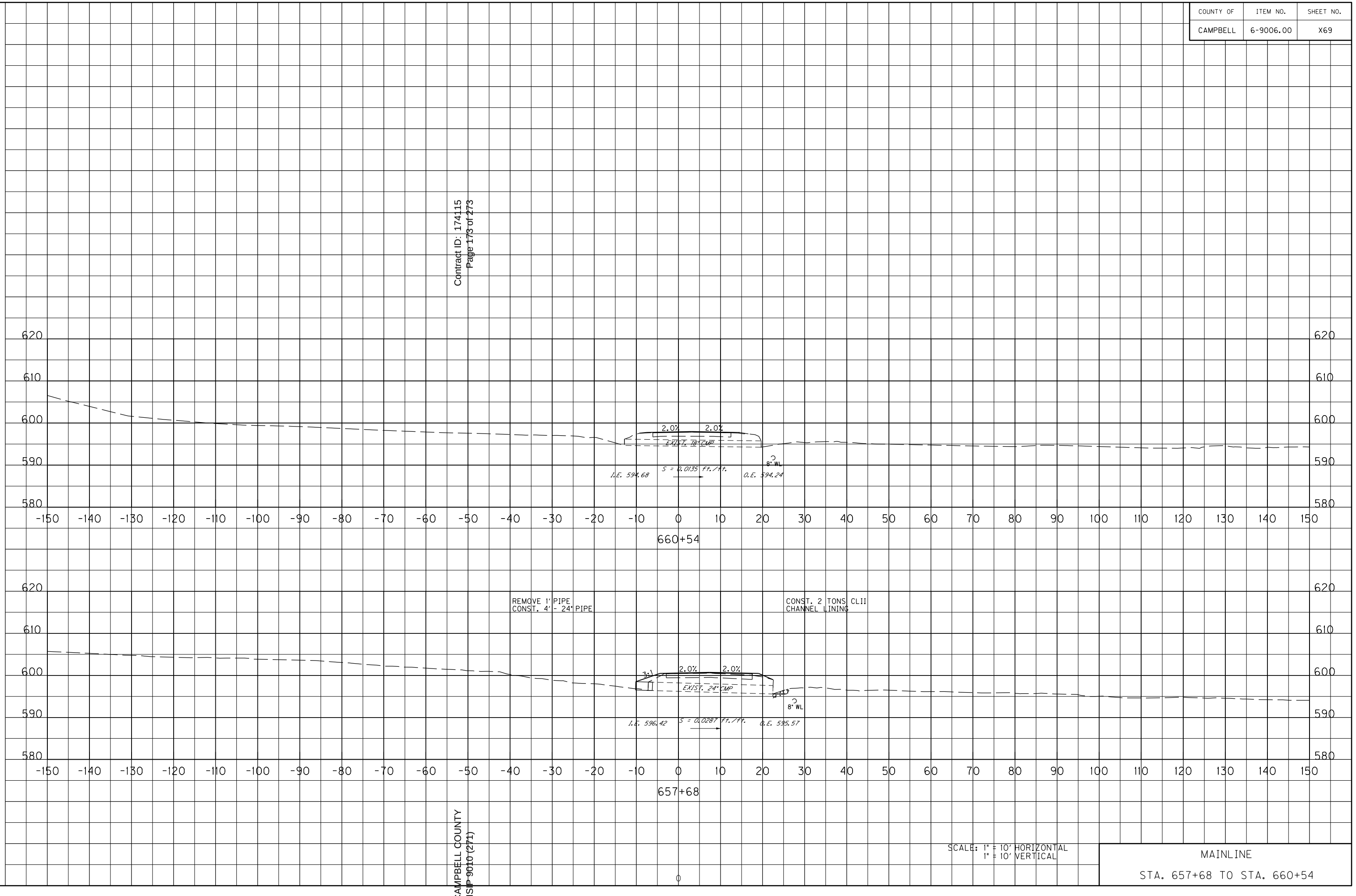
STA. 631+82 TO STA. 648+43

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X06800XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X69

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 657+68 TO STA. 660+54

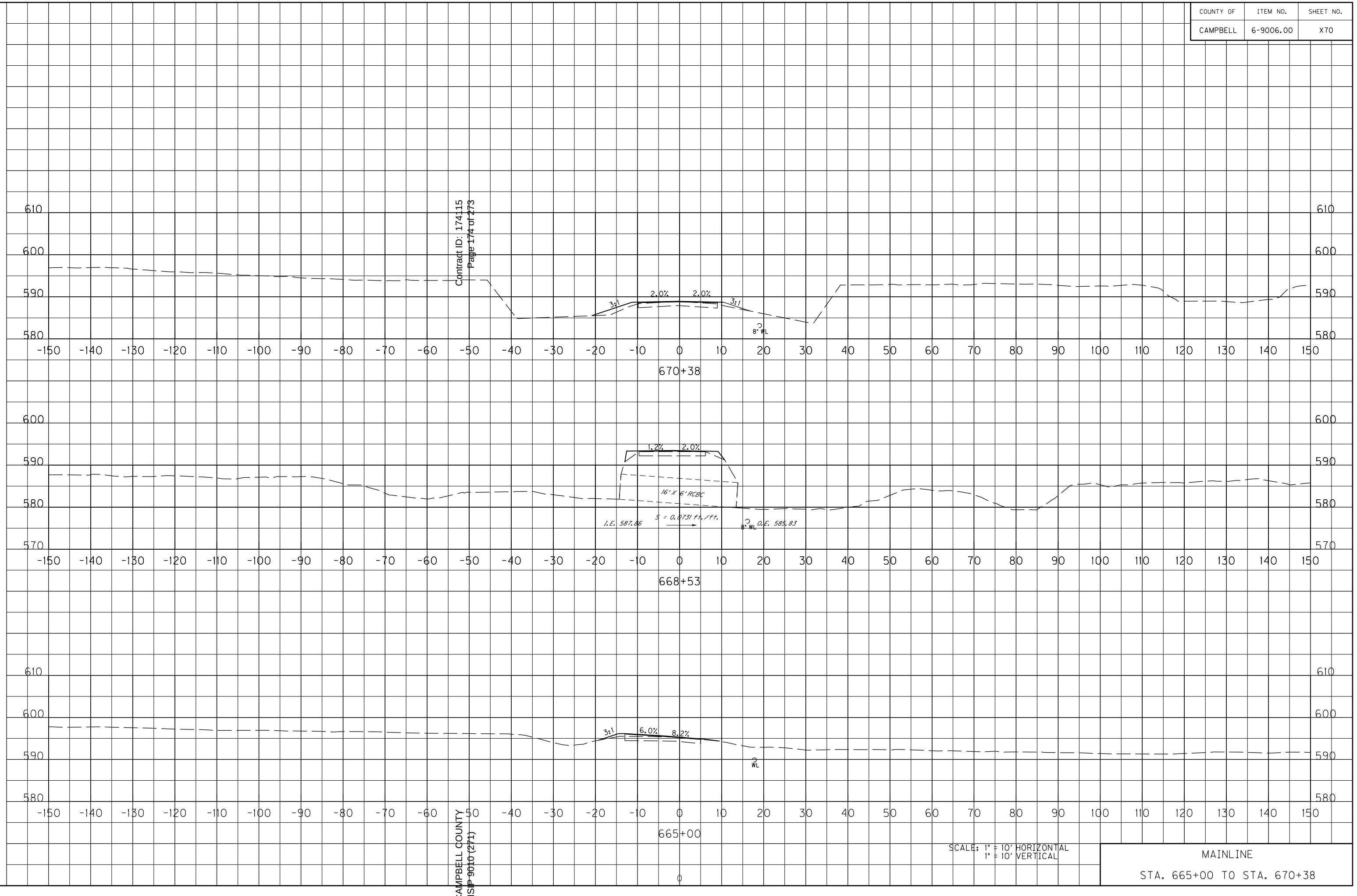
CAMPBELL COUNTY
HSIP 9010 (271)

0

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X06900XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X70

Contract ID: 174115
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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 665+00 TO STA. 670+38

CAMPBELL COUNTY
HSIP 9010 (271)

MicroStation v8.11.7.443 | E-SHEET NAME: X070000XS | USER: Scoots DATE PLOTTED: August 5, 2016 | FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

MAINLINE
STA. 675+17 TO STA. 675+17

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

675+17

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

580 590 600 610 620 630 640 650 660

2.0% 2.0%
EXIST. 30" CMP
8" W
S = 0.0881 Ft./Ft.
I.E. 613.57
O.E. 610.35

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X71

MicroStation v8.11.7.443
E-SHEET NAME: XO710OXS
USER: Scoots
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

MAINLINE

STA. 676+35 TO STA. 678+57

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CAMPBELL COUNTY
HSIP 9010(271)

676+35

678+57

8" WL

2:1

2.0%

EXIST. 6'X 6' RCBC

E.E. 598.25 S = 0.0039 Ft./Ft. I.E. 598.36

Contract ID: 171115
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COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X72

MicroStation v8.11.7.443

E-SHEET NAME: XQ7200XS

USER: Scootts
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

MAINLINE
STA. 680+85 TO STA. 681+30

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CAMPBELL COUNTY
HSIP 9010(271)

680+85

681+30

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

580 590 600 610 620 630 640

REMOVE 1'PIPE
CONST. 5.5'- 30"PIPE
W/

CONST. TONS CLII
CHANNEL LINING

EXIST. 30"CMP

8" WL

S = 0.0353 Ft./Ft.

I.E. 595.01

O.E. 593.75

2.0% 2.0%

3:1 3:1

EX. FENCE

Contract ID: 174115
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COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X73

MicroStation v8.11.7.443

E-SHEET NAME: X0730XS

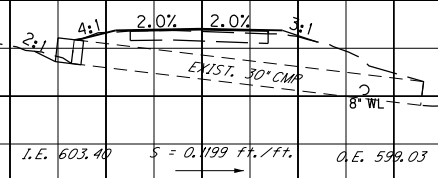
USER: Scootts
DATE PLOTTED: August 5, 2016

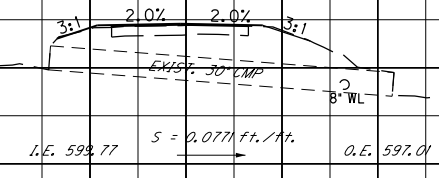
FILE NAME: Y:\KYTC 2014\274-032 SWROMY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X74

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REMOVE 1 L.F. - EXIST. 30" CMP
CONST. 4 L.F. - 30" CULVERT





SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 683+83 TO STA. 684+76

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X07400XS
MicroStation v8.11.7.443

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X75

Contract ID: 174115
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EX. FENCE

3:1 2.0% 2.0% 3:1

8" WL

686+40

REMOVE 1' PIPE
CONST. 9' - 24" PIPE

CONST. 2 TONS CLI
CHANNEL LINING

24"

3:1 2.0% 2.0%

8" WL

EXIST. 24" CMP

I.E. 602.89

S = 0.0971 ft./ft.

O.E. 599.25

685+85

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 685+85 TO STA. 686+40

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X07500XS
MicroStation v8.11.7.443

MAINLINE
STA. 692+31 TO STA. 696+00

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

CAMPBELL COUNTY
HSIP 9010(271)

692+31

692+60

696+00

EX. FENCE

2:1 2.0% 2:1

8"WL

6.0%

3:1

EXIST. 6'X 5' RCBC

S = 0.0025 FT./FT.

I.E. 596.00

O.E. 595.28

EX. FENCE

Contract ID: 174115
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COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X76

MicroStation v8.11.7.443

E-SHEET NAME: XQT60DNS

USER: Scoots
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SWROMY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

590 600 610 620 630 640 650 660

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DO NOT DISTURB FENCE

EX. FENCE

3:1

2.0%

2.0%

3:1

8" WL

697+94

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE
STA. 697+94 TO STA. 697+94

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X77

CAMPBELL COUNTY
HSIP 9010(271)

MAINLINE
STA. 699+39 TO STA. 702+17

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

699+39

702+17

L.E. 607.13 S = 0.0489 ft./ft. O.E. 605.68

EXIST. 18" CMP

8" WL

3:1 2.0% 2.0% 3:1

L.E. 605.80 S = 0.0439 ft./ft. O.E. 604.48

EXIST. 18" CMP

8" WL

6.0%

3:1 4:1

EX. FENCE

REMOVE 1" PIPE
CONST. 7.5' - 18" PIPE

CONST. 2 TONS CLII
CHANNEL LINING

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X78

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MicroStation v8.11.7.443

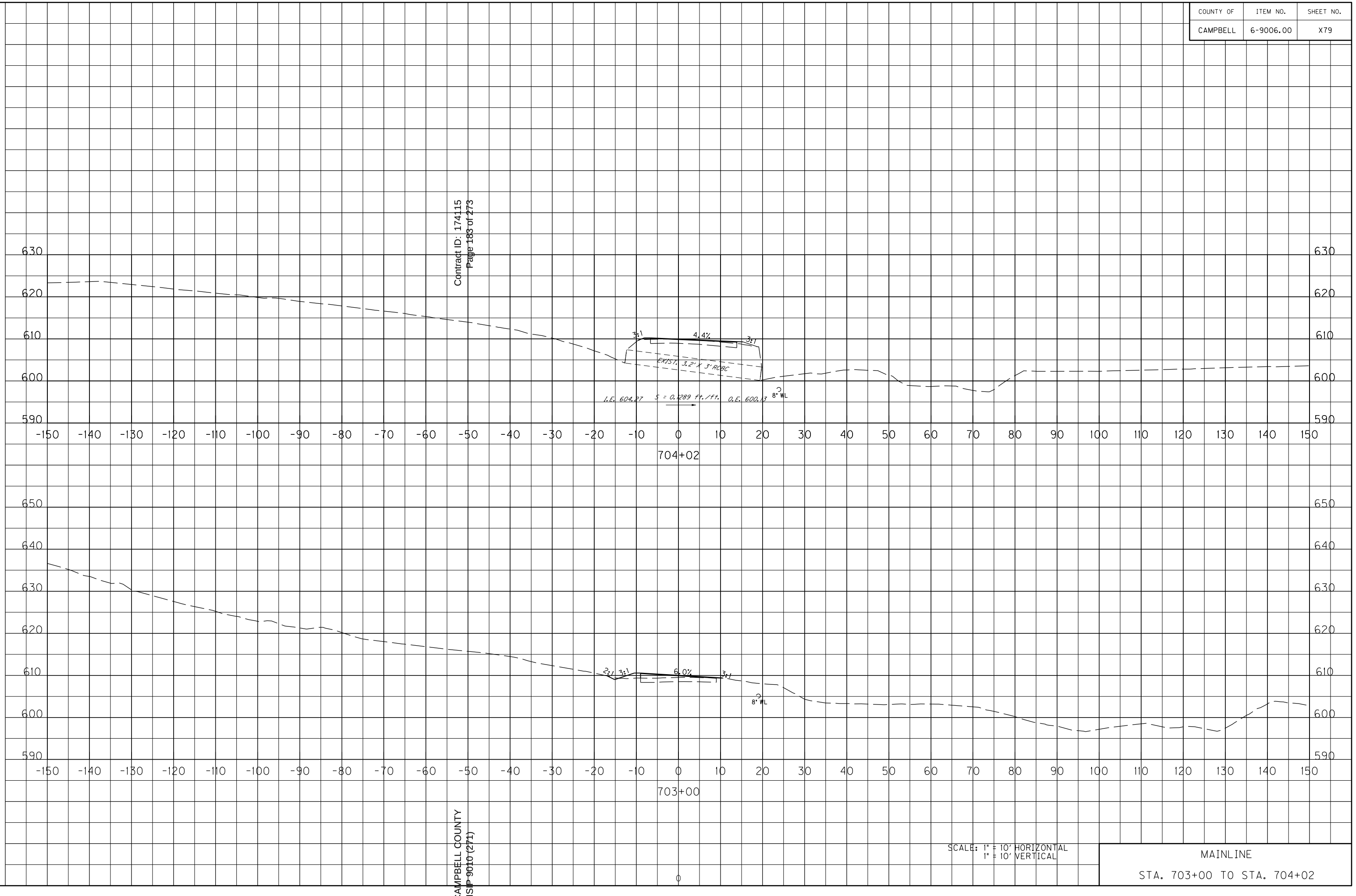
E-SHEET NAME: XO7800XS

USER: Scootts
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SMRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X79

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SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

MAINLINE

STA. 703+00 TO STA. 704+02

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10_6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME: X07900XS
MicroStation v8.11.7.443

CAMPBELL COUNTY
HSIP 9010(271)

MAINLINE
STA. 708+46 TO STA. 710+72

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

708+46

710+72

L.E. 616.58 S = 0.1206 ft./ft. O.E. 613.68

L.E. 621.82 S = 0.0449 ft./ft. O.E. 620.25

EXIST. 18" CMP

2.0% 2.0% 3:1

8' WL

2

Contract ID: 174115
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MicroStation v8.11.7.443
E-SHEET NAME: X08000XS
USER: Scootts
DATE PLOTTED: August 5, 2016
FILE NAME: Y:\KYTC 2014\214-032 SWROMY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X80

CAMPBELL COUNTY
HSIP 9010(271)

MAINLINE
STA. 711+61 TO STA. 716+20

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

711+61

716+20

EX. FENCE

8" WL GAS

GAS

2:1

6.0%

2.0%

2:1

2:1

CAUTION: GASLINE

EX. FENCE

NOTE:
CONTACT DUKE ENERGY PRIOR TO ANY EXCAVATIONS WITHIN 25' OF HIGH PRESSURE TRANSMISSION MAIN

8" WL

2:1

2.0%

2:1

2:1

Contract ID: 174115
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COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X81

MicroStation v8.11.7.443

E-SHEET NAME: X08100XS

USER: Scootts
DATE PLOTTED: August 5, 2016

FILE NAME: Y:\KYTC 2014\214-032 SWROWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	X1

Contract ID: 174115
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590 580 570 560 550 540 530 520

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

7.1% 7.0%

DITCHING RT.

235+00

BEGIN PROJECT
STA. 233+37.60

0

SCALE: 1" = 10' HORIZONTAL
1" = 10' VERTICAL

DESIGNED BY:

DATE SUBMITTED:

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS
COUNTY OF

CAMPBELL

PROJECT NUMBERS:

MAINLINE

STA. 233+37.60 TO STA. 235+00

CAMPBELL COUNTY
HSIP 9010 (271)

FILE NAME: Y:\KYTC 2014\214-032 SWRDWY CAMPBELL KY 10.6-9006.00\MASTER PLAN SET\17-X-SECTIONS\CAMPBELL KY 10 MAINLINE XSECTIONS.DGN
USER: Scoots
DATE PLOTTED: August 5, 2016
E-SHEET NAME:
MicroStation v8.11.7.443

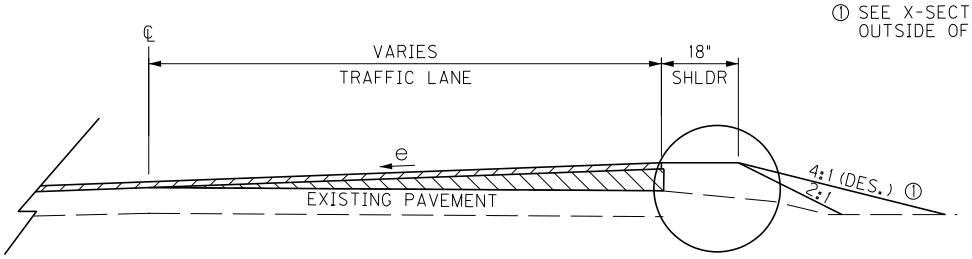
COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006.00	____

TYPICAL SECTIONS

MAINLINE

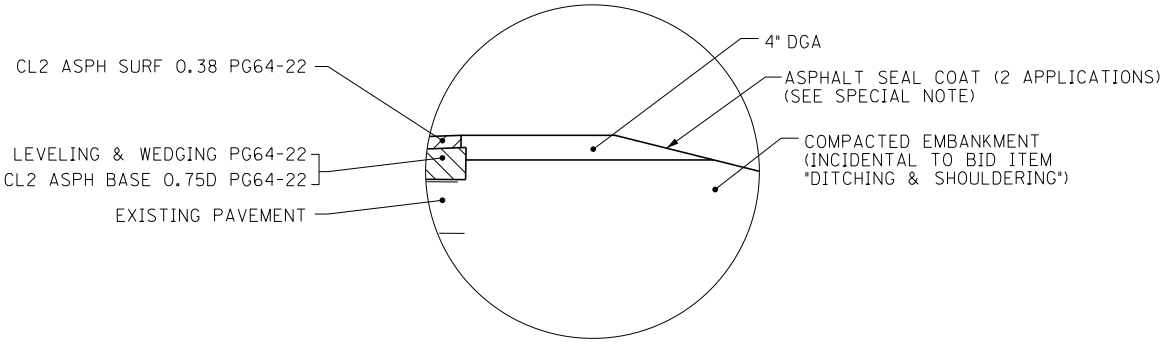
NOTES:

① SEE X-SECTIONS FOR SLOPES OUTSIDE OF SHOULDER



DETAIL "A"

(FILL)



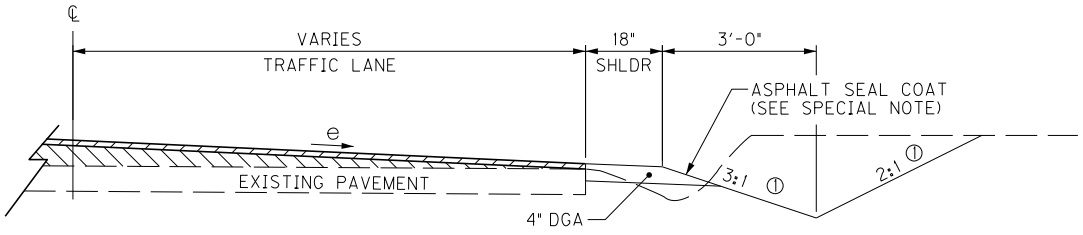
DETAIL "A"

PAVEMENT SCHEDULE

OVERLAY TRAFFIC LANES	1.25" CL2 ASPHALT SURFACE 0.38D PG64-22* VAR. THICKNESS - LEVELING AND WEDGING PG64-22 AND/OR CL 2 ASPH BASE 0.75D PG64-22
SHOULDER	4.00" DGA

NOTE: ASPHALT MATERIAL FOR TACK AS DIRECTED BY ENGINEER (INCIDENTAL)

* (NOTE: SURFACE COURSE TO BE CONSTRUCTED BY OTHERS WITH RESURFACING PROJECT FROM BEGINNING OF PROJECT (STA. 233+37.60 - KY 1997 STONEHOUSE RD. TO STA. 616+00 - KY 735 SMITH RD.) BASE LAYERS TO BE KEYED IN PER ATTACHED DRAWINGS AS INDICATED FOR THESE AREAS.



(CUT)
(V–DITCH)

(NOTE: ALL EARTHWORK REQUIRED FOR SHOULDER WIDENING & DITCH CONSTRUCTION IS INCIDENTAL TO BID ITEM "DITCHING & SHOULDERING")

N.T.S.

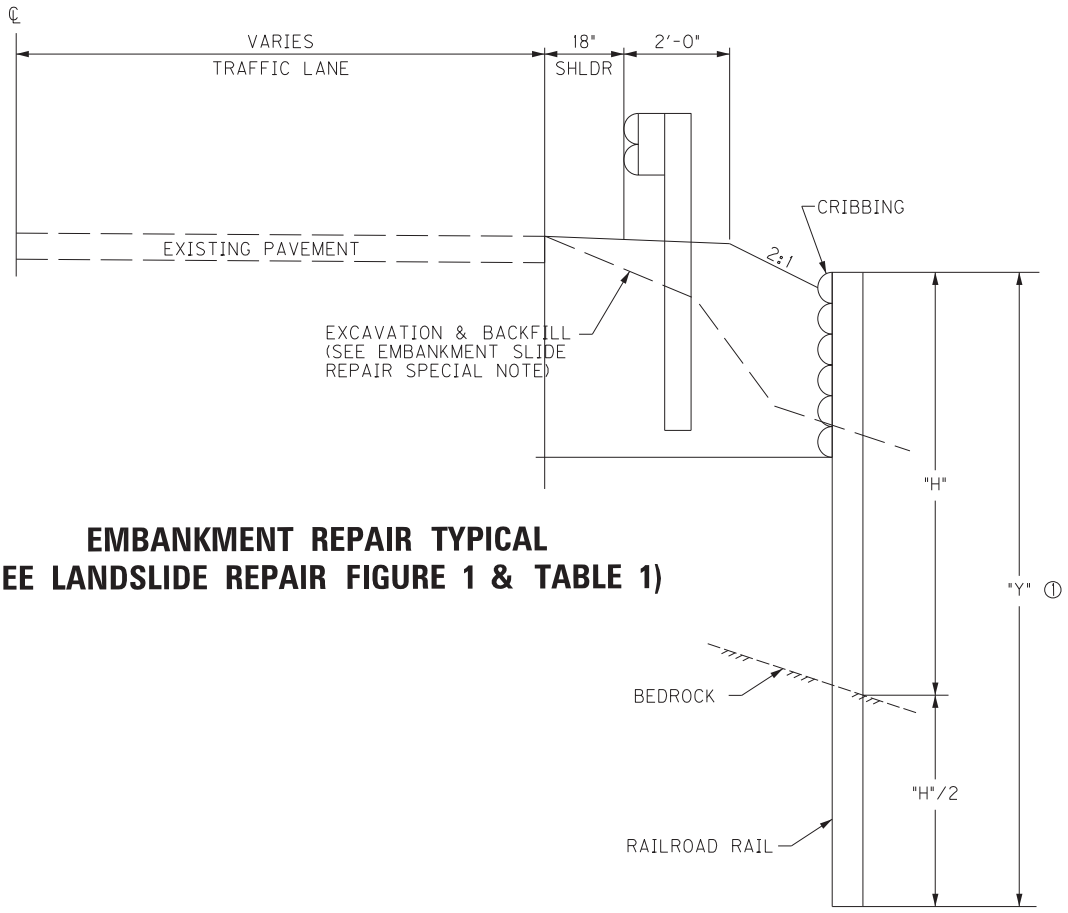
KY 10
TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006	

Contract ID: 174115

EMBANKMENT REPAIR DETAIL

DRILLED RAILROAD STEEL



EMBANKMENT REPAIR TYPICAL
(SEE LANDSLIDE REPAIR FIGURE 1 & TABLE 1)

NOTES:

① AN ASSUMED 40 FEET RAILROAD STEEL IS ESTIMATED. GEOTECHNICAL BORINGS WERE ADVANCED, AND, AS SUCH, ROCK DEPTHS MAY DIFFER FROM THOSE ESTIMATED ABOVE. THEREFORE THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL DEPTH TO ROCK AND PROVIDING TO THE DEPARTMENT TO BE APPROVED BY THE ENGINEER.

N.T.S.

