



CALL NO. 115

CONTRACT ID. 194219

GRAYSON COUNTY

FED/STATE PROJECT NUMBER HSIP 9010 (299)

DESCRIPTION GRAYSON SPRINGS ROAD (KY 1214)

WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB

PRIMARY COMPLETION DATE 6/30/2020

LETTING DATE: July 26,2019

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 26,2019. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

NO PLANS ASSOCIATED WITH THIS PROJECT.

DBE CERTIFICATION REQUIRED - 7%

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

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PART I

SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 04

CONTRACT ID - 194219
HSIP 9010 (299)
COUNTY - GRAYSON
PCN - 0404312141901
HSIP 9010 (299)

GRAYSON SPRINGS ROAD (KY 1214) (MP 6.300) FROM KY 2778 EXTENDING NORTH TO KY 3155 (MP 14.028), A
DISTANCE OF 07.73 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 04-09007.00.
GEOGRAPHIC COORDINATES LATITUDE 37:27:33.50 LONGITUDE -86:13:15.60

COMPLETION DATE(S):
COMPLETED BY 06/30/2020 APPLIES TO ENTIRE CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

April 30, 2018

FEDERAL CONTRACT NOTES

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

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

FAILURE TO MEET GOOD FAITH REQUIREMENT

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

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

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

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

SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT

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

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

PROMPT PAYMENT

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

CONTRACTOR REPORTING

All contractors must keep detailed records and provide reports to the Cabinet on their progress in meeting the DBE requirement on any highway contract. These records may include, but shall not be limited to payroll, lease agreements, cancelled payroll checks, executed subcontracting agreements, etc. Prime contractors will be required to 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 Byne 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.

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 & Description of Work

CAUTION

The information in this proposal and the type of work listed herein are approximate only and are not to be taken as an exact evaluation of the materials and conditions to be encountered during construction; the bidder must draw his/her own conclusions when developing the Unit Bid Prices for each bid item. As such, if the conditions encountered are not in accordance with the information shown, the Department does not guarantee any changes to the Unit Bid Prices nor extension of the contract will be considered. The Department will pay for bid item quantity overruns, but only if pre-approved by the Engineer.

STATIONING

The contractor is advised that the planned locations of work were established using station numbers and mile points for reference. The project is broken into two sections, a Northern Section and a Southern Section, with the break point being at the KY 88 intersection. The stations begin on the end of the project near the KY 1214 and KY 3155 intersection. The left and right sides of the roadway as referenced in the plans are according to the stationing. Milepoints run the opposite direction to the stationing beginning with MP 6.396 at the intersection with KY 2778. The existing mile marker signs may not correspond to the proposed work locations.

STAKING

All survey information should be field verified as appropriate during construction and prior to incorporating the various project work items. Refer to the Special Note for Staking concerning staking operations required to control and construct the work.

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

The Department has not established the exact limits of the Right-of-Way. Unless a consent and release form 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. The majority of potentially impacted property owners have been contacted and a signed consent and release is on file at the District Office. 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.

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

General Notes & Description of Work
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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/her decision shall be final and binding upon the Contractor.

DESCRIPTION OF WORK

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

Superelevation Improvements. Superelevation Improvements are being proposed at various locations as indicated on the Typical Sections. The intent of this work is to bring a consistent pavement cross slope through the identified curves. The Contractor will utilize Leveling & Wedging in order to achieve the desired superelevation improvements at the identified location(s). The Engineer will make the final determination as to which Leveling & Wedging mix design 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. The cross sections list the beginning and ending locations of the superelevation improvements for each curve. As a result of the superelevation improvements, 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. The bid item 'Embankment in Place' or 'Granular Embankment' has been included for these roadside modifications.

NOTE: Some field adjustments of the proposed shoulder width, fill slope, ditch, and/or superelevation improvement may be required. The proposed shoulder and fill slope grading is intended to occur within existing Right-of-Way or within a work area identified in a Consent & Release obtained by the Department, and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require the roadside shoulder and fill slope to be modified, but the slope may have to be constructed steeper than what is shown on the Superelevation Typical Section. The desire of the Department is to construct the new fill slopes at 3:1 or flatter. When a fill slope needs to be constructed steeper than 3:1 to remain within existing Right-of-Way, a Consent & Release work area, and/or not impact a sensitive obstruction, and the existing fill slope is currently steeper than 3:1, then the new fill slope can be constructed steeper than 3:1, but the new fill slope shall not be constructed steeper than the existing fill slope. If a desired superelevation improvement will result in the new fill slope having to be graded steeper than the existing fill slope in order to remain within existing Right-of-Way, a Consent & Release work area, and/or 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. Consent forms have been acquired in some areas where fill slopes are likely to extend past the Right of Way.

Shoulder Widening. Areas have been identified along the route for shoulder improvements. Work will include excavation to achieve 1' depth and the placement of 6" of crushed stone base and 2 lifts of Asphalt Base each 3" thick with a desired 3:1 traversable side slope outside the shoulder area. This project requires more embankment in place volume than there is volume of excavation, therefore the excavation associated with this work is incidental to the bid item Embankment In Place. Other tasks associated with the Shoulder Widening may include tree removal, pipe extensions, and/or fence removal. The width of the shoulder varies as shown in the typical sections and cross sections.

General Notes & Description of Work

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The quantities to bring the fill slopes up to the required grades according to the cross sections for each area are included in the 'Embankment in Place' or 'Granular Embankment' bid item. An estimate of these anticipated quantities is included in the Proposal. The Engineer will make the final determination as to the quantities required to complete the work based on the existing conditions encountered during construction.

As shown on the Cross Sections, some of the side slopes to be constructed with the proposed typical section will extend beyond the existing right of way line. An attempt has been made to obtain Consent & Release approval from these adjoining property owners to allow this work to be completed on these properties. Copies of these Consent forms will be made available to the contractor. The Contractor should note that the total estimated quantities included in this proposal, upon which the Contractor should base his bid, are for those areas that (1) either Consent & Release has been obtained or (2) it is anticipated that the work can be completed within the existing right of way with only a slight variation to the typical section (as directed by the Engineer).

Pipe Replacements & Extensions. There are locations throughout the project where culvert pipes are being replaced and/or extended. Locations are noted on the Pipe, Culvert & Headwall Summary. Other items that may be associated with the pipe replacements and/or extensions include: Sloped & Mitered Concrete Headwalls, Ditching, Channel Lining, Erosion Control Blanket, etc. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work. Flowable Fill and all asphalt needed to backfill the pipe replacements are incidental to the associated Culvert Pipe bid item.

Sloped & Mitered Concrete Headwalls. Sloped & Mitered Concrete Headwalls shall be constructed as shown on the detail sheets titled: SLOPED & MITERED CONCRETE HEADWALL DETAILS. This headwall is intended to combine the benefits of a pipe headwall with the advantages of safety and adaptability by allowing the headwall to be custom fit to the surrounding embankment. The Pipe, Culvert & Headwall Summary identifies which pipe ends are to receive the Sloped & Mitered Concrete Headwalls. The identified pipe ends shall have the headwall installed and the pipe mitered at a slope that matches the final embankment slopes at each location. If the pipe is on a skew, install the headwall and miter the pipe so that the concrete slope paving of the new headwall is perpendicular to the roadway. In other words the embankment slope should not be warped to fit the skew of the pipe; the headwall should be installed and the pipe should be mitered to match the final embankment slope, so that the roadside fill slope is fairly consistent prior to the pipe, at the pipe, and beyond the pipe, and does not create an excessive bulge in the embankment. When completed the edges of the Sloped & Mitered Concrete Headwall should be flush with the surrounding ground line. Payment at the Contract unit price Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary to install the headwall and miter the pipe.

NOTE: For pipes that receive the Sloped & Mitered Concrete Headwall, the pipe length will be measured to the furthest point along the mitered end of the pipe.

Entrance Pipe Replacement & Driveway Surfacing. Due to areas of existing ditch line being re-shaped and relocated further from the edge of pavement, there are areas throughout the project where the existing entrance pipe will have to be removed and relocated to line up with the new ditch line. See the Summary sheets for the locations and bid items/quantities associated with the entrance pipe replacements. The existing driveway surface is noted in the Proposal and is to be replaced with like-kind surfacing. The Engineer will make the final determination as to the locations and quantities required to

General Notes & Description of Work

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complete the work based on the existing conditions encountered during construction. Refer to the Special Note for Pipe Replacements / Extensions for more information on this item of work.

RCBC Extensions. There are 6 RCBCs along the project that are being extended. Separate structure drawings for each RCBC Extension are included in the Proposal. Refer to the Special Note for Special Note for Box Culvert Extensions for more information on this work.

Channel Lining. A quantity of Channel Lining Class II has been included in the Earthwork and Paving Summary for use at the locations indicated. An additional quantity has been included in the total tonnage. It was assumed that 3 tons would be used on each end of the pipe extensions. The Contractor and Engineer should work together to determine the location and best use of Channel Lining throughout this project. The Engineer will make the final determination as to the needed quantities and placement of Channel Lining.

Erosion Control Blanket. A quantity of Erosion Control Blanket has been included in the contract for potential use along areas of regraded shoulders, ditch lines, fills slopes and/or back slopes, inlets and outlets of pipes, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Erosion Control Blanket throughout this project. The Engineer will make the final determination as to the quantities and placement of Erosion Control Blanket.

Sodding. A quantity of Sodding has been included in the contract for potential use along areas of regraded shoulders, ditch lines, fills slopes and/or back slopes and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine the location and best use of Sodding throughout this project. The Engineer will make the final determination as to the quantities and placement of Sodding.

Guardrail Replacement. Existing guardrail within the project will be replaced. Refer to the Guardrail Summary for the approximate locations for guardrail replacement. See the Special Note for Guardrail for more information on this work.

Trim & Remove Trees, Stumps, and Brush. There are locations within the project where Trees, Stumps, or Brush are to be removed and/or trimmed. Locations are noted on the Tree and Brush Removal Summary. Refer to the Special Note for Tree, Stump, and Brush Removal for more information.

Remove and Replace Fence. There are locations within the project area that require removing the fence so that trees can be removed or embankment material can be added to the slopes. Replace all fence upon completion of work with like kind materials at the same post spacing. A quantity of temporary fence has been included and is to be used in areas where livestock is present. Consent and Releases have been acquired for all areas requiring fence removal and replacement.

Rock Outcrop (Excavation-Unclassified). Rock Outcrop Removal is to occur at areas 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. Removal is to occur through the means of using a hoe ram with no blasting being anticipated. Disposal of all excess and unsuitable excavation is to be at approved sites obtained by the Contractor at no additional cost to the Department with all cost being incidental to the bid item "Excavation-Unclassified".

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The Department will measure the Rock Outcrop Removal as "Excavation-Unclassified" and will pay the quantity as Cubic Yards.

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.

Reconstruct Stone Masonry Wall (LT STA 629+95). The entrance at Left Station 629+95 has existing stone landscaping blocks at the ends of the existing entrance pipe. Prior to removing the existing 15" entrance pipe, carefully remove the existing stone landscaping blocks, store, and reinstall them after the proposed entrance pipe and entrance surfacing has been constructed. The Bid item "Reconstruct Sone Masonry Wall" will be used to make payment for all labor, equipment, and any incidentals needed to remove, store, and reinstall the existing stone landscaping blocks at the ends of the proposed entrance pipe.

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. Using the proposed pavement superelevation rates shown on the cross sections, determine the necessary changes in pavement edge elevation along the curves and the transitions leading into and out of the curve to achieve the proposed superelevation improvements. The intent is to provide a consistent superelevation throughout the curves and smooth transitions into and out of the curves. Once the proposed changes in pavement edge elevations are determined and prior to starting paving operations, verify the proposed roadside re-grading along the curves can be constructed so that the new roadside is flush with the new pavement edge elevation and the new toe of slope, or top of cut, will remain within the existing Right-of-Way, the work area defined by a Consent & Release obtained by the Department, and/or not impact any sensitive obstructions (e.g. building, utility, fence, etc.). If necessary, and with the approval of the Engineer, reduce the proposed superelevation rate of a curve if the new edge of pavement elevation will cause the new roadside grading to extend beyond the existing Right-of-Way, a Consent & Release work area, and/or impact a sensitive obstruction. Alternatively, with the approval of the Engineer, the Contractor may be allowed to make adjustments to the roadside grading so the proposed roadside re-grading will remain within the existing Right-of-Way, a Consent & Release area, and/or not impact a sensitive obstruction. After the final proposed changes in pavement edge elevations are determined and before paving operations begin, submit to the Engineer and obtain approval for the number of asphalt lifts, each asphalt lift's thickness, and the mix design of each lift of Leveling & Wedging the contractor plans to use to achieve the superelevation improvement. Ensure positive drainage upon completion of the work.
3. Verify the dimensions, type, and quantities of the culvert pipes, entrance pipes, and/or box culverts 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 drainage structures with existing and/or proposed ditches, stream channels, swales, and the roadway lines and grades; and to ensure positive drainage upon completion of the work.
4. Produce and furnish to the Engineer "As Built" information for the superelevation improvements and the drainage improvements. For superelevation improvements, as built information will consist of a record of the final pavement cross slopes every 50 feet, for each lane of travel along the curves and the transitions into and out of the curves. Elevation data of the curve improvements is not necessary; simply the cross slope percentage every 50 feet. For the drainage improvements, as built information will consist of a final record of the actual types, sizes, and locations of the drainage structures (i.e. box inlets, headwalls, junction boxes, etc.), culvert pipes, and/or box culverts constructed. Final elevation data of the drainage improvements is not necessary.
5. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
6. Perform any and all other staking operations required to control and construct the work.

SPECIAL NOTE

For Tree Removal

**Grayson County
KY-1214 Road Improvements
Item No. 4-9007**

**NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER
BREAST HEIGHT) FROM JUNE 1 – JULY 31**

**If there are any questions regarding this note, please contact Division of
Environmental Analysis, 200 Mero Street, Frankfort, KY 40601, Phone: (502) 564-
7250.**

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; (6) Clean up and disposal of waste; (7) 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 the 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. Any tree trimming listed in the proposal shall be cleared as shown on the Tree Trimming Detail. Grinding of all tree stumps within the mowing zone shall be required as directed by the Engineer. All stumps that are listed on the summary and/or directed by the Engineer to be removed, are to be removed via mechanical grinding, or other methods approved by the Engineer, to a minimum depth of four (4) inches below the surrounding grade line. For trees that are cut, but will not be required to have their stump removed, treat the stump, within one hour of cutting, with the specified herbicide solution.

Tree, Stump, & Brush Removal

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Replace and level any and all soil disturbed during the tree, stump, and/or brush removal and/or tree trimming operations. Leave the soil in a condition suitable for seeding that is level with the 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/or "Trim and Remove Trees and Brush."

NOTE: Tree cutting restrictions apply. See the Special Note for Tree Removal for details on the restrictions.

- 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 right-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 right-of-way. Remove and dispose of all debris and waste material off the right-of-way as work is completed and at the end of each workday. Remove desirable wood pieces from the right-of-way at the end of each workday. Stockpile trees and brush off the right-of-way. At the discretion of the Project Engineer, the Contractor may be permitted to stockpile trees and brush at approved locations along the right-of-way.

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.

Tree, Stump, & Brush Removal
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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.

Tree, Stump, & Brush Removal
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- G. Right-of-Way Limits.** The exact limits of the Right-of-Way have not been established by the Department. 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. See the Special Provision for Waste and Borrow Sites.
- 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.
- J. Erosion Control.** See the Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See the 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 the project bid items.
- 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 by linear foot, per side of the highway. See the Tree Trimming Detail for the horizontal and vertical trimming dimensions. The horizontal width is taken from the edge of pavement measured perpendicular to the roadway but not to extend beyond the obvious 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/or "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 the project bid items.

Tree, Stump, & Brush Removal
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G. Final Dressing, Seeding and Protection. The Department will NOT measure for payment the operations of Final Dressing. Seeding and Protection will be measured according to Section 212.

H. Erosion Control. See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

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

B. Remove Trees or Stumps. The Department will make payment for the completed and accepted quantities of each tree or stump removed. 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 the work of removing the trees and/or stumps.

C. Trim & Remove Trees & Brush. The Department will make payment for the completed and accepted quantities per linear foot. 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 the work of trimming and removing the trees and/or brush.

D. Erosion Control. See the Special Note for Erosion Control.

SPECIAL NOTES FOR PIPE REPLACEMENTS / EXTENSIONS

I. DESCRIPTION

Except as provided herein, perform all work in accordance with the Department's 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 replacements and/or pipe extensions; (3) Embankment and/or Excavation; (4) Erosion Control; 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 the applicable Standard or Sepia Drawings, current editions. Verify maximum and minimum fill cover height required for new pipe prior to construction and obtain the Engineer's approval of the class or gauge of pipe and type of coating prior to delivering pipe to project. Furnish approved connecting bands or pipe anchors and toe walls.

C. Flowable Fill. Furnish Flowable Fill for Pipe Backfill per Section 601.03.03(B).

D. 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.

C. Site Preparation. Be responsible for all site preparation including, but not limited to, saw cutting and removing pavement; clearing and grubbing; staking; incidental excavation and backfilling; common and solid rock excavation; embankment in place; removal of obstructions, or any other items; restoration of pavements, slopes, and all disturbed areas; final dressing and cleanup; and disposal of materials. Limit clearing and grubbing to the absolute minimum required to construct the drainage features. Perform all site preparation only as approved or directed by the Engineer.

Pipe Replacements/Extensions
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- D. Removing Headwalls, Pipe, and Excavation.** Remove existing headwalls and lengths of culvert and/or entrance pipes at the approximate locations noted on the summary. The Engineer will determine the exact locations and lengths of pipe to be removed at the time of construction. When removing pipe, or any portion of pipe under the roadway, saw cut the existing asphalt pavement and base to a neat edge prior to excavation and removal of the existing pipe. NOTE: Saw cutting the pavement shall be incidental. Obtain the Engineer's approval of trench width and/or saw cutting limits prior to saw cutting the pavement. Excavate the trench and remove the pipe as directed, or approved, by the Engineer without disturbing existing underground utilities.
- E. Constructing Pipe, Headwalls, and Drainage Boxes.** Construct culvert and/or entrance pipes, pipe extensions, headwalls, drainage boxes, and other drainage structures at the locations shown in the proposal or as designated by the Engineer. The contractor will establish, with the approval of the Engineer, the final centerlines, flow lines, and skews to obtain the best fit with the existing and/or proposed ditches and other proposed improvements. (See the Special Note for Staking.) Construct pipe bedding according to Section 701 and the applicable Standard or Sepia Drawings, current editions. 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.** Backfill entrance pipes according to Section 701.03.06. Contrary to Section 701.03.06, backfill culvert pipes with flowable fill for the width of the roadway and as shown on the Pipe Replacement Detail. Steel plates will likely be required to maintain traffic while the flowable fill cures. Once the flowable fill has sufficiently cured, place the Asphalt Base in lifts with thicknesses of 3-4 inches, up to the surface of the existing pavement. Seal with Leveling & Wedging. Allow the asphalt base and leveling & wedging to be exposed to traffic for a minimum of 14 days to allow for settlement. During the waiting period, level & wedge any settlement as directed by the Engineer. After the waiting period has been met for the last pipe replacement constructed, the final milling and/or surfacing operations can begin, unless directed otherwise by the Engineer.
- G. Embankments.** Backfill pipe and culvert extensions, and construct shoulder embankments as directed by the Engineer. The contractor shall bench into the existing slope and apply proper compaction according to Section 206. For more information and details on benching, refer to Note 2 on the detail sheet titled: DITCHING & SHOULDERING AND EMBANKMENT BENCHING DETAILS, found elsewhere in the Proposal. Provide positive drainage of ditches, shoulders, and slopes at all times during, and upon completion of construction.
- H. 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.

Pipe Replacements/Extensions

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- I. 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. 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.
- J. Right-of-Way Limits.** The Department has not established exact limits of the Right-of-Way. Unless a consent and release form 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.
- K. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. 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 the Special Provision for Waste and Borrow Sites.
- L. Final Dressing, Seeding and Protection.** Grade all disturbed areas to blend with the adjacent roadways features and to provide a suitable seed bed. Apply Class A Final Dressing to all disturbed areas, both on and off the Right-of-Way. Sow all disturbed earthen areas with the applicable seed mixture(s) according to Section 212.03.03.
- M. Erosion Control.** See the Special Note for Erosion Control.

IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See the 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 and/or entrance pipe bid items, as applicable.

Pipe Replacements/Extensions
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- C. Remove Headwall.** The Department will measure the removal of existing headwalls as Each. Any excavation, including rock excavation, necessary to remove existing headwalls will NOT be measured for payment, but shall be incidental to the bid item "Remove Headwall".
- D. Remove Pipe.** Removal of existing culvert and entrance pipe shall be measured according to Section 701.04.14. Any excavation, including rock excavation, necessary to remove existing pipe will NOT be measured for payment, but shall be incidental to the bid item "Remove Pipe".
- E. Culvert and Entrance Pipe.** The Department will measure the quantities according to Section 701.04. Any excavation, including rock excavation, necessary to install culvert or entrance pipe shall be incidental to the corresponding pipe bid items.
- F. Headwalls, Drainage Boxes.** The Department will measure according to Section 710. Any excavation, including rock excavation, necessary to construct headwalls and/or drainage boxes will NOT be measured for payment, but shall be incidental to the applicable bid item.
- G. Excavation, Pipe Backfill, Embankments.** The Department will NOT measure for payment the following items: any excavation, including rock excavation, necessary to remove the existing pipe and/or install the proposed culvert or entrance pipe, pipe backfill material, flowable fill, and re-constructing shoulder embankments, but shall considered these items incidental to the bid items for culvert and entrance pipe.
- H. 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, and Final Dressing. These activities shall be incidental to the project bid items. Seeding and Protection shall be measured according to Section 212.
- I. Erosion Control.** See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Remove Headwall.** The Department will make payment for the completed and accepted quantities of Each headwall removed. Payment at the Contract unit price per Each shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing headwall.
- C. Remove Pipe.** The Department will make payment according to Section 701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals for removing the existing pipe.
- D. Culvert and Entrance Pipe.** The Department will make payment according to Section

Pipe Replacements/Extensions
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701.05. Payment at the Contract unit price per linear foot shall be full compensation for furnishing all labor, materials, equipment, and incidentals necessary for installing and backfilling new culvert and entrance pipe.

E. Headwalls, Drainage Boxes. The Department will make payment according to Section 710.

F. Erosion Control. See the Special Note for Erosion Control.

SPECIAL NOTE FOR BOX CULVERT EXTENSIONS

I. DESCRIPTION.

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

(1) Contractor staking; (2) Site preparation; (3) Foundation preparation and construction of reinforced concrete box culvert extensions and headwalls; (4) Maintain and Control Traffic; and (5) all other work specified as part of 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. Erosion Control. See Special Note for Erosion Control.

C. Foundation Preparation. Furnish materials according to Section 603, the drawings, and as directed by the Engineer.

D. Reinforced Concrete Box Culvert Extensions. Furnish Class A Concrete and deformed Steel Reinforcement according to Sections 601 and 602. Contrary to Section 602.03.03, field bending bars will be allowed; however, obtain the Engineers approval of proposed field bending methods prior to bending. Furnish additional reinforcement to provide adequate splice lengths with existing box culvert steel as determined by the Engineer.

E. Steel Reinforcement. See Section 811.

III. CONSTRUCTION.

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

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

Box Culvert Extensions

Page 2 of 6

C. Site Preparation. Be responsible for all Site Preparation, including but not limited to Clearing and Grubbing; Removing pavement; Tree and Stump removal; Temporary Fencing; Roadway Excavation and Structure Excavation; Embankment and Embankment in Place; removal of obstructions or any other items; Grading, Reshaping, and Compacting; Ditching and Shouldering, obtaining borrow and waste sites, and disposal of materials, waste, and debris; cleaning inlet and outlet ditches; and restoration, cleanup and final dressing.

Clear and Grub only the minimum area required for construction and/or as directed by the Engineer. Limit clearing and grubbing to the absolute minimum required to construct the box culvert extensions. Obtain the Engineer's approval before removing trees and stumps from the cleared areas. Phase construction such that the potential for erosion is as minimal as possible.

Excavate as needed to remove any portion of the existing structure necessary for construction of the box culvert extension. Perform any ditching or grading as directed by the Engineer. Stockpile suitable materials for incorporation into the work as approved by the Engineer.

Be responsible for all excavation (common, roadway, structure, solid rock, and unclassified) required for foundation preparation, toe walls, and all other excavation required for the box culvert extensions. Excavate rock in channel as required to allow for construction of foundation and construction of box culvert extensions.

Be responsible for all embankment, embankment in place, and borrow required for backfilling the box culvert extension, constructing widened roadway and shoulder transitions, and all other embankment required to complete the work.

Provide positive drainage of slopes and ditches at all times during and upon completion of construction. Waste all removed materials not incorporated into the work at sites off the right of way obtained by the Contractor at no additional cost to the Department (see the Special Provision for Waste and Borrow Sites). Perform all excavation and removal of obstructions only as approved or directed by the Engineer

D. Remove Headwall. Remove the existing headwall(s) and wingwalls at the existing box culvert end(s) to sound concrete masonry, or as directed by the Engineer. Before removing any concrete masonry saw around the perimeter of the removal area on the interior and exterior to a depth of 1 inch. When sawing, take care not to cut into the existing steel reinforcement. Do not kink or unnecessarily bend exposed existing steel reinforcement. Remove structure excavation to solid rock or as directed by the Engineer, and prepare foundation. Existing steel reinforcement shall be thoroughly cleaned of concrete and straightened for use to bond the new concrete and reinforcement with a minimum overlap of 1'-9", unless otherwise shown in the drawings. As an alternative, if the existing headwall is sound, the Engineer may approve leaving the existing headwall in place. If the Engineer approves leaving the existing headwall in place, center 3'-0" long, #6 dowel bars at 12" spacing into the existing slabs and walls,

Box Culvert Extensions

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embedded 1'-6" deep into the existing box culvert concrete, and set with an adhesive anchorage system to provide a pullout strength of equal or greater capacity than the corresponding reinforcing steel.

E. Box Culvert Extensions. Construct the box culvert extension(s) according to the notes and details in the drawings, and Sections 601, 602, 603, 610, and/or any other applicable Standard Specifications. Class A Concrete shall be used throughout. Bond the proposed plastic concrete to the existing hardened concrete in all locations using a Type V Epoxy Resin or other approved structural adhesive, as prescribed in Section 826. Follow the manufacturer's application instructions. All exposed concrete edges shall be beveled $\frac{3}{4}$ ", unless otherwise noted. Reinforcement shall have a 2" clear distance to the proposed face of concrete, unless otherwise noted. Obtain the Engineer's approval of the final centerline, flow line, length, skew, and revised dimensions and/or steel pattern, if any, of each box culvert extension prior to placing concrete.

The Contractor is required to complete the box culvert extension(s) in accordance with the plans and all applicable specifications. The cost of any and all labor, materials, equipment, and/or any other items necessary to construct the box culvert extension(s) shall be incidental to the most appropriate bid items. Incidental items may include, but are not limited to, cofferdams, shoring, excavation, backfilling, and phased construction.

F. Remove Concrete Masonry. If the Engineer approves leaving the existing headwall(s) in place, a portion of the existing parapet(s) may need to be removed in order to construct a shoulder of suitable depth from the edge of pavement to the proposed headwall. Any necessary removal of a portion of the existing parapet shall be considered Site Preparation and shall be incidental to the box culvert bid items. Also, if the existing headwall(s) are left in place, one or both of the existing wingwalls, or a portion of either wingwall may need to be removed in order to construct the proposed box culvert extension(s) and/or headwall(s). In this situation, any necessary removal of the existing wingwall(s), or any portion thereof, shall be considered Site Preparation and shall be incidental to the box culvert bid items.

G. Embankments. Backfill box culvert extensions and construct embankments, slopes, roadway shoulders, and ditches as shown on the drawings, or as directed by the Engineer. Warp and tie the embankment slopes into the adjacent existing roadway to match the existing slopes and ditches. Provide positive drainage of slopes and ditches at all times during and upon completion of construction.

H. Ditching, Shouldering. Construct ditches and shoulders to provide positive drainage. Transition the ditches and shoulders between the existing typical section and the reconstructed roadway at the box culvert extension site(s). Clean all new and existing cross drainage and entrance structures within the limits of the ditching areas according to Section 209.03.B.

I. Clean Culvert. Remove all deleterious material and objects not native to the box culvert

Box Culvert Extensions

Page 4 of 6

barrel, such as, but not limited to debris and silt. The Contractor may choose to clean the box culvert prior to, or after, the proposed box culvert extension work. If the Contractor chooses to clean the box culvert prior to the proposed box culvert extension work, and additional debris, silt, etc. builds up during the box culvert extension operations, the Contractor shall remove the additional debris, silt, etc. at no additional cost to the Department, after the box culvert extension operations are complete.

NOTE: The proposal lists the existing box culverts that are to receive the Clean Culvert bid item. These identified box culverts are those that had existing debris, silt, etc. at the time the proposal was developed. The Engineer and the Contractor are encouraged to review the proposed box culvert extension site(s) prior to the Contractor beginning the box culvert extension work and determine if the Clean Culvert bid item applies. The Engineer shall determine the final approved quantities. If an existing box culvert location has a buildup of debris, silt, etc., but the Clean Culvert bid item is NOT listed in the proposal for that box culvert, the Contractor shall notify the Engineer prior to beginning box culvert extension operations, so that the Engineer can confirm that the existing box culvert has a buildup of debris, silt, etc. If the contractor does not notify the Engineer of this situation prior to beginning the box culvert extension operations, the Engineer will assume the buildup was a result of the Contractor's operations, and the cost of cleaning the box culvert shall be at no additional cost to the Department.

J. 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.

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 does not warrant or give any guarantee as to the accuracy of the data and information shown and no claims for money or time extensions will be considered if the conditions encountered, items used or omitted, and final quantities required are not in accordance with the information shown.

L. 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 utilities to 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 the Contractor's operations at no additional cost to the Department.

M. Right of Way Limits. The Department has not established the exact limits of the Right-

Box Culvert Extensions

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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.

N. Control. Perform all work under the absolute control of the Department. 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.

O. Clean Up, 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 the Special Provision for Waste and Borrow Sites.

P. Final Dressing, 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 with the applicable seed mixture(s) according to Section 212.03.03.

IV. MEASUREMENT.

Quantities shown on the summaries and drawings are approximate only. The Department will measure for payment only the bid items listed and the actual quantities incorporated in the work. All other items required to complete the construction shall be incidental to the listed bid items.

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

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

C. Site Preparation. Other than the bid items listed, the Department will not measure Site Preparation for separate payment, but shall be incidental to the applicable project bid items.

D. Remove Headwall. The Department will measure the removal of existing headwalls as Each. If the Engineer allows a proposed box culvert extension to be constructed without removing the existing headwall, the Remove Headwall bid item shall not be measured for payment.

Box Culvert Extensions
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E. Foundation Preparation. The Department will measure Foundation Preparation of box culvert extensions as Lump Sum. The Lump Sum unit price shall include all extensions at each identified box culvert, and shall not be measured as individual units per inlet or outlet. Except for the Foundation Preparation bid items listed, the Department will NOT measure Foundation Preparation for any other items of work and shall consider it incidental to the other items of work, as applicable.

F. Concrete-Class A. See Section 601.04.

G. Steel Reinforcement. See Section 602.04.

H. Clean Culvert. The Department will measure each box culvert cleaned as Lump Sum. The bid item Clean Culvert will not be measured when a box culvert must be cleaned due to buildup of debris, silt, etc. that occurs during the Contractor's construction operations.

V. PAYMENT.

The Department will make payment only for the bid items listed. All other items required to complete the construction shall be incidental to the listed bid items.

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

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

C. Foundation Preparation. Payment at the Lump Sum unit price shall be full compensation for furnishing all labor, materials, and equipment necessary for Foundation Preparation of all extensions at each identified box culvert.

D. Concrete-Class A. See Section 601.05.

E. Steel Reinforcement. See Section 602.04.

F. Clean Culvert. The Department will make payment for the completed and accepted quantities of each box culvert cleaned, as approved by the Engineer. Payment at the Lump Sum unit price shall be full compensation for furnishing all labor, materials, and equipment necessary to clean each box culvert measured for payment. Any box culverts that require cleaning, but are not approved by the Engineer for measurement of payment, shall be incidental to the box culvert bid items.

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, the Special Provisions and Special Notes, and the Standard and Sepia Drawings, current editions, or 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, the construction phasing, methods, and the 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.

Erosion Control

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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. All silt control devices shall be sized to retain a volume of 3,600 cubic feet per disturbed contributing acre. Remove sediment from silt traps before they become a maximum of $\frac{1}{2}$ 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 the Special Provision for Waste and Borrow Sites.

As work progresses, add or remove erosion control measures as required by the BMP, applicable to the Contractor's project phasing, 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.

The required volume at each Silt Trap shall be computed based on the Up Gradient Contributing Areas that are disturbed and/or stabilized to the satisfaction of the Engineer. The required volume calculation for each Silt Trap shall be determined by the Contractor and verified by the Engineer. The required volume at each Silt Trap may be reduced by the following amounts:

- Up Gradient Areas not disturbed (acres)
- Up Gradient Areas that have been reclaimed and protected by Erosion Control Blanket or other ground protection material such as Temporary Mulch (acres)
- Up Gradient Areas that have been protected by Silt Fence (acres) – Areas protected by Silt Fence shall be computed at a maximum rate of 100 square feet per linear foot of Silt Fence
- Up Gradient Areas that have been protected by Silt Traps (acres)

The use of Temporary Mulch is encouraged.

Silt Trap Type B shall always be placed at the collection point prior to discharging into a Blue Line Stream or onto an adjacent Property Owner. Where overland flow exists, a Silt Fence or other filter devices may be used.

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

Erosion Control
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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

The Department will measure the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

V. BASIS OF PAYMENT

The Department will make payment for the various erosion control items according to Section 212.04 and Section 213.04, as applicable.

SPECIAL PROVISION FOR WASTE AND BORROW SITES

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

1-296 Waste & Borrow Sites
01/02/2012

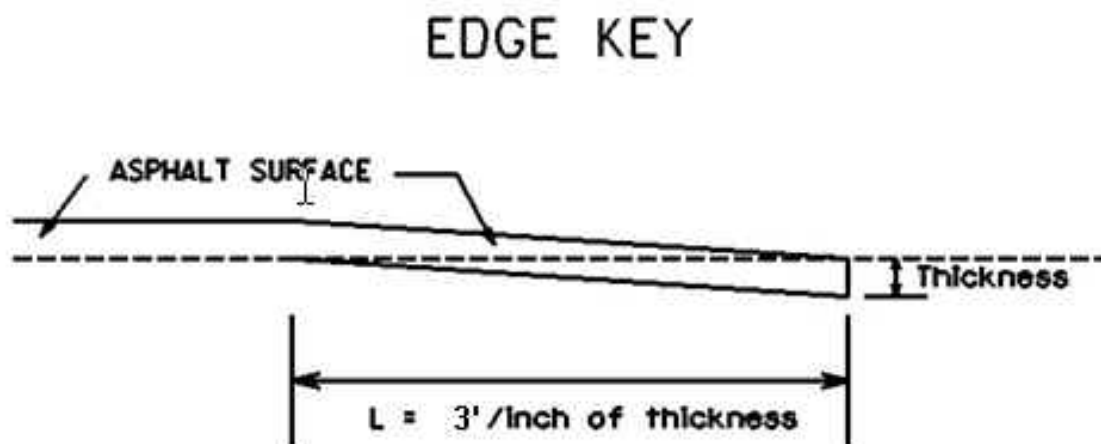
COORDINATION OF WORK WITH OTHER CONTRACTS

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

SPECIAL NOTE FOR EDGE KEY

Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at intersections with ramps, as applicable. 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 measure the Edge Key at the joint as the width of the pavement perpendicular to the centerline in linear feet. The Department will pay for this work at the Contract unit price per linear foot, 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.



Thickness = 1.5 Inches

L = 4.5 LF

L = Length of Edge Key

1-3310 Edge Key by LF
01/02/2012

SPECIAL NOTE FOR TYPICAL SECTION DIMENSIONS

Consider the dimensions shown on the typical sections for pavement and shoulder widths and thickness' to be nominal or typical dimensions. The Engineer may direct or approve varying the actual dimensions to be constructed to fit existing conditions. Do not widen existing pavement or shoulders unless specified elsewhere in this proposal or directed by the engineer.

1-3725 Typical Section Dimensions
01/02/2012

TRAFFIC CONTROL PLAN

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 and Sepia 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

The Engineer may specify days and hours when lane closures will not be allowed.

At locations with two lanes, maintain alternating one way traffic during construction. Provide a minimum clear lane width of 9 feet; however, provide for passage of vehicles of up to 16 feet in width. If traffic should be stopped due to construction operations, and a school bus on an official run arrives on the scene, make provisions for the passage of the bus as quickly as possible.

The Engineer has specified that Station 1100+00 to 1102+65 be completed prior to the end of December, 2019. Grayson County Water District will be placing temporary service prior to construction in the area; however, this service is not to be in place through the winter months. The permanent water line will be installed after grade work is completed and prior to final seeding. The Road Contractor is responsible for all final grading and seeding. Coordinate all work in this area with the utility owner and it's representative.

LANE CLOSURES

Do not leave lane closures in place during non-working hours.

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 any splices, shall be installed according to manufacturer's specifications and installation recommendations. Contrary to section 112.04.02, only long-term signs (signs intended to be continuously in place for more than 3 days) will be measured for

Traffic Control Plan
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payment. Short-term signs (signs intended to be left in place for 3 days or less) will not be measured for payment but will be incidental to Maintain and Control Traffic.

CHANGEABLE MESSAGE SIGNS

If deemed necessary by the Engineer, the Department will furnish, operate, and maintain Changeable Message Signs..

PAVEMENT EDGE DROP-OFFS

Do not allow a pavement edge between opposing directions of traffic or lanes that traffic is expected to cross in a lane change situation with an elevation difference greater than 1½". Place Warning signs (MUTCD W8-11 or W8-9A) in advance of and at 1500' intervals throughout the drop-off area. Dual post the signs on both sides of the traveled way. Wedge all transverse transitions between resurfaced and un-resurfaced areas which traffic may cross with asphalt mixture for leveling and wedging. Remove the wedges prior to placement of the final surface course.

Protect pavement edges that traffic is not expected to cross, except accidentally, as follows:

Less than 2" - No protection required.

2" to 4" - Place plastic drums, vertical panels, or barricades every 50 feet. During daylight working hours only, the Engineer will allow the Contractor to use cones in lieu of plastic drums, panels, and barricades. Wedge the drop-off with DGA or 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.

Greater than 4" - Protect drop-offs greater than 4 inches within 10 feet of traffic by placing drums, vertical panels, or barricades every 25 feet. The Engineer will not allow the use of cones in lieu of drums, vertical panels, or barricades for drop-offs greater than 4". Place Type III Barricades directly in front of the drop-off facing oncoming traffic in both directions of travel. Provide warning signs as shown on the Standard Drawings or as directed by the Engineer

Pedestrians & Bicycles - Protect pedestrian and bicycle traffic as directed by the engineer.

BARRICADES

The Department will not measure barricades used in lieu of barrels and cones for channelization or delineation, but shall be incidental to Maintain and Control Traffic according to Section 112.04.01. The Department will measure barricades used to protect pavement removal areas in individual units Each. The Department will measure for payment the maximum number of barricades in concurrent

Traffic Control Plan
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use at the same time on a single day on all sections of the contract. The Department will measure individual barricades only once for payment, regardless of how many times they are set, reset, removed, and relocated during the duration of the project. The Department will not measure replacements for damaged barricades the Engineer directs to be replaced due to poor condition or reflectivity. Retain possession of the Barricades upon completion of construction.

PAVEMENT MARKINGS

If there is to be a deviation from the existing striping plan, the Engineer will furnish the Contractor a striping plan prior to placement of the final surface course.

Install Temporary Striping according to Section 112 with the following exception:

If the Contractor's operations or phasing requires temporary markings that must subsequently be removed from the final surface course, use an approved removable lane tape; however, the Department will not measure removable lane tape for separate payment, but will measure and pay for removable lane tape as temporary striping.




EXISTING
FILL SLOPE or
DITCH FORESLOPE

EXISTING
FILL SLOPE or
DITCH FORESLOPE

1. DETAILS DO NOT APPLY TO OVERLAYS LESS THAN 1 INCH THICK.
2. THE DURABLE PAVEMENT EDGE DEVICE MAY BE DISENGAGED AT DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT, AS APPROVED BY THE ENGINEER.

DURABLE PAVEMENT EDGE DETAILS

	KENTUCKY TRANSPORTATION CABINET	TC 62-226
	Department of Highways	Rev. 01/2016
	DIVISION OF RIGHT OF WAY & UTILITIES	Page 1 of 1
	RIGHT OF WAY CERTIFICATION	

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #		COUNTY		PROJECT # (STATE)	PROJECT # (FEDERAL)
4-9007		Grayson		FD52 043 1214 006-015	HSIP 9010 (229)
PROJECT DESCRIPTION					
Perform low cost safety improvements along KY 1214 between MP 6.3 and MP 14.028 in Grayson County.					
<input checked="" type="checkbox"/> No Additional Right of Way Required					
Construction will be within the limits of the existing right of way. The right of way was acquired in accordance to FHWA regulations under the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. No additional right of way or relocation assistance were required for this project.					
<input type="checkbox"/> Condition # 1 (Additional Right of Way Required and Cleared)					
All necessary right of way, including control of access rights when applicable, have been acquired including legal and physical possession. Trial or appeal of cases may be pending in court but legal possession has been obtained. There may be some improvements remaining on the right-of-way, but all occupants have vacated the lands and improvements, and KYTC has physical possession and the rights to remove, salvage, or demolish all improvements and enter on all land. Just Compensation has been paid or deposited with the court. All relocations have been relocated to decent, safe, and sanitary housing or that KYTC has made available to displaced persons adequate replacement housing in accordance with the provisions of the current FHWA directive.					
<input type="checkbox"/> Condition # 2 (Additional Right of Way Required with Exception)					
The right of way has not been fully acquired, the right to occupy and to use all rights-of-way required for the proper execution of the project has been acquired. Some parcels may be pending in court and on other parcels full legal possession has not been obtained, but right of entry has been obtained, the occupants of all lands and improvements have vacated, and KYTC has physical possession and right to remove, salvage, or demolish all improvements. Just Compensation has been paid or deposited with the court for most parcels. Just Compensation for all pending parcels will be paid or deposited with the court prior to AWARD of construction contract					
<input type="checkbox"/> Condition # 3 (Additional Right of Way Required with Exception)					
The acquisition or right of occupancy and use of a few remaining parcels are not complete and/or some parcels still have occupants. All remaining occupants have had replacement housing made available to them in accordance with 49 CFR 24.204. KYTC is hereby requesting authorization to advertise this project for bids and to proceed with bid letting even though the necessary right of way will not be fully acquired, and/or some occupants will not be relocated, and/or the just compensation will not be paid or deposited with the court for some parcels until after bid letting. KYTC will fully meet all the requirements outlined in 23 CFR 635.309(c)(3) and 49 CFR 24.102(j) and will expedite completion of all acquisitions, relocations, and full payments after bid letting and prior to AWARD of the construction contract or force account construction.					
Total Number of Parcels on Project		EXCEPTION (S) Parcel #		ANTICIPATED DATE OF POSSESSION WITH EXPLANATION	
Number of Parcels That Have Been Acquired					
Signed Deed					
Condemnation					
Signed ROE					
Notes/ Comments (Use Additional Sheet if necessary)					
Construction equipment may need to get on private property in order to extend culverts, flatten slopes, etc. Consent and releases have been obtained for those areas and are on file in the District Office.					
LPA RW Project Manager			Right of Way Supervisor		
Printed Name	Charles Allen		Printed Name	Michael H. Price	
Signature	<i>Charles A. Allen</i>		Signature	<i>Michael H. Price</i>	
Date	4-25-19		Date	4/25/2019	
Right of Way Director			FHWA		
Printed Name			Printed Name	No Signature Required	
Signature	<i>James R. Jones</i>		Signature	as per FHWA-HN-15-001	
Date	2019.04.25 17:31:51		Date	Current Stewardship Agreement	
	-05'00'				

UTILITIES AND RAIL CERTIFICATION NOTE

**GRAYSON COUNTY, FEDERAL PROJECT # 0HSIP 901 0299
UNIFIED PROJECT NUMBER FD52 043 93733
KY 1214 HSIP PROJECT
4-9007.00**

GENERAL PROJECT NOTE ON UTILITY PROTECTION

N/A

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

GRAYSON COUNTY WATER DISTRICT has facilities in or near the construction limits at the following stations: 500+51 RT, 629+10, 637+58 LT, 639+20 RT and LT, 1100+40 RT, 1105+11 RT, 1116+56 RT, 1500+56 RT, 2300+40 LT.

WINDSTREAM has buried facilities in or near the construction limits at the following stations:

Northern Section: 628+60-630+19 LT, 633+29-640+00 LT, 641+87 RT, (there is a dead drop buried sta. 633+60-636+00 RT under the shoulder.)

Southern Section: 1100+40 RT, 1104+40-1106+00 RT, 1307+35-1308+74 LT, 1600+00-1600+89 LT, 1805+30-1807+20 LT, 2100+00-2100+94 LT, 2300+00-2300+78 LT, 2400+00-2400+84 LT.

MID VALLEY GAS has a pipeline crossing near the 11.5 milepoint that is clearly indicated by markers.

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

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

GCWD also has 1-4 service lines from station 634+40 to 640+60 that will have to be relocated in front of the Frito Lay place and will be complete prior to construction. GCWD also has a bore with some waterline to install (station 1100+00-1102+00) prior to construction.

UTILITIES AND RAIL CERTIFICATION NOTE

**GRAYSON COUNTY, FEDERAL PROJECT # 0HSIP 901 0299
UNIFIED PROJECT NUMBER FD52 043 93733
KY 1214 HSIP PROJECT
4-9007.00**

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

GCWD has waterline to be installed at the south KY 88 intersection on this project (station 1100+00-1102+00), which will have to be coordinated with the highway contractor. Please give Kevin Shaw 20 working days notice before working in this area.

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

N/A

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

☒ No Rail Involved ☐ Minimal Rail Involved (See Below) ☐ Rail Involved (See Below)

UNDERGROUND FACILITY DAMAGE PROTECTION – BEFORE YOU DIG

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. The contractor is instructed to contact KY 811 for the location of existing underground utilities. Contact shall be made a minimum of two (2) and no more than ten (10) business days prior to excavation.

The contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY 811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom are to be contacted through their individual Protection Notification Center. It may be necessary for the contractor to contact the County Court Clerk to determine what utility companies have facilities in the area. Non-compliance with these directives can result in the enforcement of penalties.

UTILITIES AND RAIL CERTIFICATION NOTE

GRAYSON COUNTY, FEDERAL PROJECT # 0HSIP 901 0299
UNIFIED PROJECT NUMBER FD52 043 93733
KY 1214 HSIP PROJECT
4-9007.00

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.

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

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
<u>WINDSTREAM</u>	<u>STEVE JOHNSON</u>	<u>859-357-6209</u>
<u>GRAYSON CO WATER DISTRICT</u>	<u>KEVIN SHAW</u>	<u>270-259-2917</u>
<u>LEITCHFIELD UTILITIES</u>	<u>DWIGHT EMBRY</u>	<u>270-259-1190</u>
<u>WARREN RECC</u>	<u>TODD CASSIDY</u>	<u>270-842-6541</u>
<u>MID VALLEY GAS</u>	<u>MIKE FULKERSON</u>	<u>662-701-9177</u>

N O T I C E

**DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS
NATIONWIDE SECTION 404 PERMIT AUTHORIZATION**

**DEPARTMENT FOR ENVIRONMENTAL PROTECTION
KENTUCKY DIVISION OF WATER
SECTION 401 WATER QUALITY CERTIFICATION**

PROJECT DESCRIPTION:

The Sections 404 and 401 activities for this project have previously been permitted under the authority of the Department of the Army, Nationwide Section 404 Permit Number 14, *Linear Transportation Projects* (with additional *Kentucky Regional General Conditions*), and the Division of Section 401 Water General Water Quality Certification. For these authorized permits to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Number 14 permit and General Water Quality Certification in a conspicuous location at the project site, with unencumbered public access, for the duration of construction and comply with the general conditions required.

Locations Impacting Water Quality

Station-Location	Description
Sta 410+50	Extend RCBC 8 LF on the upstream side of the structure and extend RCBC 8 LF on the downstream side of the structure. Less than .007 acres of additional impacts to Helm Fork of Bear Creek. BMP will be utilized to minimize impacts. Lat: 37.47342911 Long: -86.25757733

Kentucky Transportation
Cabinet Project: 4-9007, Safety Improvements, KY 1214, Grayson County

Station-Location	Description
Sta 700+53	Extend RCBC 7 LF on the upstream side of the structure and extend RCBC 7 LF on the downstream side of the structure. Less than 0.0061 acres of additional stream impact to an UT of Lizard Branch of Bear Creek associated with this construction. BMP will be utilized to minimize impacts. Lat: 37.46184709 Long: -86.22738424
Sta 1116+56	Extend box culvert 9 LF on the upstream side and 10 LF on the downstream side of the structure. Less than .0083 acres of additional impact to an UT of Bear Creek. BMP will be utilized to minimize impacts. Lat: 37.45700196 Long: -86.21910345
Sta 1817+19	Extend box culvert 10 LF on the upstream side and 9 LF on the downstream side of the structure. 0.0044 acres of additional impact to UT of Rock Creek. BMP will be utilized to minimize impacts. Lat: 37.43680371 Long: -86.18758932
Sta 1900+34	Extend box culvert 8 LF on the upstream side and 8 LF on the downstream side of the structure. 0.0029 acres of additional impact to UT of Rock Creek. BMP will be utilized to minimize impacts. Lat: 37.43251532 Long: -86.18608704
Sta 2500+69	Extend RCBC 4LF and 50LF of paved flowline. Less than 0.0236 acres of additional impact to UT of Rock Creek. BMP will be utilized to minimize impacts. Lat: 37.41998723 Long: -86.16662426

This project involves work near and/or within Jurisdictional Waters of the United States as defined by the U. S. Army Corps of Engineers; therefore, requiring a Nationwide Number 14 General Section 404 permit. The Division of Water conditionally certified this General Permit. Importantly, one of those conditions regards the use of heavy equipment in any stream channel, or streambed. If there is need to cross the stream channel with heavy equipment, or conduct work within the stream channel, a work platform or temporary crossing, is authorized. This should be constructed with clean rock (preferably sandstone or granite east of a line stretching from the McCreary-Wayne County line to the southwest, northeasterly to Lewis-Greenup County line), and sufficient pipe to allow stream flow to continue, unimpeded (refer to the attached standard drawing for low-water crossings at end of the document). Other conditions may be found under the heading, *General Certification—Nationwide Permit # 14 Linear Transportation Projects*.

In order for this authorization to be valid, the attached conditions must be followed. The contractor shall post a copy of this Nationwide Number 14 Approval in a conspicuous location at the project site, for the duration of the construction, and comply with the general conditions as required.

To more readily expedite construction, the contractor may elect to alter the design, or perform the work in a manner different from what was originally proposed and specified. Prior to commencing such alternative work, the contractor shall obtain written permission from the

Kentucky Transportation
Cabinet Project: 4-9007, Safety Improvements, KY 1214, Grayson County

Division of Construction and the Kentucky Transportation Cabinet, Division of Environmental Analysis. If such changes necessitate further permitting, then the contractor will be responsible for applying to the U. S. Army Corps of Engineers and the Kentucky Division of Water. A copy of any request to the Corps of Engineers or Division of Water to alter this proposal and subsequent responses shall be forwarded to the Division of Environmental Analysis, DA Permit Coordinator, for office records and for informational purposes.

Regulatory Division
Public Notice No. LRL-2016-00006

NWP 46 (Discharges in Ditches)
NWP 48 (Commercial Shellfish Aquaculture Activities)
NWP 49 (Coal Remining Activities)
NWP 50 (Underground Coal Mining Activities)
NWP 51 (Land-Based Renewable Energy Generation Facilities)
NWP 52 (Water-Based Renewable Energy Generation Pilot Projects)
NWP 53 (Removal of Low-Head Dams)
NWP 54 (Living Shorelines)

2. In addition to the notification and agency coordination requirements in the NWPs, for impacts greater than 0.25 acres in all “waters of the U.S.” for the NWPs listed below, a PCN will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWPs:

NWP 3 (Maintenance)
NWP 7 (Outfall Structures and Associated Intake Structures)
NWP 12 (Utility Line Activities)
NWP 14 (Linear Transportation Projects)
NWP 29 (Residential Developments)
NWP 39 (Commercial and Institutional Developments)
NWP 40 (Agricultural Activities)
NWP 41 (Reshaping Existing Drainage Ditches)
NWP 42 (Recreational Facilities)
NWP 43 (Stormwater Management Facilities)
NWP 44 (Mining Activities)
NWP 51 (Land-Based Renewable Energy Generation Facilities)
NWP 52 (Water-Based Renewable Energy Generation Pilot Projects)
NWP 53 (Removal of Low-Head Dams)

3. For activities in all “waters of the U.S.” for the NWPs listed below, a PCN will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWPs:

NWP 21 (Surface Coal Mining Activities)
NWP 27 (Aquatic Habitat Restoration, Establishment & Enhancement Activities)
NWP 49 (Coal Remining Activities)
NWP 50 (Underground Coal Mining Activities)

4. Nationwide Permit No. 14 – Linear Transportation Projects.

- (a) New road alignments or realignments are limited to a permanent loss of 500 linear feet of intermittent or perennial stream length at each crossing. Road crossings with permanent losses greater than 500 linear feet of intermittent or perennial stream associated with new alignments or realignments will be evaluated as an individual permit (i.e., a Letter of Permission or as a Standard Individual Permit).

Regulatory Division
Public Notice No. LRL-2016-00006

- (b) In addition to the notification requirements contained in NWP 14, the permittee must submit a PCN to the district engineer prior to commencing the activity for the permanent loss of greater than 300 feet of ephemeral, intermittent and perennial stream of all "waters of the U.S." (See General Condition 32 and the definition of "loss of waters of the United States" in the Nationwide Permits for further information.)
- 5. Notification in accordance with General Condition 32 is required to the Corps for all activities which are subject to jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
- 6. All applications are required as both a paper copy and in an electronic media format, including electronic mail or compact disc.
- 7. For all activities, the applicant shall review the U.S. Fish and Wildlife Service's IPaC website: <http://ecos.fws.gov/ipac> to determine if the activity might affect threatened and/or endangered species or designated critical habitat. If federally-listed species or designated critical habitat are identified, a PCN in accordance with General Condition 18 and 32 would be triggered and the official species list generated from the IPaC website must be submitted with the PCN.

Further information:

Outstanding State or National Resource Water (OSNRWs), Exceptional Waters (EWs), and Coldwater Aquatic Habitat Waters (CAHs) are waters designated by the Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet. The list can be found at the following link: <http://eppcapp.ky.gov/spwaters/>

Information on Pre-Construction Notification (PCN) can be found at NWP General Condition No. 32 in the Federal Register (Volume 81, No. 105 of June 1, 2017, pp 35211).

Public Notice



**US Army Corps
of Engineers**
Louisville District ®

Public Notice No.
LRL-2016-00006

Expiration Date
18 MAR 2022

Please address all comments and inquiries to:
U.S. Army Corps of Engineers, Louisville District
ATTN: Ms. Meagan Knuckles, CELRL-RDS
P.O. Box 59
Louisville, Kentucky 40201-0059

Phone (502) 315-6709

PUBLIC NOTICE ANNOUNCING REGIONAL CONDITIONS AND WATER QUALITY CERTIFICATIONS FOR NATIONWIDE PERMITS

On January 6, 2017, the U.S. Army Corps of Engineers (Corps) published a notice in the *Federal Register* (82 FR 1860) announcing the reissuance of all 50 existing Nationwide Permits (NWP), general conditions, and definitions with some modifications. The Corps also issued two new NWPs, one new general condition, and five new definitions. The NWPs became effective on March 19, 2017, and will expire on March 18, 2022.

On March 17, 2017, the Great Lakes and Ohio River Division (LRD) Engineer approved Regional Conditions for the NWPs in Kentucky. These conditions apply to all activities authorized by NWPs. Regional Conditions provide additional protection for the aquatic environment by ensuring that the NWPs authorize only those activities with minimal adverse effects on the aquatic environment. The Regional Conditions for Kentucky are attached to this public notice. Additionally, the Louisville District has posted the Regional Conditions for the NWPs on its Internet home page at: <http://www.lrl.usace.army.mil/Missions/Regulatory/Obtain-a-Permit/Nationwide/>

The Kentucky Division of Water (KDOW) denied the 401 Water Quality Certification (WQC) for NWPs 16, 17, 32, 38, 43, 44, 52, 53 and 54. An individual 401 WQC from KDOW will be required for any project authorized by one of the NWPs with a 401 WQC denial. The KDOW conditioned the 401 WQC for NWPs 3, 5, 7, 12, 13, 14, 15, 18, 19, 21, 23, 25, 27, 29, 30, 31, 33, 36, 37, 39, 42, 45, 46, 49, 50, and 51. An individual 401 WQC will be required by KDOW under certain conditions. The full text of the Water Quality Certifications issued by KDOW is available on the Louisville District website at the link listed above.

Questions concerning implementation of the new and modified NWPs and conditions or the Corps Regional Conditions should be sent to the Louisville District, Corps of Engineers, ATTN: Ms. Meagan Knuckles, CELRL-RDS, P.O. Box 59, Louisville, Kentucky 40201-0059.

2017 Nationwide Permits Regional and Permit-Specific Conditions COMMONWEALTH OF KENTUCKY

These regional conditions are in addition to, but do not supersede, the requirements in the Federal Register (Volume 82, No. 4 of January 6, 2017, pp 1860).

Regulatory Division
Public Notice No. LRL-2016-00006

Notifications for all Nationwide Permits (NWP) shall be in accordance with General Condition No. 32.

1. For activities that would impact Outstanding State or National Resource Waters (OSNRWs), Exceptional Waters (EWs), Coldwater Aquatic Habitat Waters (CAHs) under the Endangered Species Act for the NWP listed below, a Pre-Construction Notification (PCN) will be required to the Corps. The Corps will coordinate with the appropriate resource agencies (see attached list) on these NWP (Section 404 activities), for impacts to these waters.

NWP 3 (Maintenance)

NWP 4 (Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities)

NWP 5 (Scientific Measurement Devices)

NWP 6 (Survey Activities)

NWP 7 (Outfall Structures and Associated Intake Structures)

NWP 12 (Utility Line Activities)

NWP 13 (Bank Stabilization)

NWP 14 (Linear Transportation Projects)

NWP 15 (U.S. Coast Guard Approved Bridges)

NWP 16 (Return Water from Upland Contained Disposal Areas)

NWP 17 (Hydropower Projects)

NWP 18 (Minor Discharges)

NWP 19 (Minor Dredging)

NWP 20 (Response Operations for Oil or Hazardous Substances)

NWP 21 (Surface Coal Mining Activities)

NWP 22 (Removal of Vessels)

NWP 23 (Approved Categorical Exclusions)

NWP 25 (Structural Discharges)

NWP 27 (Aquatic Habitat Restoration, Establishment, and Enhancement Activities)

NWP 29 (Residential Developments)

NWP 30 (Moist Soil Management for Wildlife)

NWP 31 (Maintenance of Existing Flood Control Facilities)

NWP 32 (Completed Enforcement Actions)

NWP 33 (Temporary Construction, Access, and Dewatering)

NWP 34 (Cranberry Production Activities)

NWP 36 (Boat Ramps)

NWP 37 (Emergency Watershed Protection and Rehabilitation)

NWP 38 (Cleanup of Hazardous and Toxic Waste)

NWP 39 (Commercial and Institutional Developments)

NWP 40 (Agricultural Activities)

NWP 41 (Reshaping Existing Drainage Ditches)

NWP 42 (Recreational Facilities)

NWP 43 (Stormwater Management Facilities)

NWP 44 (Mining Activities)

NWP 45 (Repair of Uplands Damaged by Discrete Events)

Regulatory Division
Public Notice No. LRL-2016-00006

COORDINATING RESOURCE AGENCIES

Chief, Wetlands Regulatory Section
U.S. Environmental Protection Agency
Region IV
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

Supervisor
U.S. Fish & Wildlife Service
JC Watts Federal Building, Room 265
330 West Broadway
Frankfort, Kentucky 40601

Supervisor
401 Water Quality Certification
Kentucky Division of Water
300 Sower Boulevard, 3rd Floor
Frankfort, Kentucky 40601

Commissioner
Department of Fish and Wildlife Resources
#1 Game Farm Road
Frankfort, Kentucky 40601

Executive Director and State Historic Preservation Officer
Kentucky Heritage Council
300 Washington Street
Frankfort, Kentucky 40601

**ADDITIONAL COORDINATING RESOURCE AGENCY
FOR NWPS 21, 49, AND 50**

Kentucky Department for Natural Resources
Division of Mine Permits
300 Sower Boulevard
Frankfort, Kentucky 40601

2017 Nationwide Permit

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 32.) (**Authorities:** Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to

ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).



MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

**ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION**

R. BRUCE SCOTT
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

**General Certification--Nationwide Permit # 14
Linear Transportation Projects**

This General Certification is issued March 19, 2017, in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33 U.S.C. §1341), as well as Kentucky Statute KRS 224.16-050.

For this and all nationwide permits, the definition of surface water is as per 401 KAR 10:001 Chapter 10, Section 1(80): Surface Waters means those waters having well-defined banks and beds, either constantly or intermittently flowing; lakes and impounded waters; marshes and wetlands; and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface. Lagoons used for waste treatment and effluent ditches that are situated on property owned, leased, or under valid easement by a permitted discharger are not considered to be surface waters of the commonwealth.

Agricultural operations, as defined by KRS 224.71-100(1) conducting activities pursuant to KRS 224.71-100 (3), (4), (5), (6), or 10 are deemed to have certification if they are implementing an Agriculture Water Quality Plan pursuant to KRS 224.71-145.

For all other operations, the Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 10, established pursuant to Sections 301, 302, 304, 306 and 307 of the CWA, will not be violated for the activity covered under NATIONWIDE PERMIT 14, namely Linear Transportation Projects, provided that the following conditions are met:

1. The activity will not occur within surface waters of the Commonwealth identified by the Kentucky Division of Water as Outstanding State or National Resource Water, Cold Water Aquatic Habitat, or Exceptional Waters.
2. The activity will not occur within surface waters of the Commonwealth identified as perpetually-protected (e.g. deed restriction, conservation easement) mitigation sites.
3. The activity will impact less than 1/2 acre of wetland/marsh.

General Certification--Nationwide Permit # 14
Linear Transportation Projects
Page 2

4. The activity will impact less than 300 linear feet of surface waters of the Commonwealth. Stream realignment greater than 100 feet and in-stream stormwater detention/retention basins are not covered under this general water quality certification.
5. For complete linear transportation projects, all impacts shall not exceed a cumulative length of 500 linear feet within each Hydrologic Unit Code (HUC) 14.
6. Any crossings must be constructed in a manner that does not impede natural water flow.
7. Stream impacts covered under this General Water Quality Certification and undertaken by those persons defined as an agricultural operation under the Agricultural Water Quality Act must be completed in compliance with the Kentucky Agricultural Water Quality Plan (KWQP).
8. The Kentucky Division of Water may require submission of a formal application for an individual certification for any project if the project has been determined to likely have a significant adverse effect upon water quality or degrade the waters of the Commonwealth so that existing uses of the water body or downstream waters are precluded.
9. Activities that do not meet the conditions of this General Water Quality Certification require an Individual Section 401 Water Quality Certification.
10. Activities qualifying for coverage under this General Water Quality Certification are subject to the following conditions:
 - Projects requiring in-stream stormwater detention/retention basins shall require individual water quality certifications.
 - Erosion and sedimentation pollution control plans and Best Management Practices must be designed, installed, and maintained in effective operating condition at all times during construction activities so that violations of state water quality standards do not occur (401 KAR 10:031 Section 2 and KRS 224.70-100).
 - Sediment and erosion control measures, such as check-dams constructed of any material, silt fencing, hay bales, etc., shall not be placed within surface waters of the Commonwealth, either temporarily or permanently, without prior approval by the Kentucky Division of Water's Water Quality Certification Section. If placement of sediment and erosion control measures in surface waters is unavoidable, design and placement of temporary erosion control measures shall not be conducted in such a manner that may result in instability of streams that are adjacent to,

General Certification--Nationwide Permit # 14
Linear Transportation Projects
Page 3

upstream, or downstream of the structures. All sediment and erosion control devices shall be removed and the natural grade restored within the completion timeline of the activities.

- Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse.
- Removal of riparian vegetation in the utility line right-of-way shall be limited to that necessary for equipment access.
- To the maximum extent practicable, all in-stream work under this certification shall be performed under low-flow conditions.
- Heavy equipment, e.g. bulldozers, backhoes, draglines, etc., if required for this project, should not be used or operated within the stream channel. In those instances in which such in-stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize turbidity and disturbance to substrates and bank or riparian vegetation.
- Any fill shall be of such composition that it will not adversely affect the biological, chemical, or physical properties of the receiving waters and/or cause violations of water quality standards. If rip-rap is utilized, it should be of such weight and size that bank stress or slump conditions will not be created because of its placement.
- If there are water supply intakes located downstream that may be affected by increased turbidity and suspended solids, the permittee shall notify the operator when such work will be done.
- Should evidence of stream pollution or jurisdictional wetland impairment and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the KDOW shall be notified immediately by calling (800) 928-2380.

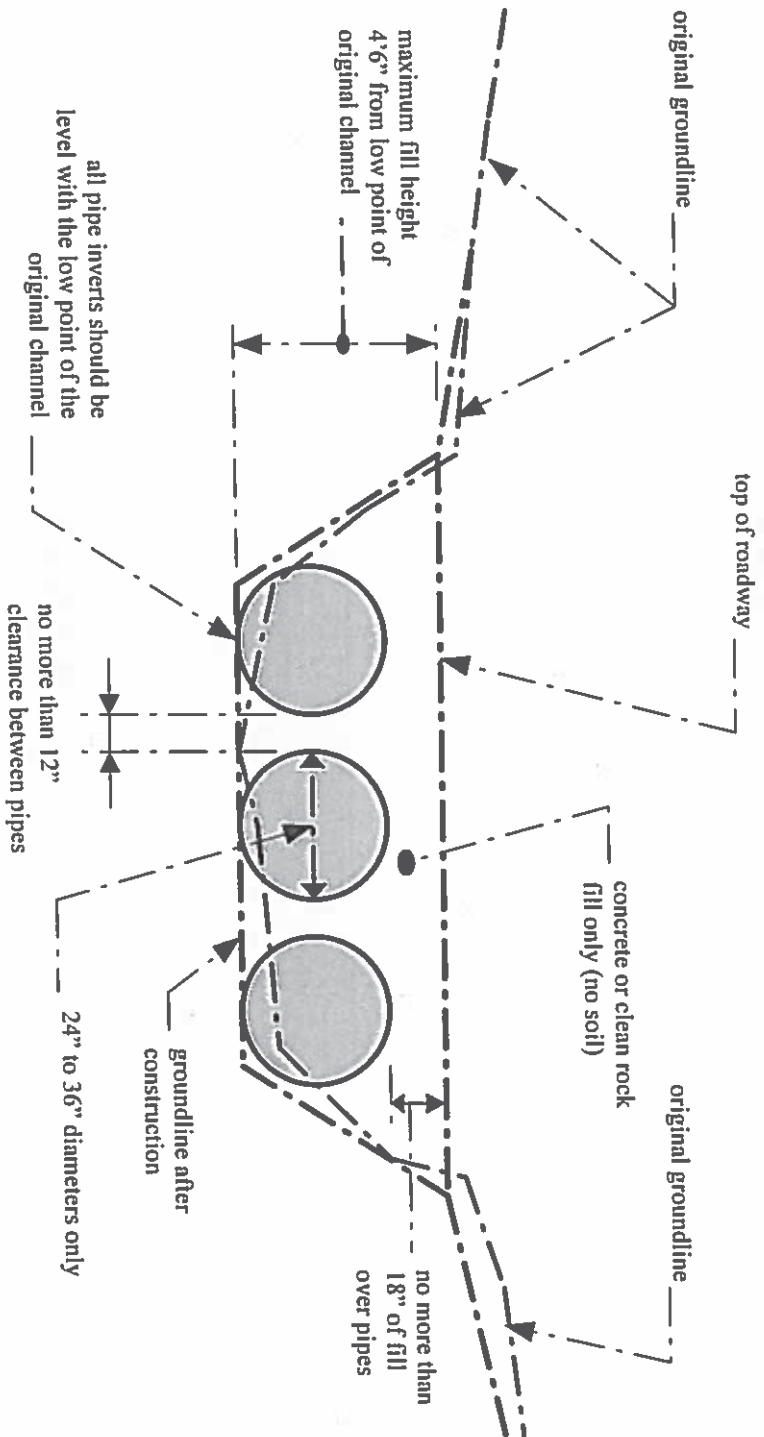
Non-compliance with the conditions of this general certification or violation of Kentucky state water quality standards may result in civil penalties.

GENERAL CONDITIONS FOR WATER QUALITY CERTIFICATION

1. The Kentucky Division of Water may require submission of a formal application for an Individual Certification for any project if the project has been determined to likely have a significant adverse effect upon water quality or degrade the waters of the Commonwealth so that existing uses of the water body or downstream waters are precluded.
2. Nationwide permits issued by the U.S. Army Corps of Engineers for projects in Outstanding State Resource Waters, Cold Water Aquatic Habitats, and Exceptional Waters as defined by 401 KAR 10:026 shall require individual water quality certifications.
3. Projects requiring in-stream stormwater detention/retention basins shall require individual water quality certifications.
4. Erosion and sedimentation pollution control plans and Best Management Practices must be designed, installed, and maintained in effective operating condition at all times during construction activities so that violations of state water quality standards do not occur.
5. Sediment and erosion control measures (e.g., check-dams, silt fencing, or hay bales) shall not be placed within surface waters of the Commonwealth, either temporarily or permanently, without prior approval by the Kentucky Division of Water's Water Quality Certification Section. If placement of sediment and erosion control measures in surface waters is unavoidable, placement shall not be conducted in such a manner that may cause instability of streams that are adjacent to, upstream, or downstream of the structures. All sediment and erosion control measures shall be removed and the natural grade restored prior to withdrawal from the site.
6. Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse.
7. To the maximum extent practicable, all in-stream work under this certification shall be performed during low flow.
8. Heavy equipment (e.g. bulldozers, backhoes, draglines, etc.), if required for this project, should not be used or operated within the stream channel. In those instances where such in-stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize re-suspension of sediments and disturbance to the channel, banks, or riparian vegetation.
9. If there are water supply intakes located downstream that may be affected by increased turbidity, the permittee shall notify the operator when work will be performed.
10. Removal of existing riparian vegetation should be restricted to the minimum necessary for project construction.

11. Should stream pollution, wetland impairment, and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the Kentucky Division of Water shall be notified immediately by calling 800/564-2380.

ATTACHMENT 1



NOTES:

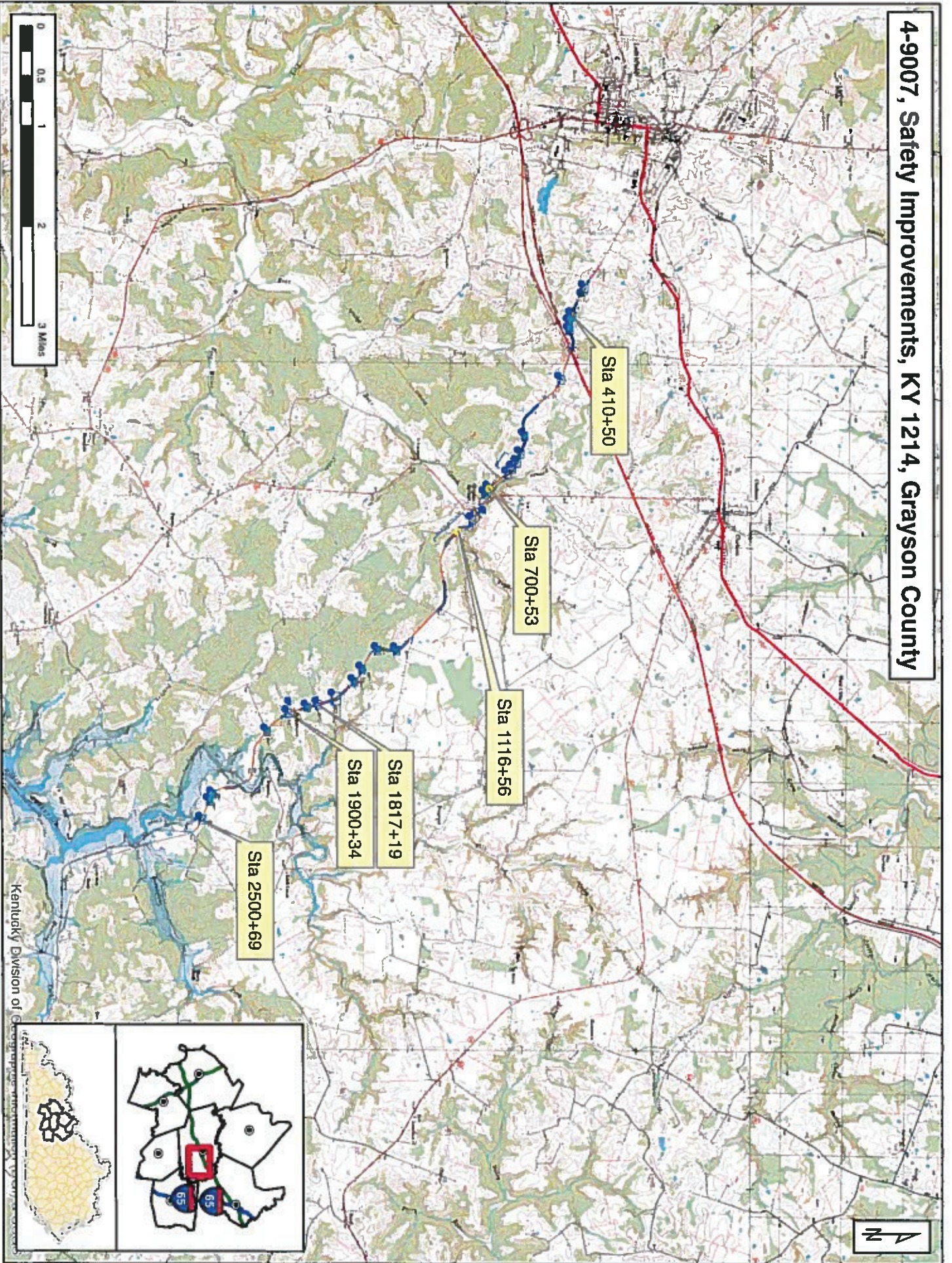
1. This is a conceptual drawing. The number and size of pipes and other details will vary depending on specific site conditions.
2. The pipes and backfill must be contained within the stream channel as shown above. During the construction of the approaches and access roadway across the floodplain, unstable and unconsolidated materials unsuitable for roadways may be excavated and replaced with riprap, crushed stone, or other stable road construction materials. This may only be done, however, with the following provisions: (1) the disposal of excess, unconsolidated materials thus excavated must be outside of the floodplain and (2) the finished surface of the completed road may be no more than three inches (3") above the pre-construction surface of the floodplain at any point beyond the top of banks.

LOW-WATER CROSSING

STANDARD DRAWING

Not to Scale

4-9007, Safety Improvements, KY 1214, Grayson County



Disclaimer: KYTC provides this map as a reference only. Users are to validate information independently.

Kentucky Division of Geology

KyTC BMP Plan for Project CID 19 - 4219



Kentucky Transportation Cabinet

Highway District 4 (1)

And

_____ (2), Construction

Kentucky Pollutant Discharge Elimination System

Permit KYR10

Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

**Safety Improvements along KY 1214 Between
MP 6.300 and MP 14.028 in Grayson Co.**

Project: CID 19 - 4219

KyTC BMP Plan for Project CID 19 - 4219

Project information

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

1. Owner – Kentucky Transportation Cabinet, District 4 (1)
2. Resident Engineer: (2)
3. Contractor name: (2)
Address: (2)

Phone number: (2)
Contact: (2)
Contractors agent responsible for compliance with the KPDES permit requirements (3):
4. Project Control Number (2)
5. Route (Address) (1)
KY 1214
6. Latitude/Longitude (project mid-point) dd/mm/ss, dd/mm/ss (1)
37.448255
-86.19774
7. County (project mid-point) (1)
Grayson
8. Project start date (date work will begin): (2)
9. Projected completion date: (2)

KyTC BMP Plan for Project CID 19 - 4219

A. Site description:

1. Nature of Construction Activity (from letting project description) (1)

Grade and Drain with Asphalt Surface.

2. Order of major soil disturbing activities (2) and (3)

3. Projected volume of material to be moved (1)

4000 CY

4. Estimate of total project area (acres) (1)

2.0 Acres

5. Estimate of area to be disturbed (acres) (1)

2.0 Acres

6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.(1)

7. Data describing existing soil condition (1) & (2)

The existing Soil is roadway embankment

8. Data describing existing discharge water quality (if any) (1) & (2)

None exists

9. Receiving water name (1)

Helm Fork, Lizard Branch, Bear Creek and Rock Creek

10. TMDLs and Pollutants of Concern in Receiving Waters: (1 DEA)

No TMDLS have been developed for these receiving waters

11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.

KyTC BMP Plan for Project CID 19 - 4219

12. Potential sources of pollutants:

The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

B. Sediment and Erosion Control Measures:

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

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

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

KyTC BMP Plan for Project CID 19 - 4219

- At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
- Clearing and Grubbing – The following BMP's will be considered and used where appropriate.
 - Leaving areas undisturbed when possible.
 - Silt basins to provide silt volume for large areas.
 - Silt Traps Type A for small areas.
 - Silt Traps Type C in front of existing and drop inlets which are to be saved
 - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
 - Brush and/or other barriers to slow and/or divert runoff.
 - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
 - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
 - Non-standard or innovative methods.
- Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP's such as:
 - Silt Traps Type B in ditches and/or drainways as they are completed
 - Silt Traps Type C in front of pipes after they are placed
 - Channel Lining
 - Erosion Control Blanket
 - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
 - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
 - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
 - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
 - Additional Channel Lining and/or Erosion Control Blanket.
 - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
 - Special BMP's such as Karst Policy

KyTC BMP Plan for Project CID 19 - 4219

- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
 - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
 - Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : No permanent BMPs are being proposed.

C. Other Control Measures

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

2. Waste Materials

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

3. Hazardous Waste

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

KyTC BMP Plan for Project CID 19 - 4219

4. Spill Prevention

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

➤ **Good Housekeeping:**

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

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

➤ **Hazardous Products:**

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

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

The following product-specific practices will be followed onsite:

➤ **Petroleum Products:**

KyTC BMP Plan for Project CID 19 - 4219

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

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

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

➤ **Fertilizers:**

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

➤ **Paints:**

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

➤ **Concrete Truck Washout:**

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

➤ **Spill Control Practices**

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

KyTC BMP Plan for Project CID 19 - 4219

- Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

D. Other State and Local Plans

This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. (1)

E. Maintenance

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

KyTC BMP Plan for Project CID 19 - 4219

the purpose of post construction storm water management with specific guidance for any non-routine maintenance. (1)

F. Inspections

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

- All erosion prevention and sediment control measures will be inspected at least once each week and following any rain of one-half inch or more.
- Inspections will be conducted by individuals that have successfully completed the KEPSC-RI course as required by Section 213.02.02 of the Standard Specifications for Road and Bridge Construction, current edition.
- Inspection reports will be written, signed, dated, and kept on file.
- Areas at final grade will be seeded and mulched within 14 days.
- Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported.
- Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50 percent of the design capacity and at the end of the job.
- Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

KyTC BMP Plan for Project CID 19 - 4219

G. Non – Storm Water discharges

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

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

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

H. Groundwater Protection Plan (3)

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

- Contractors statement: (3)

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

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

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

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

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

KyTC BMP Plan for Project CID 19 - 4219

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

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

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

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

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

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

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

Contractor and Resident Engineer Plan certification

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____ title _____,
Typed or printed name² signature

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

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

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

KyTC BMP Plan for Project CID 19 - 4219

Sub-Contractor Certification

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

Subcontractor

Name:
Address:
Address:

Phone:

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

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

Signed _____title_____, _____
Typed or printed name¹signature

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

SPECIAL NOTE

Filing of eNOI for KPDES Construction Stormwater Permit

County: Grayson

Route: US 62

US 62

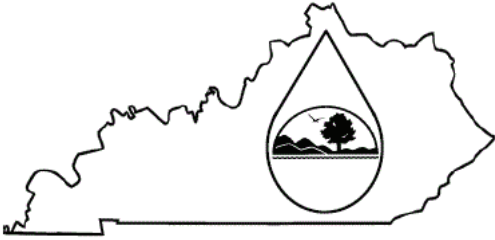
Item No.: 4-9007

KDOW Submittal ID: 7f1aabdd-962b-4fc4-8008-
0c0cc5de3009

Project Description: Perform Low Cost Safety Improvements Along KY 1214
Between MP 6.300 and MP 14.028 in Grayson Co.