KY 10
EMBANKMENT REPAIR DETAIL
TYPICAL SECTION

DETAIL SHEETS FOR SLIDE REPAIR

ALTERNATE SCHEMES FOR INSTALLING RAILROAD RAILS IN DRILLED SOCKETS

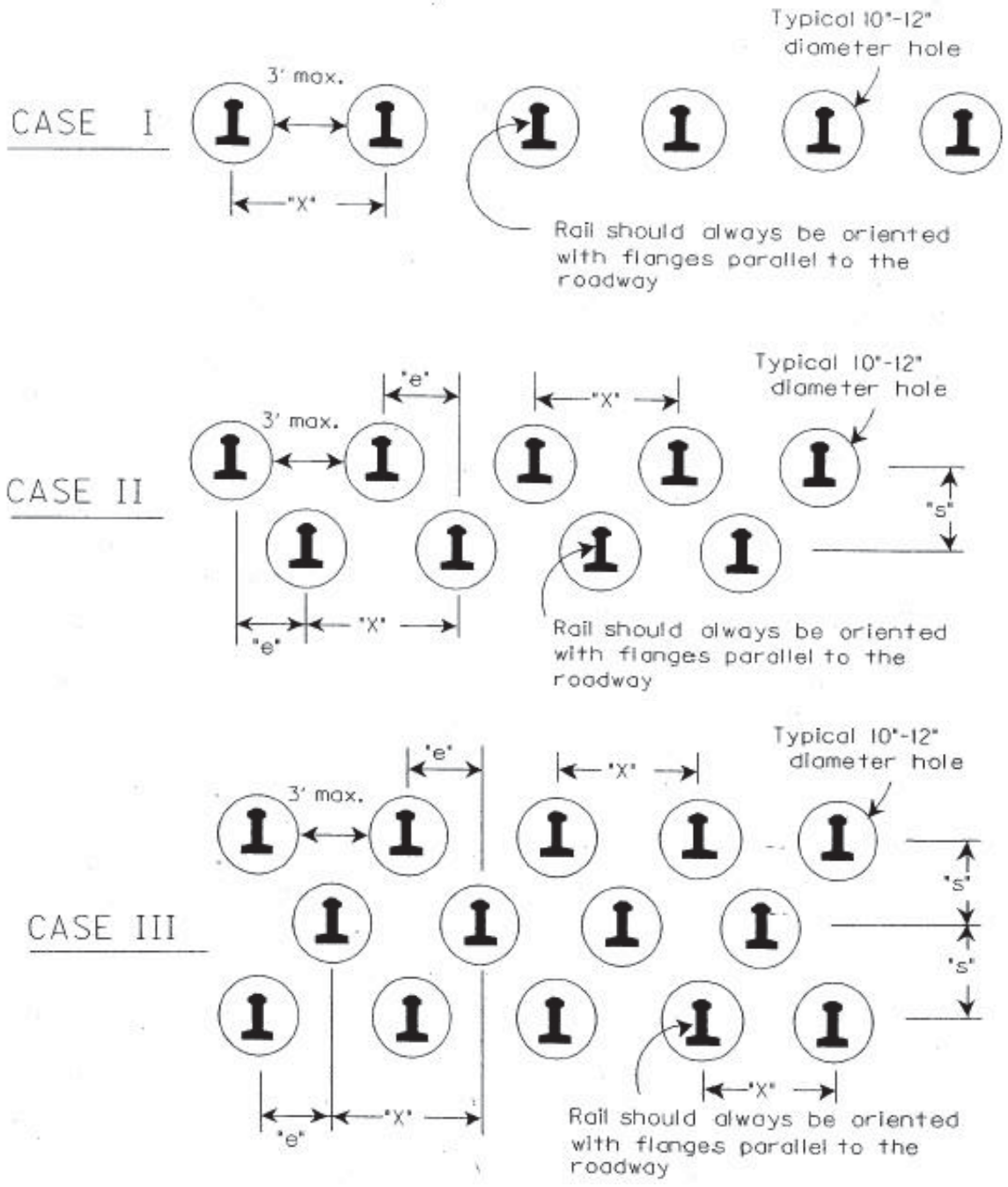


FIGURE 3

DETAIL SHEETS FOR SLIDE REPAIR

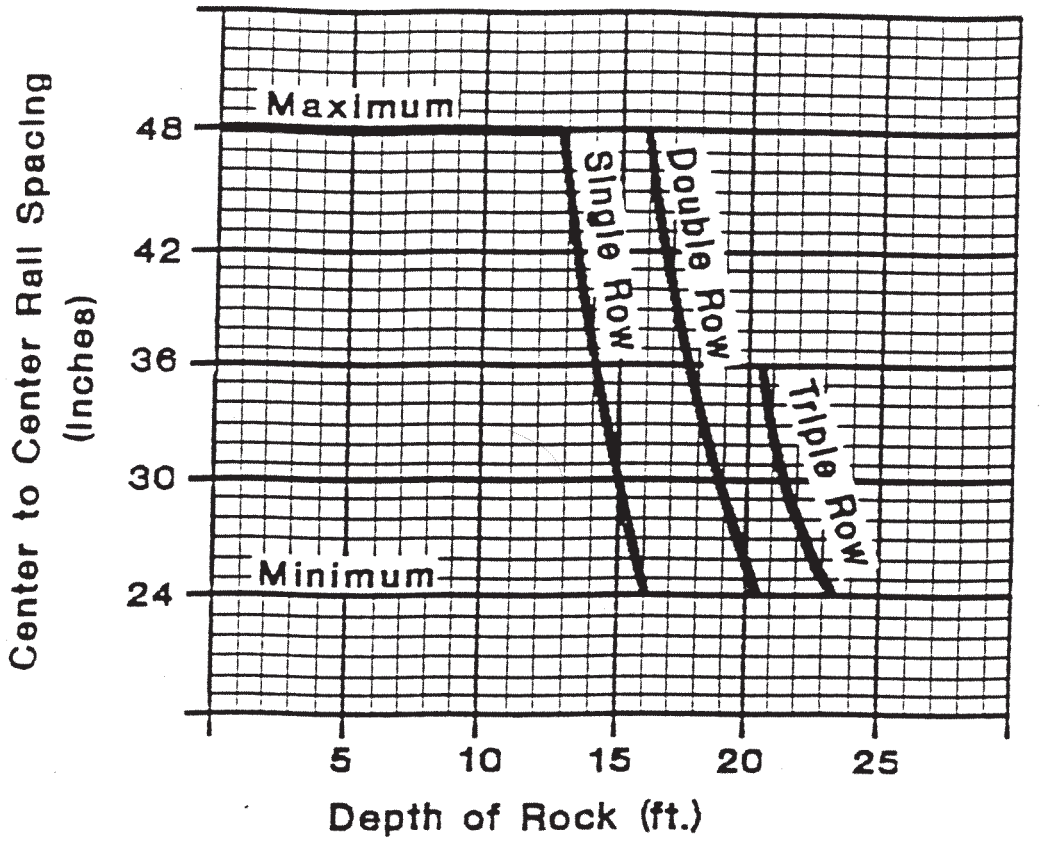
TABLE 1
FACTOR OF SAFETY = 1.0
DESIGN CHART FOR 130LBS/YD TO 133 LBS/YD
RECYCLED (USED) RAILROAD RAILS

REFER TO FIGURES 1, 2, & 3 FOR DIMENSIONS SHOWN BELOW

Soil Depth to Bedded Rock "H" (Feet)	Minimum Embedment into Bedded Rock "H/2" (Feet)	Total Length of Installed Railroad Rail "Y" (Feet)	Required Number of Rows	Maximum Spacing Between Rails "X" (Max. 48") (Inches)	Effective Spacing Between Rows of Rails "e'" (Inches)
8	4	12	1	48	N/A
9	4.5	13.5	1	48	N/A
10	5	15	1	48	N/A
11	5.5	16.5	1	48	N/A
12	6	18	1	48	N/A
13	6.5	19.5	1	48	N/A
14	7	21	1	32	N/A
15	7.5	22.5	2	48	24
16	8	24	2	44	22
17	8.5	25.5	2	36	18
18	9	27	2	28	14
19	9.5	28.5	2	24	12
20	10	30	3	33	11
21	10.5	31.5	3	28.5	9.5
>21	N/A	N/A	N/A	N/A	N/A

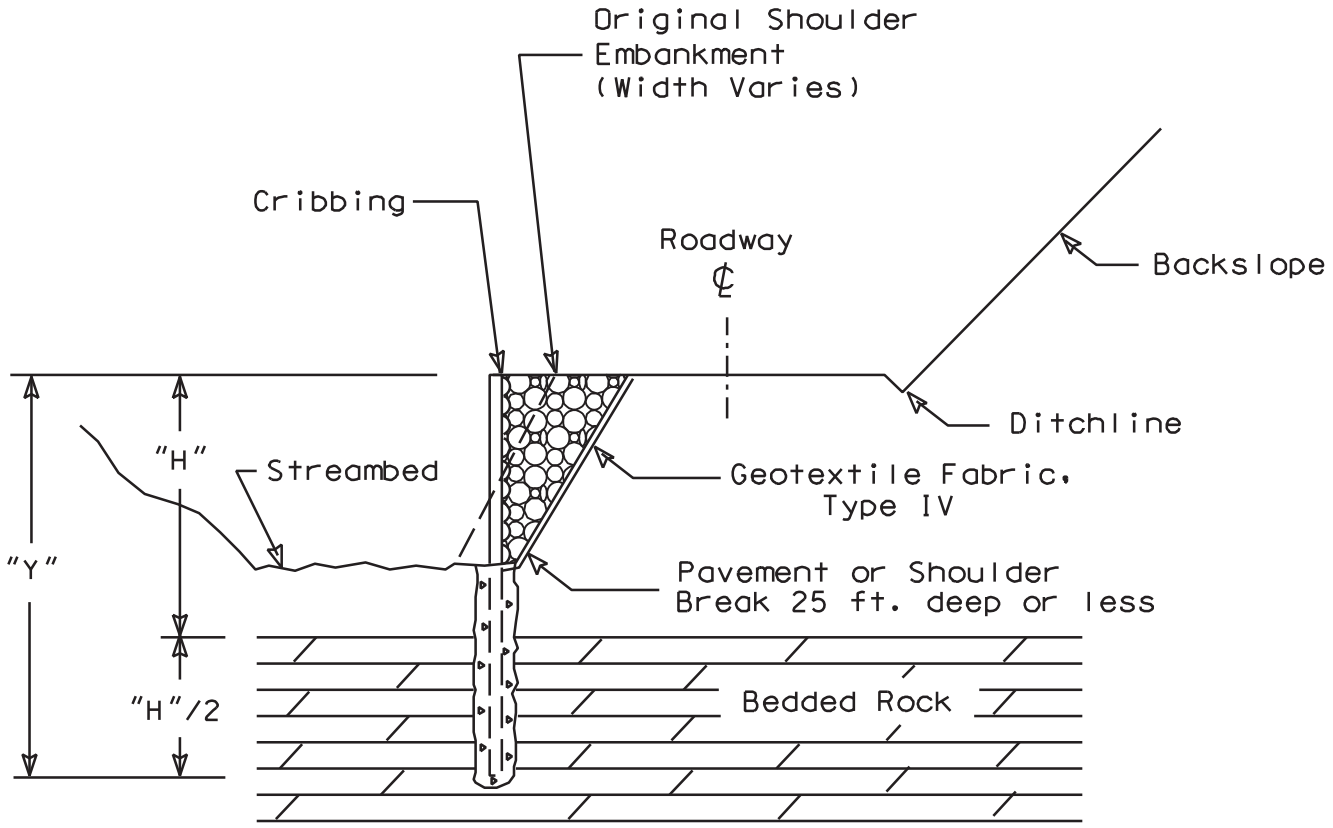
NOTE: SOIL DEPTHS "H" GREATER THAN 2L FEET SHALL BE REFERRED TO THE ENGINEER.

Design Chart for 136 to 140 lb./yd. Rails



TYPICAL CROSS SECTION OF ROADWAY REPAIRS UTILIZING RECYCLED RAILROAD RAILS IN DRILLED SOCKETS FOR EMBANKMENT EROSION CORRECTION

NOTE:
Spacing from edge to edge of drilled socket : 3 ft. max.



NOTE :
"H"/2 Depth of Rail into bedded rock = 1/3 total length where rock is present.

Figure 2

TYPICAL SECTION DEPICTING INSTALLATION OF RECYCLED RAILROAD RAIL PLACED IN DRILLED SOCKET FOR LANDSLIDE CORRECTION

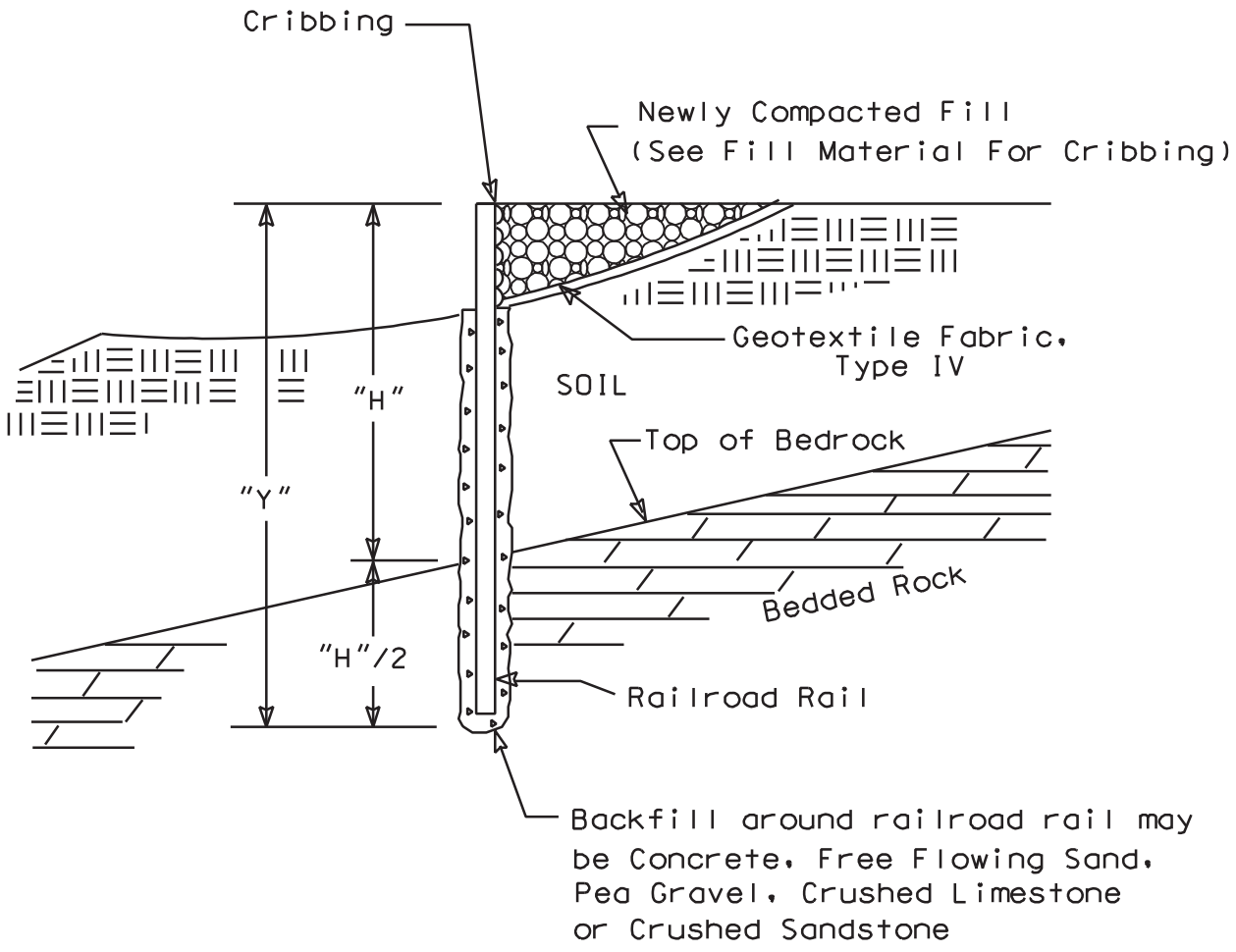
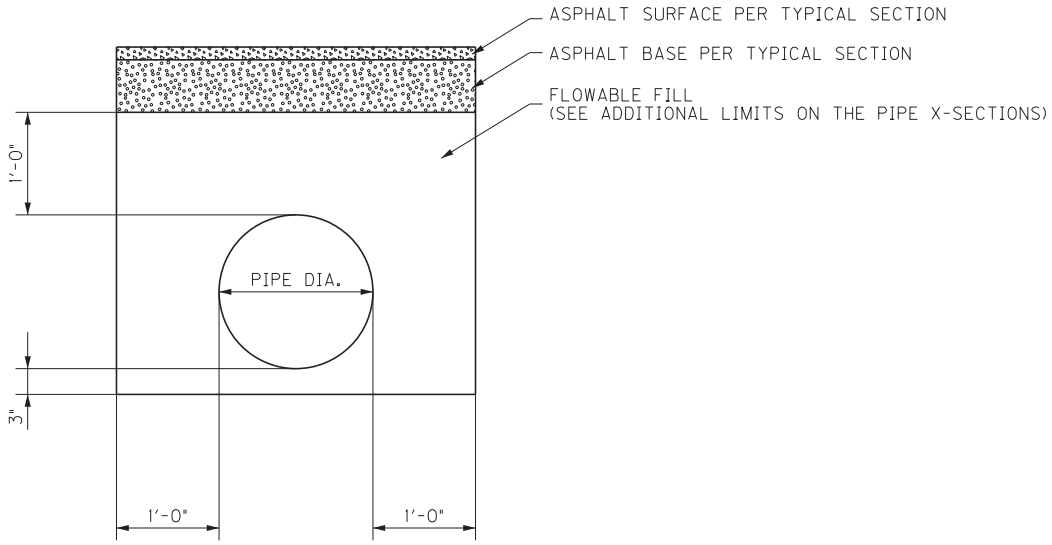


Figure 1

COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006	

CULVERT PIPE DETAIL

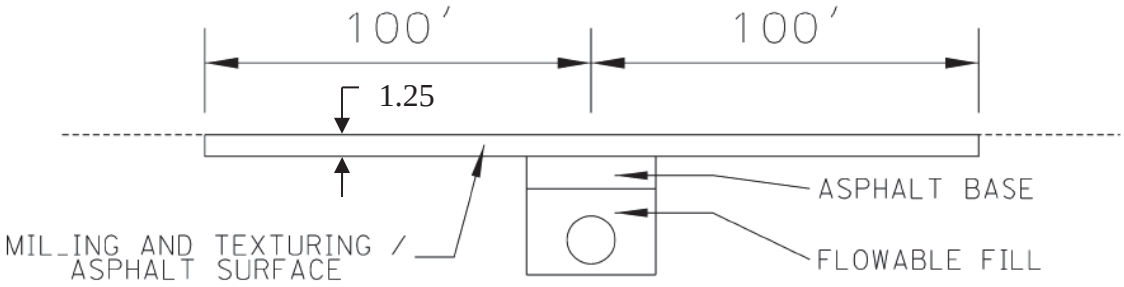


FOR INFORMATION PURPOSES ONLY
CONTRACTOR SHALL REFER TO KYTC SPECIFICATIONS FOR INSTALLATION REQUIREMENTS

ALL MATERIALS REQUIRED FOR INSTALLATION ARE INCIDENTAL TO BID ITEM, CULVERT PIPE, INCLUDING FLOWABLE FILL.

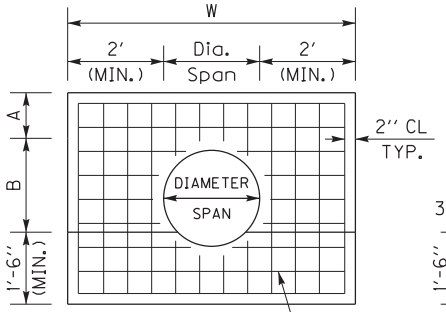
KY 10
CULVERT PIPE DETAIL

PIPE REPLACEMENT DETAIL

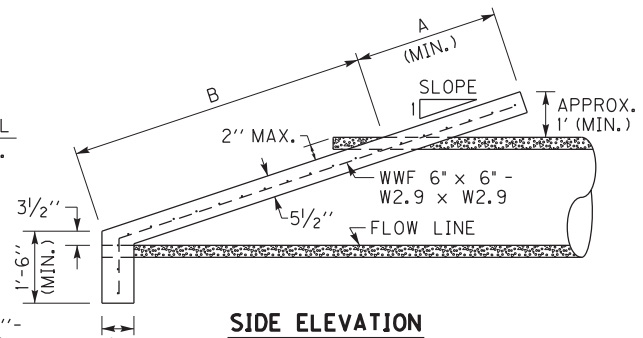


Construct Edge Keys at the beginning and end of superelevation horizontal curve improvements and pipe replacement locations. Unless specified in the Contract or directed by the Engineer, do not construct edge keys at intersecting streets, roads, alleys, or entrances. Cut out the existing asphalt surface to the required depth and width shown on the drawing and heel the new surface into the existing surface. The Department will make payment for this work at the Contract unit price per linear foot of edge key, which shall be full compensation for all labor, materials, equipment, and incidentals for removal and disposal of the existing asphalt surface required to construct the edge key.

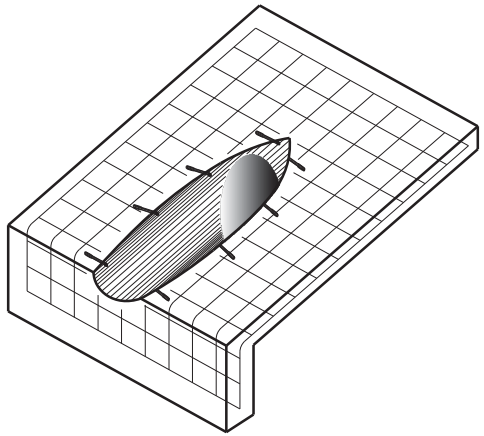
COUNTY OF	ITEM NO.	SHEET NO.



END ELEVATION
SHOWN WITH WOVEN WIRE REINFORCEMENT



SIDE ELEVATION
SHOWN WITHOUT GRATE



ISOMETRIC VIEW
SHOWN WITH WOVEN WIRE REINFORCEMENT AND WEDGE ANCHORS

~ NOTES ~

BID ITEM AND UNIT TO BID: 24575ES610
HEADWALL (SLOPED & MITERED CONCRETE-FOR _ INCH PIPE) - EACH

1. THE EMBANKMENT FILL MATERIAL IS TO BE PLACED, COMPACTED, AND GRADED AROUND THE PIPE BEFORE THE CONCRETE SLOPE PAVING IS PLACED. THE INTENT IS FOR THE SLOPED & MITERED HEADWALL TO MATCH THE FINAL EMBANKMENT SLOPE.
2. THE PIPE SHALL BE MITERED AFTER THE CONCRETE SLOPE PAVING HAS BEEN PLACED AND SUFFICIENTLY CURED. THE PIPE SHOULD BE MITERED AS CLOSE TO FLUSH WITH THE SLOPE PAVING AS POSSIBLE, AND NO HIGHER THAN 2" ABOVE THE SLOPE PAVING. (SOME HAND FINISHING AND/OR CUTTING MAY BE NECESSARY.)
3. THE DIMENSION 'A' IS BASED ON THE FINAL GRADED SLOPE. THE DIMENSION 'B' IS BASED ON CIRCULAR REINFORCED CONCRETE PIPE AT 0° SKEW FOR THE LISTED SLOPE. THE DIMENSION 'W' IS BASED ON THE DIAMETER, OR SPAN, OF THE PIPE. NOTE: THE HEADWALL DIMENSIONS AND CONCRETE QUANTITIES MAY VARY BASED ON THE FINAL GRADED SLOPE, PIPE SKEW, AND/OR TYPE OF PIPE.
4. CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL.
5. AFTER THE PIPE HAS BEEN MITERED, ANCHOR THE PIPE TO THE CONCRETE SLOPE PAVING BY CORE DRILLING AND INSTALLING 1/2" Diameter x 7" Length STEEL WEDGE ANCHORS (3" MINIMUM EMBEDMENT) ON 18" CENTERS ALONG THE SIDES OF THE PIPE. (HOLE SIZE & DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE.) NOTE: STEEL WEDGE ANCHORS ARE NOT REQUIRED FOR REINFORCED CONCRETE PIPE.
6. THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
   -24" DIAMETER PIPE ON GREATER THAN 30° SKEW
   -30" DIAMETER PIPE ON GREATER THAN 15° SKEW
   -ALL PIPE WITH GREATER THAN 30" DIAMETER.
   -ALL ELLIPTICAL EQUIVALENT PIPE GREATER THAN 24"
   SEE SHEET 2 FOR GRATE DETAILS
7. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

DIMENSIONS AND CONCRETE QUANTITIES

PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE			
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE
15"	3'	3'-7½"	5'-3"	0.74	4'	4'-8¾"	5'-3"	0.93	6'	6'-11¾"	5'-3"	1.29
18"	3'	4'-5¾"	5'-6"	0.85	4'	5'-10"	5'-6"	1.05	6'	8'-7¼"	5'-6"	1.48
24"	3'	6'-2½"	6'-0"	1.05	4'	8'-1"	6'-0"	1.32	6'	11'-11"	6'-0"	1.87
30"	3'	7'-10¾"	6'-6"	1.43	4'	10'-3¾"	6'-6"	1.80	6'	15'-2½"	6'-6"	2.28

NOTE: CONCRETE QUANTITIES ARE LISTED FOR IMFORMATIONAL PURPOSES ONLY.

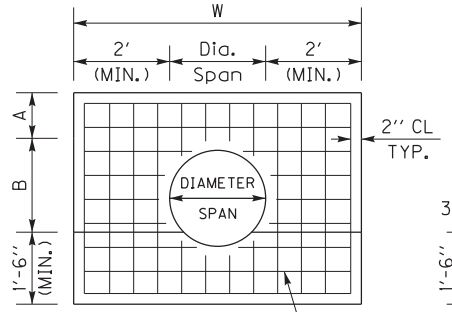
SEE SHEET 2 FOR DIMENSIONS OF HEADWALLS FOR PIPE OVER 30"

NOT TO SCALE

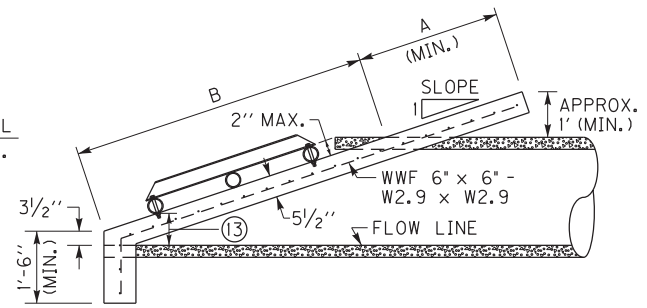
KENTUCKY DEPARTMENT OF HIGHWAYS

SLOPED & MITERED CONCRETE HEADWALL (SHEET 1 OF 2)

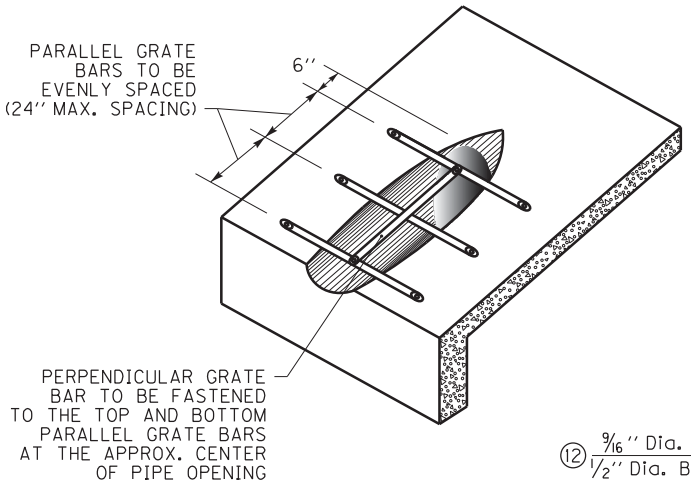
COUNTY OF	ITEM NO.	SHEET NO.



END ELEVATION
SHOWN WITH WOVEN WIRE REINFORCEMENT



SIDE ELEVATION
SHOWN WITH GRATE



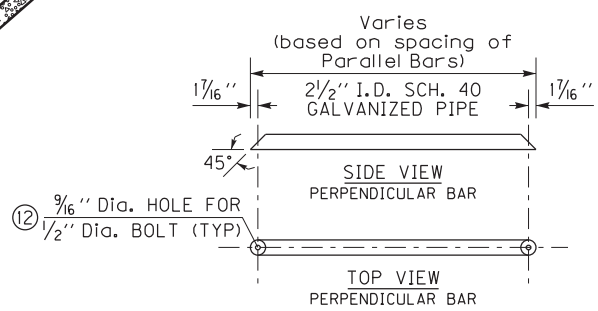
ISOMETRIC VIEW
SHOWING HEADWALL WITH GRATE

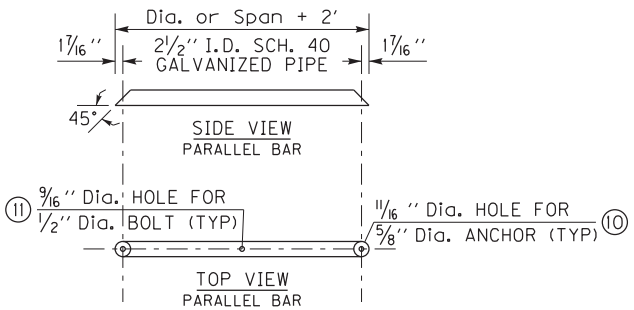
~ NOTES ~

BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR _ INCH PIPE) - EACH

SEE SHEET 1 FOR NOTES 1 THRU 5

6. THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
-24" DIAMETER PIPE ON GREATER THAN 30° SKEW
-30" DIAMETER PIPE ON GREATER THAN 15° SKEW
-ALL PIPE WITH GREATER THAN 30" DIAMETER.
-ALL ELLIPTICAL EQUIVALENT PIPE GREATER THAN 24"
7. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
8. THE PIPE USED TO CONSTRUCT THE GRATE SHALL BE STEEL, SCHEDULE 40, CONFORMING TO ASTM A53, AND GALVANIZED IN ACCORDANCE WITH AASHTO M 111 AFTER FABRICATION.
9. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
10. FASTEN PARALLEL BARS TO HEADWALL WITH ⅝" Dia. x 4½" LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2¾" (HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES PER RECOMMENDATION OF ANCHOR MANUFACTURE)
11. CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
12. FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM PARALLEL BARS WITH ½" Dia. x 4" LENGTH HEX HEAD BOLTS, HEX HEAD NUTS, & FLAT WASHERS.
13. THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.





PIPE FOR GRATE DETAILS
SEE NOTE 6 TO DETERMINE IF GRATE IS REQUIRED

DIMENSIONS AND CONCRETE QUANTITIES												
PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE			
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE
36"	3'	9'-7½"	7'-0"	1.51	4'	12'-6½"	7'-0"	1.91	6'	18'-6"	7'-0"	2.42
42"	3'	11'-4"	7'-6"	1.76	4'	14'-9¼"	7'-6"	2.23	6'	21'-9½"	7'-6"	3.19

NOTE: CONCRETE QUANTITIES ARE LISTED FOR IMFORMATIONAL PURPOSES ONLY.

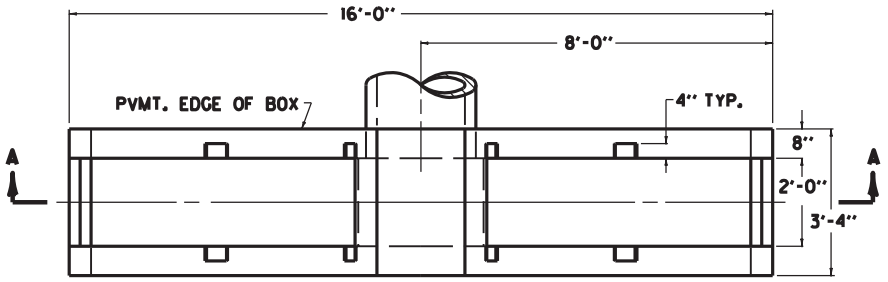
SEE SHEET 1 FOR DIMENSIONS OF HEADWALLS FOR PIPE 30" & LESS

NOT TO SCALE

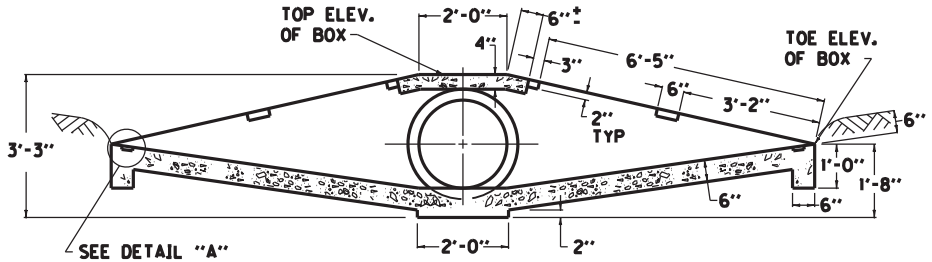
KENTUCKY DEPARTMENT OF HIGHWAYS

SLOPED & MITERED CONCRETE HEADWALL (SHEET 2 OF 2)

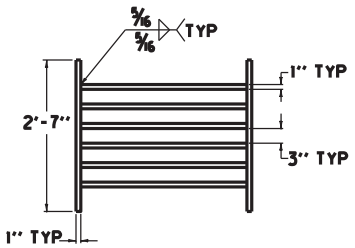
COUNTY OF	ITEM NO.	SHEET NO.



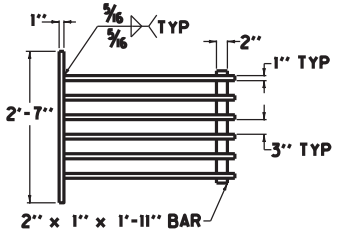
PLAN VIEW



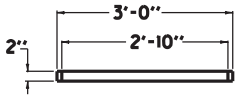
SECTION A-A



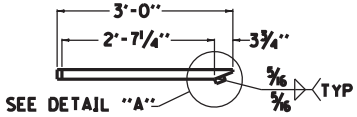
GRATE NO. 1
PLAN VIEW



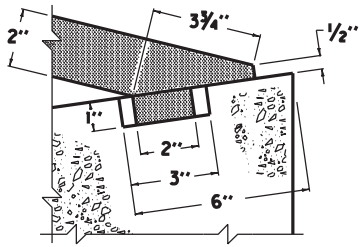
GRATE NO. 2
PLAN VIEW



GRATE NO. 1
SIDE ELEVATION



GRATE NO. 2
SIDE ELEVATION



DETAIL "A"

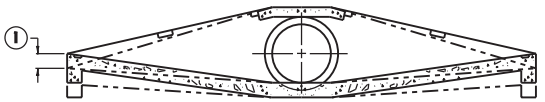
NOTES

ITEM CODE	BID ITEM	UNIT
1728	SAFETY BOX INLET-18 IN DBL SDB-5	EACH
1729	SAFETY BOX INLET-24 IN DBL SDB-5	EACH

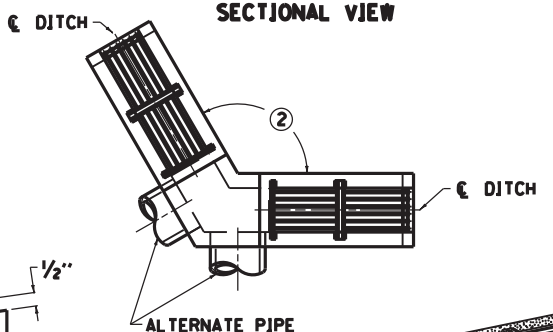
THE UNIT BID FOR EACH STRUCTURE SHALL INCLUDE ALL CONCRETE, STRUCTURAL STEEL GRATING, EXCAVATION, LABOR AND INCIDENTALS NECESSARY FOR ITS CONSTRUCTION AS DETAILED ON THIS SHEET.

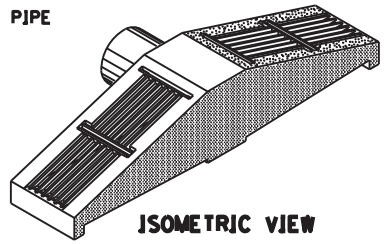
(1) TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.

(2) ANGLE BETWEEN BOX WALLS MAY VARY TO FIT EXISTING FIELD CONDITIONS.



SECTIONAL VIEW





ISOMETRIC VIEW

APPROXIMATE QUANTITIES			
CLASS "A" CONC.	GRATE	LBS. STRUCTURAL STEEL	
CUBIC YARDS	NUMBER	EACH GRATE	TOTAL POUNDS
2.07	1	145	596
	2	153	

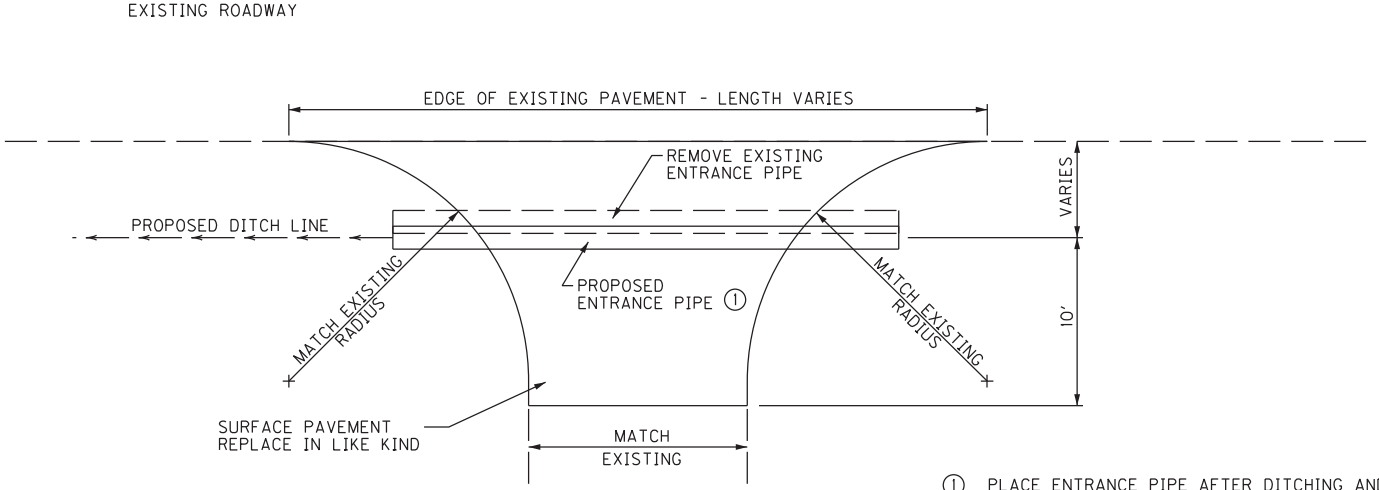
N/A

DBL SAFETY BOX INLET DETAIL SHEET

MicroStation v8.11.7.443
E-SHEET NAME: ——
USER: Patrick.Stone
DATE PLOTTED: September 24, 2013
FILE NAME: C:\USERS\PATRICK.STONE\APPDATA\LOCAL\MICROSOFT\WINDOWS\TEMPORARY INTERNET FILES\CONTENT.OUTLOOK\YO843LNA\SAFETY BOX.DGN

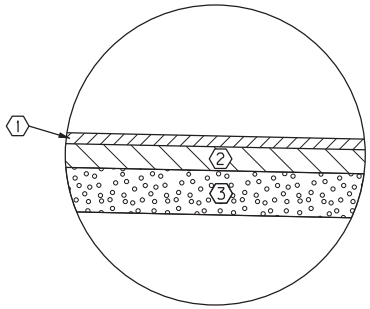
COUNTY OF	ITEM NO.	SHEET NO.

TYPICAL SECTIONS



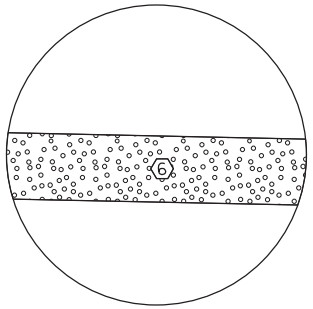
(1) PLACE ENTRANCE PIPE AFTER DITCHING AND SHOULDERING OPERATIONS HAVE BEEN COMPLETED TO LINE UP WITH NEW DITCH LINE.

ENTRANCE DETAIL



ASPHALT ENTRANCE
NTS

(1) 1.25" CL2 ASPH SURFACE 0.38D PG64-22
(2) 3.00" CL2 ASPH BASE 1.00D PG64-22
(3) 4.00" CRUSHED STONE BASE



GRAVEL ENTRANCE
NTS

(6) 6.00" TRAFFIC BOUND BASE

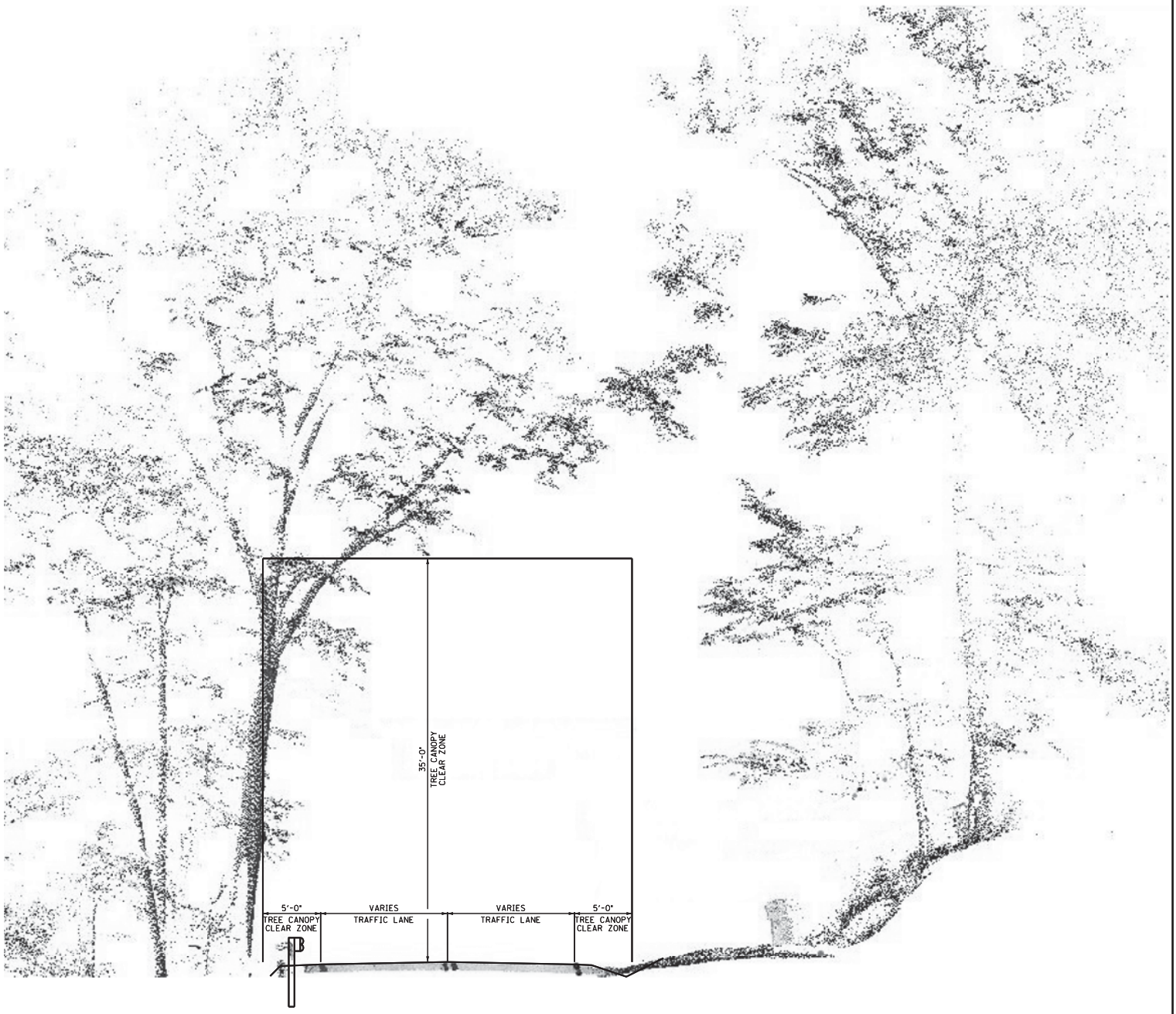
NOT TO SCALE

CAMPBELL COUNTY
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COUNTY OF	ITEM NO.	SHEET NO.
CAMPBELL	6-9006	

TREE CANOPY CLEARING DETAIL

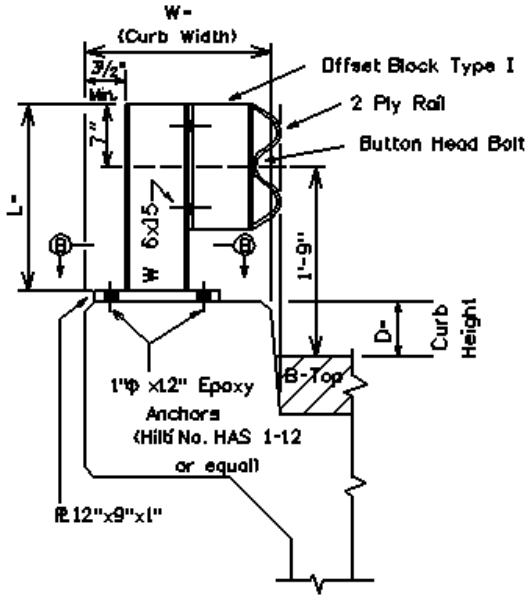
Clearing offset 5 feet from edge of pavement, both sides, cutting with a vertical reach of 35 feet.

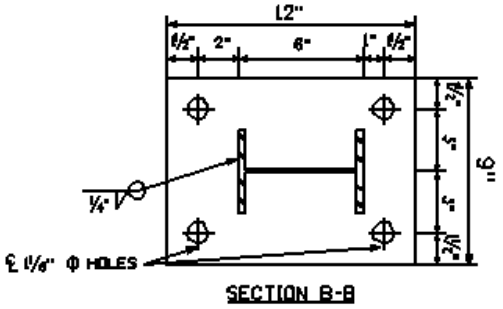


N.T.S.

KY 10
TREE CANOPY TYPICAL

GUARDRAIL ON BRIDGE, CASE II
GUARDRAIL ON TOP OF BRIDGE CURB





Bridge MP	D =	W=	L=	No. Posts	LF of 2 PLY Rail
10.9	Avg. 8”	15.5	26	12	

L = Length of Guardrail Post D = Curb Height W = Width of Bridge Curb

Warrants - Use Case II, when guardrail can be bolted to the top of the bridge curb. Curb Width shall be 18 Inches or Greater.

If the face of the guardrail for Case II Guardrail extends beyond the face of the curb, the offset block shall be deleted. If the clear distance between the faces of the guardrail for the Case II guardrail is less than 22 Ft, the offset block shall be deleted.

When Case II Guardrail is used without the offset block, a Precast Bridge Block shall be used at the ends of the bridge which face opposing traffic.

If concrete bridge rail needs to be removed from the bridge, include a bid item for Bridge rail removal.

guardrailbridgecase2

CAMPBELL COUNTY
HSIP 9010 (271)

Northern Kentucky Water District

2014

Standard Specifications & Drawings for the Installation of Water Mains

Contract ID: 174115
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1.05 WATER MAINS ON PRIVATE PROPERTY Water mains installed on private property which are going to be maintained by the Water District, shall have a twenty-(20) foot wide easement with the water main centered in the easement area and shall have a justifiable benefit to the District (serving more than one property owner, hydraulic benefits, etc.) A four-(4) foot area over the water main shall be a non-paved, strip totally unobstructed with the exceptions as outlined in DESIGN GUIDELINES. With appropriate justification, paving may be approved within the four-(4) foot area over cross-country water mains. Outside the ten-(10) foot area over the water main, 5' either side but within the overall easement area, other utilities may be placed in this area. Proper documentation shall be provided for all easement areas. For areas that are on recorded subdivision plats, the following statement may be used in lieu of the grant of easement forms:

WATER MAIN EASE

The Water Main Easement(s) as shown on this plat are subject to the DECLARATION OF MASTER WATER FACILITY EASEMENT AGREEMENT as set forth in _____ (Document Location) of the _____ (County Name) County Clerk's records at _____ (Court House), Ky.

Document Location at Various Court Houses:

Court House	Document Location	County
Alexandria	Easement Book 129, Page 145	Campbell
Boone County	Easement Book 54, Page 195	Boone
Covington	Miscellaneous Book 504, Page 311	Kenton
Independence	Miscellaneous Book 228, Page 73	Kenton
Newport	Easement Book 304, Page 466	Campbell

For other areas, the Design Engineer shall prepare an easement document suitable for recording with the County Clerk. Documents shall consist of a sketch (8 1/2" by 14"), a legal description of the twenty (20) foot easement with back references to Deed Book and Page number, and a signed Grant of Easement Form (Restoration agreement) provided by the District prior to filling the main for sterilization.

1.06 WATER MAIN SIZE Minimum public water main size shall be 8", unless it is determined by the District that a dead-end main has no potential for future development, or it is determined by the District that a smaller main is adequate. The District may allow the last 600 feet of water main to be constructed as 6" water main, if a fire hydrant is deemed necessary by the Authority having Jurisdiction; or a smaller diameter main if a blow-off is sufficient. The water main around a cul-de-sac may be reduced to 4" D.I. or 2" P.E., A flushing device may be required, as determined by the District,on 4" D.I. and 2" P.E. lines, if there is no potential for future development as determined by the District and proper fire hydrant spacing can be met. The District may consider the installation of conduits for cul-de-sac lots versus a main around the cul-de-sac. Conduits will need to be installed on the opposite lot lines of the electric service and at the proper depth with a tracing wire. Additional requirements may be required for the installation of conduits subject to the approved of the District. All water mains 16" and larger shall be min. class 50 D.I.P as determined by the District. The District does not allow water mains 10" , 14" & 18" in size.

1.07 DEAD ENDS OF WATER MAINS Dead ends to water mains shall be prohibited unless approved by the District. Dead ends may be approved if one or more of the following conditions exists:

A. The distance between the dead end and the other tie-in point is greater than 600 feet.
B. Physical features exist between the dead end and the other tie- in point that in the opinion of the District make it impractical to tie them together.
C. Slopes between the dead end and the other tie-in point is greater than 3 to 1.
D. Slopes/terrain between the dead end and the other tie-in point is certified as geotechnically unstable by a qualified professional geotechnical engineer.
E. It is necessary to purchase easements to run a water line through existing developed lots.

The District reserves the right to require certain dead ends to be connected even though they meet the above conditions. No services shall be permitted to be tapped on cross-country water mains. All dead end lines must be provided with a properly sized blow-off assembly, flush hydrant or fire hydrant. Flushing device should be sized to flow a velocity of at least 2.5 feet per second in the water main being flushed. No flushing device shall be directly connected to any sewer.

Cul-de-sacs streets of less than 300 feet long may be considered for the installation of a 4" D.I. looped water main for the elimination of the dead end. A fire hydrant shall be installed at the intersection of the cross street and a valve installed between the two tees for the 4" line.

1.08 MULTIPLE WATER MAIN FEEDS A minimum of two supply sources shall be required for subdivisions of one hundred (100) customers or more, more than one street, and/or there is potential development area that exceeds the number of customers or streets previously mentioned.

1.09 MINIMUM WATER FLOW REQUIREMENTS The water main extension at the most remote location shall be able to provide a minimum fire flow of 250 gpm for the installation of fire hydrants and the water system supporting this flow has the capability of providing this flow for a period of not less than two (2) hours plus consumption at the maximum daily rate. A minimum of 30 psi must be available on the discharge side of all meters. All water mains, including those not designed to provide fire protection, shall be sized after a hydraulic analysis based on flow demands and pressure requirements. If the water system cannot support the installation of fire hydrants, anchoring tees and valves shall be installed to allow for future fire hydrant installation when adequate water is available. If the water system extension is part of a subdivision development, the developer will be responsible for installing the anchoring tees and valves as described above and providing the District with a fire hydrant for each tee and valve installed as part of the subdivision. These fire hydrants will be installed by the District after water main improvements are made in the area which support the installation of fire hydrants.

1.10 HIGH PRESSURE AREAS Additional requirements may be necessary for high-pressure areas (125 psi static pressure or higher) as determined by the District.

1.11 VALVES Sufficient valves as determined by the District shall be provided on water mais so inconvenience and public health hazards are minimized during repairs, and their location shall be approved by the District. All valves shall be operated by or under the direction of District personnel only. Valves shall be installed at each end of cross-country water mains, and at separation of no greater than 1000 feet in urban residential areas; 500 feet in commercial areas; 1 mile in rural areas with few residents.

1.12 FIRE HYDRANTS Fire hydrants shall be connected only to water mains adequately sized to carry fire flows and in no case to lines smaller than six (6) inch. Fire hydrant spacing shall be as recommended by the Northern Kentucky Area Planning Commission and the local fire department. Fire hydrants shall be located on or as close to side property lot lines as possible. Fire hydrants installed as part of a water main replacement project are to be replaced in approximately the same location as the existing one. Additional hydrants may be added when they are required for air release or flushing purposes as determined by the District.

1.13 PARALLEL INSTALLATION OF WATER AND SEWER LINES
A 10' minimum lateral separation between water mains and sewers (defined as any sanitary/combined sewer, septic tank or subsoil treatment system) and sewer manholes, measured from the outside diameter to outside, must be maintained. When a 10' separation is not practical then a variance may be obtained from DOW to maintain an 18" vertical and 18" lateral separation. No variances will be permitted for force mains.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-A

1.14 CROSSING OF WATER AND SEWER LINES
Waterlines crossing under or over sewers lines (defined as any sanitary/combined sewer, septic tank or subsoil treatment system) must maintain a minimum vertical clearance of 18" and one full length of pipe shall be located so both joints are as far from the sewer as possible. Special Structural support for the water and sewer pipes may be required.

1.15 PARALLEL INSTALLATION WITH OTHER UNDERGROUND UTILITIES-
Water mains should maintain a minimum lateral separation of 3 feet from all other underground utilities whenever possible, with the exception of sewers as stated elsewhere in these specifications.

1.16 WATER CROSSINGS Surface water crossings, both over and under water, present special problems which should be discussed with the District before improvement plans are prepared. Over water crossings, the pipe shall be adequately supported, protected from damage, freezing, and accessible for repair or replacement. The pipe shall be of special construction having flexible, watertight joints. Valves shall be provided at both ends of water crossings so that the section can be isolated for test or repair. Where the water main is constructed under a blue line stream, the pipe shall be protected with concrete encasement. This encasement shall extend a distance equal to the width of the channel measured from top of bank to top of bank. The encasement shall be per Standard Drawing No. 110. Valves shall be installed on each side of the water crossing in areas not subject to flooding when the crossing water courses greater than 15 feet in width (bank to bank). Permanent taps shall be installed on each side of the system side valve for leakage and sampling purposes. The Developer will be responsible for meeting the requirements of 401 KAR 4:050 and KRS 151.250 for sub-fluvial pipe line crossings.

1.17 SAFETY The "Manual of Accident Prevention In Construction" published by the Associated General Contractors of America, O.S.H.A Regulations and other state and local safety regulations shall be followed.

1.18 MAINTENANCE PERIOD The Developer shall be responsible for the maintenance of the installed water mains and appurtenances to District Standards for a period of not less than one (1) year from the date the water main is placed in service by the District. Approximately ten (10) months after the main is placed in service, an inspection will be conducted by the District to ensure that the water main and appurtenances were installed and maintained to District standards. If the 10-month inspection reveals that the installation does not meet District standards, the developer will be notified in writing to correct all discrepancies and/or problems within 60 days after notification. If the problems are not corrected within the 60-day period, the District shall make the corrections at the expense of the Developer. The Developer shall then be billed by the District at a rate of time and material plus overhead or at the rate of actual cost plus overhead when done by an available contractor hired by the District. Payment is required within 30 days of invoice date. Non-payment of invoice after 45 days by the Developer creates an indebtedness to the Water District, which violates Water District's Tariff. This indebtedness to the Water District will result in no future water being provided to the Developer on all existing and future water main projects and/or phases until all indebtedness is paid in full.

1.19 APPLICATION FOR SERVICE Application for water service will only be accepted after the water main bacteria samples are shown to be negative following disinfection and the main is placed in-service by the District. No service installation will be scheduled until the water main is approved and turned on.

1.20 CONDUITS FOR WATER SERVICES IN ROCKY AREAS The Developer is responsible for notifying the District when rocky conditions are found in a development which could affect the installation of customer water service lines. The Developer shall give sufficient notification to the District to facilitate the installation of conduits before the street is installed. If a street is installed in a rocky area without conduits, the Developer may be responsible for any additional cost incurred.

1.21 ORGANIC CONTAMINATION
Mains installed within 200 feet of petroleum tanks and other areas of organic contamination must be ductile iron pipe.

PART II - MATERIALS

2.01 WATER MAIN PIPE AND FITTINGS

A. Minimum Class 50 Ductile Iron Pipe (D.I.P) - A minimum of Class 50 Ductile Iron pipe shall conform to the latest edition of AWWA C151. All pipe shall be clearly marked as to class by the manufacturer "Push-on single gasket" type joints shall conform to the latest edition of AWWA C-111. Pipe shall have a standard thickness cement mortar lining in conformance with AWWA C-104.

Under no conditions shall pipe line deflection measured between joints exceed the manufacturer's published recommended standard for that type of pipe. The maximum deflection at push-on joints and/or mechanical joints shall be 5 degrees or as recommended by Manufacturer. All D.I.P. shall be blue polyethylene wrapped.

B. Polyvinyl Chloride Pipe (P.V.C.) - D.R. 18, P.V.C. pipe shall conform to the latest edition of AWWA C900, must be NSF approved and manufactured in accordance with ASTM standards. All pipe shall be clearly marked as to class by the manufacturer. The outside diameter shall be equivalent to D.I.P. Pipe shall have gasket bell end type joints furnished complete with gaskets meeting the latest edition of ASTM F477. Solvent weld joints are prohibited.

P.V.C. pipe shall be permitted for use in residential subdivisions and along city and county roads as approved by the District. Pipe size shall be limited to 6", 8" & 12". P.V.C. pipe shall not be installed in high pressure areas where the static system pressures exceeds 125 psi or other system conditions exist which increase pressures over 125 psi. as determined by the District. P.V.C. pipe cannot be used for cross country lines, along state highways, water crossings, or installed within 200 feet radius of oil or gasoline lines, underground storage tanks, petroleum storage tanks or pumping stations.