A Notice of Intent for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the "Building Contractor" and it will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work in a manner that is compliant with all applicable and appropriate KYTC specifications for sediment and erosion control as well as meeting the requirements of the KYR10 permit and the KDOW.

If there are any questions regarding this note, please contact David Waldner, Director, Division of Environmental Analysis, TCOB, 200 Mero Street, Frankfort, KY 40622, Phone: (502) 564-7250.



KENTUCKY POLLUTION DISCHARGE
ELIMINATION SYSTEM (KPDES)

Notice of Intent (NOI) for coverage of Storm Water Discharge
Associated with Construction Activities Under the KPDES Storm
Water General Permit KYR100000

Click here for Instructions
(Controls/KPDES_FormKYR10_Instructions.htm)

Click here to obtain information and a copy of the KPDES General Permit.
(<http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf>)

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

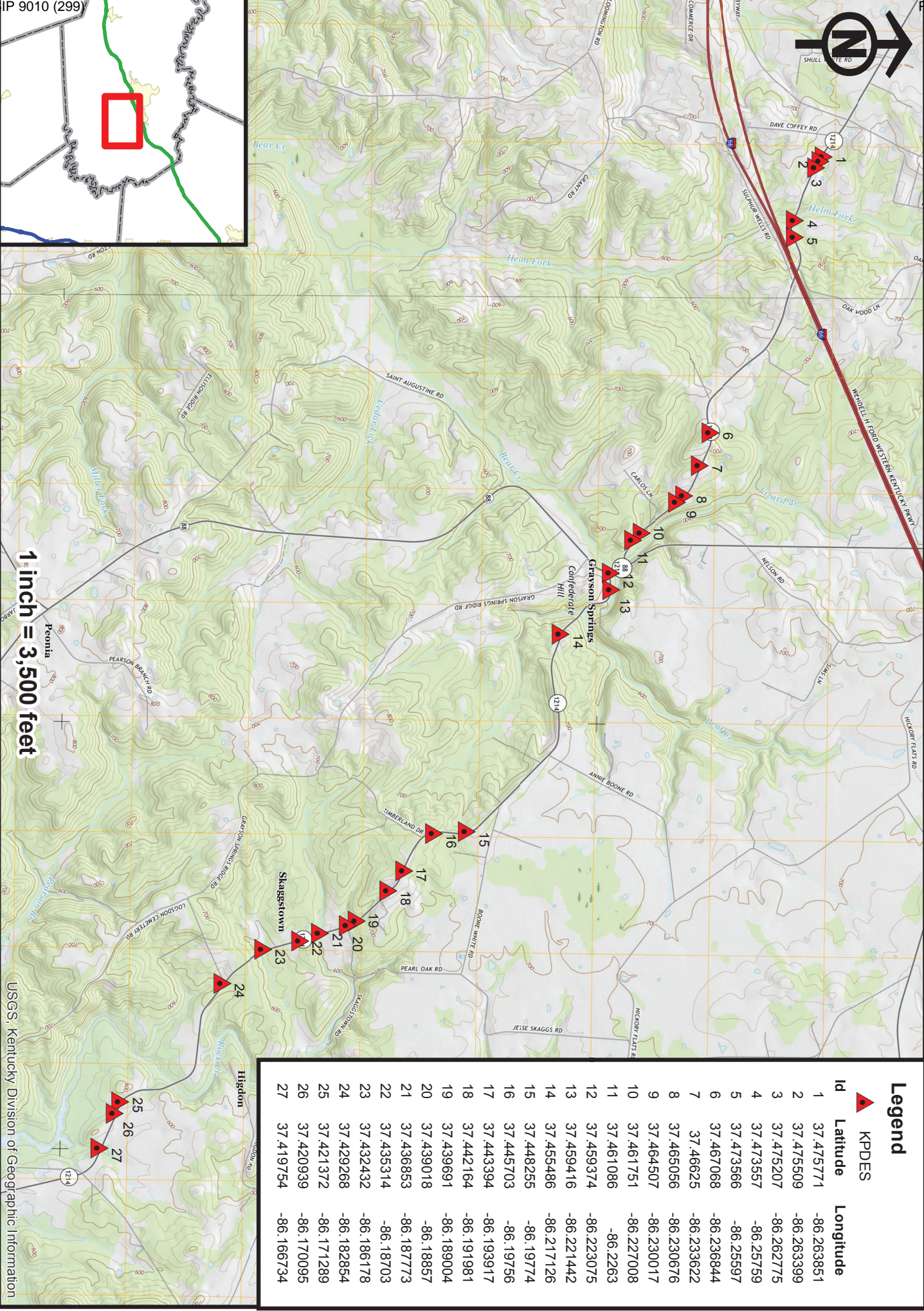
Reason for Submittal:(*) Application for New Permit Coverage		Agency Interest ID: Agency Interest ID		Permit Number:(✓) KPDES Permit Number	
If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓) 					
ELIGIBILITY: Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.					
EXCLUSIONS: The following are excluded from coverage under this general permit: 1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan; 2) Any operation that the DOW determines an individual permit would better address the discharges from that operation; 3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.					
SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)					
Company Name:(✓) KYTC District 4		First Name:(✓) Paul		M.I.: MI	Last Name:(✓) Sanders
Mailing Address:(*) 634 East Dixie Ave		City:(*) Elizabethtown		State:(*) Kentucky	Zip:(*) 42701
eMail Address:(*) Paul.Sanders@ky.gov		Business Phone:(*) 2707665066		Alternate Phone: Phone	
SECTION II -- GENERAL SITE LOCATION INFORMATION					
Project Name:(*) 4-9007		Status of Owner/Operator(*) State Government		SIC Code(*) 1611 Highway and Street Const	
Company Name:(✓) KYTC Department of Highways District 4		First Name:(✓) Paul		M.I.: MI	Last Name:(✓) Sanders
Site Physical Address:(*) US 62					
City:(*) Clarkson		State:(*) Kentucky		Zip:(*) 42726	
County:(*) Grayson	Latitude(decimal degrees)(*)DMS to DD Converter (https://www.fcc.gov/media/radio/dms-decimal) 37.448255		Longitude(decimal degrees)(*) -86.19774		
SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION ?					
Project Description:(*) Low cost safety Improvements to KY 1214 in Grayson Co					
a. For single projects provide the following information					

--	--

Is a Clean Water Act 401 Water Quality Certification required?:(*)		No	
SECTION VII -- NOI PREPARER INFORMATION			
First Name:(*) Joseph	M.I.: M	Last Name:(*) Ferguson	Company Name:(*) KYTC Department of Highways District 4
Mailing Address:(*) 634 East Dixie Ave	City:(*) Elizabethtown	State:(*) Kentucky	Zip:(*) 42701
eMail Address:(*) joseph.ferguson@ky.gov		Business Phone:(*) 2707665066	Alternate Phone: Phone
SECTION VIII -- ATTACHMENTS			
Facility Location Map:(*)	Upload file		
Supplemental Information:	Upload file		
SECTION IX -- CERTIFICATION			
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.			
Signature:(*) Signature		Title:(*) Title	
First Name:(*) First Name	M.I.: MI	Last Name:(*) Last Name	
eMail Address:(*) eMail Address	Business Phone:(*) Phone	Alternate Phone: Phone	Signature Date:(*) Date
<div>Click to Save Values for Future Retrieval</div> <div>Click to Submit to EEC</div>			

4-9007 - KY 1214 GRAYSON CO PROJECT LIMITS

GRAYSON COUNTY
HS IP 9010 (299)

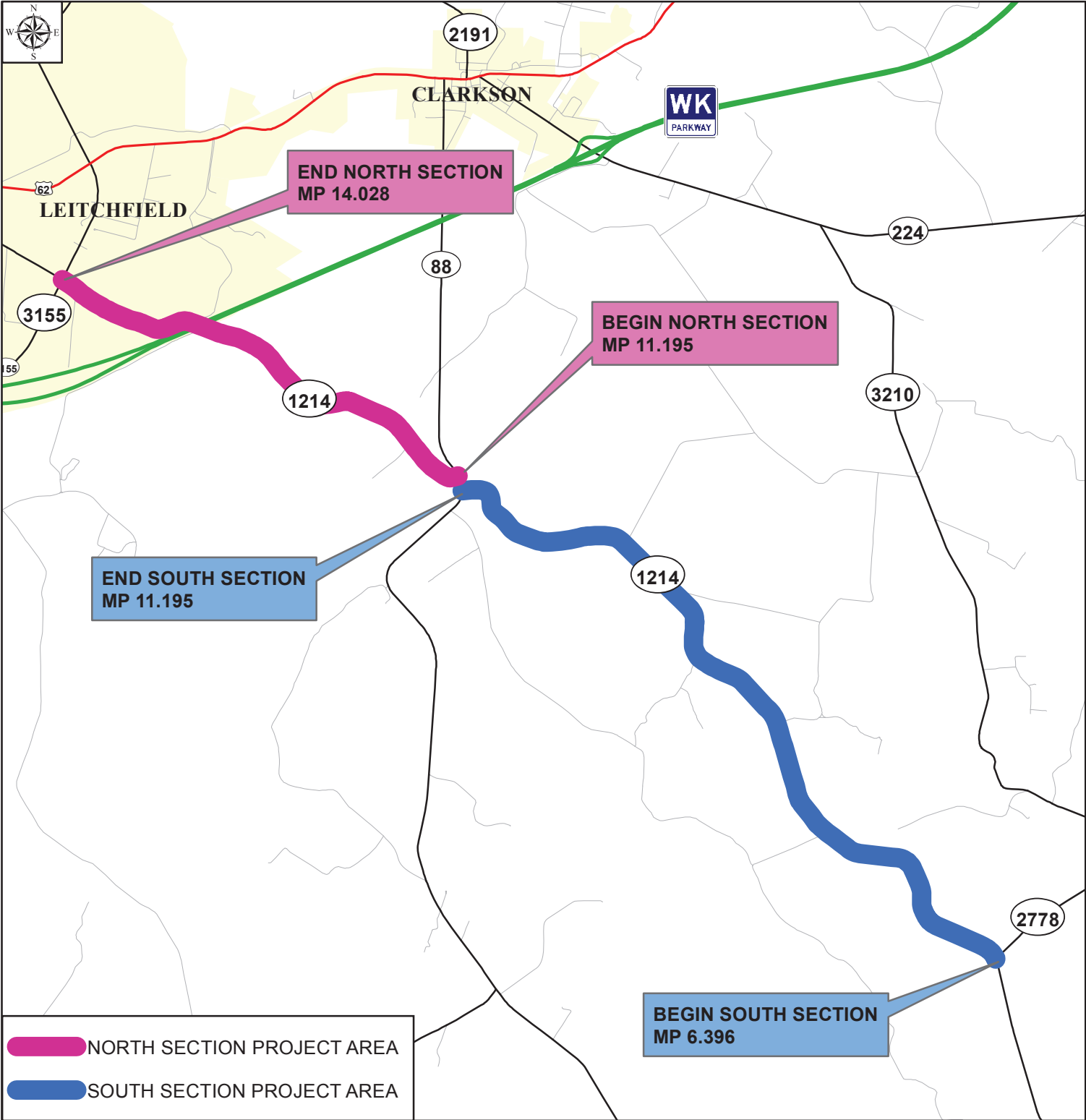
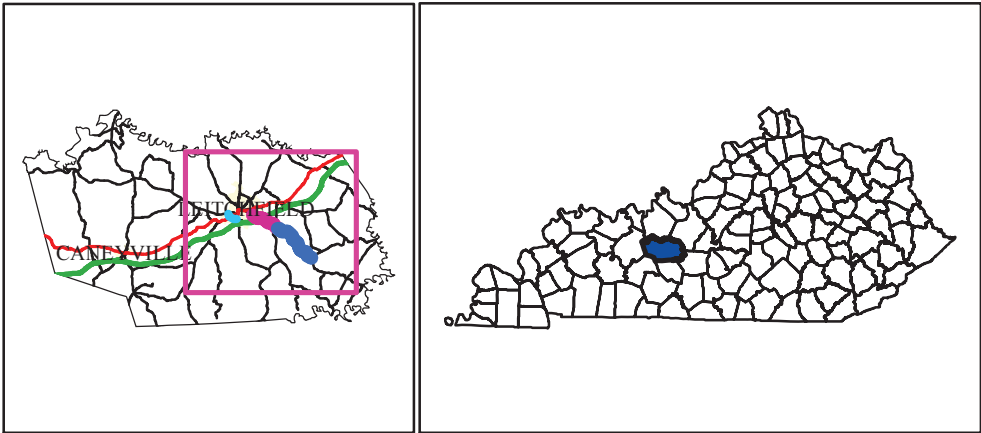


1 inch = 3,500 feet

USGS, Kentucky Division of Geographic Information

Legend		
	KPDES	
Id	Latitude	Longitude
1	37.475771	-86.263851
2	37.475509	-86.263399
3	37.475207	-86.262775
4	37.473557	-86.25759
5	37.473566	-86.25597
6	37.467068	-86.236844
7	37.46625	-86.233622
8	37.465056	-86.230676
9	37.464507	-86.230017
10	37.461751	-86.227008
11	37.461086	-86.2263
12	37.459374	-86.223075
13	37.459416	-86.221442
14	37.455486	-86.217126
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17	37.443394	-86.193917
18	37.442164	-86.191981
19	37.439691	-86.189004
20	37.439018	-86.18857
21	37.436853	-86.18773
22	37.435314	-86.18703
23	37.432432	-86.186178
24	37.429268	-86.182854
25	37.421372	-86.171289
26	37.420939	-86.170095
27	37.419754	-86.166734

PROJECT MAP
GRAYSON COUNTY
ITEM NO. 4-9007.00
KY 1214 HSIP



GENERAL SUMMARY SHEET

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT	
23326FC	Excavation-Unclassified	CU YD	1181
2230	Embankment in Place	CU YD	391
2223	Grondular Embankment	CU YD	2698
2726	Staking	LP SUM	1
2650	Maintain & Control Traffic	LP SUM	1
2545	Clearing and Grubbing	LP SUM	1
5950	Erosion Control Blanket	SO YD	807
5952	Temporary Mulch	SO YD	4461
2701	Temporary Silt Fence	LF	1680
2159	Temporary Ditch	LF	1680
2160	Clean Temporary Ditch	LF	840
5953	Temporary Seeding and Protection	SO YD	2974
5985	Seeding and Protection	SO YD	5947
5989	Special Seeding and Crown Vetch	SO YD	1982
5990	Sodding	SO YD	668
2381	Remove Guardrail	LF	2706
2351	Guardrail-Steel W Beam-S Face	LF	2946.7
2360	Guardrail Terminal Section No. 1	EACH	5
2367	Guardrail End Treatment Ty 1	EACH	4
2091ED	Object Marker Ty 3	EACH	4
2371	Guardrail End Treatment Ty 7	EACH	1
1987	Delineator for Guardrail Bi-Directional White	EACH	10
2562	Temporary Signs	SO FT	1500
2237	Ditching	LF	1817
6514	Pave Striping-Perm Paint 4 in	LF	29,916
2268	Remove & Replace Fencing (Barbed wire, t-posts, 6 strand)	LF	248
2268	Remove & Replace Fencing (Barbed wire, t-posts, 6 strand; wooden posts-knotted)	LF	379
24978ED	Reconstruct Stone Masonry Wall	LF	20
3269	Trim & Remove Trees & Brush	LF	300
2569	Demobilization	LP SUM	1
2585	Edge Key	LF	144
2483	Channel Lining CL II	TON	219
2377	Guardrail Connector to Bridge End Ty C	EACH	4

NOTES:

- ① Water shall be incidental to Maintain and Control Traffic
- ② Includes 1,2 acres.
- ③ The following shall be incidental to Seeding and Protection & Special Seeding Crown Vetch
Initial Fertilizer
20-10-10 Fertilizer
Agricultural Limestone
- ④ Includes 2 wingwalls for box culverts
Sta 410+51
Sta 700+53
- ⑤ For Box Culvert Extensions
Sta 410+51
Sta 700+53
- ⑥ Estimated at 20 Lbs per Sq Yd;
2 applications
- ⑦ Estimated at 2,40 Lbs per Sq Yd;
2 applications

EARTHWORK QUANTITIES

391 CY Embankment
1181 CY Excavation-Unclassified

- ⑧ To be used between all asphalt course layers at a rate of 0.5 lb/Sy
- ⑨ Estimated at 115 Lbs per Sy per inch of depth
- ⑩ To be used at the discretion of the Engineer
- ⑪ Lt Sta 629+95
Prior to removing the existing 15" entrance pipe, carefully remove the existing stone landscaping blocks, store and reinstall after the proposed entrance pipe and entrance surfacing has been constructed. This bid item will be used to make payment for the labor, equipment, and any incidentals needed to remove, store, and reinstall the existing stone landscaping blocks at the ends of the proposed entrance pipe.

DRAINAGE SUMMARY

ITEM	DESCRIPTION	UNIT	
4401	Entrance Pipe-15 in	LF	313
462	Culvert Pipe-18 in	LF	44
464	Culvert Pipe-24 in	LF	21
1310	Remove Pipe	LF	325
3262	Clean Pipe Structure	EACH	2
2625	Remove Headwall	EACH	4
24575E5610	Mitered Sloped Headwall-18 in	EACH	1
1726	Safety Box Inlet-18 in SDB-1	EACH	1
8100	Concrete-Class A	CU YD	147.3
8150	Steel Reinforcement	LB	21,937
8003	Foundation Preparation	LP SUM	2
8002	Structure Excav-Solid Rock	CU YD	74

PAVING SUMMARY

ITEM	DESCRIPTION	UNIT	
307	CL2 Asph Surf 0.388 PG64-22	TON	3291
212	CL2 Asph Base 1.000 PG64-22	TON	510
100	Asphalt Seal Aggregate	TON	156
103	Asphalt Seal Coat	TON	18
24970EC	Asphalt Material for Lock non-tracking	TON	13.2
00190	Asphalt Leveling & Wedging	TON	1810
00003	Crushed Stone Base	TON	1036

NOTES:

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

NTS

COUNTY OF	ITEM NO.	SHEET NO.
	GRAYSON	4-9007
KY 1214 GRAYSON SPRINGS RD GENERAL SUMMARY		
NORTHERN SECTION		

	GRAYSON COUNTY - KY 1214 NORTHERN ROADWAY ITEM NO. 4-9007 PIPE, CULVERT & HEADWALL SUMMARY																	
	STATION		PIPES & CULVERTS						HEADWALLS			BOX CULVERTS				Extension Length (Match Existing)		EXISTING NOTES
			15 IN Entrance pipe	15 IN Culvert Pipe	18 IN	24 IN	Remove Pipe	Clean Pipe Structure	Remove Headwall	Mitered Sloped Headwall 18"	Safety Box Inlet-18 in SDB-1	Concrete- class A	Steel Reinforce- ment	Foundation Preparation	Structure Excav Solid Rock			
		Item Code		440	461	462	464	1310	03262	02625	24575ES610	1726	8100	8150	8003	8002	LT	RT
	Unit to Bid		LF				EACH		EACH			CY	LB	LS	CY	FT	FT	
STA 200+00 TO STA 202+03	200+40	13.794				5										5		24" CMP
	201+55	13.772			10											5	5	18" CMP
	300+34	13.721			9											4	5	18" CMP
	LT 300+63 gravel ent	13.716																
Super Correction	Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)	13.520- 13.299																
	RT 407+19 gravel ent	13.472																
	410+50 BOX CULVERT	13.412							2			103.7	16306	1	52	5.885	5.885	14"W X 7'H RCBC
	RT 413+75 gravel entr	13.357																Double Entrance
	LT 414+39 gravel ent	13.339																
	619+38	12.087			1			1			1						1	18" CMP; Silted
Slope Correction	Sta 625+00 (MP 11.980)-630+19 (MP 11.882)	11.980- 11.882																
	RT 627+16.3 gravel ent	11.939	40				40											
	LT 627+36.9 gravel ent	11.935	21				21											
	629+35	11.898			8											8		18" CMP
	LT 629+95.26 ent pipe, gravel ent	11.886	28				28											15" CMP
Super Correction	Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)	11.823- 11.626																15" CMP; RCP OE
	RT 633+59.71 ent pipe, gravel entrance	11.817	35				35											
	RT 636+02 gravel entrance	11.771																
	LT 636+20 gravel entrance	11.768																
	RT 637+11 gravel entrance	11.75																
	LT 637+58 ent pipe, grav ent	11.742	28				28											15" CMP
	LT 638+49 ent pipe, asph/grav ent	11.725	100				100											15" CMP
	639+06	11.714				16	12									4	12	24" CMP; OE Crushed
	LT 639+79 ent pipe, grav ent	11.700	33				33											15" RCP
	LT 640+84 ent pipe, grav ent	11.680	28				28											15" CMP
	641+87	11.661			9			1								5	4	18" CMP; both ends silted full
	700+53 BOX CULVERT	11.410							2			43.6	5631	1	22	7	7	9'W x 4.2'H RCBC
	800+23	11.348			7					1							7	18" CMP

TOTALS:

313	0	44	21	325	2	4	1	1	147.3	21937	2	74	44	47
LF					EACH		EACH		CY	LB	LS	CY	LF	LF

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.
Use ditching and channel lining as needed for proper drainage as directed by the engineer.

GRAYSON COUNTY - KY 1214 NORTHERN ROADWAY																
ITEM NO. 4-9007																
EARTHWORK & PAVING SUMMARY																
STATION	MILEPOINT	EARTHWORK AND PAVING														
		Reconstruct Stone Masonry Wall	Ditching	Edge Key	Granular Embankment	Embank- ment	Asph Surf (1.5" ML Surf & 2ft SH)	3" Asph Base SH	Asph Seal Agg	Asph Seal Coat	Asph Material for Tack non- tracking	Pave Striping- Perm Paint 4 inch	¹ CSB SH	CSB (entrance)	Asph Leveling and Wedging	Channel Lining Class II
Item Code		24978ED	02237	2585	2223	21533EN	307	212	100	103	24970EC	6514	00003		190	02483
Unit to Bid		LF	LF	LF	CY	CY	TONS	TONS	TONS	TONS	TONS	LF	TONS	TONS	TONS	TONS
From KY 88 to Bypass	11.195- 14.028			48			3291				10	29916			1202	
STA 200+00 TO STA 202+03	200+40	13.794	15		96			30	4	0.4	0.16		46			3
	201+55	13.772	145													6
	300+34	13.721	100			191		14	8	1	0.07		28			9
	LT 300+63 gravel ent	13.716														2
Super Correction	Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)	13.520- 13.299	560	48	529			177	94	11	1.57		292		284	
	RT 407+19 gravel ent	13.472												3		
	410+5 BOX CULVERT	13.412														100
	RT 413+75 gravel entr	13.357												28		
	LT 414+3 gravel ent	13.339												4		
	619+38	12.087	200		98			24	12	1.5	0.12		41			3
Slope Correction	Sta 625+00 (MP 11.980)-630+19 (MP 11.882)	11.980- 11.882	135		1336	200		77	9	1.1	0.40		160			
	RT 627+16. gravel ent	11.939												4		
	LT 627+36.9 gravel ent	11.935												2		
	629+35	11.898														3
	LT 629+95.26 ent pipe, gravel ent	11.886	20											4		
Super Correction	Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)	11.823- 11.626		48	598			163	19	2	0.82		295		324	
	RT 633+59.71 ent pipe, gravel entrance	11.817	125											2		
	RT 636+02 gravel entrance	11.771												2		
	LT 636+20 gravel entrance	11.768	112											4		
	RT 637+11 gravel entrance	11.75												13		
	LT 637+58 ent pipe, grav ent	11.742	30											7		
	LT 638+49 ent pipe, asph/grav ent	11.725	10											38		
	639+06	11.714	140													6
	LT 639+79 ent pipe, grav ent	11.700												6		
	LT 640+84 ent pipe, grav ent	11.680	100											7		
	641+87	11.661														6
	700+53 BOX CULVERT	11.410	75		28			17	9	1	0.09		32			80
	800+23	11.348	70		12			8	1	0.1	0.04		15			3
TOTALS:		20	1817	144	2698	391	3291	510	156	18	13.2	29916	908	128	1810	219
		LF	LF	LF	CY	CY	TON	TON	TON	TON	TON	LF	TON	TON	TON	TON

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.
Use ditching and channel lining as needed for proper drainage as directed by the engineer.

¹ CSB shoulders includes 6" base layer and full depth shoulders
1810 TONS OF LEVELING AND WEDGING IS TO BE USED AT THE DISCRETION OF THE ENGINEER

GRAYSON COUNTY - KY 1214 NORTHERN ROADWAY								
ITEM NO. 4-9007								
GUARDRAIL SUMMARY								
STATION	MILEPOINT	GUARDRAIL						
		Remove Guardrail	Guardrail	Guardrail Terminal Section No. 1	End Treatment Ty 1	Object Marker Ty 3	End Treatment Ty 7	Delineator for GR Bi- Directional White
Item Code		2381	2351	2360	2367	20191ED	2371	1987
Unit to Bid		LF	LF	EACH	EACH	EACH	EACH	EACH
LT 408+06.8 - 411+40.5	13.458- 13.395	203	287.5	1	1	1		3
RT 408+03.62- 412+87.5	13.459- 13.367	377.2	387.5		2	2		4
Totals:	LT 13.336- 13.143	1010.3	1050.4	2				11
	RT 13.340- 13.145	1055.5	1021.3	1				10
	LT 13.138	60	50	1				1
	LT 13.077- 13.075		100		1	1		1
	RT 13.087		50				1	1
		2706	2946.7	5	4	4	1	29
		LF	LF	EACH	EACH	EACH	EACH	EACH

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.
Use ditching and channel lining as needed for proper drainage as directed by the engineer.

GRAYSON COUNTY - KY 1214 NORTHERN ROADWAY													
MILEPOST													
ITEM NO. 4-9007													
EROSION CONTROL SUMMARY													
STATION	MILEPOINT	EROSION CONTROL											
		Segment Length	Special Seeding & Crown Vetch	Temp Ditch	Clean Temp Ditch	Temp Silt Fence	Temp Mulch	Temp Seeding and Protection	Seeding and Protection	Erosion Control Blanket	Sodding	20-10-10 Fertilizer	
Item Code			5989	2159	2160	2701	5952	5953	5985	5950	5990	5964	
Unit to Bid		LF	Sq Yd	LF	LF	LF	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Ton	
STA 200+00 TO STA 202+03	200+40	13.794	203.4	121	101.7	51	101.7	271	181	362	71		0.09
	201+55	13.772											
	300+34	13.721	94	66	47	24	47	148	98	197	44		0.05
	LT 300+63 gravel ent	13.716											
Super Correction	Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)	13.520-13.299	1180	661	590	295	590	1488	992	1984	249		0.46
	619+38	12.087	155	30	78	39	78	67	44	89	89		0.04
Slope Correction	Sta 625+00 (MP 11.980)-630+19 (MP 11.882)	11.980-11.882	519	445	260	130	260	1002	668	1336	60	668	0.43
Super Correction	Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)	11.823-11.626	1043	598	522	261	522	1346	897	1794	230		0.42
	700+53 BOX CULVERT	11.410	112	38	56	28	56	85	57	113	33		0.03
	800+23	11.348	53	24	27	13	27	55	37	73	31		0.02

Totals:	3359	1982	1680	840	1680	4461	2974	5947	807	668	2
	LF	Sq Yd	LF	LF	LF	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Ton

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.

GRAYSON COUNTY--KY 1214					
ITEM NO. 4-9007					
NORTHERN FENCING SUMMARY					
DIRECTION*	START MP STA	END MP STA	LENGTH (LF)	FENCING	NOTES
NORTHERN					
LT	13.807	13.773	181	Barbed wire, t-posts, 6 strand	Bid Item: 2268
	200+00	201+80.98			
LT	13.734	13.723	67	Barbed wire, t-posts, 6 strand	Bid Item: 2268
	300+00	300+54.28			
LT	13.527	13.456	379	Barbed wire, t-posts, 6 strand; wooden posts-knotted	Bid Item: 2268
	404+80	408+50.9			
NORTHERN TOTAL:			627		

**Milepoints and stations run contrary to each other.*
The northern side of the roadway is Left. (facing in the direction of increasing stations/decreasing milepoints)

GRAYSON COUNTY--KY 1214						
ITEM NO. 4-9007						
NORTHERN EXCAVATION/EMBANKMENT						
DIRECTION	START MP	END MP	LENGTH (LF)	(CY)	EXCAVATION/E MBANKMENT	NOTES
RT*	13.073	13.028	223	1181	EXCAVATION- UNCLASSIFIED	Make 3:1 slopes**

****Milepoints and stations run contrary to each other.***
The northern side of the roadway is Left. (facing in the direction of increasing stations/decreasing milepoints)

*****Quantities and locations are for estimate purposes only. Exact locations and quantities to be determined in the field by the Engineer.***

GRAYSON COUNTY--KY 1214 ITEM NO. 4-9007 NORTHERN TREE AND BRUSH REMOVAL SUMMARY				
DIRECTION*	START MP	END MP	TREE AND BRUSH REMOVAL 3270	NOTES
RT	12.715		4 or 5 trees	Clear to 20 ft from CL
RT	12.56		1 tree (or 1 med 1 small)	Clear to 20 ft from CL
RT	12.544			Clear to 20 ft from CL
RT	12.318		2 trees	Clear to 20 ft from CL
RT	12.185		2-4 trees	Clear to 20 ft from CL

**Milepoints and stations run contrary to each other.
The northern side of the roadway is Left. (facing in the direction of increasing stations/decreasing milepoints)*

GENERAL SUMMARY SHEET

GENERAL SUMMARY

ITEM	DESCRIPTION	UNIT
2230	Embankment in Place	CU YD 597
2223	Granular Embankment	CU YD 3528
2726	Staking	LP SUM 1
5989	Special Seeding & Crown Vetch	SO YD 1219
2650	Maintain & Control Traffic	LP SUM 1
2545	Clearing and Grubbing	SO YD 837
5950	Erosion Control Blanket	SO YD 2850
5952	Temporary Mulch	LF 373
2701	Temporary Silt Fence	LF 373
2159	Temporary Ditch	LF 373
2160	Clean Temporary Ditch	LF 186
5953	Temporary Seeding and Protection	SO YD 1900
5985	Seeding and Protection	SO YD 3800
2381	Remove Guardrail	LF 77
2351	Guardrail-Steel W Beam-5 Face	LF 75
2367	Guardrail End Treatment Ty 1	EACH 1
20191E0	Object Marker Ty 3	EACH 4
1987	Deflector for Guardrail Bi-Directional White	SO FT 750
2562	Temporary Signs	LF 1929
2237	Ditching	LF 123
2585	Edge Key	LF 300
3269	Trim & Remove Trees & Brush	LF 1490
6514	Pave Striping-Perm Paint 4 in	LF 140
2268	Remove & Replace Fencing (Barbed wire, 6 strand, wooden posts)	LF 150
2268	Remove & Replace Fencing (Barbed wire, 5 strand, wooden posts)	LF 60
2268	Remove & Replace Fencing (Barbed wire, 6 strand, t-posts)	LF 80
2268	Remove & Replace Fencing (Woven wire with wood posts)	LF 120
2268	Remove & Replace Fencing (3 Strand electric)	LP SUM 1
2569	Demobilization	TON 393
2483	Channel Lining CL II	TON 393

NOTES:

- ① Water shall be incidental to Maintain and Control Traffic
- ② Includes 0.8 acres.
- ③ The following shall be incidental to Seeding and Protection & Special Seeding Crown Vetch
Initial Fertilizer
20-10-10 Fertilizer
Agricultural Limestone
- ④ Includes 7 wingwalls for box culverts
Sto 1116+56
Sto 1817+19
Sto 1900+35
Sto 2500+69

DRAINAGE SUMMARY

ITEM	DESCRIPTION	UNIT
461	Culvert Pipe-15 in	LF 38
462	Culvert Pipe-18 in	LF 176
464	Culvert Pipe-24 in	LF 34
3262	Clean Pipe Structure	EACH 3
2625	Remove Headwall	EACH 23
24575ES610	Standard Headwall	EACH 1
1544	DBI Ty II	EACH 2
8100	Concrete-Class A	CU YD 239.2
8150	Steel Reinforcement	LB 38,281
8003	Foundation Preparation	LP SUM 4
8002	Structure Excav-Solid Rock	CU YD 126.4
1310	Remove Pipe	LF 71

PAVING SUMMARY

ITEM	DESCRIPTION	UNIT
307	CL2 Asph Surf 0.38B PG64-22	TON 197
212	CL2 Asph Base 1,00D PG64-22	TON 323
100	Asphalt Seal Aggregate	TON 13
103	Asphalt Seal Coat	TON 2
24970EC	Asphalt Material for Tack non-tracking	TON 1
00190	Asphalt Leveling & Wedging	TON 75
00003	Crushed Stone Base	TON 297
00001	Dense Grade Aggregate	TON 15
2677	Asphalt Pavement Milling & Texturing	TON 52
2676	Mobilization for Asph Pave Milling & Text	LS 1

NOTES:

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

⑤ For Box Culvert Extensions

- Sto 1116+56
Sto 1817+19
Sto 1900+35
Sto 2500+69
- ⑥ Estimated at 20 Lbs per Sq Yd:
2 applications
 - ⑦ Estimated at 2.40 Lbs per Sq Yd:
2 applications
 - ⑧ To be used between all asphalt course layers at a rate of 0.5 Lb/SY
 - ⑨ Estimated at 115 lbs per sq inch of depth
 - ⑩ To be used at the discretion of the Engineer
 - ⑪ Flowable fill and asphalt material used to backfill the pipe is incidental.

NTS

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	

KY 1214 GRAYSON SPRINGS RD
GENERAL SUMMARY

SOUTHERN SECTION

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.
Use ditching and channel lining as needed for proper drainage as directed by the engineer.

GRAYSON COUNTY - KY 1214 SOUTHERN ROADWAY (KY 88 to KY 2778) ITEM NO. 4-9007 EARTHWORK & PAVING SUMMARY																			
STATION	MILEPOINT	EARTHWORK AND PAVING																	
		Ditching	Edge Key	Granular Embankment	Embankment	¹ Asph Surf (1.5" ML Surf+ 2ft SH)	Asph Surf 1.25"	Asph Base (ML)	3" Asph Base SH	Asph Seal Agg	Asph Seal Coat	Asph Material for Tack non-tracking	Pave Striping- Perm Paint 4 inch	² CSB SH	CSB (entrance)	DGA (entrance)	Asph Leveling and Wedging	Channel Lining Class II	Asph Pave Milling & Texturing
Item Code		02237	2585	2223	21533EN	307	307	212	212	100	103	24970EC	6514	00003		00001	190	02483	2677
Unit to Bid		LF	LF	CY	TONS								LF	TONS					TONS
Intersection Improvement	Sta 1100+00 (MP 11.195) to Sta 1102+65 (MP 11.145)	11.195-11.145	219	75	426	92	58		213	39	5	1	0.35	530.00	81				
	1100+07	11.193																	
	1100+24.18--new pipe installation	11.190																	
	1100+40	11.187																6	
	LT 1101+38.98 gravel ent	11.169													73				
Super Correction	1105+11	11.095	130		95													6	
	1108+43.23	11.030	45				16											6	26
	1114+16.03	10.927					16											9	26
	Sta 1116+00 (MP 10.892) to Sta 1120+80 (MP 10.797)	10.892-10.797	330	48	1749	505	106		71	9	1	0.64	960	136			75		
	1116+56 BOX CULVERT	10.878																100	
	LT 1118+27 dirt ent	10.849														15			
	1118+73 RT gravel ent	10.840													7				
	1125+41	10.710	55		62													6	
	1308+09	9.426	70		28													6	
	1400+44	9.247	60		35													3	
	1500+56	8.972	30		85													6	
	1600+44	8.834	50		107													6	
	1806+00	8.598	190		138													6	
	1808+82	8.545	100		110													9	
	1817+19 BOX CULVERT	8.386	110		82													80	
	1823+09	8.274	90		174													6	
	1900+35 BOX CULVERT	8.074	70		107													80	
	2100+57	7.785	90		94													6	
	2300+40	6.846	100		91													6	
	2400+43	6.771	80		34													6	
	2500+69 BOX CULVERT	6.572	110		110													40	
TOTALS:		1929	123	3528	597	164	33	213	110	13	2	1.0	1490	217	80	15	75	393	52
		LF	LF	CY	CY	TON	TON	TON	TON	TON	TON	TON	LF	TON	TON	DGA	TON	TON	SQ YD

Note: All items carried over and included in the general summary

The contractor shall field verify types and dimensions prior to ordering.

Use ditching and channel lining as needed for proper drainage as directed by the engineer.

¹ Paving Surface asphalt quantity includes mainline and 2 ft shoulders

² CSB shoulders includes 6" base layer and full depth shoulders

	GRAYSON COUNTY - KY 1214 SOUTHERN ROADWAY (KY 88 to KY 2778) ITEM NO. 4-9007 GUARDRAIL SUMMARY					
	STATION		GUARDRAIL			
		MILEPOINT	Remove Guardrail	Guardrail	End Treatment Ty 1	Delineator for Guardrail Bi-Directional White
	Item Code		2381	2351	2367	1987
	Unit to Bid	LF		LF	EACH	
Intersection improvement	Sta 1100+00 (MP 11.195) to Sta 1102+65 (MP 11.145)	11.195-11.145	77	75	1	4
	1100+07	11.193				
	1100+24.18--new pipe installation	11.190				
	1100+40	11.187				
	LT 1101+38.98 gravel ent	11.169				

Totals:	77	75	1	4
	LF	LF	EACH	EACH

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.
Use ditching and channel lining as needed for proper drainage as directed by the engineer.

GRAYSON COUNTY - KY 1214 SOUTHERN ROADWAY (KY 88 to KY 2778)													
MILEPOST													
ITEM NO. 4-9007													
EROSION CONTROL SUMMARY													
STATION	MILEPOINT	EROSION CONTROL											
		Segment Length	Special Seeding & Crown Vetch	Temp Ditch	Clean Temp Ditch	Temp Silt Fence	Temp Mulch	Temp Seeding and Protection	Seeding and Protection	Erosion Control Blanket	Sodding	20-10-10 Fertilizer	
Item Code			5989	2159	2160	2701	5952	5953	5985	5950	5990	5964	
Unit to Bid		LF	Sq Yd	LF	LF	LF	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Ton	
Intersection improvement	Sta 1100+00 (MP 11.195) to Sta 1102+65 (MP 11.145)	11.195-11.145	265	173	133	66	133	388	259	518	97		0.13
	1105+11	11.095						107	72	143	58		0.04
Super Correction	Sta 1116+00 (MP 10.892) to Sta 1120+80 (MP 10.797)	10.892-10.797	480	451	240	120	240	1015	676	1353	147		0.31
	1125+41	10.710		31				70	47	93	24		0.02
	1308+09	9.426		28				63	42	84	31		0.02
	1400+44	9.247		18				39	26	53	27		0.02
	1500+56	8.972		43				96	64	128	13		0.03
	1600+44	8.834		53				120	80	160	22		0.04
	1806+00	8.598		69				155	103	207	84		0.06
	1808+82	8.545		55				124	83	166	44		0.04
	1817+19 BOX CULVERT	8.386		41				92	62	123	49		0.04
	1823+09	8.274		58				131	87	174	40		0.04
	1900+35 BOX CULVERT	8.074		53				120	80	160	31		0.04
	2100+57	7.785		47				106	71	142	40		0.04
	2300+40	6.846		46				103	68	137	44		0.04
	2400+43	6.771		17				38	26	51	36		0.02
	2500+69 BOX CULVERT	6.572		37				82	55	110	49		0.03
Totals:			745	1219	373	186	373	2850	1900	3800	837	-	1
			LF	Sq Yd	LF	LF	LF	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Sq Yd	Sq Yd

Note: All items carried over and included in the general summary
The contractor shall field verify types and dimensions prior to ordering.

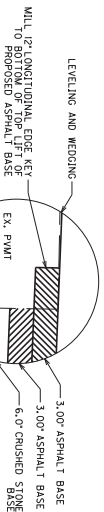
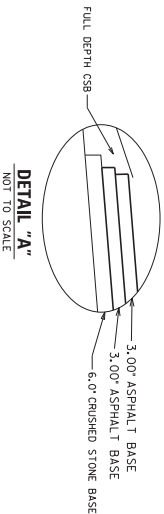
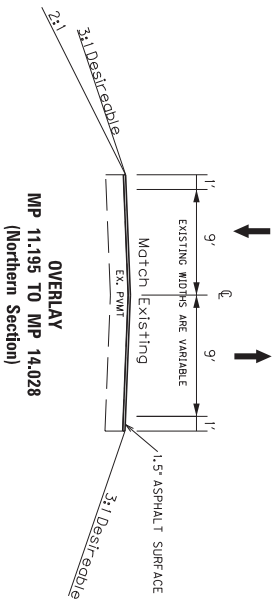
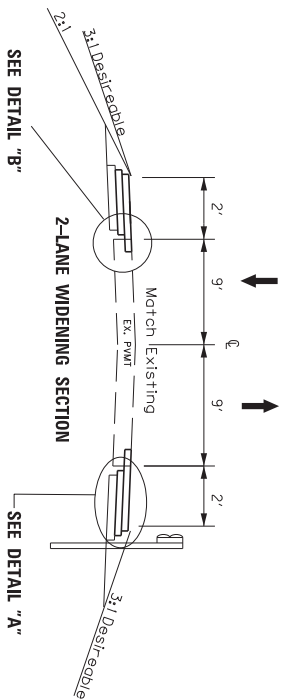
GRAYSON COUNTY--KY 1214					
ITEM NO. 4-9007					
SOUTHERN FENCING SUMMARY					
DIRECTION*	START MP STA	END MP STA	LENGTH (LF)	FENCING	NOTES
RT	8.399	8.373	140	Barbed wire, 6 strand, wooden posts	Bid Item: 2268
	1816+37.91	1817+77.98			
LT	8.395	8.368	150	Barbed wire, 5 strand, wooden posts	Bid Item: 2268
	1816+60.34	1818+00.53			
LT	8.278	8.267	60	Barbed wire, t-posts, 6 strand	Bid Item: 2268
	1822+78.98	1823+39.07			
LT & RT	6.779	6.763	80	LT: Woven wire with wood posts	Bid Item: 2268
	2400+00	2400+83.78	80	RT: 3 Strand (electric)	
RT	6.583	6.578	40	3 Strand (electric)	Bid Item: 2268
	2500+00	2500+25.53			
SOUTHERN TOTAL:			550		

**Milepoints and stations run contrary to each other.
The northern side of the roadway is Left. (facing in the direction of increasing stations/decreasing milepoints)*

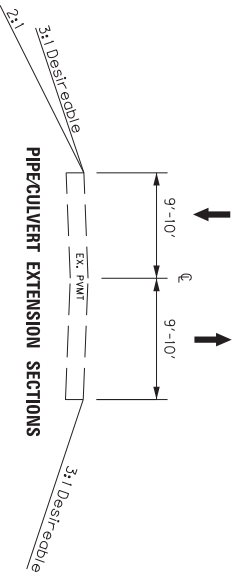
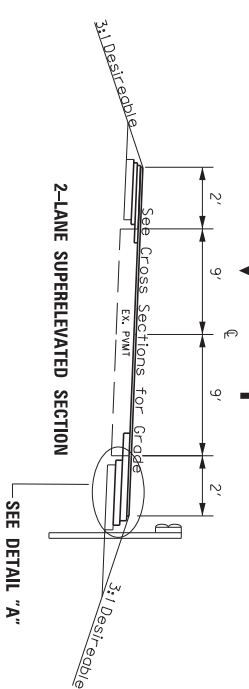
GRAYSON COUNTY--KY 1214 ITEM NO. 4-9007 SOUTHERN TREE AND BRUSH REMOVAL SUMMARY				
DIRECTION*	START MP	END MP	TREE AND BRUSH REMOVAL 3270	NOTES
RT	11.126	11.137	Tree row	Clear to 20 ft from CL
RT	10.302	10.43	Tree row	Clear to 20 ft from CL
LT	9.530	9.62	Tree row	Clear to 20 ft from CL
RT	9.531			Single Tree
LT	9.340	9.39	Tree row	Clear to 20 ft from CL
RT	8.540	8.85	Tree Row	Clear to 20 ft from CL

**Milepoints and stations run contrary to each other.
The northern side of the roadway is Left. (facing in the direction of increasing stations/decreasing milepoints)*

TYPICAL SECTIONS KY 1214 WIDENING



2-LANE WIDENING SECTION
Sta 1100+00 (MP 11.195) - Sta 1102+65 (MP 11.145)
(Southern Section)



- Sta 1308+09 (MP 9.426)
- Sta 1400+44 (MP 9.247)
- Sta 1500+56 (MP 8.972)
- Sta 1600+44 (MP 8.834)
- Sta 1806+00 (MP 8.598)
- Sta 1808+82 (MP 8.545)
- Sta 1817+19 (MP 8.386)
- Sta 1823+09 (MP 8.274)
- Sta 1900+35 (MP 8.074)
- Sta 2100+57 (MP 7.791)
- Sta 2300+40 (MP 6.846)
- Sta 2400+43 (MP 6.774)
- Sta 2500+69 (MP 6.572)

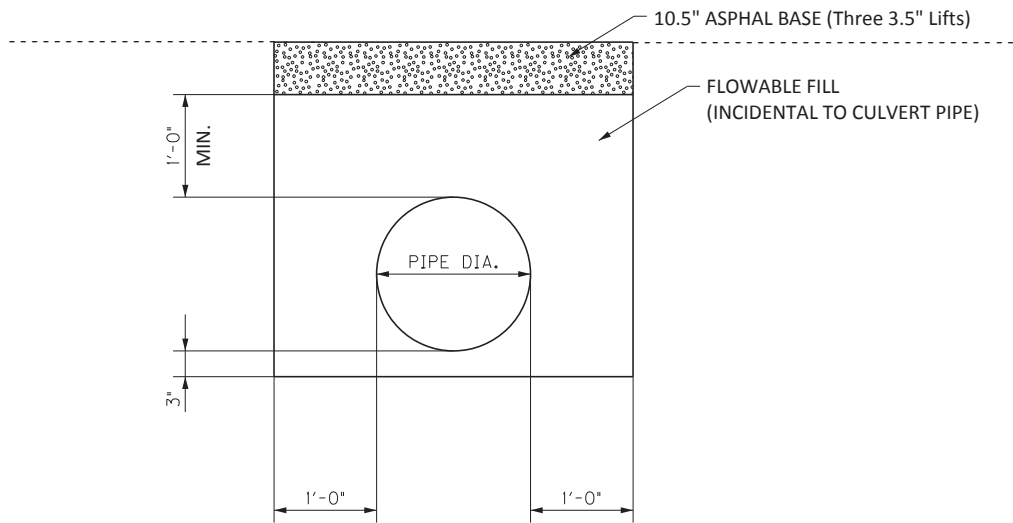
MAINLINE	
1.5" CL2 Asph Surf 0.38B PG64-22	
SHOULDER	
1.5" CL2 Asph Surf 0.38B PG64-22	
3.0" CL2 Asph Base 1.00D PG64-22 (2 Layers)	
6.0" Crushed Stone Base	
Full Depth Crushed Stone Base	

KY 1214 GRAYSON SPRINGS RD
TYPICAL SECTION

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	

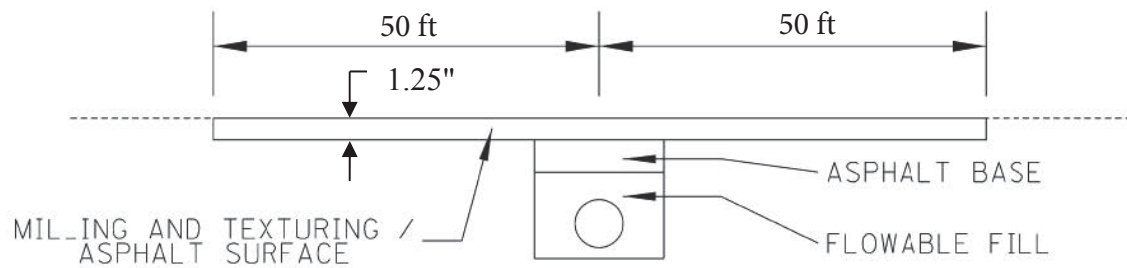
NTS

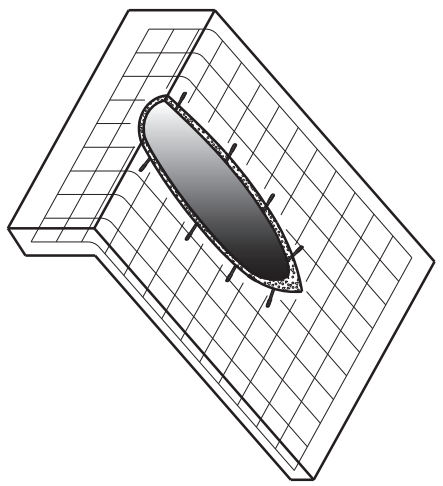
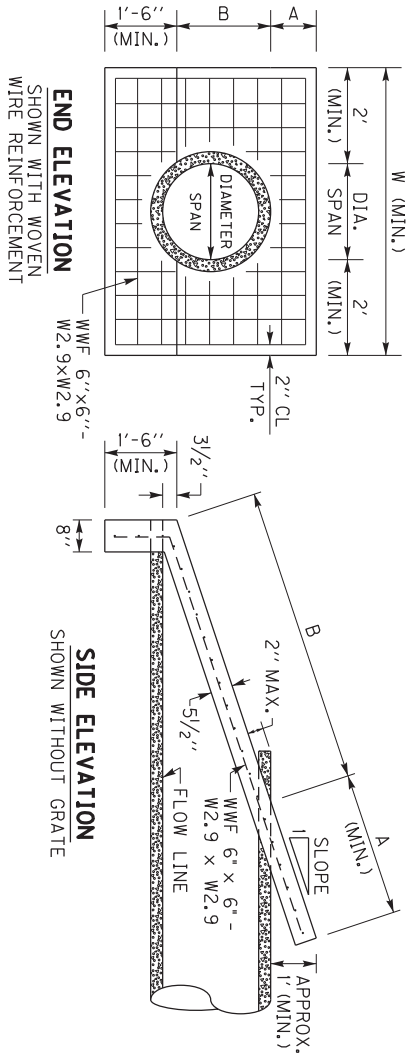
CULVERT PIPE REPLACEMENT DETAIL



CULVERT PIPE REPLACEMENTS - INITIAL BACKFILL

Culvert Pipe Replacements shall be constructed according to the Inital Backfill Detail shown above, or as directed by the Engineer. Allow the asphalt base to be exposed to traffic a minimum of 14 days to allow for settlement. After the 14 day waiting period, mill and inlay 1.25 inches of asphalt surface according to the detail below.





ISOMETRIC VIEW
SHOWN WITH WOVEN
WIRE REINFORCEMENT
AND WEDGE ANCHORS

DIMENSIONS AND CONCRETE QUANTITIES									
PIPE SIZE	3:1 SLOPE			4:1 SLOPE			6:1 SLOPE		
	A	B	W	A	B	W	A	B	W
15"	3'-7 1/2"	5'-3"	0.74	4'-8 3/4"	5'-3"	0.93	6'-11 3/4"	5'-3"	1.29
18"	3'-4'-5 3/4"	5'-6"	0.85	4'-5'-10"	5'-6"	1.05	6'-8'-7 1/4"	5'-6"	1.48
24"	3'-6'-2 1/2"	6'-0"	1.05	4'-8'-1"	6'-0"	1.32	6'-11'-11"	6'-0"	1.87
30"	3'-7'-10 3/4"	6'-6"	1.43	4'-10'-3 3/4"	6'-6"	1.80	6'-15'-2 1/2"	6'-6"	2.28

NOTE: CONCRETE QUANTITIES ARE LISTED FOR INFORMATIONAL PURPOSES ONLY.

~ NOTES ~

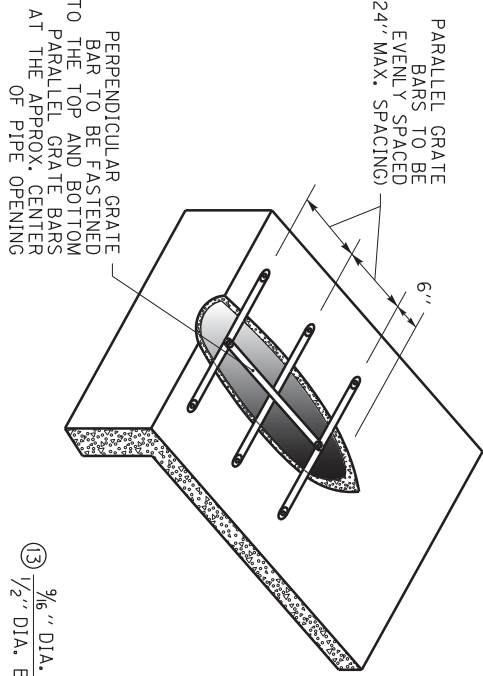
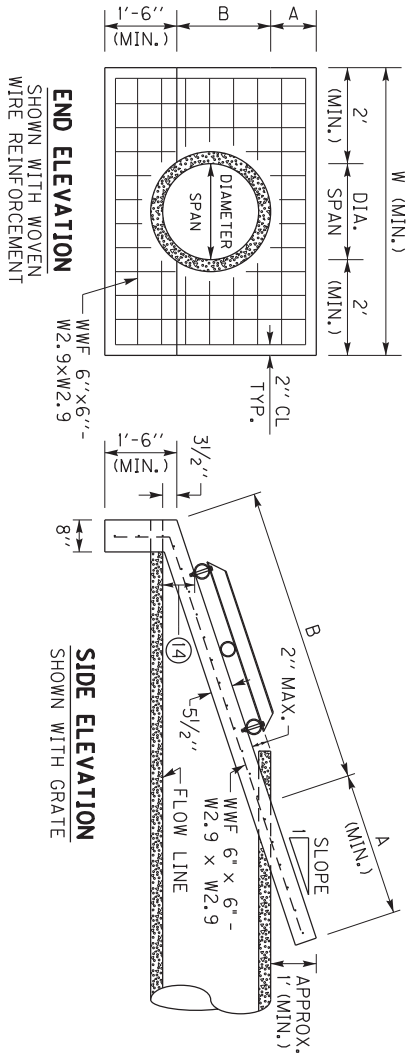
- BID ITEM AND UNIT TO BID: 24575ES610 HEADWALL (SLOPED & MITERED CONCRETE-FOR 1" INCH PIPE) - EACH
- THE EMBANKMENT FILL MATERIAL IS TO BE PLACED, COMPACTED, AND GRADED AROUND THE PIPE BEFORE THE CONCRETE SLOPE PAVING IS PLACED. THE INTENT IS FOR THE SLOPED & MITERED HEADWALL TO MATCH THE FINAL EMBANKMENT SLOPE.
- 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. HAND FINISHING AND/OR CUTTING MAY BE NECESSARY.
- 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.
- WOVEN WIRE REINFORCEMENT (WWF 6"x6" - W2.9xW2.9) IS REQUIRED FOR THE SLOPE PAVING AND TOE WALL. UTILIZE 2" CLEARANCE FROM ALL EDGES.
- CONCRETE QUANTITIES SHOWN ARE FOR ONE (1) HEADWALL.
- 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.
- 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 -PIPE WITH GREATER THAN 30" DIAMETER. -ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER SEE SHEET 2 FOR GRATE DETAILS
- ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT: ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

COUNTY OF	ITEM NO.	SHEET NO.
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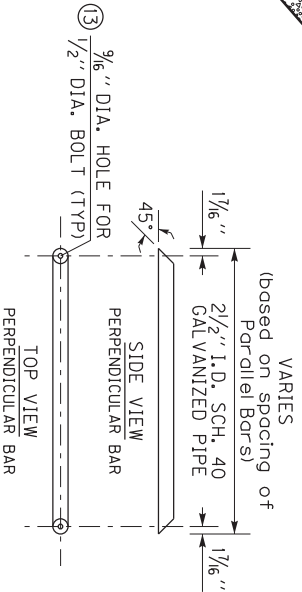
SEE SHEET 2 FOR
DIMENSIONS OF
HEADWALLS FOR PIPE
OVER 30" DIAMETER

KENTUCKY DEPARTMENT OF HIGHWAYS
SLOPED & MITERED CONCRETE HEADWALL (SHEET 1 OF 2)

NOT TO SCALE

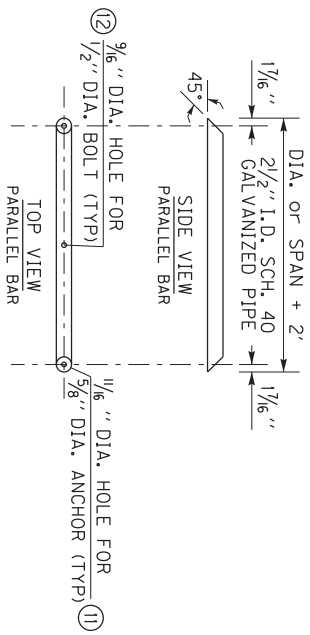


ISOMETRIC VIEW
SHOWING HEADWALL
WITH GRATE



VARIES
(based on spacing of
Parallel Bars)
SIDE VIEW
TOP VIEW
PERPENDICULAR BAR
PERPENDICULAR BAR

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



- ~ NOTES ~
- BID ITEM AND UNIT TO BID: 24575ES610
HEADWALL (SLOPED & MITERED CONCRETE-FOR 1 INCH PIPE) - EACH
SEE SHEET 1 FOR NOTES 1 THRU 5
- THE FOLLOWING SITUATIONS REQUIRE A HEADWALL WITH A GRATE:
7. 24" DIAMETER PIPE ON GREATER THAN 30° SKEW
 8. 30" DIAMETER PIPE ON GREATER THAN 15° SKEW
 9. PIPE WITH GREATER THAN 30" DIAMETER
 10. ELLIPTICAL PIPE GREATER THAN 24" EQUIVALENT DIAMETER
 11. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT:
ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN
GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
 12. 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.
 13. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING
SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
 14. FASTEN PARALLEL BARS TO HEADWALL WITH 5/8" DIA. x 4 1/2"
LENGTH STEEL WEDGE ANCHORS, MINIMUM EMBEDMENT = 2 3/4"
HOLE SIZE AND DEPTH, TORQUE, & INSTALLATION PROCEDURES
PER RECOMMENDATION OF ANCHOR MANUFACTURE
 15. CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND
BOTTOM PARALLEL BARS.
 16. FASTEN THE PERPENDICULAR BAR TO THE TOP AND BOTTOM
PARALLEL BARS WITH 1/2" DIA. x 4" LENGTH HEX HEAD BOLTS,
HEX HEAD NUTS, & FLAT WASHERS.
 17. THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS
APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.

DIMENSIONS AND CONCRETE QUANTITIES									
PIPE SIZE	3:1 SLOPE			4:1 SLOPE			6:1 SLOPE		
	A	B	W	A	B	W	A	B	W
36"	3'	9'-7 1/2"	7'-0"	4'	12'-6 1/2"	7'-0"	6'	18'-6"	7'-0"
42"	3'	11'-4"	7'-6"	4'	14'-9 1/4"	7'-6"	6'	21'-9 1/2"	7'-6"

NOTE: CONCRETE QUANTITIES ARE LISTED FOR INFORMATIONAL PURPOSES ONLY.

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

DEPARTMENT OF HIGHWAYS	
SLOPED & MITERED CONCRETE HEADWALL (SHEET 2 OF 2)	

NOT TO SCALE

COUNTY OF	TITLE NO.	SHEET NO.

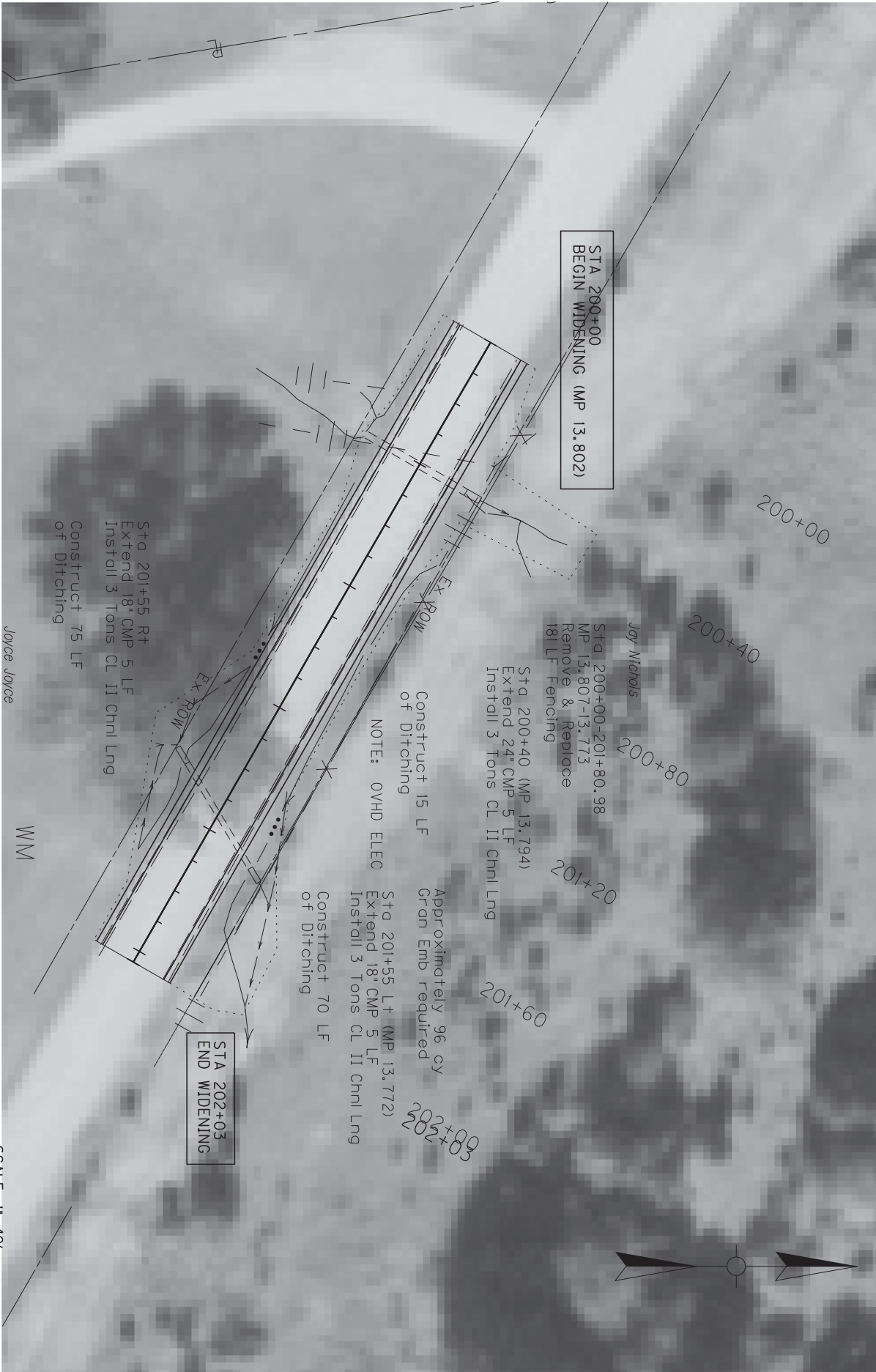


GRAYSON COUNTY
KY 1214
4-9007.00



To be paid for as 'Excavation-
Unclassified'. Quantities are for
estimate purposes only. The
engineer will determine the
exact extents of the excavation.

**IMPROVE SIGHT
DISTANCE
MP 13.070**



SHEET SUMMARY - PAVING

ASPH BASE		CSB	
SY	TONS	SY	TONS
91	30	91	*46

*Include 14 Tons
for Full Depth Shoulders

SHEET SUMMARY - GENERAL

18 IN CULVERT PIPE	24 IN CULVERT PIPE	DITCHING	GRAN EMB CY	CL II CHNL LNG TON
LF	LF	LF	96	9
10	5	145		

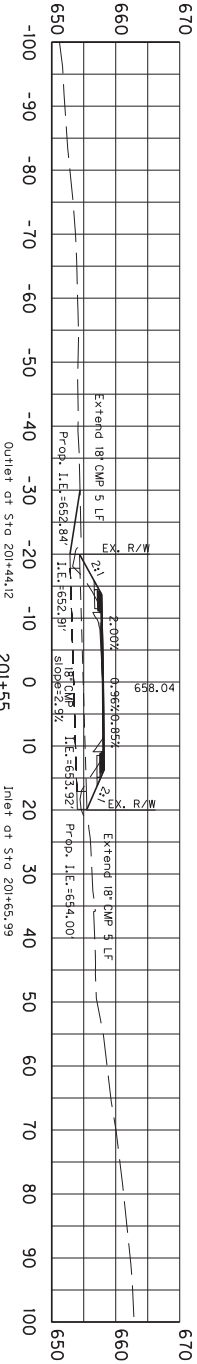
SCALE: 1" = 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R1

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 13.794 (STA 200+40) - 24" CMP
MP 13.772 (STA 201+55) - 18" CMP

CULVERT SECTION FOR STA 200+40 CAN BE FOUND WITH THE CROSS SECTIONS ON PG. XII



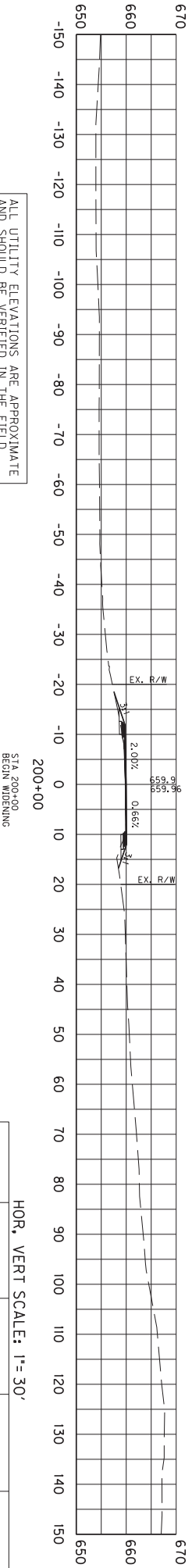
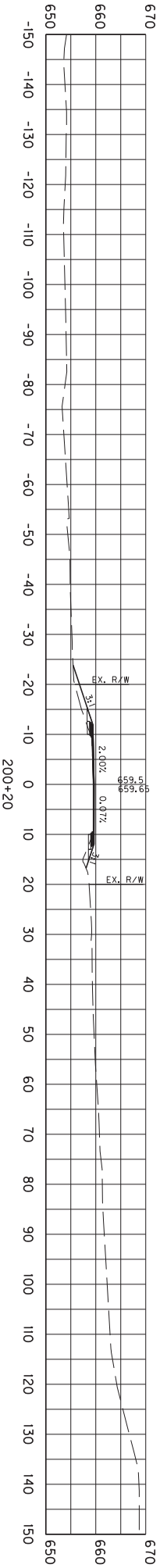
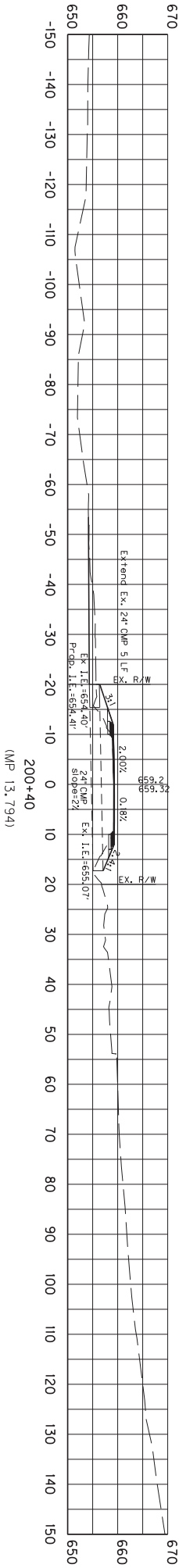
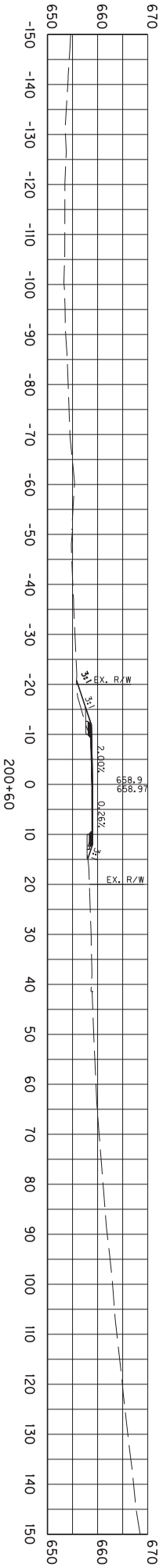
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS1A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 201+55 TO STA. 201+55

XSects for Sta 200+40 (MP 13.794) & Sta 201+55 (MP 13.772)



ALL UTILITY ELEVATIONS ARE APPROXIMATE
AND SHOULD BE VERIFIED IN THE FIELD

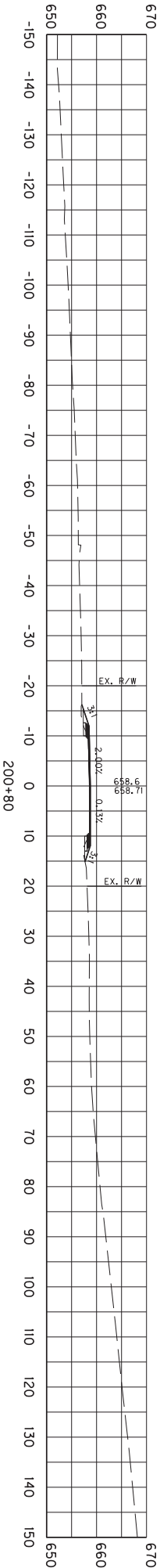
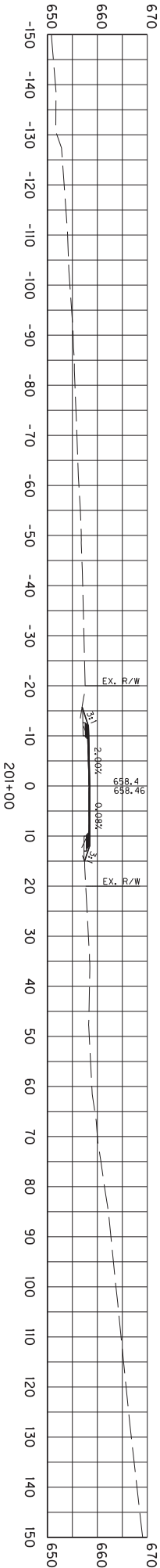
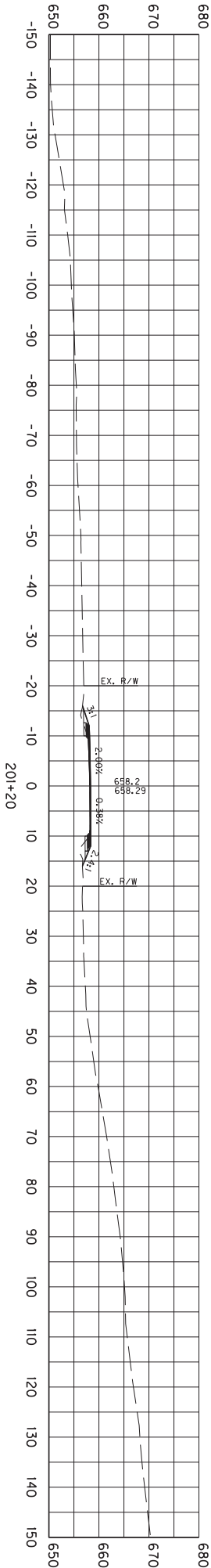
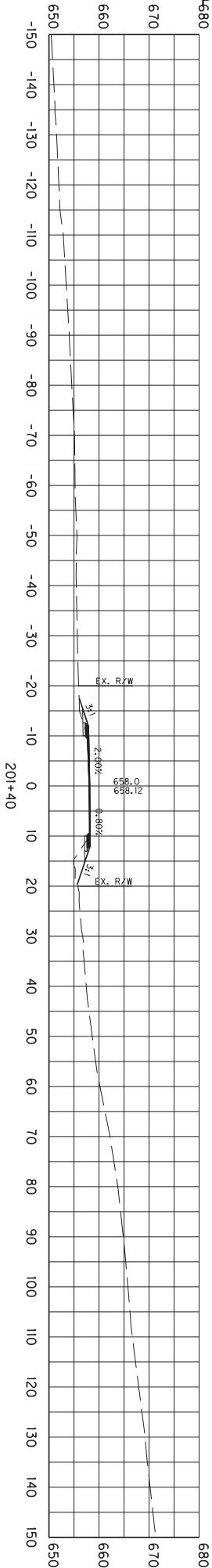
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X1B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 200+00 TO STA. 200+60

XSects for Sta 200+40 (MP 13.794) & Sta 201+55 (MP 13.772)



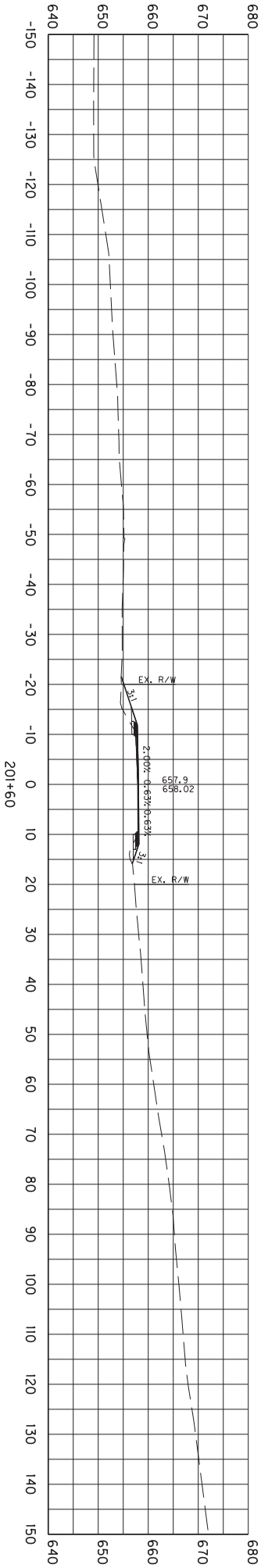
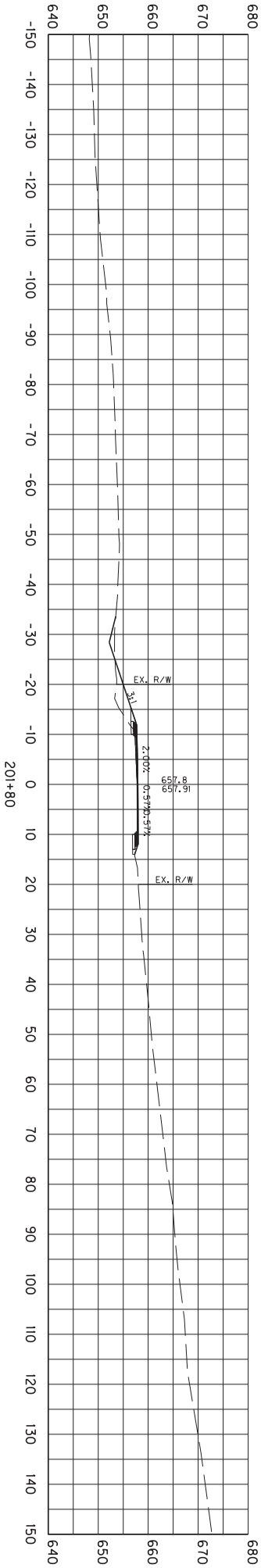
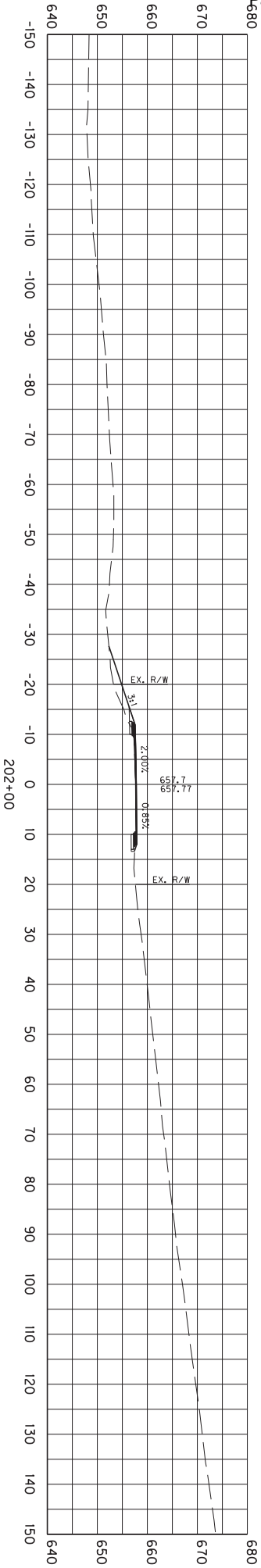
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X1C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 200+80 TO STA. 201+40

XSects for Sta 200+40 (MP 13.794) & Sta 201+55 (MP 13.772)



For pipe at Sta 201+55, see pipe sheet

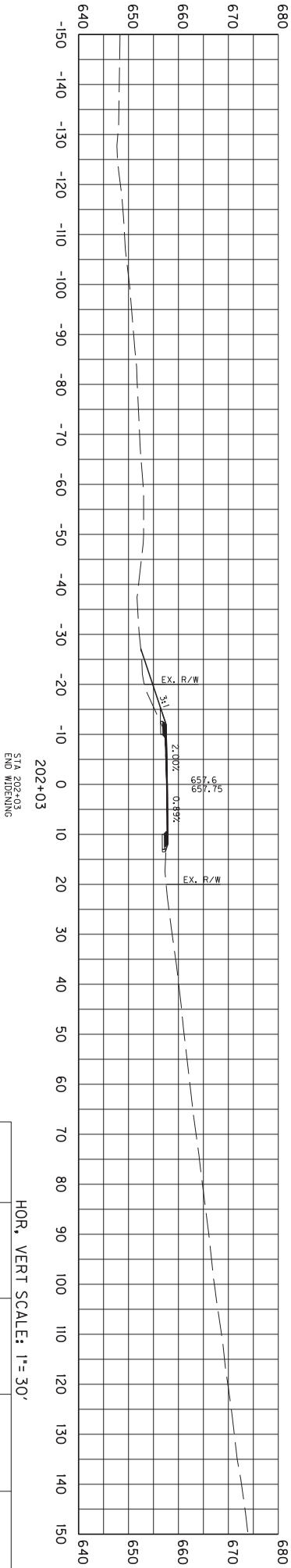
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X1D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 201+60 TO STA. 202+00

XSects for Sta 200+40 (MP 13.794) & Sta 201+55 (MP 13.772)

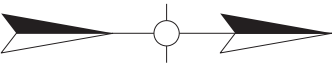
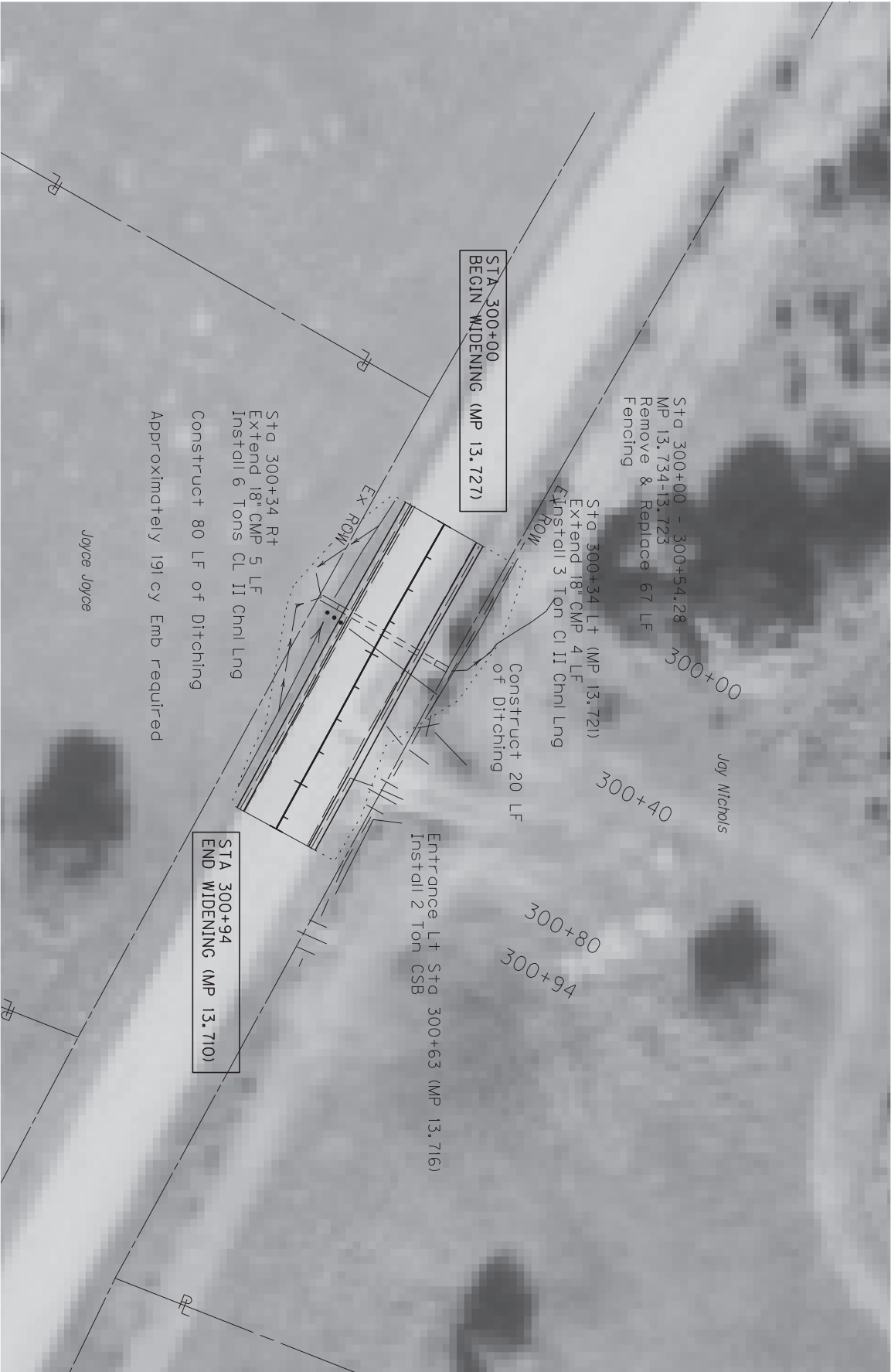