P.V.C. pipe may be tied into an existing ductile iron main in a subdivision when the extension is over 450 linear feet of main, or when the pipe is installed around a cul-de-sac or a dead-end street with no possible extension of the street as approved by the District. Transition between D.I.P. and P.V.C. pipe shall be made with some type of ductile iron fitting.

Beveled spigot ends must have a minimum bevel of 8 degrees to a maximum bevel of 15 degrees. The vertical face of the spigot end may not exceed 75% of pipe wall thickness and the horizontal length of the bevel shall not exceed 1.25 inches. Field beveled spigot end shall be made per manufacturers recommendation and as approved by the District. The degree of bevel shall be approved for the type of pipe being installed.

P.V.C. Pipe Shipping, Handling & Storage - The front end of all pipe delivered by truck shall be covered for protection against exhaust fumes.P.V.C. pipe shall be protected from exposure to sunlight according to manufacturer's recommendations. Pipe will not be accepted for installation if discoloration is evident due to sunlight or other exposure. Pipe shall be stored in such a manner to prevent beaming the pipe.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-B

C. Molecularly Oriented Polyvinyl Chloride Pressure Pipe (P.V.C.O.)
P.V.C.O. pipe shall conform to the latest edition of AWWA C909, must be NSF approved and manufactured in accordance with ASTM standards. All pipe shall be clearly marked as to class by the manufacturer. The outside diameter shall be equivalent to D.I.P. Pipe shall have gasket bell end type joints furnished complete with gaskets meeting the latest edition of ASTM D3139. Solvent weld joints are prohibited. P.V.C.O. pipe installation shall follow the P.V.C. C-900 Standards - Part II -Materials, 2.01, Section C of these specifications.

D. Polyethylene Pipe - Class 200, S.D.R. 9, 200 psi, ASTM D-2737, P.E. pipe shall conform to the latest edition of AWWA C901, must be NSF approved and manufactured in accordance with ASTM standards. All pipe shall be clearly marked as to class by the manufacturer. The outside diameter shall be equivalent to Copper Tubing Size (CTS). The P.E. pipe shall be homogeneous throughout and free of visible cracks, holes, kinks, foreign inclusions or other defects. It shall be uniform in color, opacity, density and other physical properties. Solvent weld joints are prohibited.

P.E. pipe shall be permitted for use in residential subdivisions cul-de-sacs only as approved by the District. Pipe size shall be limited to 2". P.E. pipe shall not be installed in high pressure areas where the static system pressures exceeds 125 psi or other system conditions exist which increase pressures over 125 psi. as determined by the District. P.E. pipe cannot be used for cross country lines, along state highways, water crossings, or installed within 200 feet radius of oil or gasoline lines, underground storage tanks, petroleum storage tanks or pumping stations.

P.E. pipe expands and contracts when exposed to temperature changes, allowances shall be made during installation. Normally P.E. pipe will "snake" itself in the trench enough to provide sufficient slack. An extra 6" per 100' of pipe per 45 F temperature change should be added to compensate for thermal conditions.

E. Tracing Wire All water mains, including out-of-service stubs intended for future extension, shall be installed with copper tracing wire (P.V.C. coated) taped to the top of the pipe every 5'. Maximum tracing wire length shall be 500' without terminating in a curb stop box. Curb stop boxes shall not be located in the pavement areas. Splices in the tracing wire shall be kept to a minimum and approved by the District. If splices are required they shall be made with copper split bolt (lisco #ik-8 or approved equal) and taped with electrical tape. Jumper wires must be run from the main tracing wire and secured to all water meter service lines.

F. Fittings - All fittings and accessories shall be Ductile Iron, rated for a minimum of 200 psi working pressure or as specified herein. The fittings and accessories shall be new and unused. (NOTE: Certain areas of the Northern Kentucky Water District require materials used, to be of a higher working pressure than 200 psi.) All pipe fittings shall be mechanical joint fittings. Mechanical joints shall conform to AWWA C111. Bolts and nuts shall be high strength, corrosion resistant alloy, such as "Cor-Ten" or approved equal. Ductile Iron Compact Fittings shall conform to AWWA C153 and Full Body Fittings to AWWA C110. A bituminous seal coat shall be applied to the outside of the fitting. All ductile iron fittings shall be cement lined and seal coated in accordance to AWWA C104.

2.02 POLYETHYLENE WRAP All ductile iron pipe, fittings, valves, and fire hydrant leads shall be polyethylene wrapped, installed according to the current edition of AWWA C105. Polyethylene wrap shall be blue in color. Ductile iron fittings,valves, and fire hydrant leads used in the installation of P.V.C. pipe shall be included. Polyethylene wrap shall be 8-mill thickness low-density film or 4-mil thickness high-density cross-laminated polyethylene tube per AWWA C105. The contractors shall cut the roll in tubes 2 feet longer than a standard length of pipe.

Each tube shall be slipped over the length of pipe, centering to allow a one foot overlap on each adjacent pipe section. After the lap is made, slack in the tubing shall be taken up for a snug fit. and the overlay shall be secured with polyethylene tape. Pipe shall not be wrapped and stored on site for any period of time, but wrapped and immediately placed in the trench, fittings shall be wrapped prior to installing blocking or pads. (see Standard Drawing #104) Polyvinyl chloride pipe requires no wrap. Odd shaped appurtenances such as valves, tees, fittings, and other ferrous metal pipeline appurtenances shall be wrapped by using a flat sheet of polyethylene. Wrapping shall be done by placing the sheet under the appliances and bringing the edges together, folding twice, and taping down.

2.03 VALVES All valves shall open by turning counter-clockwise with the operation of a 2 inch square operating nut. All valves shall have openings through the body of the same circular area as that of the pipe to which they are attached. Valves shall have mechanical joint ends except Tapping Valves.

A. GATE VALVES Valves 12 inches and smaller shall be resilient seated gate valves, non-rising stem with rubber "O" ring packing seals, rated at 250 psi working pressure and conform to the applicable portions of AWWA Standard C509, Latest Edition. High pressure gate valves shall be required when the pressure exceeds 200 psi. Valve bodies shall be ductile iron, glands shall be the same material as the valve. All external dome and packing bolts shall be stainless steel. The valves shall open by turning counter-clockwise. All valves shall have openings through the body of the same circular area as that of the pipe to which they are attached. Valves shall have mechanical joint ends unless otherwise shown on the plans or directed by the District. An extension stem shall be furnished if required, to bring the operating nut within 3-1/2 feet of finished grade. Extension stems shall be securely fastened to the valve stem. The Contractor shall make all valves tight under their working pressures after they have been placed and before the main is placed in operation.

B. TAPPING SLEEVE AND VALVES - No tapping sleeves and valves unless approved by Northern Kentucky Water District. Tapping sleeves and valves shall be designed for a working pressure of 200 psi. The tapping sleeve together with the tapping valve shall be tested at 250 psi for visible leakage before the main is tapped. Tapping sleeve and valve used in high pressure areas shall be tested at 350 psi.

1. Tapping Sleeves - Tapping sleeves shall be a two piece body with mechanical joint type ends, and be so designed as to assure uniform gasket pressure and permit centering of the sleeve on the pipe. Stainless steel type tapping sleeves with full gasket maybe considered, but will need to be approved by the District prior to installation.

2. Tapping Valves - Tapping valves shall be resilient seated gate valves, rated at 200 psi (unless installed in high pressure service area) and conform to the applicable portions of AWWA Standard 509, latest edition except that the seat rings shall be oversized to permit entry of the tapping machine cutter. All external dome and packing bolts shall be stainless steel. Tapping valves shall be ductile iron body, non-rising stem with rubber "O" ring packing seals. Tapping valves shall have a flange on one end for bolting to the tapping sleeve and a mechanical joint type end connection on the slotted standard flange or other adapters for connection to the tapping machine.

C. BUTTERFLY VALVES Valves 16 inches and larger shall be ductile iron body butterfly valves rated at 250 psi working pressure and conform to AWWA Standard C504, Latest Edition. District shall approve all butterfly valves before installation. The contractor shall be required to transport all butterfly valves to Water District's Warehouse for testing.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-C

D. VALVE STEM EXTENSIONS A valve stem extension shall be installed by the contractor to bring the operating nut within 2 1/2 to 3 1/2 ft. of final grade. Extension stems will be supplied by the Water District if the extension is justified. The contractor shall measure the needed length and provide a minimum of 48 hours notice for receipt of stem extension.

2.04 VALVE BOXES All valves shall be provided with valve boxes. Valve boxes shall be of standard, adjustable, heavy duty cast iron extension type, two piece, 5 1/4 inch shaft, screw type, and of such length as necessary to extend from valve to finished grade, Tyler #562-S, Tyler #564-S or approved equal. Valve box cover shall be stamped "Water". Tops shall be set at final established grade. If valve boxes are not of sufficient height to bring the top of the box to final grade, a section of 6" ductile iron pipe for pavement areas and 6" PVC for non-pavement areas may be used to extend the valve box to final grade with prior approval from the District. The length of pipe shall permit the valve box to be adjusted up and down. All valves will be installed with a box-lok type valve box centering ring or approved equal.

2.05 FIRE HYDRANTS All fire hydrants shall have auxiliary valves for isolating water flow to the hydrant. All fire hydrants and auxiliary valves shall be positively locked to the water main by restrained joints, hydrant adapters, or other approved method. Hydrants shall be designed to 200 psi working pressure and shall be shop tested to 300 psi hydrostatic pressure with the main valve both open and closed. High pressure fire hydrants will be required when pressures exceed 150 psi.

The barrel shall have a breakable safety section and/or base bolts just above the ground line. Hydrants shall have a main valve opening of 5 1/4 inches, a 6 inch mechanical joint inlet to be suitable for setting in a trench 3' 6" deep minimum, and shall be the traffic style hydrant so that the main valve remains closed when the barrel is broken off. Hydrants shall have a dry top and shall be self draining, when the main valve is closed. Self draining hydrants shall drain to dry wells provided exclusively for that purpose. Hydrant drains shall not be connected to storm or sanitary sewers. Hydrants located generally in the Covington System and other areas determined by the District (flood zones) shall have all drain holes plugged prior to installation. Hydrants shall be rotatable in a minimum of eight (8) position in 360 degrees.

All hydrants shall have two (2) - two and one half (2 1/2) inch hose nozzles and one (1) steamer or pumper connection threaded to conform to Northern Ky. Water District's Standards: steamer nozzle shall be National Standard Thread and 2 1/2" outlets shall be Old Cincinnati Thread. The operating nut and the nuts of the nozzle caps shall be square in shape, measuring one (1) inch from side to side. Hydrant body shall be painted yellow for areas designed for 150 psi working pressure and red for areas in excess of 150 psi.

All hydrants shall be right hand open, clockwise, except in areas of Campbell County (Ft. Thomas, Alexandria, Cold Springs, Melbourne, Highland Heights, Wilder, Southgate & county areas) as determined by the District, and shall have a direction arrow of operation cast into the dome of the hydrant. Installation per Standard Drawing 109.

The following fire hydrants are approved for installation in the District's system: Mueller, Waterous, U.S. Pipe, M & H, Kennedy and American Darling.

2.06 PRESSURE REDUCING VALVES Pressure reducing valves will be installed by the District in regular 2" and smaller meter settings when the static system pressure is at or above 125 psi for new and old services when deemed necessary by the District. Pressure reducing valves are only installed to protect the meter. The District will not be liable for any damage due to pressure conditions caused by or arising out of the failure or defective condition of such pressure regulator or for damage that may occur through the installation, maintenance, or use of such equipment.

2.07 AIR RELEASE VALVES AND/OR TAPS Air release valves shall be installed in the high points of the water mains where hydrants are not installed and as required by the District and in accordance with Standard Drawing No. 106. 8" and smaller water mains, tap size and piping shall be 3/4", 12" water main-1",& 16" and larger water main-2". Temporary taps of suitable size may be required at certain points on the water main for the release of air for filling and/or flushing purposes. Temporary taps will be removed and plugged after use. The air relief vent of automatic air release valves, where practial, may be extended to a distance of at least 1 foot above the grade and installed with a screened, downward facing elbow. Manually operated air release valves shall include a camlock-type coupling and waste valve.

2.08 STEEL CASING PIPE Casing pipe shall be steel pipe with a minimum yield strength of 35,000 psi with a minimum wall thickness as listed below:

Nominal Diameter Casing Pipe	Normal Wall Thickness	Nominal Diameter Casing Pipe	Normal Wall Thickness
Under 14"	0.251"	26"	0.438"
14" & 16"	0.282"	28" & 30"	0.469"
18"	0.313"	32"	0.501"
20"	0.344"	34" & 36"	0.532"
22"	0.375"	38", 40", & 42"	0.563"
24"	0.407"	48"	0.626"

The inside diameter of the casing pipe shall be at least four (4) inches greater than the outside diameter of the carrier pipe joints. Steel casing sections shall be connected by welding, conforming to AWWA C206. All carrier pipe placed in steel casing pipe shall be minimum class 50 ductile iron pipe and conform to the latest edition of AWWA C151. Carrier pipe gaskets shall develop a wedging action between pairs of high-strength stainless steel elements spaced around the gasket (FIELD LOK , FASTGRIP or approved equal gaskets). Adequate pipe spacers shall be installed to ensure that the carrier pipe is adequately supported in the center of the casing pipe throughout it's length, particularly at the ends to offset settling and possible electrical shorting. Manufactured pipe spacers shall be installed per manufacture's installation requirements. There shall not be any metallic contact between the casing and carrier pipe. Casings shall have both ends sealed up in such a way as to prevent the entrance of foreign material. See Standard Drawing #114 for installation details.

PART III - INSTALLATION OF WATER MAINS AND APPURTENANCES

3.01 GENERAL Installation of water mains and appurtenances shall conform to the latest edition of AWWA Standard C600 for D.I.P, C605 for P.V.C. type pipe and C901 for P.E. Water main pipe and fittings shall be laid on a good level foundation with no gaps or humps under the pipe or fittings. Excavation shall be done by hand at joints to prevent the pipe and fittings from being supported by the mechanical joint or slip joint bell. Transition between D.I.P. and P.V.C. type pipe shall be made with some type of ductile iron fitting. Repairs to or section replacement of D.I.P. shall not be made using P.V.C. materials. Pipe shall be laid with the bell ends facing in the direction of laying.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-D

The interior of the pipe shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations. ALL OPEN ENDS ARE TO BE CLOSED WITH CAPS OR PLUGS AT ALL TIMES WHEN PIPE LAYING OPERATIONS ARE NOT IN OPERATION AND AT THE END OF THE DAY. All caps or plugs shall be properly installed and blocked in advance of filling, flushing, and testing mains. All securing and blocking shall be inspected by the District prior to back filling of ditch.

If the existing water main material being tapped or connected to is asbestos concrete, then during the process of tapping the asbestos concrete water main, the contractor shall conform to OSHA regulations governing the handling of hazardous waste. Pieces of asbestos concrete resulting from the tap shall be doubled bagged, placed in a rigid container and disposed of in an approved landfill.

3.02 CONTRACTORS RESPONSIBILITY All work performed on any water mains and/or appurtenances that are owned or anticipated to be owned by the District shall be completed under the direction of the District adhering to an acceptable plan approved by the District. A minimum 24 hours notice shall be given to the District by the contractor prior to the start of water main work. One set of District approved plans shall be on the job site during construction. Water main construction will not be permitted to start until all pprovals are received. There shall be no deviation from the approved plans without written approval from the District.

A. If the interruption of service to any customer of the District is necessary, the Contractor shall make arrangements to provide such shutdown and notify District customers at the direction of the District Inspector. All private residents shall be notified no less than 48 hours and all businesses commercial and Industrial customers shall be notified no less than 1 week prior to the interruption of service. All shutdowns shall be coordinated with the effected residents, with priority given to any special needs customers such as hospitals, schools, and customers with medical needs.

B. Contractor shall be responsible for relieving any water main pressure (whether air or water) before removing any cap, plug, fire hydrant, valve, etc.

3.03 HANDLING Pipe, fittings, valves, hydrants, and accessories shall be loaded and unloaded by lifting with hoists or skidding so as to avoid shock or damage. Pipe hooks that extend inside the ends of the pipe shall not be used for handling the pipe since they could damage the lining. Under no circumstances shall such materials be dropped. Pipe handled on skid ways shall not be skidded or rolled against other pipe. All bolts shall be tightened with proper wrenches and must have equal tension. The interior of all pipe, fittings and other accessories shall be kept free from dirt and foreign material at all times. When handling P.V.C., P.V.C.O. & P.E. pipe care should be taken to avoid abrasion damage, gouging of the pipe, rocks, and any stressing of the bell joints or damage of the bevel ends.

3.04 TRENCHING, GRADE, AND COVER Typically no trenching or laying of pipe or fittings shall be done until pavement (curbs) has been installed. In cases where water main installation is required under new pavement (side streets) main may be installed from trench stakes. When main installation is done prior to the pavement completion, test holes may be required by the District if valve depth, service taps or other evidence indicates that the minimum or maximum cover requirements are not met or that the main is in the wrong location. The contractor will be responsible for digging test holes at intervals required by the District to verify depth and location.

All trenching, grade, and cover work shall conform to the lines and grades established, and shall be done according to the drawings and specifications, subject to such modifications as the District may determine to be necessary during the execution of the work. Trenches for water lines shall be of a depth that will provide a minimum cover over the top of pipe of three (3) feet and a maximum of four (4) feet from the final finished grade. Cover over four feet in depth will not be allowed unless approved by the District to avoid interference with other utilities. Kentucky Dept. of Transportation requires a minimum of 42" of cover for water mains along state highways.

The Contractor shall establish all locations, lines, and grades in advance of all work where practical. In addition the Contractor will keep the Northern Kentucky Water District informed a reasonable time in advance of the times and places in which the Contractor intends to work (minimum advance notice shall be one working day, 24 hours).

3.05 TRENCH EXCAVATION

A. TRENCH WIDTH Widths of trenches shall be held to a minimum to accommodate the pipe and appurtenances. The trench width shall be measured at the top of the pipe barrel and shall conform to the following limits:

Earth

Minimum - outside diameter of the pipe barrel plus 8 inches, 4 inches each side of pipe.
Maximum - nominal pipe diameter plus 24 inches.

Rock

Minimum - 24" or less, nominal pipe size: outside diameter of pipe barrel plus 12 inches, @ 6 inches each side.
Minimum - Larger than 24", nominal pipe size: outside diameter of pipe barrel plus 18 inches, @ 9 inches each side.
Maximum - nominal pipe diameter plus 24 inches.

B. BUTTERFLY VALVES
Trench width shall be over excavated 24" on the side that the operating mechanism is located on the butterfly valve when the surrounding area cannot be hand dug.

remove

3.06 BOTTOM PREPARATION The Contractor shall use excavation equipment that produces an even foundation. For the entire length of the trench, a compacted 3" layer of sand, shall be installed below the pipe. Bell holes and depressions for joints, valves, and fittings shall be dug after the trench bedding has been graded in order that the pipe rest upon the prepared bedding for as nearly its full length as practicable. Bell holes and depressions shall be only of such length, depth, and width as required for properly making the particular type of joint.

3.07 UNSTABLE SUB-GRADE MATERIAL When the sub-grade is found to include non-approved backfill material (rock, refuse, organic material, etc.), such material shall be removed to a minimum of six (6) inches below the bottom of the pipe and backfilled with sand, backrun or granular material and thoroughly compacted.

3.08 UNSTABLE SUB-GRADE If the material forming the trench bottom is not suitable for a good foundation, a further depth shall be excavated and backfilled with an approved backfill material and thoroughly compacted or a foundation shall be constructed using piling, treated timbers, concrete, or other materials as directed and approved by the District.

3.09 PIPE LAYING Pipe shall be laid with bell ends facing in the direction of laying. After placing a length of pipe in the trench, the spigot end shall be centered in the bell and the pipe forced home. All pipe shall be laid with ends abutting and true to line and grade. Deflection of pipe joints in excess of the manufacturer's recommendations shall not be permitted. Caps or plugs shall be installed to prevent the entrance of foreign material whenever pipe laying operations are not in progress.

3.10 PIPE CUTTING Cutting of pipe for installing valves, fittings, or hydrants shall be done in a neat and workmanlike manner without damage to the pipe or lining. The end shall be smooth and at right angles to the axis of the pipe. Flame cutting of metal pipe by means of an oxyacetylene torch shall not be permitted.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-E

3.11 PUSH-ON JOINTS The surfaces with which the rubber gasket comes in contact shall be thoroughly cleaned just prior to assembly. The gasket shall then be inserted into the groove in the bell. Before starting joint assembly, a liberal coating of special lubricant, per manufacturers recommendation, shall be applied to the spigot end. (Special lubricant shall be suitable for use in potable water) With the spigot end centered in the bell, the spigot is pushed home per manufacturers recommendations. Insertion of spigot into PVC type pipe bell should be inserted until the reference mark is flush with the end of the bell. Over insertion of the pipe is not recommended per the manufacturer. Pipe joint materials which prevent permeation by petroleum products shall be used within 200 foot radius of oil or gasoline lines, underground storage tanks, petroleum storage tanks or pumping stations.

3.12 MECHANICAL JOINTS Mechanical joints for D.I.P. and P.V.C. type pipe require that the spigot be carefully located in the bell. The surfaces with which the rubber gasket comes in contact shall be thoroughly cleaned just prior to assembly. These clean surfaces shall be brushed with a special lubricant just prior to slipping the gasket over the spigot end and into the bell. (Special lubricant shall be suitable for use in potable water) The lubricant shall also be brushed on each gasket prior to installation to remove the loose dirt and lubricate the gasket as it is force into its retaining space. P.V.C. type pipe spigot ends shall be field cut smooth and at right angles to the axis of the pipe for installation in mechanical joint fittings. Care shall be taken to ensure that the P.V.C. plain end is completely home into the mechanical joint fitting.

3.13 RESTRAINED JOINTS Restrained joint-type pipe and fittings shall only be used as approval by the District. Retaining glands, field lock gaskets, or retaining flanges maybe used as temporary blocking but shall not be considered as providing a permanent restrained joint or as an alternate for permanent concrete blocking. The use of these type of restraining joints need to be approved by the District prior to installation.

3.14 SETTING VALVES Valves shall be set on a firm solid concrete block foundation so that no load will be transferred to the connecting pipe. Valves in water mains shall, where possible, be located on the side property lines extended, unless otherwise shown on the plans. A valve box shall be provided for every valve. The valve box shall not transmit shock or stress to the valve and shall be centered and plumb over the operating nut of the valve. The box cover shall be set flush with the surface of the finished pavement unless otherwise shown. All valves boxes with the exception of isolating valves for fire hydrants that are located in non-paved areas shall have a minimum 2' by 2' by 4" concrete pad as shown in Standard Drawing No. 105, unless a smaller pad is approved by the District.

3.15 SETTING FIRE HYDRANTS Hydrants shall be located as shown on the plans or as directed by the District. The location shall provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians. All hydrants shall stand plumb with the pumper nozzle facing the curb. Hydrant shall be set to the established grade, with the traffic flange within 4" above final grade in accordance to Standard Drawing No. 109. Each hydrant shall be controlled by an independent gate valve with valve box. All valves used for hydrant control shall be anchored to the branch tee. Fire hydrant barrel extension shall be limited to a one piece assembly only, stacking two or more extensions is prohibited. Maximum fire hydrant barrel extension is 2 feet.

3.16 CROSS-COUNTRY WATER MAINS All cross-country water mains shall be installed with a tracing wire as described in Part II, Section 2.01 - F- Tracing Wire.

3.17 THRUST BLOCKING All bends over five (5) degrees shall be securely blocked against movement with concrete thrust blocks placed against undisturbed earth in accordance with Standard Drawing No. 104 & 104-A. Thrust blocks shall be approved by the District prior to backfilling. Water mains shall have concrete thrust block at all pipe intersections and changes of direction to resist forces acting on the pipeline. All concrete thrust blocks shall be poured in such a manner that the bolts can be replaced without disturbing the blocking. All caps or plugs used in mains to undergo hydrostatic test shall be properly installed and blocked in advance of testing mains. All caps or plug installations shall be approved by the District representative before the main is subjected to the pressure test. The District may permit the use of restrained type glands, gaskets, 3/4" welded eye bolts @ a 90 degree bend & 3/4" threaded rods or other means as prior approved by the District for temporary restraint only. Permanent concrete thrust restraint shall be provided with any temporary restraint. Duc-Lucs are prohibited for use.

REMOVED

3.18 TRENCH BACKFILL TO 12" OVER PIPE BARREL All trench excavations shall be backfilled immediately after pipe is laid with the exception of thrust blocks. Compacted sand material shall be used to backfill the trench from the bottom of the pipe barrel to the 12" over the pipe barrel. Backfill material shall be free from cinders, refuse, organic material, boulders, top soil, frozen material, material with a high void content, rocks 1 1/2" or larger measured in any direction, sharp stones and crushed rocks larger than 3/4", or other materials which in the opinion of the District is unsuitable. No flushing of backfill shall be permitted to achieve compaction.

3.19 REMAINING TRENCH BACKFILL IN NON-PAVEMENT AREAS From 12" above the pipe barrel to the surface, excavated trench material may be used as backfill material or as required by local or county authorities. No material shall be used for backfill that contains frozen earth, vegetable or organic material, debris, rocks 8" or larger measured in any direction, or earth with an exceptionally high void content. Compaction of remaining trench backfill shall be as required by local or county authorities.

3.20 REMAINING TRENCH BACKFILL IN EXISTING PUBLIC ROADWAYS Roadway opening permits shall be obtained from the local City, County or Ky. State Dept. of Highways if applicable. The minimum requirements for backfill beneath all existing public roadways from 12" above the pipe barrel to sub-grade shall be flowable fill unless City, County, or State have additional requirements. The flowable fill shall comply with the latest edition of the Kentucky Transportation Cabinet/ Department of Highways "Standard Specifications for Road and Bridge Construction".The remaining trench backfill to final grade shall match the existing pavement/surface conditions.

3.21 DISINFECTION Water Mains designed to carry water for domestic consumption shall be thoroughly cleaned, flushed, and disinfected before being put in service and before acceptance by the District. Disinfection shall be done by the addition of suitable amounts of chlorine or liquid sodium hypochlorite in such amounts to produce a concentration of at least fifty (50) ppm and a residual of at least twenty five (25) ppm at the end of 24 hours and followed by thorough flushing. The application shall be as approved by the District and in accordance with AWWA C651 and applicable Ky. Division of Water requirements.The contractor shall be responsible for de-chlorination of the disinfection water. All non-disinfected fittings used for tie-ins or repairs shall be cleaned and swabbed with a hypochlorite disinfecting solution prior to installation. New water distribution lines shall not be placed into service untill bacteriological samples taken at the points specified in 401 KAR 8:150 Section 4 (2) are examined and are shown to be negative following disinfection. Disposal of chlorinated water will be in accordance with 401 KARS5:031. Coliform samples must be taken at connection points to existing mains, 1 mile intervals along new mains, and at all dead ends.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-F

A. TABLET METHOD Calcium hypochlorite tablets shall be installed in each length of pipe to insure a sufficient dosage of 50 ppm based on the following table:

Pipe Diameter	Tablets per Length
6"	2 ea. -5 gram tablets
8"	4 ea. -5 gram tablets
10"	6 ea. -5 gram tablets
12"	8 ea. -5 gram tablets
16"	14 ea. -5gram tablets

The tablets shall be attached by a food-grade adhesive such as Permatex No. 2 or Permatex Clear RTV Silicone Adhesive Sealant. Tablets shall be attached inside and at the top of the main with approximately equal numbers of tablets at each end of the pipe. Tablets must be water soluble.

B. LIQUID CHLORINE METHOD Disinfection may be done by the addition of suitable amounts of chlorine in the form of liquid sodium hypochlorite as per AWWA B300 to obtain the results as the previous method described. Note: Permission for this method of disinfection shall be obtained by the District prior to construction.

3.22 PRESSURE TESTING Pressure Testing must be in accordance with AWWA Standards C600. The water main being tested shall have all air expelled by additional flushing or the installation of taps on high points in the line. The pressure of the water main shall be gradually increased to obtain a minimum pressure of 100 psi over the design pressure (250 psi minimum) at the lowest elevation point of the water main or as directed by the District. The test will be for a two (2) hour duration and will not vary by more than 5 psi. All tests performed for each test section shall be witnessed and approved by a representative of the District, in the event any test is performed without a representative of the District, the Contractor shall be required to test the section again. Leakage is defined as the amount of water used to maintain the test pressure.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 100-G

PART 1 - GENERAL

1.01 INTRODUCTION Unless modified, deleted, replaced, or otherwise changed, the latest published addition of the following documents shall be the accepted standard for materials and/or procedures for the construction of water mains and appurtenances:

A. Northern Kentucky Water District's Standard Drawings
B. Natural Resources & Environmental Protection Cabinet, Division of Water
C. Kentucky Public Service Commission Regulations
D. American Water Works Association's Standards (AWWA)
E. Recommended Standards for Water Works

If a conflict exists between referenced sources, the more restrictive requirements shall prevail. The District shall provide interpretation as requested.

1.02 DESCRIPTION In general the following specifications are minimum requirement for water main design and installation. New design ideas and concepts are welcomed by the District, but subject to District's approval. Construction may be dictated by location, soil conditions, ground water, topography, etc. Additional provisions may be required by the District.

1.03 DESIGN GUIDELINES Plans are approved subject to the conditions of compliance with all applicable laws, rules, regulations and standards. Deviation from applicable laws, rules, regulations and standards will only be considered with appropriate justification submitted to the District's Engineering Dept. The proposed project may be constructed only in accordance with the approved plans. Plans submitted to the District for approval shall be on a 1" = 50' scale and plan sheets no larger than 24" X 36". It is strongly recommended that the design engineer meet with the Water District prior to plan submittals for review of overall project. Extensions from and connections to the public water system will be approved by the District where proper pressures and flows permit, provided there is a sufficient water supply developed and available for domestic use and fire protection to take on new or additional extension or service without detriment to those already served. The District will run a hydraulic analysis for every new line water main extension to ensure adequate water, as defined by the Ky. Public Service Commission, is available.

If any phasing is to be allowed after the District has approved a set of drawings, the Developer shall provide to the District a set of the approved drawings with the proposed phasing hand drawn. The drawing shall indicate any proposed additional appurtenances to the system per Standard 101. This redline shall provide dimensions of the proposed phased water main extension. Upon approval of the phasing by the District, and after construction of the system, the District's Inspector shall confirm the work was completed in accordance with the approved changes.

Water lines must be sized to meet the demands anticipated for the total development being designed. The design engineer and/or developer are responsible for properly sizing water mains to meet required demands of the development. Public water mains shall be installed in a public right of way with the exception of cross-country lines installed to eliminate dead ends and water mains installed on private property which are going to be maintained by the Water District. To allow for the future extension of the water system in an orderly manner, the water system shall be constructed to the developer's property limits which abut a proposed or existing public right-of-way or has a potential for future development and the termination shall be as described in the Standard Drawings and Specifications of the Water District or by connection to an existing main.

All improvement plans shall consist of street layout, lot or building layout and number, water main and appurtenance locations, and location of other utilities that may be in conflict. The Developer's Design Engineer is responsible to maintain an unobstructed area for the placement of the water main and appurtenances and allow no conflict with other utilities other than crossing of laterals. Utility laterals shall maintain a minimum of 6" outside diameter to outside diameter clearance except for storm and/or sanitary laterals, 18" clearance below the water main.

The four-(4) foot area over the water main, (3' from curbside) shall be a non-paved, strip totally unobstructed with the exception of:

a) removable, post type mail boxes;
b) utility laterals (gas, electric, telephone, and cable television) maintaining a minimum of 6 inch outside diameter to outside diameter clearance;
c) no more than 30' of continuous pavement used as driveways or parking pads;
d) street and sidewalk crossings;
e) sidewalks (may not be over main, but could encroach on this four-(4) foot area on street radius curves, and cul-de-sacs);

The ten-(10) foot area over the water main, centered (5' either side) shall be totally unobstructed with the exception of:

a) items listed above;
b) streets, curbs, and gutters;
c) sidewalk pavement;
d) storm drainage appurtenances

Additional requirements may be required for subdivision plans submittals that create double frontage lots (a lot other than a corner lot that has frontage on more than one public street) along public streets which currently do not have public water. The developer may be responsible for extending the water main along both sides of the double frontage lots if the property would benefit from the extension. If there is a future potential that a water main extension may be made by District's Extension Policy along the existing public street would be beneficial, as determined by the District, an agreement would need to be signed between the developer and the District.

Upon the request of the Developer, the District shall provide the Developer with a letter accepting the water main installation and the start of the one year maintenance period.

1.04 PLAN SUBMITTALS

All plans submitted must be dated and bear the stamp and signature of a Professional Engineer licensed in the State of Kentucky. Improvement plans shall be submitted in duplicate for preliminary review by the District. One copy of the improvement plan will be returned to the Engineer for corrections to meet District's Standards. The Engineer will need to revise and resubmit six (6) sets of plans. Also at this time a set of plans in digital format showing curb lines, a north arrow on a 1:= 50' scale will also be submitted for the Districts GIS system.The District will not approve any project until these digital format plans have been received. Distribution of approved plans will be made by the District as follows: Three (3) copies retained by the District; one (1) copy to NKAPC;and two (2) copies returned to the Design Engineer when approval is granted and the District's Subdivision Agreement is signed and returned to the District by the Developer. Submittal to the Kentucky Division of Water will only be required under the following conditions:

a) the project length is in excess of 10,000 linear feet
b) a variance from these specifications is required and approved by the District.

If DOW approval is required an additional three (3) sets of plans must be submitted to the District along with a check made out to the Kentucky State Treasurer in the amount of $150 for projects less than 10,000 linear feet and $325 for projects longer than 10,000 by the Developer.

REVISION	BY	DATE

N. KY. WATER DISTRICT

SPECIFICATIONS

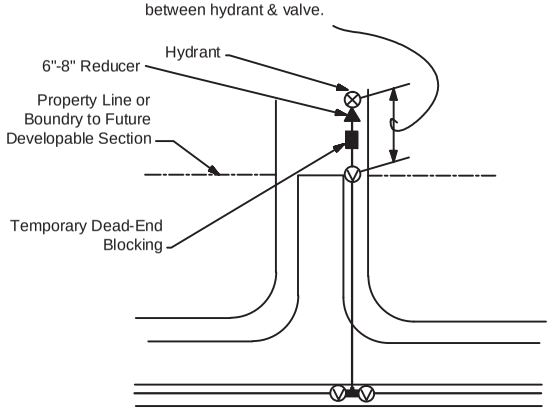
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APPROVED: RH

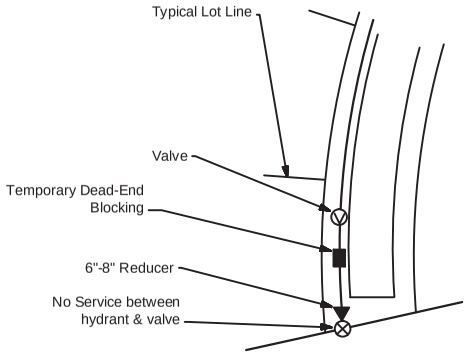
DATE: 8/5/2014

STANDARD DRAWING NO: 100

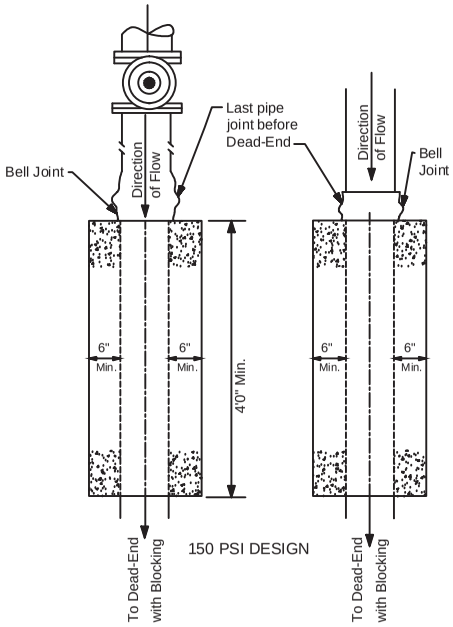
NO SERVICES
between hydrant & valve.

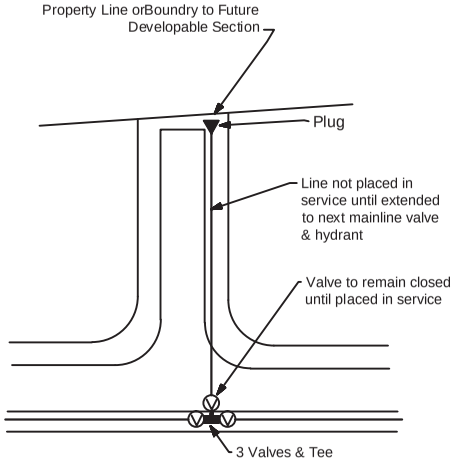


FUTURE SIDE STREET WITH
SERVICE ON BRANCH LINE



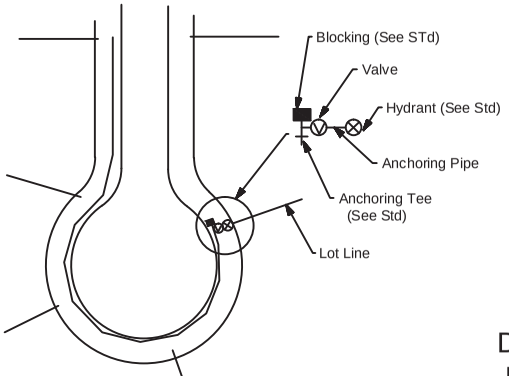
DEAD-END STREET WITH PROPOSED
FUTURE EXTENSION



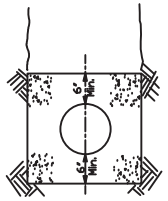


FUTURE SIDE STREET WITHOUT
SERVICES ON BRANCH LINE

Water Mains under paved surface shall not exceed
maximum 30 lin.Ft.,this does not apply to streer intersections.



CUL-DE-SAC WITH DEAD-END
FIRE HYDRANT



Blocking shall be Class "A" Concrete or
Flowable Fill as approved by the District.

DETAIL FOR TEMPORARY
DEAD-END BLOCKING

NOTE: Blocking shall be inspected by the
District prior to backfilling.

REVISION	BY	DATE
1. the 30' under pvmt. not for intersect.	MPS	1/15/93
Detail temp. dead-end blocking	MPS	9/22/93

N. KY. WATER DISTRICT

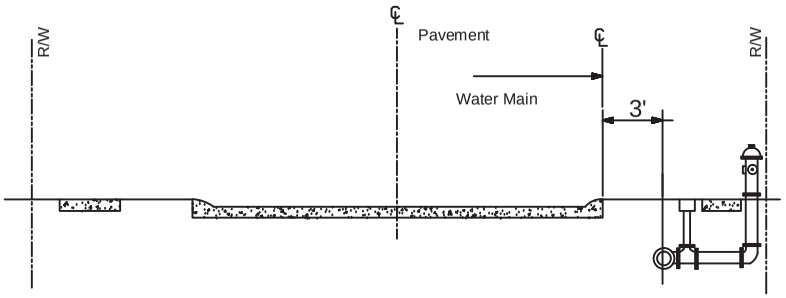
WATER MAINS TERMINATIONS

DRAWN BY: SAR

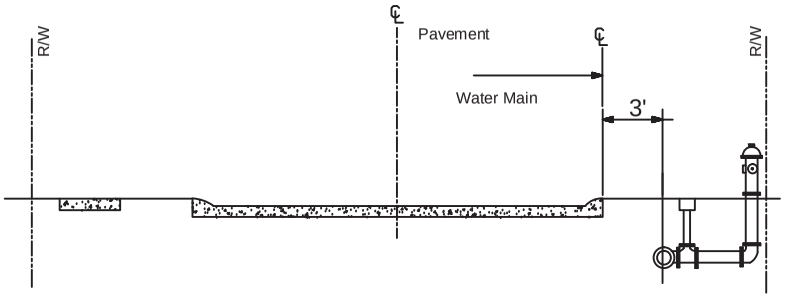
APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 101



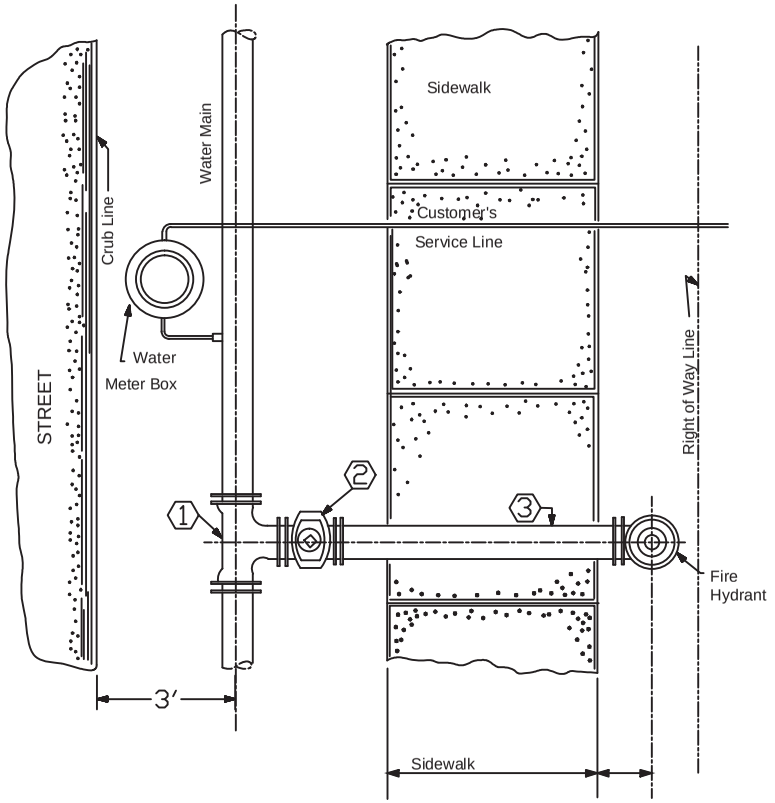
STREET WITH SIDEWALK



STREET WITHOUT SIDEWALK

DRAWING NOTES

1. Mechanical Joint Anchoring Tee-Clow No.F-1217 or equal as approved.
2. Mechanical Joint Gate Valve
3. Mechanical Joint Anchoring Pipe Clow No.F-1216 or Approved equal Length as required.



All ductile iron pipe, fittings and valves shall be wrapped with polyethelene encasement in accordance with specifications.

REVISION	BY	DATE
1. The 30' under pvmt. not for intersect.	MPS	1/15/93
Detail temp. dead-end blocking.	MPS	9/22/93

N. KY. WATER DISTRICT

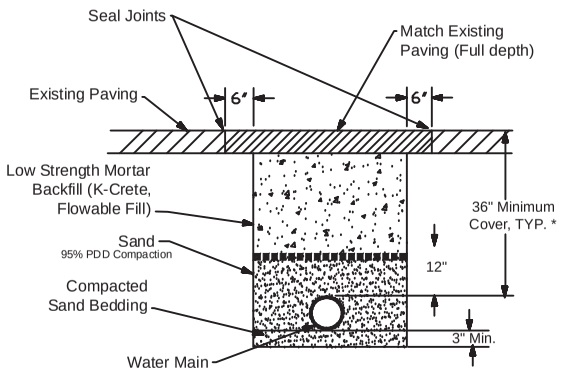
WATER MAINS TERMINATIONS

DRAWN BY: SAR

APPROVED: RH

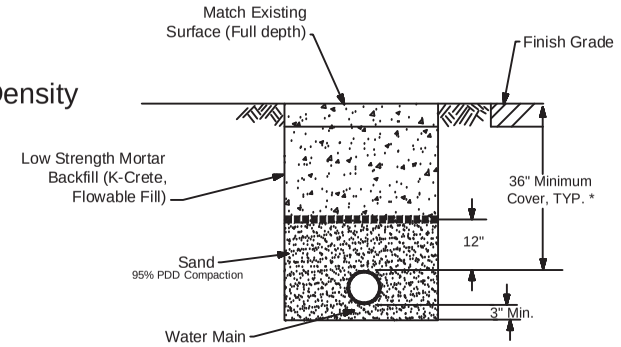
DATE: 8/5/2014

STANDARD DRAWING NO: 102

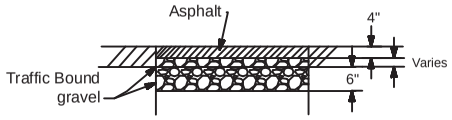


UNDER ASPHALT CONCRETE PAVEMENT

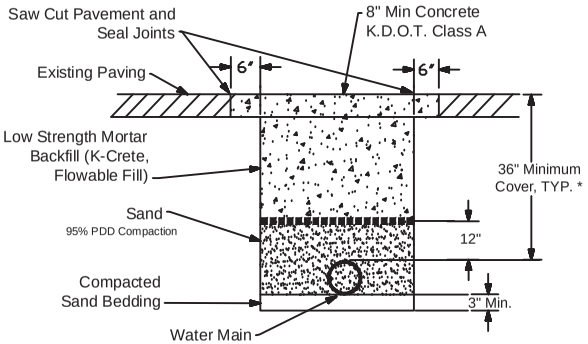
PDD= Standard Proctor Dry Density
-ASTM D698



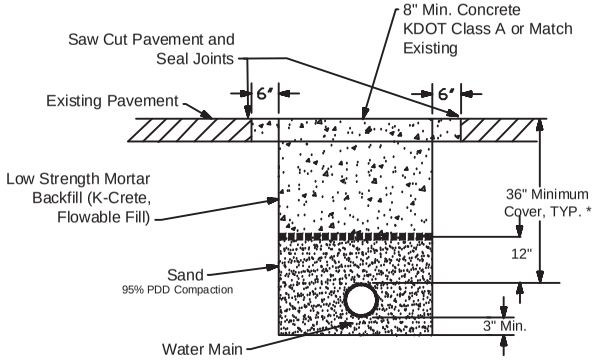
UNDER SHOULDER OF STATE MAINTAINED STREET



TEMPORARY STREET RESTORATION



UNDER CONCRETE PAVEMENT



UNDER STATE MAINTAINED STREET

* 48" Maximum Cover

ALL CONSTRUCTION

REVISION	BY	DATE
1. All streets low stgth mortar	MPA	10/30/95

N. KY. WATER DISTRICT

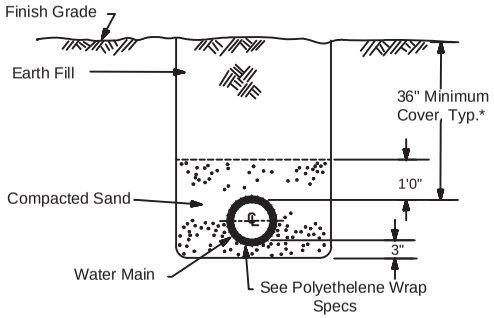
TYPICAL PIPELINE TRENCH DETAIL

DRAWN BY: SAR

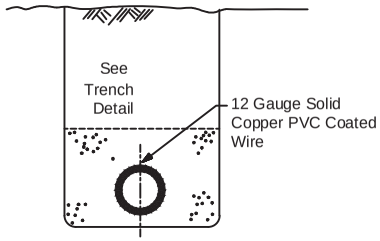
APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 103A

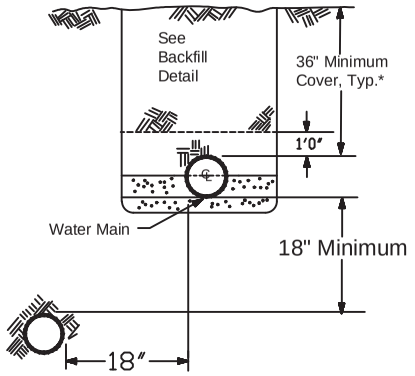


EARTH CUTS
TRENCH DETAIL



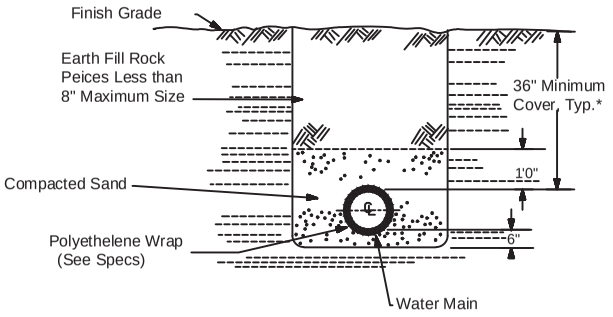
PVC PIPE

ALTERNATE TO BE USED ONLY ON APPROVAL
BY THE DISTRICT



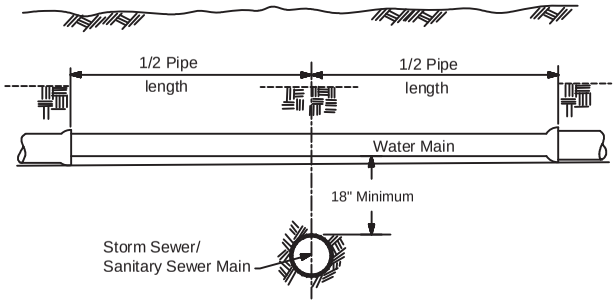
Water Main must be located a minimum of 10 feet lateral distance from anyexisting or future sewer lines or manholes, or as shown in the above alternate.

WATER MAIN PARALLELING
SEWER MAIN



ROCK CUTS
& UNSTABLE SUBGRADE

TRENCH DETAIL



WATER MAIN CROSSING SEWER

* Unless Otherwise Noted

SUBDIVISION CONSTRUCTION

REVISION	BY	DATE
1. 8" Max. Rock size	MPS	1/15/93

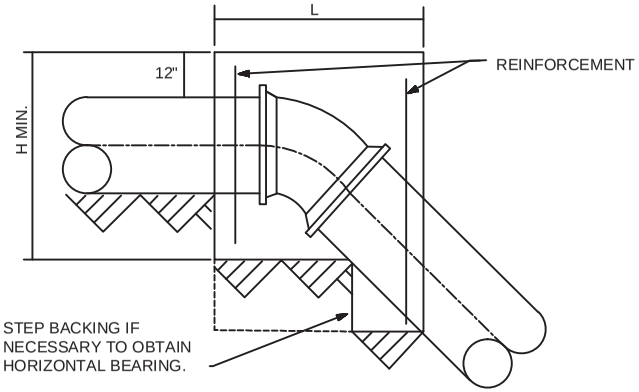
N. KY. WATER DISTRICT
TYPICAL PIPELINE TRENCH
DETAIL

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

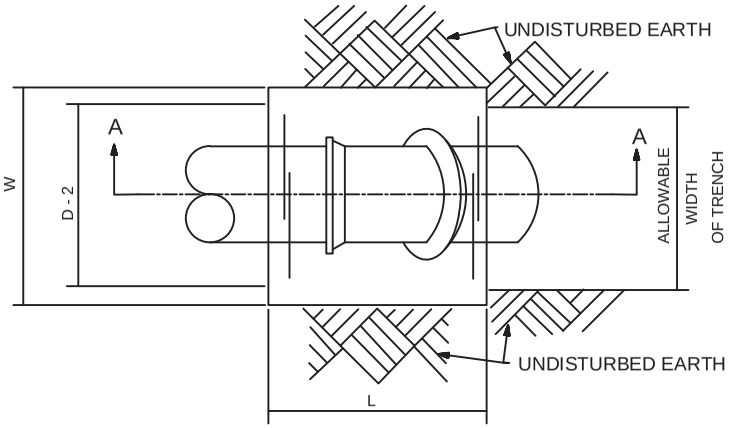
STANDARD DRAWING NO: 103



SECTION A-A

SIZE of PIPE	DEGREE OF BEND											
	11 1/4				22 1/2				45			
	L"	W"	H"	VOL.	L"	W"	H"	VOL.	L"	W"	H"	VOL.
4"	12	24	16	2.7	15	30	18	4.7	22	36	24	11.0
6"	12	43	18	5.4	16	48	34	15.1	30	55	24	22.9
8"	12	54	24	9.0	18	57	36	21.4	36	57	33	39.2
12"	20	63	36	26.3	37	62	37	49.2	48	62	51	88.0
16"	31	65	38	44.4	60	65	39	88.2	65	65	65	159.2
20"	45	70	40	73.0	56	70	60	136.4	72	76	78	247.5
24"	47	72	54	106.0	67	74	69	198.4	88	84	84	360.1

NOTE: VOLUMES GIVEN IN CUBIC FEET



PLAN

CONCRETE BACKING FOR VERTICAL BENDS

1. BACKING DESIGNED FOR 3000 POUNDS PER SQUARE FOOT SOIL BEARING AND 150 POUNDS PER SQUARE INCH INTERNAL PRESSURE.

2. PROVIDE MINIMUM CONCRETE REINFORCEMENT OF 2 PAIR OF TWO 5" "U" BARS @ 12" C.

3. CENTER BACKING ON BEND.

BLOCKING FOR SIZES NOT SHOWN SHALL USE THE NEXT LARGER SIZE.

REVISION	BY	DATE

N. KY. WATER DISTRICT

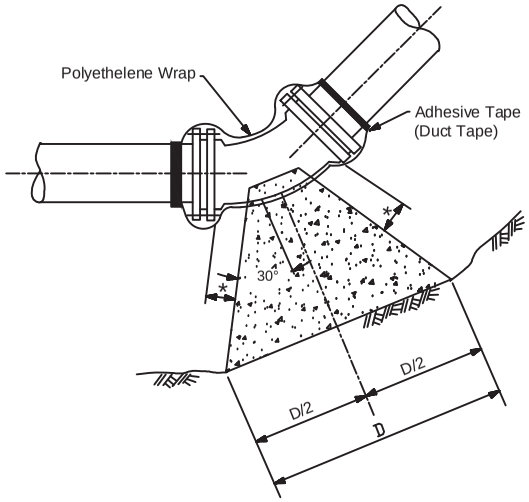
CONCRETE THRUST BLOCKING FOR VERTICAL BENDS

DRAWN BY: SAR

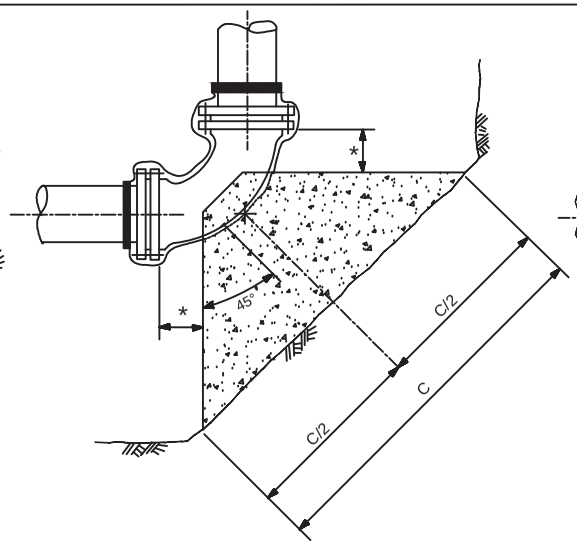
APPROVED: RH

DATE: 8/5/2014

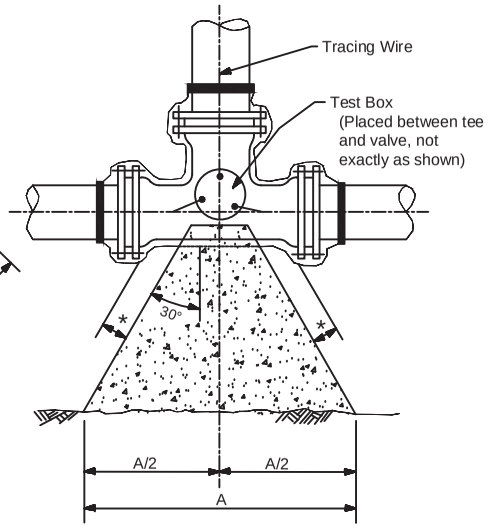
STANDARD DRAWING NO: 104A



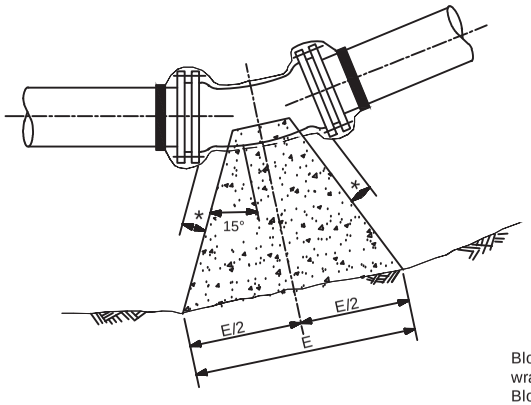
45° BEND



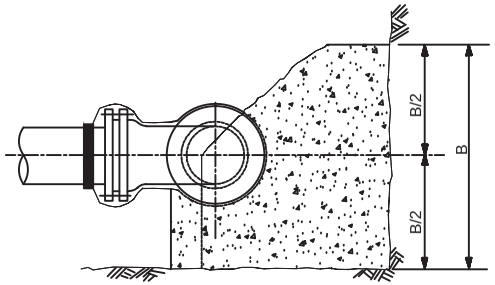
90° BEND



TEE (DEAD END OR FIRE HYDRANT SIMILAP



11 1/4° & 22 1/2° BEND



ELEVATION

Blocking shall be poured after blue polyethelene wrap is in place.
Blocking shall be inspected by the District prior to backfilling.