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X1E

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 202+03 TO STA. 202+03



SCALE: 1"= 40'

SHEET SUMMARY - PAVING

ASPH BASE			CSB		
	SY	TONS		SY	TONS
SH	42	14	SH	42	*28

*Include 13 Tons
for Full Depth Shoulders

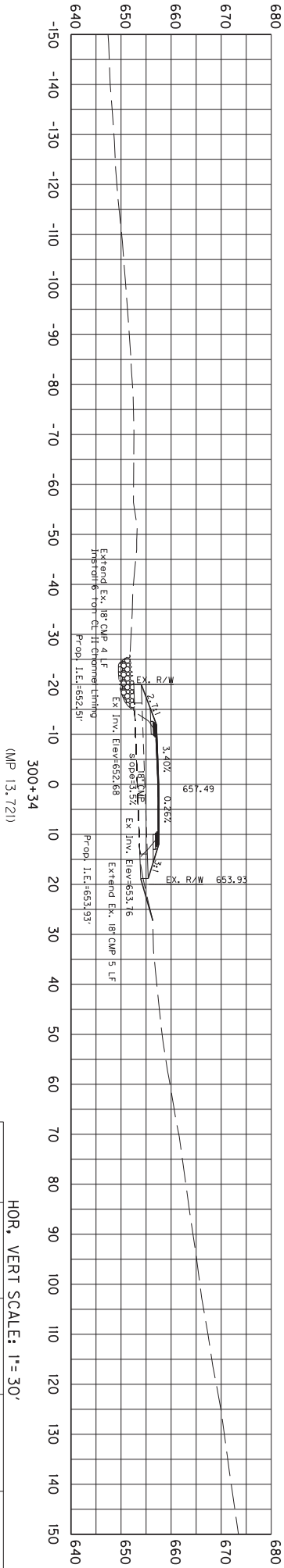
SHEET SUMMARY - GENERAL

18 IN	S&M	DITCHING	EMB	CSB	CL II
CULVERT	HDWL	DITCHING	EMB	(ENTR)	CHNL LNG
PIPE	18 IN	LF	CY	TONS	TONS
9	1	100	191	2	9

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R2

MP 13.721
STA 300+34
18" CMP



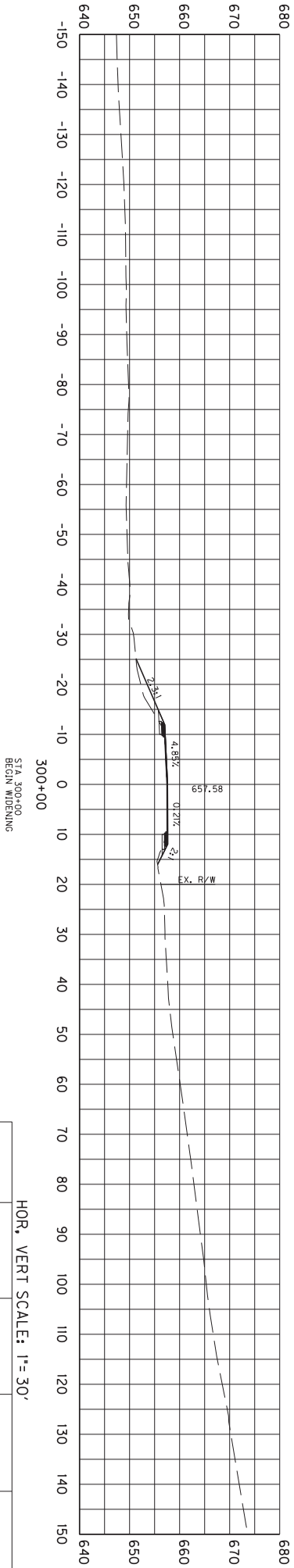
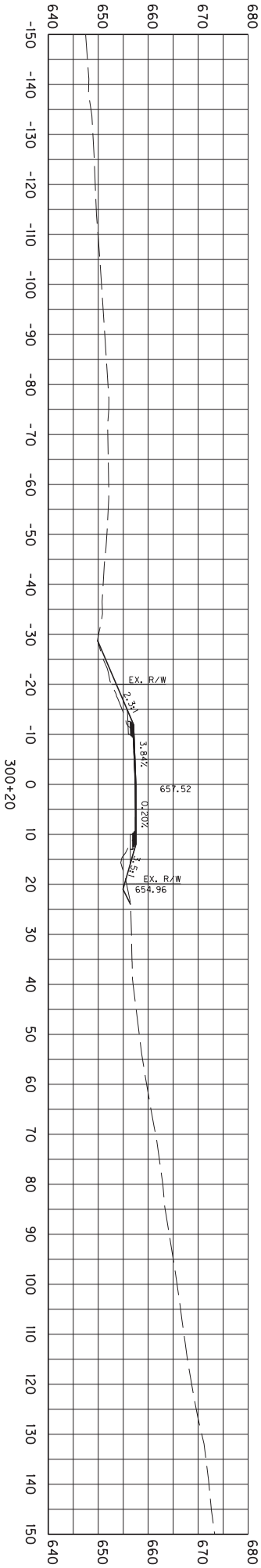
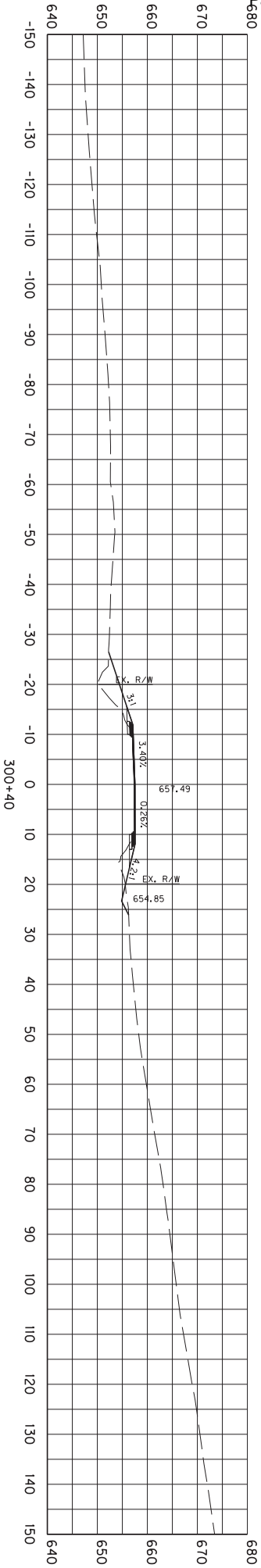
300+34
(MP 13.721)

HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS2A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 300+34 TO STA. 300+34

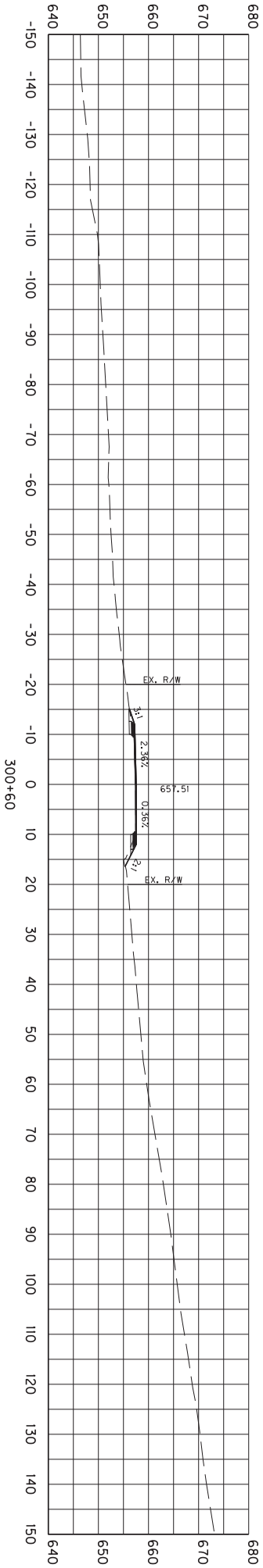
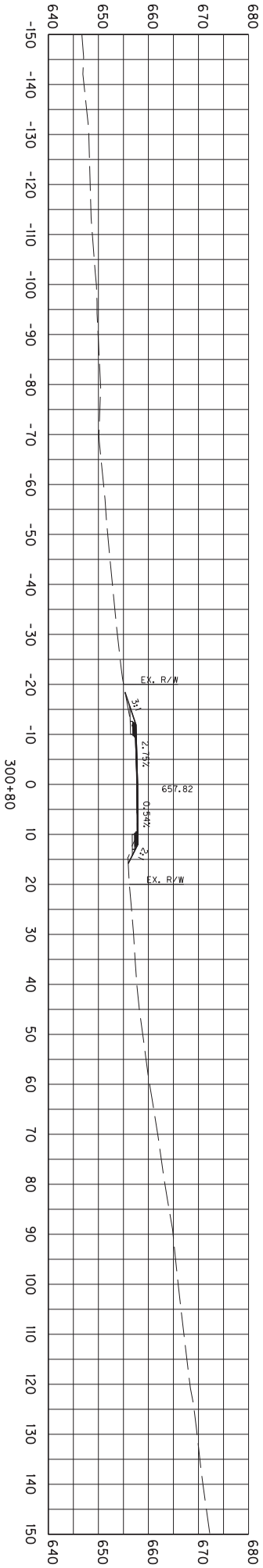
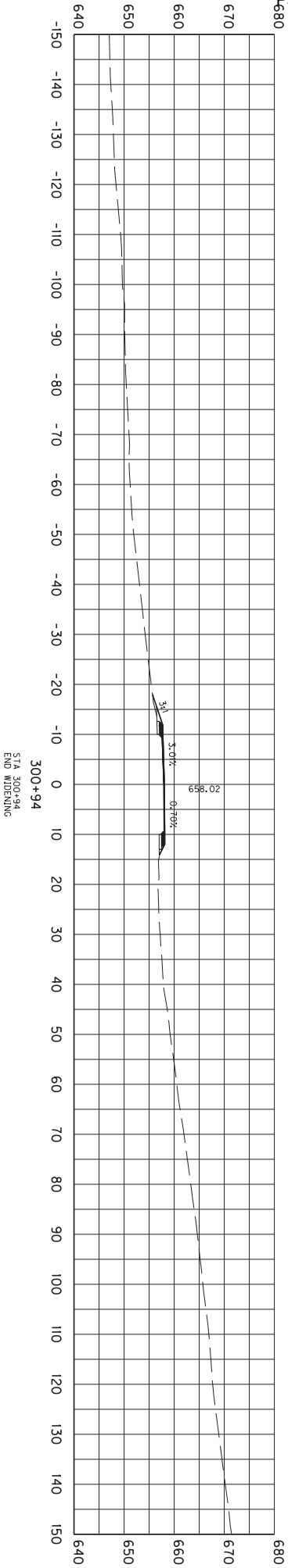


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X2B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 300+00 TO STA. 300+40



HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X2C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 300+60 TO STA. 300+94



SCALE: 1"= 40'

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Super-elevation Correction
STA 404+80 TO STA 408+60

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R3

412+00

Install Guardrail End Treatment Type 1

5'-10" 5/8" Outlet End Extension

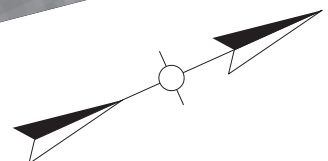
Approximately 529 cy Gran Emb required

Remove wingwalls Install 50 Tons Chnl Lng

Imogene Whitman

Rt Std 408+03.62 to Std 412+87.5
MP 13.459 - 13.367
Install 387.5 Lf Steel Beam Guardrail W Beam-S Face

MATCHLINE STA 412+40



COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R4

Superelevation Correction
STA 408+60 TO STA 412+40

SHEET SUMMARY - PAVING
FOR STA 404+80 TO STA 416+50

ASPH BASE		CSB	
SY	TONS	SY	TONS
SH 538	177	SH 538	*292

*Include 106 Tons
for Full Depth Shoulders



SHEET SUMMARY - GENERAL

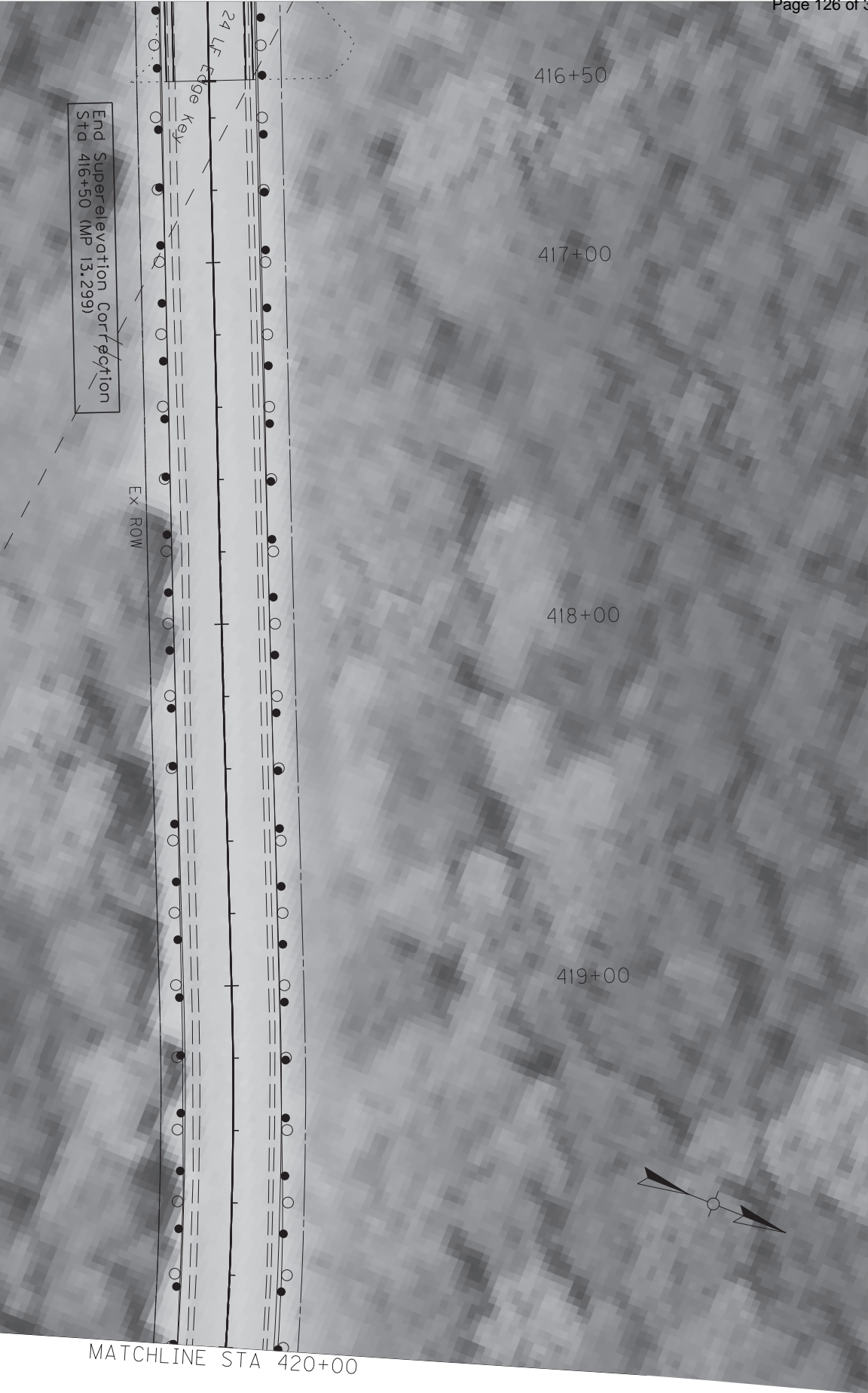
REMOVE WINGWALLS	DITCHING	GRAN EMB	CSB (ENTR)	CL II CH LG	GUARDRAIL	GUARDRAIL TERM. SECTION NO. 1	GUARDRAIL END TREATMENT TYPE 1	OBJ MARKER TYPE 3	END TREATMENT TY 7
EACH 2	LF 560	CY 529	TONS 35	TONS 100	LF 2946.7	EACH 3	EACH 3	EACH 3	EACH 1

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R5-1

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Superelevation Correction
STA 412+40 TO STA 416+50



End Super-elevation Correction
Sta 416+50 (MP 13.299)

EX ROW

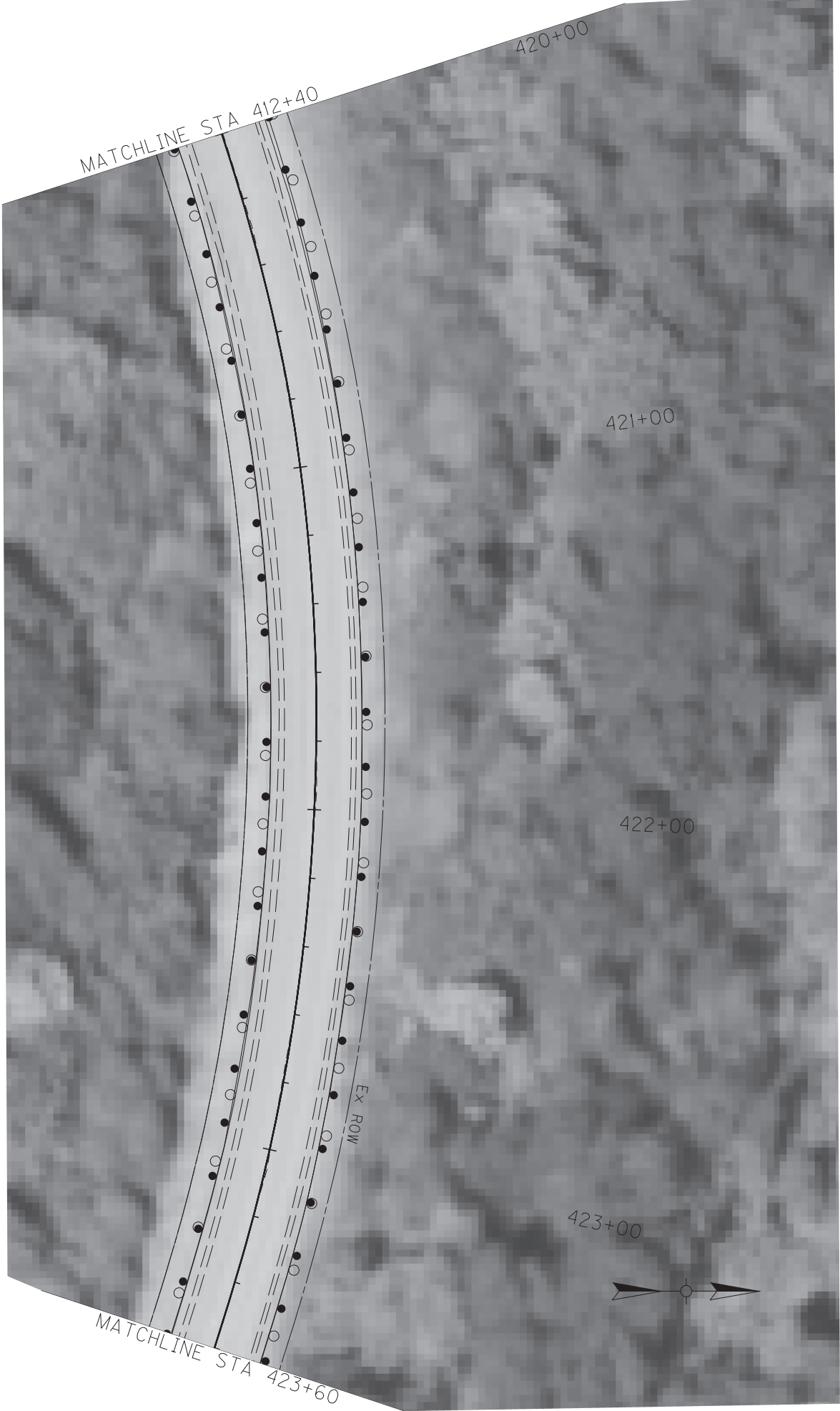
MATCHLINE STA 420+00

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R5-2

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Guardrail Extension
STA 416+50 TO STA 420+00
MP 13.299 to 13.233

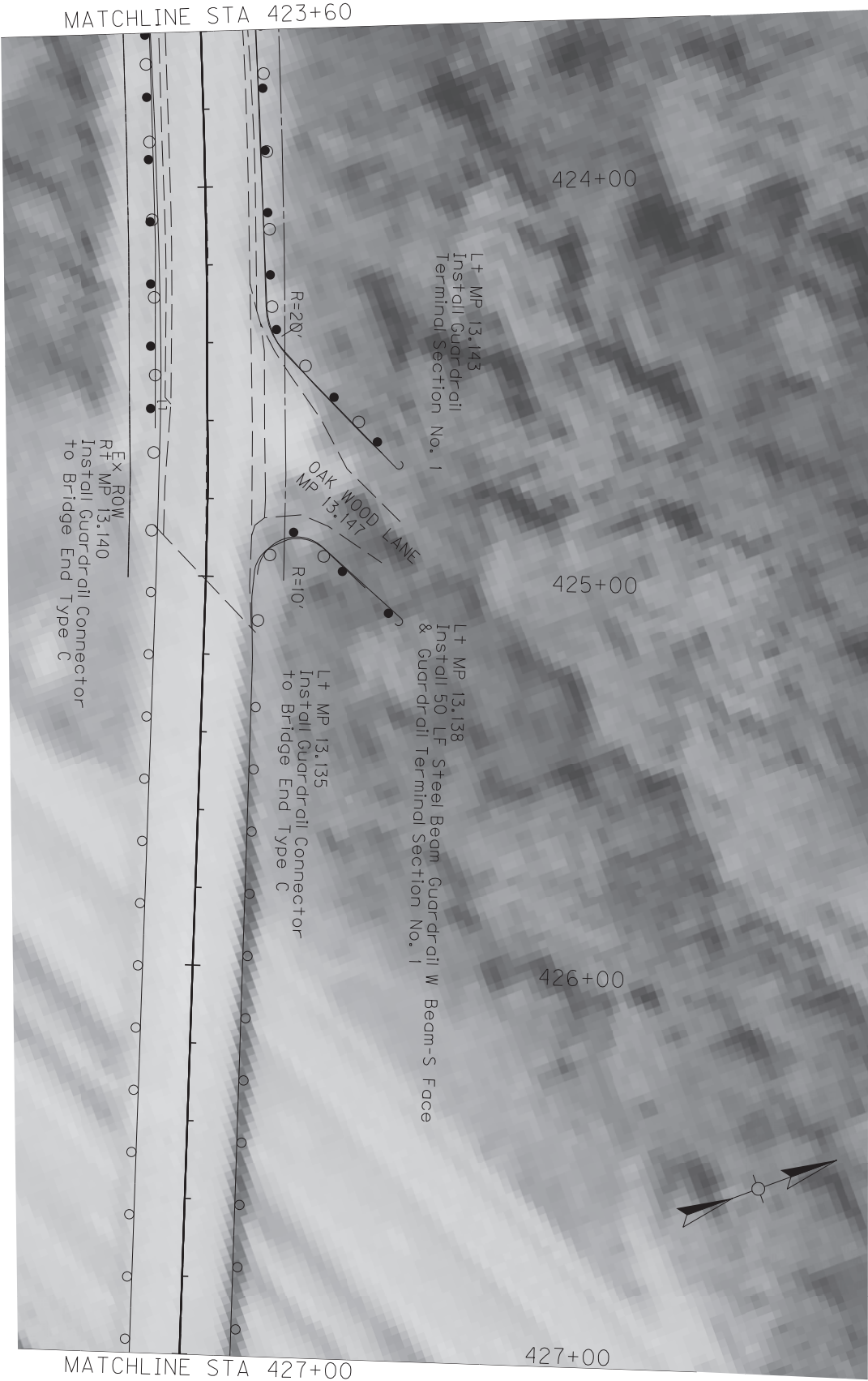


SCALE: 1"= 40'

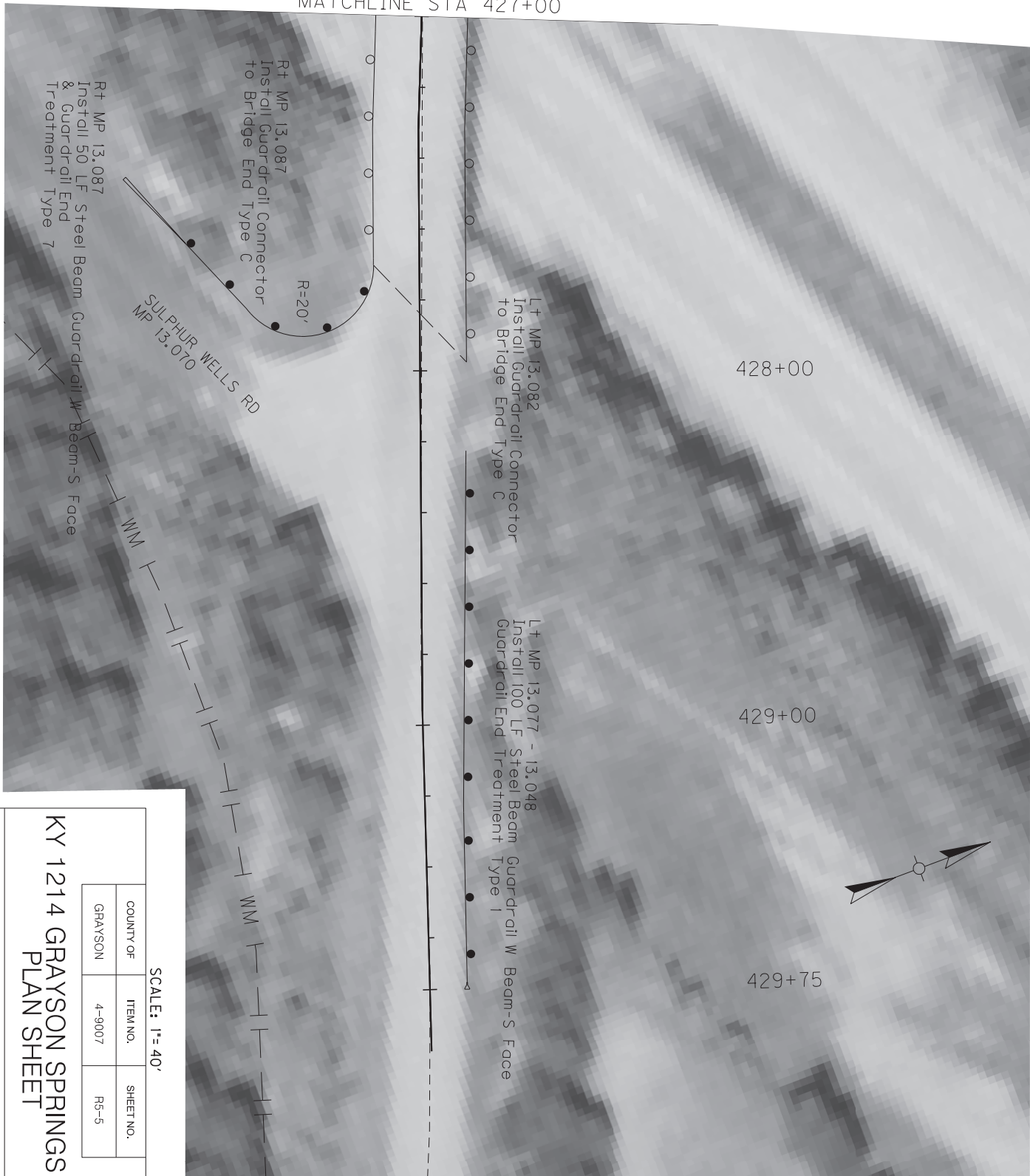
KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R5-3

Guardrail Extension
STA 420+00 TO STA 423+60
MP 13.233 to 13.164



KY 1214 GRAYSON SPRINGS RD PLAN SHEET		
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R5-4
Guardrail Extension STA 423+60 TO STA 427+00 MP 13.164 to 13.099		

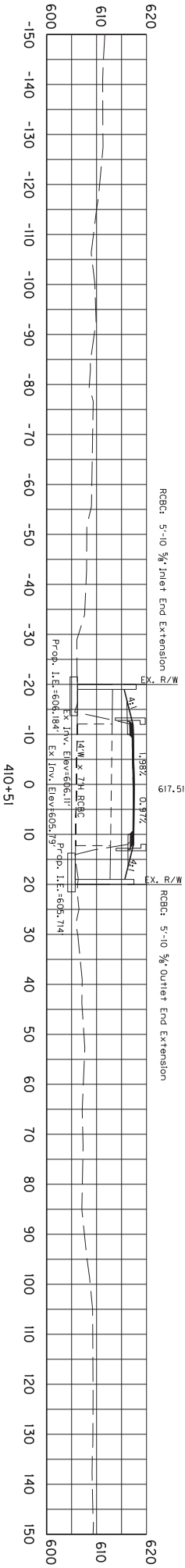


COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R5-5

SCALE: 1"=40'

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Guardrail Extension
STA 427+00 TO STA 429+75
MP 13.099 to 13.048



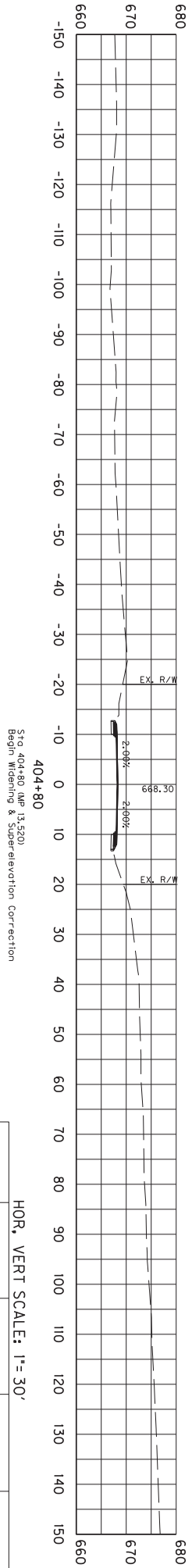
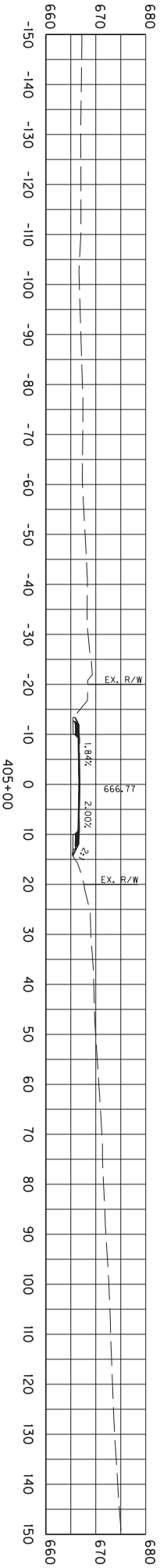
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS5A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 410+51 TO STA. 410+51

XSects for Sta 404+80 (MP 13.520) to Sta 405+00 (MP 13.299)



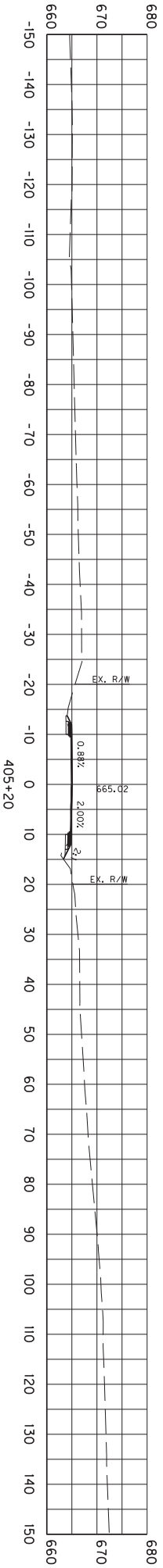
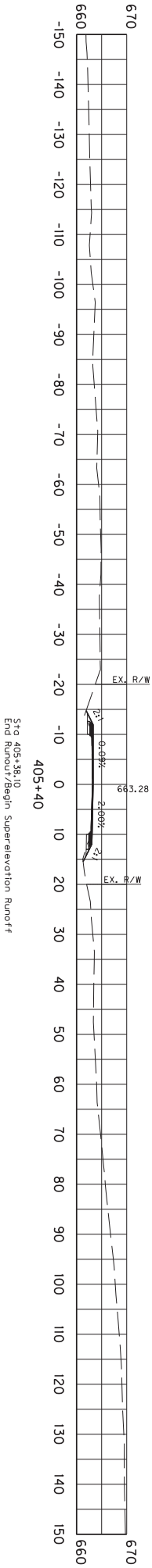
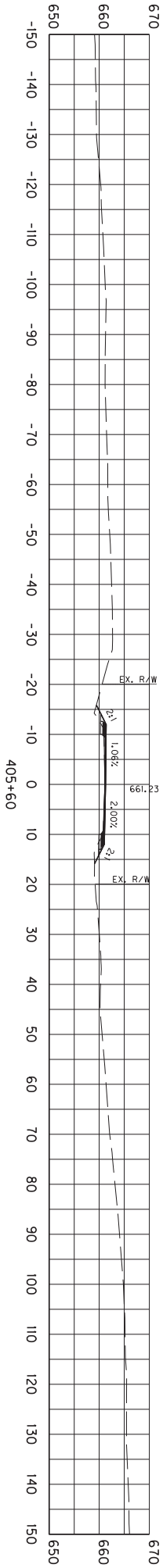
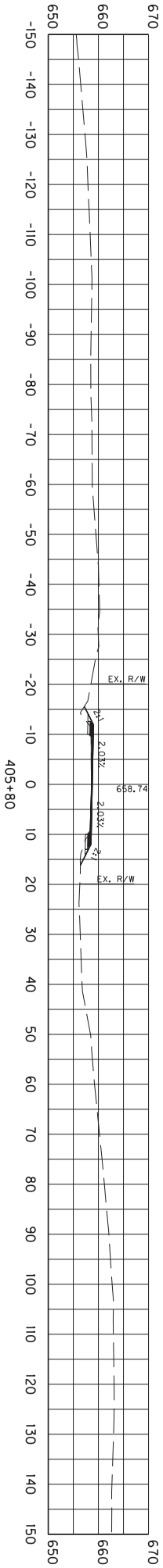
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 404+80 TO STA. 405+00

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



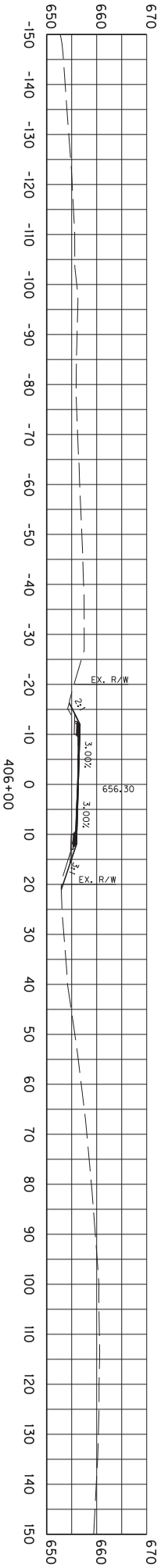
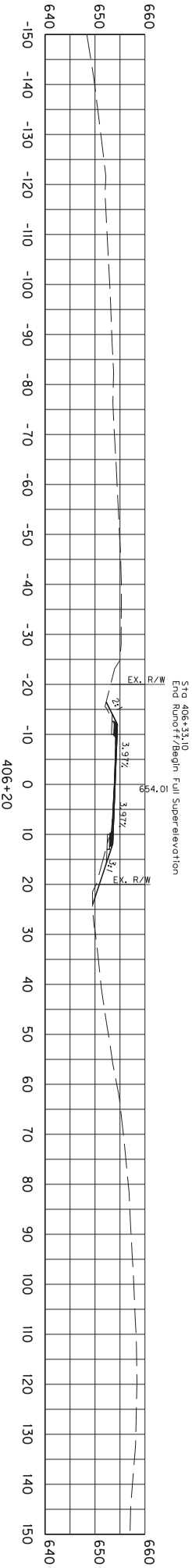
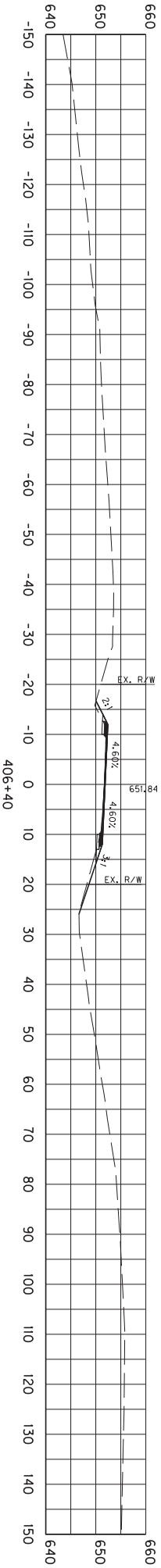
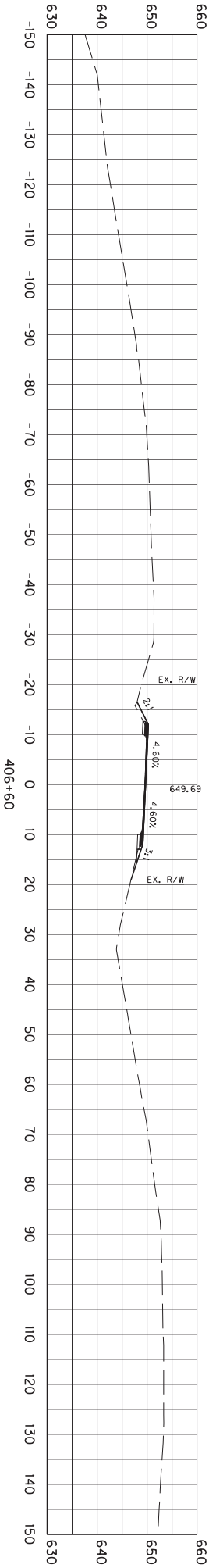
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 405+20 TO STA. 405+80

XSects for Sta 406+80 (MP 13.520) to Sta 416+50 (MP 13.299)



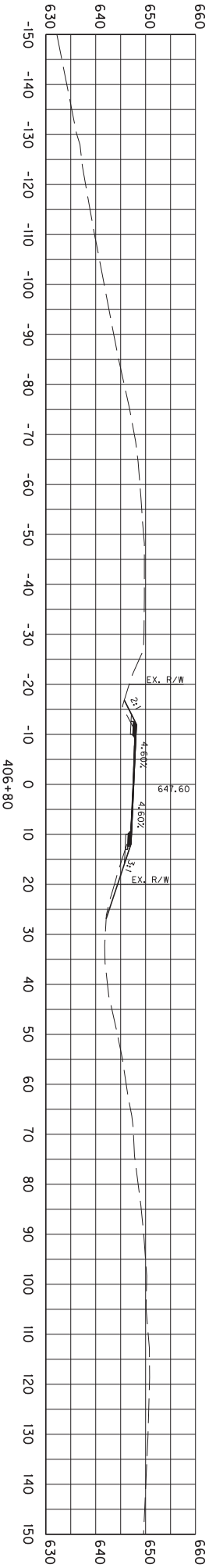
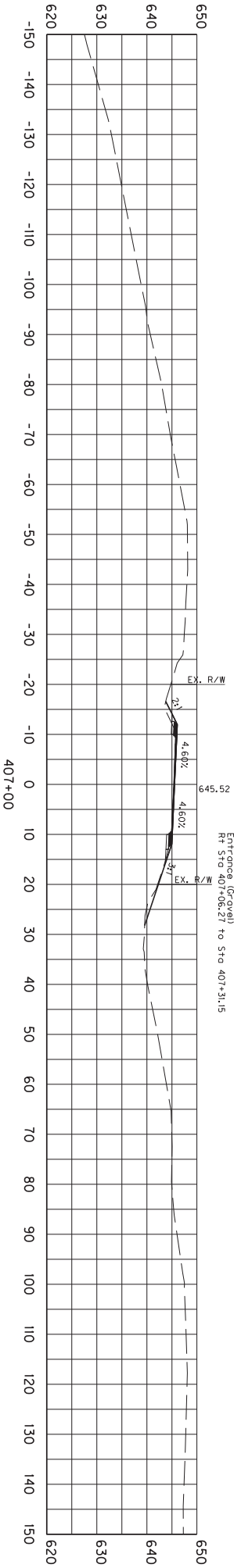
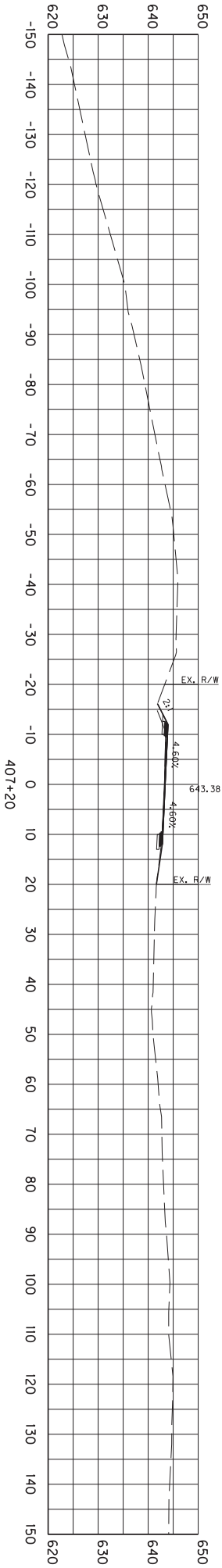
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 406+00 TO STA. 406+60

XSects for Sta 406+80 (MP 13.520) to Sta 416+50 (MP 13.299)



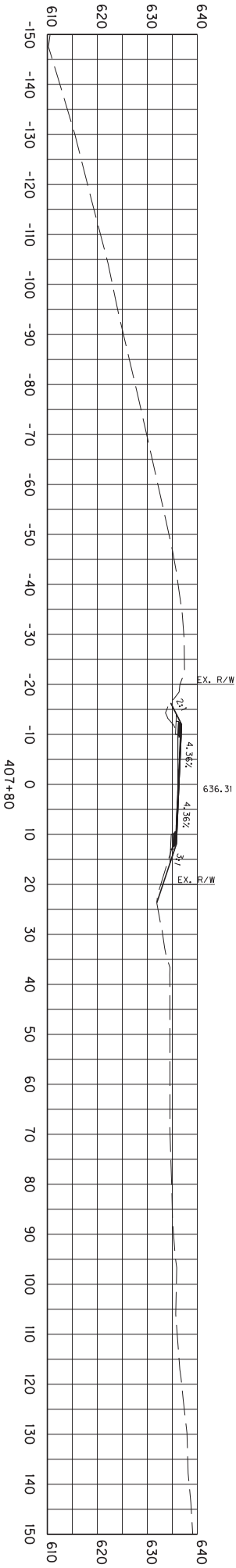
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5E

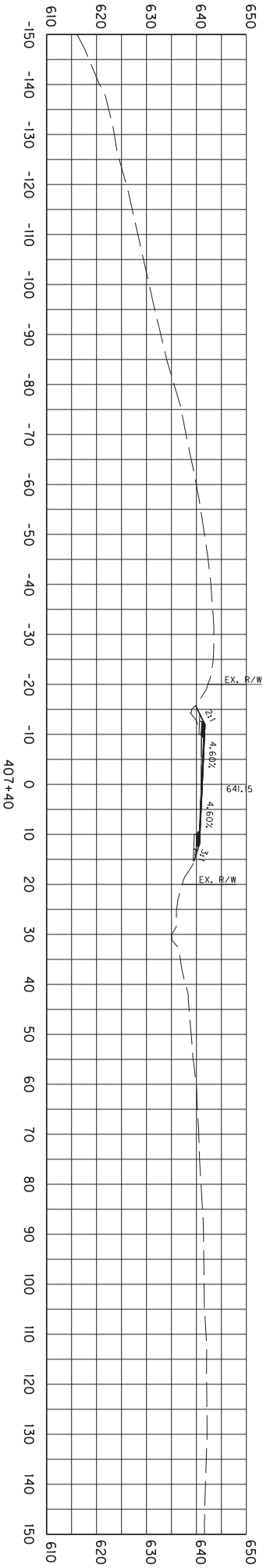
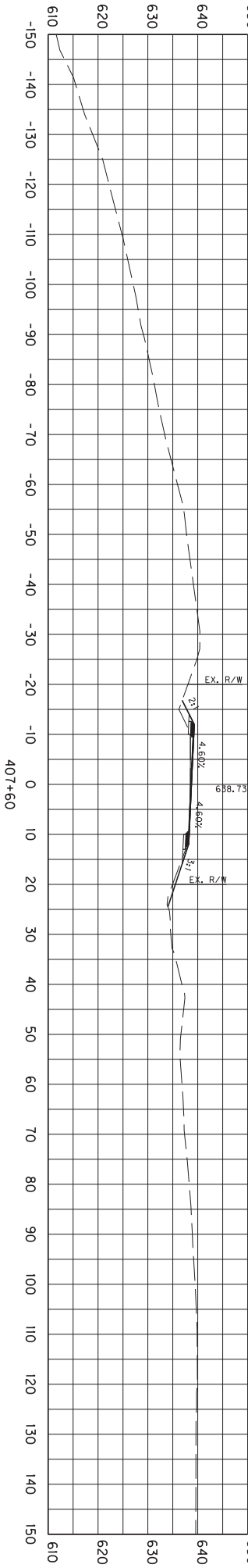
KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 406+80 TO STA. 407+20

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



Sta 407+74.95
End Full Superelevation/Begin Runoff



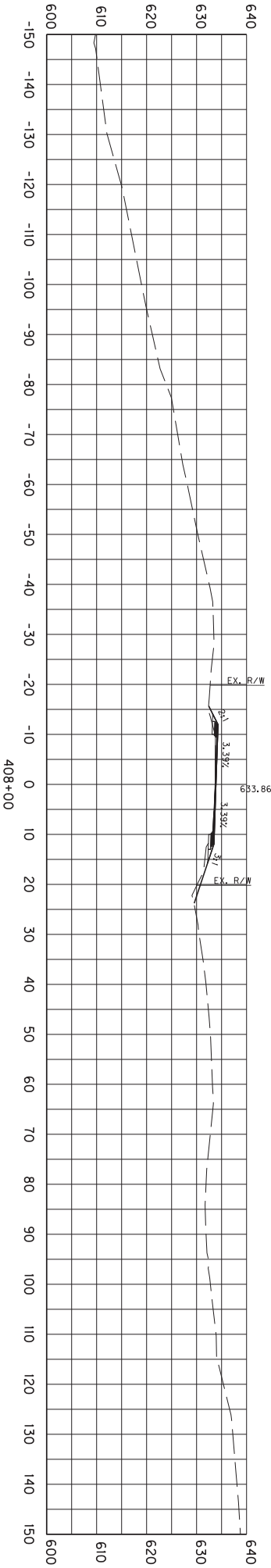
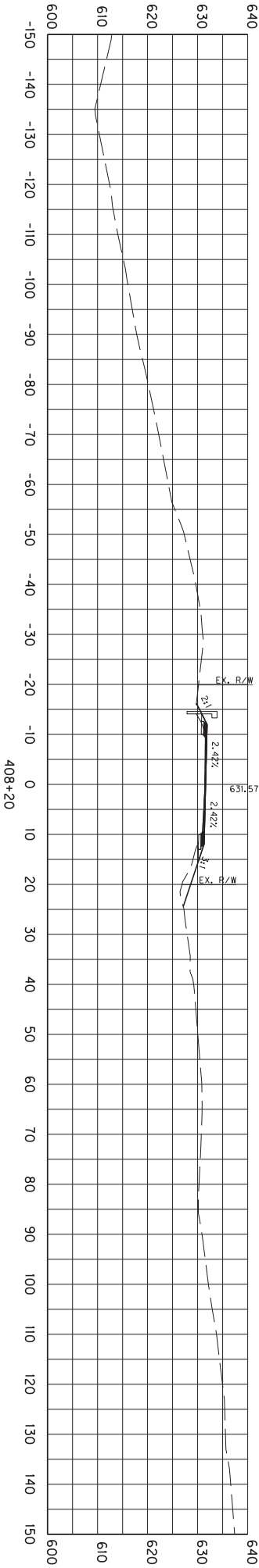
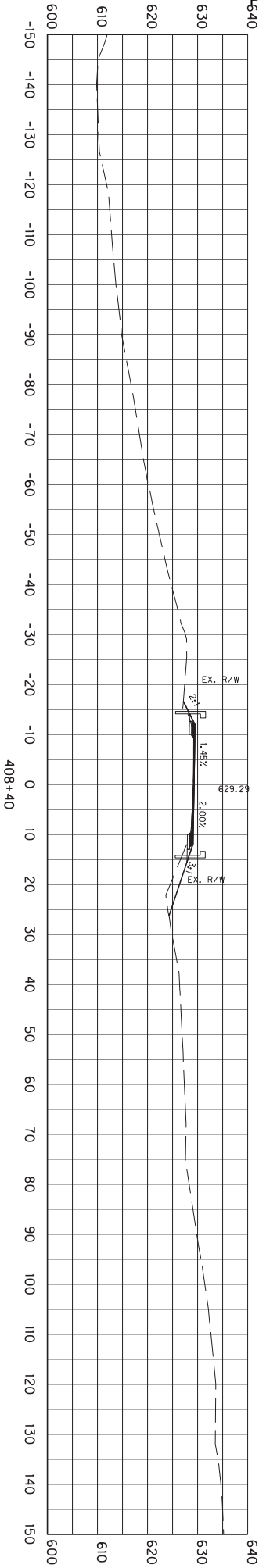
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5F

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 407+40 TO STA. 407+80

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.293)



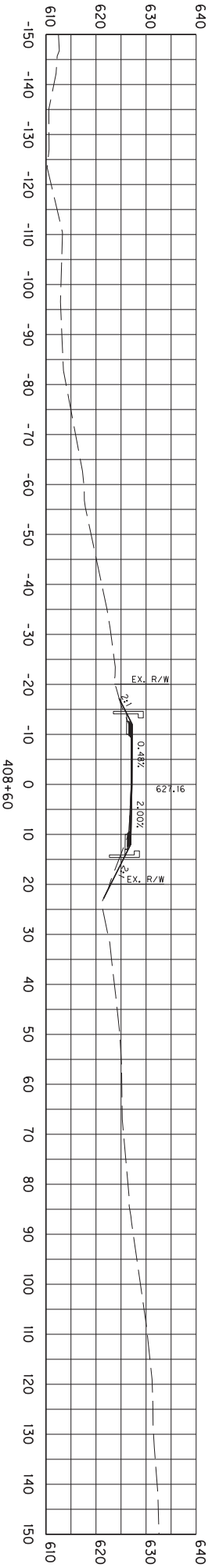
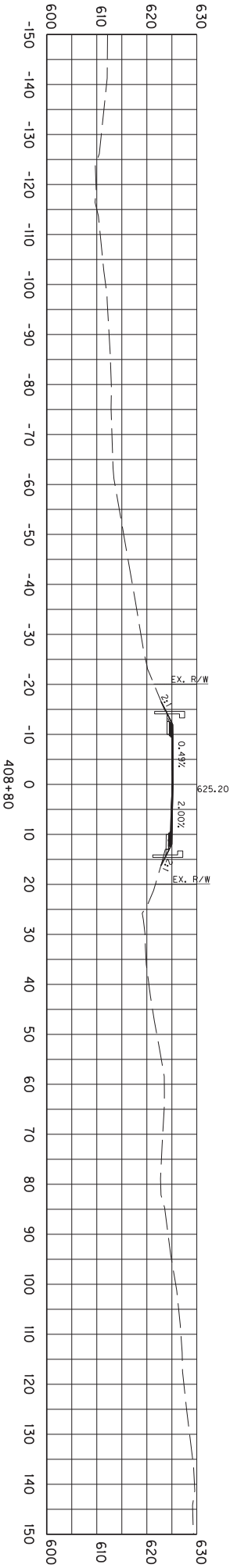
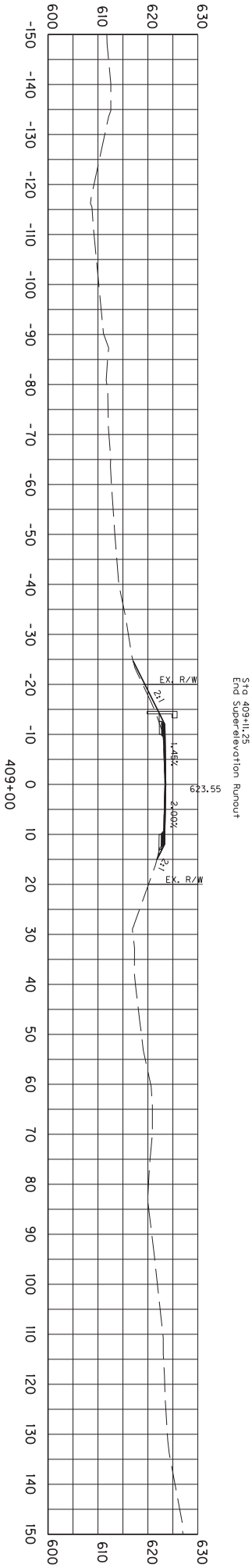
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5G

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 408+00 TO STA. 408+40

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



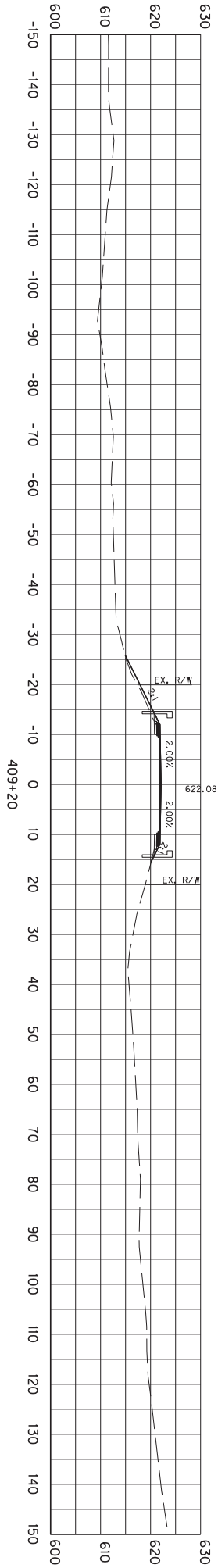
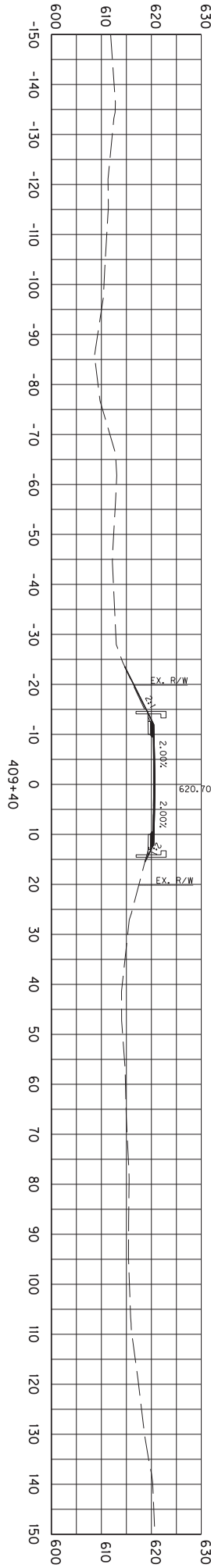
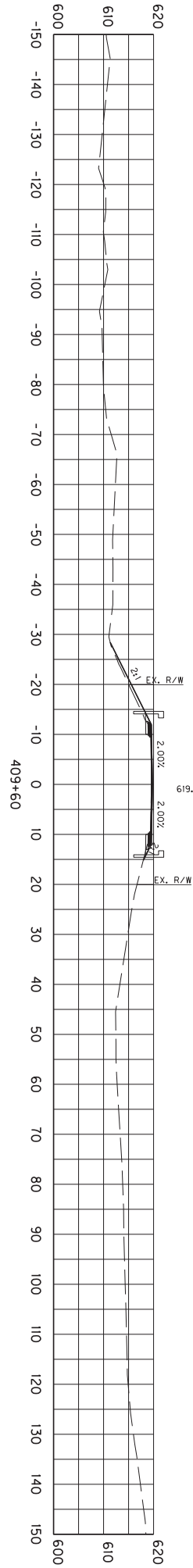
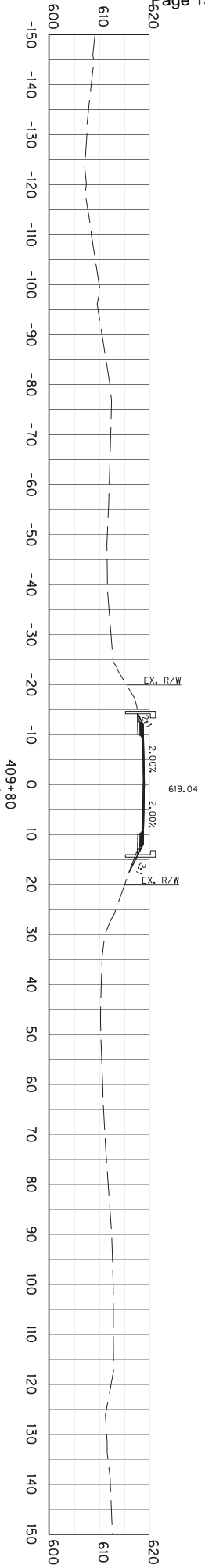
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5H

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 408+60 TO STA. 409+00

XSects for Sta 409+80 (MP 13.520) to Sta 416+50 (MP 13.299)



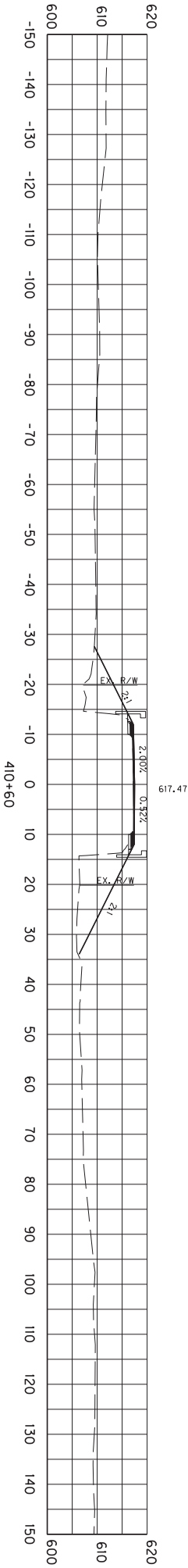
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X51

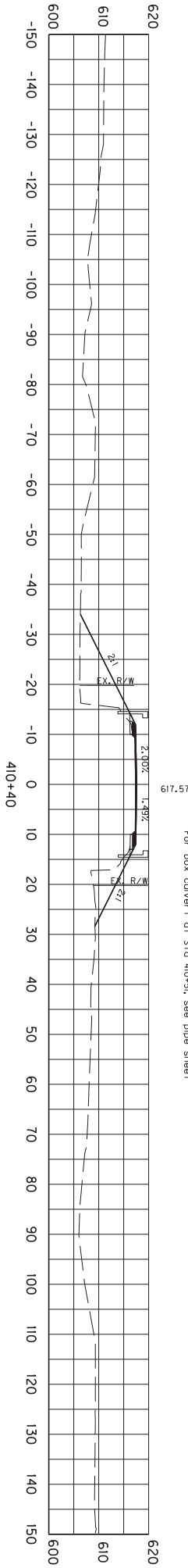
KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 409+20 TO STA. 409+80

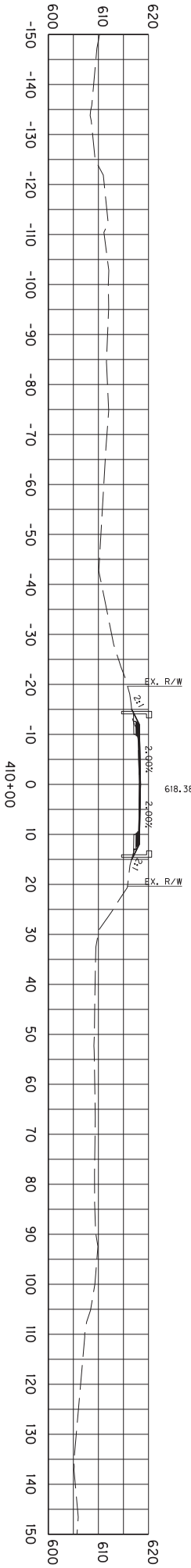
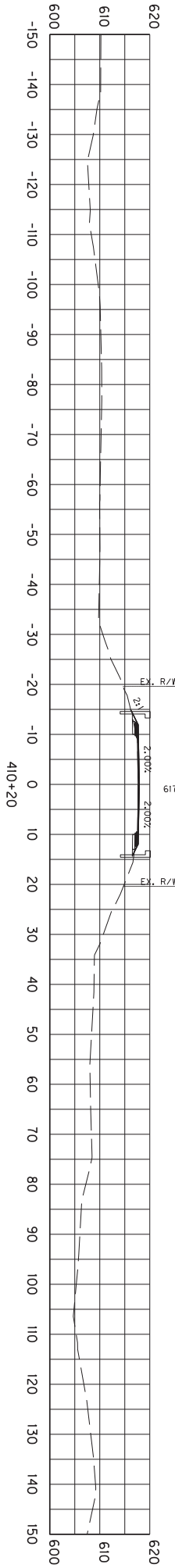
XSects for Sta 410+80 (MP 13.520) to Sta 416+50 (MP 13.259)



For box culvert at Sta 410+51, see pipe sheet



Sta 410+25.39
Begin Super-elevation Runout



HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5J

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 410+00 TO STA. 410+60



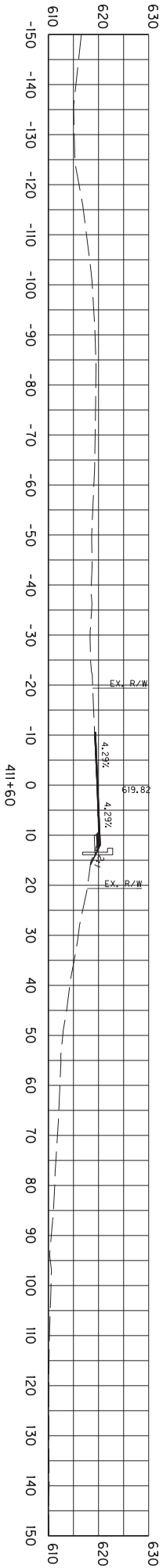
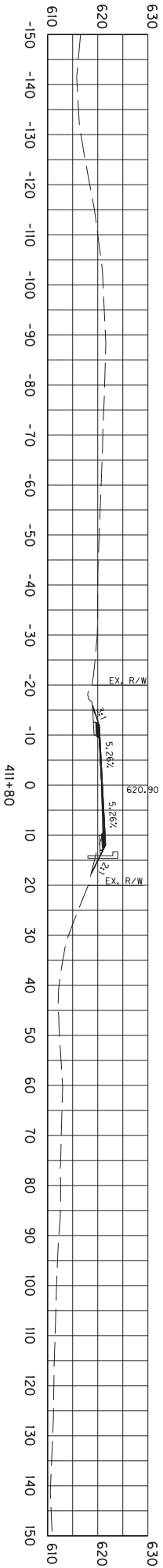
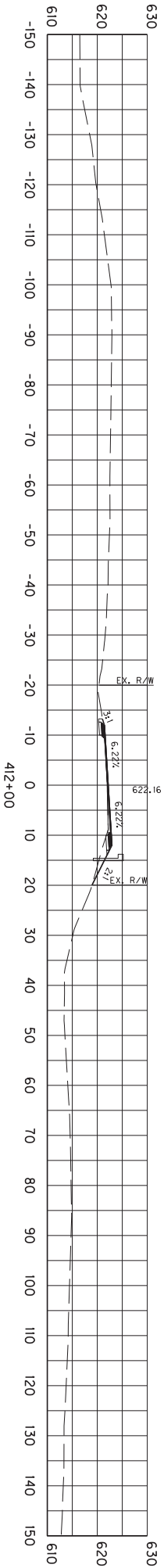
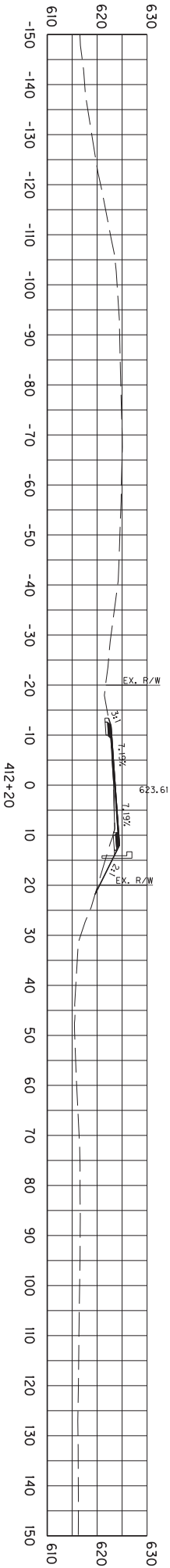
HOR, VERT SCALE: 1"=30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5K

14 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 410+80 TO STA. 411+40

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



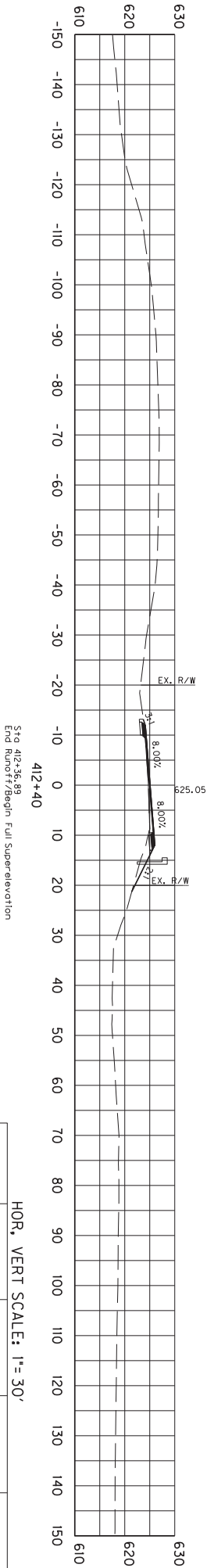
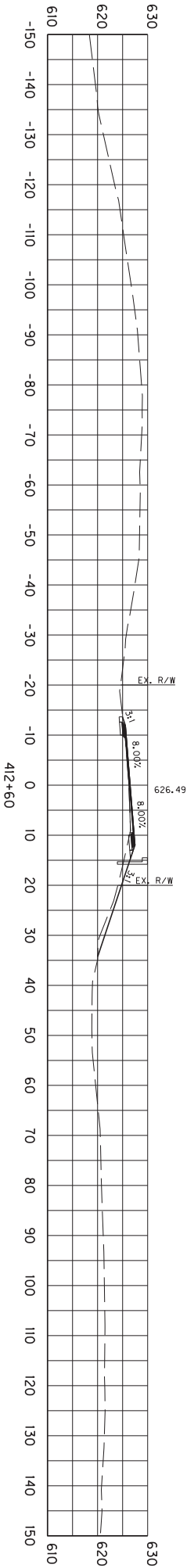
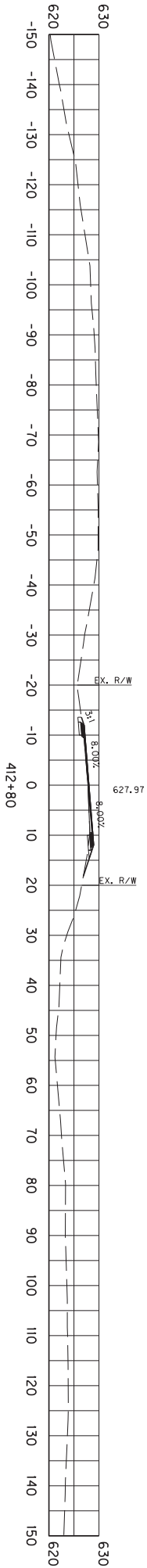
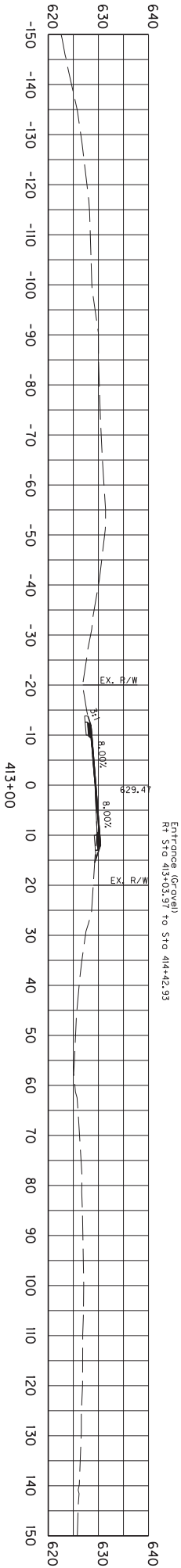
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5L

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 411+60 TO STA. 412+20

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



Sta 412+36.89
End Runoff/Begin Full Super-elevation

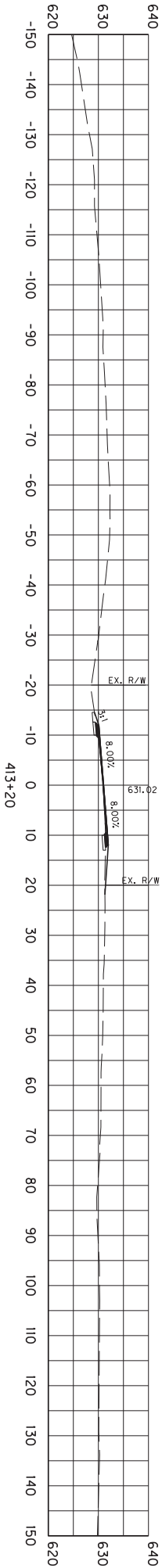
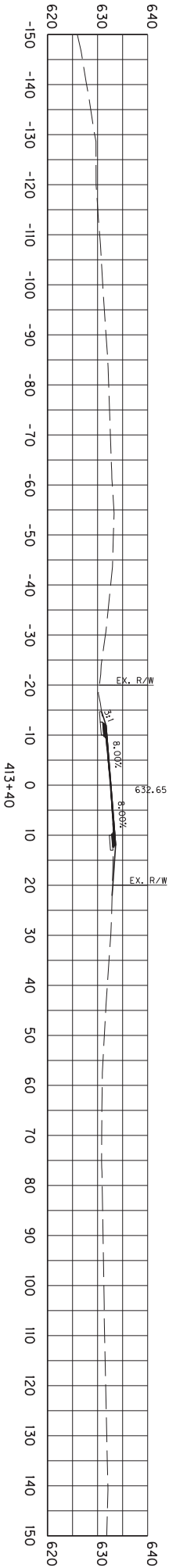
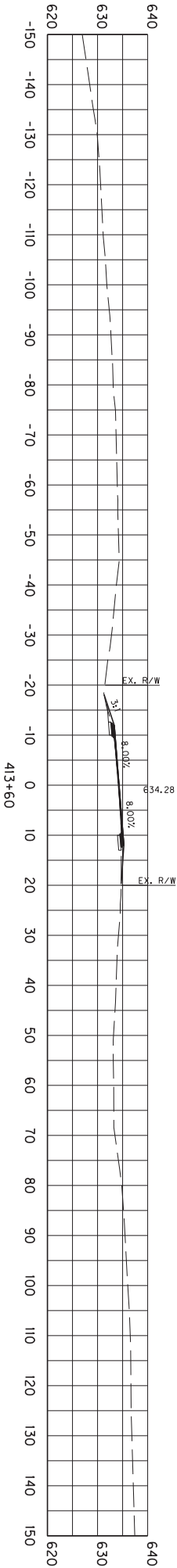
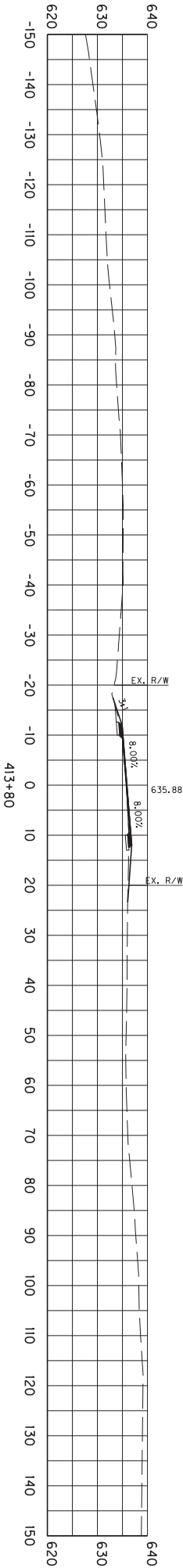
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5M

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 412+40 TO STA. 413+00

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



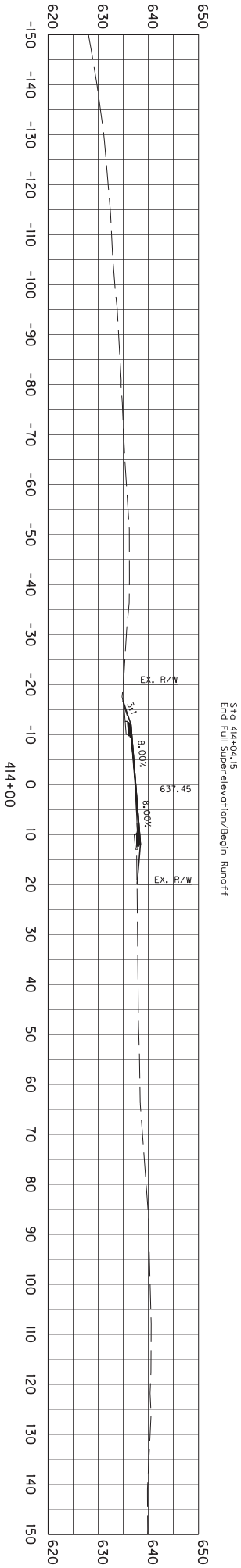
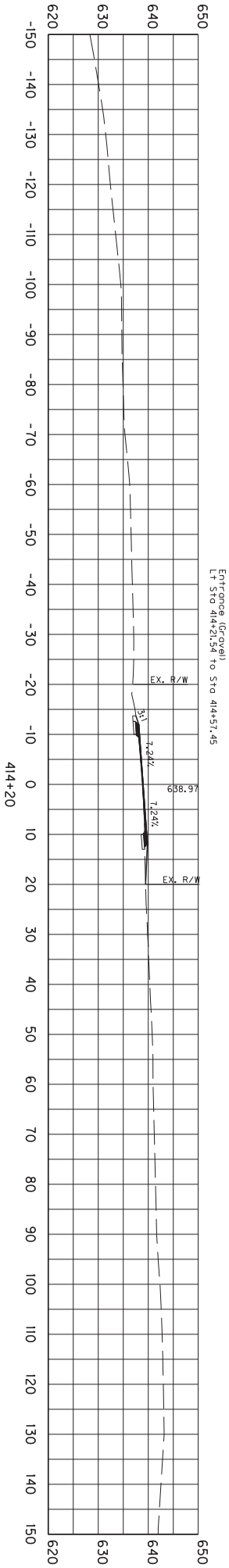
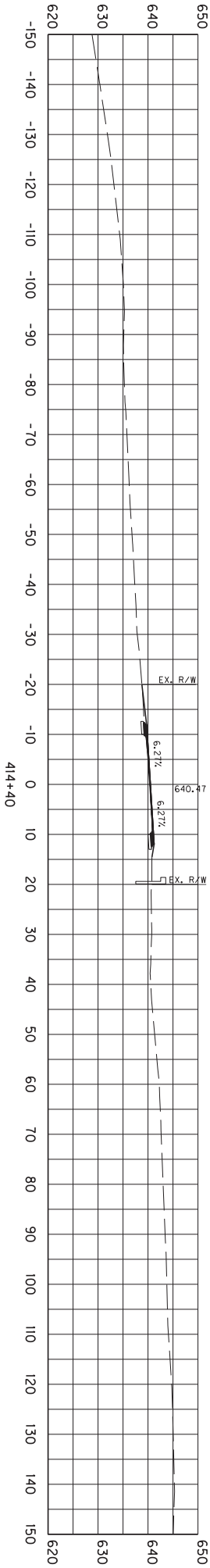
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5N

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 413+20 TO STA. 413+80

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



Sta 414+04.15
End Full Superelevation/Begin Runoff

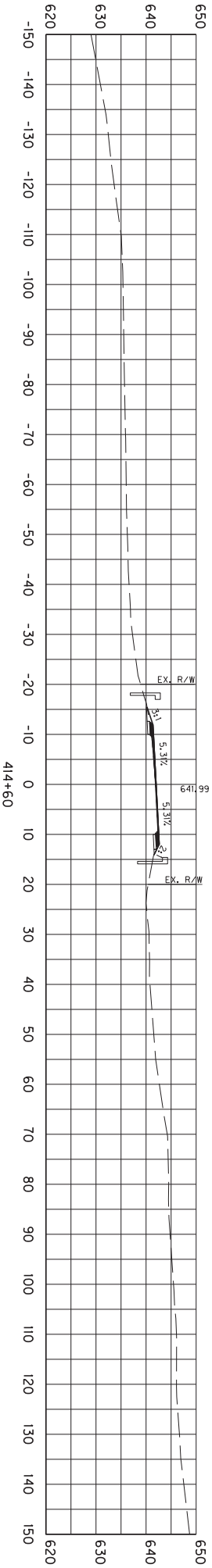
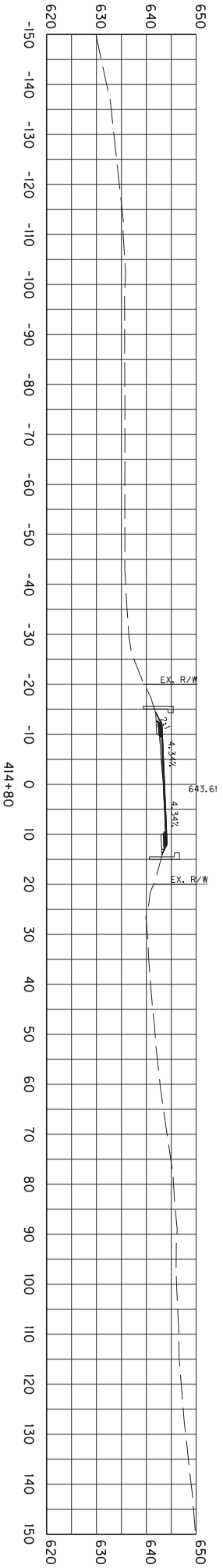
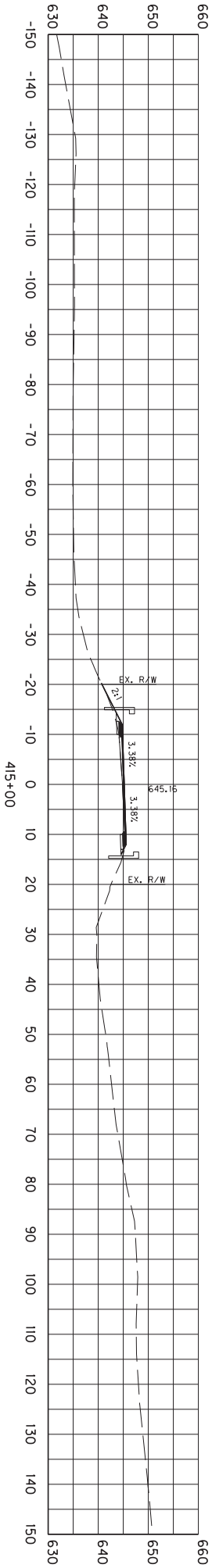
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X50