150 PSI/250 PSI

PIPE SIZE	A	B	C	D	E
6"	2'0"/2'6"	1'6"/1'6"	3'0"/3'6"	1'6"/2'0"	1'0"/1'0"
8"	2'6"/3'6"	2'0"/2'0"	3'6"/4'6"	2'0"/2'6"	1'0"/1'6"
10"	3'6"/4'0"	2'6"/2'6"	4'6"/5'6"	2'6"/3'0"	1'6"/1'6"
12"	4'0"/5'0"	3'0"/3'0"	5'6"/6'6"	3'0"/3'6"	1'6"/2'0"
16"	5'0"/6'0"	3'0"/4'0"	7'0"/8'6"	4'0"/4'6"	3'0"/3'0"
20"	6'0"/7'6"	5'0"/5'0"	7'0"/10'6"	4'0"/6'0"	3'0"/3'0"

* Distance to be 1/2" longer than entire length of the bolt used.

NOTES

1 DIP Fittings shall be per specifications.
2 Concrete to be 3500 psi.
3 All fittings to be Mechanical Joint.
4 Thrust blocks to be placed against undisturbed earth - use additional concrete as required for over excavation.
5 Blocking to be placed in a manner so that bolts can be removed without distrubing the block.

REVISION	BY	DATE

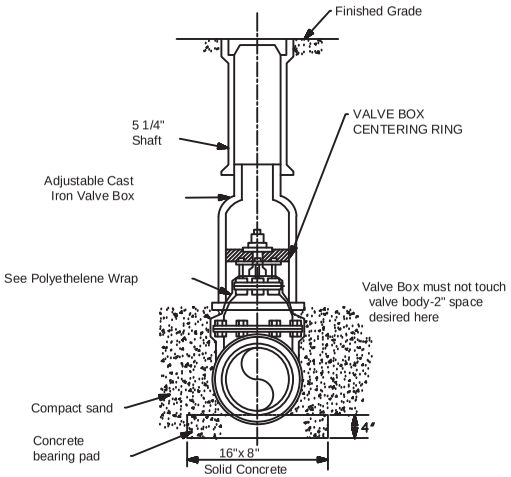
N. KY. WATER DISTRICT
CONCRETE THRUST BLOCK DETAIL

DRAWN BY: SAR

APPROVED: RH

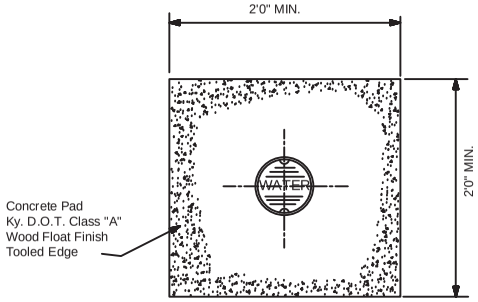
DATE: 8/5/2014

STANDARD DRAWING NO: 104

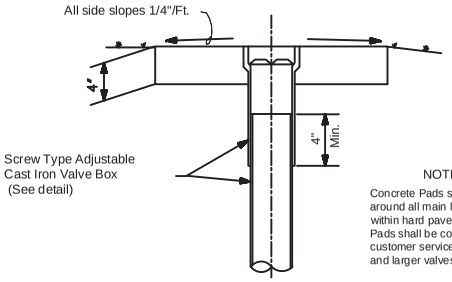


Detail Valve Box Installation

Note:Valve box shall not transmit shock or stress to the valve



PLAN



ELEVATION

NOTES

Concrete Pads shall be constructed around all main line valve boxes except within hard paved areas. Concrete Pads shall be constructed around customer service line valve boxes 3" and larger valves.

REVISION	BY	DATE
* 2'0" Concrete pad use	MPS	6/28/93
Detail Valve Box Installation	MPS	9/22/93

N. KY. WATER DISTRICT

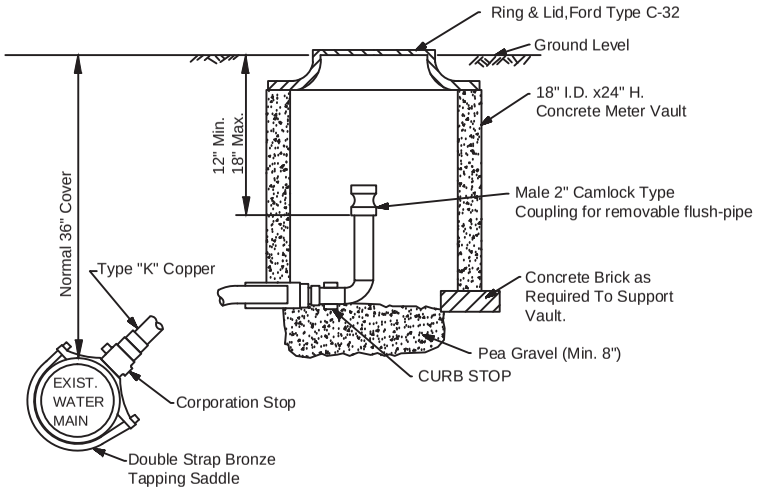
VALVE BOX AND VALVE PAD DETAIL

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

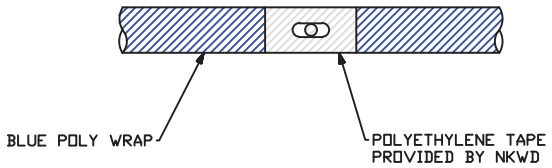
STANDARD DRAWING NO: 105



TYPICAL MANUAL AIR RELEASE VALVE INSTALLATION

N.T.S.

ONLY FOR D.I. PIPE



REVISION	BY	DATE

N. KY. WATER DISTRICT

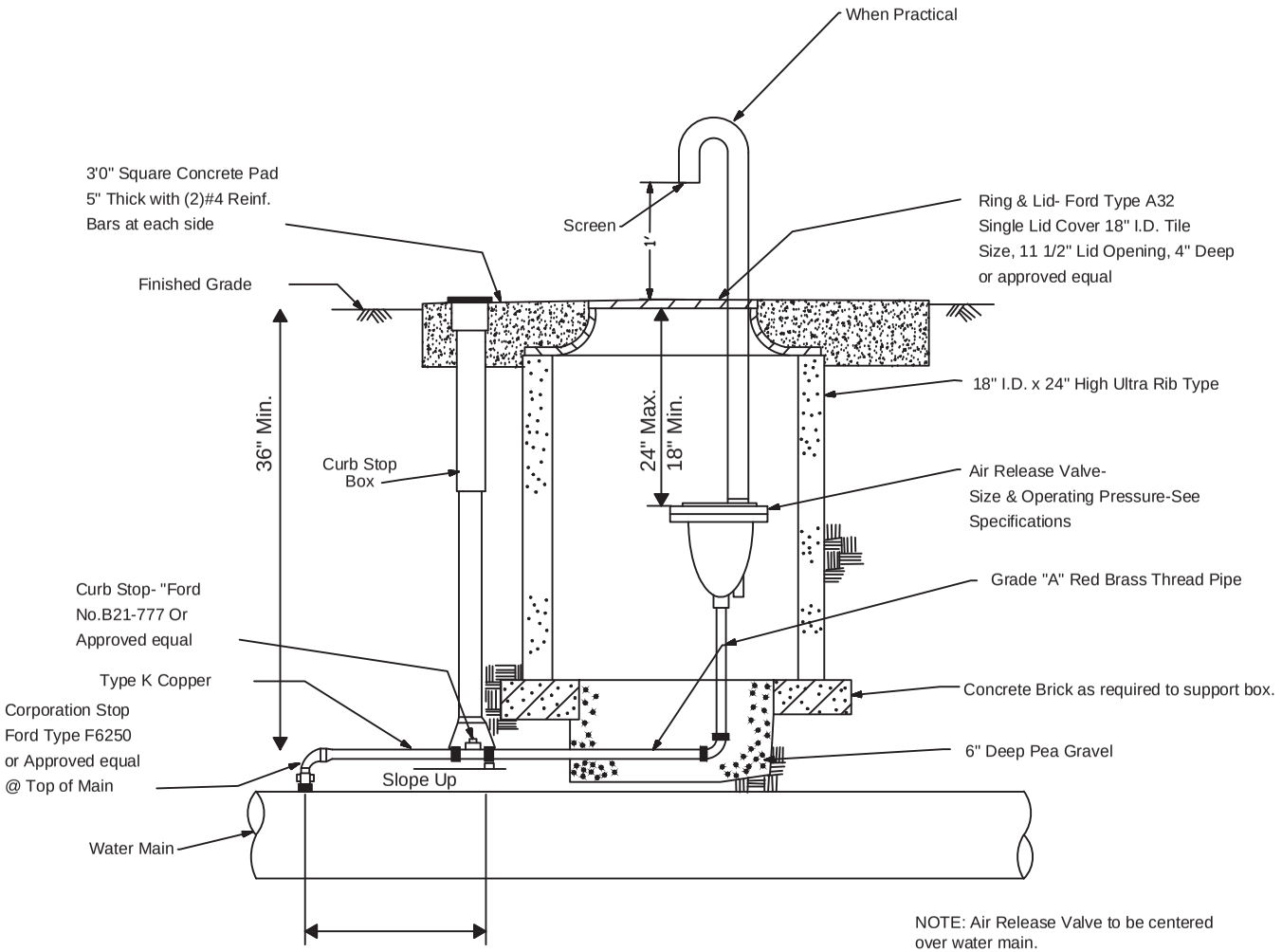
TYPICAL MANUAL AIR RELEASE VALVE INSTALLATION

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 106A



NOTE: Air Release Valve to be centered over water main.
Air Release Valves larger than 1" use:
vault size 24"x24"
lid Ford Type MC 24 &
Extension Ring Ext-2 or approved equal.

REVISION	BY	DATE

N. KY. WATER DISTRICT

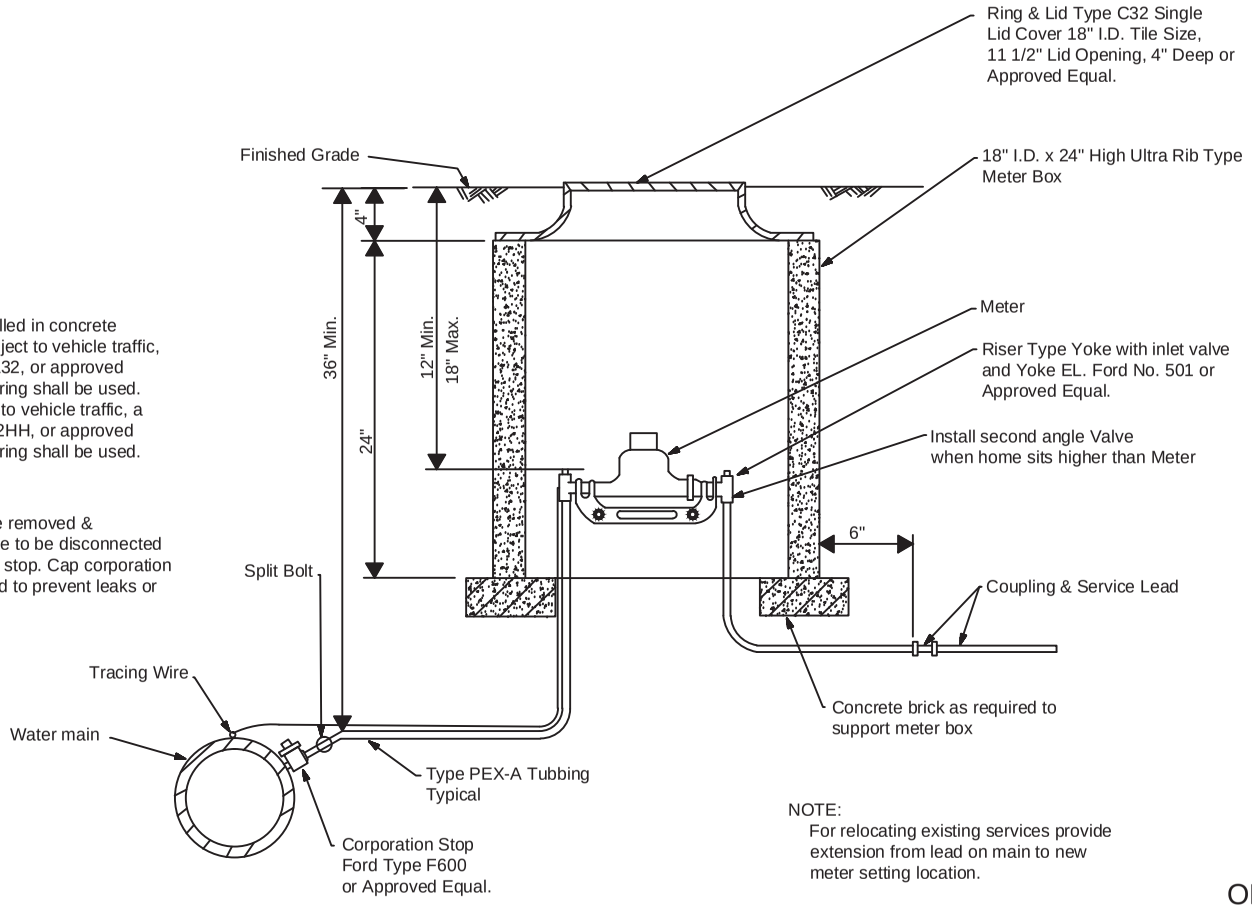
N.KY WATER DISTRICT
AIR RELEASE VALE

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 106



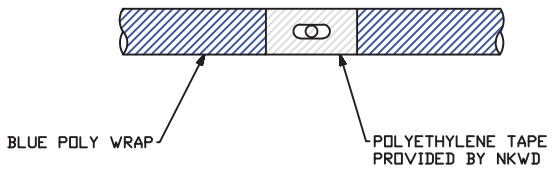
NOTE:
Services installed in concrete areas, not subject to vehicle traffic, a Ford Type A32, or approved equal, lid and ring shall be used. Areas subject to vehicle traffic, a Ford Type A32HH, or approved equal, lid and ring shall be used.

NOTE:
Services to be removed & abandoned are to be disconnected at corporation stop. Cap corporation stop if required to prevent leaks or replace stop.

PVC Mains-Use single band brass saddle
Ford Type 101 BS or equal.

NOTE:
For relocating existing services provide extension from lead on main to new meter setting location.

ONLY FOR D.I. PIPE



REVISION	BY	DATE

N. KY. WATER DISTRICT

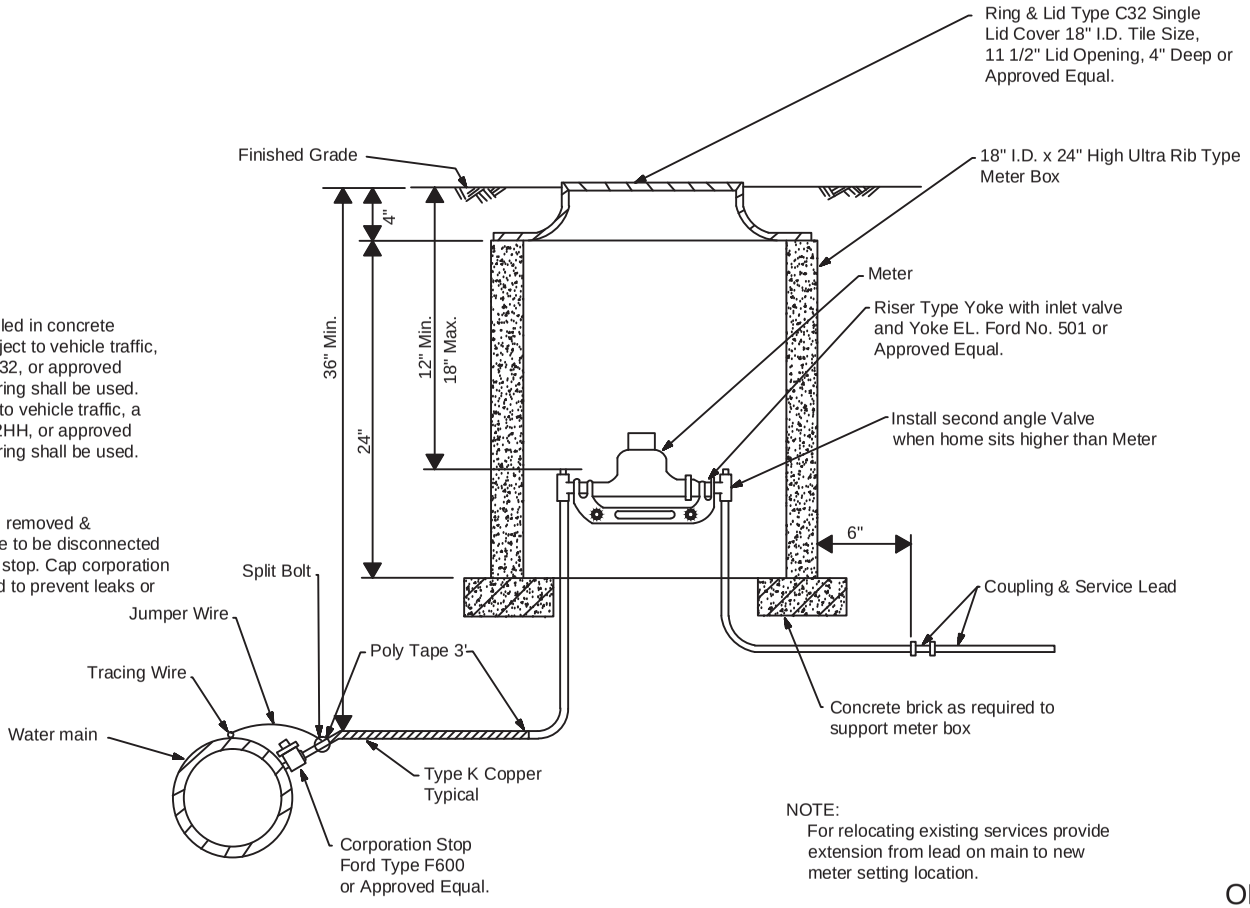
5/8" & 1" METER SETTING
PEX-A SERVICE LINE

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 107-A



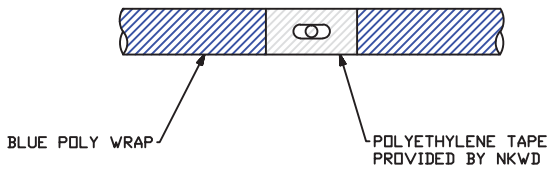
NOTE:
Services installed in concrete areas, not subject to vehicle traffic, a Ford Type A32, or approved equal, lid and ring shall be used. Areas subject to vehicle traffic, a Ford Type A32HH, or approved equal, lid and ring shall be used.

NOTE:
Services to be removed & abandoned are to be disconnected at corporation stop. Cap corporation stop if required to prevent leaks or replace stop.

PVC Mains-Use single band brass saddle
Ford Type 101 BS or equal.

NOTE:
For relocating existing services provide extension from lead on main to new meter setting location.

ONLY FOR D.I. PIPE



REVISION	BY	DATE

N. KY. WATER DISTRICT

5/8" & 1" METER SETTING
COPPER

DRAWN BY: SAR

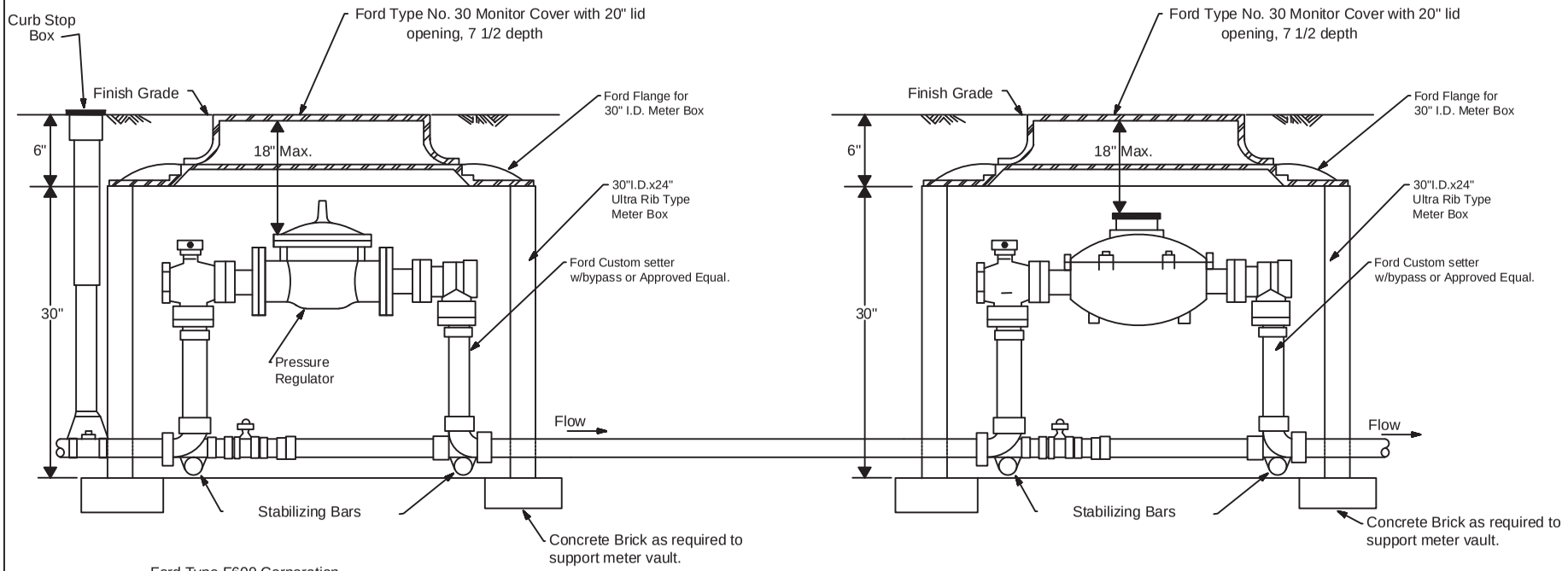
APPROVED: RH

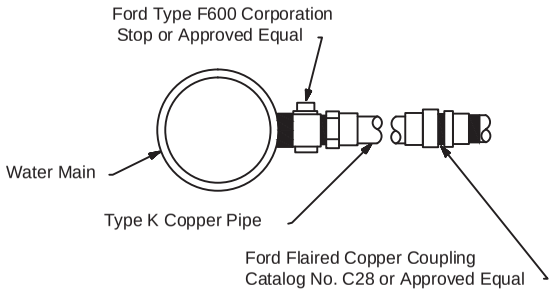
DATE: 8/5/2014

STANDARD DRAWING NO: 107

Note: Services to be removed & abandoned are to be disconnected at corporation stop. Cap corporation stop if required to prevent leaks or replace stop.
For relocating existing services provide extension from lead on main to new meter setting location.

Note:If service is installed in sidewalk or pavement area,a heavy duty lid shall be installed.

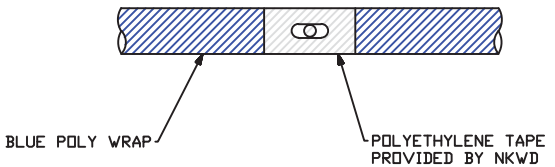




Notes: PVC Mains - use single band brass saddle Ford Type 101BS or equal.

D.I.P. Mains 8" or smaller use a double strap brass tapping saddle Ford Type 202B or equal.

ONLY FOR D.I. PIPE



REVISION	BY	DATE

N. KY. WATER DISTRICT
1-1/2" & 2" METER SETTING
REQUIRING PRESSURE REGULATOR

DRAWN BY: SAR

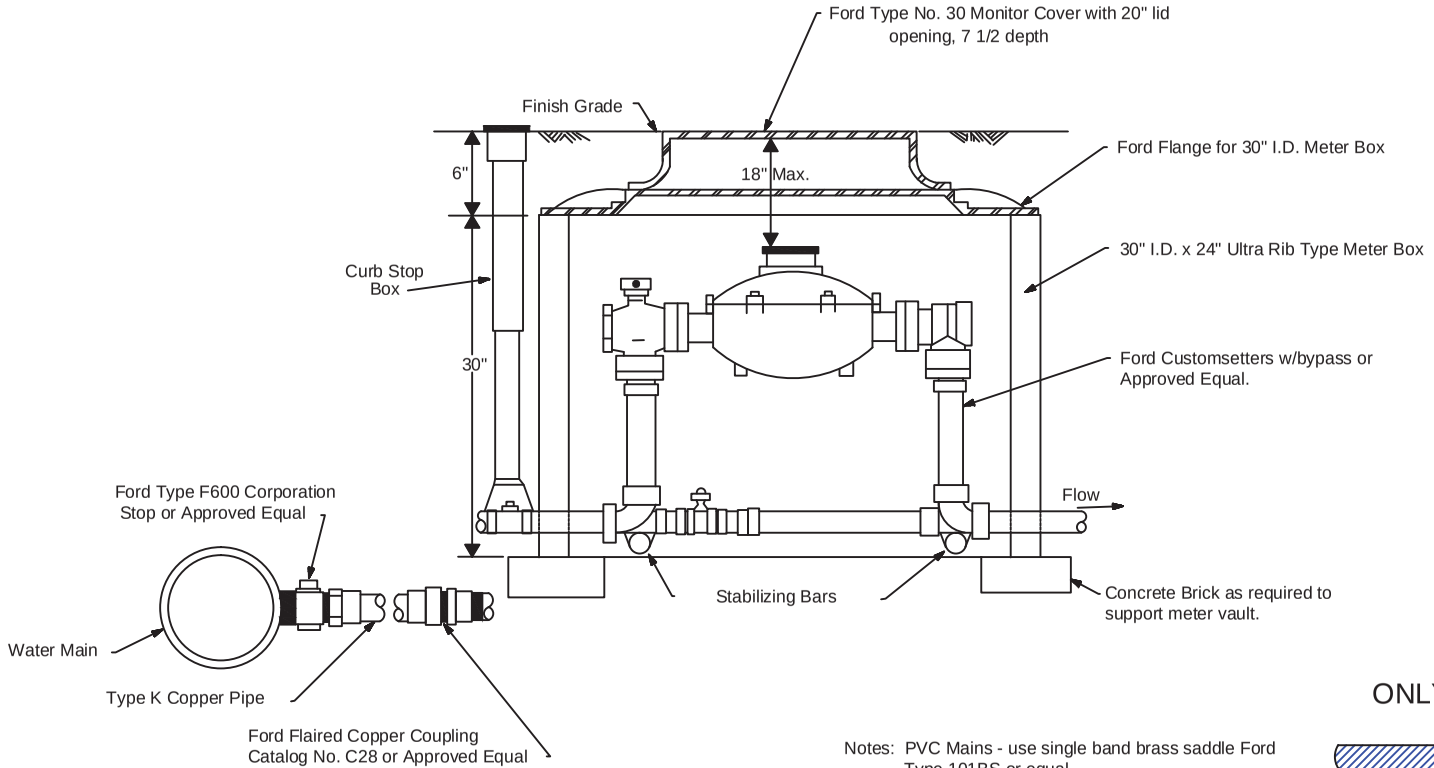
APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 108-A

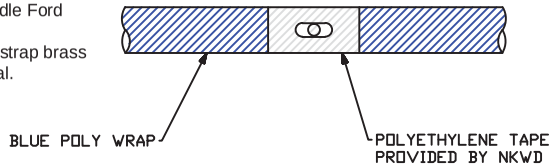
Note: Services to be removed & abandoned are to be disconnected at corporation stop. Cap corporation stop if required to prevent leaks or replace stop. For relocating existing services provide extension from lead on main to new meter setting location.

Note: If service is installed in sidewalk or pavement area,a heavy duty lid shall be installed.



Notes: PVC Mains - use single band brass saddle Ford Type 101BS or equal.
D.I.P. Mains 8" or smaller use a double strap brass tapping saddle Ford Type 202B or equal.

ONLY FOR D.I. PIPE



REVISION	BY	DATE

N. KY. WATER DISTRICT

1-1/2" & 2" METER SETTING

DRAWN BY: SAR

APPROVED: RH

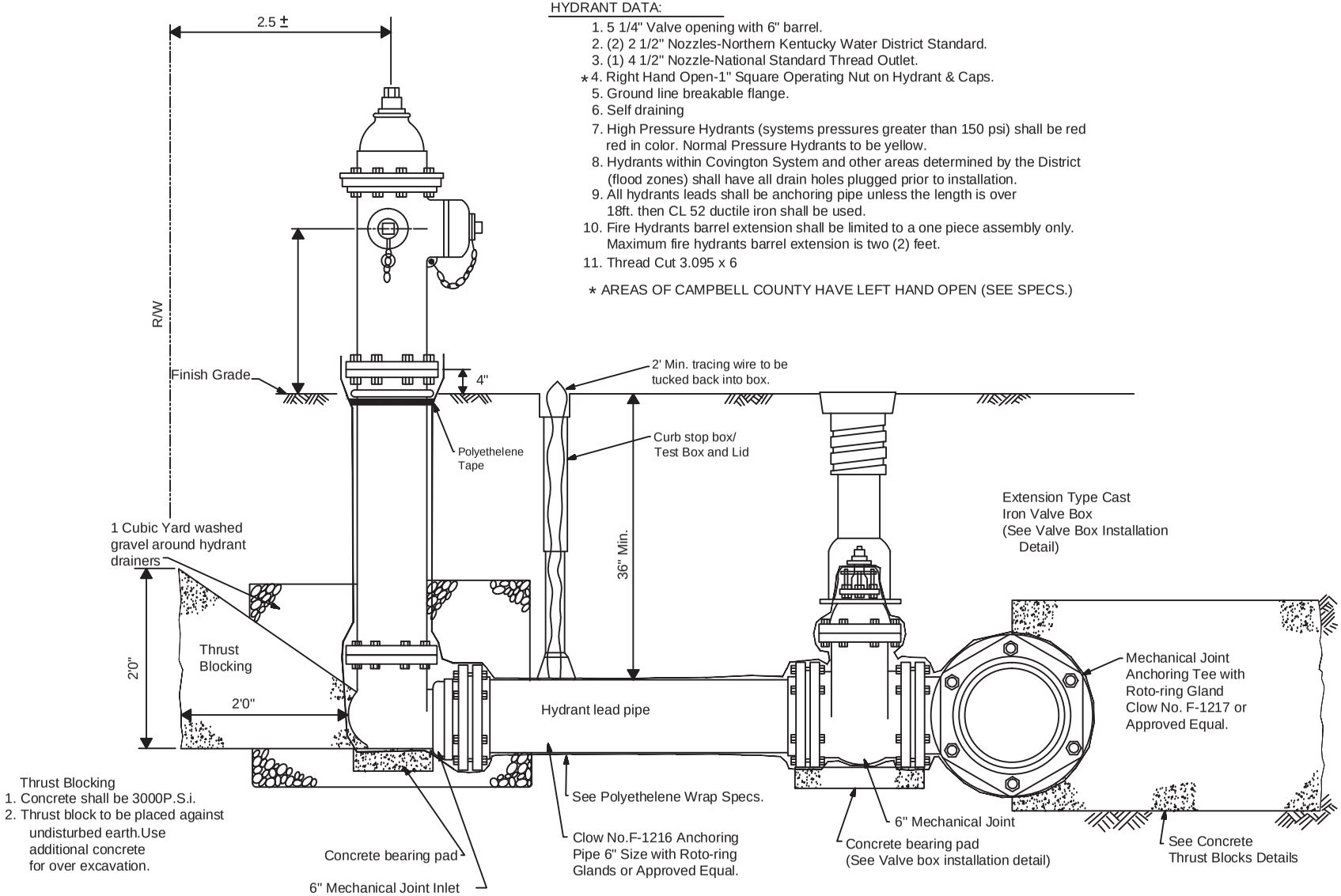
DATE: 8/5/2014

STANDARD DRAWING NO: 108

HYDRANT DATA:

1. 5 1/4" Valve opening with 6" barrel.
2. (2) 2 1/2" Nozzles-Northern Kentucky Water District Standard.
3. (1) 4 1/2" Nozzle-National Standard Thread Outlet.
4. * Right Hand Open-1" Square Operating Nut on Hydrant & Caps.
5. Ground line breakable flange.
6. Self draining
7. High Pressure Hydrants (systems pressures greater than 150 psi) shall be red red in color. Normal Pressure Hydrants to be yellow.
8. Hydrants within Covington System and other areas determined by the District (flood zones) shall have all drain holes plugged prior to installation.
9. All hydrants leads shall be anchoring pipe unless the length is over 18ft. then CL 52 ductile iron shall be used.
10. Fire Hydrants barrel extension shall be limited to a one piece assembly only. Maximum fire hydrants barrel extension is two (2) feet.
11. Thread Cut 3.095 x 6

* AREAS OF CAMPBELL COUNTY HAVE LEFT HAND OPEN (SEE SPECS.)



REVISION	BY	DATE
Blocking,conc.pads,polywrap	MPS	9/22/93
Extension to barrel	MPS	12/2/93
Blocking inside R/W	MPS	10/25/95

N. KY. WATER DISTRICT

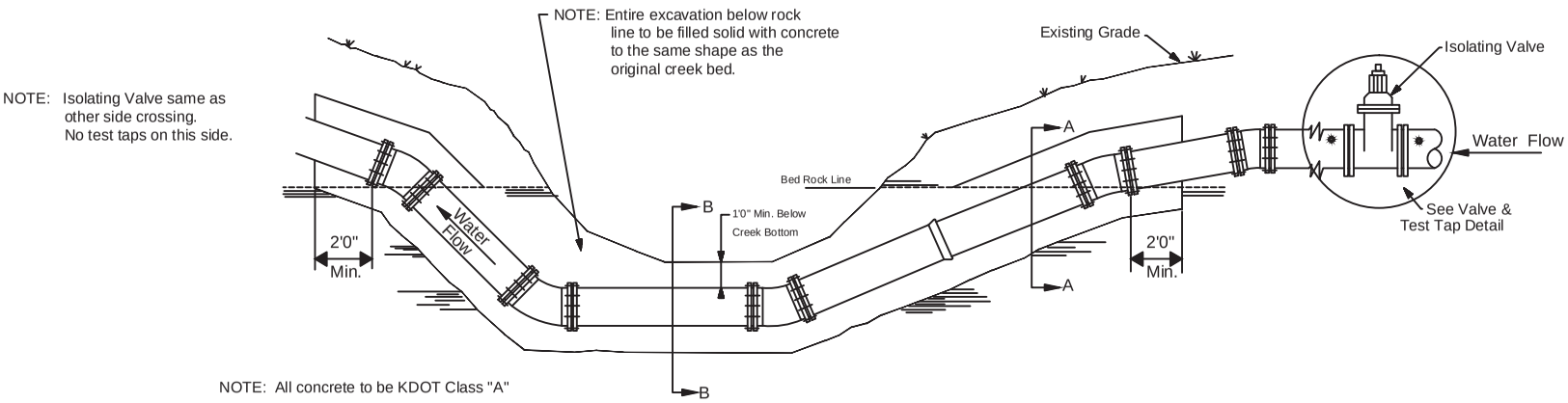
HYDRANT ASSEMBLY

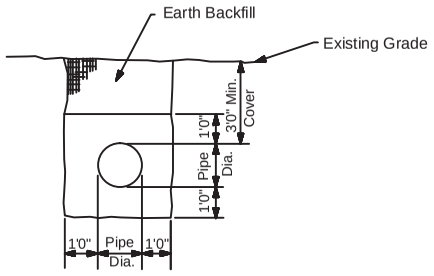
DRAWN BY: SAR

APPROVED: RH

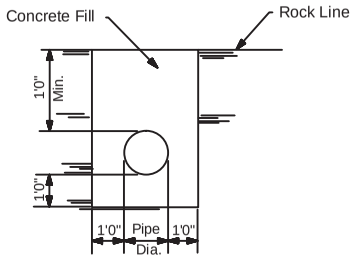
DATE: 8/5/2014

STANDARD DRAWING NO: 109

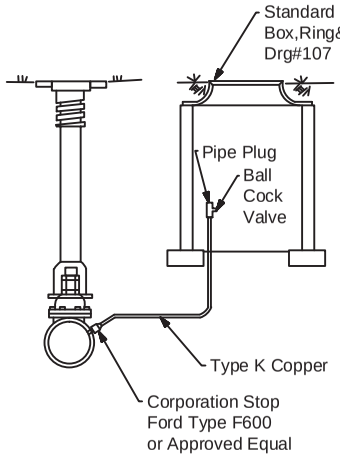




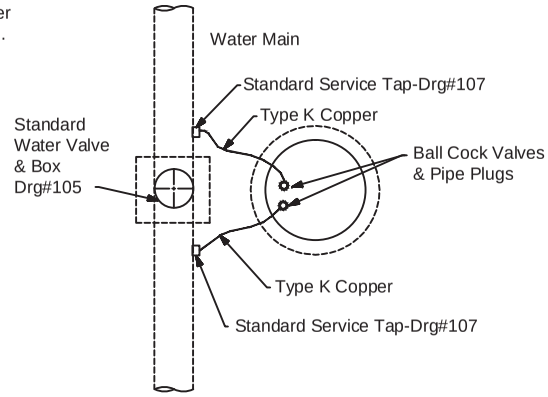
"Section A"



"Section B"



Standard Service Tap-see Drg.#107



VALVE & TEST TAP DETAIL

Valve shall be installed in areas not subject to flooding
No services will be tapped between the isolating valve on the creek crossings.

REVISION	BY	DATE

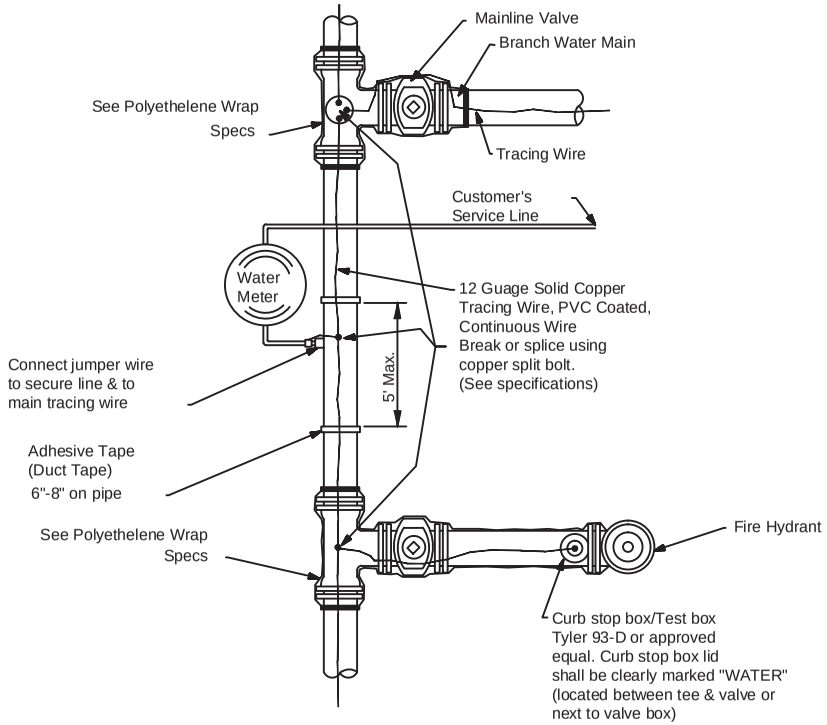
N. KY. WATER DISTRICT
CONCRETE ENCASEMENT AT CREEK CROSSING

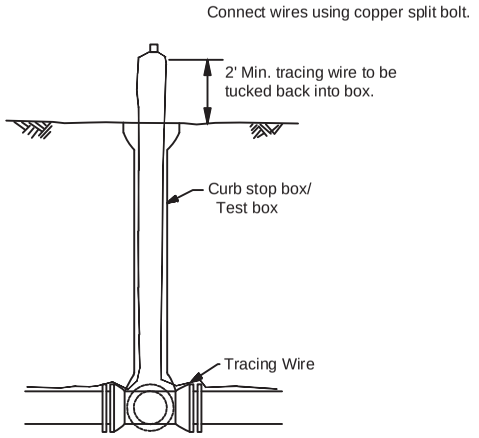
DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 110





DUCTILE IRON AND PVC PIPE WITH DUCTILE IRON FITTINGS

Note: Curb stop box/test box shall not be installed in paved areas.

REVISION	BY	DATE

N. KY. WATER DISTRICT

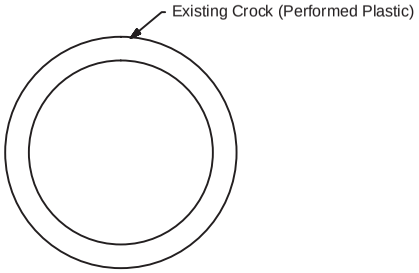
TRACING WIRE INSTALLATION DETAIL

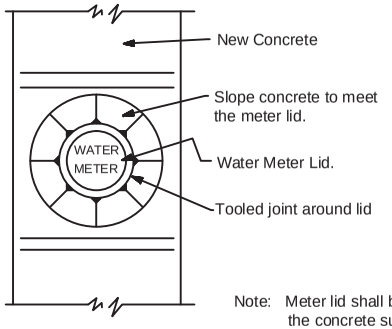
DRAWN BY: SAR

APPROVED: RH

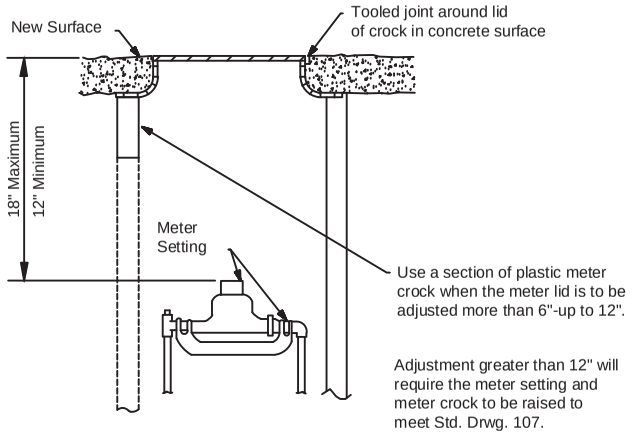
DATE: 8/5/2014

STANDARD DRAWING NO: 111





Note: Meter lid shall be flush with the top of the concrete surface. The concrete surface shall be tapered to provide a smooth transition to the meter lid. A tooled joint shall be formed around the meter lid.



NOTE: SERVICES INSTALLED IN CONCRETE AREAS, NOT SUBJECT TO VEHICLE TRAFFIC, A FORD TYPE A32, OR APPROVED EQUAL, LID AND RING SHALL BE USED. AREAS SUBJECT TO VEHICLE TRAFFIC, A FORD TYPE A32HH, OR APPROVED EQUAL, LID AND RING SHALL BE USED.

PLASTIC (PVC) METER CROCKS shall be raised by use of an adapter with a section of plastic crock cut to achieve final grade.

At no time shall wood be used to adjust the ring and lid to grade.

Meter ring and lids shall be reset solidly and shall have no broken edge to allow dirt to enter the crock.

If the meter box is damaged beyond repair it shall be replaced. See Standard Drawing 107.

RAISING CURB STOPS OR VALVE BOXES:

Curb stop boxes and valve boxes shall be raised by turning the upper section to meet grade. If the upper section cannot be raised in this manner it shall be carefully broken off and replaced.

New upper sections shall be supplied by NKWD

REVISION	BY	DATE

N. KY. WATER DISTRICT

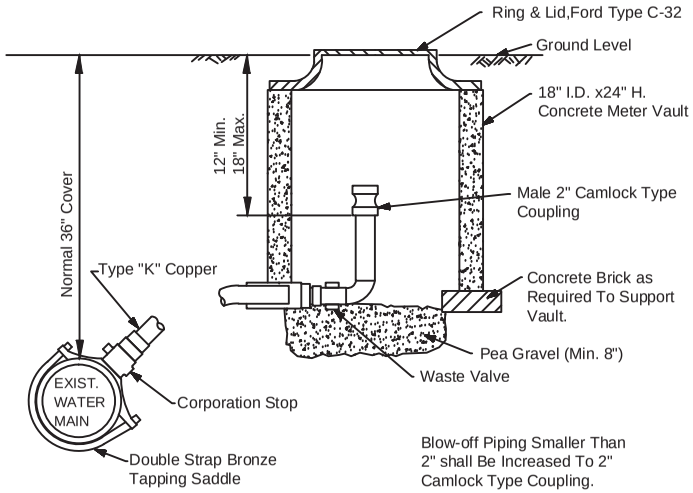
ADJUDTING RING & LID TO GRADE

DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 112



TYPICAL FLUSHING DEVICE
INSTALLATION

N.T.S.

REVISION	BY	DATE

N. KY. WATER DISTRICT

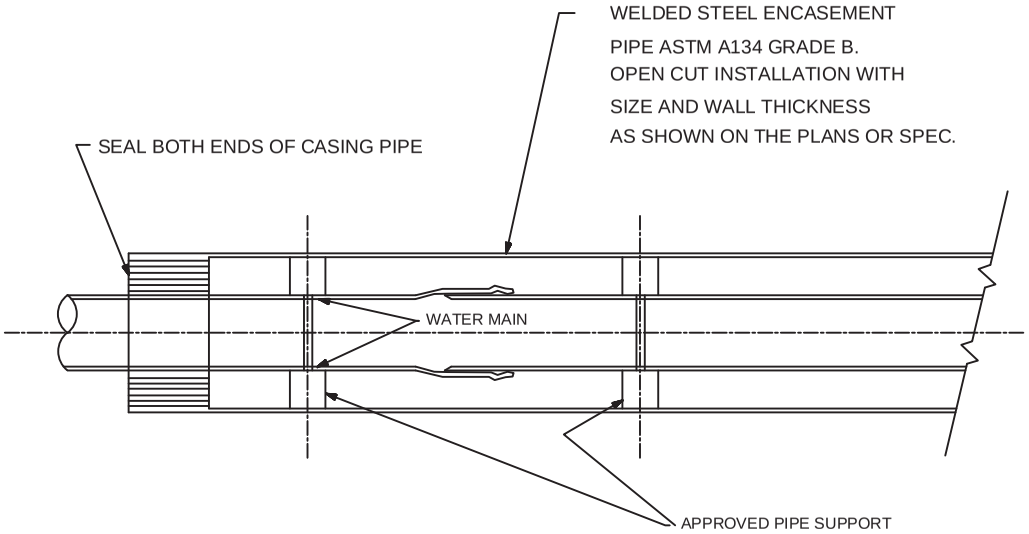
TYPICAL FLUSHING DEVICE INSTALLATION

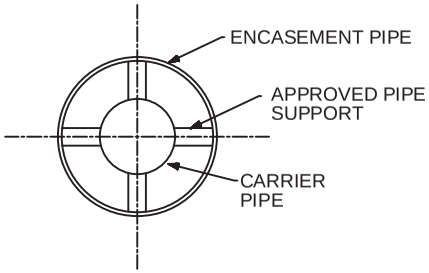
DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

STANDARD DRAWING NO: 113





1. All carrier pipe placed in steel casing pipe shall be minimum class 50 ductile iron pipe and conform to the latest edition of AWWA C151.
2. Carrier pipe gaskets shall develop a wedging action between pairs of high-strength stainless steel elements spaced around the gasket (FIELD LOK , FASTGRIP, or approved equal gaskets).

NOTE: CASING PIPE JOINTS SHALL BE SEAM WELDED SO THAT CASING IS WATER TIGHT FROM END TO END.

ENCASEMENT PIPE DETAIL

NO SCALE

REVISION	BY	DATE
1. Remove Granular Fill	JS	2/1/00

N. KY. WATER DISTRICT

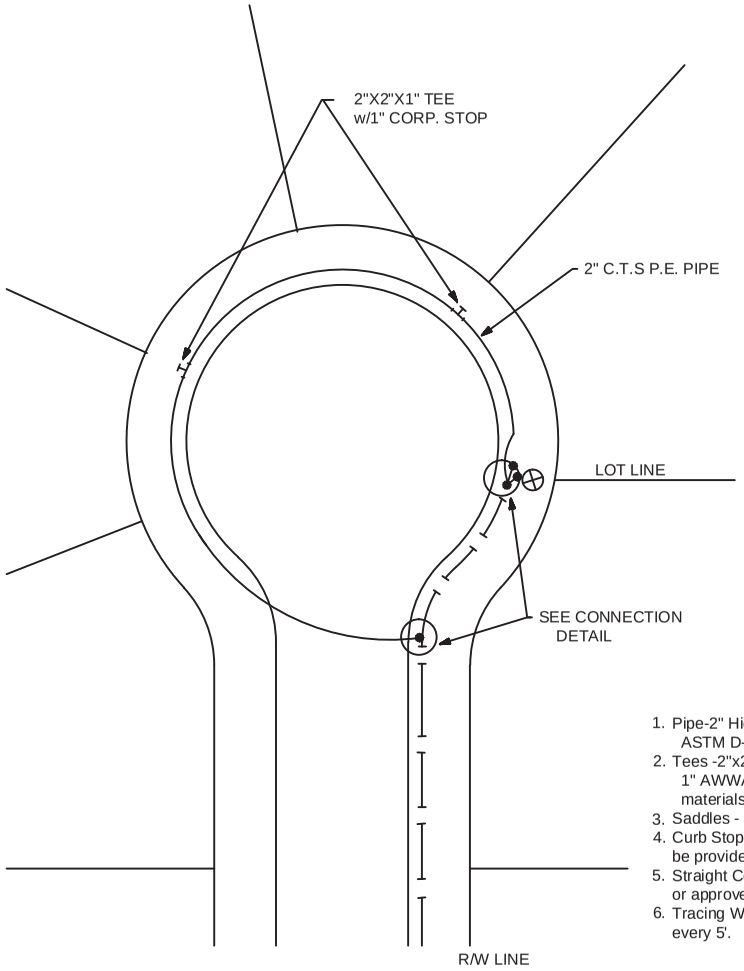
ENCASEMENT PIPE DETAIL

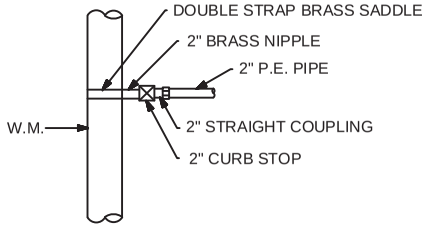
DRAWN BY: SAR

APPROVED: RH

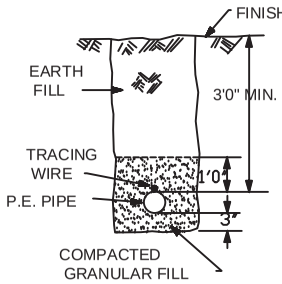
DATE: 8/5/2014

STANDARD DRAWING NO: 114





CONNECTION DETAIL



TRENCH DETAIL

Materials

1. Pipe-2" High Density Polyethylene Water Service Pipe,Class 200 (SDR-9),CTS-OD,200psi, ASTM D-2737.
2. Tees -2"x2"x1" with Pack Joints both ends,side outlet tapped for corp stop. Ford T440-774 1" AWWA Taper Threads with Ford 1"-F600 Corporation Stop or approved equal. materials will be provided by the Water District.
3. Saddles - Ford 202B Double Strap Brass Saddles (IP Threads) or approved equal.
4. Curb Stops - Ford 2" B11-777 Ball Valves for Iron Pipe or approved equal. A curb stop box shall be provided.
5. Straight Couplings - Ford 2" C84-77 Male Iron Pipe Thread to Pack Joint type fittings for P.E. Pipe or approved equal.
6. Tracing Wire- 12 gauge solid copper (P.V.C. coated) tracing wire taped to the top of the pipe every 5'.

GENERAL INFORMATION

1. This detail is not designed to eliminate dead-end water mains. This is an alternate to installing 6" or 8" pipe around a cul-de-sac.
2. Tees for services need to be dropped off on the opposite lot lines of the electric and other utilities.
3. Tees for services will need to be properly installed with some type of above ground markers.
4. P.E. Pipe shall be installed after the curb are installed.
5. The only joints made in the P.E. pipe shall be made at the water service tees.
6. 1" copper tubing will need to be provided for one of the water service tees for flushing purposed.

REVISION	BY	DATE

N. KY. WATER DISTRICT

2" P.E. AROUND CUL-DE-SAC

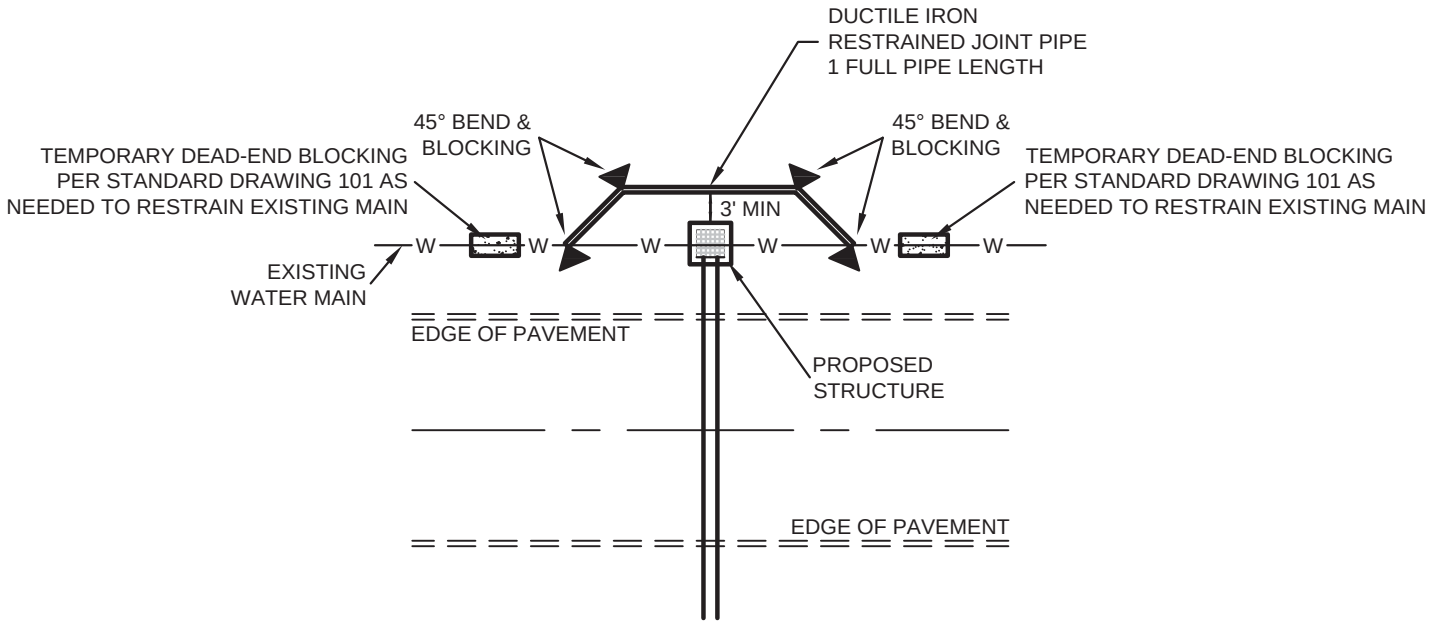
DRAWN BY: SAR

APPROVED: RH

DATE: 8/5/2014

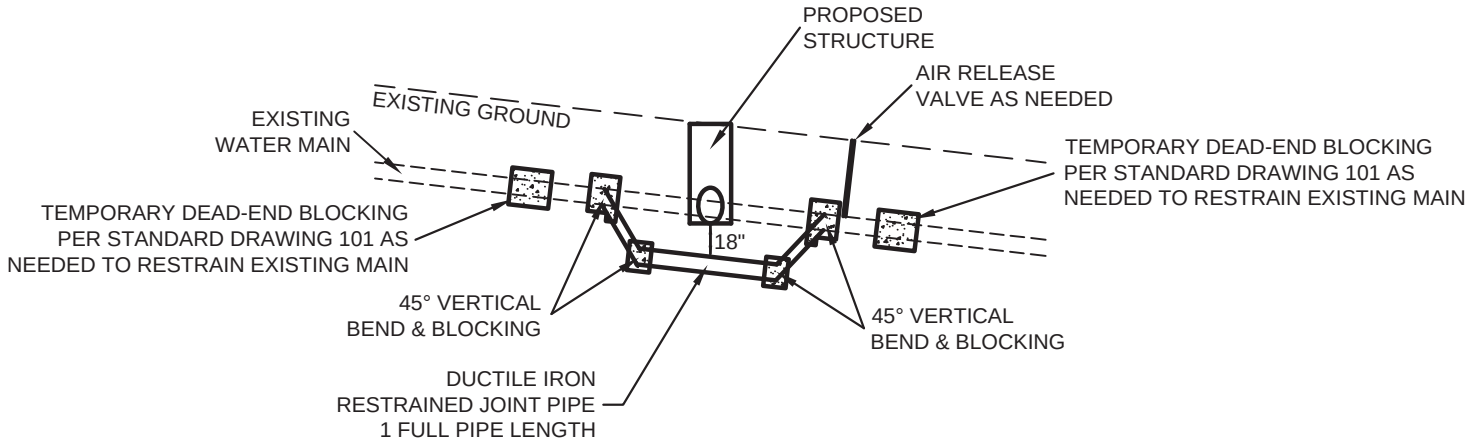
STANDARD DRAWING NO: 115

STANDARD WATER MAIN RELOCATION DETAIL IF AVAILABLE R/W AND EXISTING SITE CONDITIONS PERMIT



PLAN VIEW - NOT TO SCALE

WATER MAIN RELOCATION DETAIL IF AVAILABLE R/W AND EXISTING SITE CONDITIONS REQUIRE THE MAIN TO BE LOWERED WITHIN THE SAME HORIZONTAL ALIGNMENT



PROFILE VIEW - NOT TO SCALE

GUARDRAIL DELIVERY VERIFICATION SHEET

Contract Id: _____ **Contractor: _____**

Section Engineer: _____ **District & County: _____**

DESCRIPTION	UNIT	QTY LEAVING PROJECT	QTY RECEIVED@BB YARD
GUARDRAIL (Includes End treatments & crash cushions)	LF	_____	_____
STEEL POSTS	EACH	_____	_____
STEEL BLOCKS	EACH	_____	_____
WOOD OFFSET BLOCKS	EACH	_____	_____
BACK UP PLATES	EACH	_____	_____
CRASH CUSHION	EACH	_____	_____
NUTS, BOLTS, WASHERS	BAG/BCKT	_____	_____
DAMAGED RAIL TO MAINT. FACILITY	LF	_____	_____
DAMAGED POSTS TO MAINT. FACILITY	EACH	_____	_____

****Required Signatures before Leaving Project Site***

Printed Section Engineer's Representative_____ & Date_____

Signature Section Engineer's Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

****Required Signatures after Arrival at Bailey Bridge Yard (All material on truck must be counted & the quantity received column completed before signatures)***

Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____& Date_____

Printed Contractor's Representative_____& Date_____

Signature Contractor's Representative_____& Date_____

**Payment for the bid item remove guardrail will be based upon the quantities shown in the Bailey Bridge Yard received column. Payment will not be made for guardrail removal until the guardrail verification sheets are electronically submitted to the Section Engineer by the Bailey Bridge Yard Representative.