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 414+00 TO STA. 414+40

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



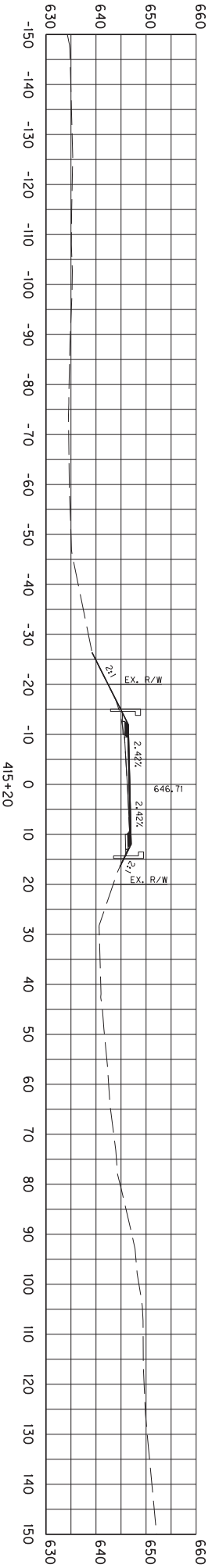
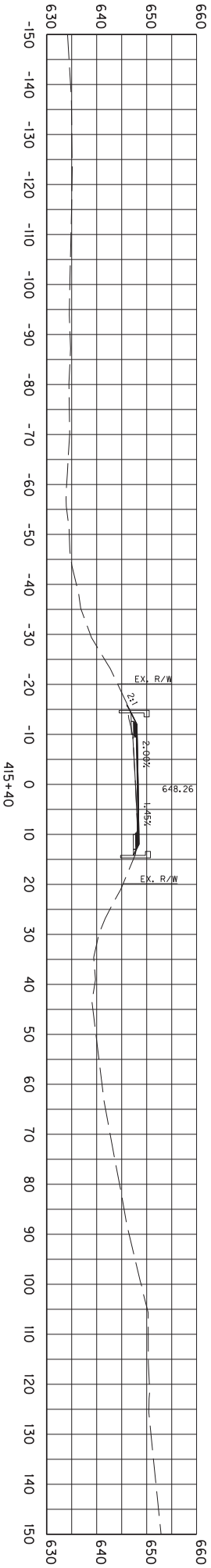
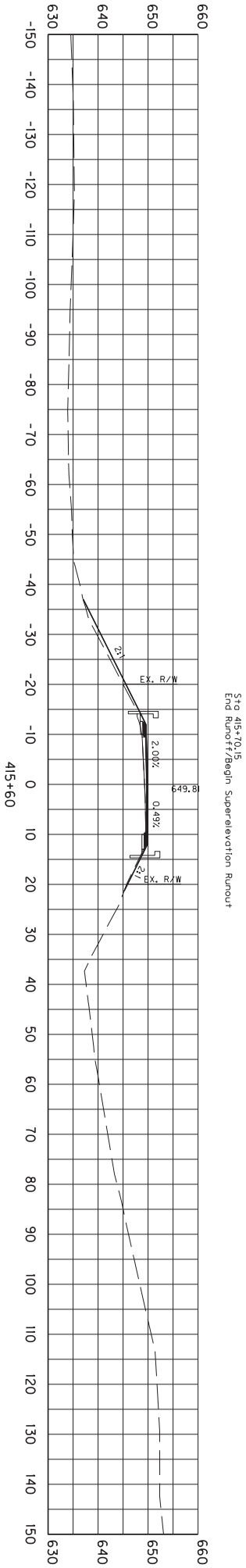
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5P

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 414+60 TO STA. 415+00

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



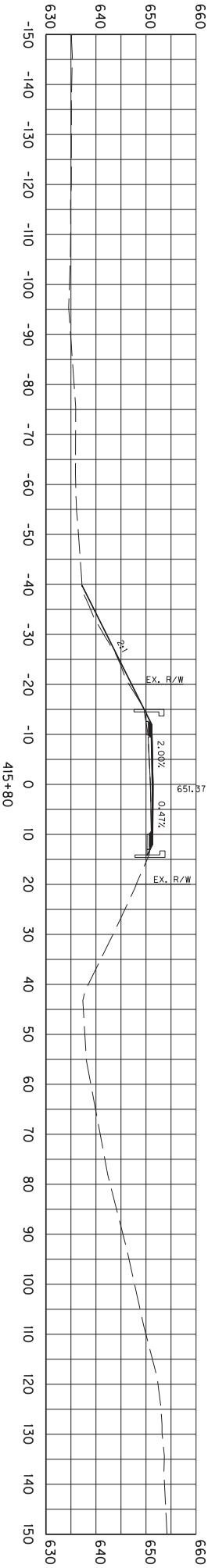
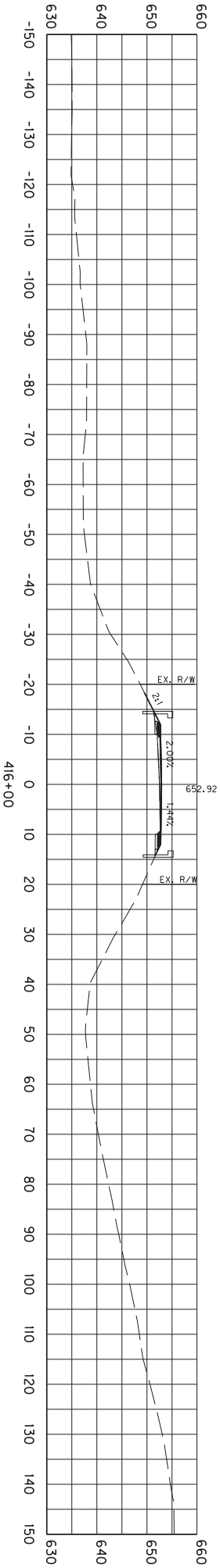
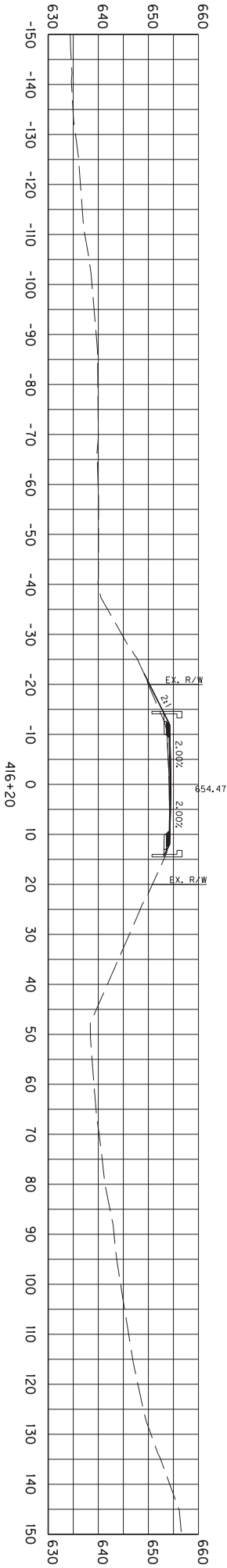
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5Q

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 415+20 TO STA. 415+60

XSects for Sta 404+80 (MP 13.520) to Sta 416+50 (MP 13.299)



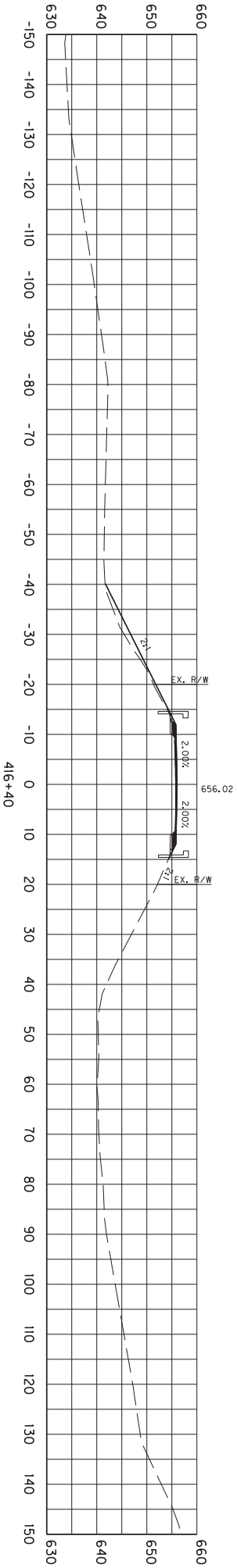
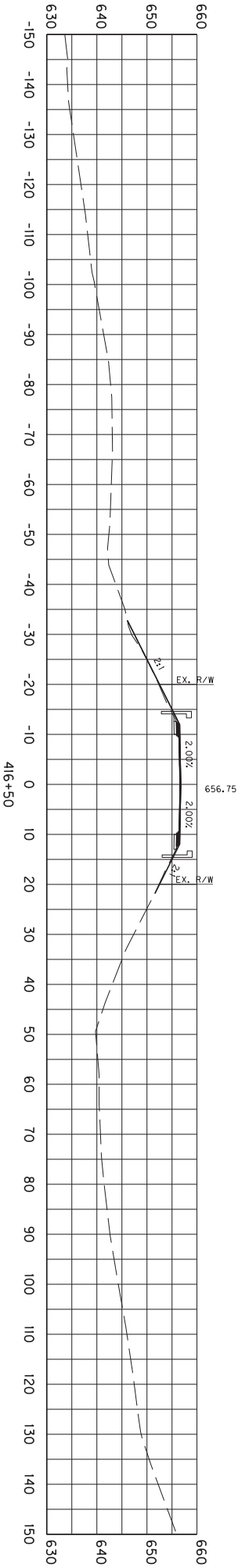
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X5R

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 415+80 TO STA. 416+20

Sta 416+50 (MP 13.299)
End Widening & Super-elevation Correction

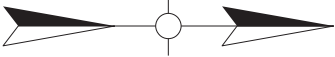


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X55

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 416+40 TO STA. 416+50



SHEET SUMMARY - PAVING

ASPH BASE	CSB
SY TONS	SY TONS
SH 73 24	SH 73 *41

*Include 16 Tons
for Full Depth Shoulders

SHEET SUMMARY - GENERAL

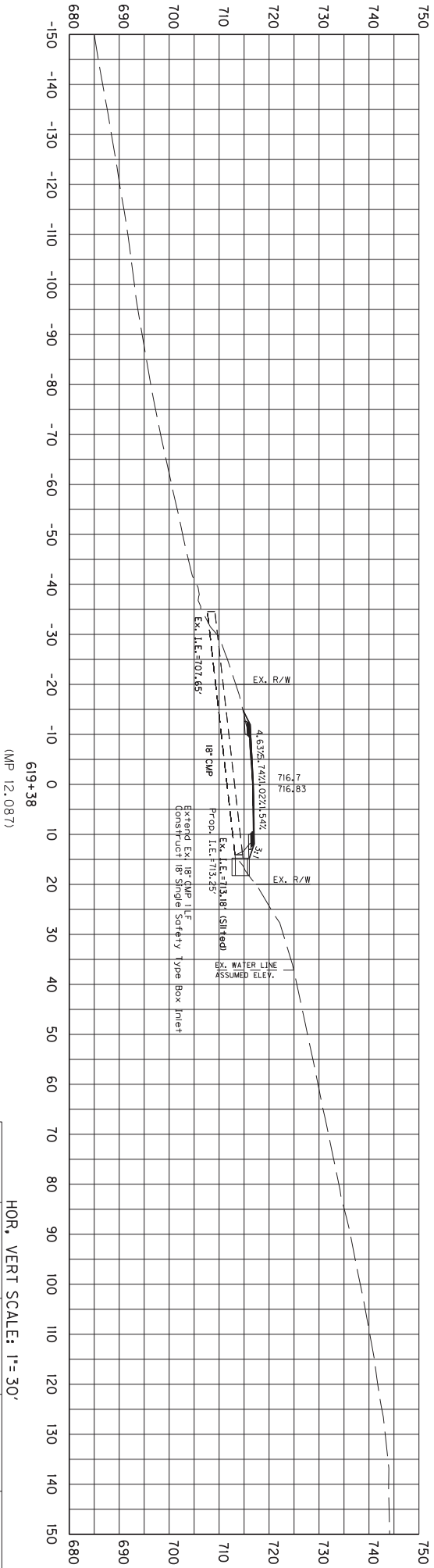
18 IN RCP	SAFETY BOX INLET 18 IN	DITCHING	GRAN EMB	CLEAN PIPE	CL II CHNL LNG
LF	EACH	LF	CY	EACH	TON
1	1	200	98	1	3

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R6

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 12.087
Sta 619+38
18" CMP



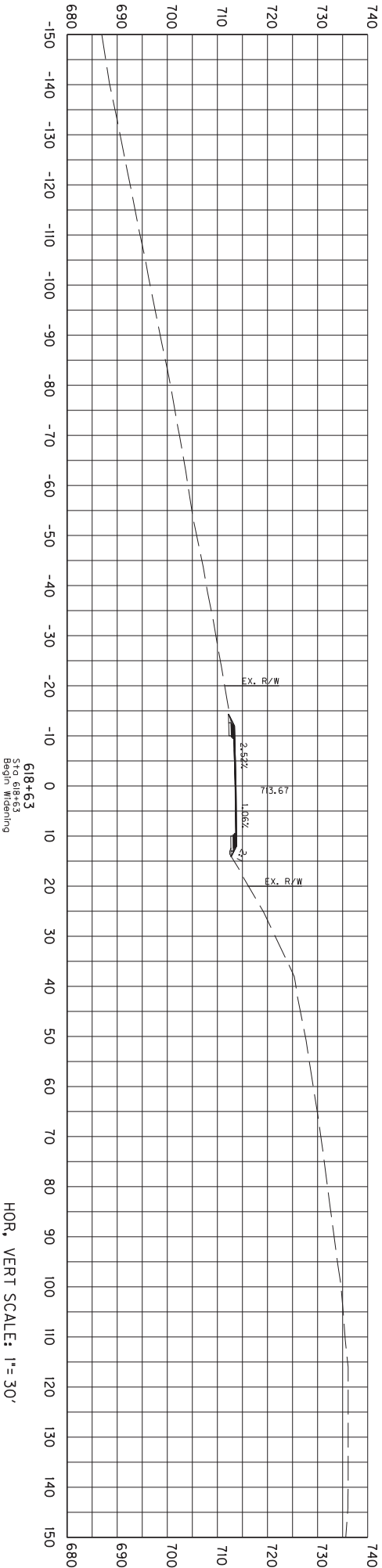
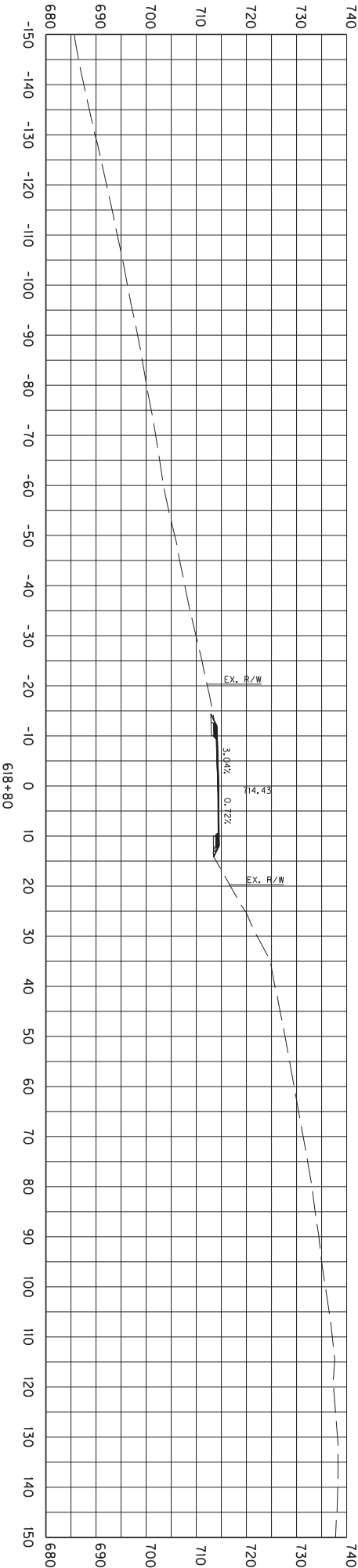
619+38
(MP 12.087)

HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS6A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 619+38 TO STA. 619+38

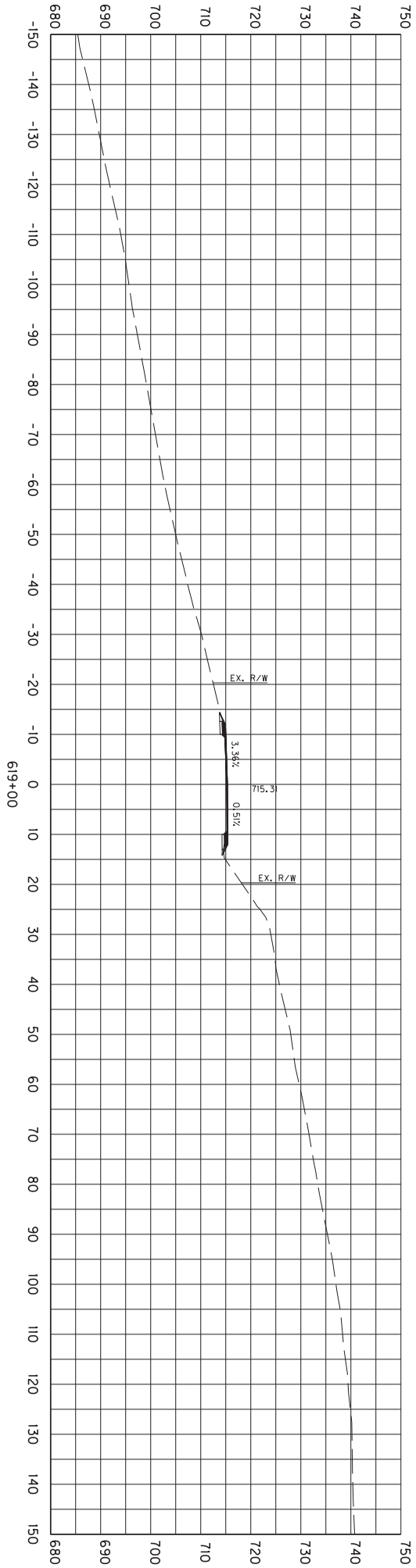
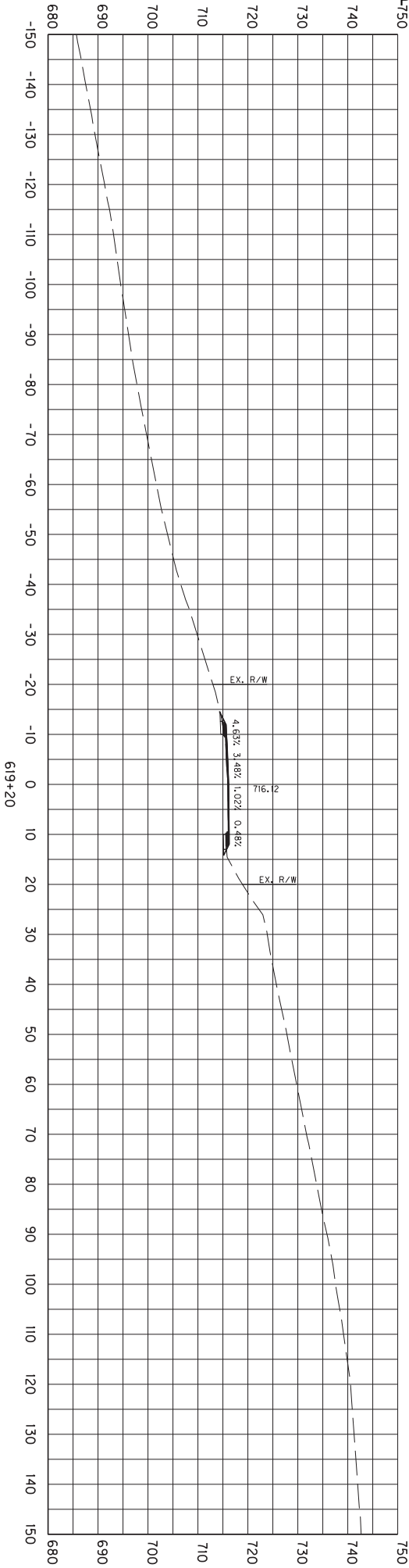


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X6B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 618+63 TO STA. 618+80

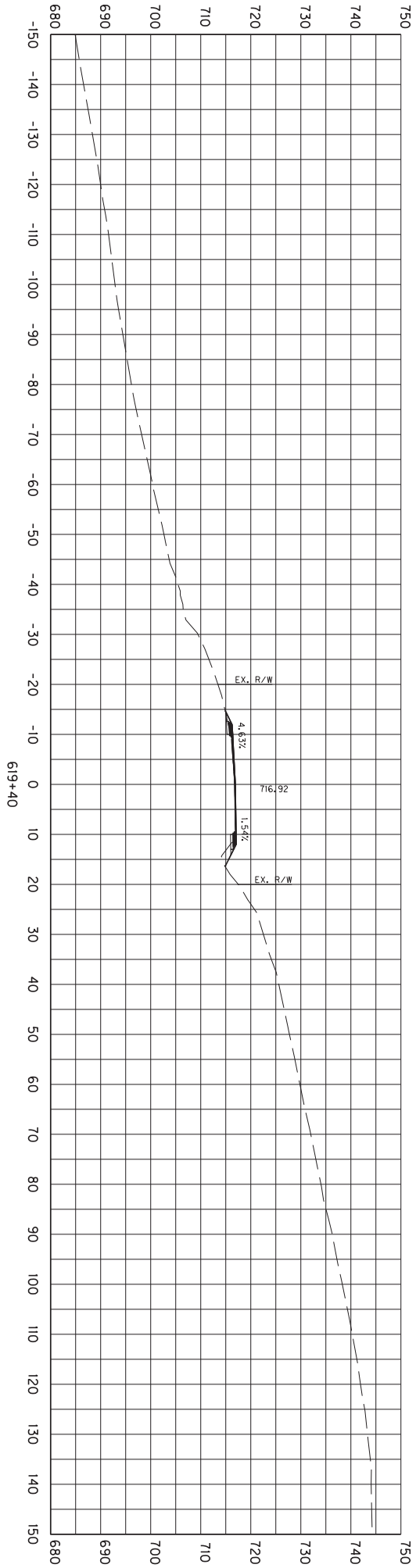
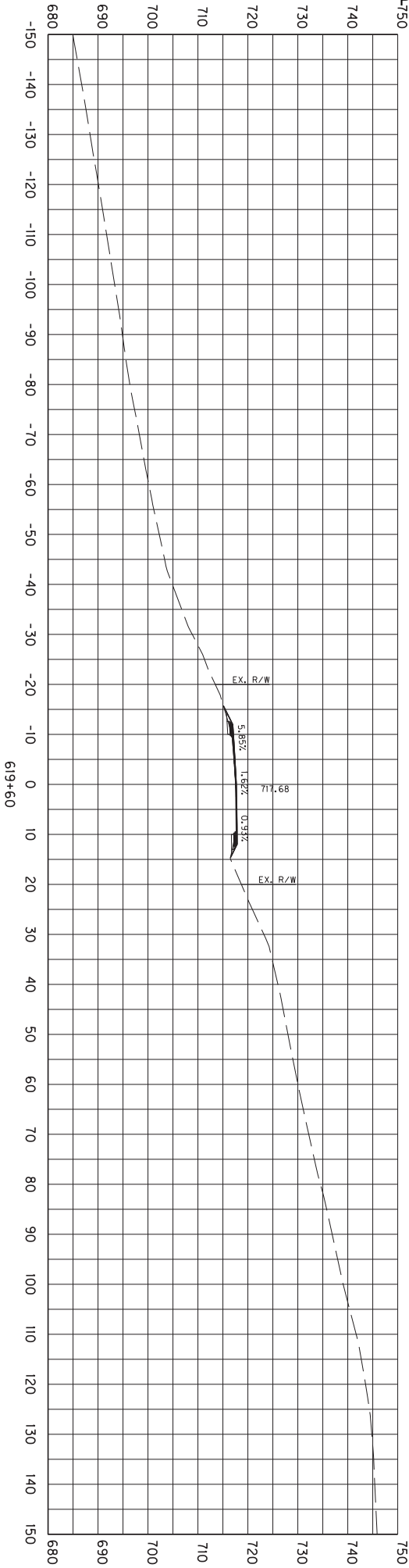


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X6C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 619+00 TO STA. 619+20

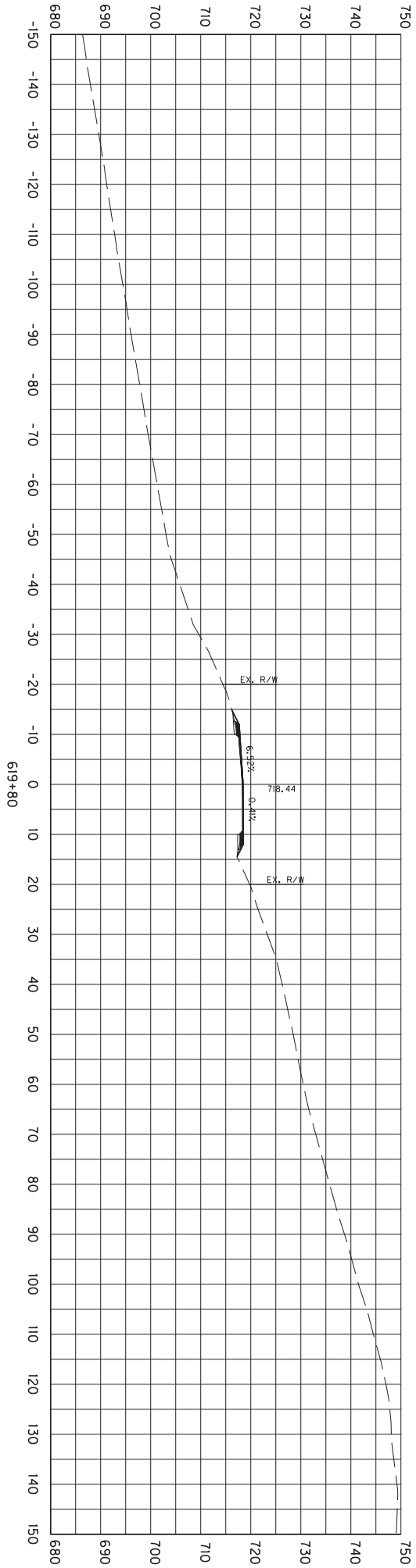
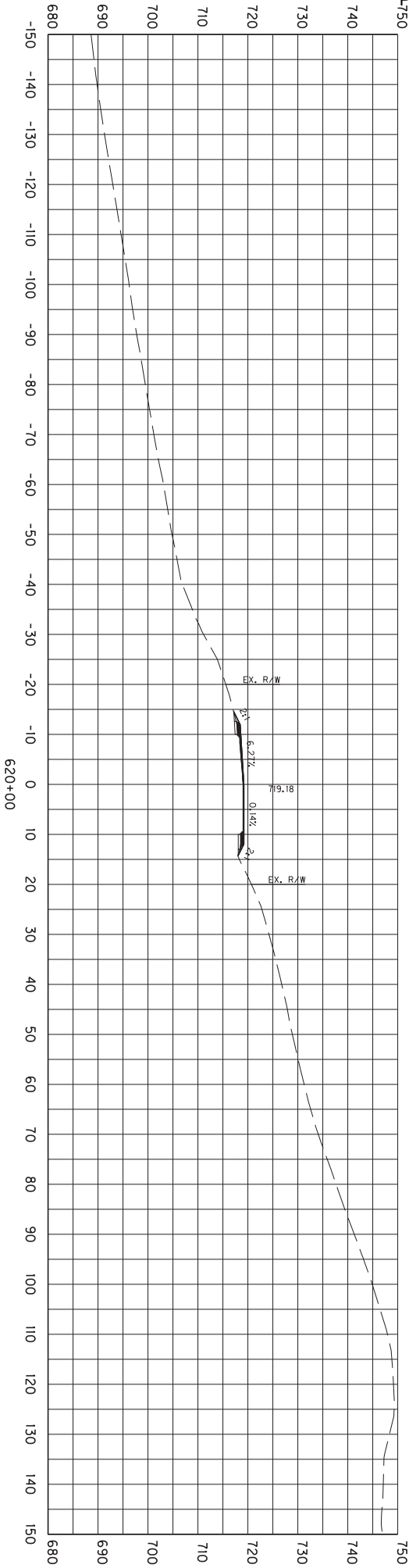


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X6D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 619+40 TO STA. 619+60

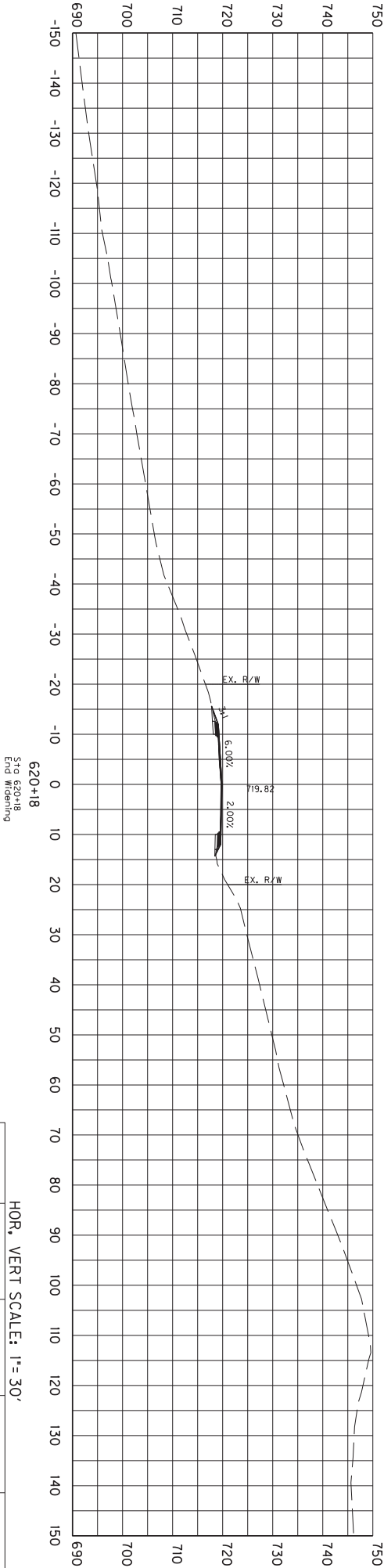


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X6E

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 619+80 TO STA. 620+00

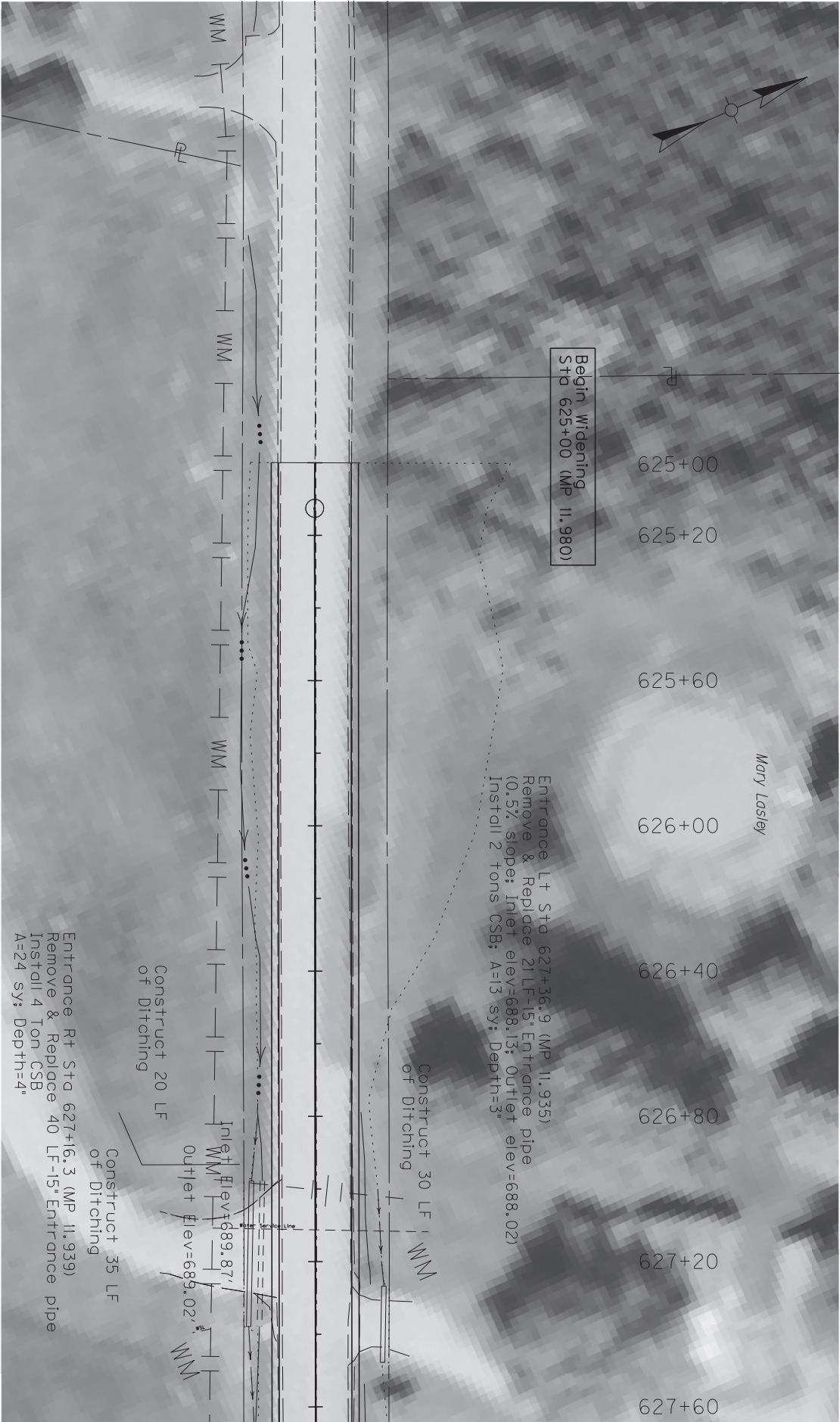


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X6F

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 620+18 TO STA. 620+18



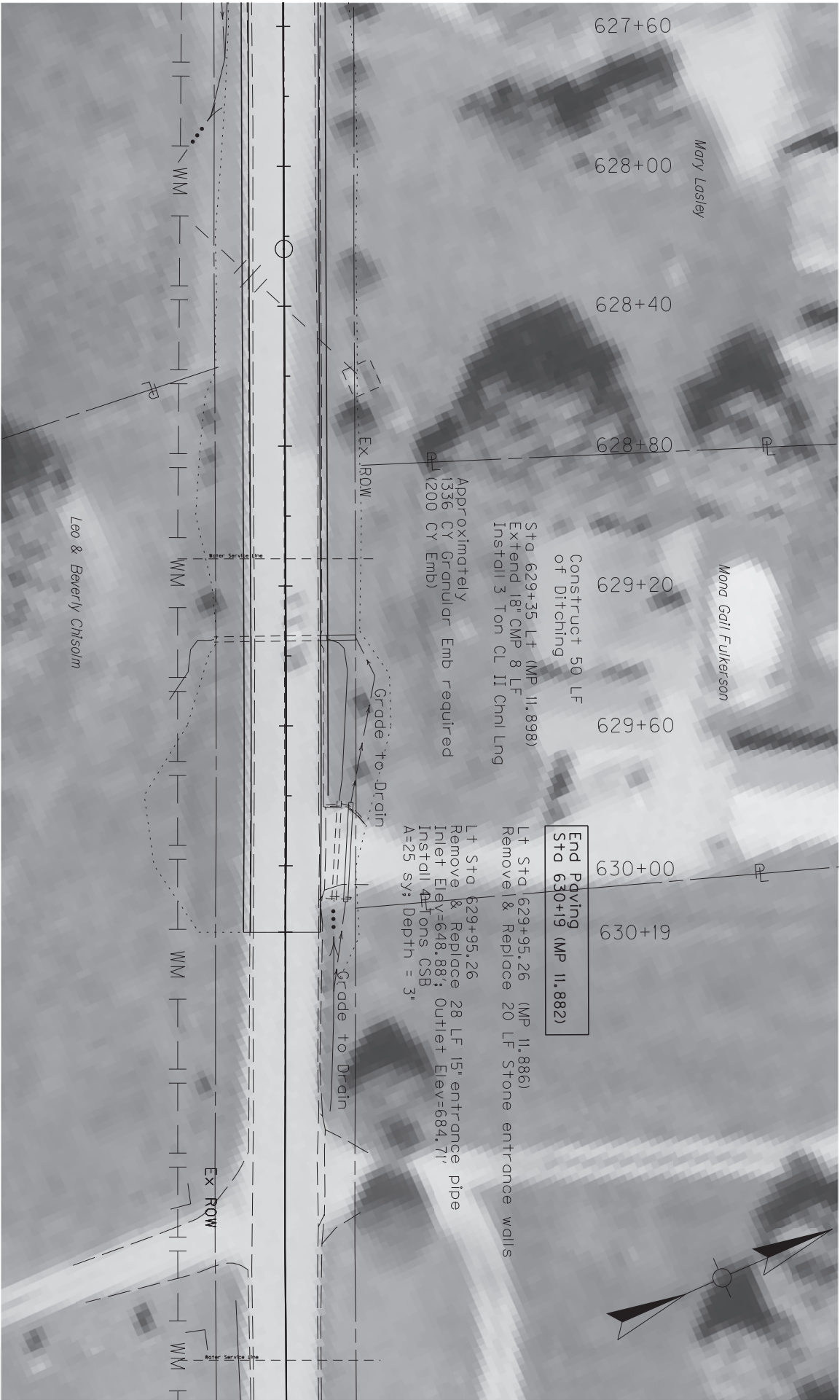
SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
Grayson	4-9007	R7

KY 1214 GRAYSON SPRINGS RD

PLAN SHEET

Slope Correction & Widening
STA 625+00 TO STA 627+60



SHEET SUMMARY - PAVING					
ASPH BASE			CSB		
SY	TONS		SY	TONS	
SH 224	37		SH 224	*160	

*Include 83 Tons
for Full Depth Shoulders

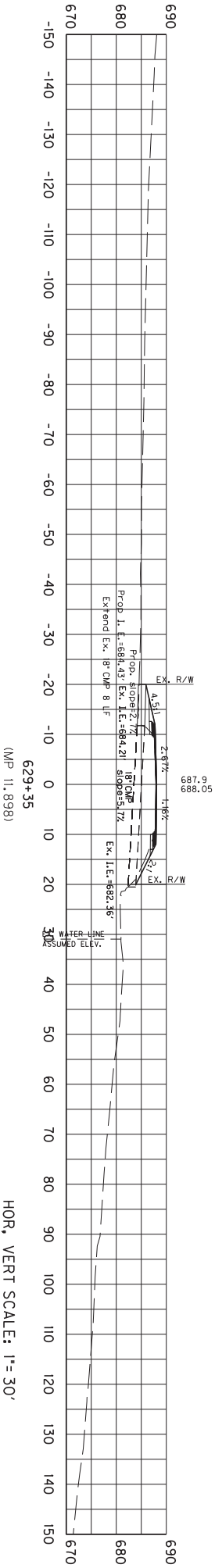
SHEET SUMMARY - GENERAL					
15 IN ENT PIPE		18 IN RCP		REMOVE PIPE	
LF		LF		LF	
89		8		89	
STONE ENTRANCE WALL		DITCHING		GRAN EMB	
LF		LF		CY	
20		160		1336	
CSB (ENTR)		CL II CHNL LNG		TONS	
TONS		TONS		TONS	
10		3			

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Slope Correction & Widening
STA 627+60 TO STA 630+19

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R8

SCALE: 1" = 40'

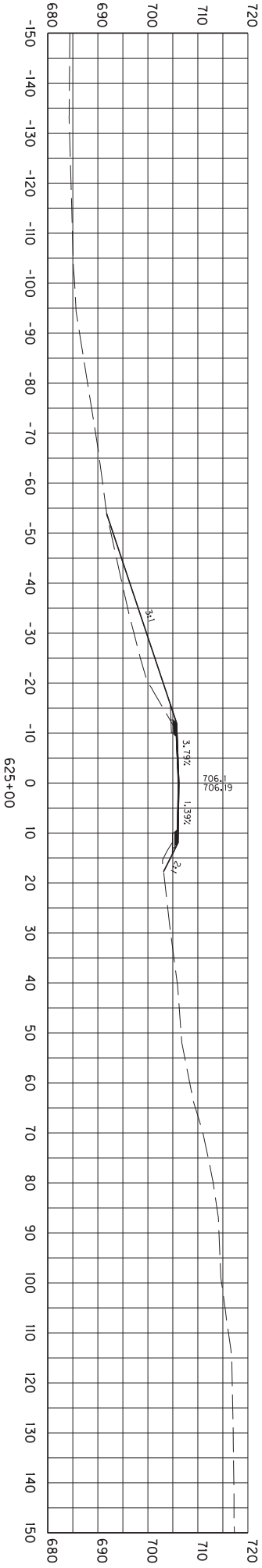
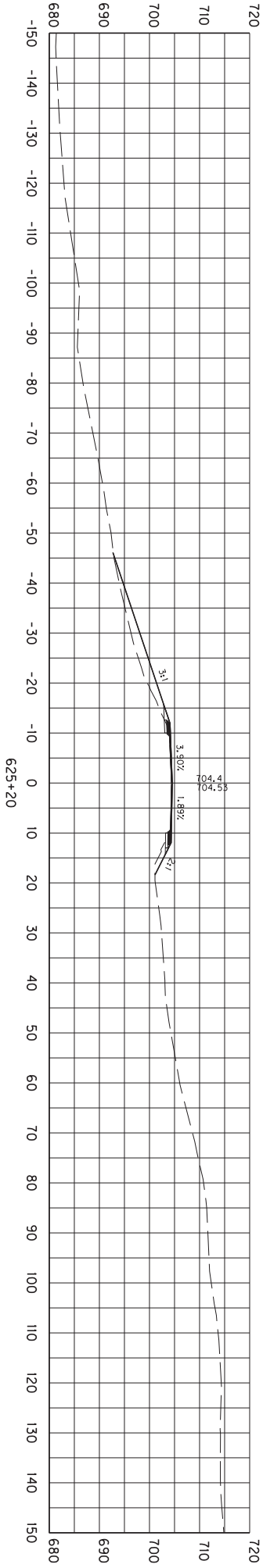


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS8A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 629+35 TO STA. 629+35

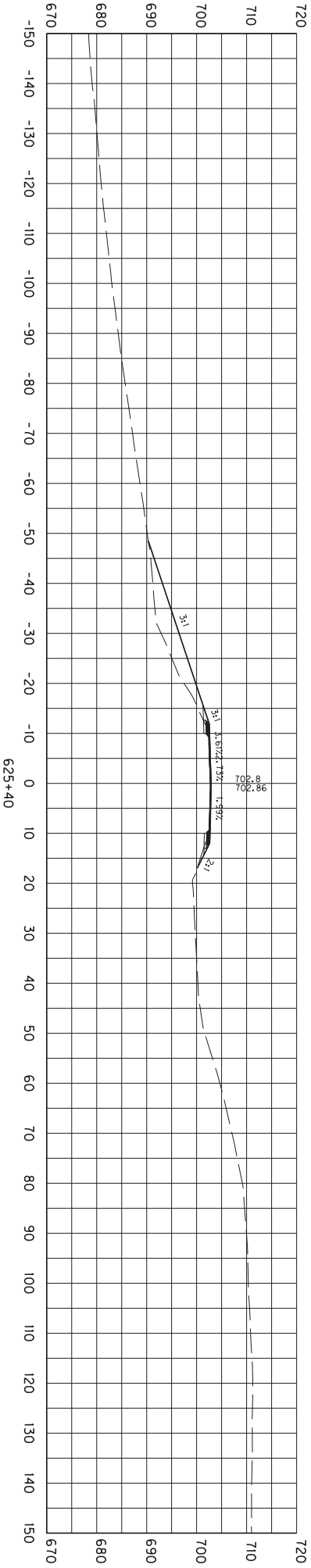
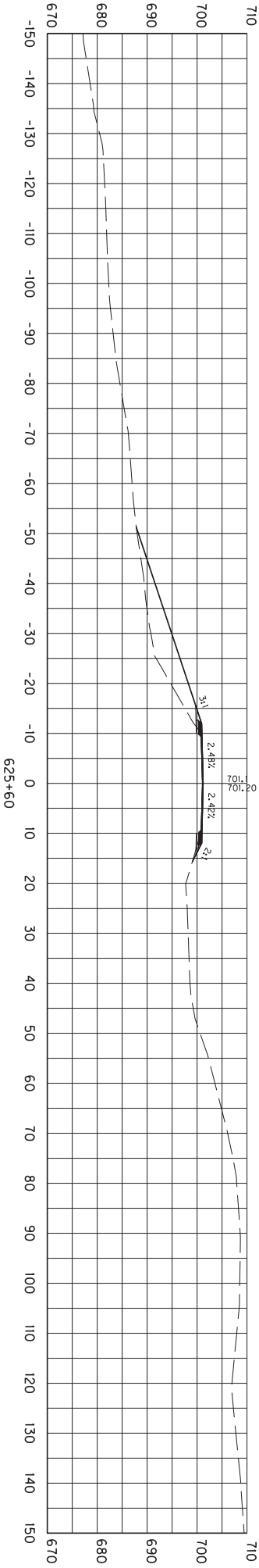


SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X88

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 625+00 TO STA. 625+20

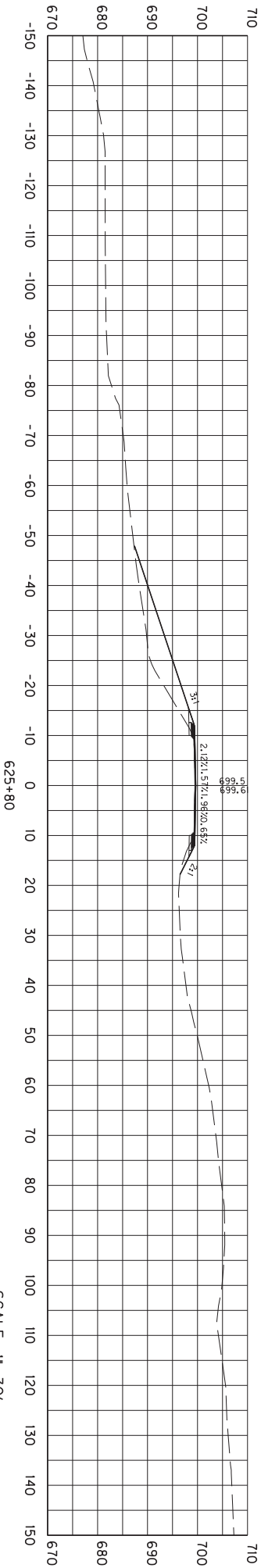
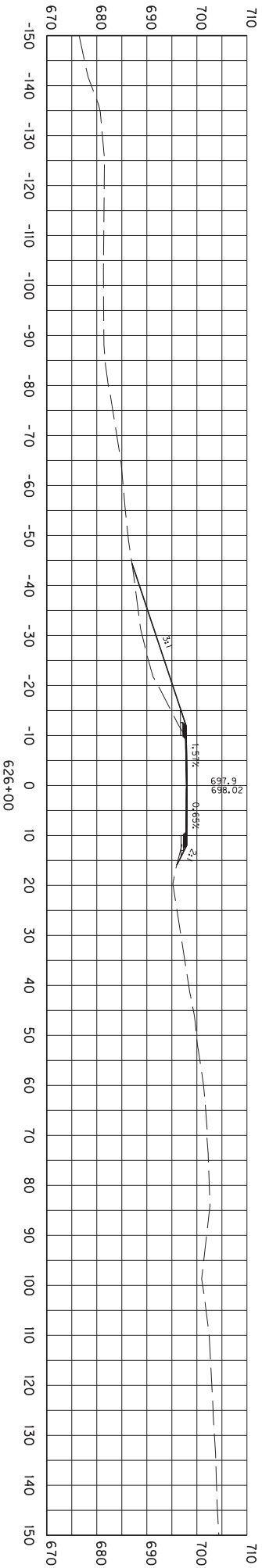
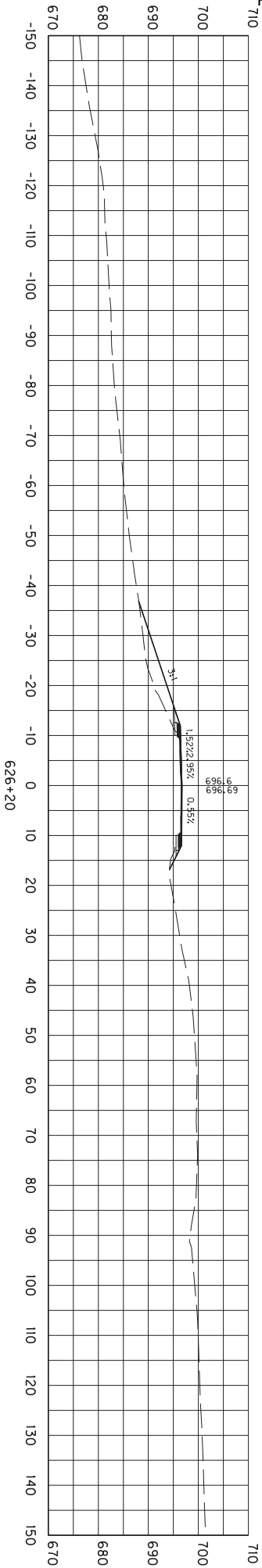


SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X8C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 625+40 TO STA. 625+60



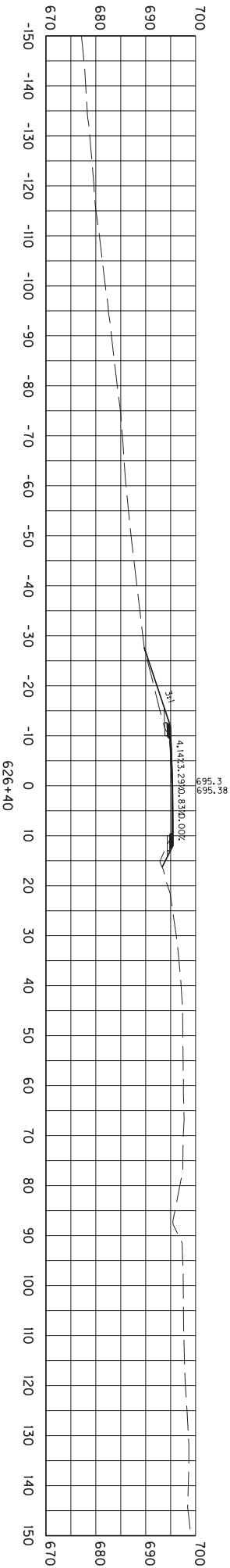
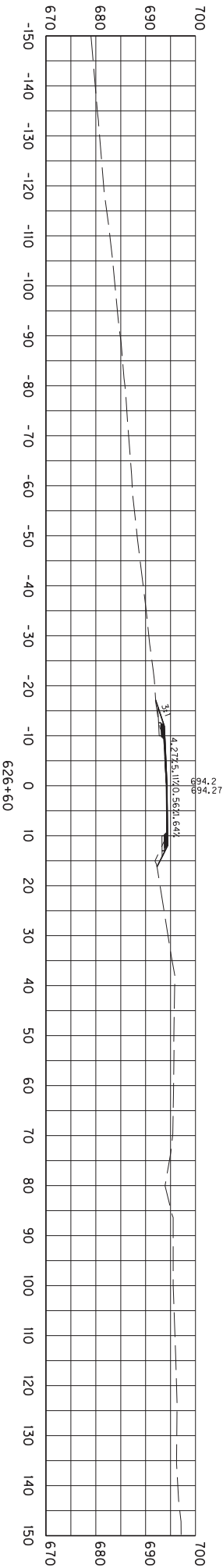
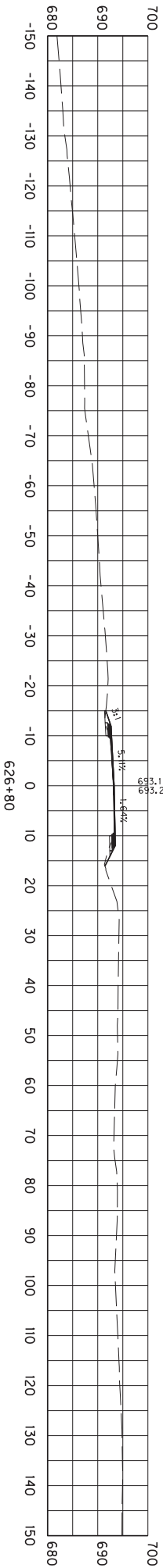
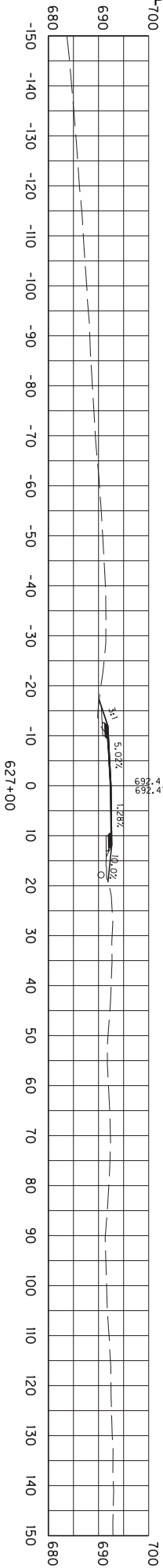
SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X8D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 625+80 TO STA. 626+20

Rt Sta 627+16.3 (WP 11.939)
CSB Entrance with 40 LF-15" Entrance pipe

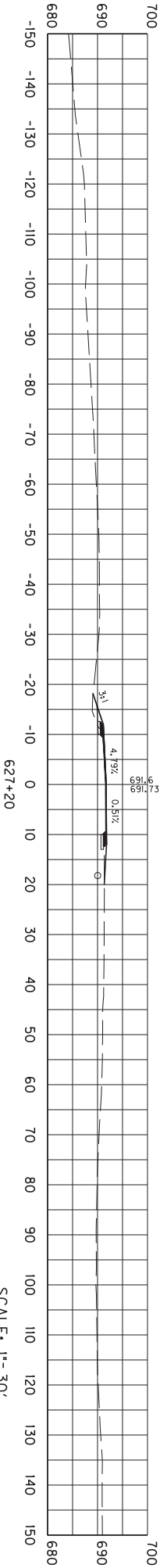
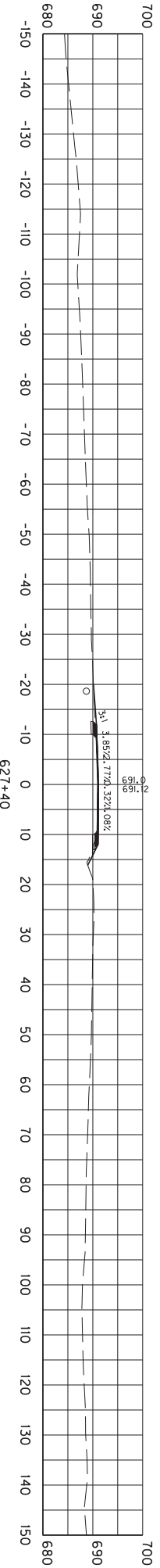
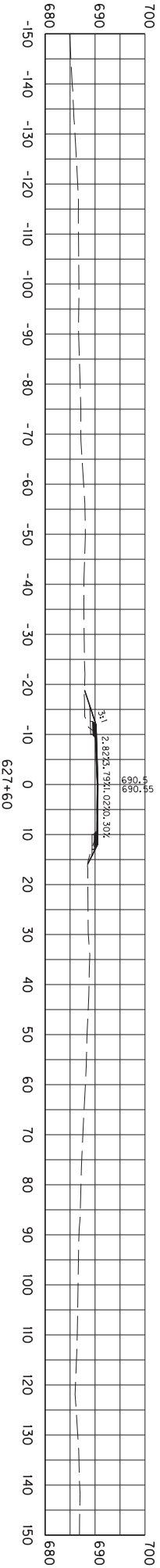
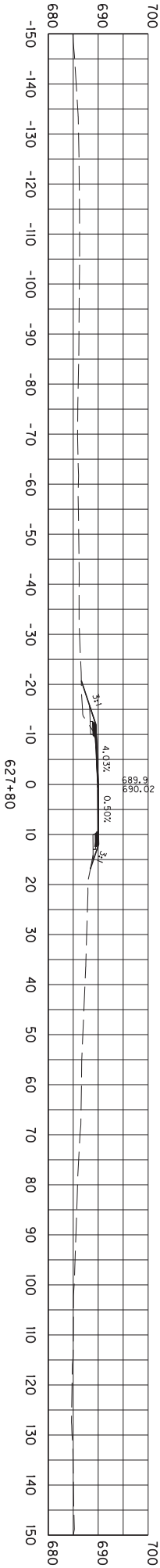


SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X8E

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 626+40 TO STA. 627+00



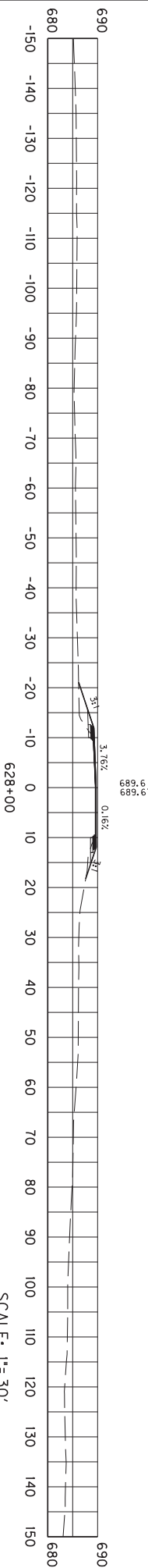
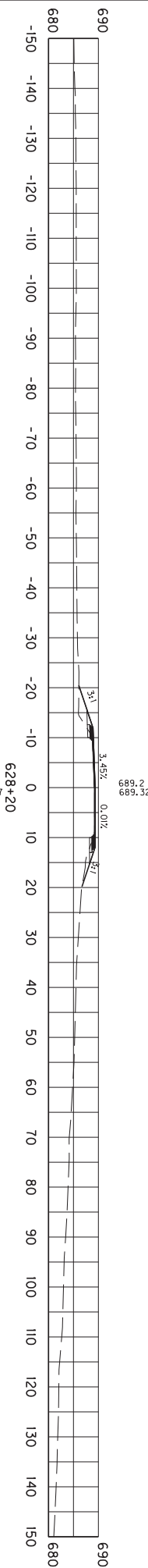
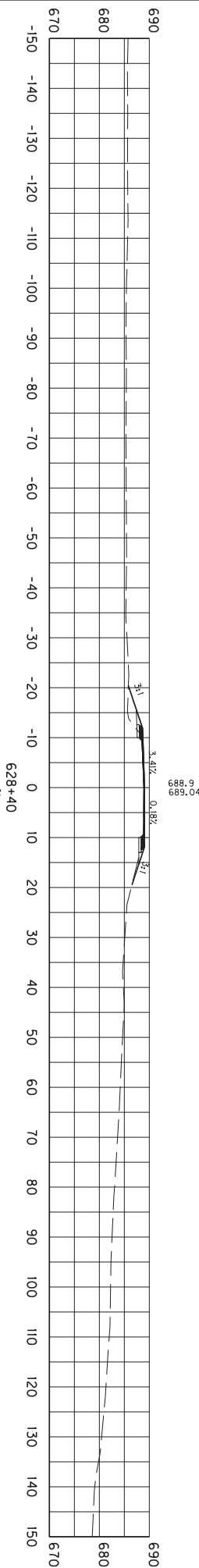
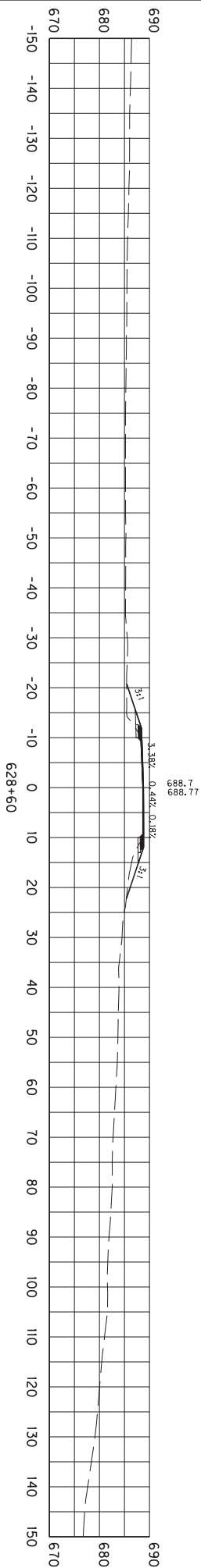
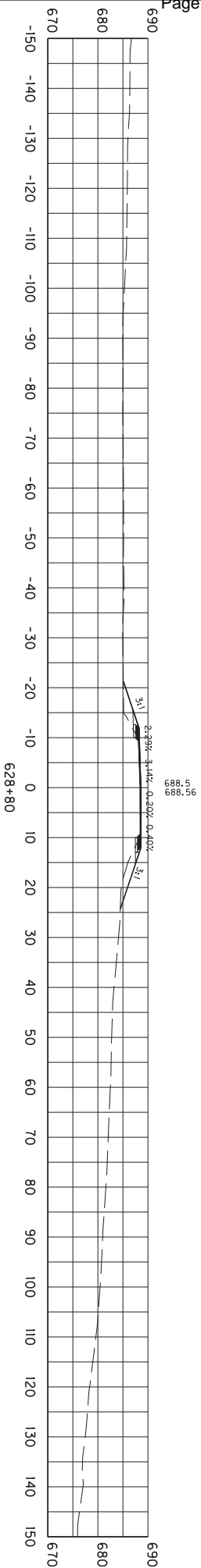
Lt Sta 627+36.9 (WP 11.935)
CSB Entrance with 21LF-15 Entrance pipe

SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X8F

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 627+20 TO STA. 627+80

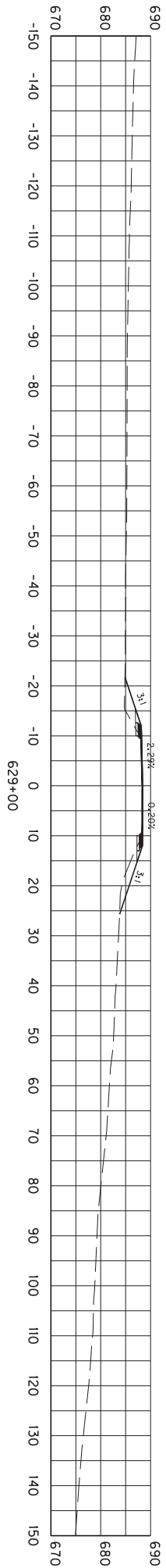
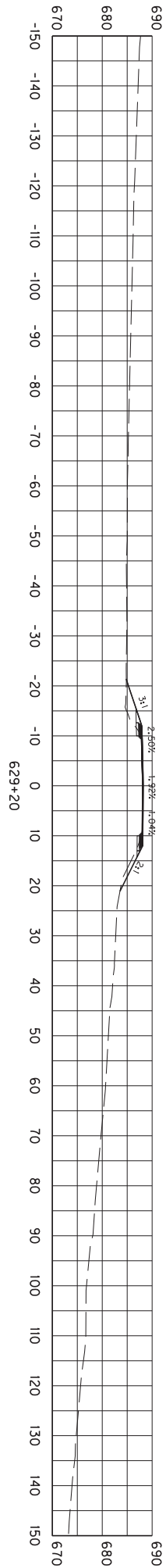
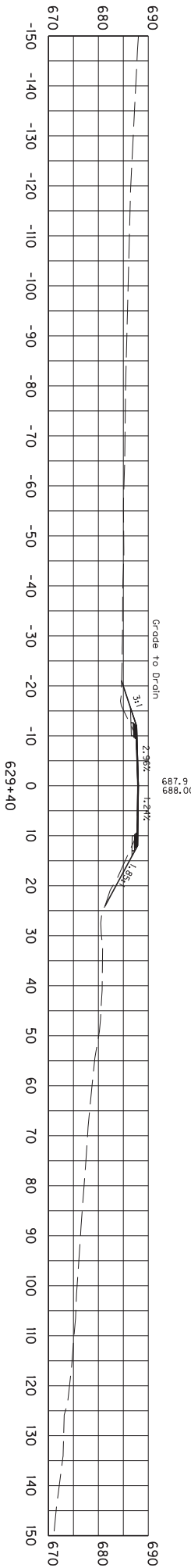
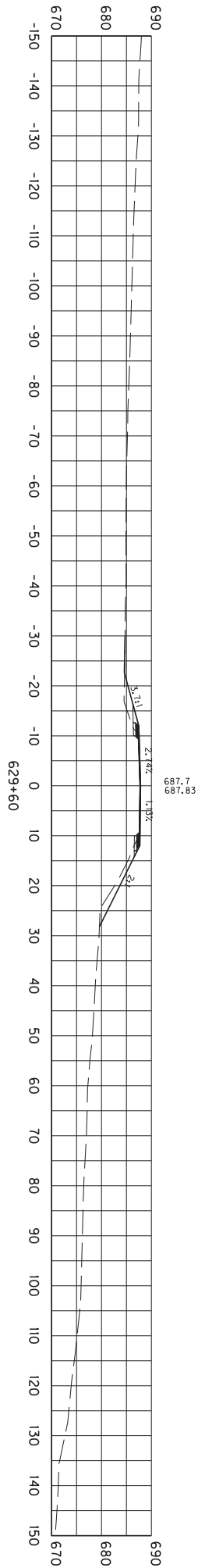


COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X8G

SCALE: 1"=30'

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 628+00 TO STA. 628+80

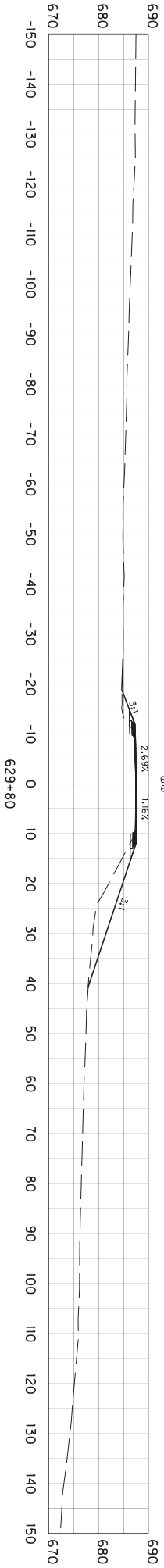
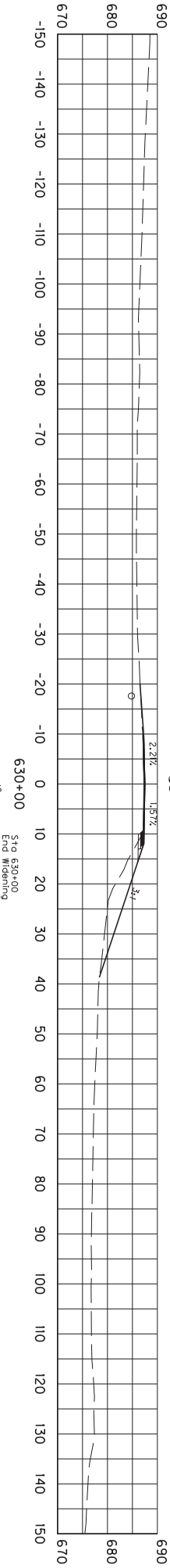
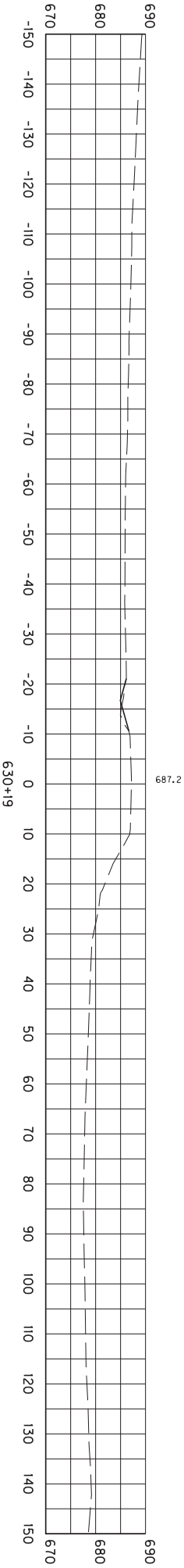


SCALE: 1"=30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAVSON	4-9007	X8H

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 629+00 TO STA. 629+60

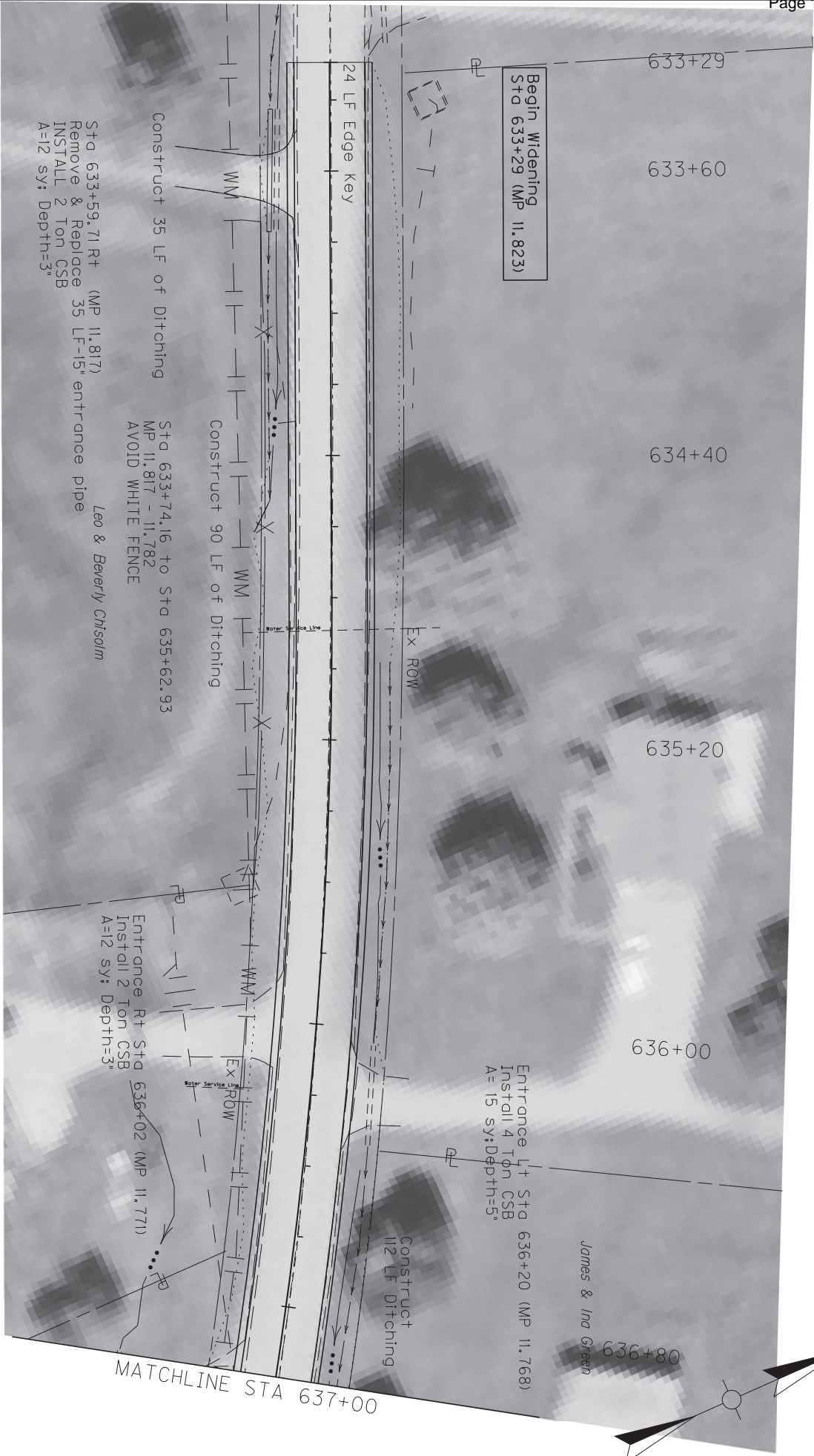


SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X81

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 629+80 TO STA. 630+19

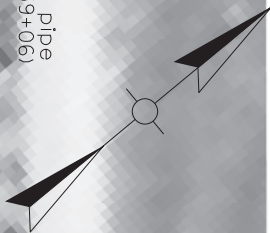


SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R9

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Superelevation Correction
Sta 633+29 to Sta 637+00



SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R10

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Superelevation Correction
Sta 637+00 to Sta 640+60

SHEET SUMMARY - PAVING
FOR STA 633+29 TO STA 643+67

ASPH	BASE	CSB
SY	TONS	SY TONS
SH 493	163	SH 493 *295

*Include 125 Tons
for Full Depth Shoulders

SHEET SUMMARY - GENERAL

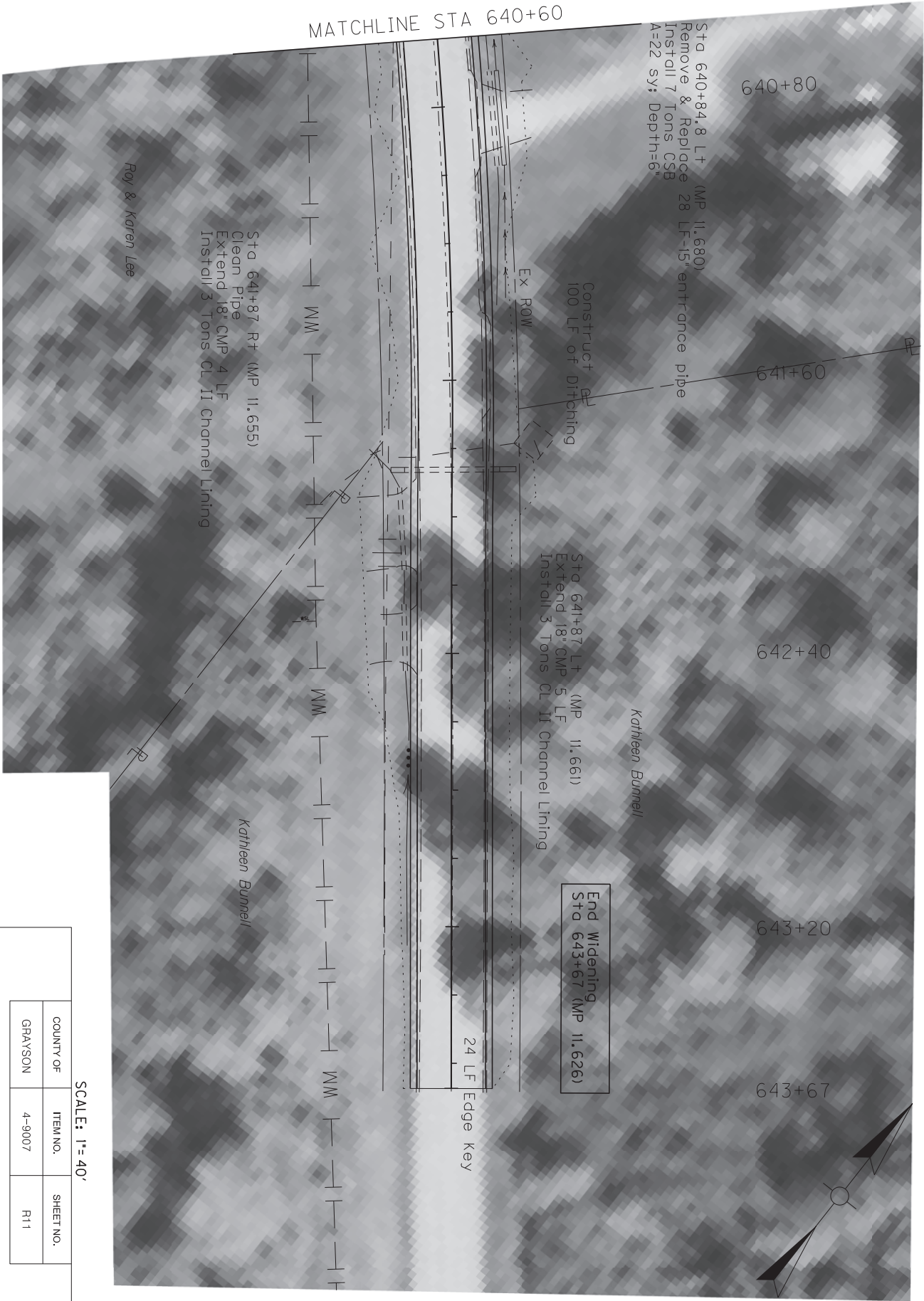
15 IN ENT PIPE	18 IN CULVERT PIPE	24 IN CULVERT PIPE	REMOVE PIPE	DITCHING	GRAN EMB	CSB (ENTR)	CL II CHNL LNG
LF	LF	LF	LF	LF	CY	TONS	TONS
224	9	16	236	517	598	79	12

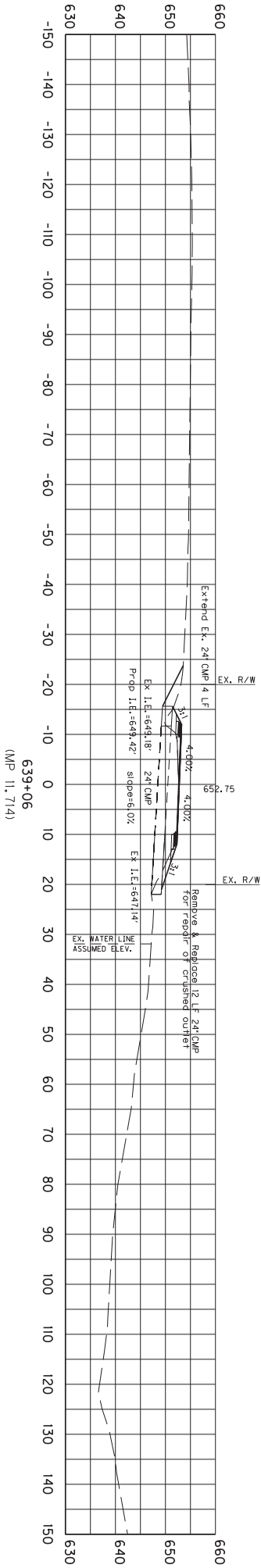
KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Super-elevation Correction
Sta 640+60 to Sta 643+67

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R11

SCALE: 1"= 40'



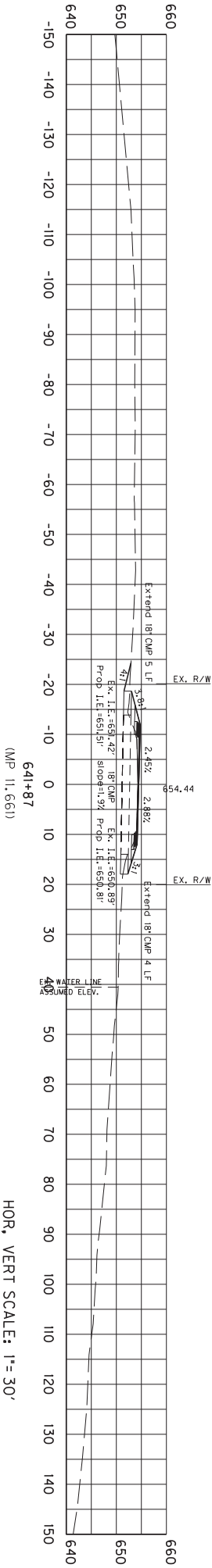


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS11A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 639+06 TO STA. 639+06

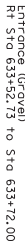


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS11B

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 641+87 TO STA. 641+87



COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11C

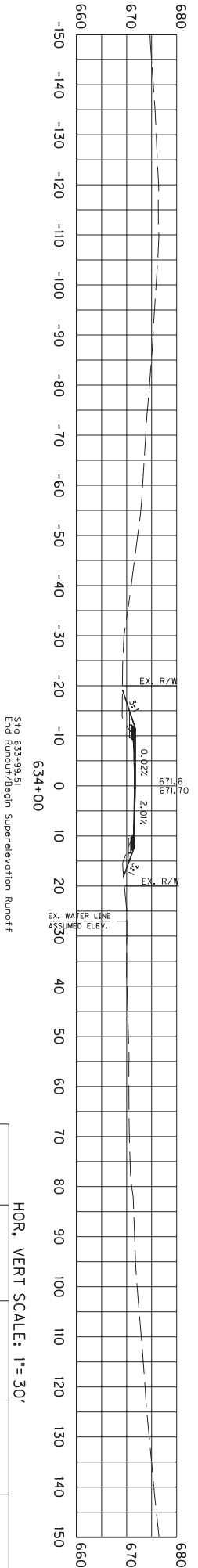
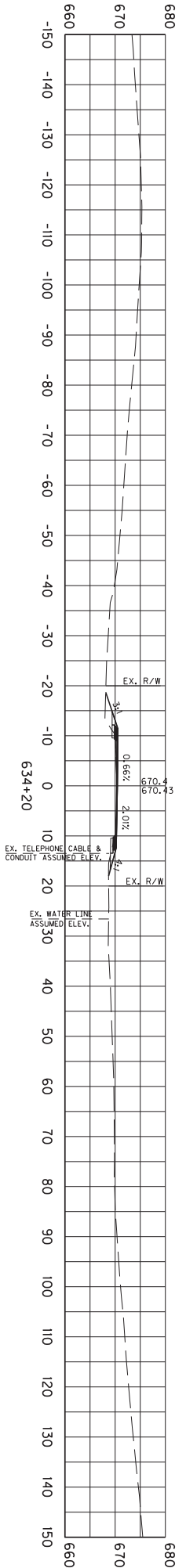
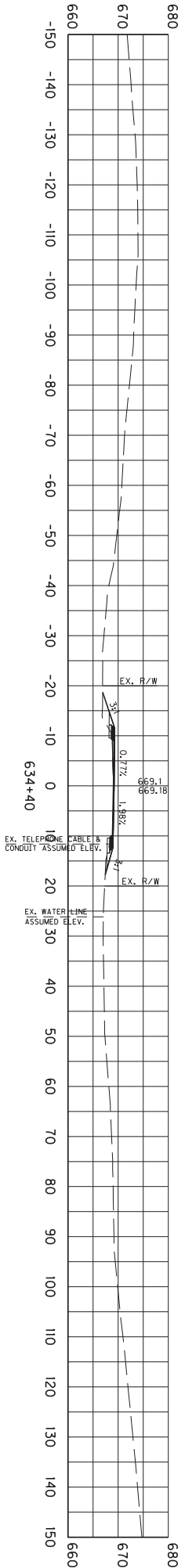
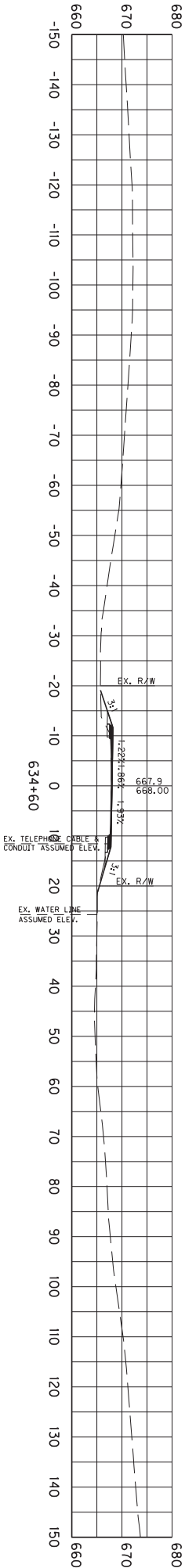
HOR, VERT SCALE: 1" = 30'

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 633+30 TO STA. 633+80

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)

Sta 634+77.87
Begin Super-elevation Runout



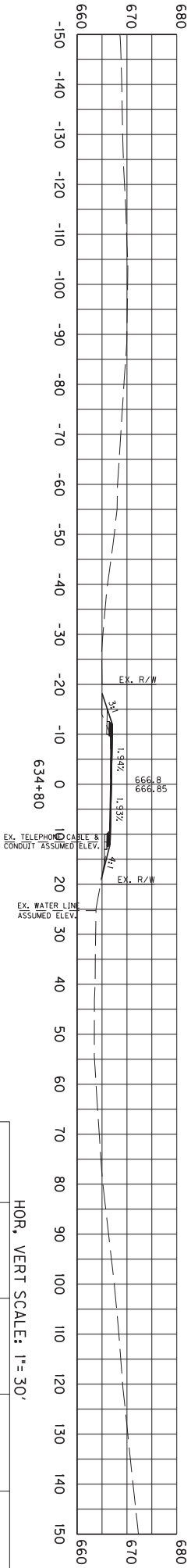
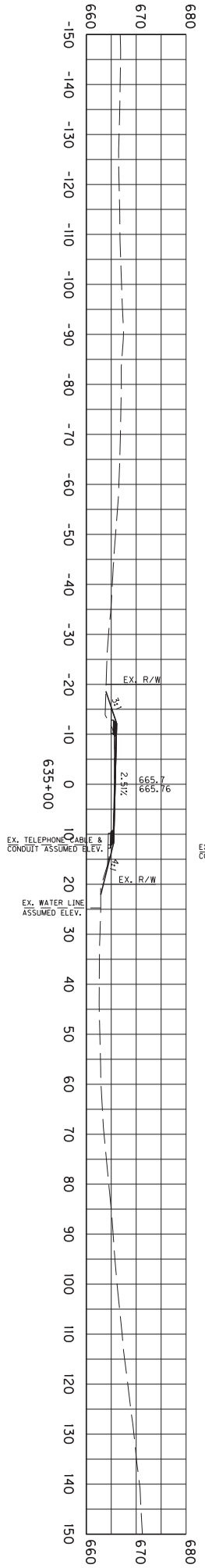
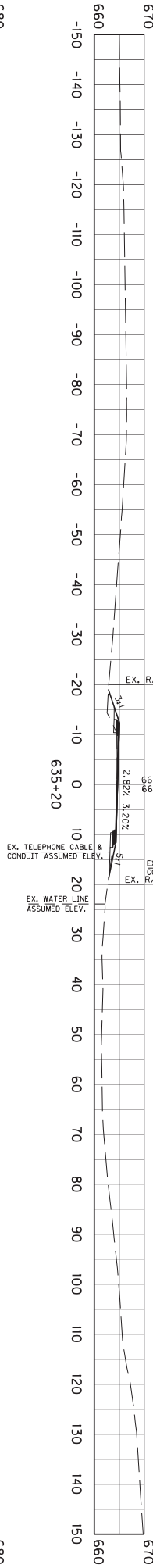
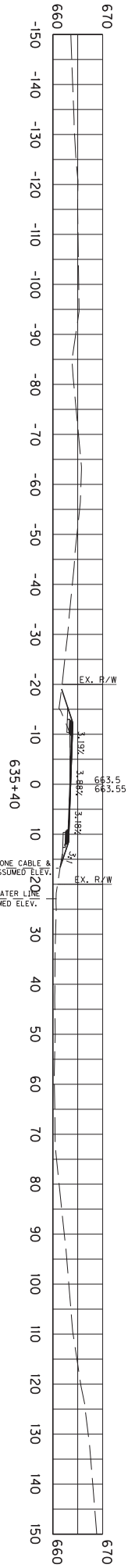
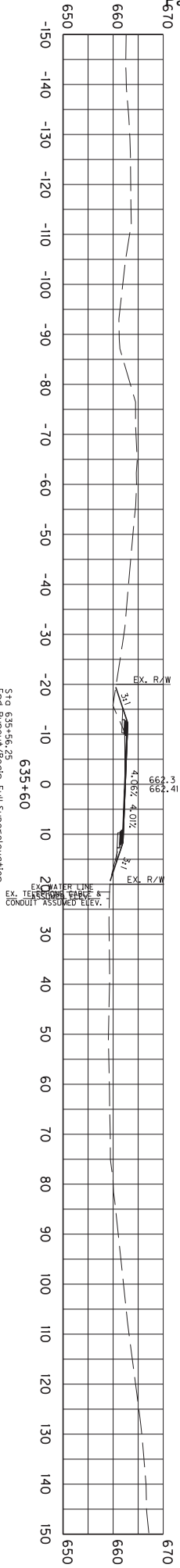
HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 634+00 TO STA. 634+60

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



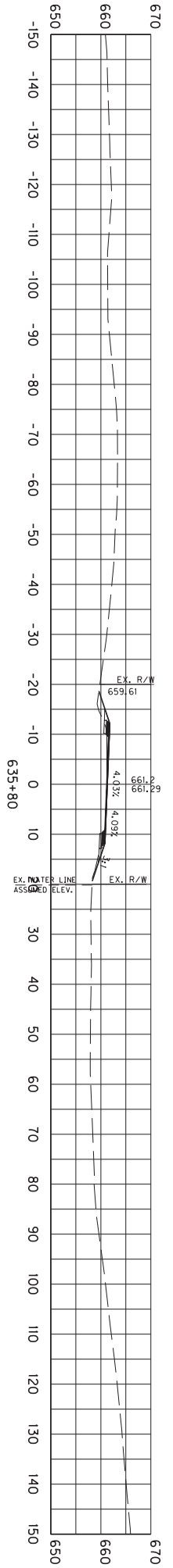
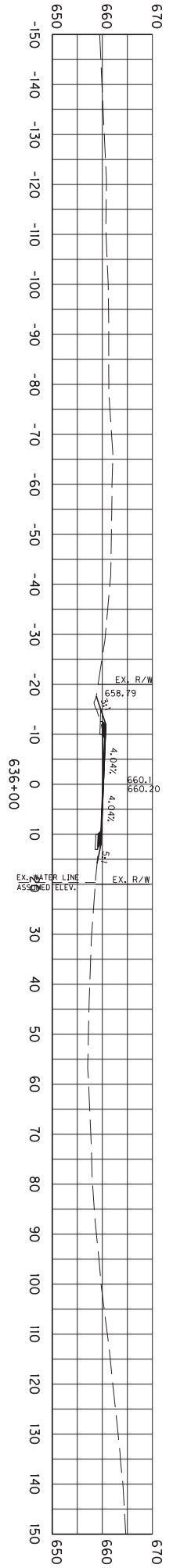
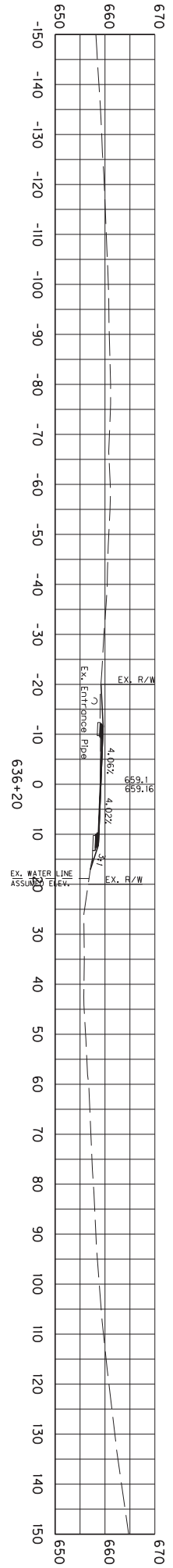
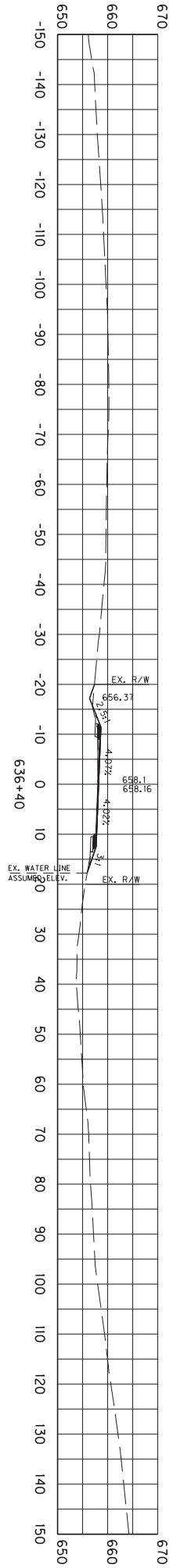
HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11E

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 634+80 TO STA. 635+60

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



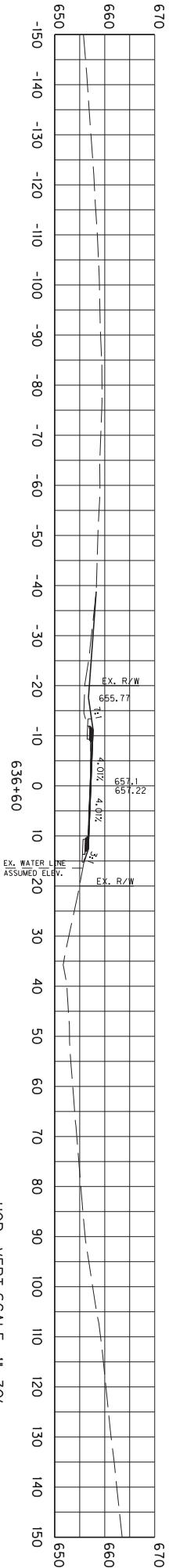
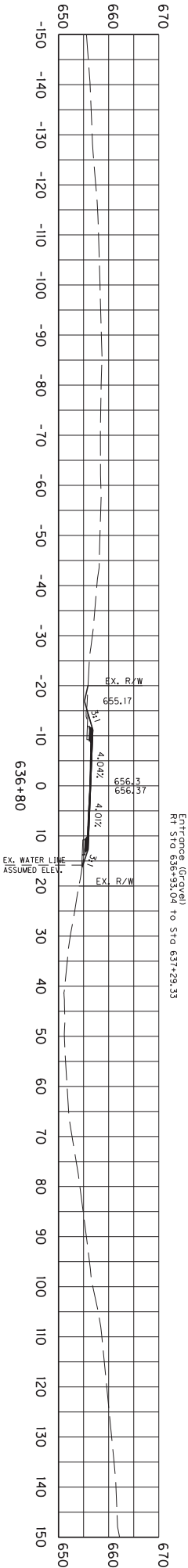
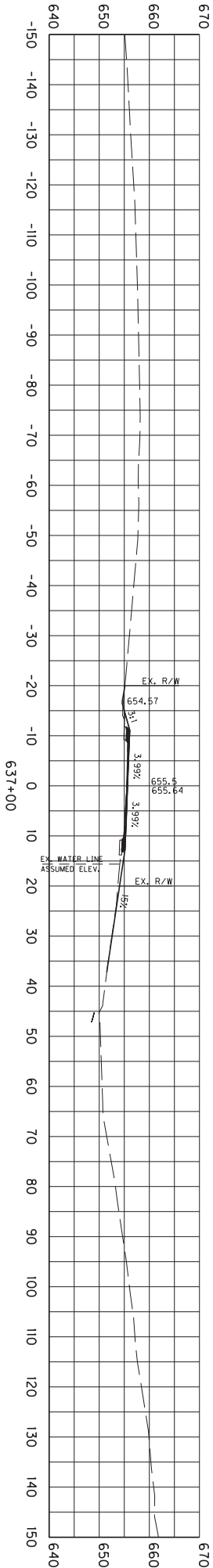
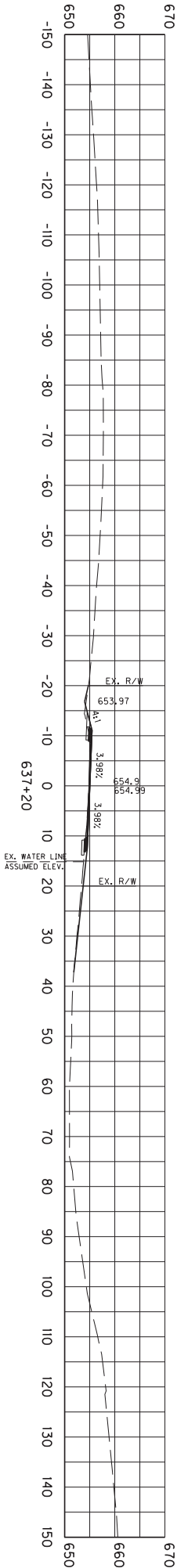
HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11F

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 635+80 TO STA. 636+40

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



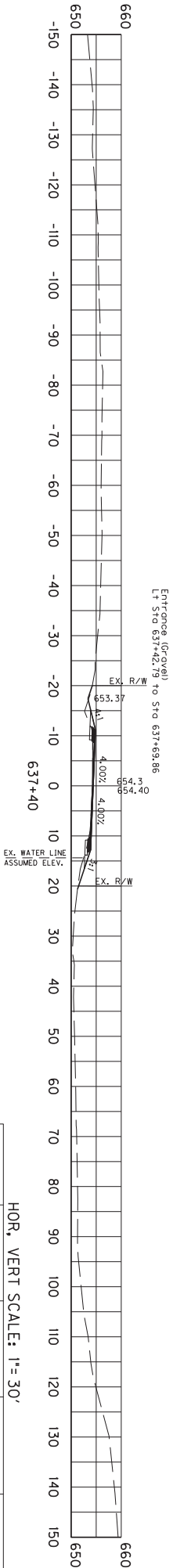
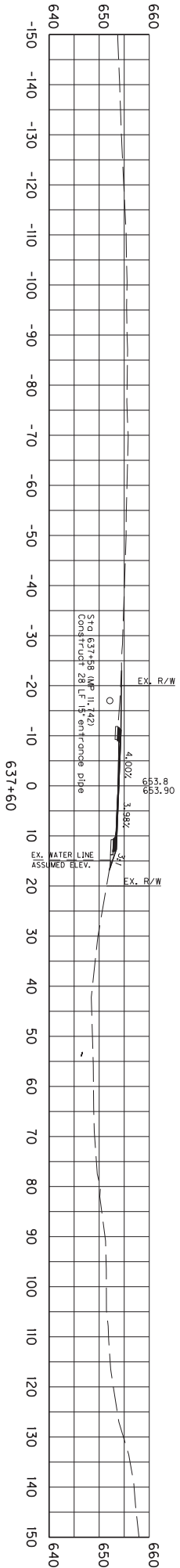
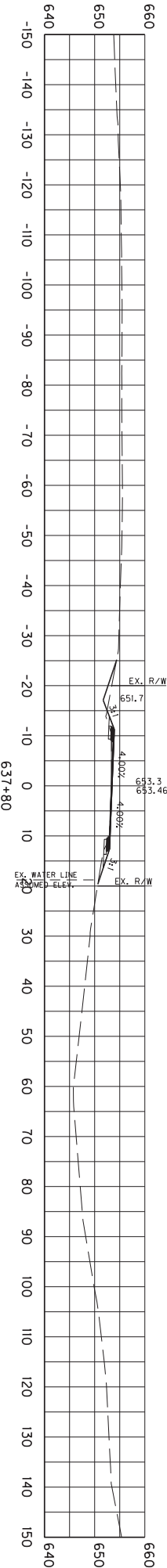
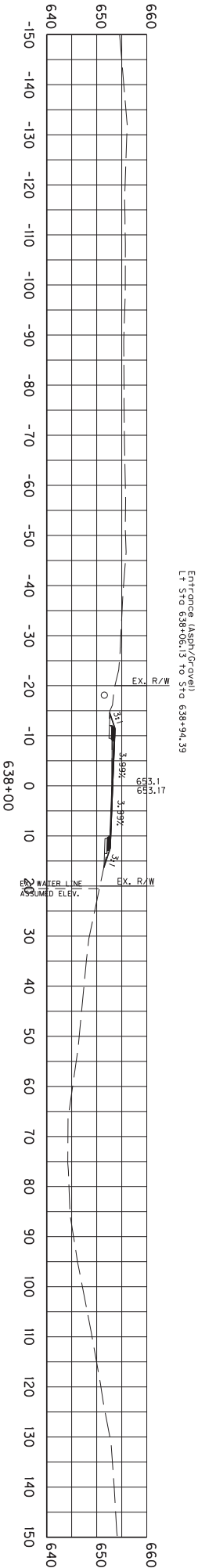
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11G

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 636+60 TO STA. 637+20

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



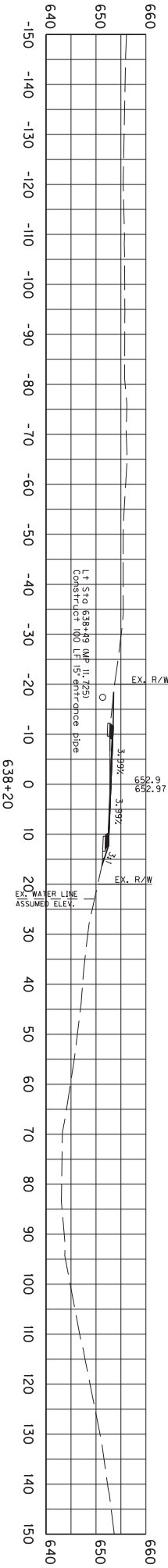
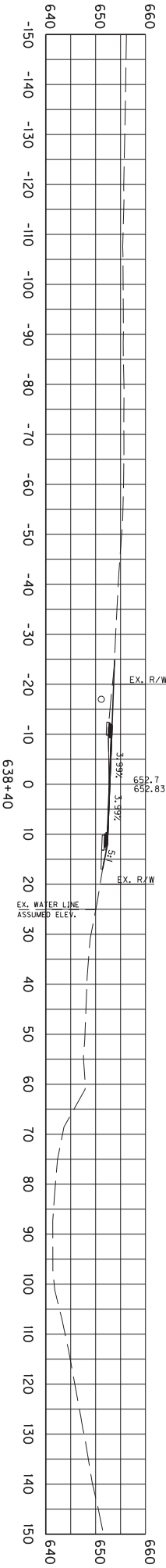
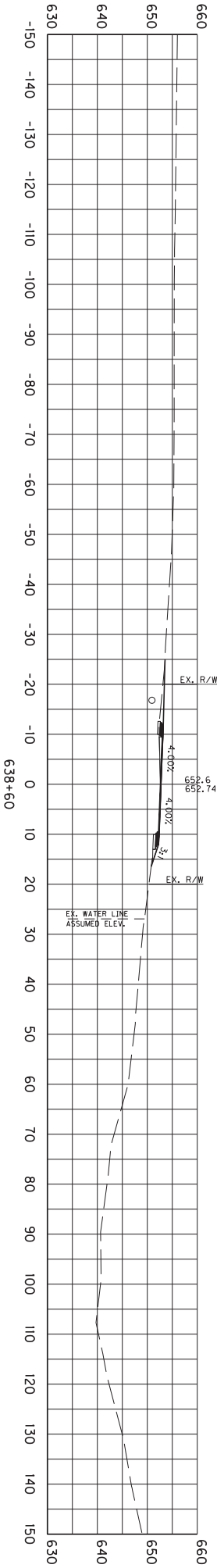
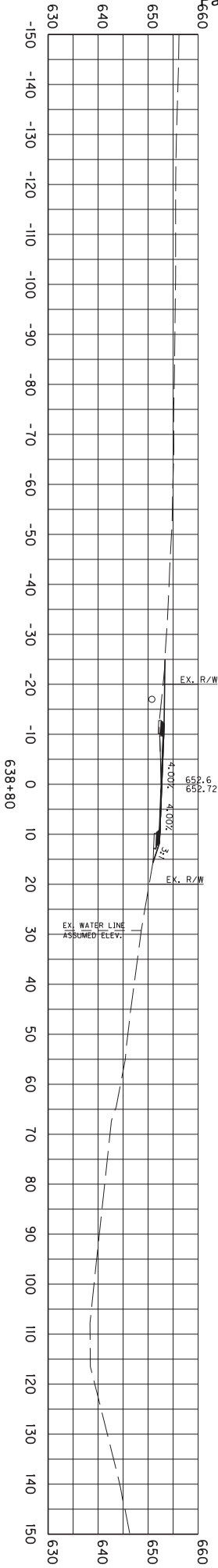
HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11H

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 637+40 TO STA. 638+00

XSects for Sta 633+23 (MP 11.823) to Sta 643+67 (MP 11.826)

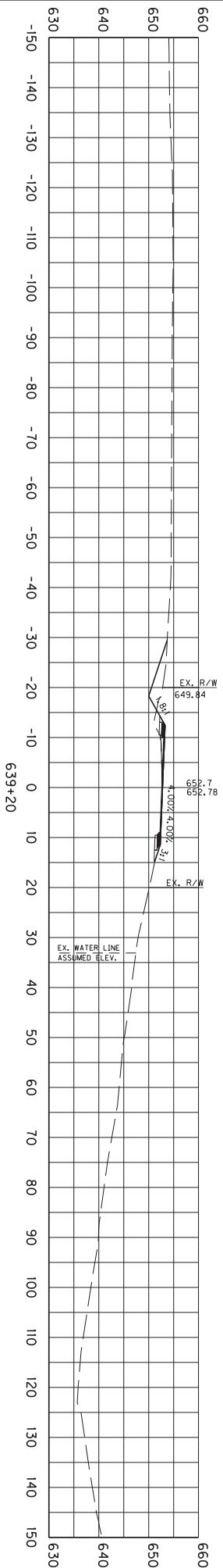
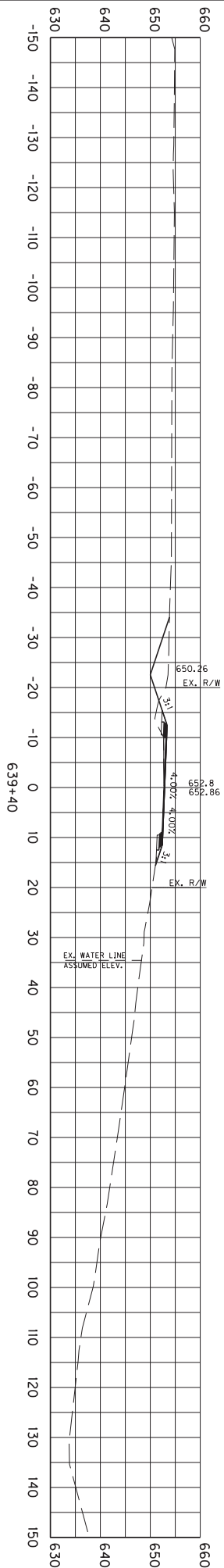


HOR. VERT SCALE: 1"= 30'

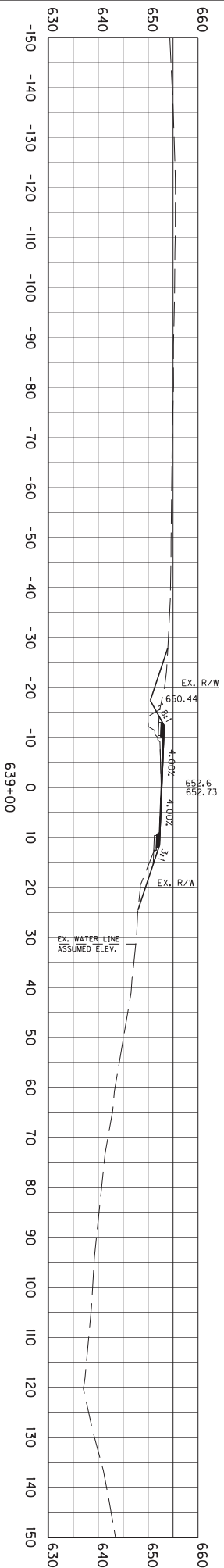
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X111

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 638+20 TO STA. 638+80



For pipe at 639+06, see pipe sheet

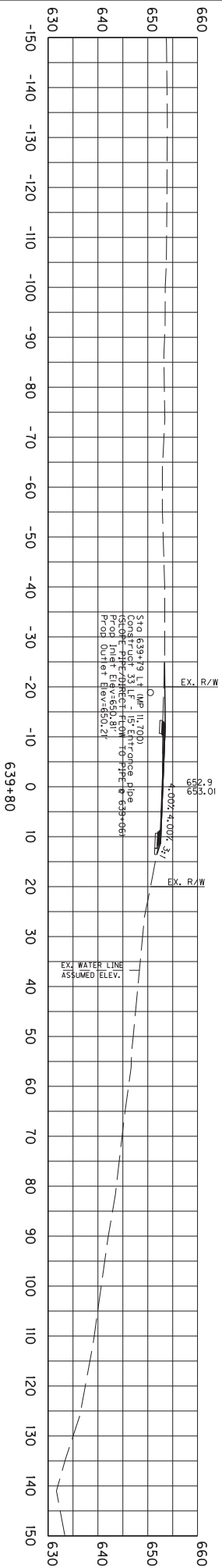


COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11J

HOR, VERT SCALE: 1"=30'

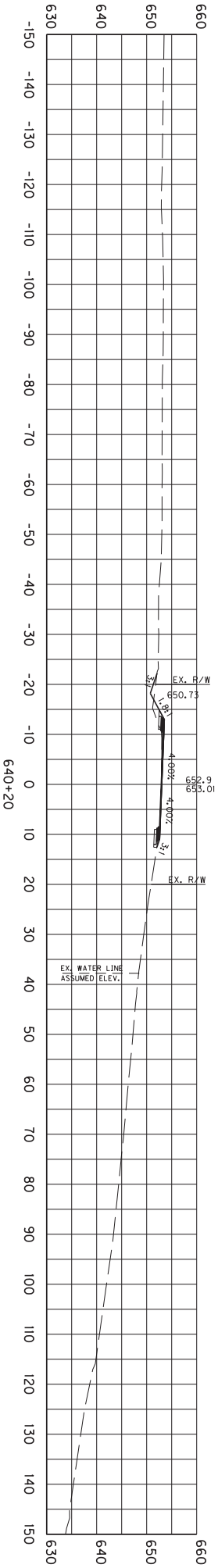
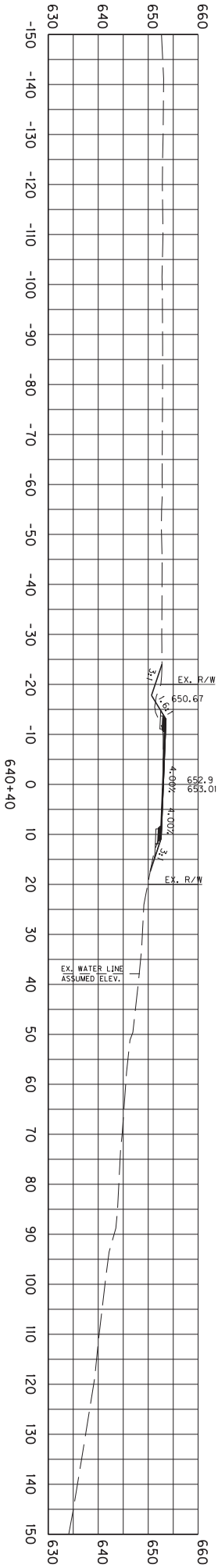
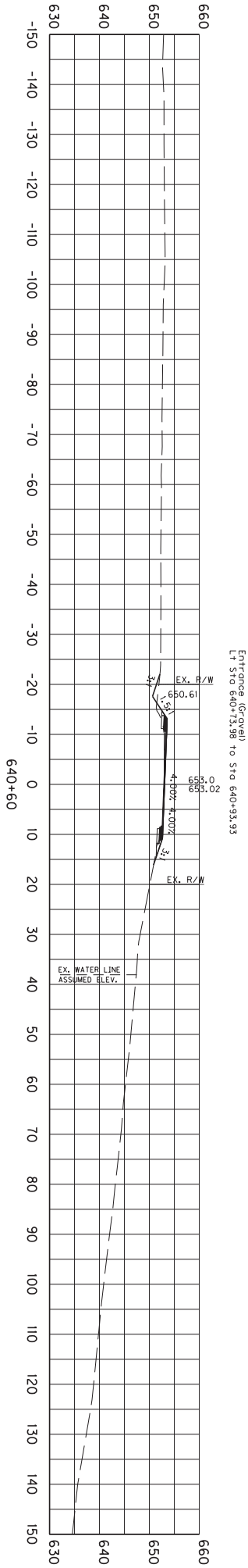
KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 639+00 TO STA. 639+40



KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET
STA. 639+60 TO STA. 640+00

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



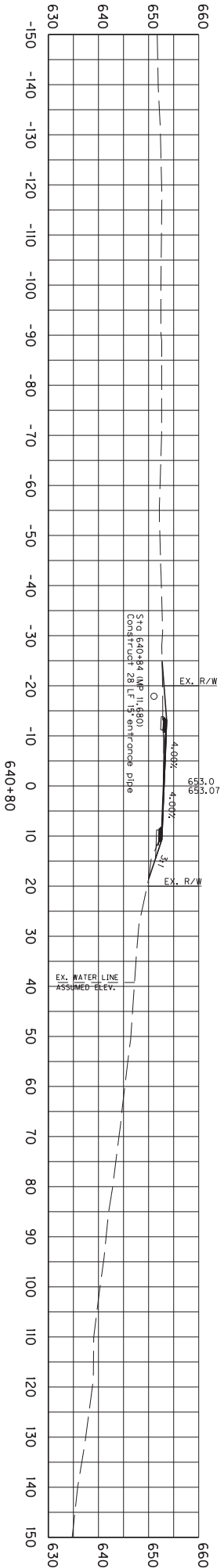
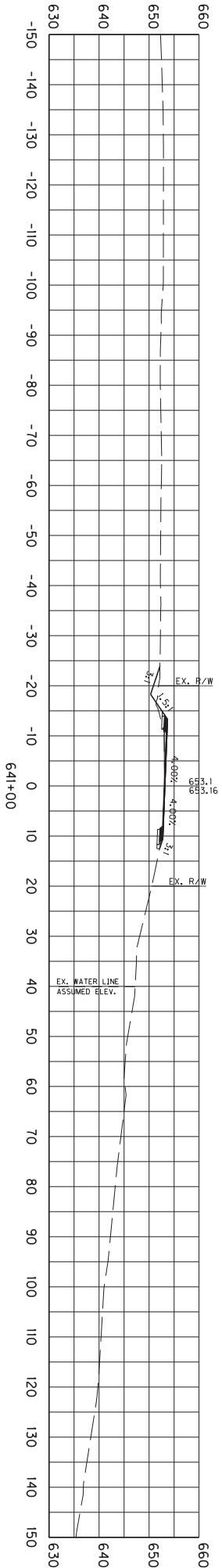
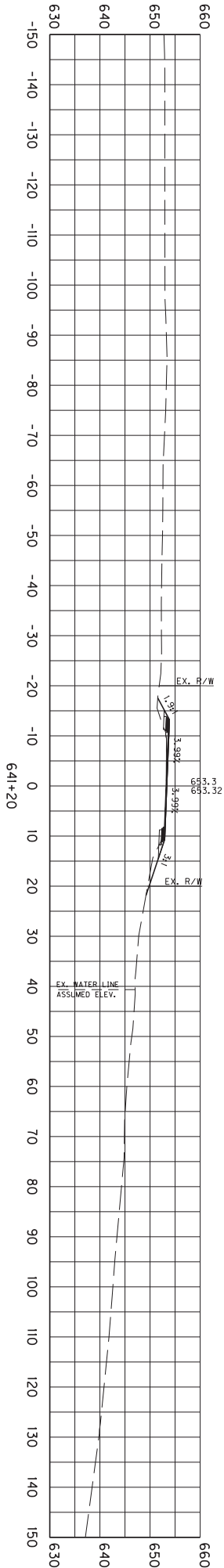
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11L

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 640+20 TO STA. 640+60

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



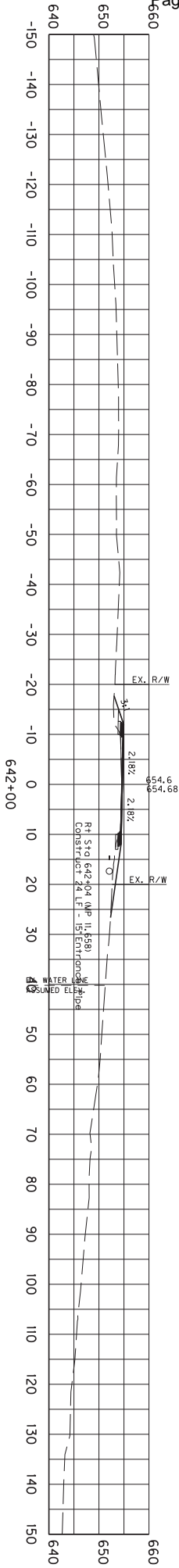
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11M

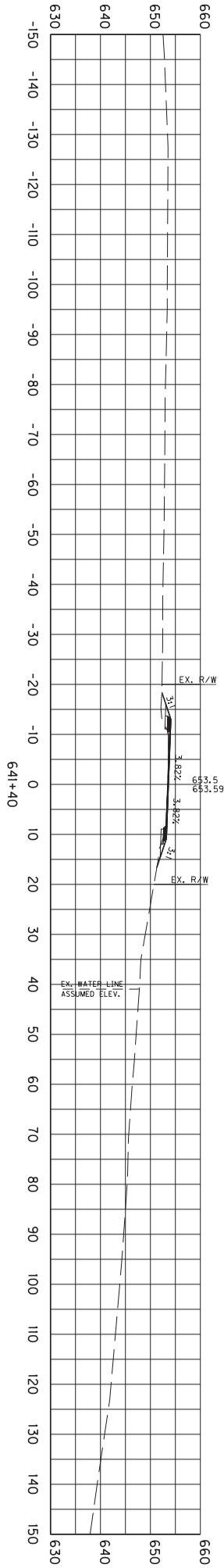
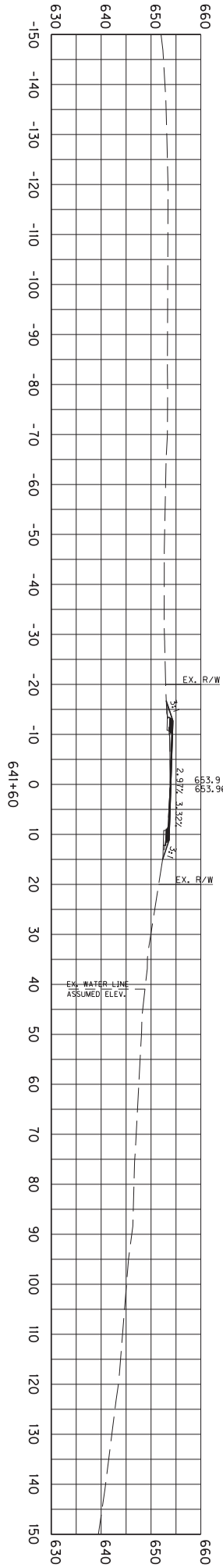
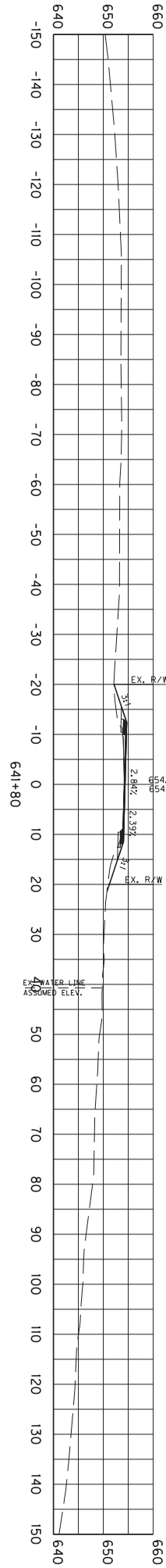
KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 640+80 TO STA. 641+20

XSects for Sta 633+29 (WP 11.823) to Sta 643+67 (MP 11.626)



For pipe at 641+87, see pipe sheet
Entrance (Drift Form Ent)
Rt Sta 641+90.11 to Sta 642+14.68



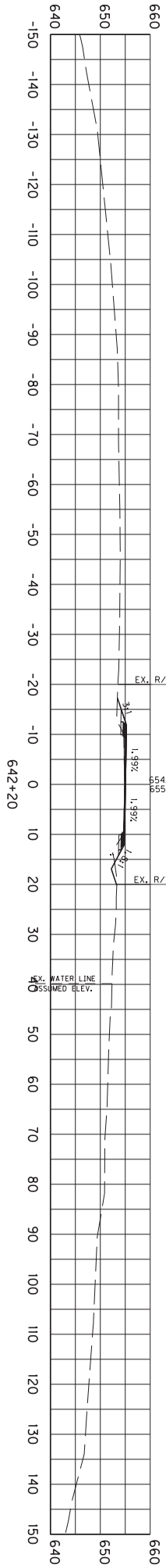
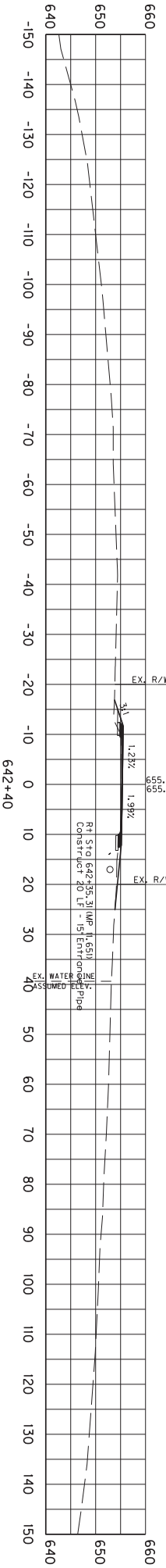
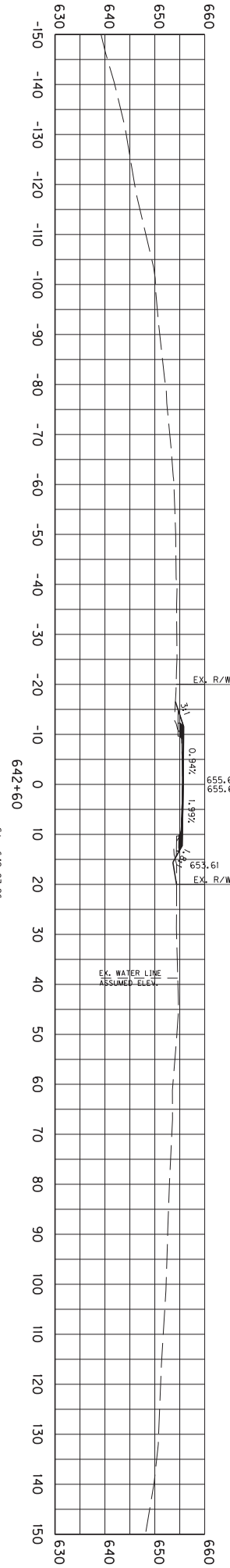
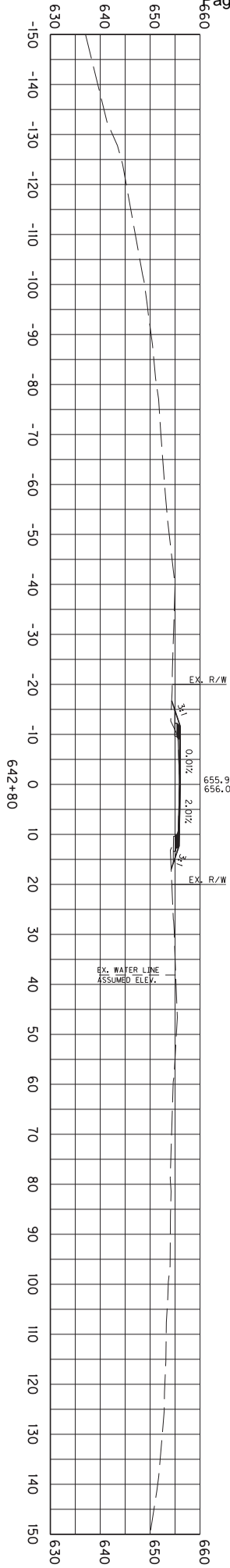
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11N

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 641+40 TO STA. 642+00

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



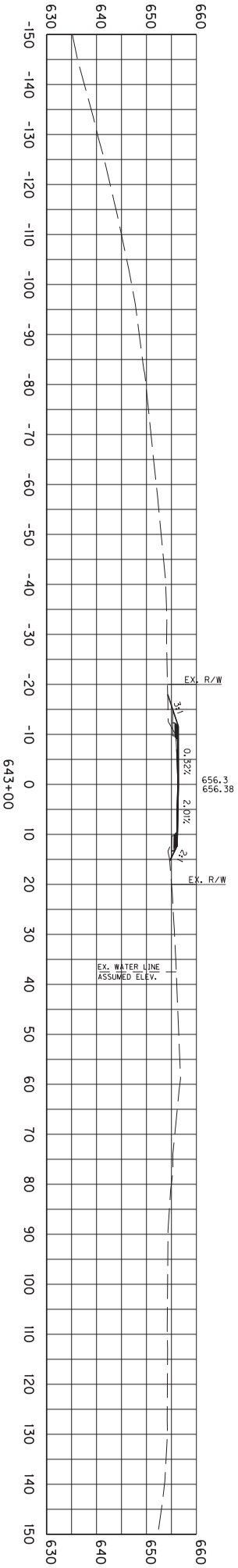
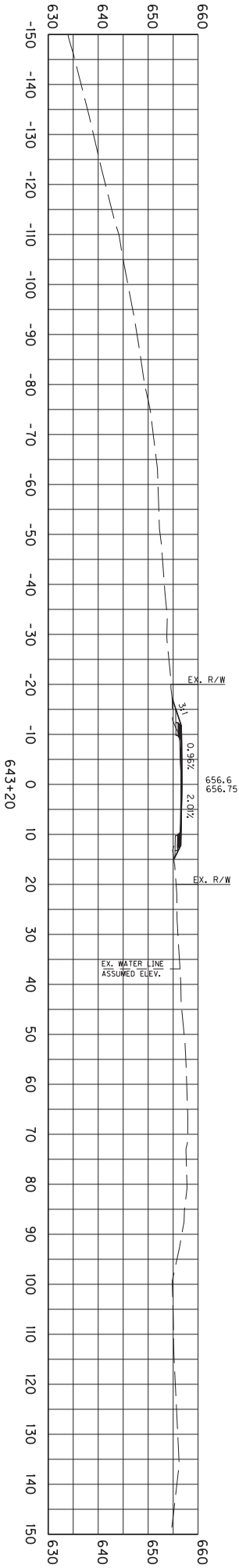
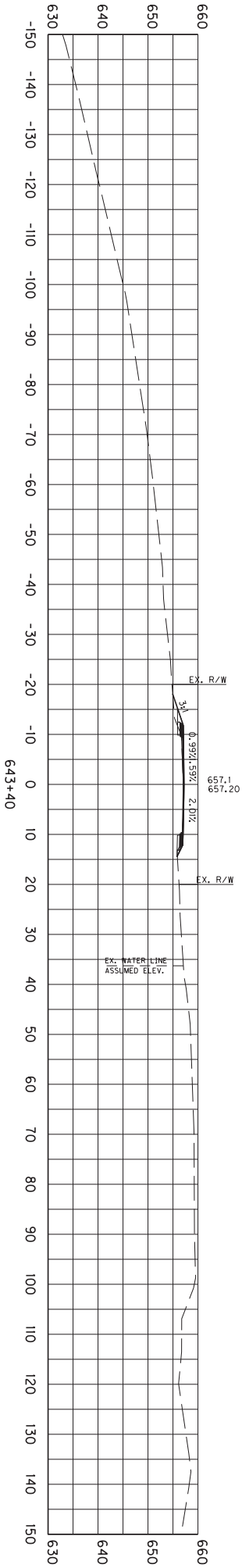
HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X110

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 642+20 TO STA. 642+80

XSects for Sta 633+29 (MP 11.823) to Sta 643+67 (MP 11.626)



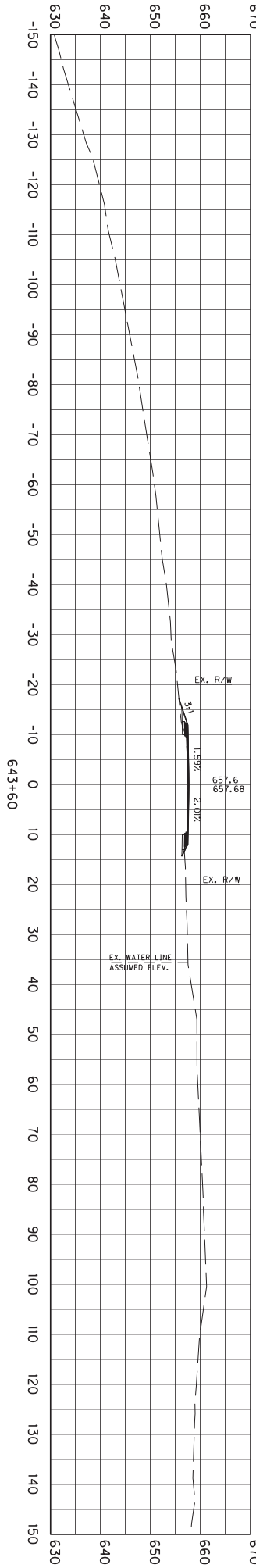
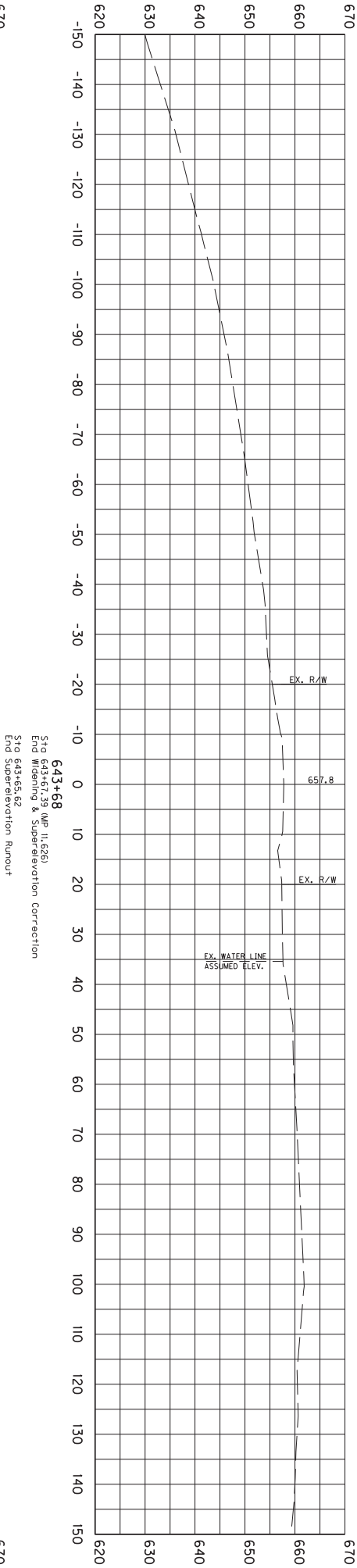
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11P

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 643+00 TO STA. 643+40

XSects for Sta 633+23 (WP 11.628) to Sta 643+67 (MP 11.626)

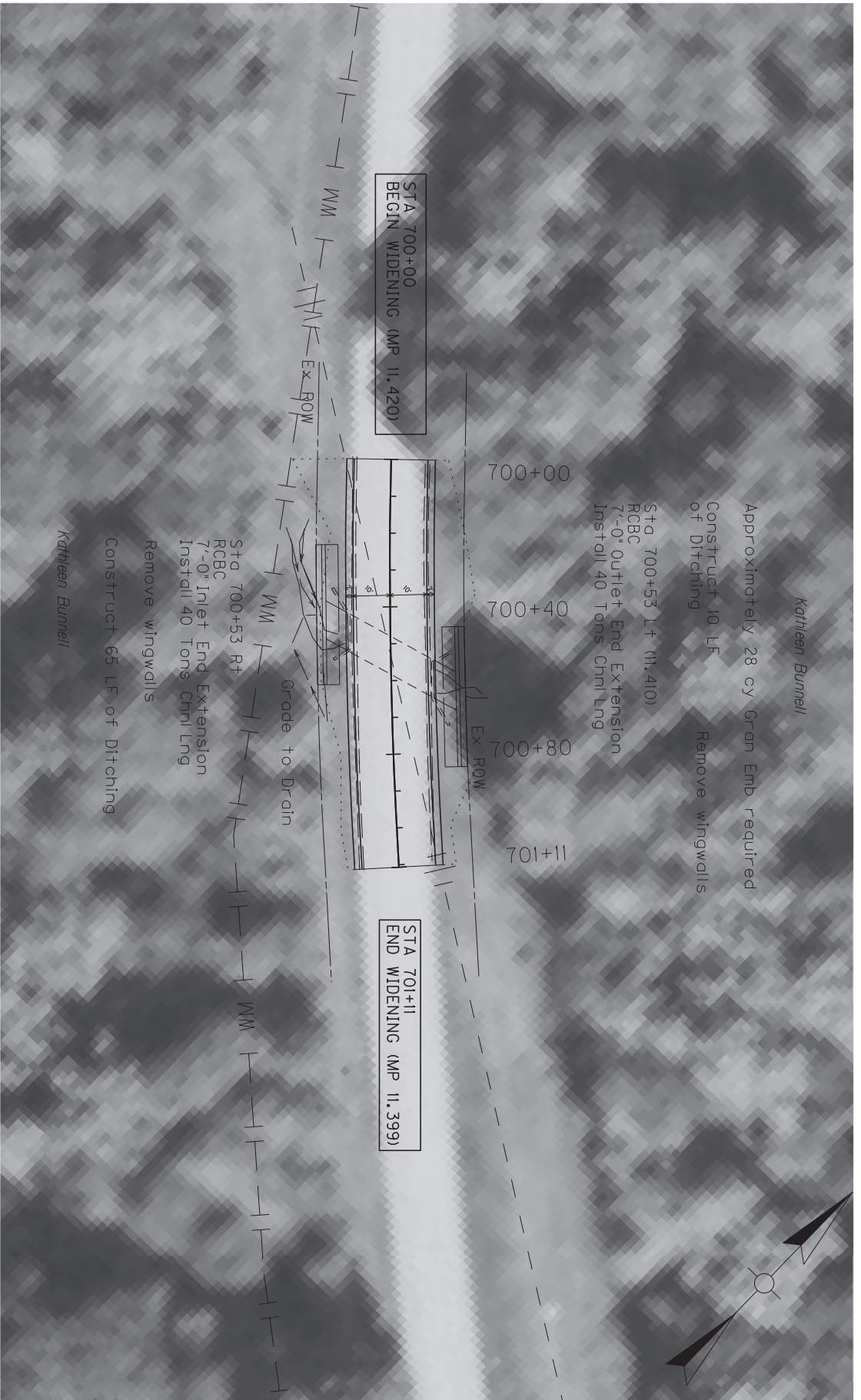


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X11Q

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 643+60 TO STA. 643+68



SHEET SUMMARY - PAVING					
ASPH BASE			CSB		
	SY	TONS		SY	TONS
SH	52	17	SH	52	*32

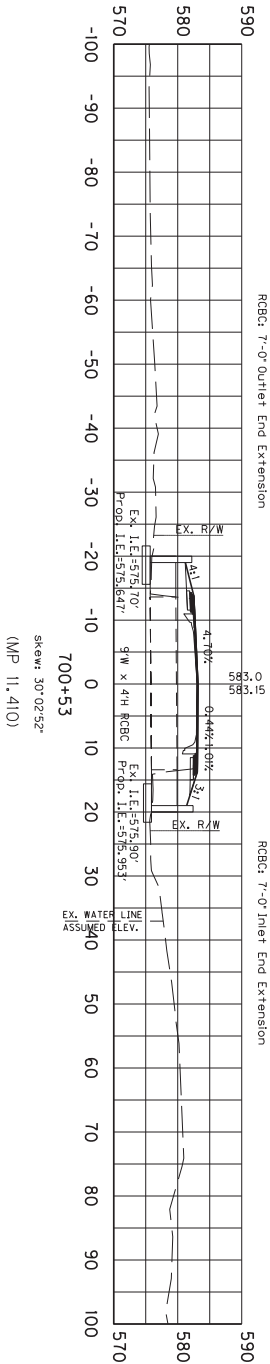
***Include 14 Tons
for Full Depth Shoulders**

SHEET SUMMARY - GENERAL			
REMOVE WING/WALLS	DITCHING	GRAN EMB	CL II CHNL LING
EACH	LF	CY	TONS
2	75	28	80

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R12

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 11.410
STA 700+53
9' W x 4'H Box Culvert



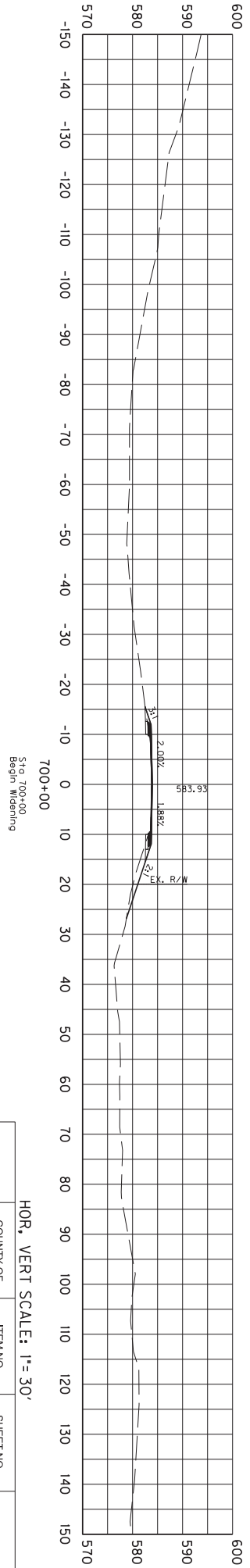
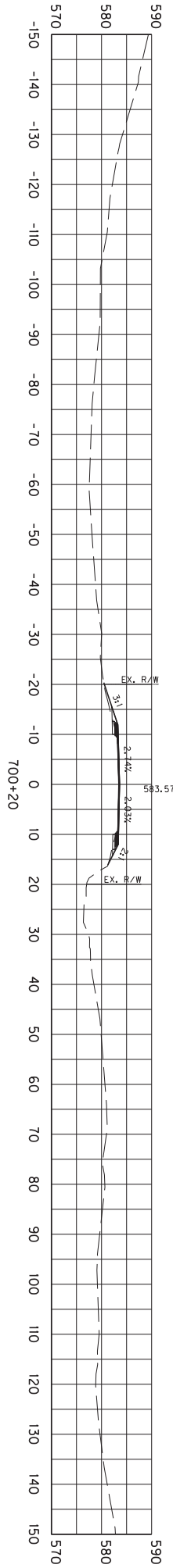
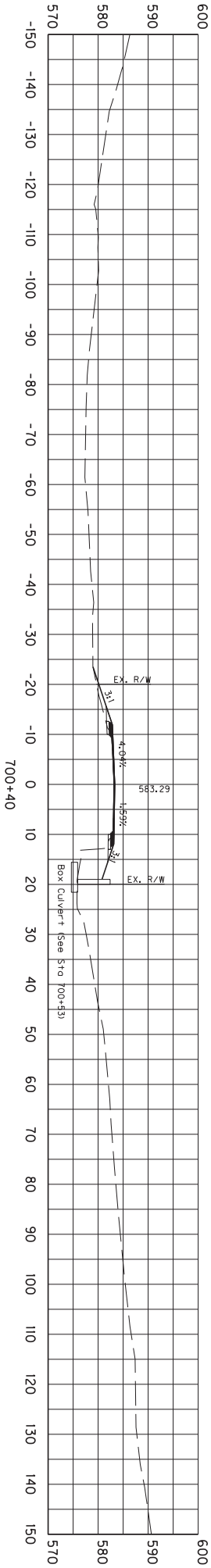
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS12A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 700+53 TO STA. 700+53

XSects for Sta 700+53 (WP 11.410)



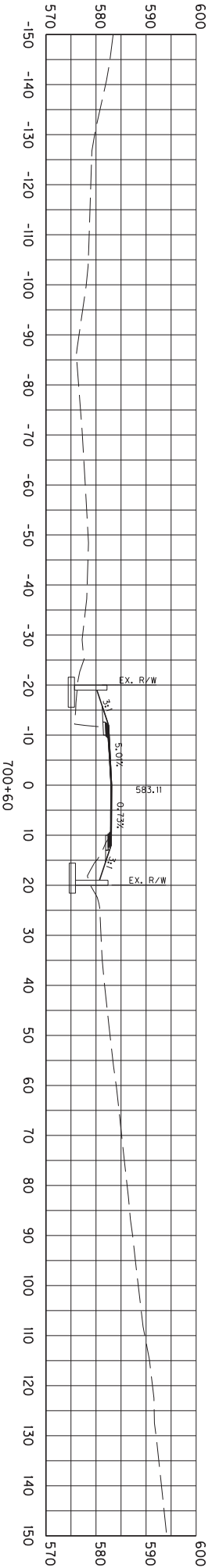
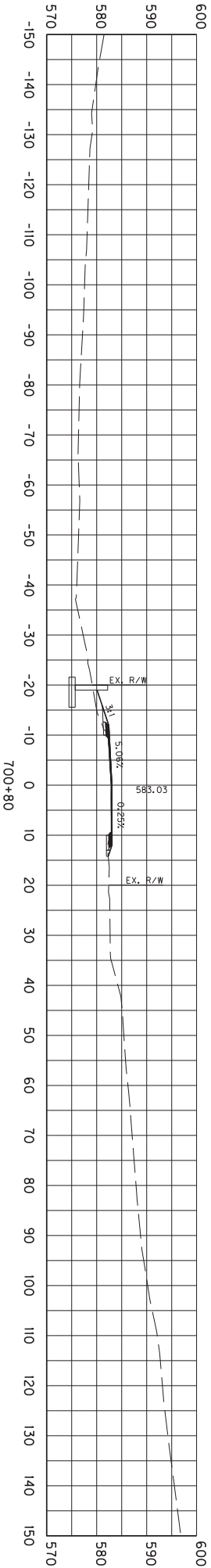
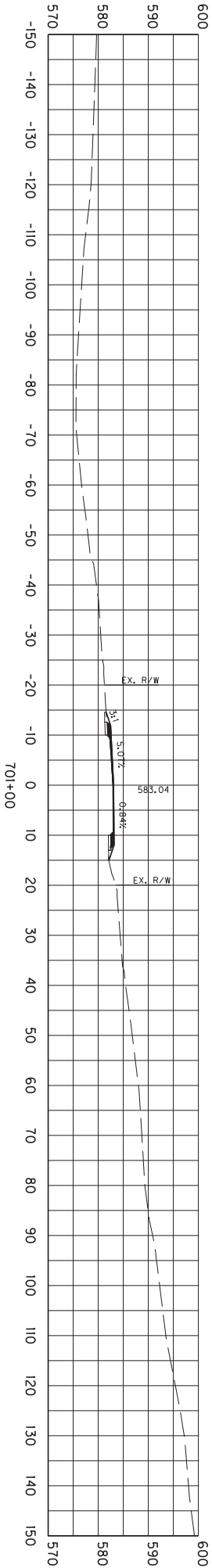
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X12B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 700+00 TO STA. 700+40

XSects for Sta 700+53 (WP 11.410)

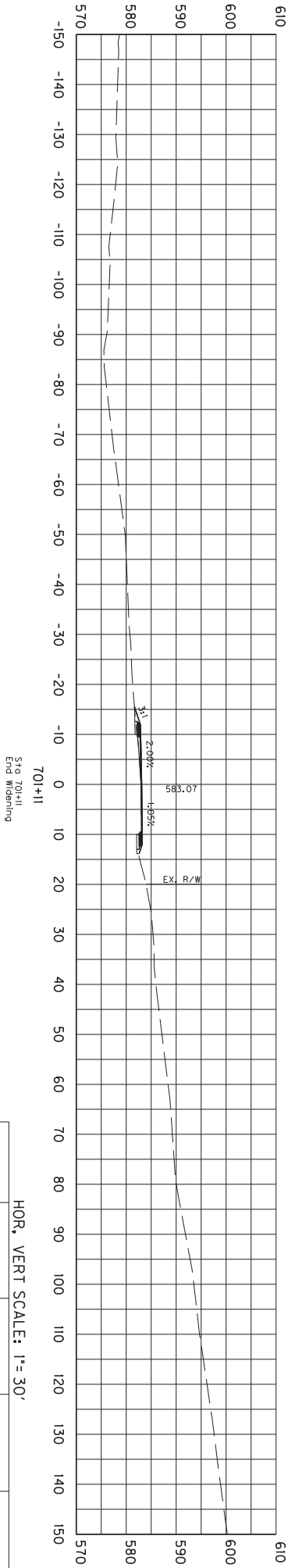


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X12C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 700+60 TO STA. 701+00

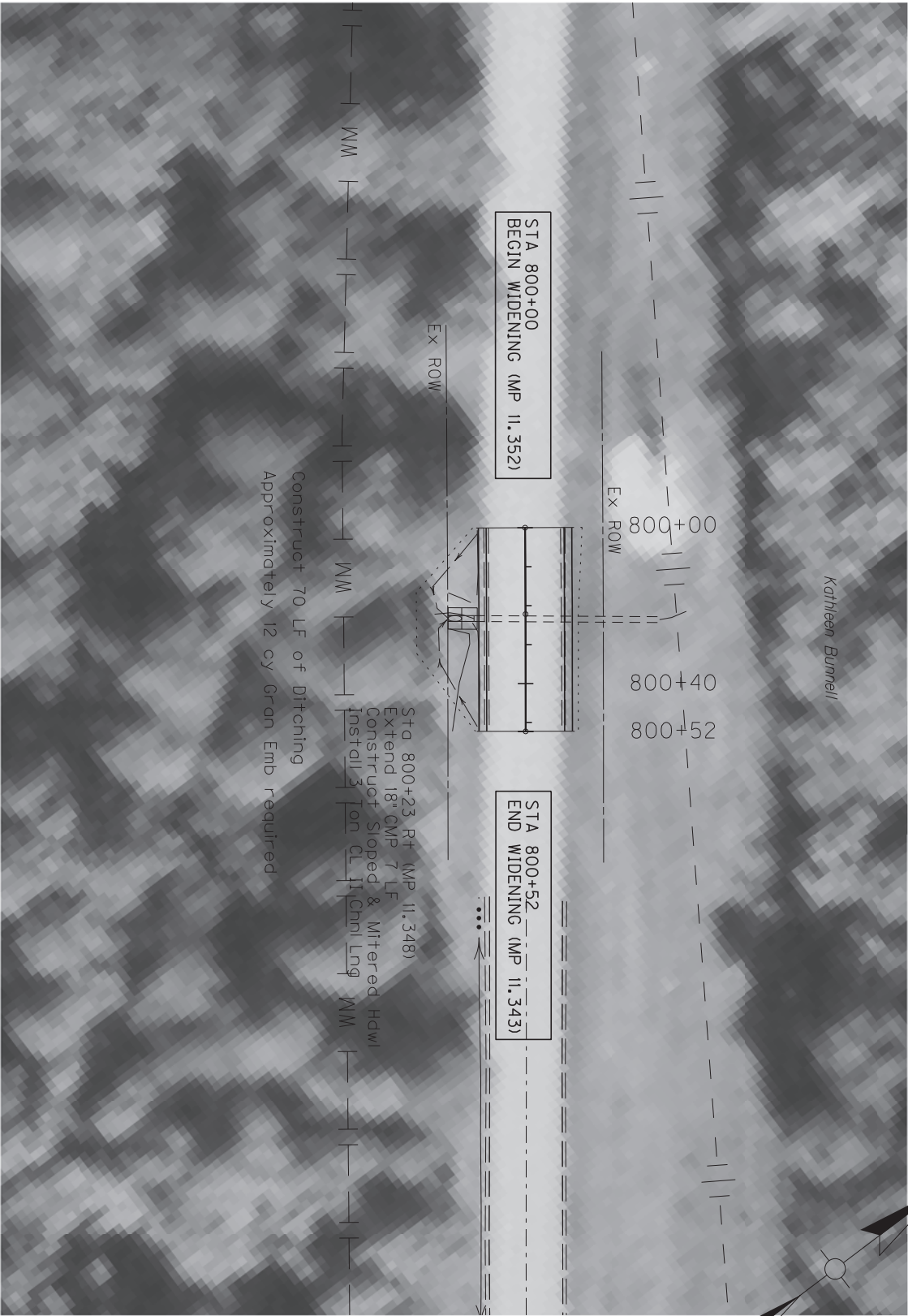


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X12D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 701+11 TO STA. 701+11



SHEET SUMMARY - PAVING

ASPH BASE	CSB
SY TONS	SY TONS
SH 23	SH 23
8	*15

*Include 7 Tons
for Full Depth Shoulders

SHEET SUMMARY - GENERAL

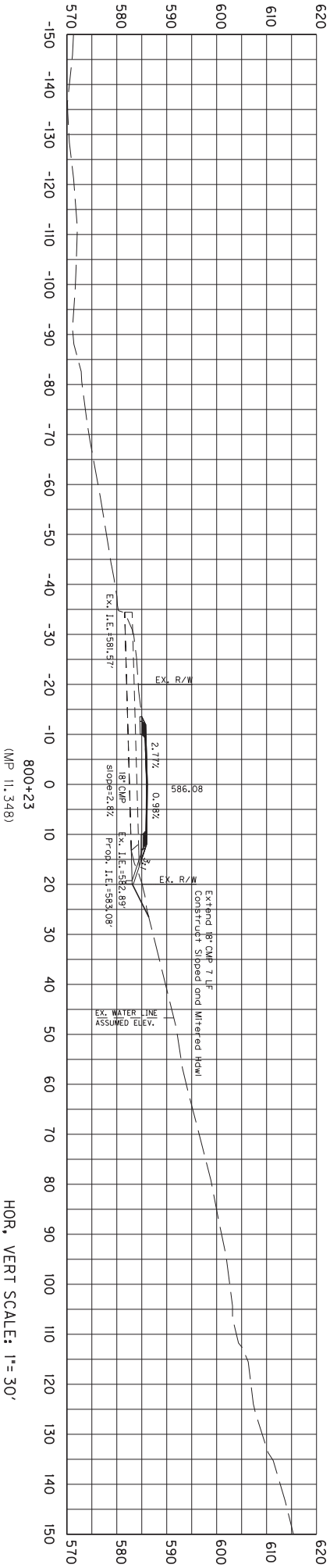
18 IN CULVERT PIPE	S&M HDWL 18 IN	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
7	1	70	12	3

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R13

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 11.348
STA 800+23
18" CMP



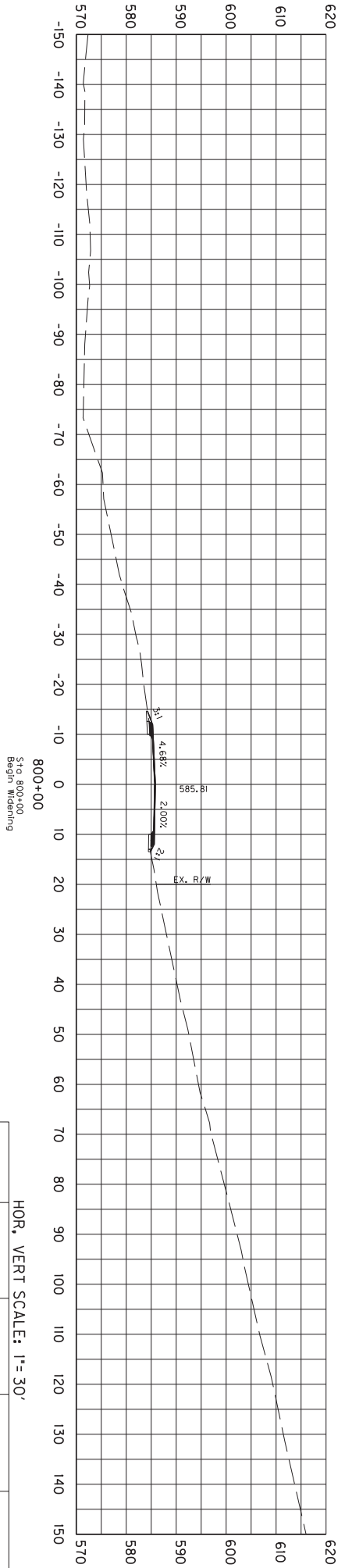
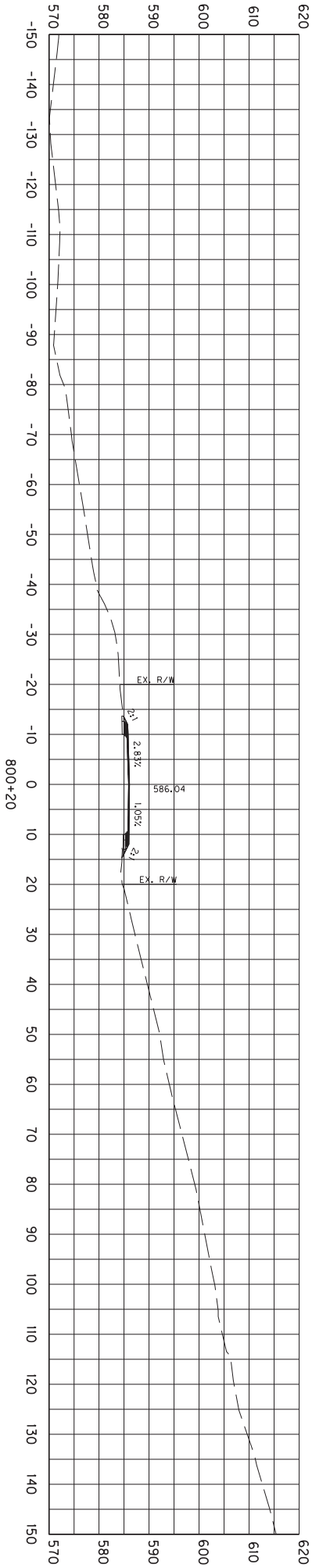
800+23
(MP 11.348)

HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS13A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 800+23 TO STA. 800+23



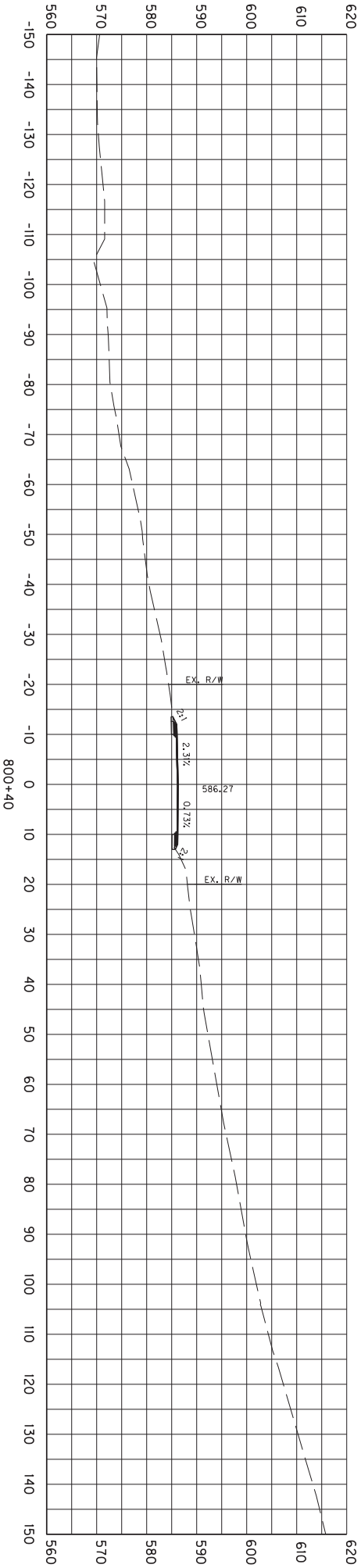
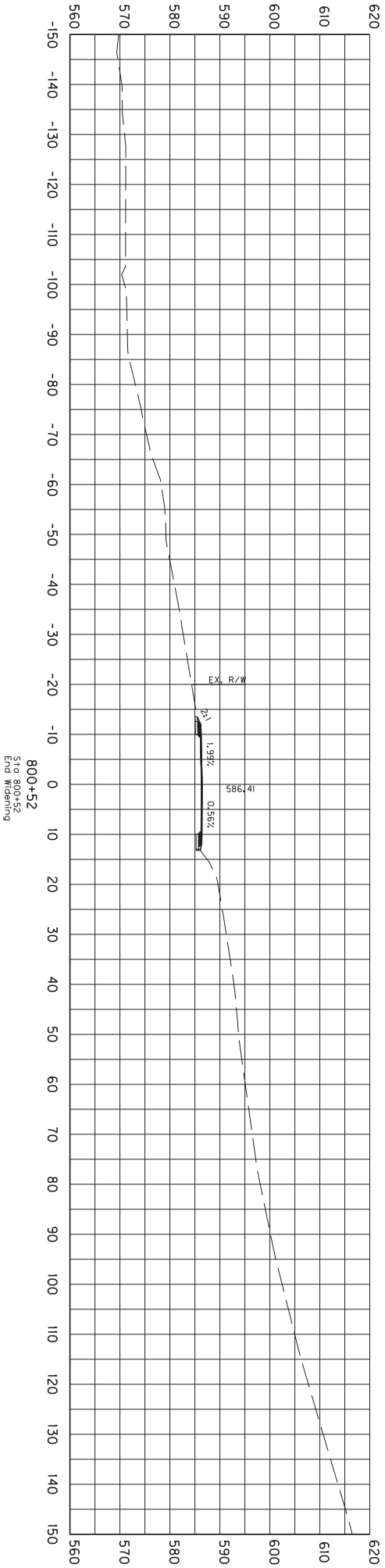
Sta 800+00
Begin Widening

HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X13B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 800+00 TO STA. 800+20



HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X13C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 800+40 TO STA. 800+52

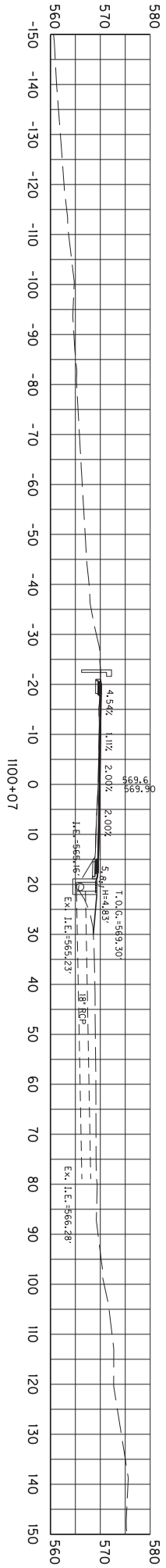
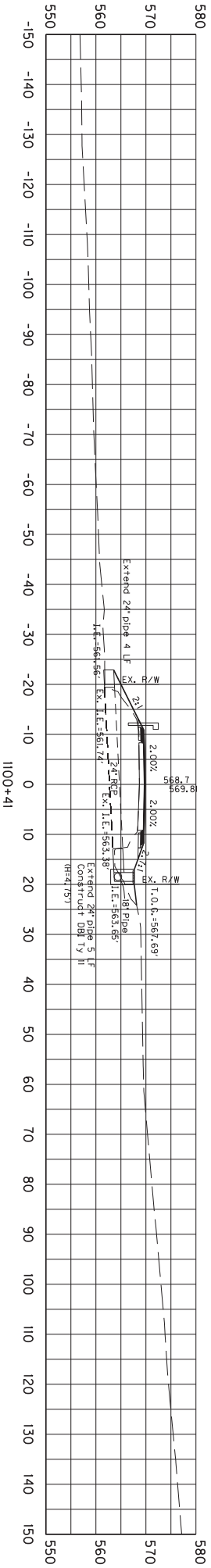


for Full Depth Shoulders

SHEET SUMMARY - GENERAL

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Std 1100+00 (MP 11.195) + 0
Std 1102+65 (MP 11.145)

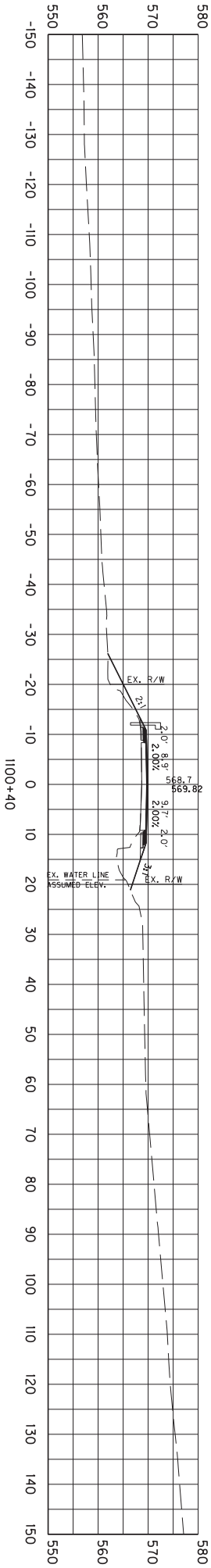


HOR. VERT SCALE: 1"= 30'

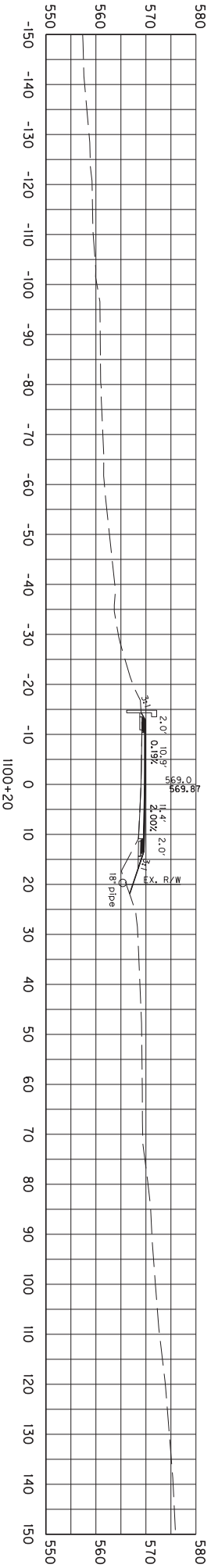
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS14A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