Completed Form Submitted to Section Engineer Date: _____ By: _____

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2012* and *Standard Drawings, Edition of 2016.*

SUPPLEMENTAL SPECIFICATIONS

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

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

SPECIAL NOTE FOR BARCODE LABEL ON PERMANENT SIGNS

1.0 DESCRIPTION. Install barcode label on sheeting signs. Section references herein are to the Department's 2012 Standard Specifications for Road and Bridge Construction.

2.0 MATERIALS. The Department will provide the Contractor with a 2 inch x 1 inch foil barcode label for each permanent sheeting sign. A unique number will be assigned to each barcode label.

The Contractor shall contact the Operations and Pavement Management Branch in the Division of Maintenance at (502) 564-4556 to obtain the barcode labels.

3.0 CONSTRUCTION. Apply foil barcode label in the lower right quadrant of the sign back. Signs where the bottom edge is not parallel to the ground, the lowest corner of the sign shall serve as the location to place the barcode label. The barcode label shall be placed no less than one-inch and no more than three inches from any edge of the sign. The barcode must be placed so that the sign post does not cover the barcode label.

Barcodes shall be applied in an indoor setting with a minimum air temperature of 50°F or higher. Prior to application of the barcode label, the back of the sign must be clean and free of dust, oil, etc. If the sign is not clean, an alcohol swab shall be used to clean the area. The area must be allowed to dry prior to placement of the barcode label.

Data for each sign shall include the barcode number, MUTCD reference number, sheeting manufacturer, sheeting type, manufacture date, color of primary reflective surface, installation date, latitude and longitude using the North American Datum of 1983 (NAD83) or the State Plane Coordinates using an x and y ordinate of the installed location.

Data should be provided electronically on the TC 71-229 Sign Details Information and TC 71-230 Sign Assembly Information forms. The Contractor may choose to present the data in a different format provided that the information submitted to the Department is equivalent to the information required on the Department TC forms. The forms must be submitted in electronic format regardless of which type of form is used. The Department will not accept PDF or handwritten forms. These completed forms must be submitted to the Department prior to final inspection of the signs. The Department will not issue formal acceptance for the project until the TC 71-229 and TC-230 electronic forms are completed for all signs and sign assemblies on the project.

4.0 MEASUREMENT. The Department will measure all work required for the installation of the barcode label and all work associated with completion and submission of the sign inventory data (TC 71-229 and TC 71-230).

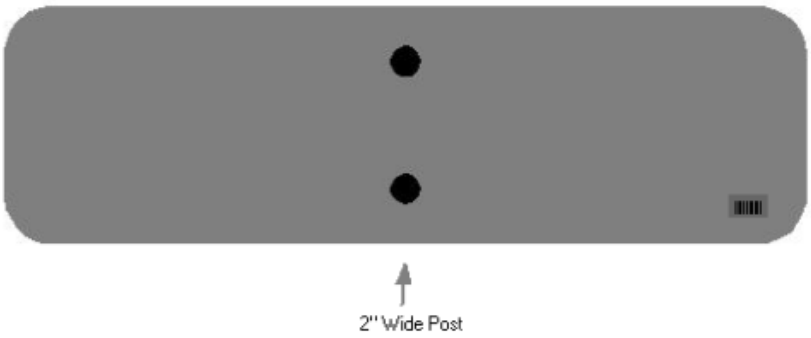
The installation of the permanent sign will be measured in accordance to Section 715.

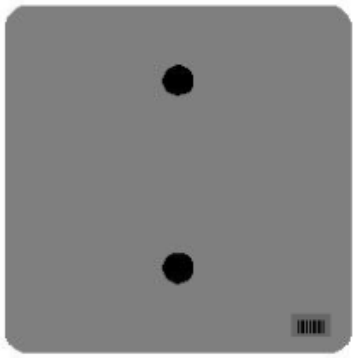
5.0 PAYMENT. The Department will make payment for the completed and accepted quantities under the following:

Code	Pay Item	Pay Unit
24631EC	Barcode Sign Inventory	Each

The Department will not make payment for this item until all barcodes are installed and sign inventory is complete on every permanent sign installed on the project. The Department will make payment for installation of the permanent sign in accordance to Section 715. The Department will consider payment as full compensation for all work required under this special note.

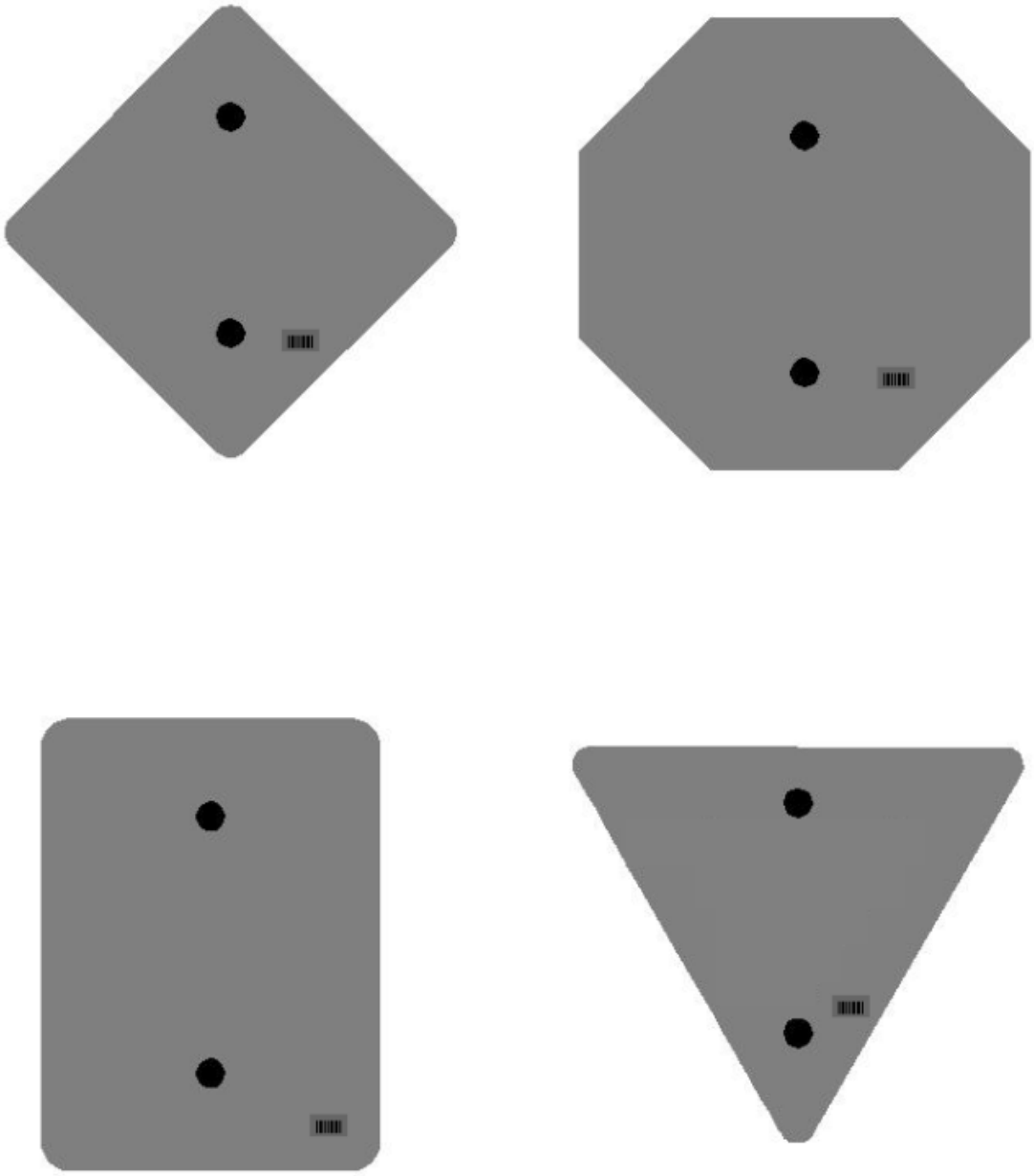
One Sign Post



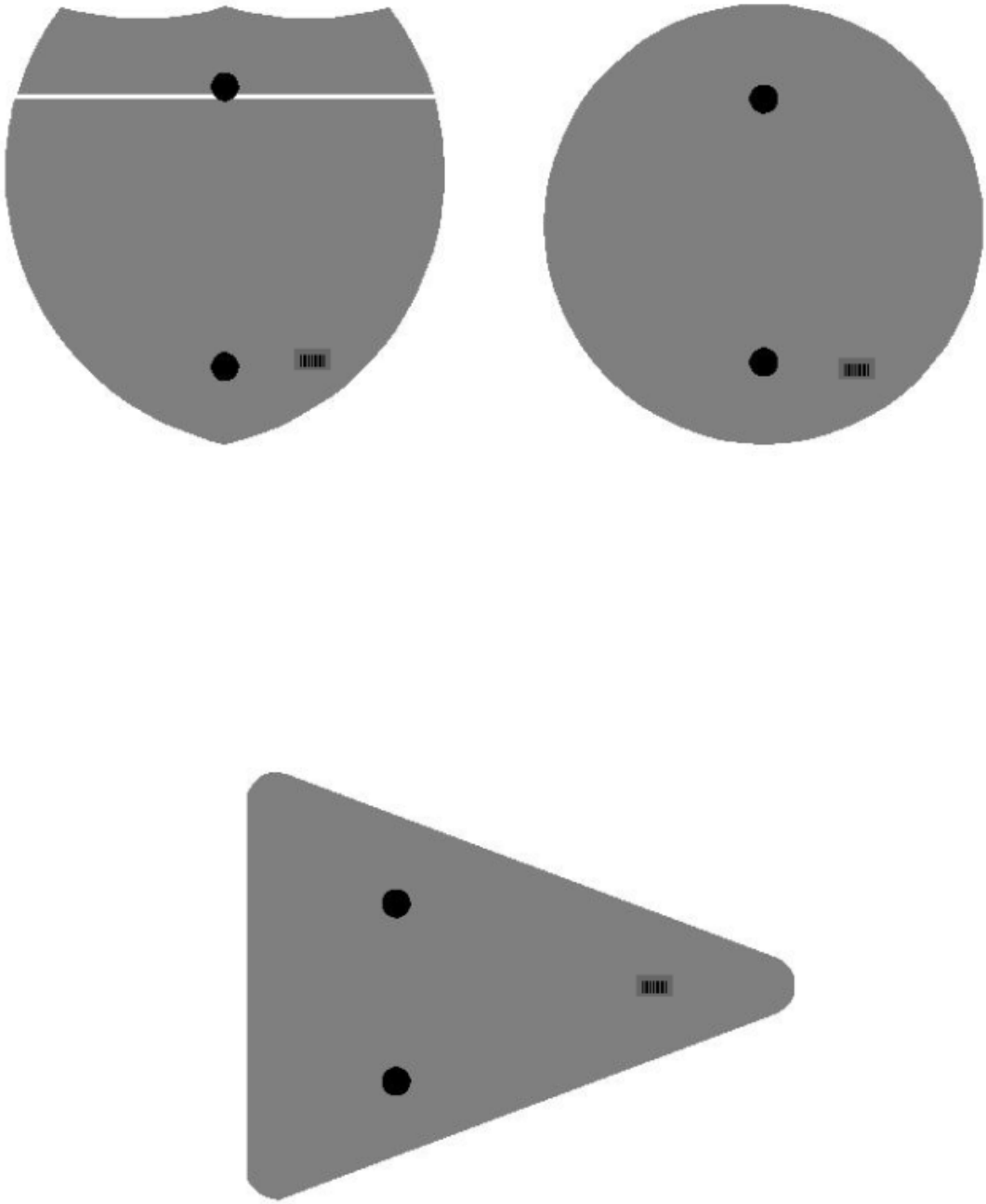




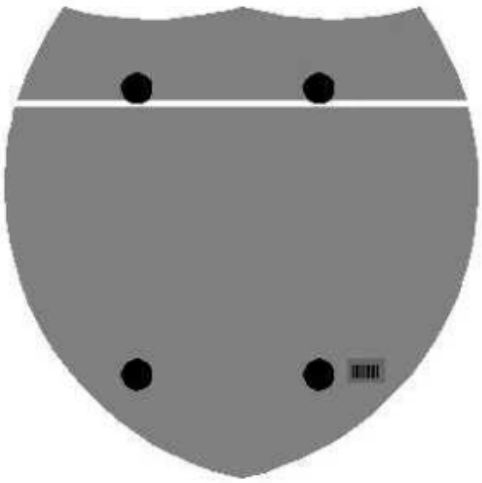
One Sign Post



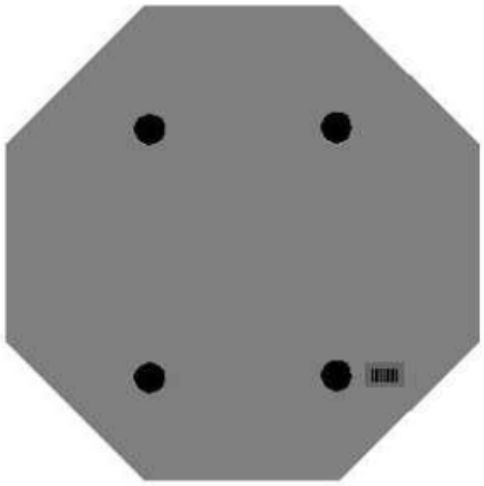
One Sign Post



Double Sign Post



Interstate
Shield

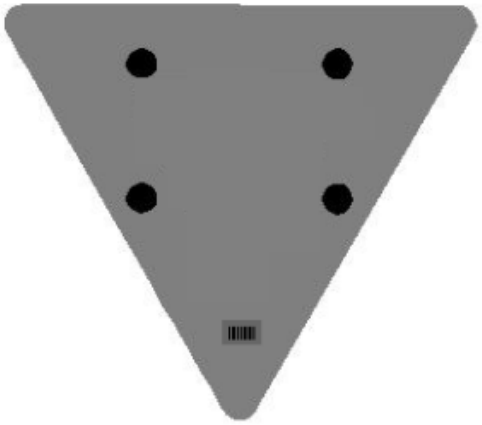


48" Stop

2 Post Signs







2016 STANDARD DRAWINGS THAT APPLY

ROADWAY

~ *BARRIERS* ~

ENERGY ABSORPTION DEVICES

CRASH CUSHION TYPE VI-BT RBE-100-10

CONCRETE MEDIAN BARRIERS

DELINEATORS FOR CONCRETE BARRIERS..... RBM-020-09
CONCRETE BARRIER WALL TYPE 9T (TEMPORARY)..... RBM-115-10

TRAFFIC

~ TEMPORARY ~

TRAFFIC CONTROL

LANE CLOSURE TWO-LANE HIGHWAY TTC-100-04
LANE CLOSURE USING TRAFFIC SIGNALS TTC-110-03
LANE CLOSURE MULTI-LANE HIGHWAY CASE I TTC-115-03
LANE CLOSURE MULTI-LANE HIGHWAY CASE II TTC-120-03

DEVICES

DOUBLE FINES ZONES SIGNS TTD-120-02
PAVEMENT CONDITION WARNING SIGNS TTD-125-02

BRIDGES

MISCELLANEOUS STANDARDS

BRIDGE RESTORATION AND WATERPROOFING WITH CONCRETE OVERLAYS..... BGX-009-04

JOINTS

NEOPRENE EXPANSION DAMS AND ARMORED EDGES BJE-001-13

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

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

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

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

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

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

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

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

II. NONDISCRIMINATION

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

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

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

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

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

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

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

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

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

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

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

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

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

2. Withholding

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

3. Payrolls and basic records

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

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

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

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

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

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

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

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

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

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

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

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

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

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

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

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

10. Certification of eligibility.

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

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

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

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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

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

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

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

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

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

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

* * * * *

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

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

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

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

KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972

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

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

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

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

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

Revised: January 25, 2017

EXECUTIVE BRANCH CODE OF ETHICS

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

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

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

Revised: January 27, 2017

General Decision Number: KY170101 03/10/2017 KY101

Superseded General Decision Number: KY20160101

State: Kentucky

Construction Type: Highway

Counties: Boone, Campbell, Kenton and Pendleton Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	03/10/2017

* BRKY0002-005 06/01/2016

	Rates	Fringes
BRICKLAYER	$ 27.01	11.38

BROH0001-005 06/01/2008

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 25.75	8.60

CARP0698-001 05/01/2014

BOONE, CAMPBELL, KENTON & PENDLETON COUNTIES:

	Rates	Fringes
Carpenter & Piledrivermen	$ 27.27	14.59
Diver	$ 40.58	9.69

ELEC0212-007 06/06/2016

	Rates	Fringes
ELECTRICIAN	$ 27.47	17.13

ELEC0212-013 12/01/2014

	Rates	Fringes
Sound & Communication Technician	$ 22.75	10.08

ENGI0018-013 05/01/2015

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 33.34	14.25
GROUP 2	$ 33.22	14.25
GROUP 3	$ 32.18	14.25
GROUP 4	$ 31.00	14.24
GROUP 5	$ 25.54	14.25
GROUP 6	$ 33.59	14.25
GROUP 7	$ 33.84	14.25

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; & Wheel Excavator

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 500,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications);

Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); & Vermeer type Concrete Saw

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); & Welding Machines

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway) except Masonry); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift (highway); Form Trencher; Hydro Hammer; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); & Vibratory Compactor with Integral Power

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Masonry Fork Lift; Oil Heater (asphalt plant); Oiler; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; & VAC/ALLS

GROUP 6 - Master Mechanic & Boom from 150 to 180

GROUP 7 - Boom from 180 and over

IRON0044-008 06/01/2016

	Rates	Fringes
Ironworkers:		
Fence Erector	$ 23.76	19.15
Structural	$ 26.47	19.15

IRON0372-004 07/15/2016

	Rates	Fringes
IRONWORKER, REINFORCING	$ 27.15	20.33

LABO0189-004 07/01/2016

PENDLETON COUNTY:

	Rates	Fringes
LABORER		
GROUP 1	$ 22.75	12.84
GROUP 2	$ 23.00	12.84
GROUP 3	$ 23.05	12.84
GROUP 4	$ 23.65	12.84

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

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

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

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LABO0265-009 05/01/2016

BOONE, CAMPBELL & KENTON COUNTIES:

	Rates	Fringes
LABORER		

GROUP 1	$ 29.22	10.35
GROUP 2	$ 29.39	10.35
GROUP 3	$ 29.72	10.35
GROUP 4	$ 30.17	10.35

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Highway Lighting Worker; Signalization Worker; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Skid Steer; Asphalt Raker; Concrete Puddler; Kettle Man (Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - $1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner; & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0012-016 05/01/2015

	Rates	Fringes
PAINTER		
Bridge	$ 24.39	9.06
Bridge Equipment Tender and Containment Builder	$ 20.73	9.06
Brush & Roller	$ 23.39	9.06
Sandblasting & Water		

Blasting	$ 24.14	9.06
Spray	$ 23.89	9.06

PLUM0392-008 06/01/2014

	Rates	Fringes
PLUMBER	$ 29.80	17.79

SUKY2010-161 02/05/1996

	Rates	Fringes
Truck drivers:		
GROUP 1	$ 15.85	4.60
GROUP 2	$ 16.29	4.60

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Driver

GROUP 2 - Euclid Wagon; End Dump; Lowboy; Heavy Duty Equipment; Tractor-Trailer Combination; & Drag

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the

cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of

each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

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

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
11.0%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8609

4. As used in this Notice, and in the contract resulting from this solicitation, the **"covered area"** is Campbell County.

PART IV

INSURANCE

INSURANCE

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

1) Commercial General Liability-Occurrence form – not less than $2,000,000 General aggregate, $2,000,000 Products & Completed Aggregate, $1,000,000 Personal & Advertising, $1,000,000 each occurrence.

2) Automobile Liability- $1,000,000 per accident

3) Employers Liability:

   a) $100,000 Each Accident Bodily Injury
   b) $500,000 Policy limit Bodily Injury by Disease
   c) $100,000 Each Employee Bodily Injury by Disease

4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
   a) "policy contains no deductible clauses."
   b) "policy contains _____ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."

5) 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.

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

PART V

BID ITEMS

174115

PROPOSAL BID ITEMS

Report Date 5/3/17

Section: 0001 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	1,519.00	TON		$	
0020	00020		TRAFFIC BOUND BASE	684.00	TON		$	
0030	00100		ASPHALT SEAL AGGREGATE	163.00	TON		$	
0040	00103		ASPHALT SEAL COAT	20.00	TON		$	
0050	00221		CL2 ASPH BASE 0.75D PG64-22	2,023.00	TON		$	
0060	00307		CL2 ASPH SURF 0.38B PG64-22	1,962.00	TON		$	
0070	00440		ENTRANCE PIPE-15 IN	244.00	LF		$	
0080	00462		CULVERT PIPE-18 IN	219.00	LF		$	
0090	00464		CULVERT PIPE-24 IN	149.00	LF		$	
0100	00466		CULVERT PIPE-30 IN	97.00	LF		$	
0110	00468		CULVERT PIPE-36 IN	43.00	LF		$	
0120	00470		CULVERT PIPE-48 IN	7.00	LF		$	
0130	00496		CULVERT PIPE-36 IN EQUIV	36.00	LF		$	
0140	01202		PIPE CULVERT HEADWALL-15 IN	1.00	EACH		$	
0150	01204		PIPE CULVERT HEADWALL-18 IN	1.00	EACH		$	
0160	01497		DROP BOX INLET TYPE 3 MOD	11.00	EACH		$	
0170	01500		DROP BOX INLET TYPE 4 MOD	1.00	EACH		$	
0180	01544		DROP BOX INLET TYPE 11	4.00	EACH		$	
0190	01728		SAFETY BOX INLET-18 IN DBL SDB-5	15.00	EACH		$	
0200	01729		SAFETY BOX INLET-24 IN DBL SDB-5	4.00	EACH		$	
0210	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	90.00	EACH		$	
0220	02099		CEM CONC ENT PAVEMENT-6 IN	324.00	SQYD		$	
0230	02268		REMOVE & REPLACE FENCE (IN LIKE KIND)	300.00	LF		$	
0240	02360		GUARDRAIL TERMINAL SECTION NO 1	8.00	EACH		$	
0250	02363		GUARDRAIL CONNECTOR TO BRIDGE END TY A	8.00	EACH		$	
0260	02367		GUARDRAIL END TREATMENT TYPE 1	15.00	EACH		$	
0270	02381		REMOVE GUARDRAIL	4,915.00	LF		$	
0280	02391		GUARDRAIL END TREATMENT TYPE 4A	4.00	EACH		$	
0290	02483		CHANNEL LINING CLASS II	256.00	TON		$	
0300	02562		TEMPORARY SIGNS	225.00	SQFT		$	
0310	02575		DITCHING AND SHOULDERING	26,265.00	LF		$	
0320	02585		EDGE KEY	1,963.00	LF		$	
0330	02599		FABRIC-GEOTEXTILE TYPE IV	540.00	SQYD		$	
0340	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		$	
0350	02726		STAKING	1.00	LS		$	
0360	02731		REMOVE STRUCTURE 530+99	1.00	LS		$	
0370	03234		RAILROAD RAILS-DRILLED	4,750.00	LF		$	
0380	03235		EXCAVATION AND BACKFILL	270.00	CUYD		$	
0390	03236		CRIBBING	750.00	SQFT		$	
0400	03269		TRIM & REMOVE TREES & BRUSH	4,400.00	LF		$	
0410	05950		EROSION CONTROL BLANKET	16,000.00	SQYD		$	
0420	06406		SBM ALUM SHEET SIGNS .080 IN	510.00	SQFT		$	
0430	06410		STEEL POST TYPE 1	600.00	LF		$	
0440	06514		PAVE STRIPING-PERM PAINT-4 IN	76,184.00	LF		$	
0450	06567		PAVE MARKING-THERMO STOP BAR-12IN	10.00	LF		$	

PROPOSAL BID ITEMS

174115

Report Date 5/3/17

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0460	06569		PAVE MARKING-THERMO CROSS-HATCH	710.00	SQFT		$	
0470	08801		GUARDRAIL-STEEL W BEAM-S FACE BR	100.00	LF		$	
0480	08808		GUARDRAIL-BRIDGE CASE II	50.00	LF		$	
0490	10020NS		FUEL ADJUSTMENT	6,203.00	DOLL	$1.00	$	$6,203.00
0500	10030NS		ASPHALT ADJUSTMENT	15,580.00	DOLL	$1.00	$	$15,580.00
0510	14000		W AIR RELEASE VALVE 1 INCH	12.00	EACH		$	
0520	14024		W MAIN POINT RELOCATE	17.00	EACH		$	
0530	14030		W METER RELOCATE	1.00	EACH		$	
0540	14076		W REMOVE TRANSITE (AC) PIPE	100.00	LF		$	
0550	14081		W SERVICE RELOCATE	4.00	EACH		$	
0560	14105		W VALVE 06 INCH	1.00	EACH		$	
0570	14106		W VALVE 08 INCH	2.00	EACH		$	
0580	21373ND		REMOVE SIGN	60.00	EACH		$	
0590	21415ND		EROSION CONTROL	1.00	LS		$	
0600	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	5,871.00	LF		$	
0610	24575ES610		HEADWALL SLOPED AND MITERED CONCRETE - 18" PIPE	2.00	EACH		$	
0620	24575ES610		HEADWALL SLOPED AND MITERED CONCRETE - 24"PIPE	2.00	EACH		$	
0630	24575ES610		HEADWALL SLOPED AND MITERED CONCRETE - 30" PIPE	2.00	EACH		$	
0640	24631EC		BARCODE SIGN INVENTORY	55.00	EACH		$	

Section: 0002 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0650	02569		DEMOBILIZATION	1.00	LS		$	