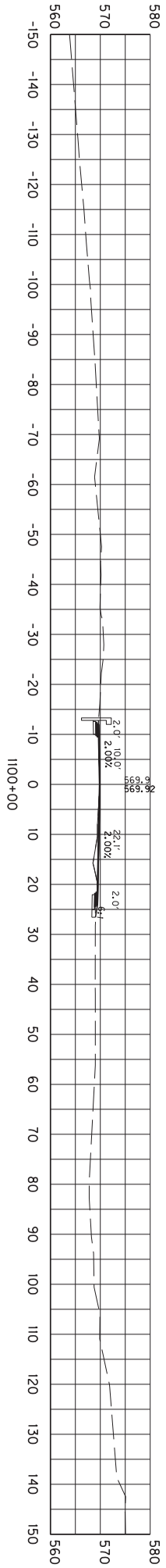
STA. 1100+07 TO STA. 1100+41



For pipe at Sta 1100+41, see pipe sheet



For pipe at Sta 1100+20, see pipe sheet



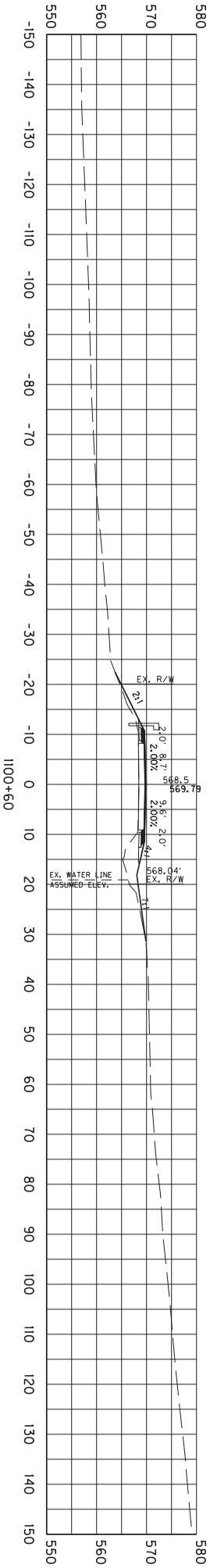
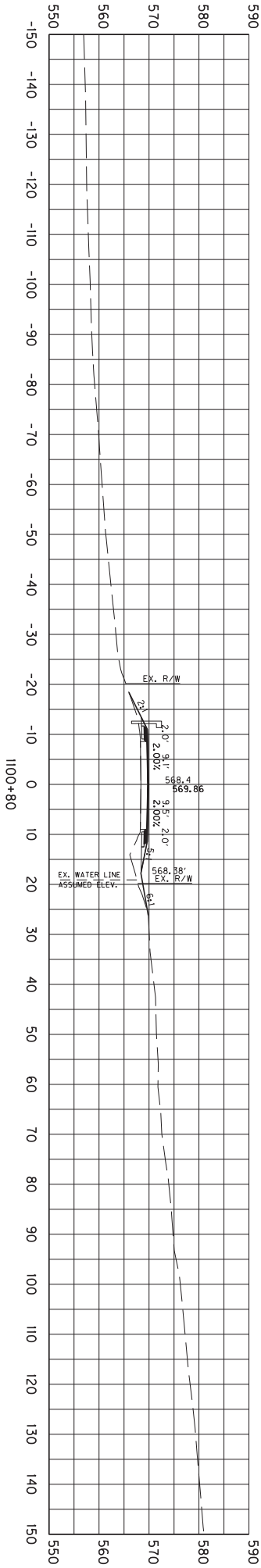
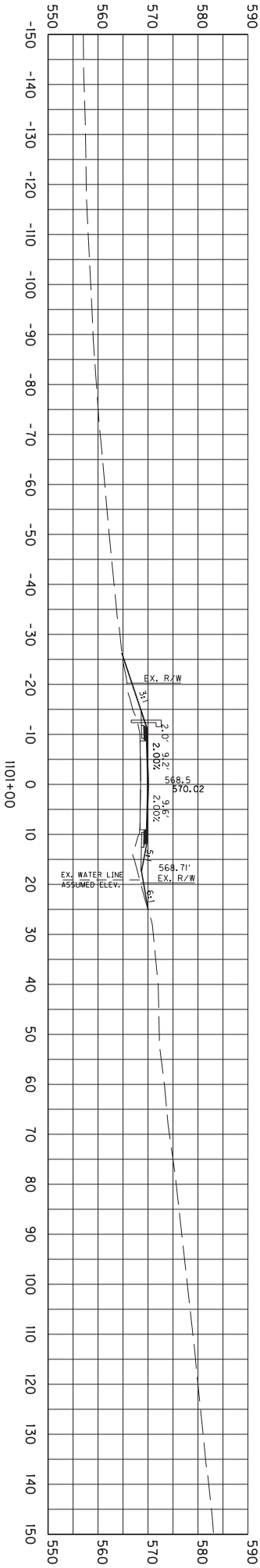
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X14B

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1100+00 TO STA. 1100+40

XS for Sta 1100+00 to Sta 1102+65

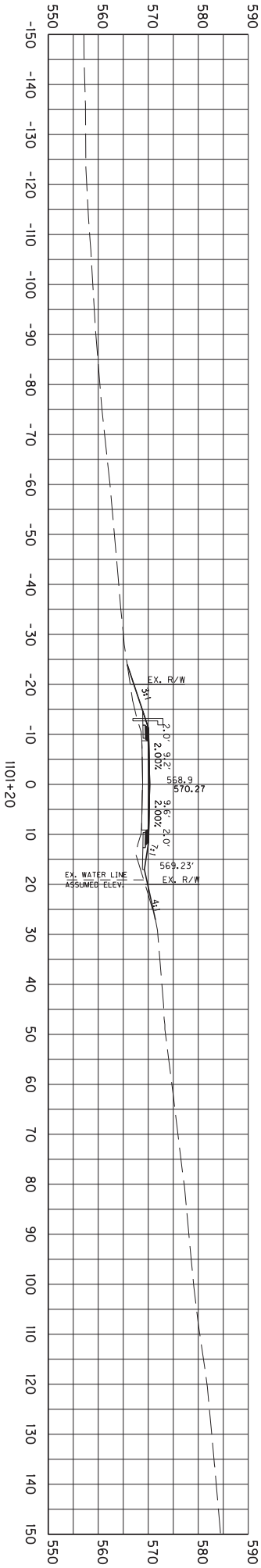
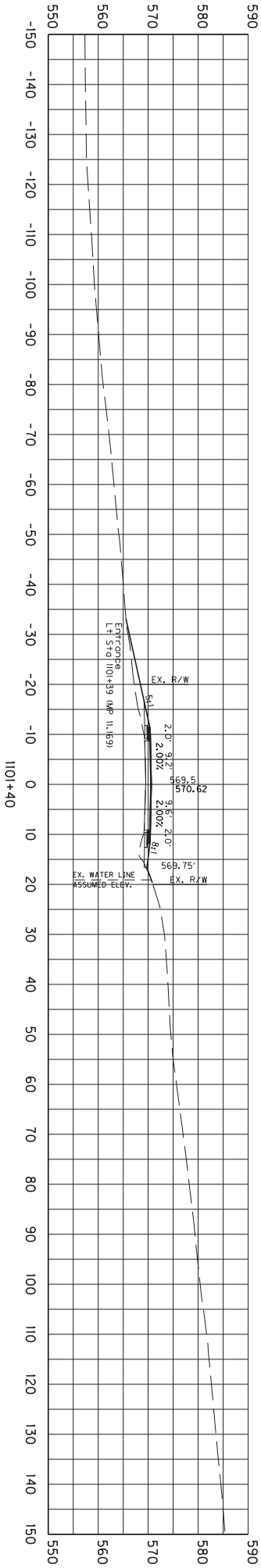
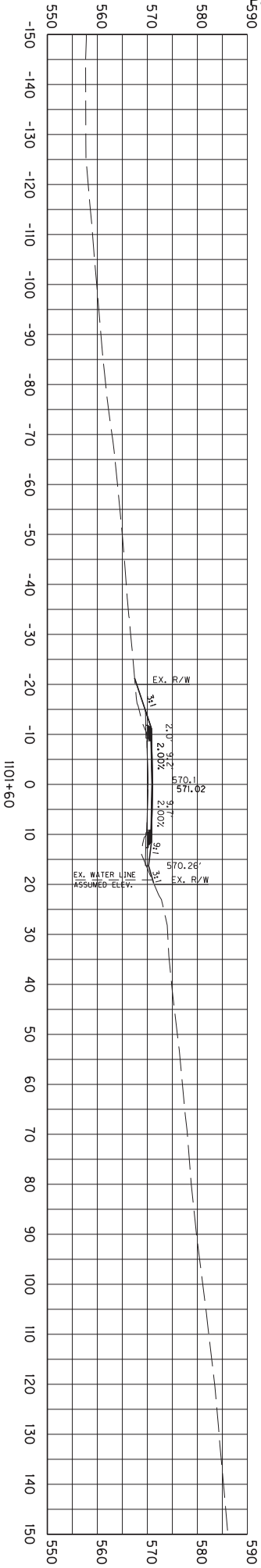


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X14C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1100+60 TO STA. 1101+00

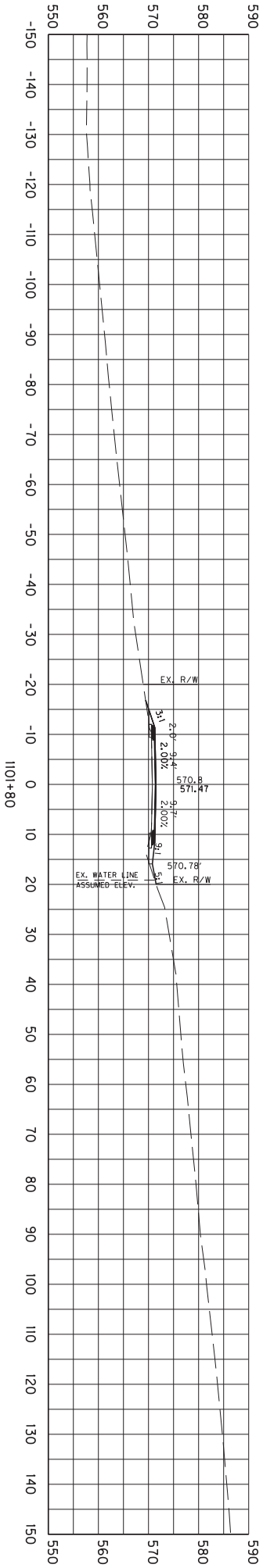
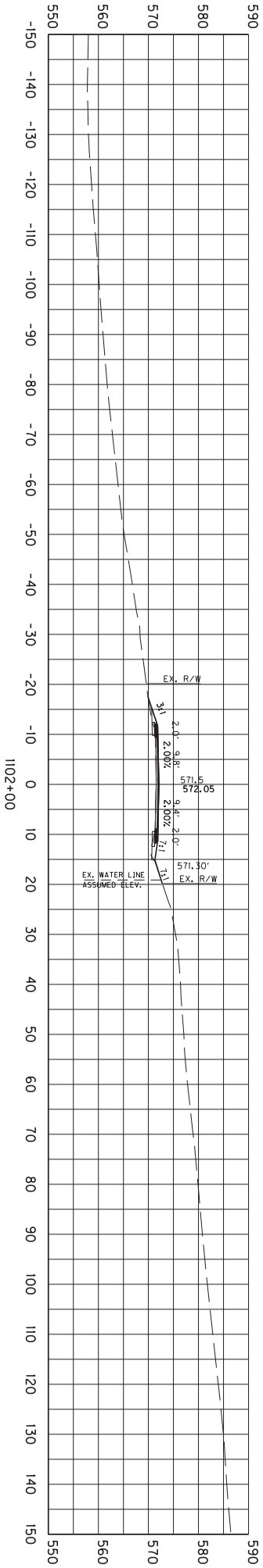
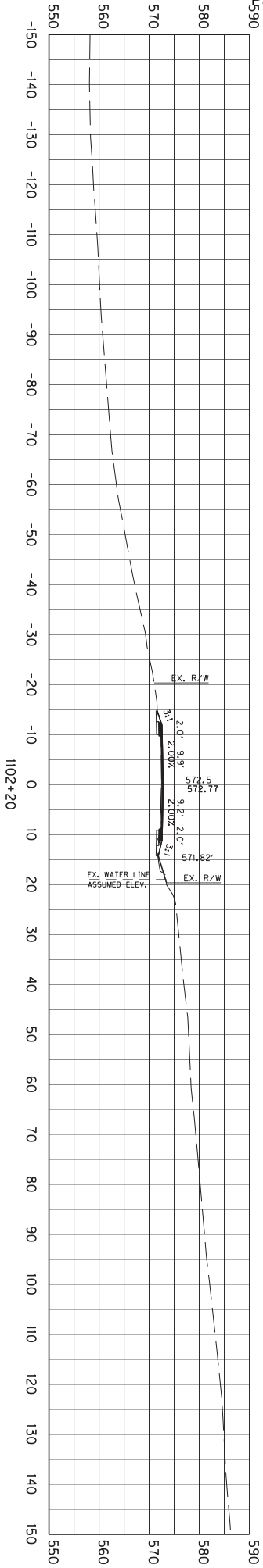


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X14D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1101+20 TO STA. 1101+60

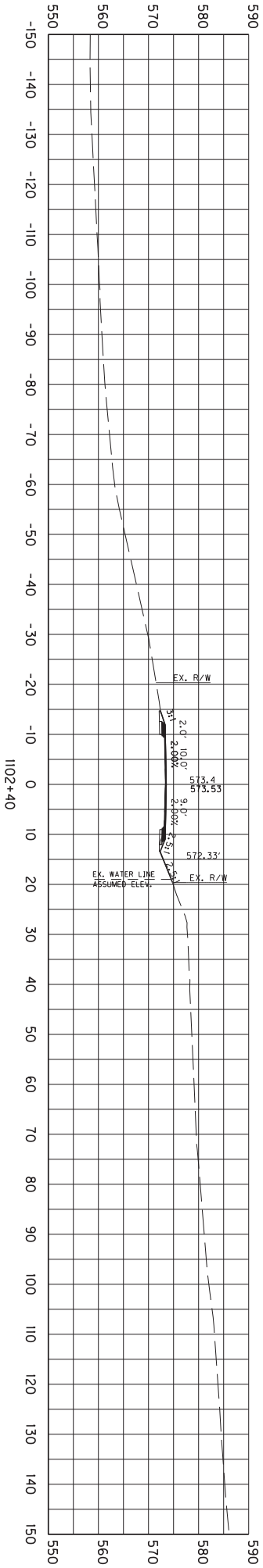
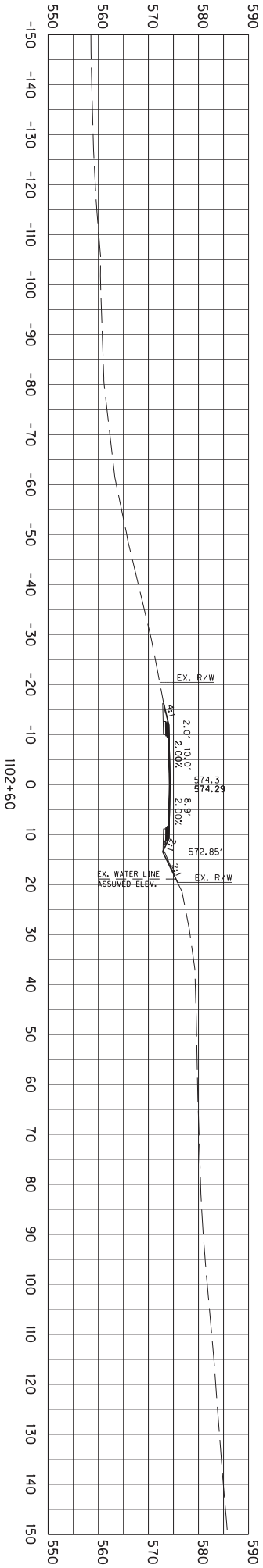
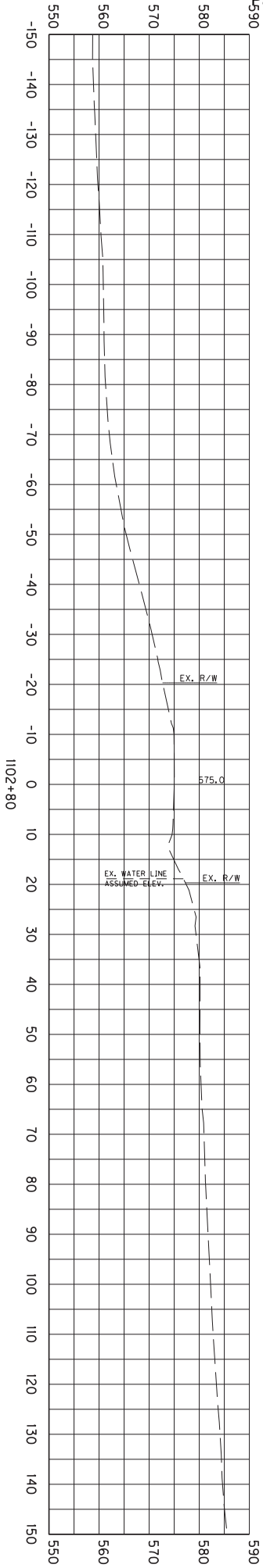


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X14E

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1101+80 TO STA. 1102+20

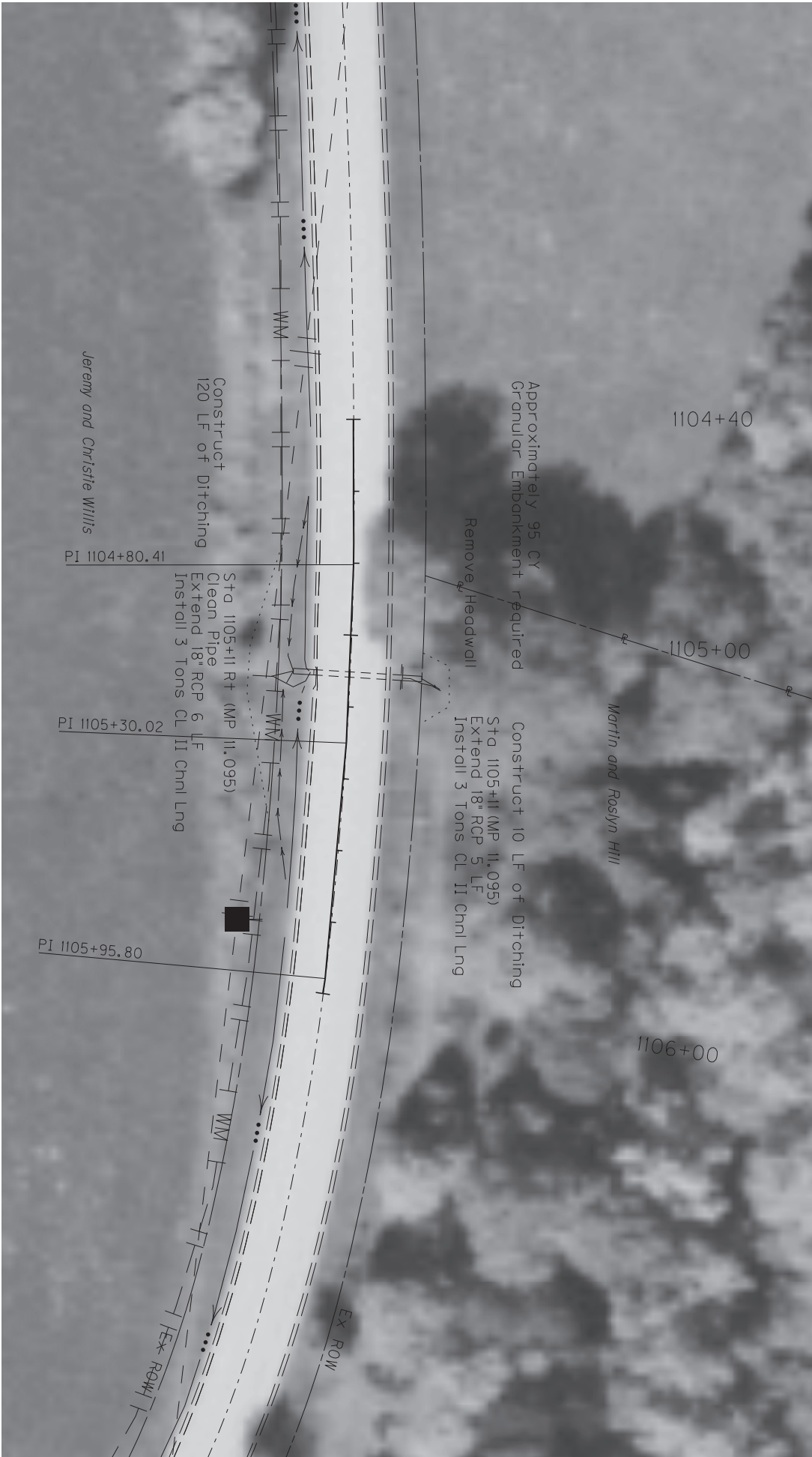


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X14F

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1102+40 TO STA. 1102+80



SHEET SUMMARY - GENERAL

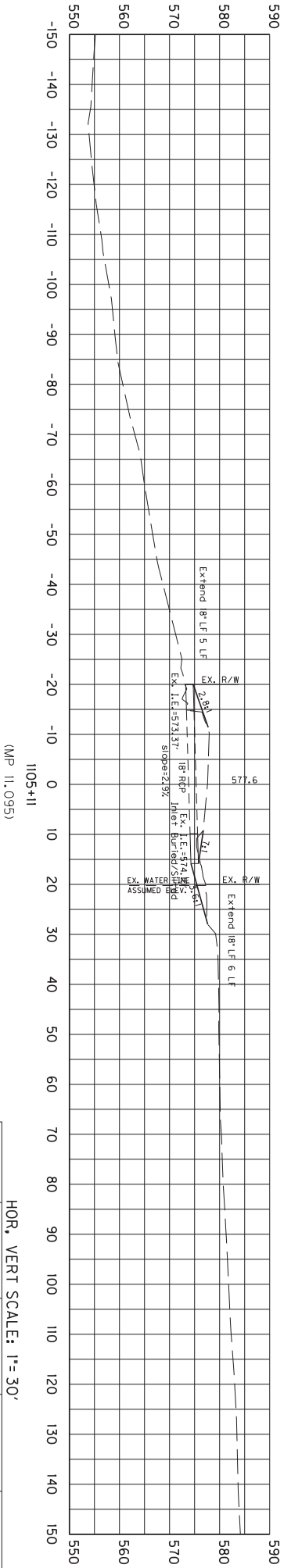
18 IN CULVERT PIPE	REMOVE HDWL	CLEAN PIPE	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	EACH	LF	CY	TONS
11	1	1	130	95	6

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R15

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 11.095
Sta 1105+11
18" RCP

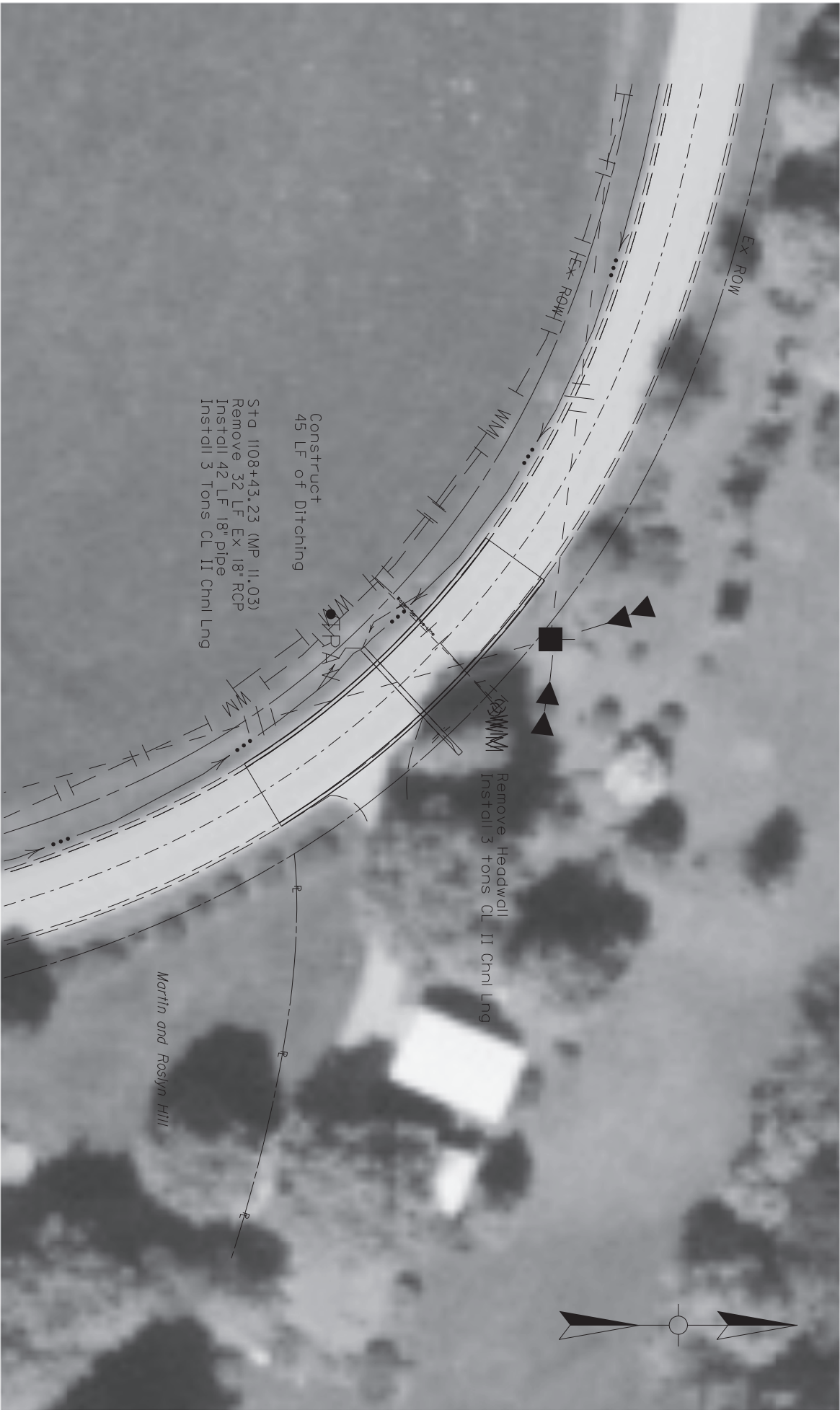


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS15A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1105+11 TO STA. 1105+11

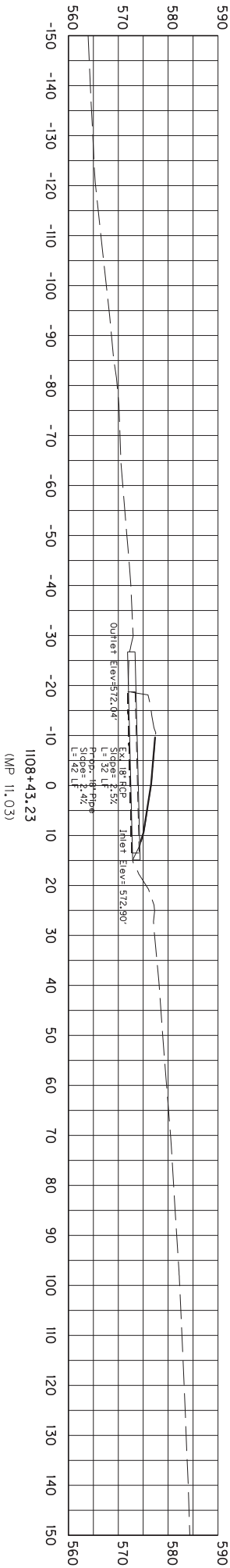


SHEET SUMMARY - PAVING					
ASPH SURF			PAVE MILLING & TEXTURING		
ML	SY	TONS	ML	TON	
234	16			26	

SHEET SUMMARY - GENERAL					
18 IN CULVERT PIPE		REMOVE HDWL	DITCHING	CL II CHNL LNG	
LF	EACH		LF	TONS	
42	1		45	6	

SCALE: 1"= 40'

COUNTY OF			ITEM NO.	SHEET NO.
GRAYSON			4-9007	R16
KY 1214 GRAYSON SPRINGS RD				
PLAN SHEET				
MP 11.03				
STA 1108+43.23				
18" RCP				

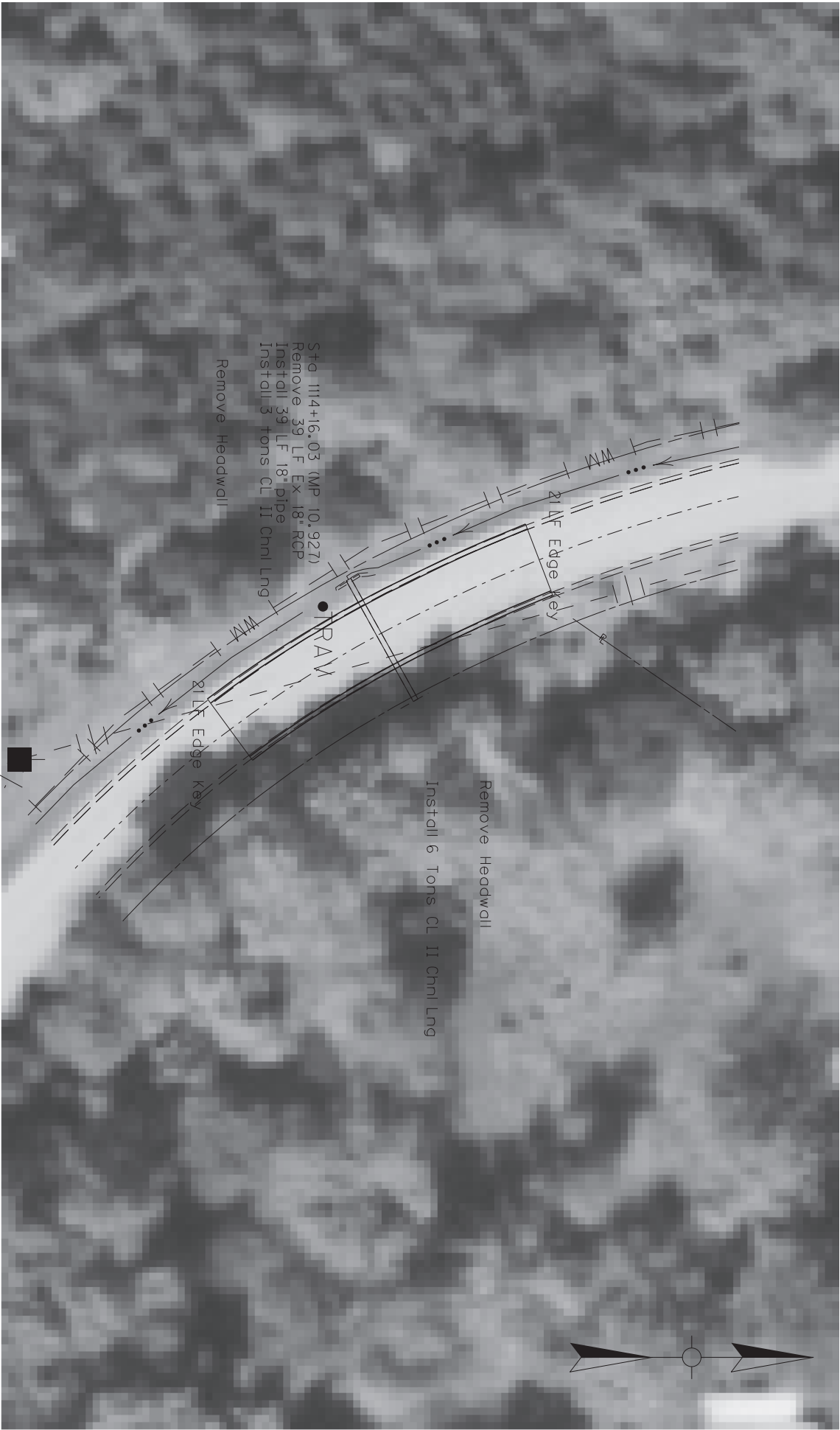


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS16A

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1108+43.23
MP 11.03



SHEET SUMMARY - PAVING

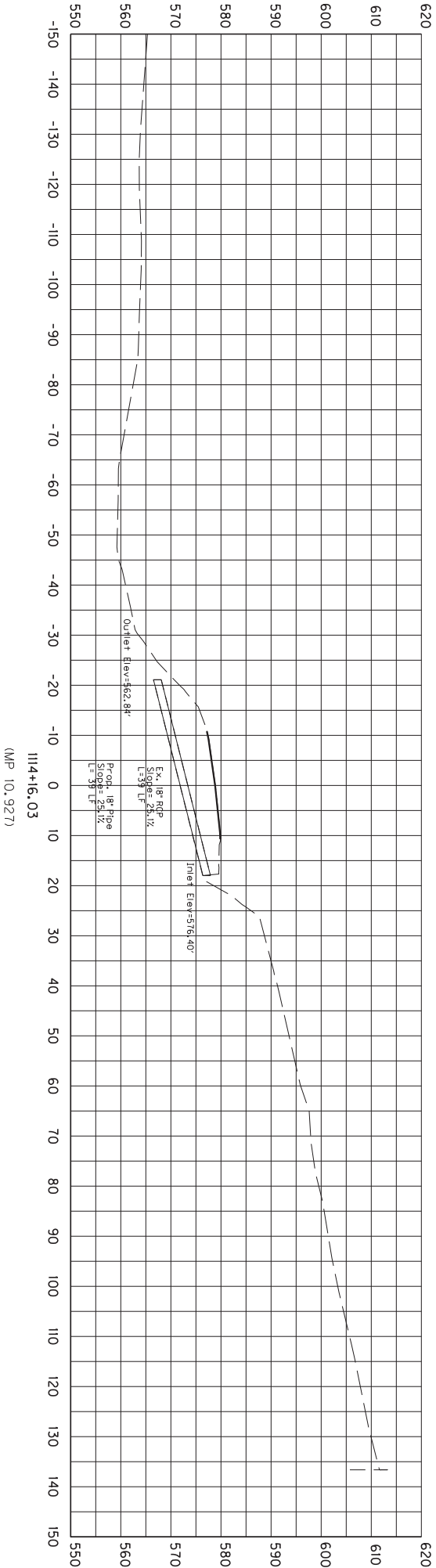
ASPH	SURF	PAVE MILLING & TEXTURING
ML	240	16
SY	TONS	TONS

SHEET SUMMARY - GENERAL

18 IN CULVERT PIPE	REMOVE HDWL	CL II CHNL LNG
LF	EACH	TONS
39	2	9

SCALE: 1" = 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R17
KY 1214 GRAYSON SPRINGS RD		
PLAN SHEET		
MP 10.927		
STA 1114+16.03		
18" RCP		



HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS17A

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1114+16.03
MP 10.927

Begin Paving MP 10.892
Sta 1116+00

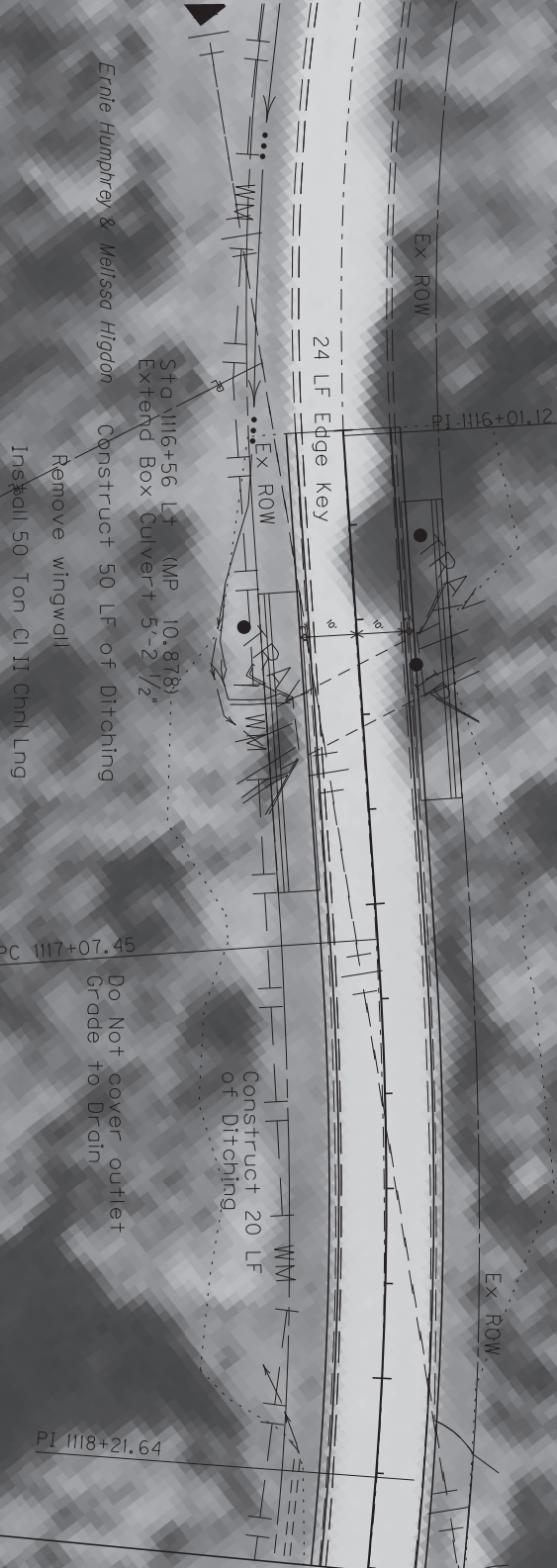
Sta 1116+56 L+ (MP 10.878)
Extend Box Culvert 5'-10 5/8"
Remove wingwall
Install 50 Ton CI II Chnl Lng

1117+00
Approximately 2254 cy Emb required
(includes 1749 CY Granular Embankment)

Entrance (MP 10.849)
L+ Sta 1118+27
Install 15 ton DGA, A=29 sy; Depth = 9"

1118+00

STA 1118+40 MATCHLINE



Ernie Humphrey & Melissa Higdon

Remove wingwall
Install 50 Ton CI II Chnl Lng

Do Not cover outlet
Grade to Drain

W&K Properties, LLC

GEOTECHNICAL NOTES

Solid rock excavation will be required to reach required footing elevations.
Temporary sheeting or shoring/cofferdams and/or a dewatering method will be required for installation of the footings.

SCALE: 1"=40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R18

**KY 1214 GRAYSON SPRINGS RD
PLAN SHEET**

Superelevation Correction
Beginning MP 10.892 (STA 1116+00)
& box culvert extension
@ MP 10.878 (STA 1116+56)

Hank & Deborah Gibson

1120+00

1120+80

Construct 210 LF of Ditching

STA 1118+40 MATCHLINE

Construct 50 LF of Ditching

Entrance (MP 10.840)
Rt Sta 1118+73
Install 7 Ton CSB; A = 29 sy; Depth = 4'

PT 1119+34.29

End Paving MP 10.797
Sta 1120+80

24 LF Edge Key

Judith Brueck

TRAV

SHEET SUMMARY - PAVING

ASPH SURE		ASPH BASE		CSB	
SY	TONS	SY	TONS	SY	TONS
ML	1067	88	SH	214	*136
SH	214	18			

*Include 62 Tons

*Include 62 Tons
for Full Depth Shoulders

SHEET SUMMARY - GENERAL

REMOVE	DITCHING	GRAN	EMB	CSB	DGA	CL II
WINGWALLS		EMB		(ENTR)	(ENTR)	CH LG
EACH	LF	CY	CY	TONS	TONS	TONS
2	330	1749	505	7	15	100

SCALE: 1" = 40'

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

Superelevation Correction
MP 10.846 (Sta 1118+40) to
MP 10.797 (Sta 1120+80)

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R19



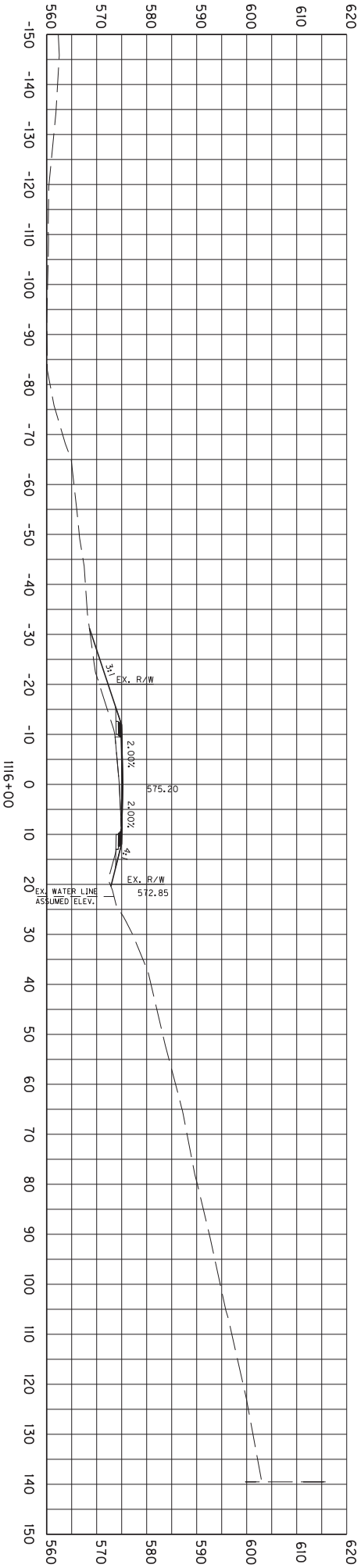
HOR, VERT SCALE: 1"=30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS19A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1116+56

XS For Sta 1112+00 to Sta 1120+80



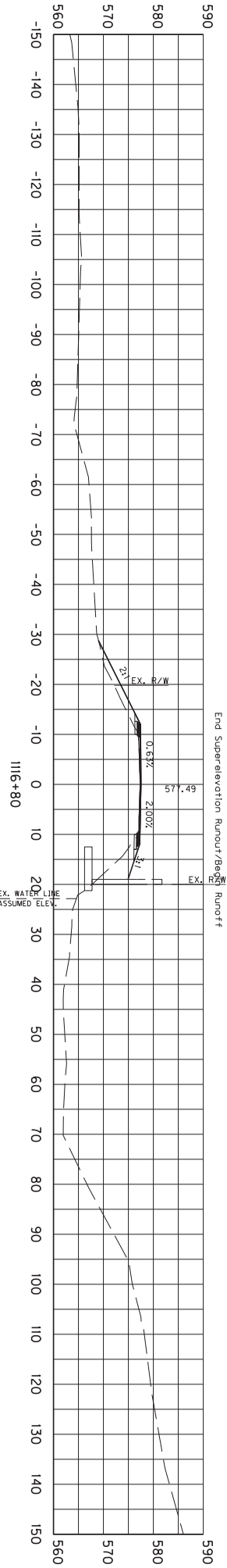
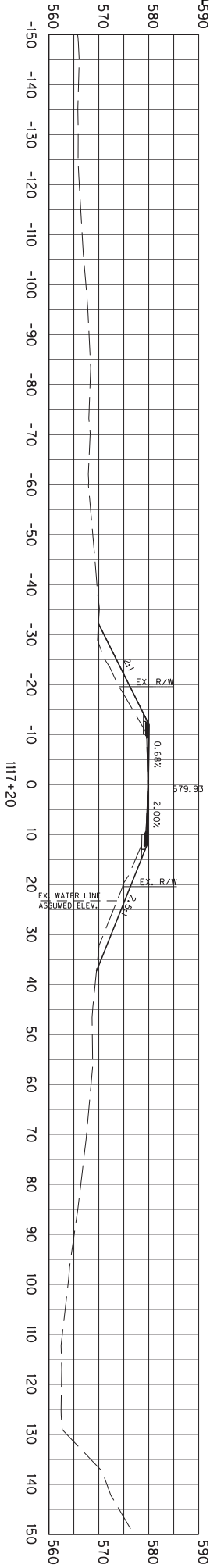
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X19B

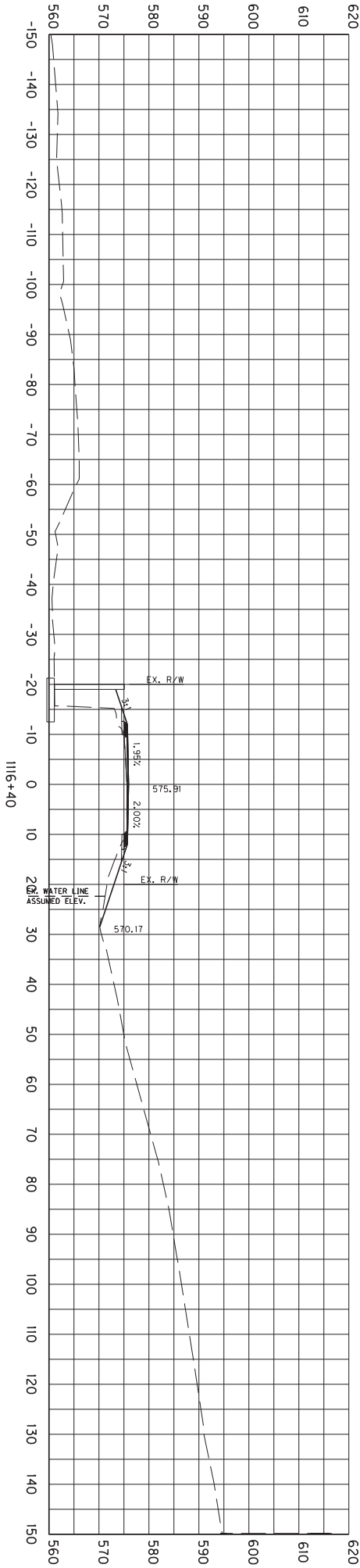
KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1116+00 TO STA. 1116+00

XS for Sta 1112+00 to Sta 1120+80



For box culvert at Sta 1116+56, see pipe sheet



HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X19C

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1116+40 TO STA. 1117+20



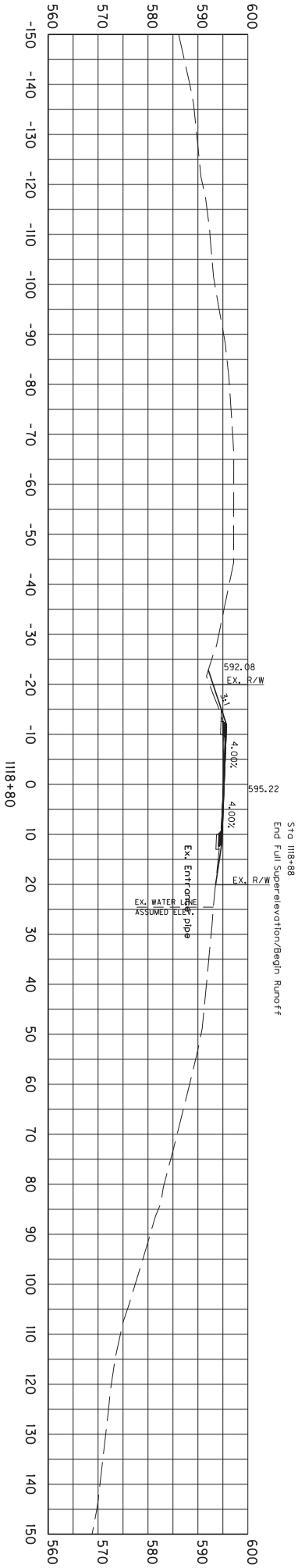
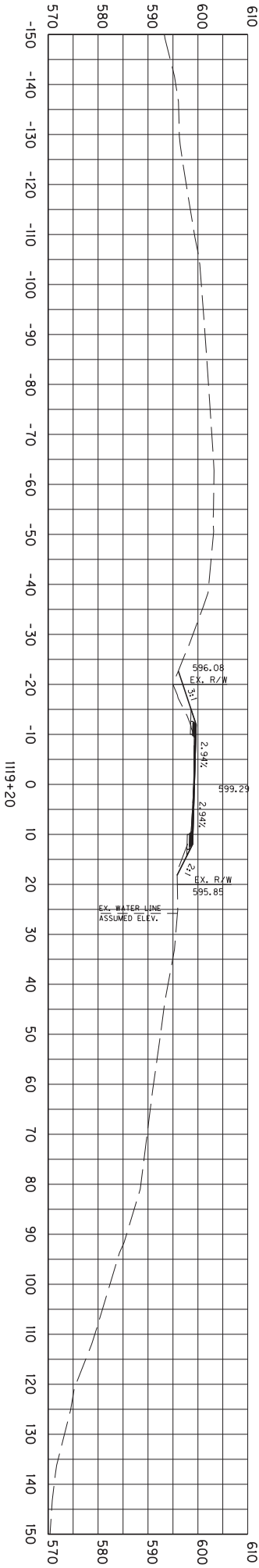
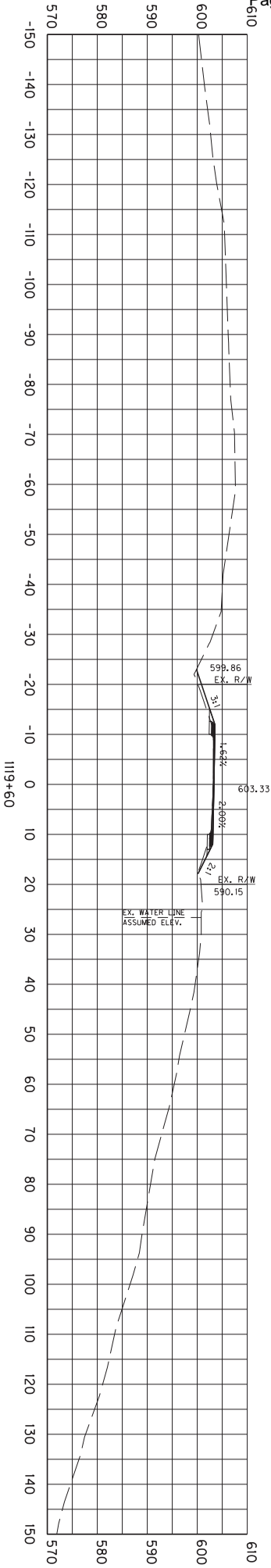
HOR, VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X19D

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1117+60 TO STA. 1118+40

XS for Sta 1112+00 to Sta 1120+80



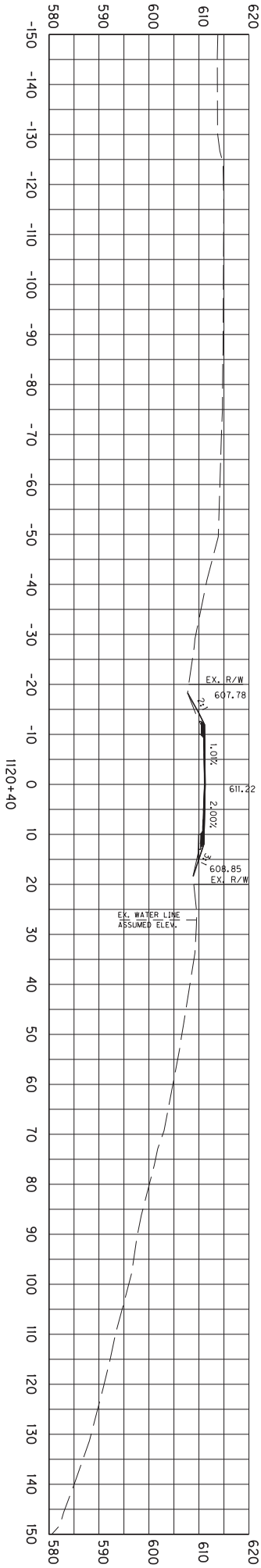
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X19E

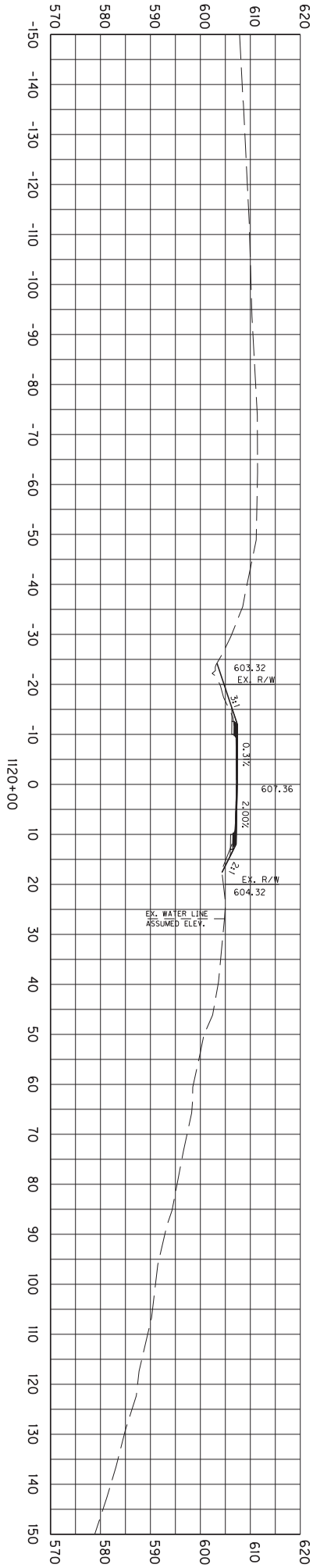
KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1118+80 TO STA. 1119+60

XS for Sta 1122+00 to Sta 1120+80



Sta 1120+09
End Super-elevation Runoff/Begin Runout



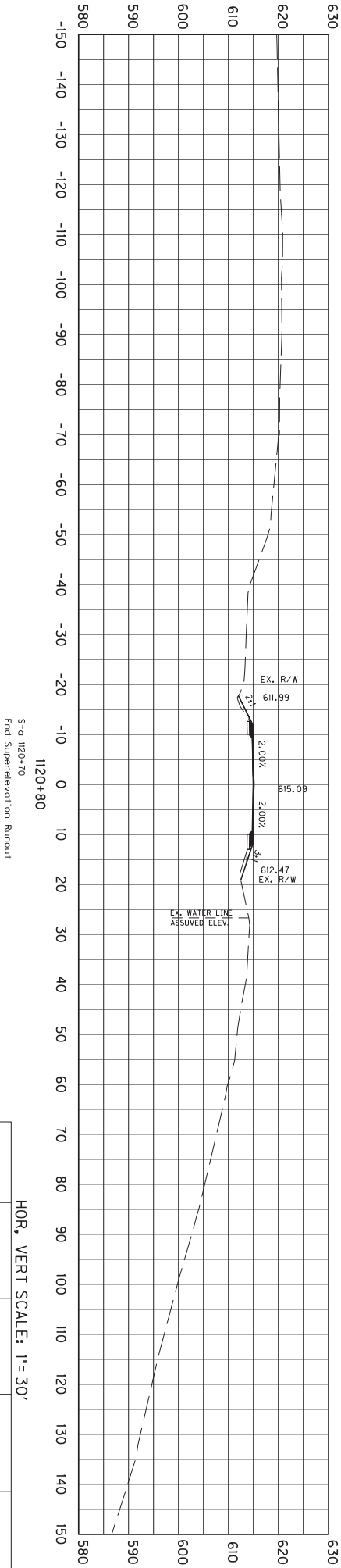
HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X19F

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1120+00 TO STA. 1120+40

KS for Sta 112+00 to Sta 1120+80

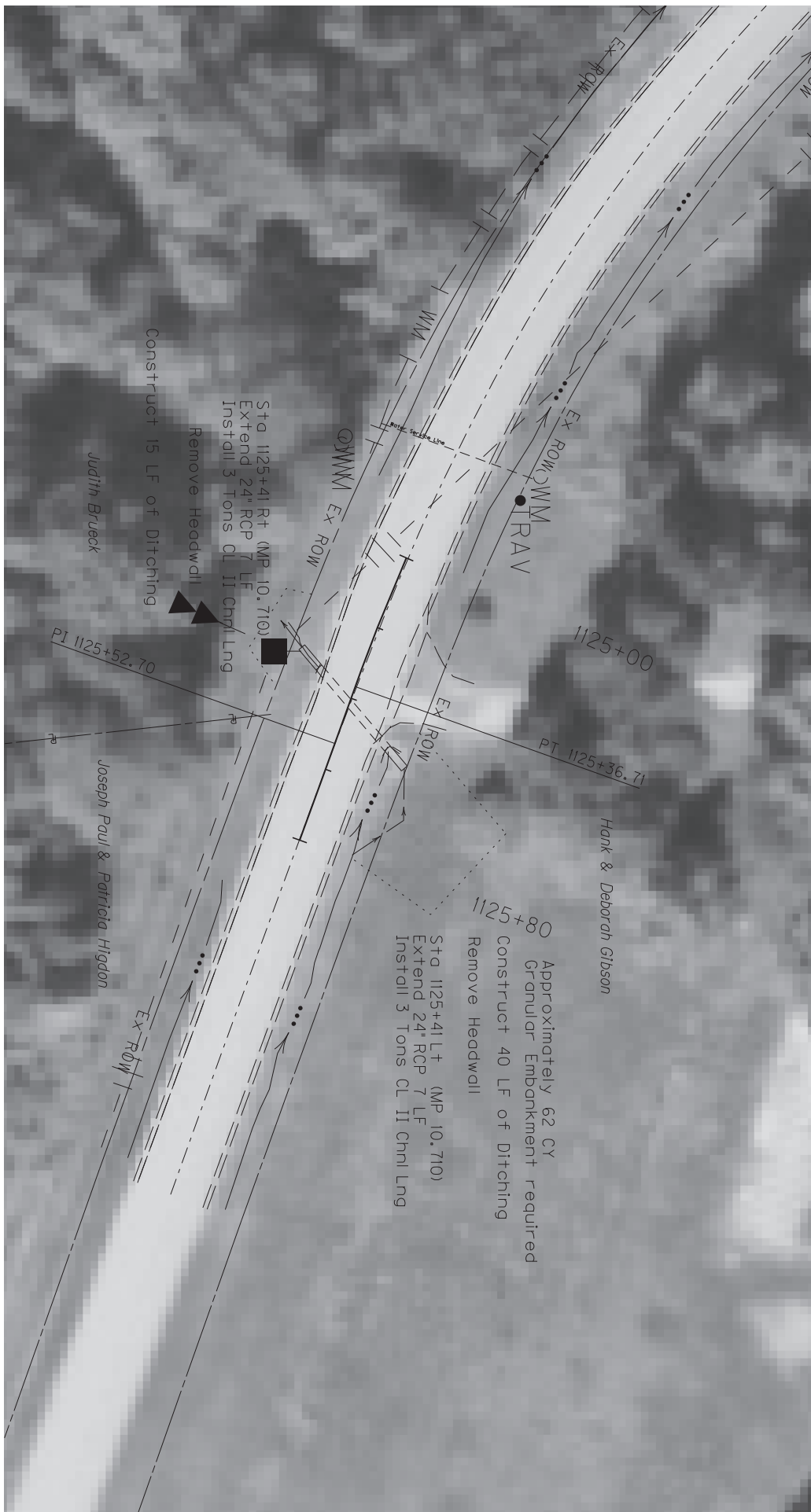


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	X19G

KY 1214 GRAYSON SPRINGS RD
CROSS SECTION SET

STA. 1120+80 TO STA. 1120+80



24 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
14	2	55	62	6

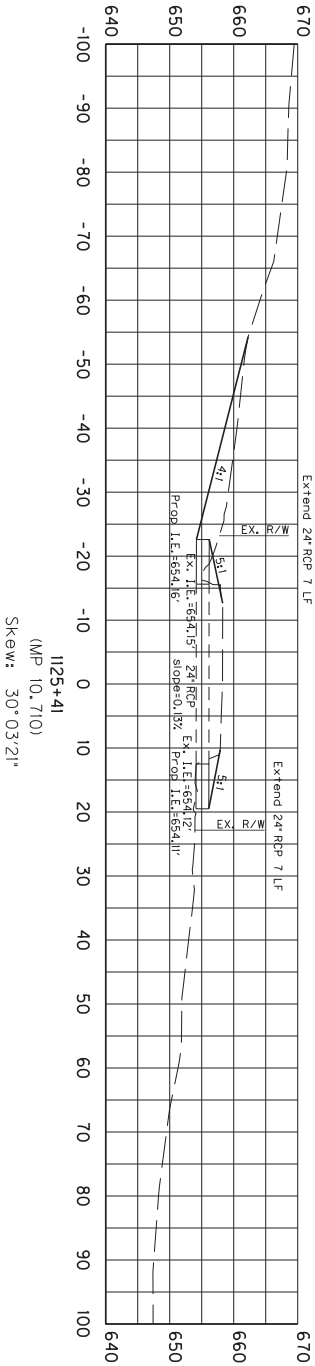
SHEET SUMMARY - GENERAL

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R20

SCALE: 1"=40'

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 10.710
STA 1125+41
24" RCP



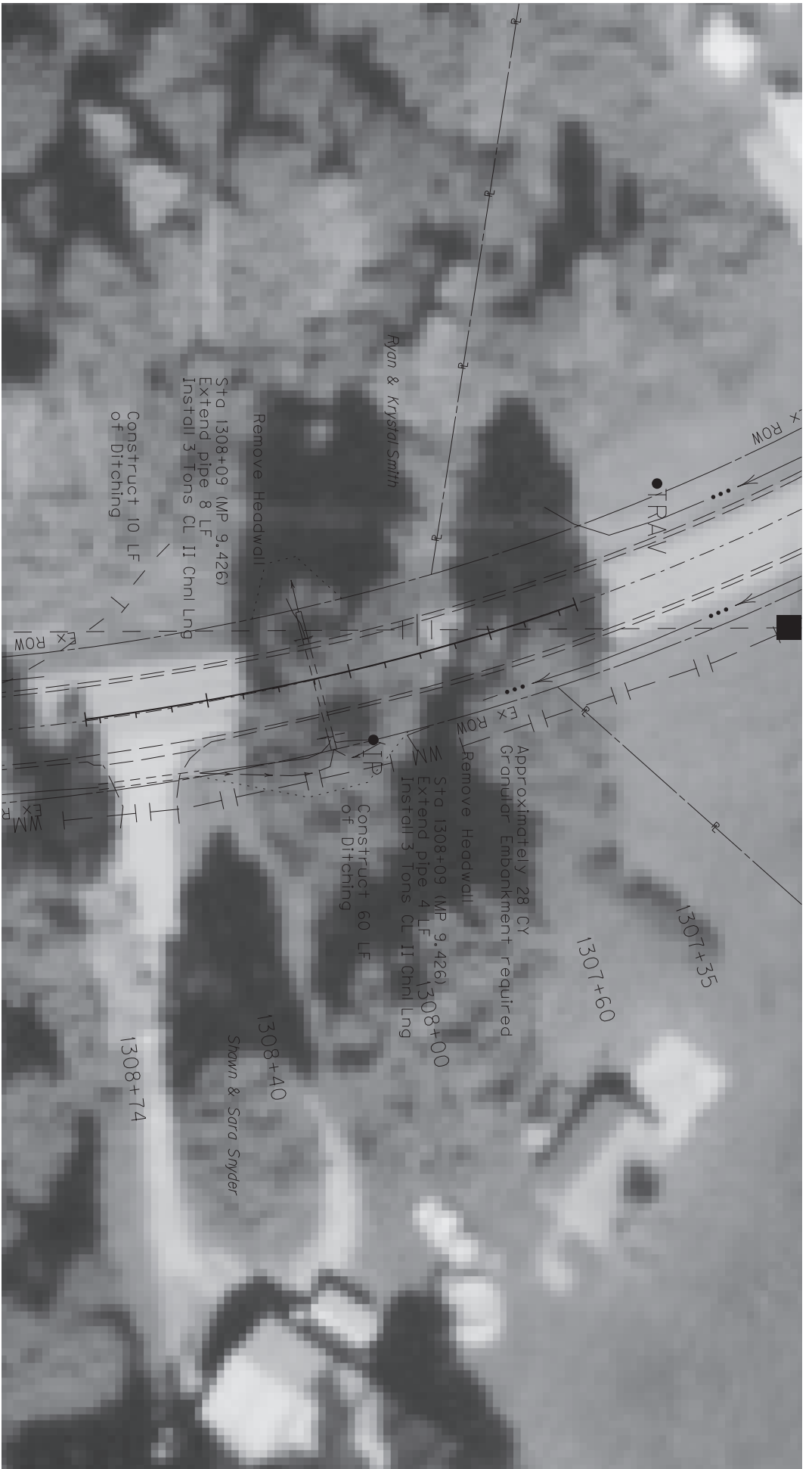
1125+41
(MP 10.710)
Skew: 30° 03' 21"

HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS20A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1125+41

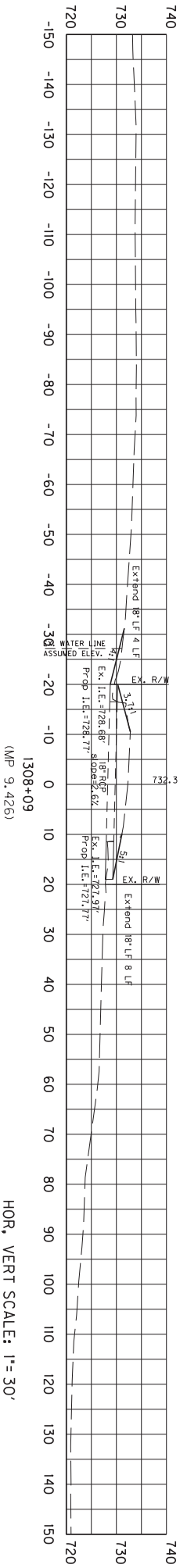


18 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
12	2	70	28	6

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R21

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 9.426
STA 1308+09
18" RCP

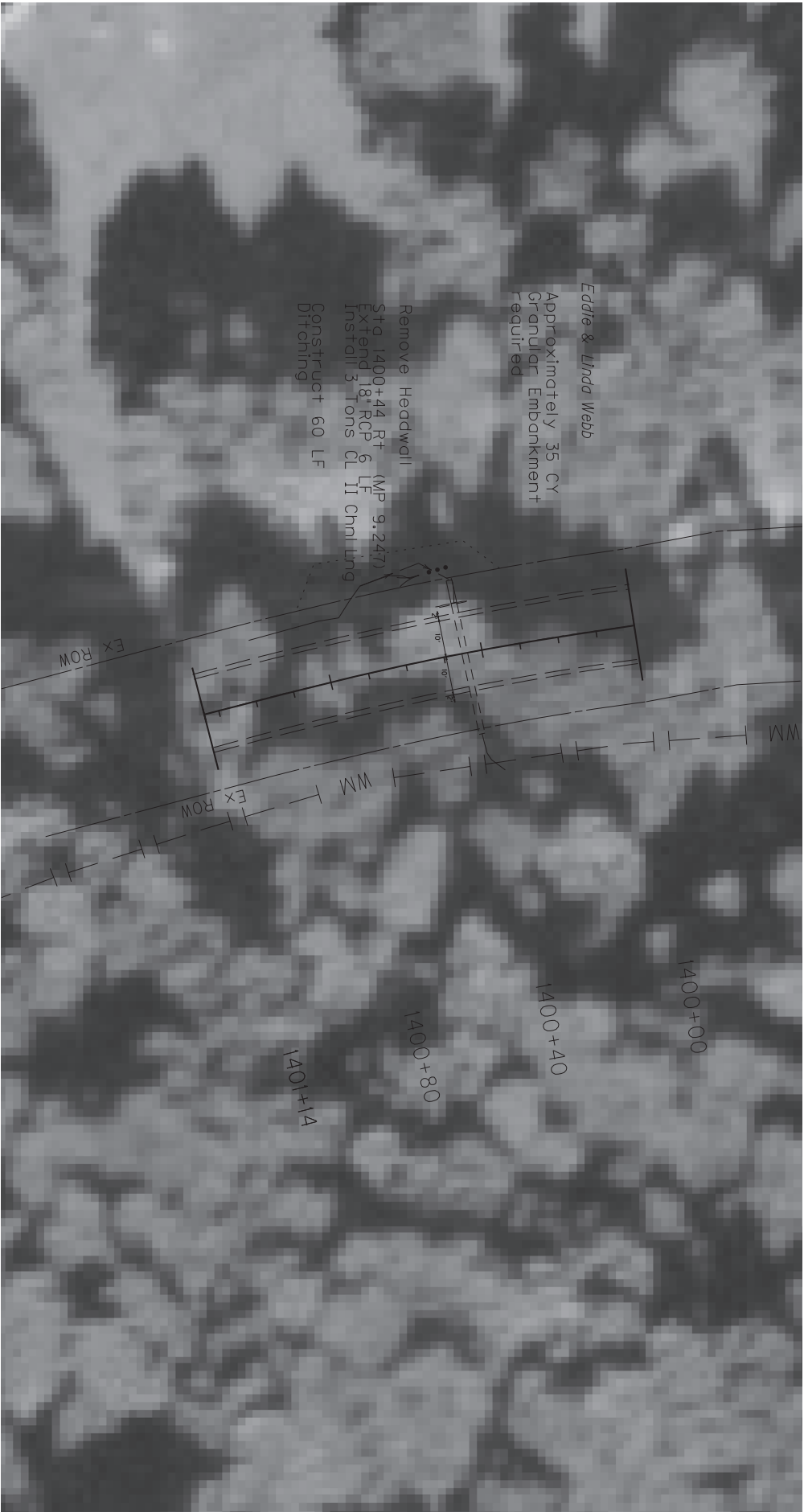


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS21A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

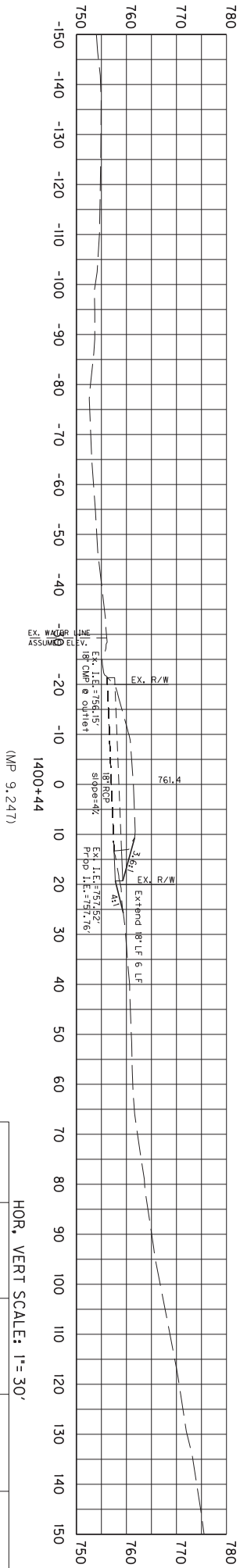
STA. 1308+09



SHEET SUMMARY - GENERAL				
18 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
6 LF	EACH 1	60 LF	35 CY	3 TONS

KY 1214 GRAYSON SPRINGS RD PLAN SHEET			COUNTY OF	ITEM NO.	SHEET NO.
			GRAYSON	4-9007	R22
MP 9.247 STA 1400+44 18" RCP					

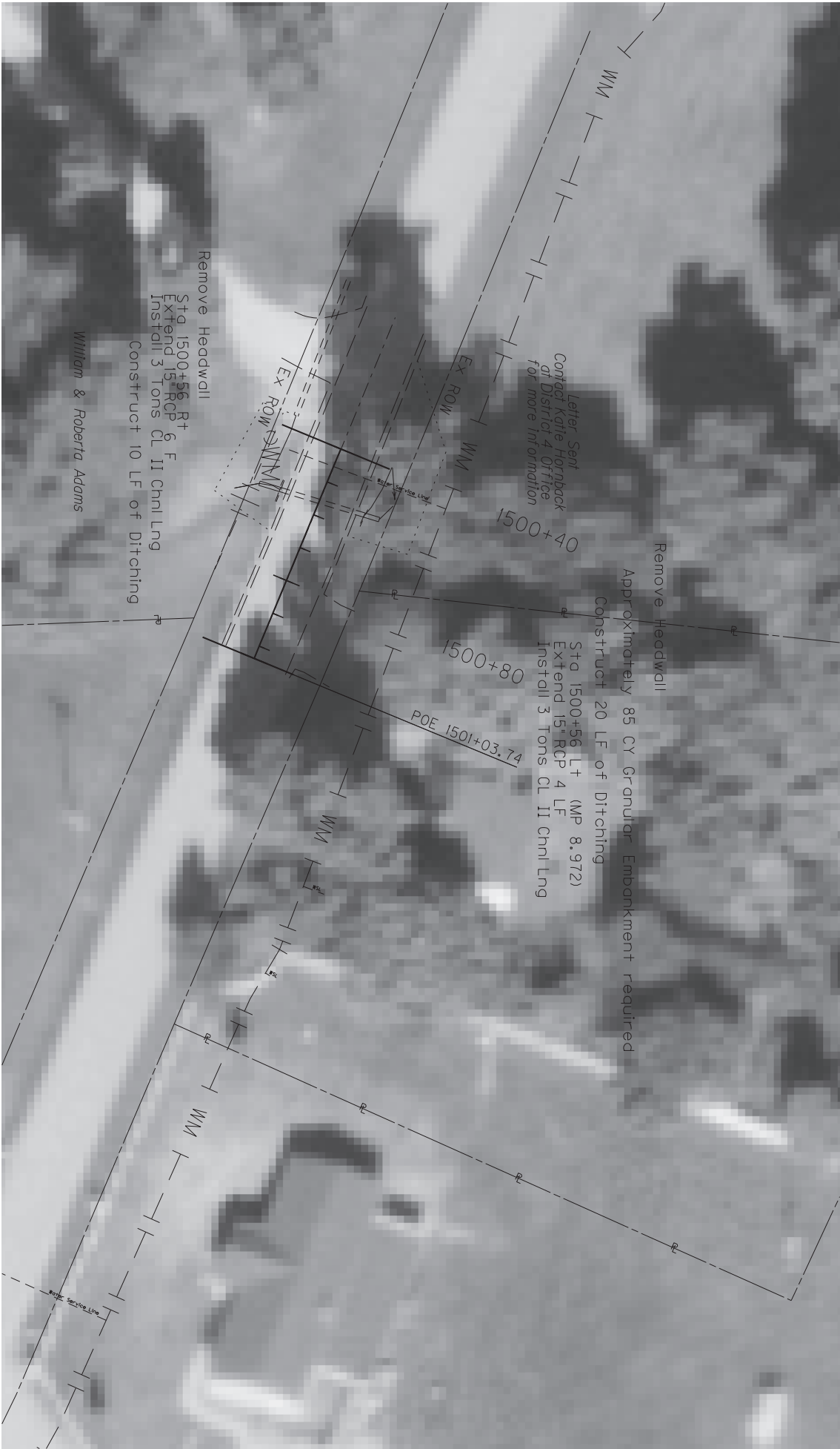
SCALE: 1" = 40'



COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS22A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1400+44



SHEET SUMMARY - GENERAL

15 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
10	2	30	85	6

SCALE: 1"= 40'

COUNTY OF
GRAYSON

ITEM NO.
4-9007

SHEET NO.
R23

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 8.972
STA 1500+56
15" RCP



COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS23A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1500+56



SHEET SUMMARY - GENERAL

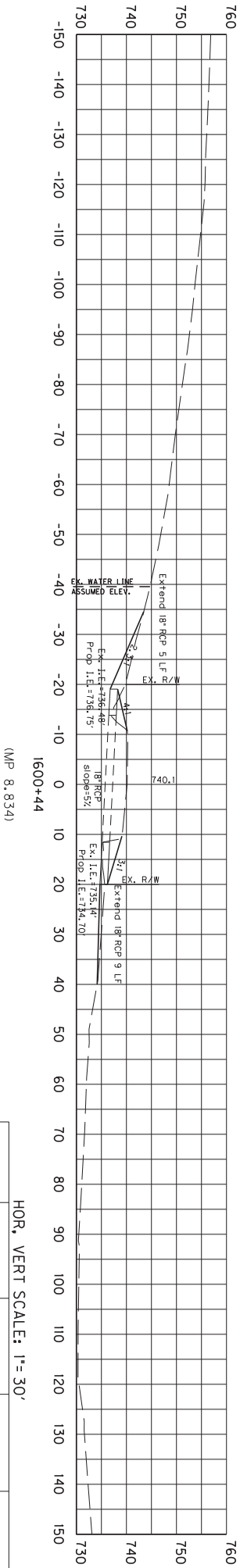
18 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
14	1	50	107	6

SCALE: 1" = 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R24

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 8.834
STA 1600+44
18" RCP

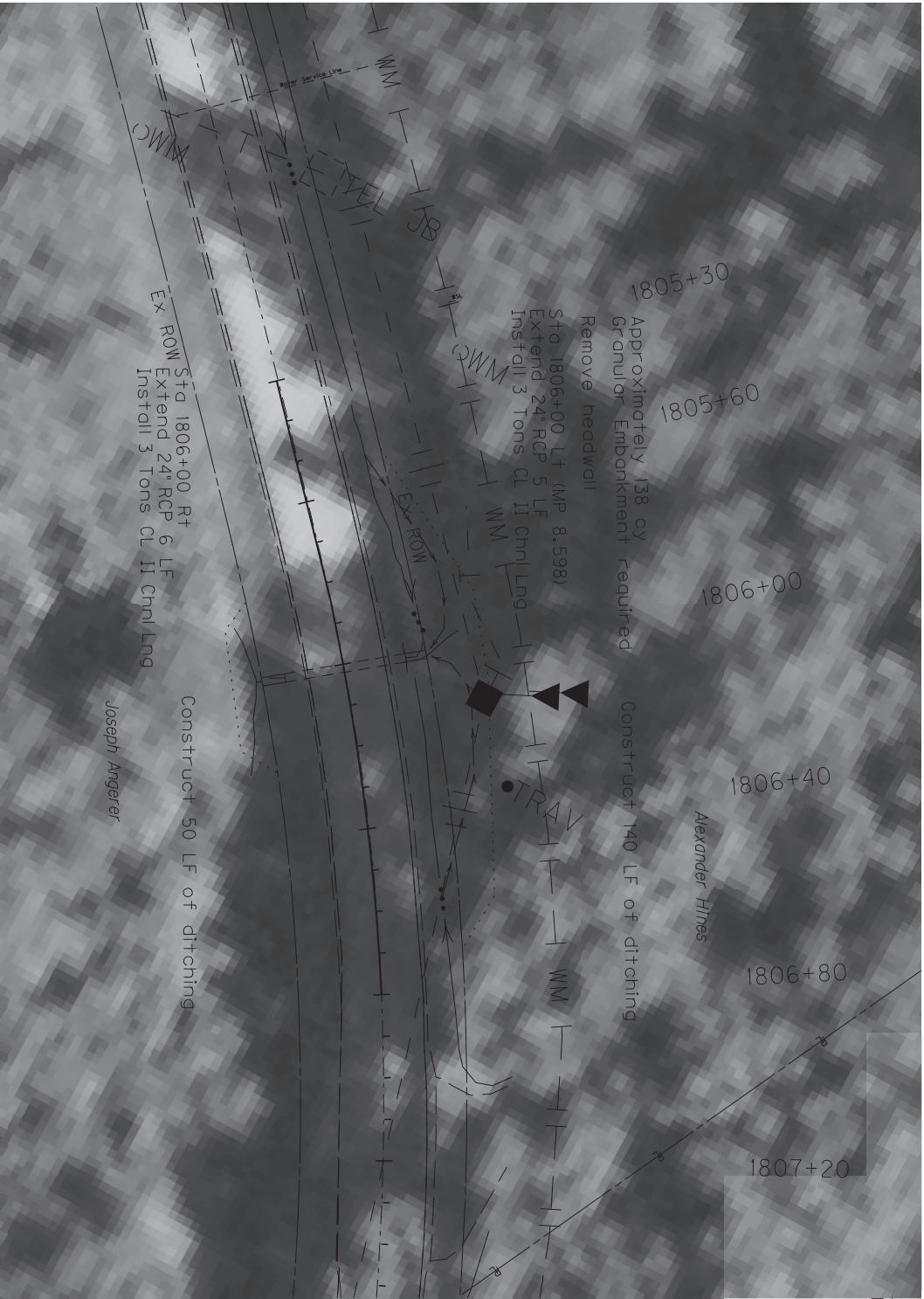


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS24A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1600+44



SHEET SUMMARY - GENERAL

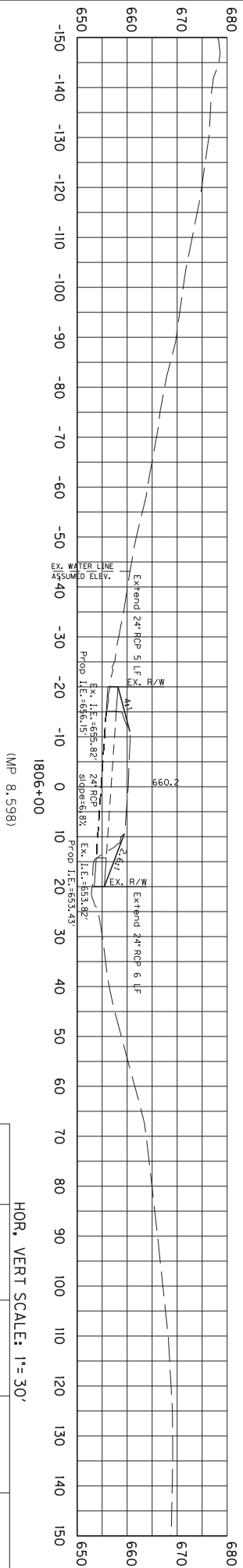
24 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
11	1	190	138	6

SCALE: 1"= 40'

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R25

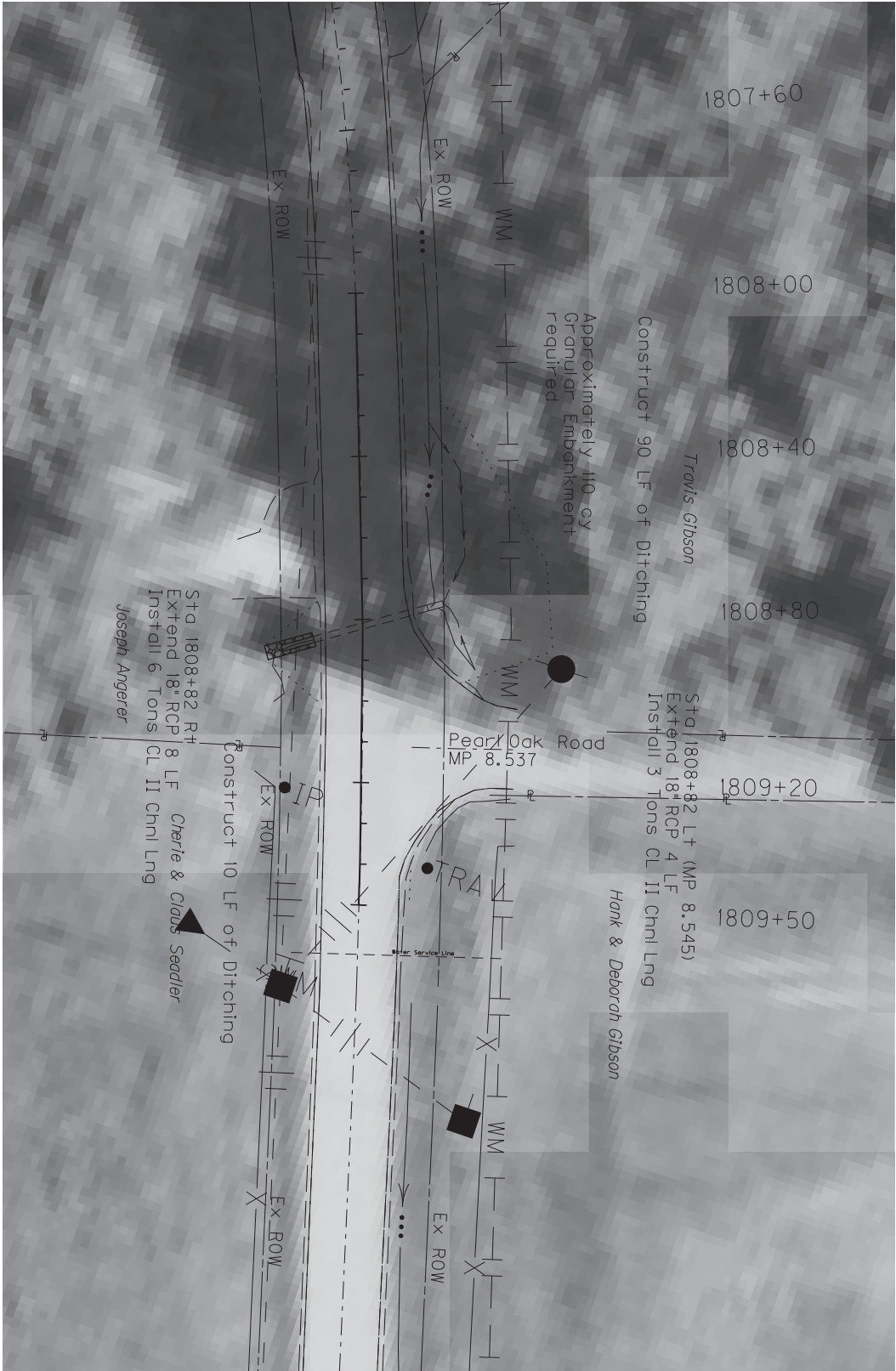
MP 8.598
STA 1806+00
24" RCP



COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS25A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1806+00



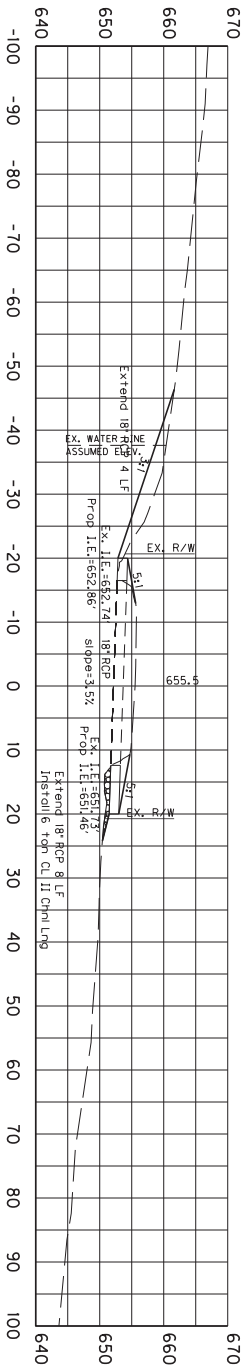
SHEET SUMMARY - GENERAL

18 IN RCP	DITCHING	GRAN EMB	CL II LG
LF	LF	CY	TONS
12	100	110	9

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R26

MP 8.545
STA 1808+82
18" RCP

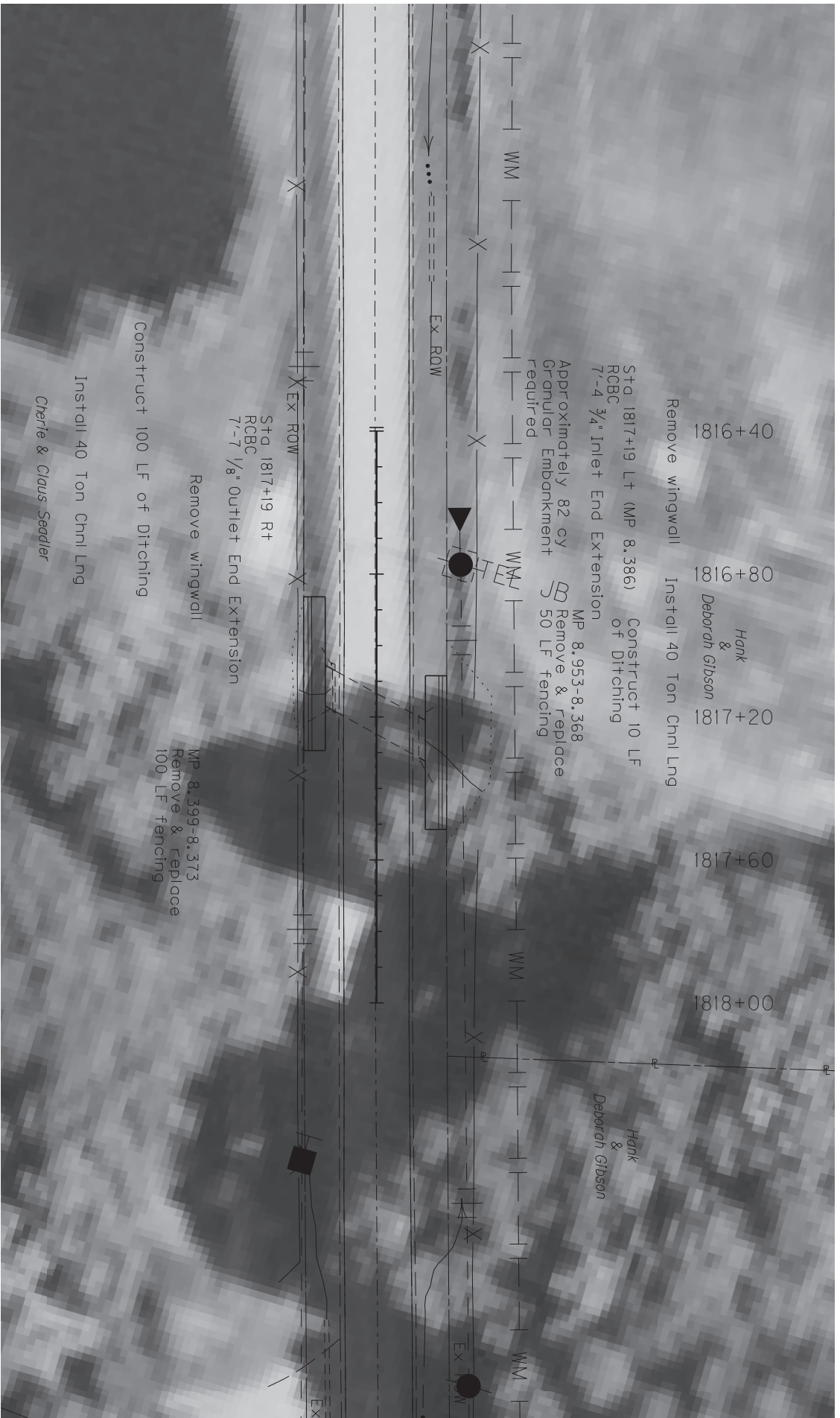
1808+82
MP 8.545)

Skew: 345° 42' 04"

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS26A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1808+82



GEOTECHNICAL NOTES

Solid rock excavation will be required to reach required footing elevations.

Temporary sheeting or shoring/cofferdams and/or a dewatering method will be required for installation of the footings.

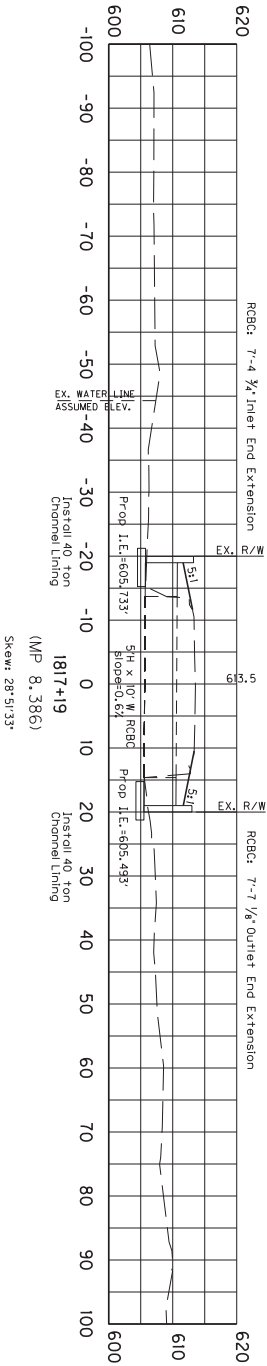
SHEET SUMMARY - GENERAL			
REMOVE WING/WALLS	DITCHING	GRAN EMB	CL II CH LG
EACH	LF	CY	TONS
2	110	82	80

	COUNTY OF	ITEM NO.	SHEET NO.	
	GRAYSON	4-9007	R27	

SCALE: 1"=40'

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 8.386
STA 1817+19
10' W x 5' H box culvert



HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS27A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1817+19



SHEET SUMMARY - GENERAL

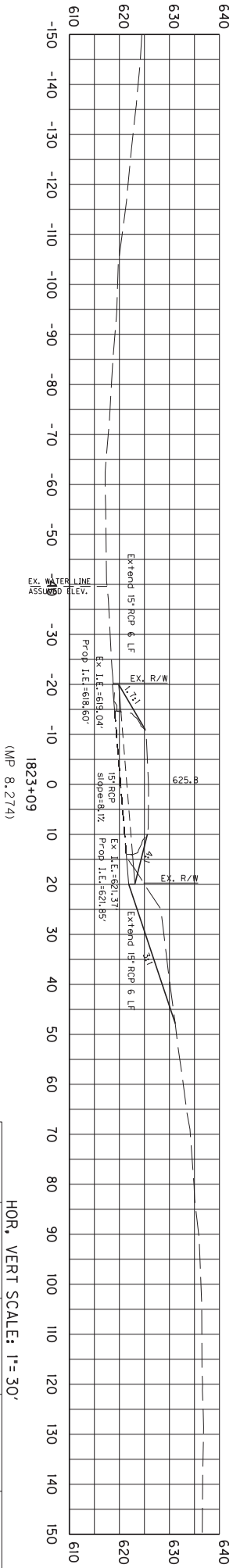
15 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
12	2	90	174	6

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R28

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 8.274
STA 1823+09
15" RCP

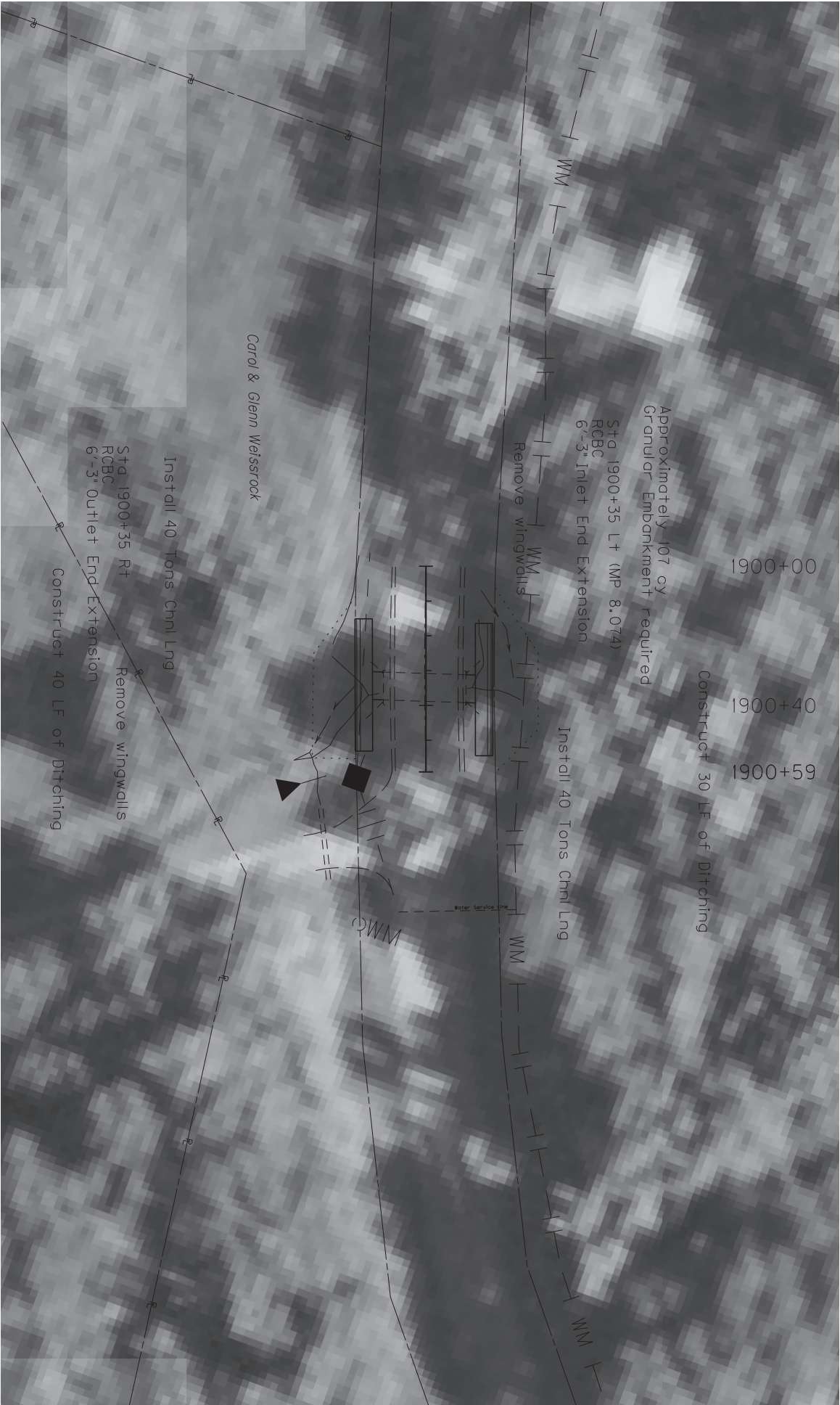


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS28A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1823+09



GEOTECHNICAL NOTES

Solid rock excavation will be required to reach required footing elevations.
Temporary sheeting or shoring/cofferdams and/or a dewatering method will be required for installation of the footings.

SHEET SUMMARY - GENERAL

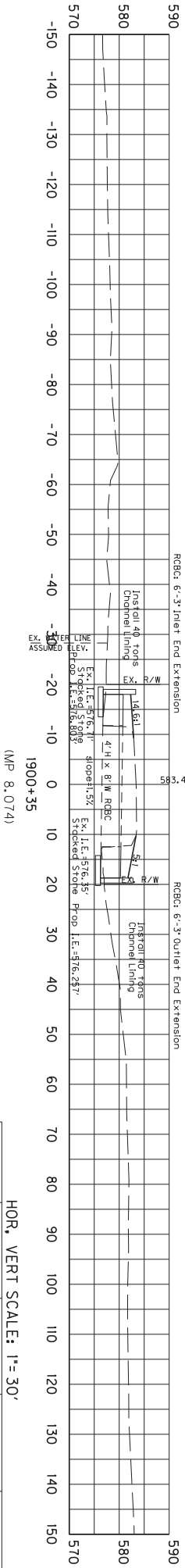
REMOVE WINGWALLS	DITCHING	GRAN EMB	CL CH LG	II LG
EACH	LF	CY	TONS	
2	70	107	80	

SCALE: 1" = 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R29

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 8.074
STA 1900+35
8'W x 4'H box culvert +

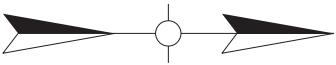
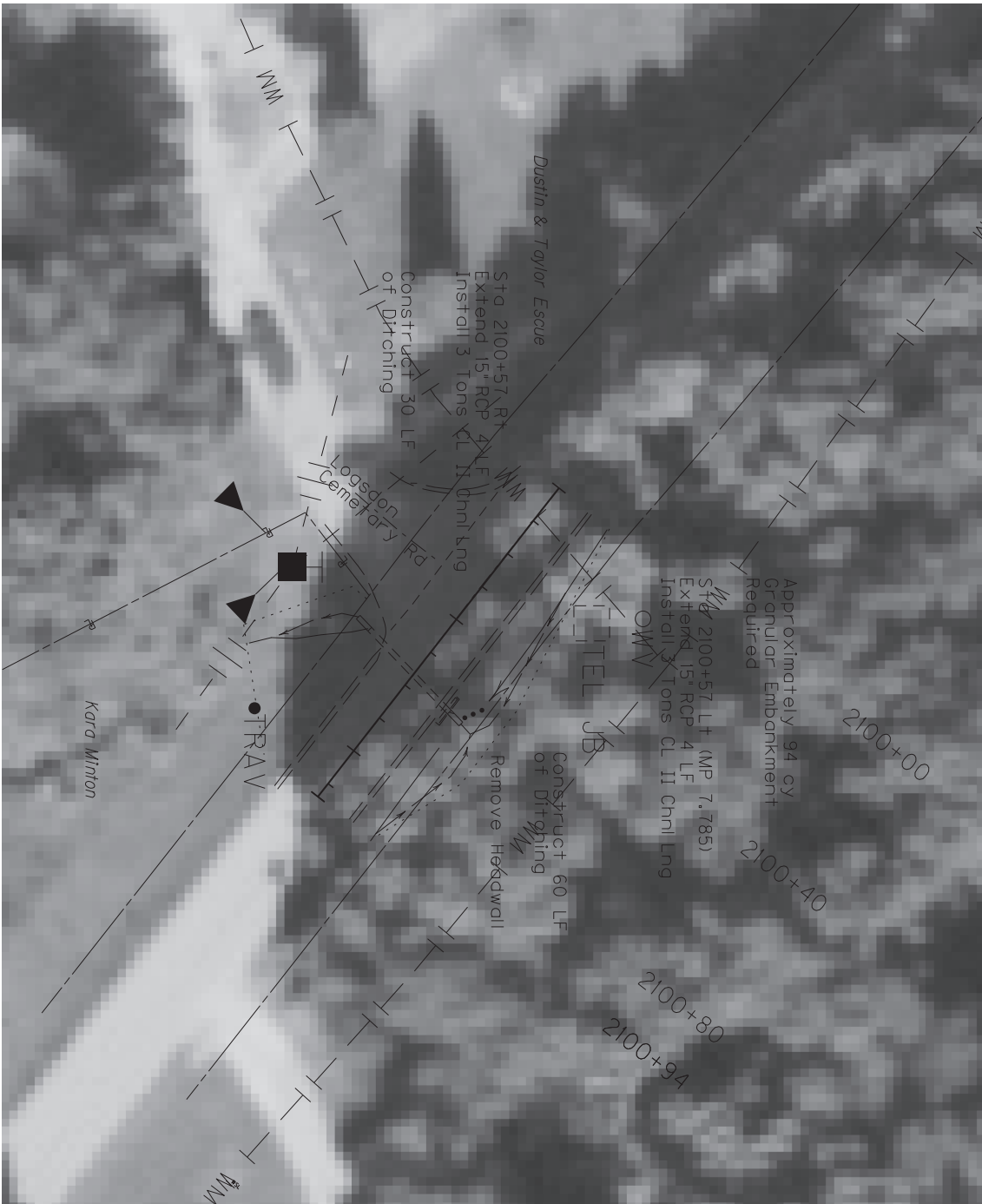


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS29A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 1900+35

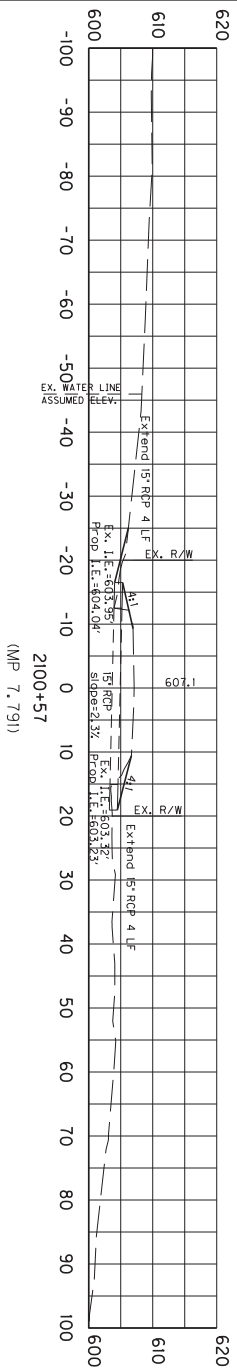


SHEET SUMMARY - GENERAL

15 IN CULVERT PIPE	REMOVE HDWL	DITCHING	GRAN EMB	CL II CHNL LNG
LF	EACH	LF	CY	TONS
8	1	90	94	6

SCALE: 1"= 40'

COUNTY OF			ITEM NO.	SHEET NO.
BRECKINRIDGE			4-9007	R30
KY 1214 GRAYSON SPRINGS RD				
PLAN SHEET				
MP 7.785				
STA 2100+57				
15" RCP				

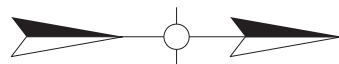


HOR, VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS30A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

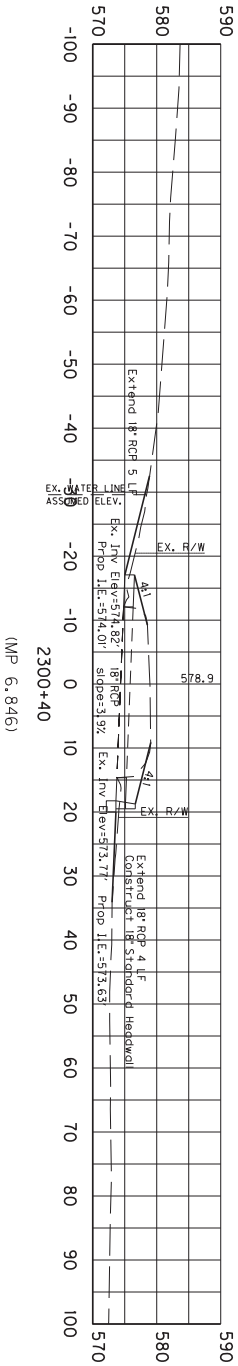
STA. 2100+57



SHEET SUMMARY - GENERAL

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

MP 6.846
STA 2300+40
18" RCP

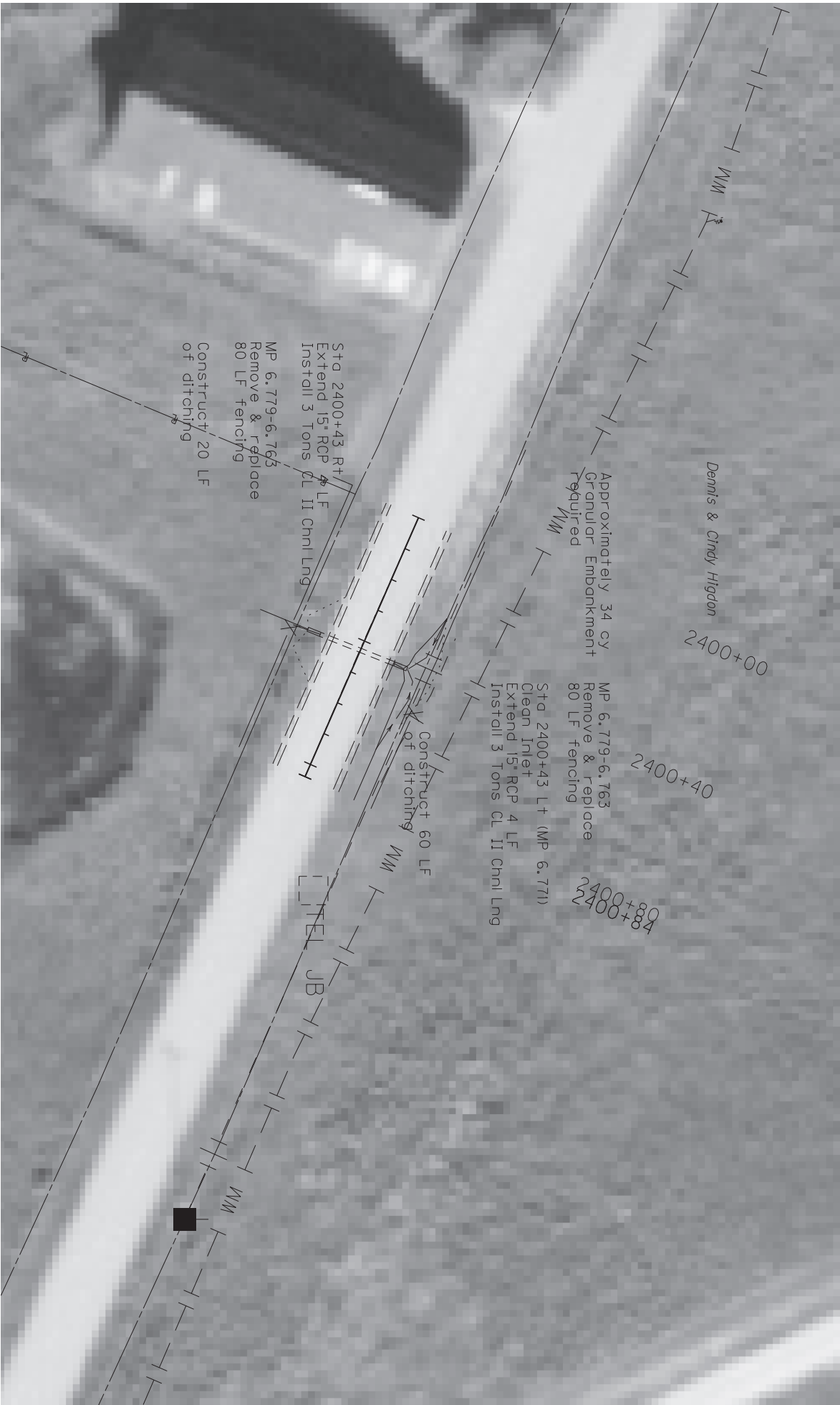


HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS31A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 2300+40

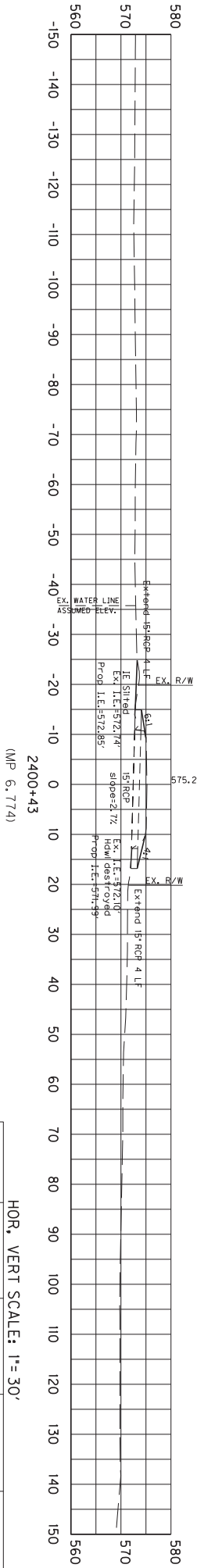


SHEET SUMMARY - GENERAL				
15 IN CULVERT PIPE	DITCHING	GRAN EMB	CLEAN PIPE	CL II CHNL LNG
8	80	34	1	6

SCALE: 1"= 40'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R32

KY 1214 GRAYSON SPRINGS RD
PLAN SHEET

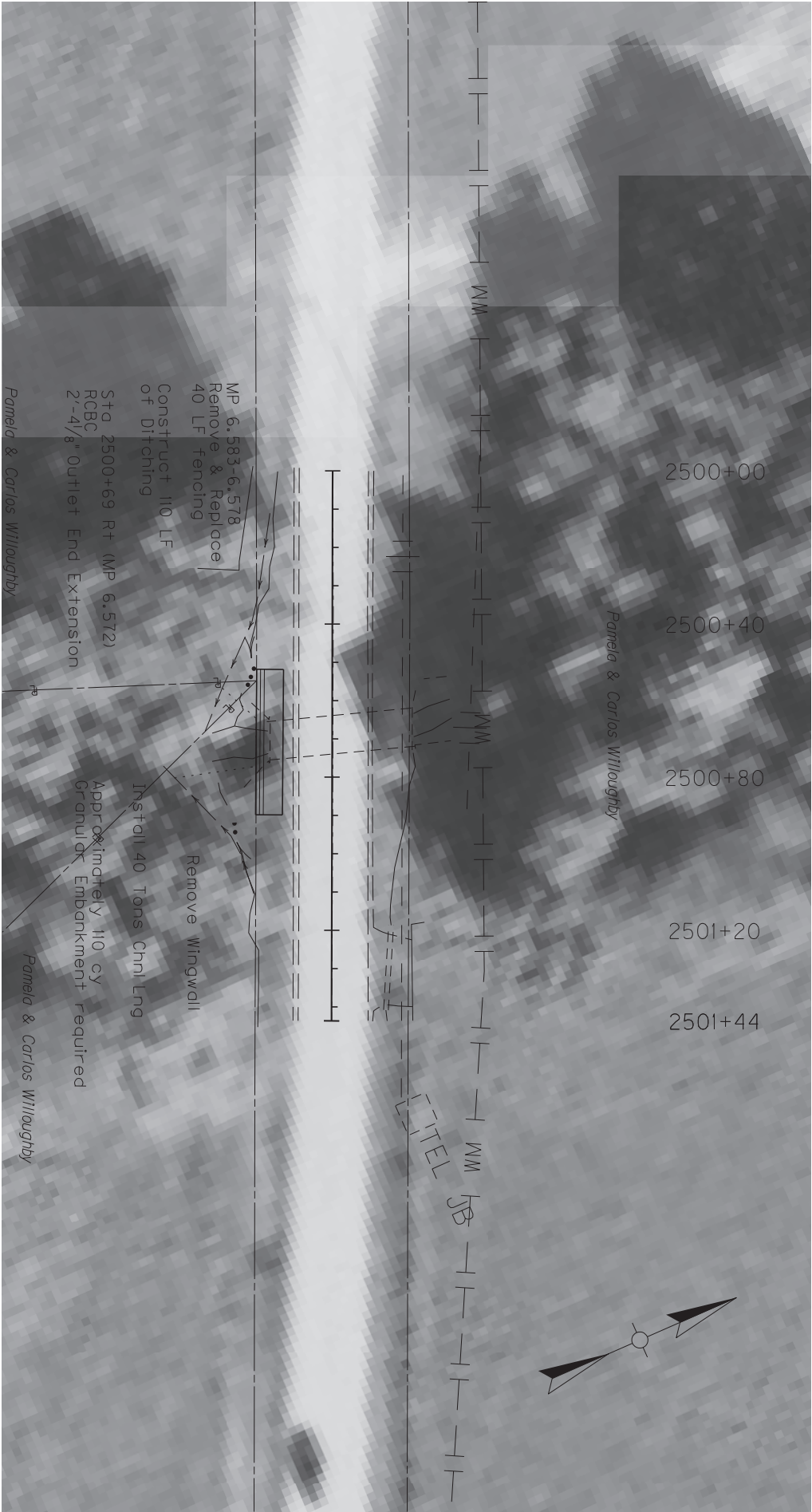


HOR. VERT SCALE: 1"= 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS32A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 2400+43



GEOTECHNICAL NOTES

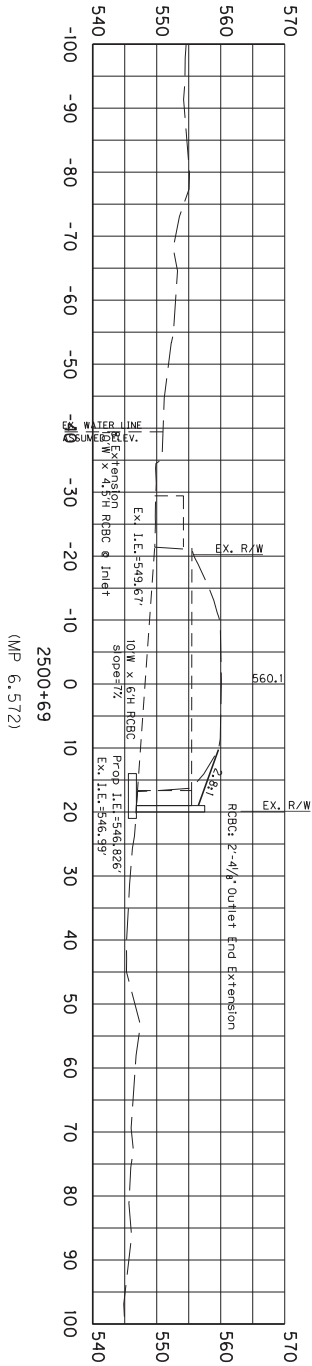
Solid rock excavation will be required to reach required footing elevations.
Temporary sheeting or shoring/cofferdams and/or a dewatering method will be required for installation of the footings.

SHEET SUMMARY - GENERAL

REMOVE WINGWALLS	DITCHING	GRAN EMB	CL II CH LG
EACH	LF	CY	TONS
1	110	110	40

KY 1214 GRAYSON SPRINGS RD PLAN SHEET		
COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	R33
MP 6.572 STA 2500+69 10'W x 6'H RCBC		

SCALE: 1" = 40'



HOR. VERT SCALE: 1" = 30'

COUNTY OF	ITEM NO.	SHEET NO.
GRAYSON	4-9007	PS33A

KY 1214 GRAYSON SPRINGS RD
CULVERT SHEET

STA. 2500+69

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

GRAYSON COUNTY
GRAYSON SPRINGS ROAD
KY 1214 OVER CREEK
STA. 410+51.00

GENERAL NOTES

SPECIFICATIONS: All references to the standard Specifications are to the 2012 Standard Specifications for Road and Bridge Construction for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO are to the current edition of the AASHTO LRFD Bridge Design Specifications, with Interims.

DESIGN LOAD: This structure is designed for HL-93 live load increased by 25%. The 25% increase is applied by increasing the design truck or tandem and the design lane load by 25%.

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

MASONRY COATING: Masonry coating will not be required for this structure.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include Cofferdams, structures, phase construction, incidental materials, labor, or anything else required to complete the structure.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless noted. Section of bars from center of concrete to center of bars. Clear distance to face of concrete is 2 unless otherwise noted. Any reinforcing bars designated by suffix (a) in the Plans shall be epoxy coated in accordance with section 81.10 of the Standard Specifications. The bars shall be epoxy coated in accordance with section 81.10 of the Standard Specifications. be considered a stirrup for purposes of bend diameters.

BEVELED EDGES: All exposed edges shall be beveled $\frac{1}{4}$ unless otherwise shown.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

CONCRETE: Class 'A' concrete shall be used throughout.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the center of the span. Construction joints shall be located in the barrel within six feet of the ends of the culvert.

FOOTING PRESSURE: Foundation materials for barrel and wing footings shall resist a maximum bearing pressure of 4668 PSF.

FLOWLINE REINFORCEMENT: Reinforcement in the 6 in thick slab shall be Size 4 bars of 18 in centers in each direction or an equivalent area of welded deformed steel bars. The bars shall extend a minimum of 2 in into wing footings. The bars shall be placed in the center of the wing footings. The bars shall be incidental to the unit price bid for Concrete, Class 'A'.

ESTIMATE OF QUANTITIES

BID CODE	ITEM	QUANTITY	UNIT
8100	Class 'A' Concrete	98.6	C.Y.
8150	Reinforcement	15754	LB
8003	Foundation Preparation	1	L.S.
8002	Structure Excavation Rock	52	C.Y.

BARREL AND WING FOOTINGS: Wing footings and all Barrel footings shall be poured directly on top of solid unweathered bedrock. However, the toe and heel of footing must be extended 6 minimum into solid rock as detailed. All concrete shall be placed in one continuous pour. In all excavations, mass concrete shall be poured from top of footing elevation to top of solid rock. Any extra concrete required shall be incidental to Class A concrete. All footings/keys excavations in bedrock shall be cut neatly so that no forming or bookfilling is necessary of the portions of footings/keys located in rock. Concrete shall be poured directly against the cut rock faces. Mass concrete should be placed in the excavation from the top of the footing to the bedrock surface where the footing does not extend to the bedrock surface.

ROCK NOTE: Solid rock excavation will be required for footing construction.

CONSTRUCTION NOTE: Temporary sheeting, shoring, cofferdams, and/or a dewatering method may be necessary for construction of the culvert. Include all costs in the price bid for Foundation Preparation.

BONDING TO EXISTING CONCRETE USING STRUCTURAL ADHESIVES: Bond proposed plastic concrete to existing hardened concrete in all locations using a Type V Epoxy Resin or other approved Structural Adhesive as prescribed in section 826 of the specifications. Follow the manufacturer's recommended application procedure. The adhesive shall be applied to the existing concrete and the new concrete shall be placed against it as specified in Section 826. This work and material is incidental to the unit price bid for concrete.

EXISTING WING/BARREL REMOVAL: Any rock or concrete removal to achieve a good surface for new construction shall be incidental to Foundation Preparation. Contractor is responsible for all damage to existing culvert.

INDEX OF SHEETS

Sheet No.	Description
1	Title
2	Layout
3 & 4	Barrel Details
5	Barrel Wings
6	Outlet Wings
7	Bill of Reinforcement

SPECIAL NOTES

SPECIAL PROVISIONS

STANDARD DRAWINGS

BOX-006-10 Stencils for Structures
BOX-012-02 Geotechnical Legend

SPECIFICATIONS

2012 Standard Specifications for Road and Bridge Construction

2017 AASHTO LRFD Bridge Design Specifications

REVISION	DATE
DATE: JAN. 2019	CHECKED BY
DESIGNED BY: E. MONTGOMERY	J. Van Zee
DETAILED BY: E. MONTGOMERY	K. Blinn

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

GRAYSON COUNTY

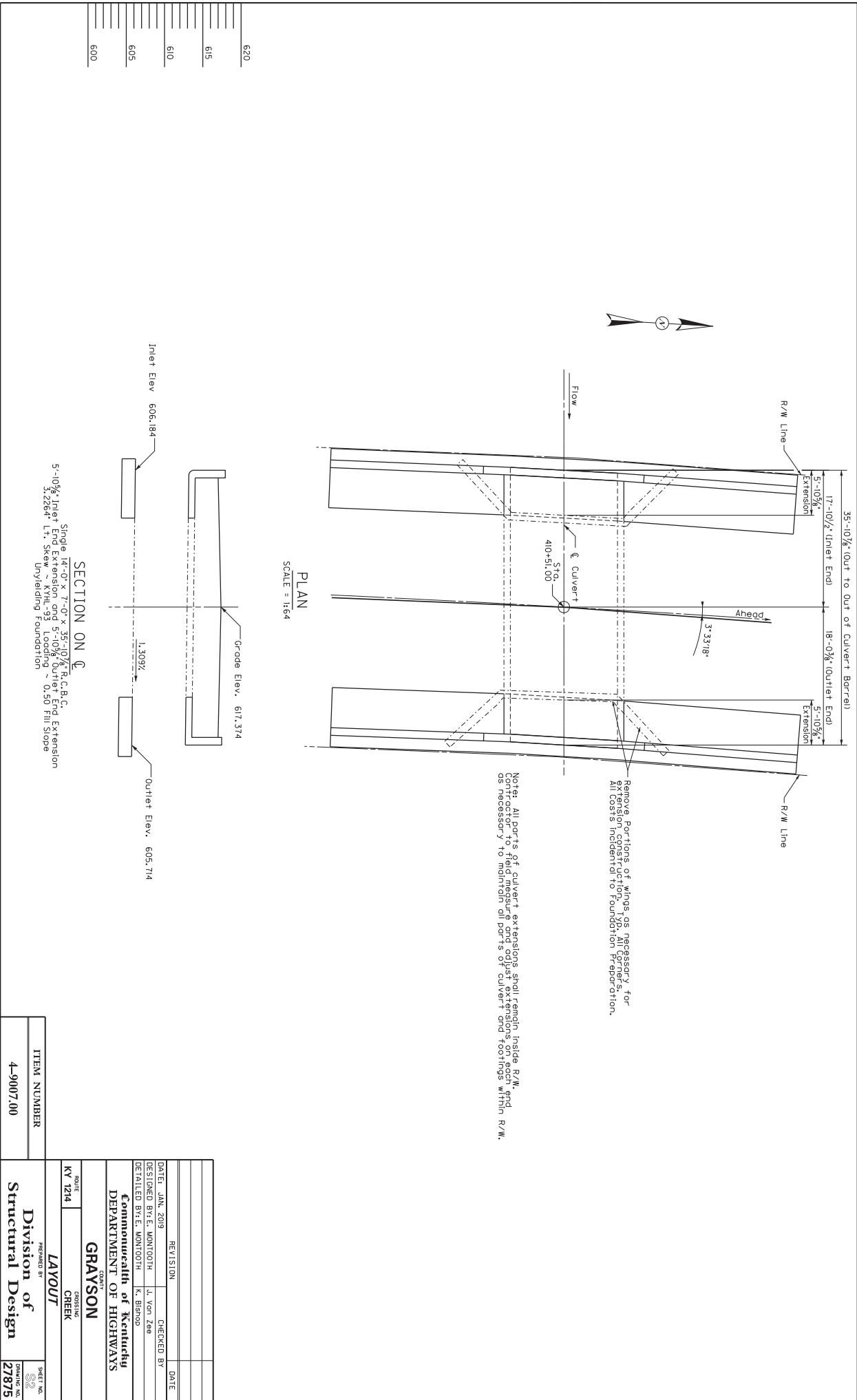
ROUTE 1214
CREEK

SINGLE 14.0 x 7.0 CULVERT

PREPARED BY
Division of
Structural Design

SHEET NO.
27875

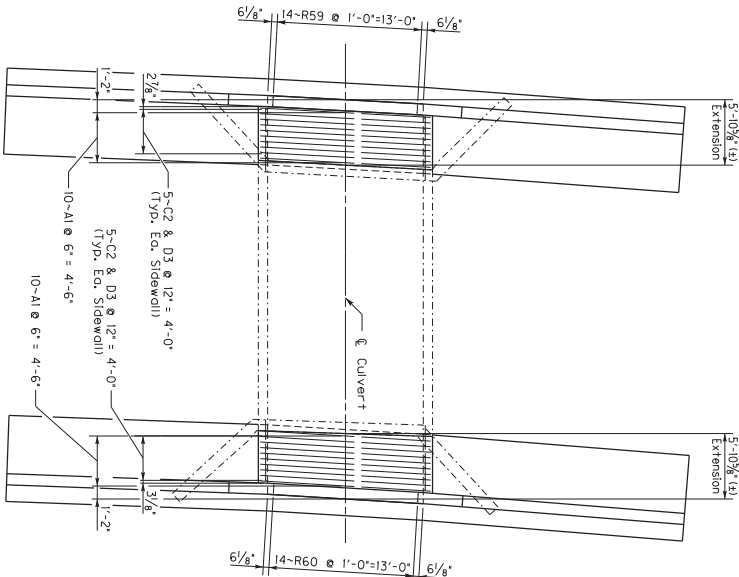
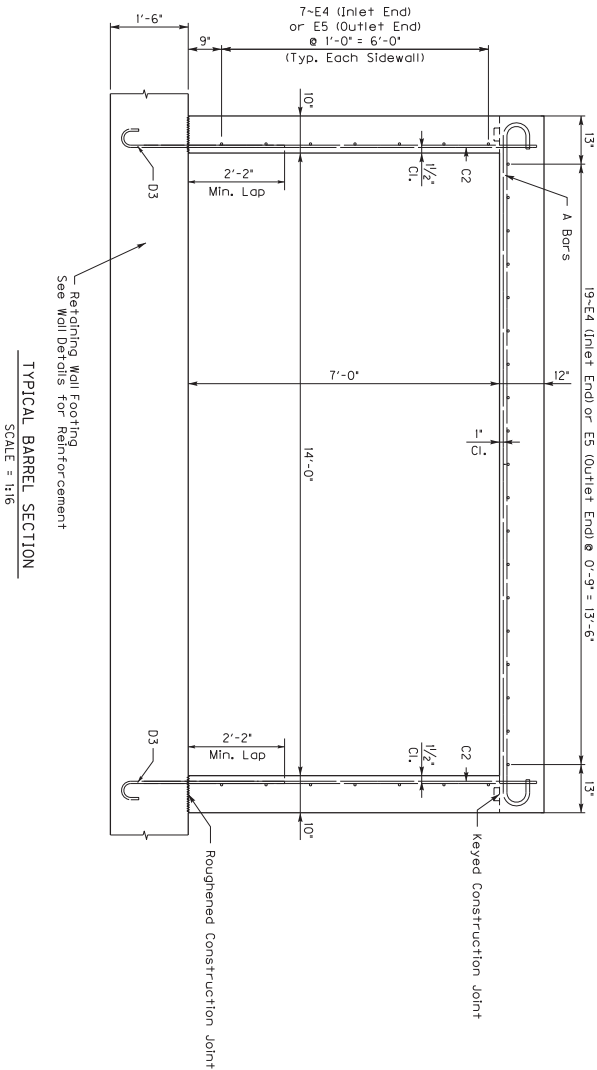
6-SHEET NAME:DATE: 03-JUN-2019USERNAME: Joseph.vanzeeFILE NAME: H:\Archives\Grayson\27875_04-9007.00\Revision (05-30-2019)\27875.dgn



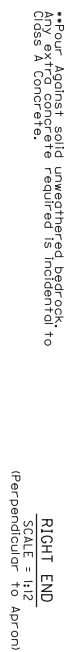
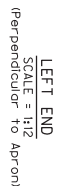
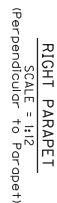
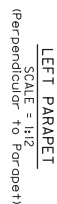
6-SHEET NAME: DATE: 03-JUN-2019 USERNAME: Joseph.vanzee FILE NAME: H:\Archives\Grayson\27875_04-9007.00\Revision (05-30-2019)\27875.dgn

Note: Embed E4 and E5 bars 1'-0" min. into existing culvert walls and top slab. Drill and Grout with a Type IV epoxy as specified in Section 826 of the Specifications.

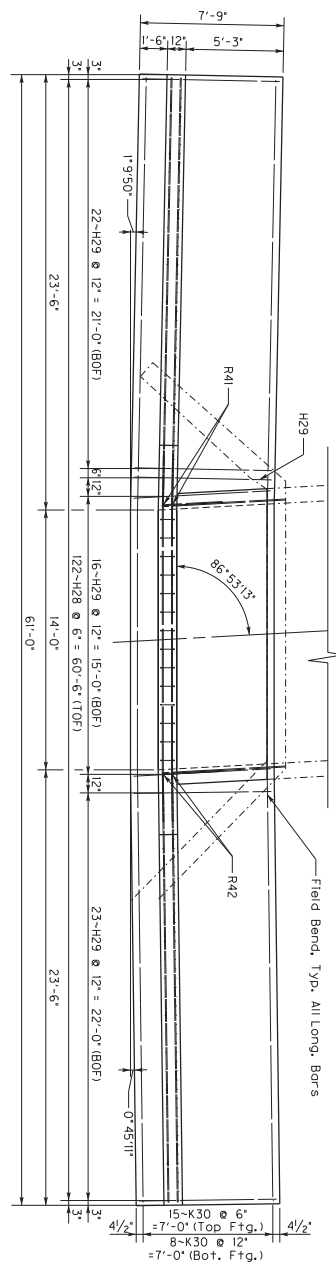
Note: Trim E4 and E5 bars as necessary. Maintain 2" C.I.



ITEM NUMBER		Division of Structural Design		SHEET NO. 27875	
4-9007.00		GRAYSON COUNTY DEPARTMENT OF HIGHWAYS		DESIGNED BY: E. WINTOOTH K. BISHOP	
DATE: JAN, 2019		CHECKED BY: J. Van Zee		ROUTE KY 1214	
REVISION		DATE		BARREL DRAINAGE CREEK	



ITEM NUMBER	4-9007.00	PREPARED BY	SHEET NO.
		Division of Structural Design	S4
			DRAWING NO. 27875

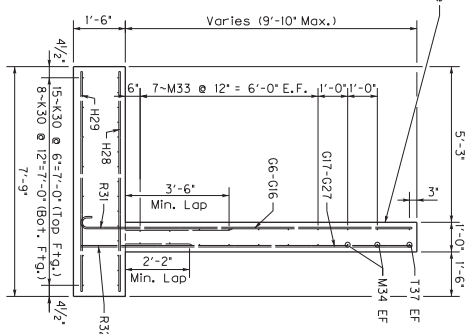


PLAN OF WINGS AND PARAPET

SCALE = 5/8"

SCALE = 5/16


Note: Field bend bars K30, M33, M34 and T37 to follow angle of wings.

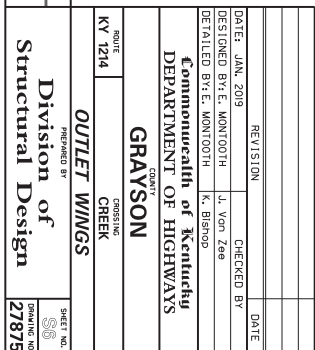


WING SECTION
SCALE = 1:24

$$= 1:24$$

ELEVATION OF WINGS AND PARAPET
SCALE = $\frac{5}{16}$

ITEM NUMBER		4-9007.00																	
<table border="1"> <tr> <td colspan="2">REVISION</td> <td colspan="2">DATE</td> </tr> <tr> <td>DATE: JAN. 2019</td> <td>CHECKED BY</td> <td colspan="2"></td> </tr> <tr> <td>DESIGNED BY: MONTTOOTH</td> <td>L. Van Zee</td> <td colspan="2"></td> </tr> <tr> <td>DETAILED BY: MONTTOOTH</td> <td>K. Blend</td> <td colspan="2"></td> </tr> </table>				REVISION		DATE		DATE: JAN. 2019	CHECKED BY			DESIGNED BY: MONTTOOTH	L. Van Zee			DETAILED BY: MONTTOOTH	K. Blend		
REVISION		DATE																	
DATE: JAN. 2019	CHECKED BY																		
DESIGNED BY: MONTTOOTH	L. Van Zee																		
DETAILED BY: MONTTOOTH	K. Blend																		
<p align="center"> Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS <small>GRANT</small> GRAYSON </p>																			
ROUTE	CROSSING																		
KY 1214	CREEK																		
<p align="center"> INLET WINGS <small>DESIGNED BY</small> </p>																			
Division of		SHEET NO.																	
Structural Design		 DRAWING NO.																	
		287/5																	



**GRAYSON COUNTY
GRAYSON SPRINGS ROAD
KY 1214 OVER A CREEK
STA. 700+53.00**

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

DESIGN LOAD: This structure is designed for HL-93 live load increased by 25%. The 25% increase is arrived by increasing the design truck or tandem and the design lane load by 25%.

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

MASONRY COATING: Masonry coating will not be required for this structure.

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

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2" unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with section 811.10 of the Standard Specifications. Any reinforcing bars designated by suffix (s) in a Bill of Reinforcement shall be considered a stirrup for purposes of bend diameters.

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

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

CONCRETE: Class 'A' concrete shall be used throughout.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

FOOTING PRESSURE: Foundation materials for barrel and wing footings shall resist a maximum bearing pressure of 1593 PSF.

FLOWLINE REINFORCEMENT: Reinforcement in the

deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the bottom slab. The cost of this reinforcement shall be incidental to the unit price bid for Concrete, Class "A".

ESTIMATE OF QUANTITIES		
BID CODE	ITEM	UNIT
8100	Class "A" Concrete	C.Y.
8150	Reinforcement	Lb
8003	Foundation Preparation	L.S.
8002	Structure Excavation Rock	C.Y.
	22	

STANDARD DRAWINGS

B&B-006-10	Stencils for Structures
B&B-012-02	Geotechnical Legend

SPECIAL NOTES

Sheet No.	Description
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1	Title
2	Layout
3 & 4	Barrel Details
5	Wings 1, 2, 3 & 4
6	Bill of Reinforcement

SPECIAL NOTES

SPECIAL PROVISIONS

STANDARD DRAWINGS

B&B-006-10	Stencils for Structures
B&B-012-02	Geotechnical Legend

SPECIFICATIONS

2012 Standard Specifications for Road and Bridge Construction
2017 AASHTO LRFD Bridge Design Specifications

REVISION		DATE
DATE: JAN. 2019	CHECKED BY	
DESIGNED BY: K. Ee	J. Von Zee	
DETAILED BY: K. Ee	K. Bishop	

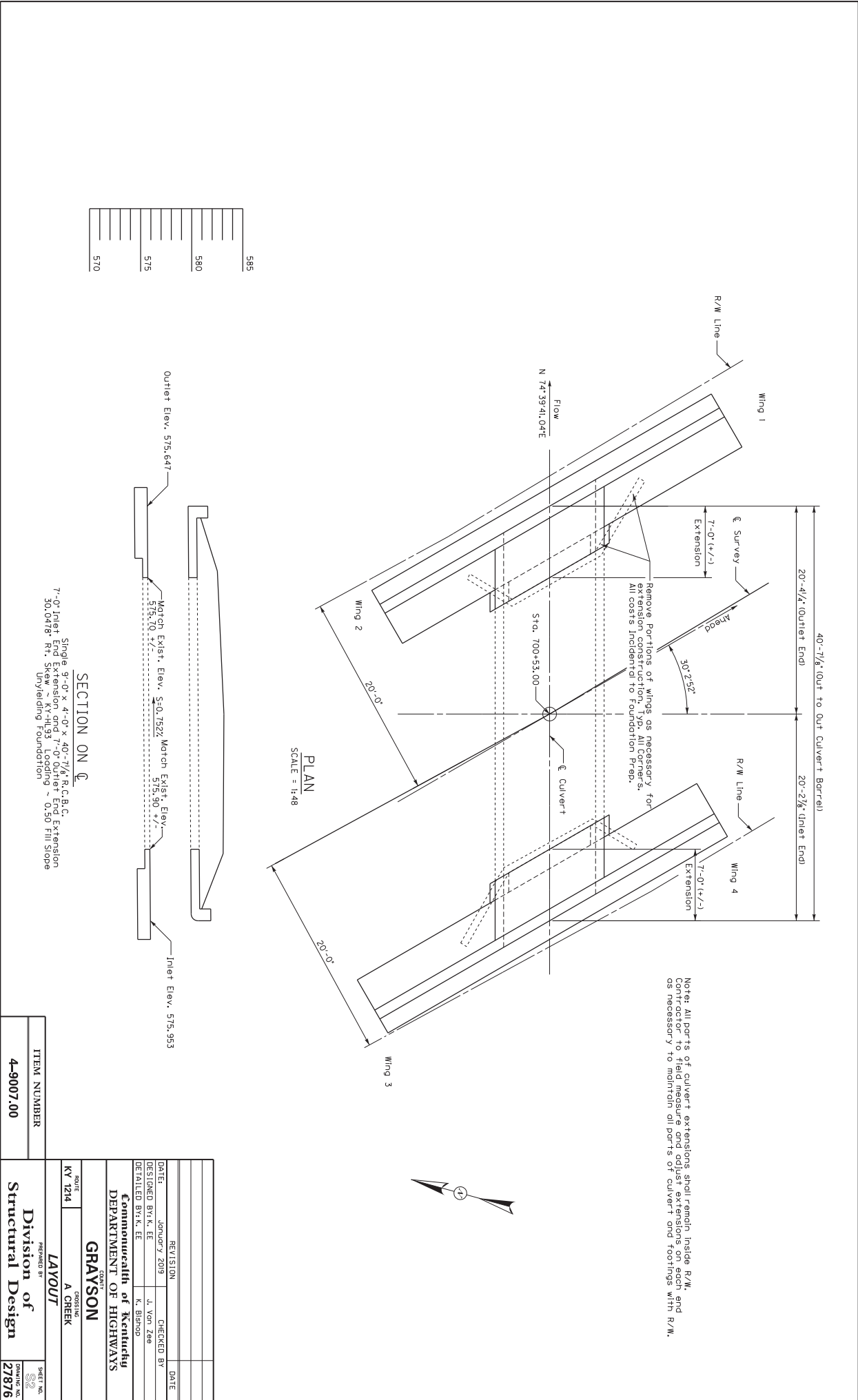
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS	
COUNTY	
GRAYSON	
ROUTE	CROSSING
KY 1214	A CREEK

<div style="text-align: center;"> SINGLE 9.0 x 4.0 CULVERT </div>		SHEET NO. <div style="text-align: center;">  </div>
ITEM NUMBER 4-9007.00	PREPARED BY <div style="text-align: center;"> Division of Structural Design </div>	
	DRAWING NO. 27876	

6-SHEET NAME:

DATE: 03-JUN-2019

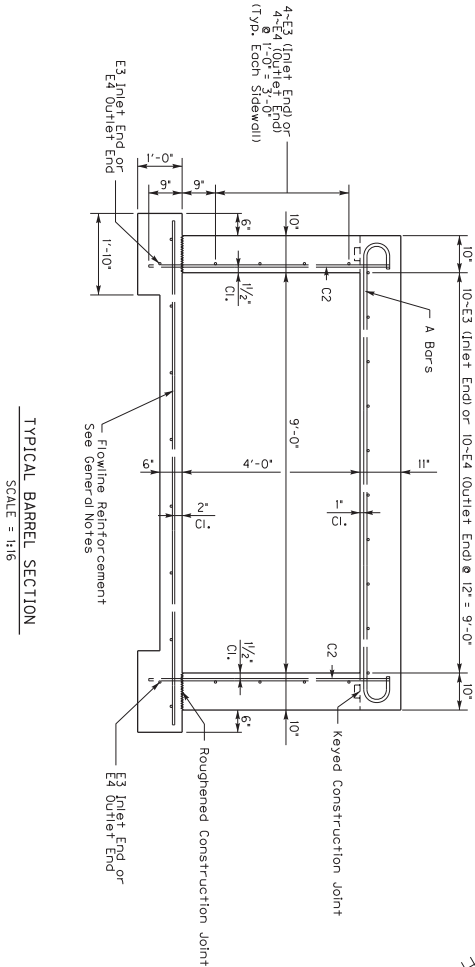
USERNAME: Joseph.vanzee FILE NAME: H:\Archives\Grayson\27876_04-9007.00\Revision (05-30-2019)\27876.dgn



6-SHEET NAME: DATE: 03-JUN-2019 USERNAME: Joseph.vanzee FILE NAME: H:\Archives\Grayson\27876_04-9007.00\Revision (05-30-2019)\27876.dgn

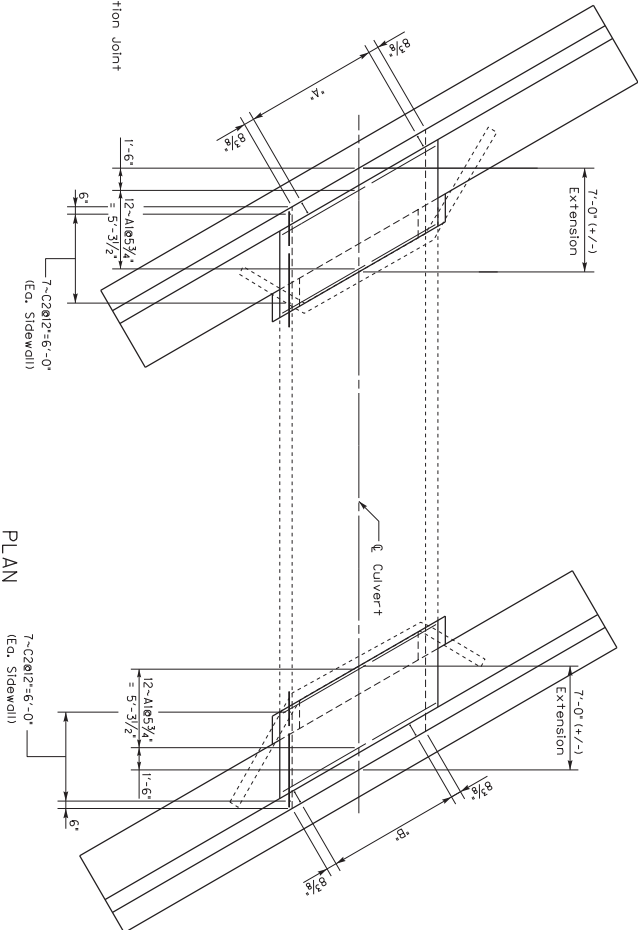
Note: Trim E3 and E4 bars as necessary. Maintain 2" CI.

Note: Embed E3 and E4 bars 1'-0" min. into existing culvert walls and top slab. Drill and Grout with a Type IV epoxy as specified in Section 826 of the Specifications.

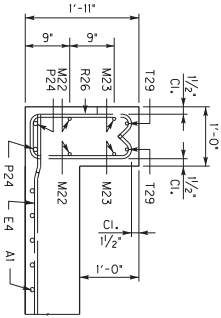


10'-0" R28 @ 1'-0" = 9'-0"
10'-0" R29 @ 1'-0" = 9'-0"

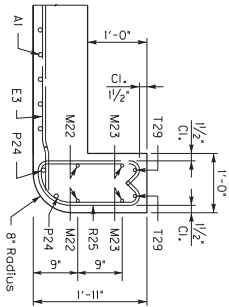
PLAN
SCALE = 1:48



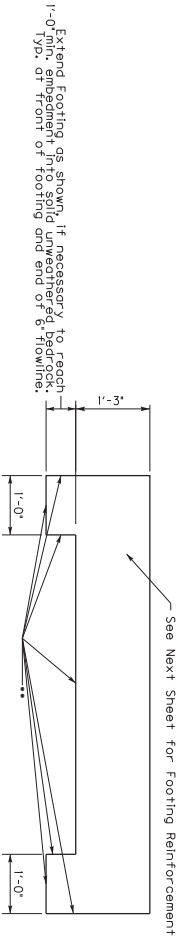
ITEM NUMBER		Division of Structural Design		SHEET NO. 27876	
4-9007.00		BARREL		27876	
ROUTE KY 1214		A CREEK		27876	
COUNTY GRAYSON		COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS		27876	
DESIGNED BY: K. Ee		CHECKED BY: J. Van Zee		27876	
DATE: January 2019		REVISION		27876	
DETAILED BY: K. Ee		DATE		27876	



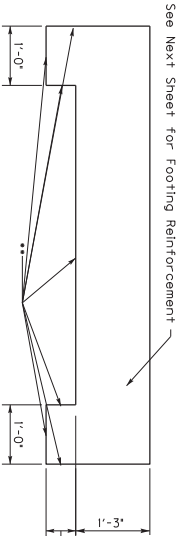
LEFT PARAPET
SCALE = 1/12
(Perpendicular to Parapet)



RIGHT PARAPET
SCALE = 1/12
(Perpendicular to Parapet)



LEFT END
SCALE = 1/12
(Perpendicular to Apron)

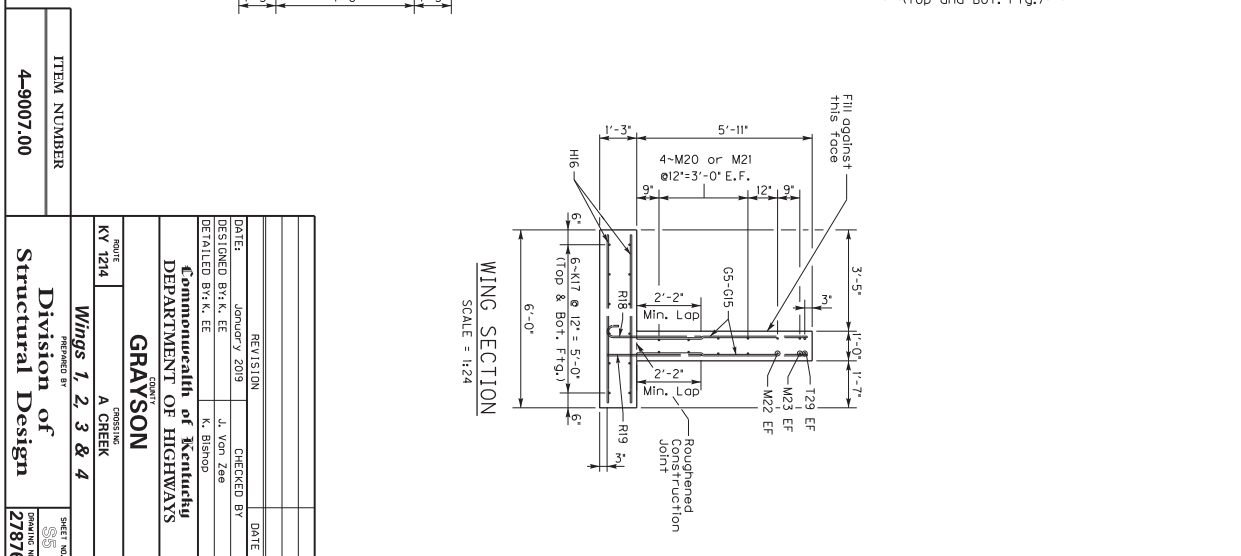


RIGHT END
SCALE = 1/12
(Perpendicular to Apron)

Extend Footing as shown, if necessary to reach 1'-0" min. embedment into solid unweathered bedrock. Typ. at front of footing and end of 8' flowline.

Extend Footing as shown, if necessary to reach 1'-0" min. embedment into solid unweathered bedrock. Typ. at front of footing and end of 8' flowline.

ITEM NUMBER		4-9007.00	
PREPARED BY		Division of Structural Design	
REVISION		SHEET NO. 27876	
DATE: JANUARY 2019		DESIGNED BY: K. EE	
CHECKED BY: J. Von Zee		DETAILED BY: K. Bishop	
COMMONWEALTH OF KENTUCKY		DEPARTMENT OF HIGHWAYS	
COUNTY: GRAYSON		ROUTE: KY 1214	
DISTRICT: A CREEK		PROJECT: BARREL	



6-SHEET NAME:

DATE: 03-JUN-2019

USERNAME: Joseph.vanzee FILE NAME: H:\Archives\Grayson\27876_04-9007.00\Revision (05-30-2019)\27876.dgn

ITEM NUMBER

4-9007.00

PREPARED BY

Division of Structural Design

SHEET NO.

27876

BILL OF REINFORCEMENT

ROUTE

1214

BRIDGE

A CREEK

GRAYSON

COUNTY

DEPARTMENT OF HIGHWAYS

Commonwealth of Kentucky

DESIGNED BY: K. EE

DATE: January 2019

CHECKED BY: J. Von Zee

REVISION

DATE

TYPE NO.

SIZE

LENGTH

A/E

B/F

C/G

D/H

MARK

TYPE

NO.

SIZE

LENGTH

A/E

B/F

C/G

D/H

1A1

1

28

7

13'-8"

11'-4"

1'-2"

0'-7"

11'-11"

E3

STR-20

5

5

7'-10"

E4

STR-20

5

5

7'-10"

O5

STR-8

5

5

4'-6"

O6

STR-8

5

5

4'-8"

O7

STR-8

5

5

4'-9"

O8

STR-8

5

5

4'-11"

O9

STR-8

5

5

5'-0"

G10

STR-8

3

3

5'-2"

G12

STR-8

5

5

5'-5"

G13

STR-8

5

5

5'-7"

G14

STR-8

5

5

5'-8"

G15

STR-32

5

5

5'-9"

H16

STR-156

5

5

5'-8"

K17

STR-24

5

5

36'-0"

F18

4

56

5

4'-10"

F19

STR-56

5

5

4'-2"

M20

STR-16

5

5

13'-9"

M21

STR-16

5

5

13'-9"

M22

STR-4

5

5

34'-0"

M23

STR-4

5

5

22'-3"

P24

STR-4

7

7

16'-2"

R25

11s

11

5

4'-9"

R26

12s

11

5

4'-11"

F27

8

8

5

5'-1"

F28

23

8

5

5'-1"

L29

6

4

6

36'-2"

3-11 1/2

0-10

0-5

4-2

TYPE 1

TYPE 4

TYPE 6

TYPE 8

TYPE 11

TYPE 12

TYPE 25

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

GRAYSON COUNTY
GRAYSON SPRINGS ROAD
KY 1214 OVER CREEK
STA. 1116 + 56.00

GENERAL NOTES

SPECIFICATIONS: All references to the standard Specifications are to the 2012 Standard Specifications for Road and Bridge Construction for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO are to the current edition of the AASHTO LRFD Bridge Design Specifications, with Interims.

DESIGN LOAD: This structure is designed for HL-93 live load increased by 25%. The 25% increase is arrived by increasing the design truck or tandem and the design lane load by 25%.

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

MASONRY COATING: Masonry coating will not be required for this structure.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include, but is not limited to, the use of scaffolding, shoring, bracing, or any other equipment or materials required to complete the structure.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is 2' unless otherwise noted. Any reinforcing bars designated by suffix (a) in the Plans shall be epoxy coated in accordance with section 811.0 of the Standard Specifications. Any other bars shall be epoxy coated unless otherwise noted. Reinforcing cement shall be considered a stirrup for purposes of bend diameters.

BEVELED EDGES: All exposed edges shall be beveled $\frac{1}{4}$ " unless otherwise shown.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

CONCRETE: Class "A" concrete shall be used throughout.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the structure in accordance with the specifications. Construction joints in the barrel within six feet of the ends of the culvert.

FOOTING PRESSURE: Foundation materials for barrel and wing footings shall resist a maximum bearing pressure of 4668 PSF.

FLOWLINE REINFORCEMENT: Reinforcement in the 6 in thick slab shall be Size 4 bars of 18 in centers in each direction or an equivalent area of welded deformed steel bars. The bars shall extend a minimum of 2 in into wing footings. The bars shall be installed in the concrete before the concrete is placed. Reinforcement shall be incidental to the unit price bid for Concrete, Class "A".

ESTIMATE OF QUANTITIES

BID CODE	ITEM	QUANTITY	UNIT
8100	Class "A" Concrete	123.3	C.Y.
8150	Reinforcement	22230	LB
8003	Foundation Preparation	1	L.S.
8002	Structure Excavation Rock	62	C.Y.

BARREL AND WING FOOTINGS: Wing footings and all Barrel footings shall be poured directly on top of solid unweathered bedrock. However, the toe of footing and the end of the 6' proved flowline must be extended 1'-0" minimum into solid rock as detailed in the plans. If the rock is not solid, the footing shall be poured on a concrete pad. If the rock is not solid, the footing shall be poured on a concrete pad. All footings/keys excavations in bedrock shall be cut neatly so that no forming or bookfilling is necessary of the portions of footings/keys located in rock. Concrete shall be poured directly against the cut rock faces. Mass concrete should be placed in the excavation from the top of the footing to the bedrock surface where the footing does not extend to the bedrock surface.

ROCK NOTE: Solid rock excavation will be required for footing construction.

CONSTRUCTION NOTE: Temporary sheeting, shoring, cofferdams, and/or a dewatering method may be necessary for construction of the culvert. Include all costs in the price bid for Foundation Preparation.

BONDING TO EXISTING CONCRETE USING STRUCTURAL ADHESIVES: Bond proposed plastic concrete to existing hardened concrete in all locations using a Type V Epoxy Resin or other approved Structural Adhesive as prescribed in section 826 of the specifications. Follow the manufacturer's recommended application instructions. All of the material shall be applied using a type A epoxy grout as specified in Section 826. The work and material is incidental to the unit price bid for concrete.

EXISTING WING/BARREL REMOVAL: Any rock or concrete removal to achieve a good surface for new construction shall be incidental to Foundation Preparation. Contractor is responsible for all damage to existing culvert.

INDEX OF SHEETS

Sheet No.	Description
1	Title
2	Layout
3 & 4	Barrel Details
5	Barrel Wings
6	Outlet Wings
7	Bill of Reinforcement

SPECIAL NOTES

SPECIAL PROVISIONS

STANDARD DRAWINGS

BOX-006-10	Stencils for Structures
BOX-012-02	Geotechnical Legend

SPECIFICATIONS

2012 Standard Specifications for Road and Bridge Construction

2017 AASHTO LRFD Bridge Design Specifications

DATE	REVISION	CHECKED BY	DATE
DATE: JAN. 2019		Kong Lee	
DESIGNED BY: J. VAN ZEE		K. BISHOP	
DETAILED BY: J. VAN ZEE			

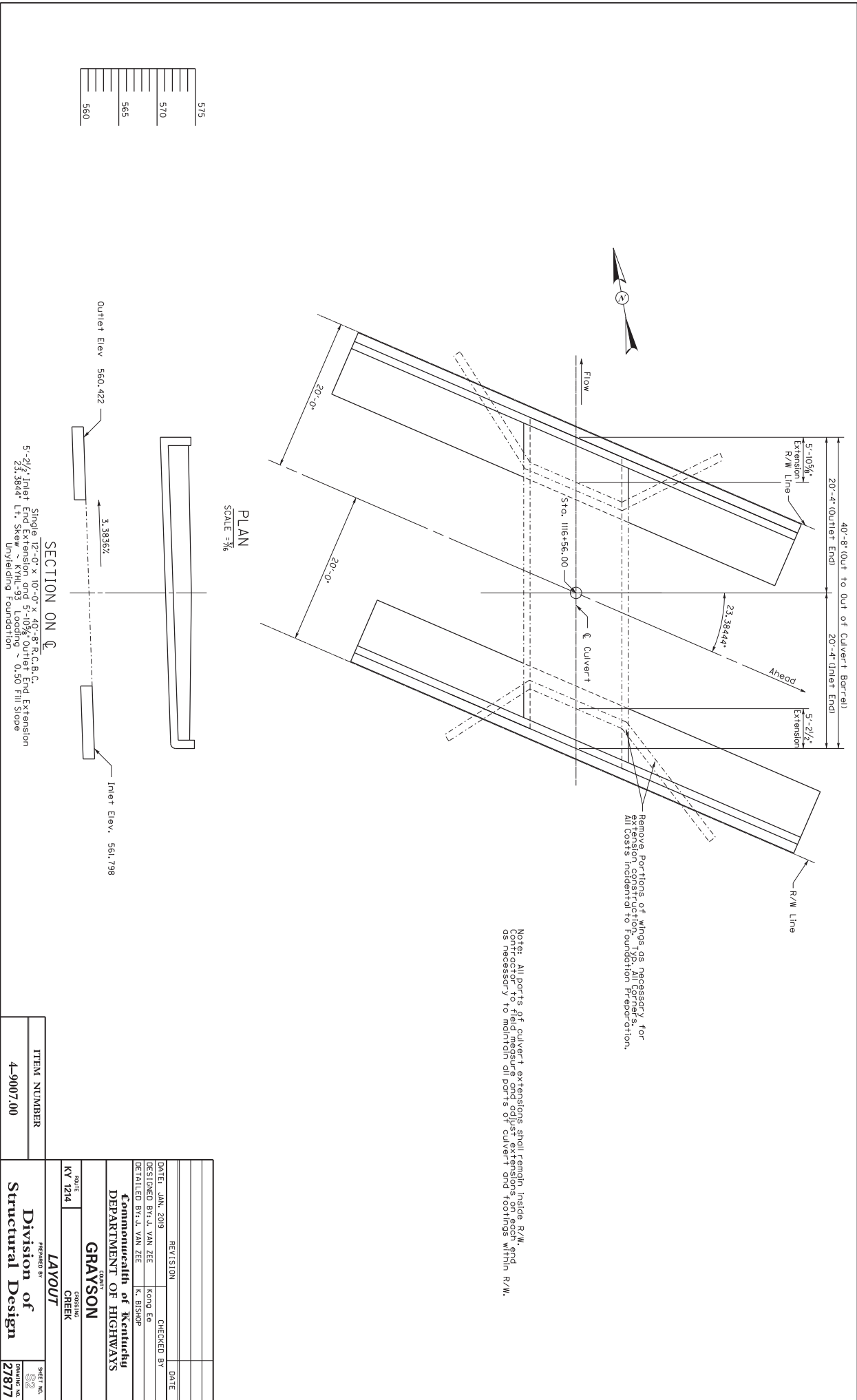
COMMUNICABLE OF KENTUCKY DEPARTMENT OF HIGHWAYS	
COUNTY GRAYSON	
ROUTE KY 1214	DISTRICT CREEK

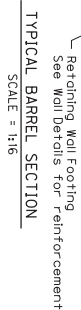
SINGLE 12.0 x 10.0 CULVERT	
PREPARED BY Division of Structural Design	
SHEET NO. 27877	DRAWING NO. 27877

6-SHEET NAME:

DATE: 31-MAY-2019

USERNAME: Joseph.vanzee FILE NAME: H:\Archives\Grayson\27877_04-9007.00\27877.dgn




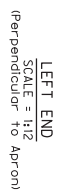
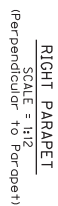
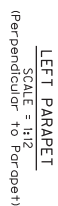


Note: Trim E4 and E5 bars as necessary. Maintain 2" Cl.

Note: Embed E4 and E5 bars 1'-0" min. into existing culvert walls and top slab. Drill and Grout with a Type IV epoxy as specified in Section 826 of the Specifications.


$$\begin{aligned} \text{A}^* & 13 \sim R65 \otimes 1'-0'' = 12'-0'' \\ \text{B}^* & 13 \sim R66 \otimes 1'-0'' = 12'-0'' \end{aligned}$$


DATE		REVISION	
DATE: JAN. 2019		DESIGNED BY: J. VAN ZEE	
CHECKED BY		KNO EA	
		K. BISHOP	
DETAILLED BY: J. VAN ZEE COUNTY GRAYSON DIVISION of Kentucky DEPARTMENT OF HIGHWAYS			
ROUTE		CROSSING	
KY 1214		CREEK	
PREPARED BY BARREL			
ITEM NUMBER		PROJECT NO.	
4-9007.00		 ROAD NO. 27877	

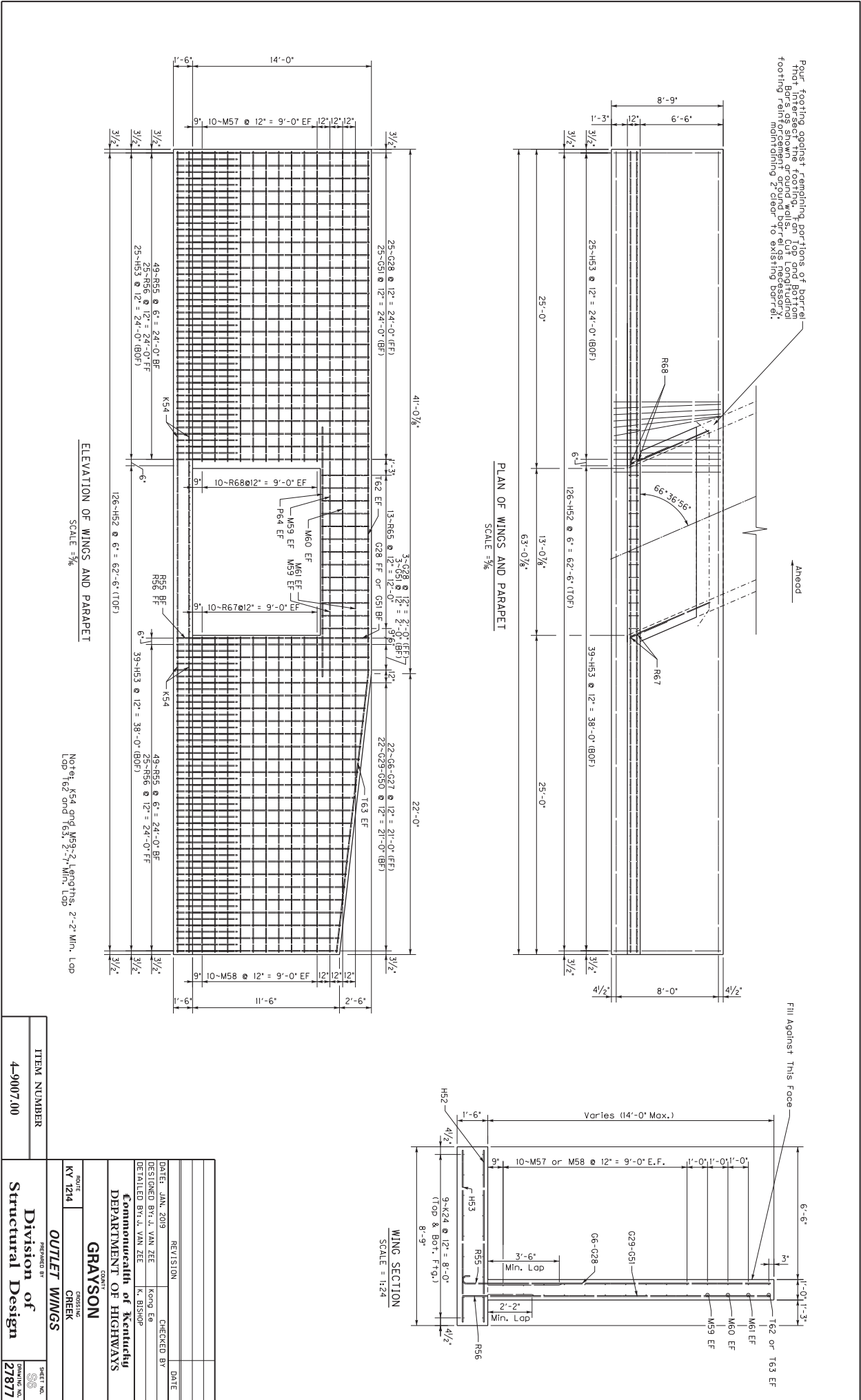


ITEM NUMBER	4-9007.00	PREPARED BY	SHEET NO.
		Division of Structural Design	S4
			DRAWING NO. 27877



INLET WINGS

DATE: JUN, 2019		REVISION	
DESIGNED BY: L. VAN ZEE			
DETAILED BY: L. VAN ZEE			
K. BISHOP			
Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS			
GRAYSON <small>(COUNTY)</small>			
ROUTE		CROSSING	
KY 1214		CREEK	
INLET WINGS <small>PREPARED BY</small>			
ITEM NUMBER		SHEET NO.	
4-9007.00		 DIVISION OF Structural Design	
		DRAWING NO. 278177	



BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H	MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H	
A1	1	20	8	16'-4	TOP SLAB	13-10%	1- 3	0- 8	14- 6%	M57	STR.	40	5	24'- 3	WINGS					
C2	STR.	30	5	10'-10	Sidewalls					M58	STR.	40	5	24'- 8	WINGS					
D3	4	30	5	5'-3	Barrel Dowels	4- 5 1/2	0-10	0- 5	4- 8	M59	STR.	8	5	32'- 6	Parapet and WINGS					
E4	STR.	35	5	6'-0						M60	STR.	2	5	59'- 0	Parapet and WINGS					
E5	STR.	35	5	7'-0	Barrel					M61	STR.	2	5	50'- 2	WINGS and Parapet					
G6	STR.	1	5	11'- 4	FF WALLS Vertical					T62	STR.	4	6	40'-10	TOP WINGS					
G7	STR.	1	5	11'- 5	FF WALLS Vertical					T63	STR.	2	6	24'- 7	TOP WINGS					
G8	STR.	1	5	11'- 6	FF WALLS Vertical					P64	STR.	4	8	19'- 7	Parapet					
G9	STR.	1	5	11'- 8	FF WALLS Vertical					R65	STR.	13	5	9'- 1	Parapet Wall (Left End)					
G10	STR.	1	5	11'- 9	FF WALLS Vertical					R66	STR.	13	5	7'- 1	Parapet Wall (Right End)					
G11	STR.	1	5	11'-11	FF WALLS Vertical															
G12	STR.	1	5	12'- 0	FF WALLS Vertical					R67	STR.	8	4	4'- 11	WINGS					
G13	STR.	1	5	12'- 1	FF WALLS Vertical					R68	STR.	25	40	5	4'- 9	WINGS				
G14	STR.	1	5	12'- 3	FF WALLS Vertical					G69	STR.	1	5	11'- 4	FF WALLS Vertical					
G15	STR.	1	5	12'- 4	FF WALLS Vertical					G70	STR.	1	5	11'- 5	FF WALLS Vertical					
G16	STR.	1	5	12'- 5	FF WALLS Vertical					G71	STR.	1	5	11'- 6	FF WALLS Vertical					
G17	STR.	1	5	12'- 7	FF WALLS Vertical					G72	STR.	1	5	11'- 6	FF WALLS Vertical					
G18	STR.	1	5	12'- 8	FF WALLS Vertical					G73	STR.	1	5	11'- 7	FF WALLS Vertical					
G19	STR.	1	5	12'-10	FF WALLS Vertical					G74	STR.	1	5	11'- 8	FF WALLS Vertical					
G20	STR.	1	5	12'-11	FF WALLS Vertical					G75	STR.	1	5	11'- 9	FF WALLS Vertical					
G21	STR.	1	5	13'- 0	FF WALLS Vertical					G76	STR.	1	5	11'-10	FF WALLS Vertical					
G22	STR.	1	5	13'- 2	FF WALLS Vertical					G77	STR.	1	5	11'-11	FF WALLS Vertical					
G23	STR.	1	5	13'- 4	FF WALLS Vertical					G78	STR.	1	5	12'- 0	FF WALLS Vertical					
G24	STR.	1	5	13'- 6	FF WALLS Vertical					G80	STR.	1	5	12'- 1	FF WALLS Vertical					
G25	STR.	1	5	13'- 7	FF WALLS Vertical					G81	STR.	1	5	12'- 2	FF WALLS Vertical					
G26	STR.	1	5	13'- 9	FF WALLS Vertical					G82	STR.	1	5	12'- 3	FF WALLS Vertical					
G27	STR.	1	5	13'-10	FF WALLS Vertical					G83	STR.	1	5	12'- 4	FF WALLS Vertical					
G28	STR.	29	5	13'-10	FF WALLS Vertical					G84	STR.	1	5	12'- 5	FF WALLS Vertical					
G29	STR.	1	7	11'- 4	BF WALLS Vertical					G85	STR.	1	5	12'- 6	FF WALLS Vertical					
G30	STR.	1	7	11'- 5	BF WALLS Vertical					G86	STR.	1	5	12'- 6	FF WALLS Vertical					
G31	STR.	1	7	11'- 7	BF WALLS Vertical					G87	STR.	1	5	12'- 7	FF WALLS Vertical					
G32	STR.	1	7	11'- 8	BF WALLS Vertical					G88	STR.	1	5	12'- 8	FF WALLS Vertical					
G33	STR.	1	7	11'- 9	BF WALLS Vertical					G89	STR.	1	5	12'- 9	FF WALLS Vertical					
G34	STR.	1	7	11'-11	BF WALLS Vertical					G90	STR.	1	5	12'-10	FF WALLS Vertical					
G35	STR.	1	7	12'- 0	BF WALLS Vertical					G91	STR.	29	5	12'-11	FF WALLS Vertical					
G36	STR.	1	7	12'- 1	BF WALLS Vertical					G92	STR.	1	7	11'- 4	BF WALLS Vertical					
G37	STR.	1	7	12'- 3	BF WALLS Vertical					G93	STR.	1	7	11'- 5	BF WALLS Vertical					
G38	STR.	1	7	12'- 5	BF WALLS Vertical					G94	STR.	1	7	11'- 6	BF WALLS Vertical					
G39	STR.	1	7	12'- 5	BF WALLS Vertical					G95	STR.	1	7	11'- 6	BF WALLS Vertical					
G40	STR.	1	7	12'- 7	BF WALLS Vertical					G96	STR.	1	7	11'- 7	BF WALLS Vertical					
G41	STR.	1	7	12'- 8	BF WALLS Vertical					G97	STR.	1	7	11'- 8	BF WALLS Vertical					
G42	STR.	1	7	12'-10	BF WALLS Vertical					G98	STR.	1	7	11'- 9	BF WALLS Vertical					
G43	STR.	1	7	12'-11	BF WALLS Vertical					G99	STR.	1	7	11'-10	BF WALLS Vertical					
G44	STR.	1	7	13'- 0	BF WALLS Vertical					G100	STR.	1	7	11'-11	BF WALLS Vertical					
G45	STR.	1	7	13'- 2	BF WALLS Vertical					G101	STR.	1	7	12'- 0	BF WALLS Vertical					
G46	STR.	1	7	13'- 3	BF WALLS Vertical					G102	STR.	1	7	12'- 0	BF WALLS Vertical					
G47	STR.	1	7	13'- 4	BF WALLS Vertical					G103	STR.	1	7	12'- 1	BF WALLS Vertical					
G48	STR.	1	7	13'- 6	BF WALLS Vertical					G104	STR.	1	7	12'- 2	BF WALLS Vertical					
G49	STR.	1	7	13'- 7	BF WALLS Vertical					G105	STR.	1	7	12'- 3	BF WALLS Vertical					
G50	STR.	1	7	13'- 9	BF WALLS Vertical					G106	STR.	1	7	12'- 4	BF WALLS Vertical					
G51	STR.	29	7	13'-10	BF WALLS Vertical					G107	STR.	1	7	12'- 5	BF WALLS Vertical					
H52	STR.	252	8	8'- 5	TOP WALL FOOTING					G108	STR.	1	7	12'- 6	BF WALLS Vertical					
H53	STR.	128	5	8'- 5	BOTTOM WALL FOOTING					G109	STR.	1	7	12'- 6	BF WALLS Vertical					
H54	STR.	172	5	32'- 8	LONG WALL FOOTING					G110	STR.	1	7	12'- 7	BF WALLS Vertical					
H55	STR.	198	7	6'- 8	FF WING DOWEL	5- 5 1/2	1- 2	0- 7	5- 9	G111	STR.	1	7	12'- 8	BF WALLS Vertical					
H56	STR.	102	5	4'- 5	FF WINGS					G112	STR.	1	7	12'- 9	BF WALLS Vertical					

BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H
M57	STR.	40	5	24'- 3	WINGS				
M58	STR.	40	5	24'- 8	WINGS				
M59	STR.	8	5	32'- 6	Parapet and WINGS				
M60	STR.	2	5	59'- 0	Parapet and WINGS				
M61	STR.	2	5	50'- 2	WINGS and Parapet				
T62	STR.	4	6	40'-10	TOP WINGS				
T63	STR.	2	6	24'- 7	TOP WINGS				
P64	STR.	4	8	19'- 7	Parapet				
R65	STR.	13	5	9'- 1	Parapet Wall (Left End)	3- 9 1/2	0- 9		
R66	STR.	13	5	7'- 1	Parapet Wall (Right End)	2-10 1/2	0- 9	0- 2 1/2	2- 4
						0- 6 1/2	0- 9 1/2		
						2- 6	2- 6	2- 3 1/2	1- 0
						2- 6	2- 6	2- 3 1/2	1- 0

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

GRAYSON COUNTY
GRAYSON SPRINGS ROAD
KY 1214 OVER CREEK
STA. 1817 + 19.13

GENERAL NOTES

SPECIFICATIONS: All references to the standard Specifications are to the 2012 Standard Specifications for Road and Bridge Construction for Road and Bridge Construction with current Supplemental Specifications. All references to the AASHTO are to the current edition of the AASHTO LRFD Bridge Design Specifications, with Interims.

DESIGN LOAD: This structure is designed for HL-93 live load increased by 25%. The 25% increase is achieved by increasing the design truck or tandem and the design lane load by 25%.

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

MASONRY COATING: Masonry coating will not be required for this structure.

COMPLETION OF THE STRUCTURE: The Contractor is required to complete the structure in accordance with the plans and specifications. Material, labor or construction operations, not otherwise specified, are to be included in the bid item most appropriate to the work involved. This may include, but is not limited to, the use of scaffolding, shoring, bracing, or any other equipment or materials required to complete the structure.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless shown otherwise. Spacing of bars is 2' unless otherwise noted. Any reinforcing bars designated by suffix (a) in the Plans shall be epoxy coated in accordance with section 811.0 of the Standard Specifications. Any bars not designated as epoxy coated shall be galvanized. Reinforcing cement shall be considered a stirrup for purposes of bend diameters.

BEVELED EDGES: All exposed edges shall be beveled $\frac{1}{4}$ " unless otherwise shown.

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

CONCRETE: Class "A" concrete shall be used throughout.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the structure in accordance with the specifications. Construction joints shall be located within six feet of the ends of the culvert.

FOOTING PRESSURE: Foundation materials for barrel and wing footings shall resist a maximum bearing pressure of 4668 PSF.

FLOWLINE REINFORCEMENT: Reinforcement in the 6 in thick slab shall be Size 4 bars of 18 in centers in each direction or an equivalent area of welded deformed steel bars. The bars shall extend a minimum of 2 in into wing footings. The bars shall be placed in the center of the footing. Reinforcement shall be incidental to the unit price bid for Concrete, Class "A".

ESTIMATE OF QUANTITIES

BID CODE	ITEM	QUANTITY	UNIT
8100	Class "A" Concrete	50.5	C.Y.
8150	Reinforcement	7350	LB
8003	Foundation Preparation	1	L.S.
8002	Structure Excavation Rock	28	C.Y.

BARREL AND WING FOOTINGS: Wing footings and all Barrel footings shall be poured directly on top of solid unweathered bedrock. However, the toe of footing and the end of the 6' proved flowline must be extended 1'-0" minimum into solid rock as detailed in the Plans. If the bedrock is not solid, the Contractor shall excavate to solid rock and pour concrete to the top of the footing elevation to top of solid rock. Any extra concrete required shall be incidental to Class A concrete. All footings/keys excavations in bedrock shall be cut neatly so that no forming or bookfilling is necessary of the portions of footings/keys located in rock. Concrete shall be poured directly against the cut rock faces. Mass concrete should be placed in the excavation from the top of the footing to the bedrock surface where the footing does not extend to the bedrock surface.

ROCK NOTE: Solid rock excavation will be required for footing construction.

CONSTRUCTION NOTE: Temporary sheeting, shoring, cofferdams, and/or a dewatering method may be necessary for construction of the culvert. Include all costs in the price bid for Foundation Preparation.

BONDING TO EXISTING CONCRETE USING STRUCTURAL ADHESIVES: Bond proposed plastic concrete to existing hardened concrete in all locations using a Type V Epoxy Resin or other approved Structural Adhesive as prescribed in section 826 of the Specifications. Follow the manufacturer's recommended application instructions. All of the material shall be applied using a type A epoxy grout application. Existing concrete shall be removed to the unit price bid for concrete.

EXISTING WING/BARREL REMOVAL: Any rock or concrete removal to achieve a good surface for new construction shall be incidental to Foundation Preparation. Contractor is responsible for all damage to existing culvert.

INDEX OF SHEETS

Sheet No.	Title	Description
1	LYOU +	
2	LYOU +	
3 & 4	Wing and Barrel	
5	Wing and Barrel	
6	Bill of Reinforcement	

SPECIAL NOTES

SPECIAL PROVISIONS

STANDARD DRAWINGS

BOX-006-10	Structs for Structures
BOX-012-02	Geotechnical Legend

SPECIFICATIONS

2012 Standard Specifications for Road and Bridge Construction

2017 AASHTO LRFD Bridge Design Specifications

DATE	REVISION	CHECKED BY	DATE
DATE: JAN. 2019		Kong Lee	
DESIGNED BY: J. VAN ZEE		K. BISHOP	
DETAILED BY: J. VAN ZEE			

Department of Highways

Department of Highways

GRAYSON COUNTY

ROUTE 1214

ROUTE 1214

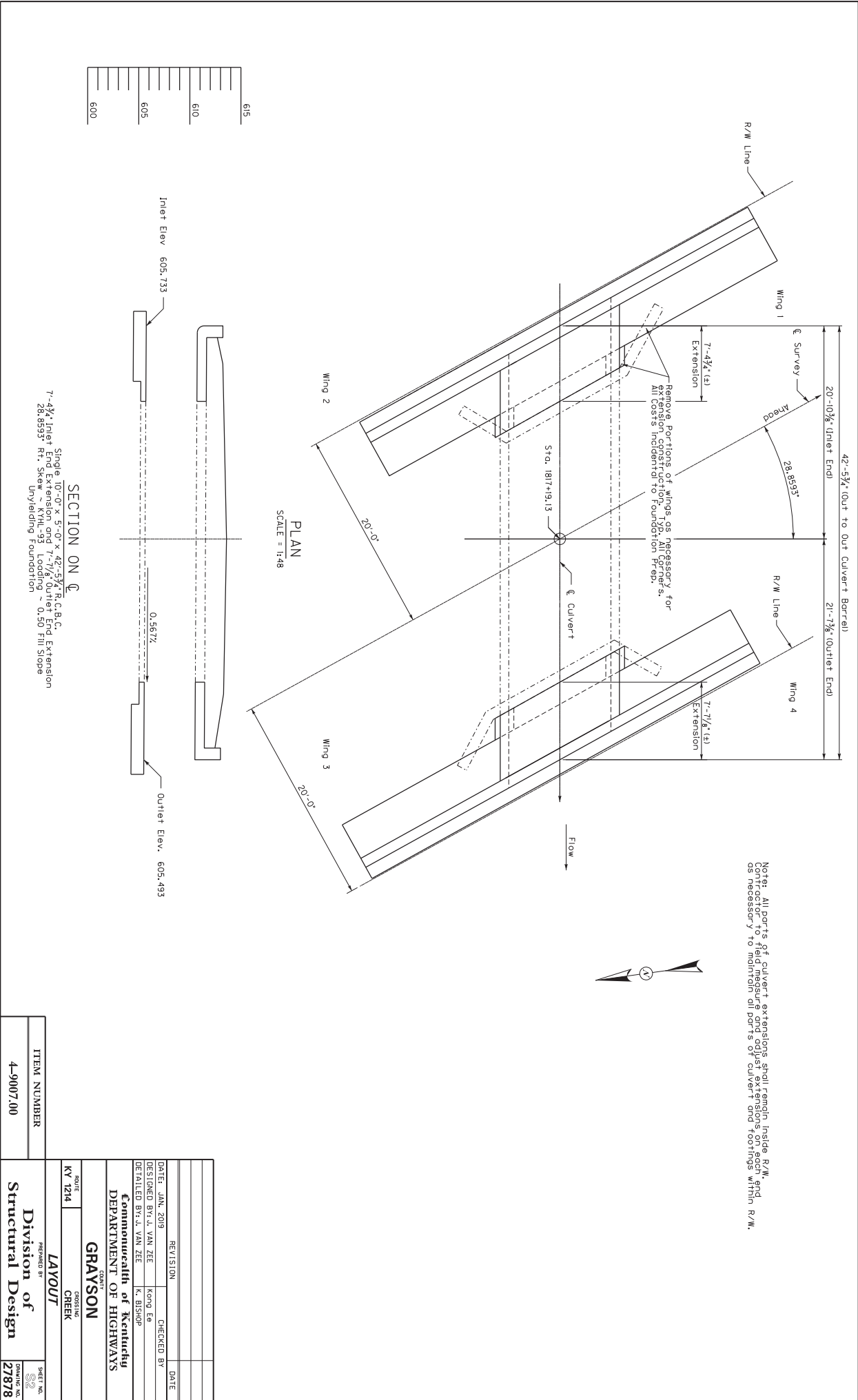
Division of Structural Design

SHEET NO. 27878

6-SHEET NAME:

DATE: 31-MAY-2019

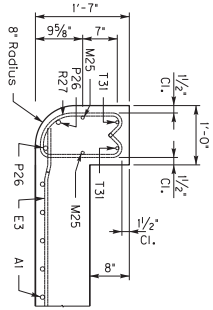
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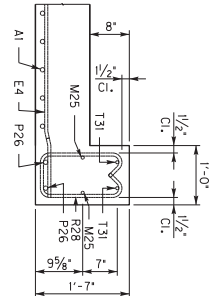


ITEM NUMBER		4-9007.00	
PREPARED BY Division of Structural Design		DATE: JAN. 2019 DESIGNED BY: J. VAN ZEE CHECKED BY: KNO FO DETAILED BY: J. VAN ZEE K. BISHOP	
ROUTE KY 1214		QUANTITY GRAYSON CREEK	
BARREL CREEK		DATE	
SHEET NO. 33 TOTAL NO. 27878			

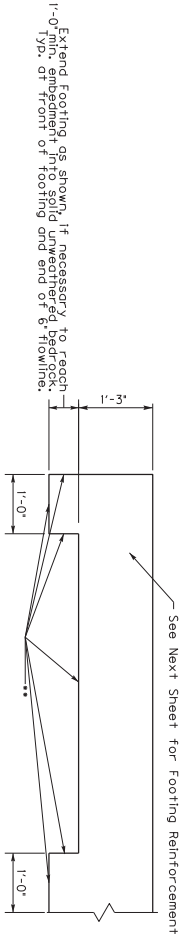
6-SHEET NAME: DATE: 31-MAY-2019 USERNAME: Joseph.vanzee FILE NAME: H:\Archives\Grayson\27878_04-9007.00\27878.dgn



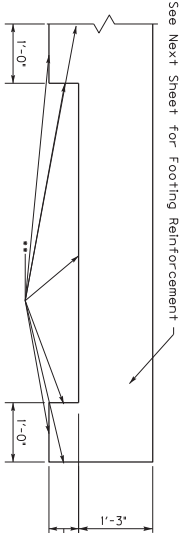
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(Perpendicular to Parapet)



RIGHT PARAPET
SCALE = 1/12
(Perpendicular to Parapet)



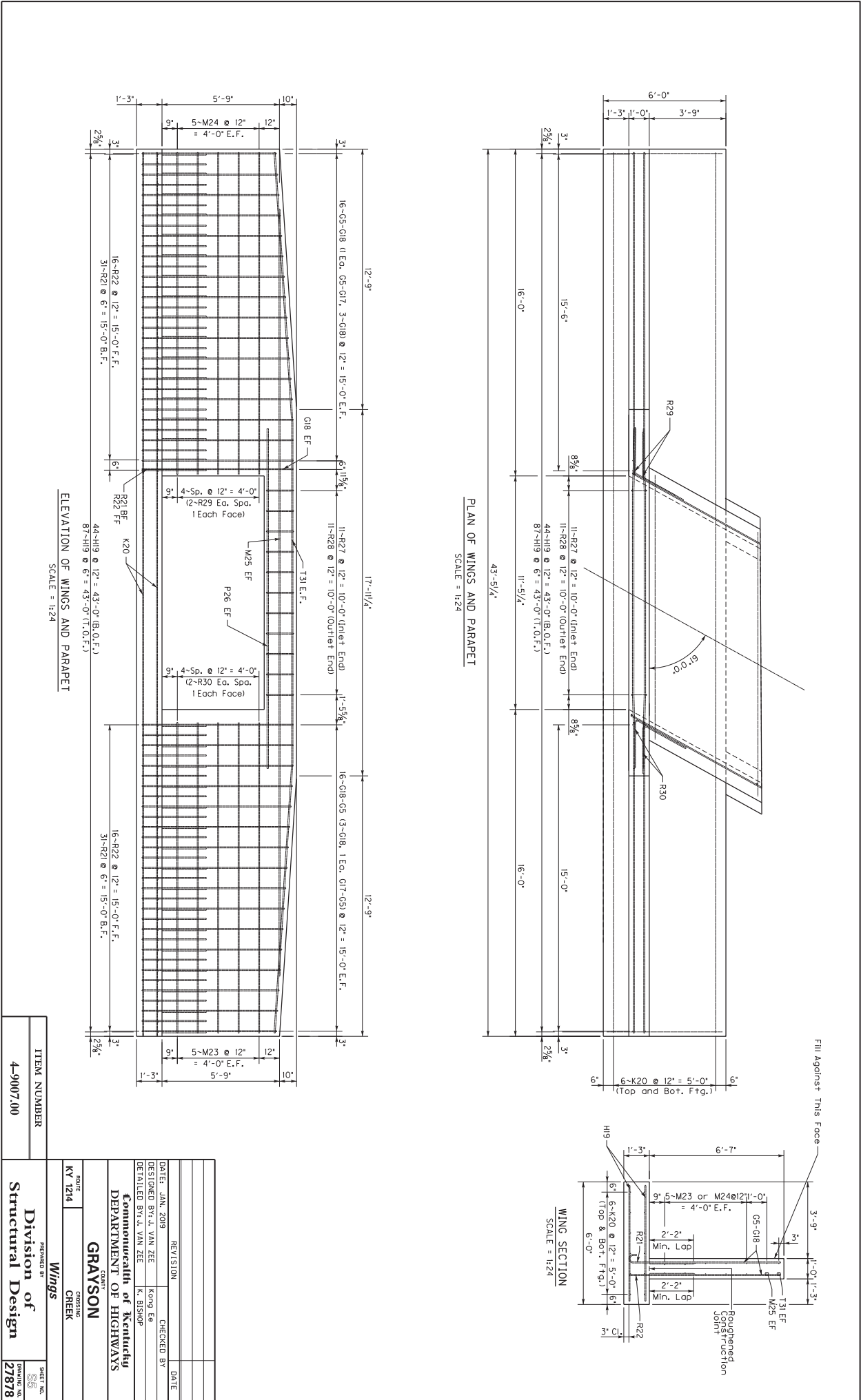
LEFT END
SCALE = 1/12
(Perpendicular to Apron)



RIGHT END
SCALE = 1/12
(Perpendicular to Apron)

Extend Footing as shown, if necessary to reach 1'-0" min. embedment into solid unweathered bedrock. Typ. at front of footing and end of 6' flowline.

Extend Footing as shown, if necessary to reach 1'-0" min. embedment into solid unweathered bedrock. Typ. at front of footing and end of 6' flowline.



7	SHEET NO.	56
	DRAWING NO.	
	27878	

**GRAYSON COUNTY
GRAYSON SPRINGS ROAD
KY 1214 OVER CREEK
Station 1900+34**

GENERAL NOTES

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

DESIGN LOAD: This structure is designed for HL-93 live load increased by 25%. The 25% increase is arrived by increasing the design truck or tandem and the design lane load by 25%.

DESIGN METHOD: All reinforced concrete members are designed by the load and resistance factor method as specified in the current AASHTO Specifications.

MASONRY COATING: Masonry coating will not be required for this structure.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2" unless otherwise noted. Any reinforcing bars designated by suffix (e) in the Plans shall be epoxy coated in accordance with section 811.0 of the Standard Specifications. Any reinforcing bars designated by suffix (s) in a Bill of Materials shall be considered a stirrup for purposes of bend diameters.

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

DIMENSIONS: Dimensions are for a normal temperature of 60 degrees Fahrenheit. Layout dimensions are horizontal measurements.

WEIGHT OF FILL MATERIAL: The assumed weight of fill material is 120 lbs per cubic foot.

CONCRETE: Class 'A' concrete shall be used throughout.

CONSTRUCTION JOINTS: Vertical construction joints shall be located in the field, except that no construction joint shall be located in the barrel within six feet of the ends of the culvert.

FOOTING PRESSURE: Foundation materials for barrel and wing footings shall resist a maximum bearing pressure of 5129 PSF.

FLOWLINE REINFORCEMENT: Reinforcement in the 6

deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the bottom slab. The cost of this reinforcement shall be incidental to the unit price bid for Concrete, Class "A".

ESTIMATE OF QUANTITIES			
BID CODE	ITEM	QUANTITY	UNIT
8100	Class "A" Concrete	36.7	C.Y.
8150	Reinforcement	5450	Lb
8003	Foundation Preparation	1	L.S.
8002	Structure Excavation Rock	26	C.Y.

INDEX OF SHEETS

Sheet No.	Description
1	Title
2	Layout
3 & 4	Barrel Details
5	Wings 1, 2, 3 & 4
6	Bill of Reinforcement

SPECIAL NOTES

SPECIAL PROVISIONS

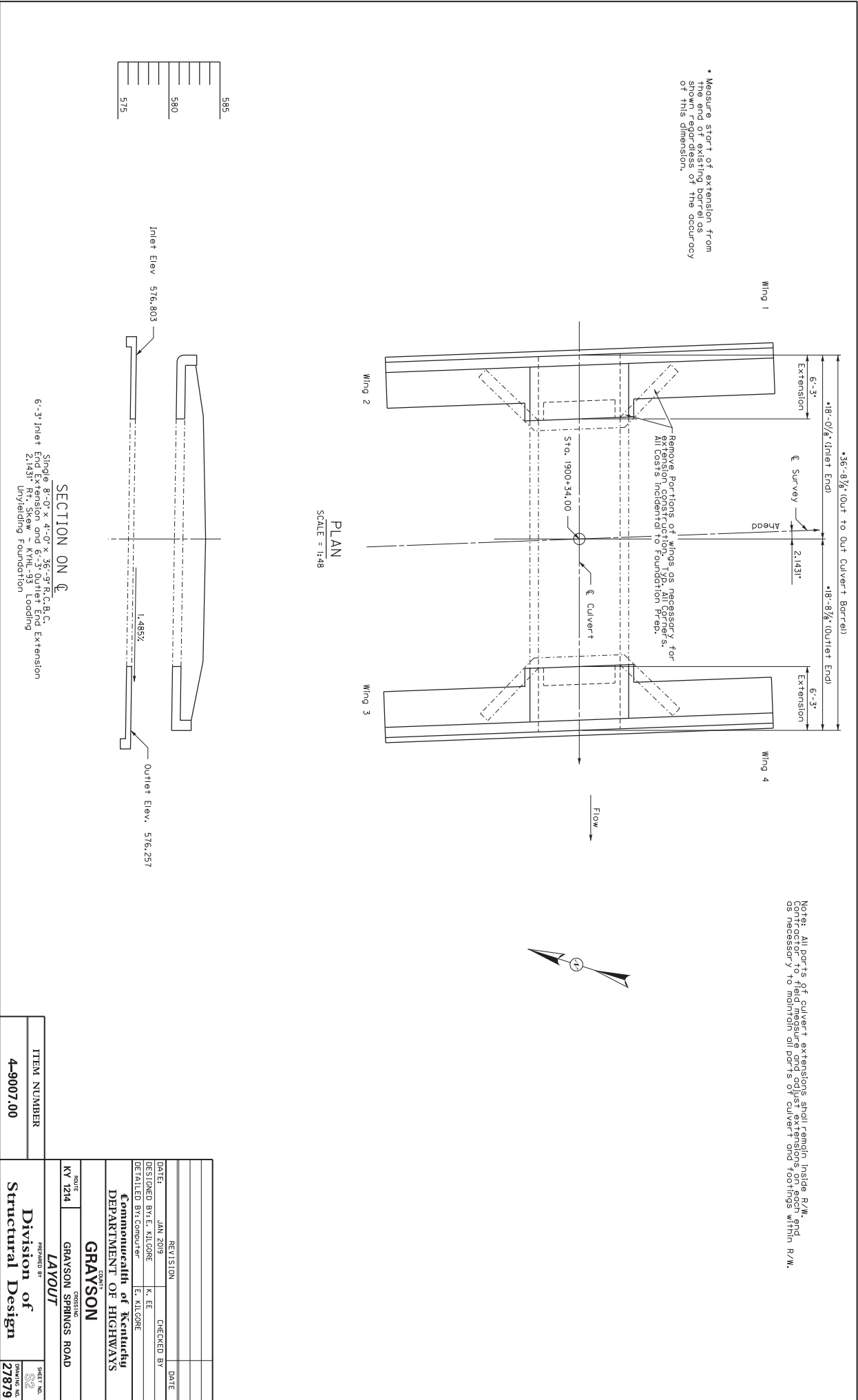
STANDARD DRAWINGS

BCX-006-10	Stencils for Structures
BCX-012-02	Geotechnical Legend

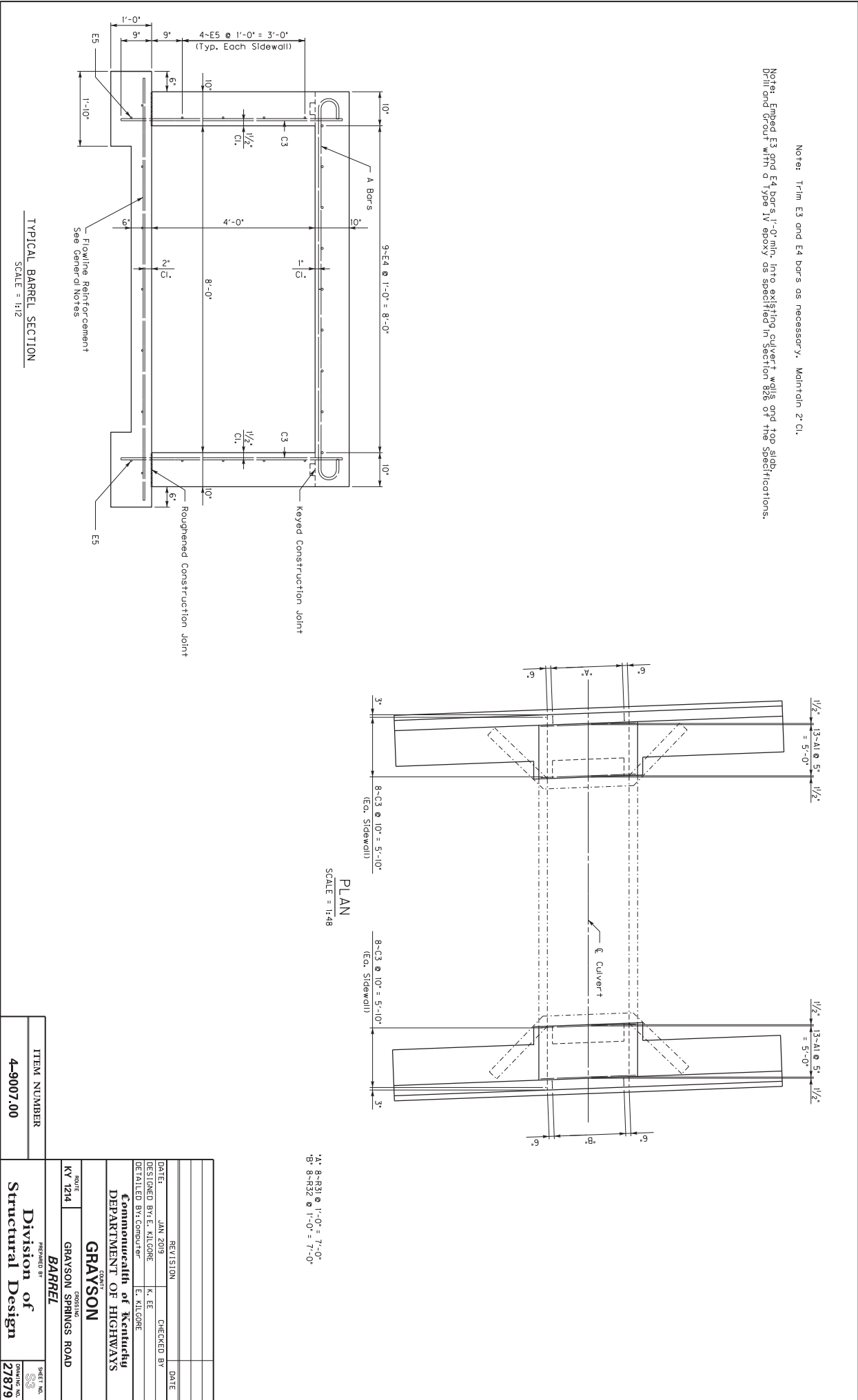
SPECIFICATIONS

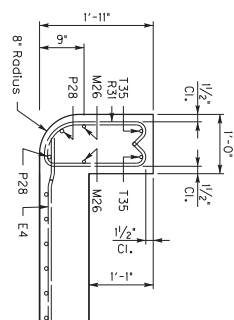
2012 Standard Specifications for Road and Bridge Construction		
2017 ASHRAE LEED Bridge Design Specifications		
DATE:	REVISION	DATE
DESIGNED BY: E. KILCORE	CHECKED BY: K. EE	
DETAILED BY: Computer	E. KILCORE	

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS COUNTY	
GRAYSON	
ROUTE	CROSSING
KY 1214	GRAYSON SPRINGS ROAD
<i>SINGLE 8.0 x 4.0 CULVERT</i>	
PREPARED BY Division of Structural Design	
SHEET NO. DRAWING NO. 2187/7	

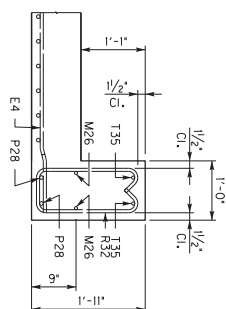


REVISION		DATE
DATE:	JAN 2019	CHECKED BY
DESIGNED BY:	E. KILGORE	K. EE
DETAILED BY:	Computer	E. KILGORE
Commonwealth of Kentucky		
DEPARTMENT OF HIGHWAYS		
COUNTY		
GRAYSON		
ROUTE	GRAYSON SPRINGS ROAD	
KY 1214	LAYOUT	
PREPARED BY		SHEET NO.
Division of		27879
Structural Design		
ITEM NUMBER		
4-9007.00		

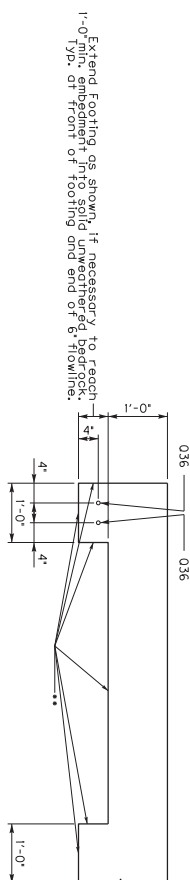




LEFT PARAPET
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perpendicular to Parapet)

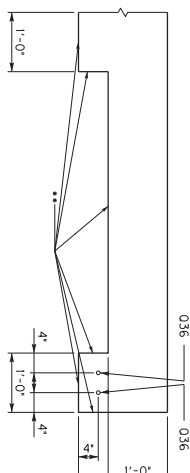


RIGHT PARAPET
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(Perpendicular to Parapet)



LEFT END
SCALE = 1:12
(Perpendicular to Apron)

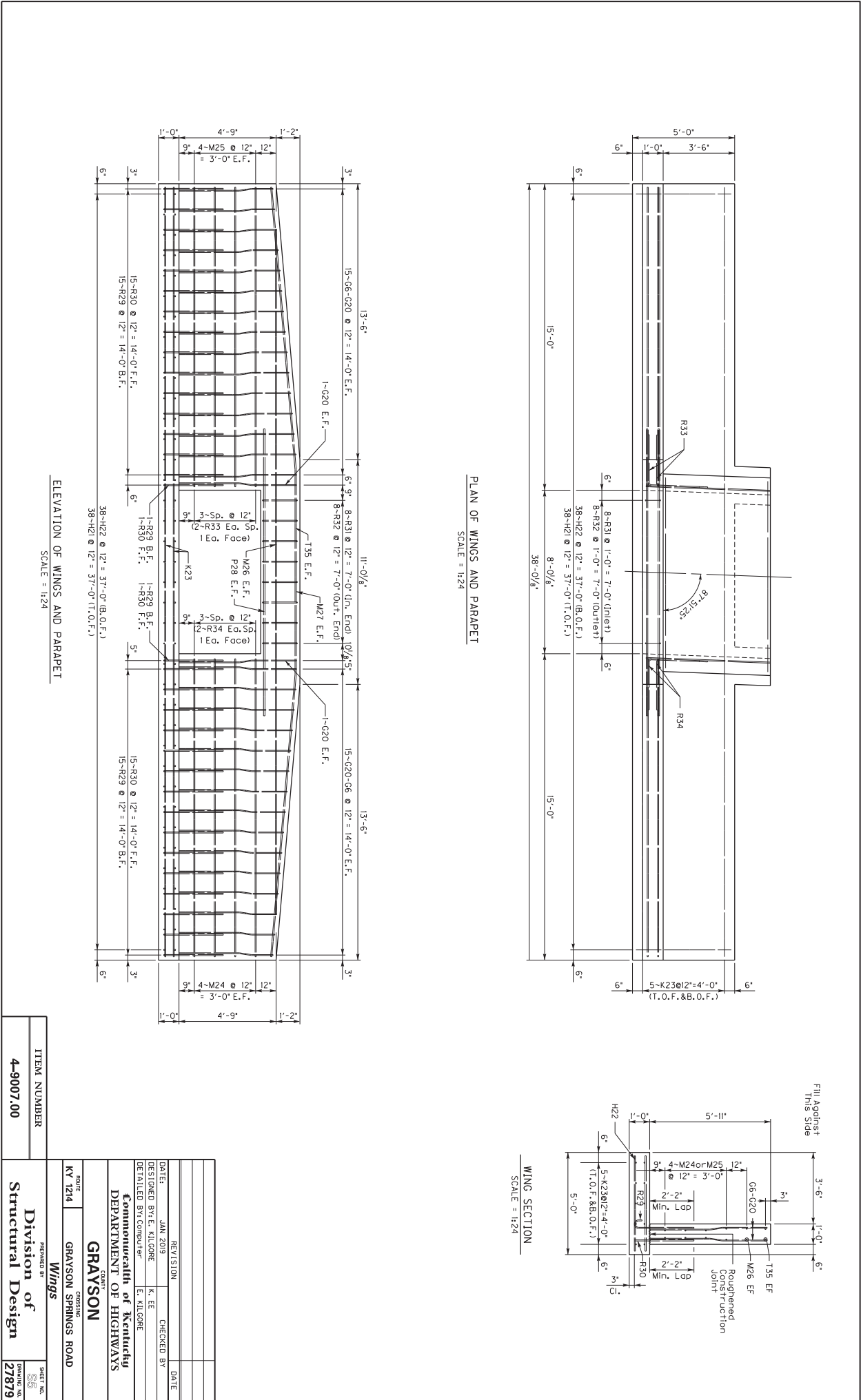
••Pour Against solid unweathered bedrock. Any extra concrete required is incidental to Class A Concrete.



RIGHT END
SCALE = 1:12
(Perpendicular to Apron)

—Extend Footing as shown, if necessary to reach 1'-0" min. embedment into solid unweathered bedrock. Typ: at front of footing and end of 6' flowline

[illegible]



ITEM NUMBER		Division of Structural Design	SHEET NO. 27879
4-9007.00			
Wings		GRAYSON COUNTY GRAYSON SPRINGS ROAD	
KY 1214			
REVISION			DATE
DATE: JAN 2019			CHECKED BY
DESIGNED BY: E. KILGORE			K. EE
DETAILED BY: Computer			E. KILGORE
COMMUNICATED BY:			
DEPARTMENT OF HIGHWAYS			
ROUTE			
KY 1214			

BILL OF REINFORCEMENT									
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/G	D/H
A1	I	26	7	11'-1	Top Slab	8'-9 1/8	1'-2	0'-7	9'-4 1/8
A2	Str.	32	5	5'-5	Sidewalls				
C3	Str.	18	5	7'-2	Top Slab				
E4	Str.	20	5	7'-2	Sidewalls & Footings				
E5	Str.	20	5	4'-7	Walls Vertical				
G6	Str.	8	5	4'-7	Walls Vertical				
G7	Str.	8	5	4'-8	Walls Vertical				
G8	Str.	8	5	4'-9	Walls Vertical				
G9	Str.	8	5	4'-10	Walls Vertical				
G10	Str.	8	5	4'-11	Walls Vertical				
G11	Str.	8	5	5'-1	Walls Vertical				
G12	Str.	8	5	5'-1	Walls Vertical				
G13	Str.	8	5	5'-2	Walls Vertical				
G14	Str.	8	5	5'-3	Walls Vertical				
G15	Str.	8	5	5'-4	Walls Vertical				
G16	Str.	8	5	5'-5	Walls Vertical				
G17	Str.	8	5	5'-6	Walls Vertical				
G18	Str.	8	5	5'-7	Walls Vertical				
G19	Str.	8	5	5'-8	Walls Vertical				
G20	Str.	8	5	5'-9	Walls Vertical				
H21	Str.	76	2	4'-8	Top Wall Footings				
H22	Str.	76	5	4'-8	Bottom Wall Footings				
K23	Str.	20	5	37'-8	Walls				
M24	Str.	16	5	14'-7	Wings				
M25	Str.	16	5	14'-8	Wings				
M26	Str.	4	5	33'-6	Wings and Parapet				
M27	Str.	4	7	14'-1	Not Used				
R28	Str.	64	5	3'-11	Parapets				
R29	Str.	64	5	3'-11	Wings				
R30	Str.	64	5	3'-11	Wings				
R31	Str.	118	8	5	4'-9	Parapet Wall (Left End)			
R32	Str.	128	8	5	4'-11	Parapet Wall (Right End)			
R33	Str.	8	5	4'-11	Wings				
R34	Str.	25	16	5	4'-10	Wings			
R35	Str.	6	4	6	37'-8	Wings and Parapet			
O36	Str.	4	6	37'-8	Aprons				

TYPE 1

TYPE 4

TYPE 6

TYPE 8

TYPE 11

TYPE 12

TYPE 25

ITEM NUMBER	4-9007.00
PREPARED BY	Division of Structural Design
CHECKED BY	K. EE
DESIGNED BY	E. KILGORE
DETAILED BY	Computer
DATE	JAN 2019
REVISION	
ROUTE	KY 1214
PROJECT	GRAYSON SPRINGS ROAD
COUNTY	GRAYSON
DEPARTMENT	DEPARTMENT OF HIGHWAYS
COMMONWEALTH	Commonwealth of Kentucky
SHEET NO.	27879
DRAWING NO.	27879

**GRAYSON COUNTY
GRAYSON SPRINGS ROAD
KY 1214 OVER A CREEK
STA. 2500+69.00**

FLOWLINE REINFORCEMENT: Reinforcement in the 6 in thick slab shall be Size bars at 18 in centers in each direction or an equivalent area of welded deformed steel fabric. The bars shall extend a minimum of 12 in into wing footings and/or the bottom slab. The cost of this reinforcement shall be incidental to the unit price bid for Concrete, Class A.

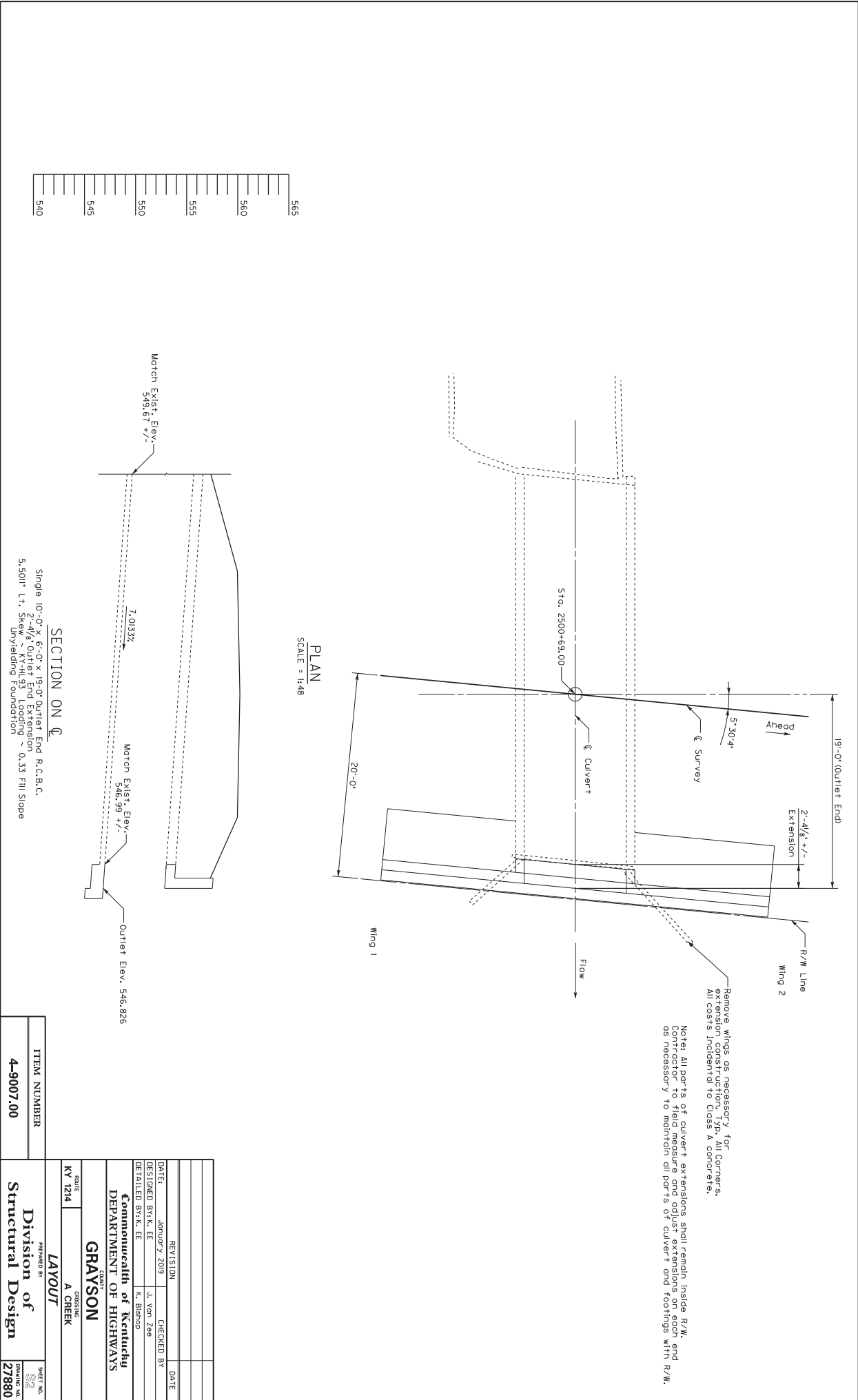
ITEM NUMBER
4-9007.00

[illegible]

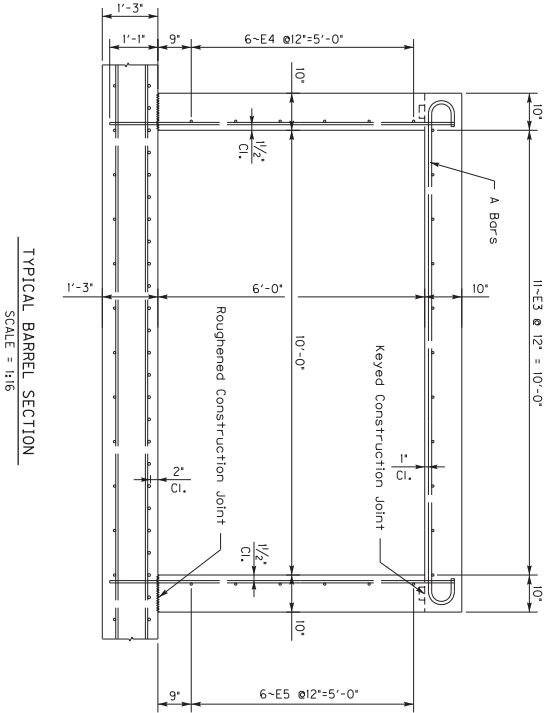
6-SHEET NAME:

DATE: 31-MAY-2019

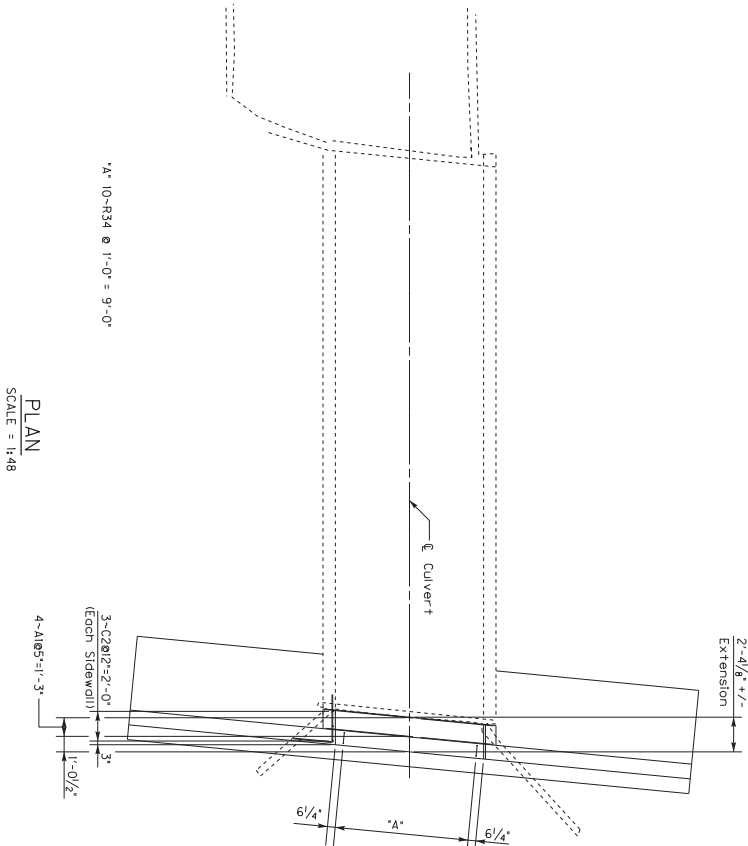
USERNAME: Joseph.vanzee FILE NAME: \\kytcb00r0lp\active_projects\District04\4-9007 Culverts Extensions\27880 10x6 RCBC sta 2500+69\kong\27880.dgn




Note: Trim E3, E4 and E5 bars as necessary. Maintain 2" C.I.
Note: Embed E3, E4 and E5 bars 1'-0" min. into existing culvert walls and top slab.
Drill and Grout with a Type IV epoxy as specified in Section 826 of the Specifications.



TYPICAL BARREL SECTION
SCALE = 1/16



PLAN
SCALE = 1/48

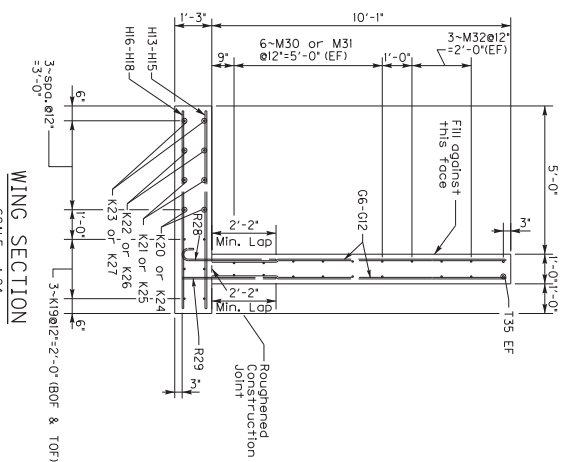
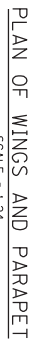
ITEM NUMBER		Division of Structural Design		SHEET NO.  DRAWING NO. 27880
4-9007.00		BARREL		
ROUTE KY 1214		A CREEK		DRAWING NO. 27880
COUNTY GRAYSON		Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS		
DESIGNED BY: K. EE		CHECKED BY: J. Van Zee		DATE
DATE: January 2019		K. Bishop		
DETAILED BY: K. EE				

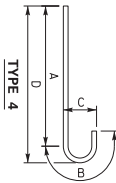
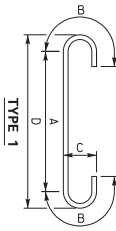
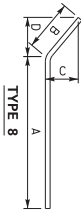
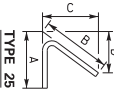
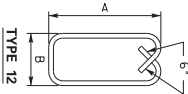
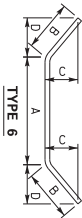


- Extend Footing as shown, if necessary to reach 1'-0" min. embedment into solid unweathered bedrock. Typ: at front of footing and end of 6" flowline

RIGHT END
SCALE = 1:12
(Perpendicular to Apron)

SHEET NO.
S4
DRAWING NO.
27876

[illegible]



BILL OF REINFORCEMENT									
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A/E	B/F	C/O	D/H
A1	1	4	7	13'-2	Top Slab	10-9%	1-2	0-7	11'-4%
C2	5	1	5	1'-9	Stirrups				
E2	16	5	3	2-3	Top Slab				
E3	25	12	5	5-2	Top Slab	2-8	2-8	2-7½	0-3½
E4	8	12	5	5-5	Brill	2-8	2-8	2-7½	0-3½
E5	8	12	5	5-5	Brill	2-8	2-8	2-7½	0-3½
G6	5	12	5	9-11	Wings Vertical				
G7	5	12	5	9-11	Wings Vertical				
G8	5	12	5	9-11	Wings Vertical				
G9	5	12	5	9-11	Wings Vertical				
G10	5	12	5	9-11	Wings Vertical				
G11	5	18	5	9-11	Wings Vertical				
G12	5	18	5	9-11	Wings Vertical				
H13	5	49	6	6-8	Wall Footings				
H14	5	1	6	5-5	Wall Footings				
H15	5	24	6	3-0	Wall Footings				
H16	5	12	5	5-5	Wall Footings				
H17	5	12	5	5-5	Wall Footings				
H18	5	12	5	3-0	Wall Footings				
K19	5	6	5	37-8	Wall Footings				
K20	5	2	5	13-0	Wall Footings				
K21	5	2	5	13-2	Wall Footings				
K22	5	2	5	13-2	Wall Footings				
K23	5	2	5	13-4	Wall Footings				
K24	5	2	5	12-7	Wall Footings				
K25	5	2	5	12-6	Wall Footings				
K26	5	2	5	12-4	Wall Footings				
K27	5	2	5	12-3	Wall Footings				
K28	5	6	5	4-2	Wings	3-11½	0-10	4-2	
K29	5	36	4	4-2	Wings				
M30	5	12	5	13-7	Wings				
M31	5	12	5	13-8	Wings				
M32	5	6	5	37-8	Wings				
P33	5	2	7	14-6	Wings and Parapet				
R34	126	10	5	9-3	Parapet Wall (Outlet End)	3-10½	0-9		
R35	5	2	6	37-8	Wings and Parapet				

ITEM NUMBER		4-9007.00													
<table border="1"> <tr> <td colspan="2">DATE: JANUARY 2019</td> <td colspan="2">CHECKED BY</td> </tr> <tr> <td colspan="2">DESIGNED BY K. EE</td> <td colspan="2">J. Van Zee</td> </tr> <tr> <td colspan="2">DETAILED BY K. EE</td> <td colspan="2">K. SISHOP</td> </tr> </table>				DATE: JANUARY 2019		CHECKED BY		DESIGNED BY K. EE		J. Van Zee		DETAILED BY K. EE		K. SISHOP	
DATE: JANUARY 2019		CHECKED BY													
DESIGNED BY K. EE		J. Van Zee													
DETAILED BY K. EE		K. SISHOP													
<p align="center"> Commonwealth of Kentucky DEPARTMENT OF HIGHWAYS <small>ROADWAY</small> GRAYSON </p>															
ROUTE	CORRECTING														
KY 1214	A CREEK														
<p align="center"> BILL OF REINFORCEMENT <small>PREPARED BY</small> Division of Structural Design </p>															
DRAWING NO.		SHEET NO.													
27880		50													

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)**

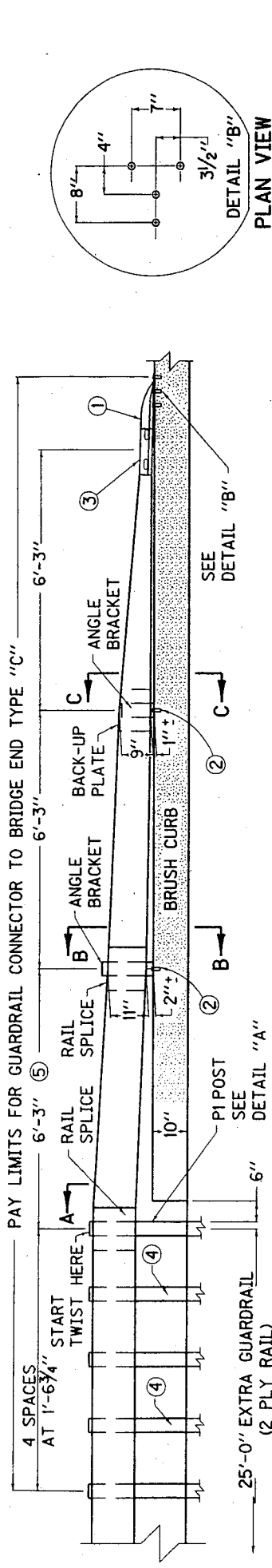
Printed Bailey Bridge Yard Representative_____ & Date_____

Signature Bailey Bridge Yard Representative_____ & Date_____

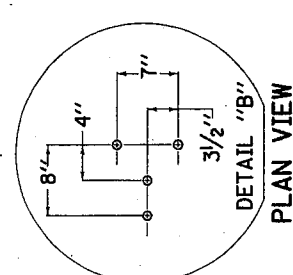
Printed Contractor’s Representative_____ & Date_____

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.



PLAN VIEW OF SELF-DRILL EXPANSION SHIELD LOCATIONS



NOTES:

GUARDRAIL CONNECTOR TO BRIDGE END TYPE "C" SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, THE UNIT PRICE INCLUDES ALL METAL COMPONENTS WITHIN THE PAY LIMITS AND IN ADDITION SHALL INCLUDE AN EXTRA 25'-0" OF STEEL "W" BEAM GUARDRAIL FOR DOUBLE STRENGTH, EXTRA GUARDRAIL POSTS, EXTRA OFFSET BLOCKS, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION AS DETAILED.

GUARDRAIL CONNECTOR TO BRIDGE END TYPE "C" SHALL BE APPLIED ON:

A. ALL FOUR CORNERS OF EXISTING STRUCTURES WHICH HAVE TWO DIRECTIONAL TRAFFIC AND CURBS GREATER THAN 9" IN WIDTH.

B. APPROACH END OF EXISTING STRUCTURES WHICH HAVE ONE DIRECTIONAL TRAFFIC AND CURBS GREATER THAN 9" IN WIDTH.

C. NO PEDESTRIAN TRAFFIC IS INVOLVED.

SEE CURRENT STANDARD DRAWINGS RBR SERIES FOR ALL OTHER APPLICABLE MATERIAL AND CONSTRUCTION REQUIREMENTS.

1 TERMINAL SECT. NO. 2 SHALL BE ANCHORED TO THE BRIDGE BRUSH CURB WITH 4 CHUCK END TYPE SELF-DRILL EXPANSION SHIELDS 7/8" DIA. BOLT SIZE AND FOUR 7/8"x2" HEX HEAD HIGH STRENGTH GALVANIZED CAP SCREWS AND GALVANIZED STANDARD STEEL WASHERS.

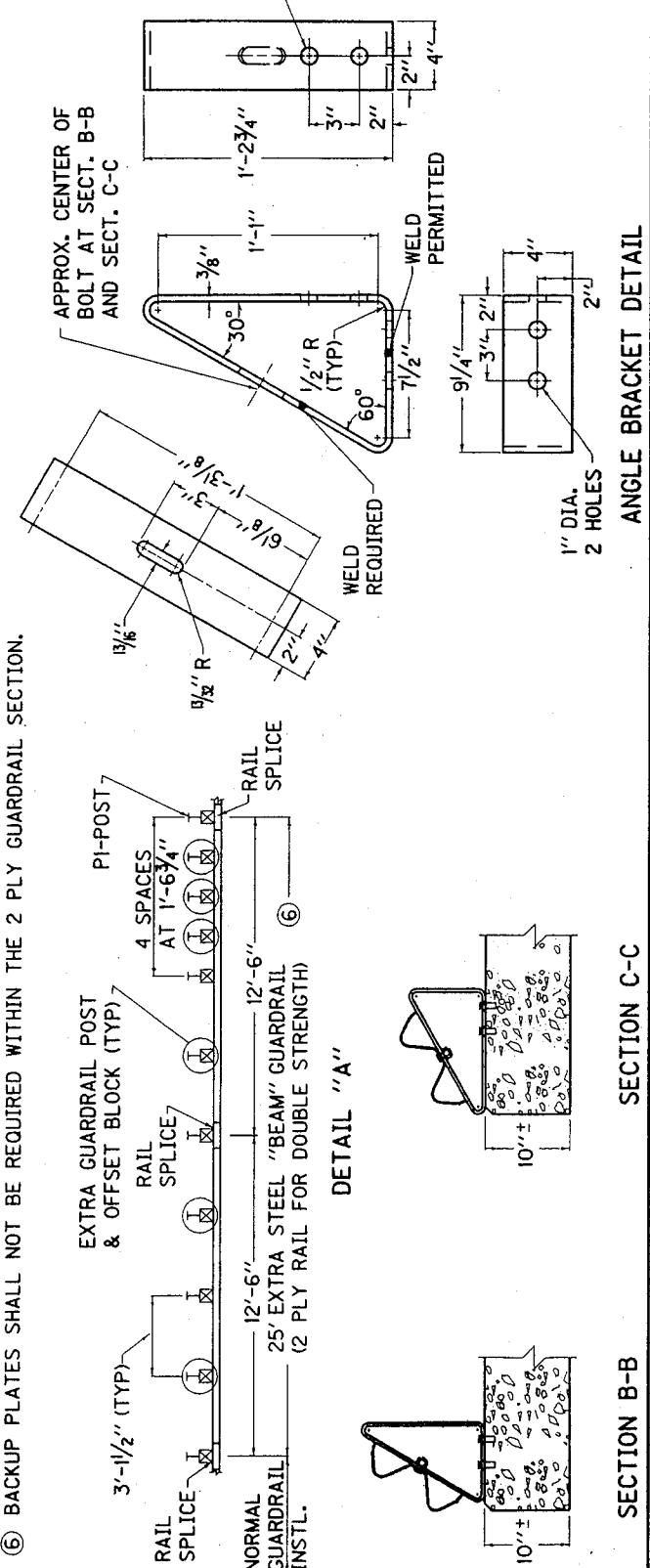
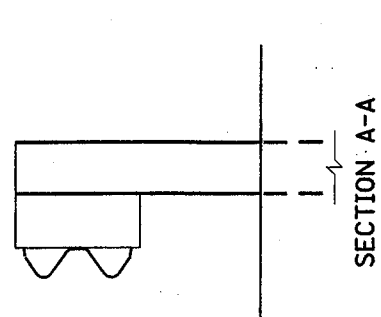
2 ANGLE BRACKETS SHALL BE ANCHORED TO THE BRIDGE BRUSH CURB WITH TWO CHUCK END TYPE SELF-DRILL EXPANSION SHIELDS 7/8" DIAMETER BOLT SIZE AND TWO 7/8"x2" HEX HEAD HIGH STRENGTH GALVANIZED CAP SCREWS AND GALVANIZED STANDARD STEEL WASHERS.

3 TERMINAL SECTION NO. 2; FOR RECTANGULAR PLATE WASHER REQUIREMENTS AT SPLICE SEE CUR. STD. DWG. RBR-010.

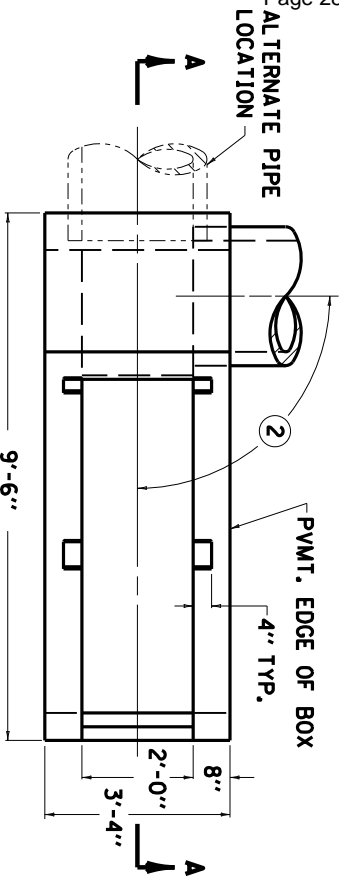
4 GUARDRAIL NOT REQUIRED TO BE ATTACHED TO POST AT THESE LOCATIONS.

5 A 6'-3" SECTION OF GUARDRAIL FACTORY PUNCHED SHALL BE REQUIRED.

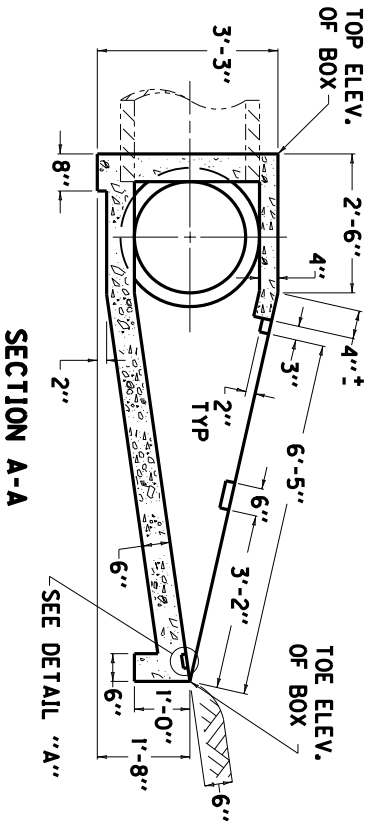
6 BACKUP PLATES SHALL NOT BE REQUIRED WITHIN THE 2 PLY GUARDRAIL SECTION.



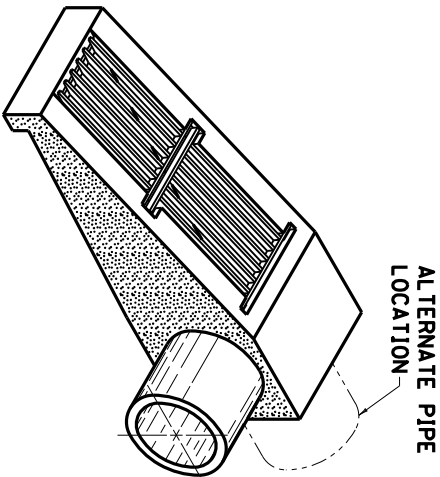
KENTUCKY
DEPARTMENT OF HIGHWAYS
GUARDRAIL CONNECTOR
TO BRIDGE END
TYPE "C"



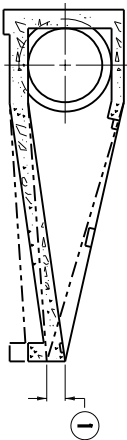
- NOTES**
- | ITEM CODE | BID ITEM | UNIT |
|-----------|--------------------------------|------|
| 1726 | SAFETY BOX INLET-18 INCH SDB-1 | EACH |
| 1727 | SAFETY BOX INLET-24 INCH SDB-1 | EACH |
- THE UNIT BID FOR EACH STRUCTURE SHALL INCLUDE ALL CONCRETE, STRUCTURAL STEEL GRATING, EXCAVATION, LABOR AND INCIDENTALS NECESSARY FOR ITS CONSTRUCTION AS DETAILED ON THIS SHEET.
- TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.
- SKIEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.
- ①
②



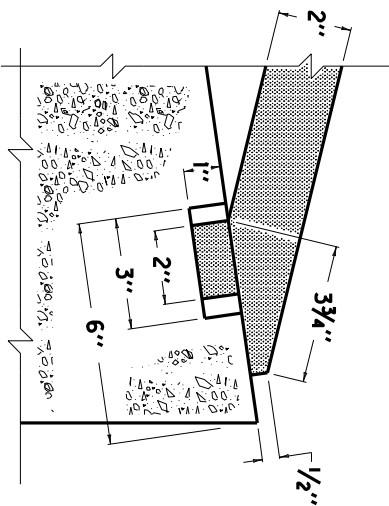
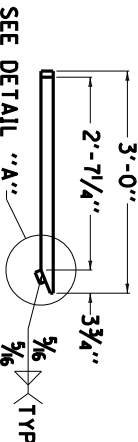
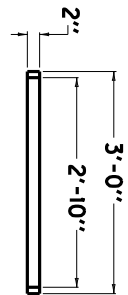
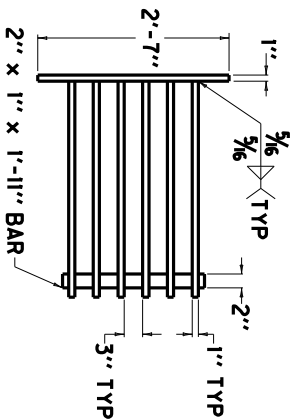
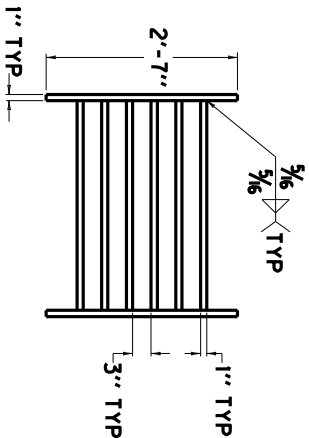
ISOMETRIC VIEW



APPROXIMATE QUANTITIES			
CLASS "A"	GRATE	LBS. STRUCTURAL STEEL	
CUBIC YARDS	NUMBER	EACH GRATE	TOTAL POUNDS
1.44	1	145	
	2	153	298



SECTIONAL VIEW



KENTUCKY DEPARTMENT OF HIGHWAYS
SAFETY TYPE BOX INLET (18" OR 24")

APPROVED	DATE
	06-04-2008
ENGINEER	



APPROXIMATE QUANTITIES

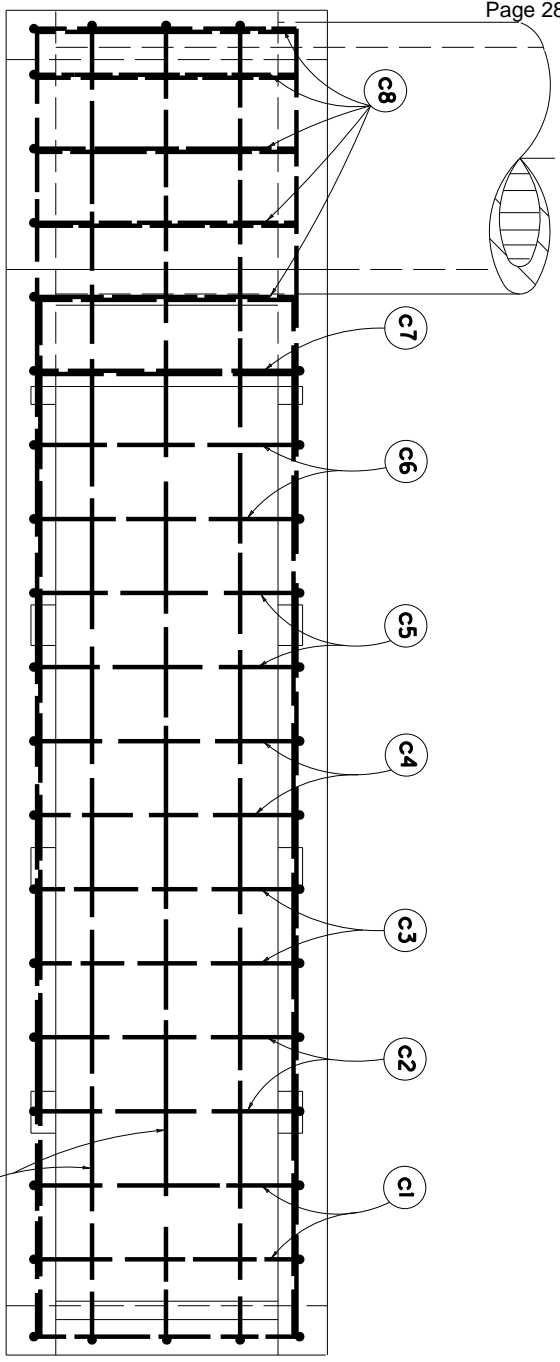
**KENTUCKY
DEPARTMENT OF HIGHWAYS**

**SAFETY TYPE
BOX INLET
(36")**

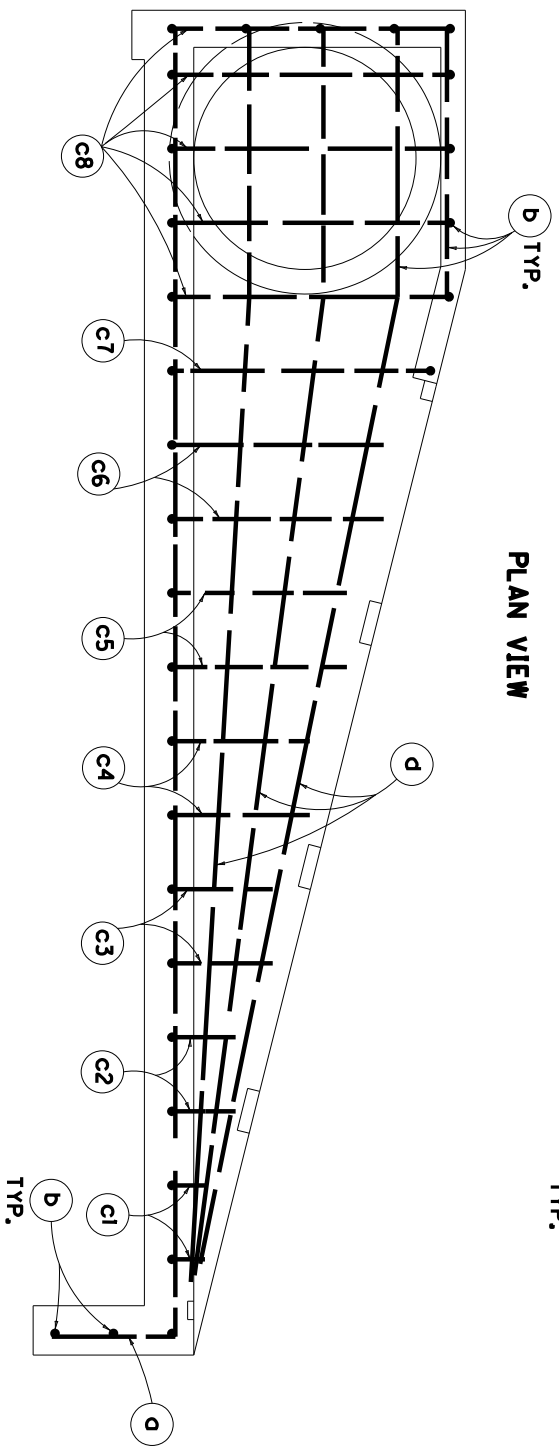
APPROVED _____
PROJECT ENGINEER _____
DATE 06-04-2008

PROJECT ENGINEER

06-04-2008
DATE



PLAN VIEW

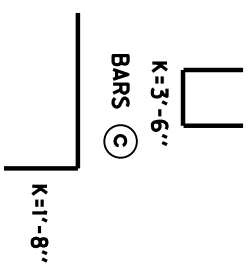


ELEVATION VIEW

NOTES

- 1. NUMBER OF BARS IN ONE HEADWALL.
- 2. DIMENSIONS ARE 0. TO 0. OF BARS.
- 3. ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.

BENT BAR SHAPES



MATERIAL	SIZE	NO LGTH		K		
		① FT	IN		FT	IN
		36"				
O	4	5	19	6	1	8
D	4	16	3	6		
C1	4	2	5	0	3	6
C2	4	2	5	10	3	6
C3	4	2	6	10	3	6
C4	4	2	7	10	3	6
C5	4	2	8	10	3	6
C6	4	2	9	10	3	6
C7	4	1	11	0	3	6
C8	4	5	11	6	3	6
D	4	6	13	4		

SHEET 2 OF 2

KENTUCKY
DEPARTMENT OF HIGHWAYS

BILL OF REINFORCEMENT
SAFETY TYPE BOX INLET
(36")

APPROVED _____ 06-04-2008
DESIGNED BY _____ DATE

PART II

SPECIFICATIONS AND STANDARD DRAWINGS

SPECIFICATIONS REFERENCE

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2016*.

SUPPLEMENTAL SPECIFICATIONS

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

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

2016 STANDARD DRAWINGS THAT APPLY

ROADWAY
~ *BARRIERS* ~
TYPICAL BARRIER INSTALLATIONS
TYPICAL GUARDRAIL INSTALLATIONS.....SEPIA-024
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1.....SEPIA-025

GUARDRAIL HARDWARE
STEEL BEAM GUARDRAIL (W-BEAM).....SEPIA-027
GUARDRAIL COMPONENTS.....RBR-005-11
GUARDRAIL TERMINAL SECTIONS.....RBR-010-06
STEEL GUARDRAIL POSTS.....SEPIA-028
GUARDRAIL END TREATMENT TYPE 1.....SEPIA-029
GUARDRAIL END TREATMENT TYPE 4A.....SEPIA-030
GUARDRAIL END TREATMENT TYPE 7.....SEPIA-034
DELINEATORS FOR GUARDRAIL.....SEPIA-032

~ *DRAINAGE* ~
BOX INLETS AND OUTLETS
DROP BOX INLET TYPE 11.....RDB-011-08

PAVED DITCHES, FLUME INLETS AND CHANNEL LININGS
CHANNEL LINING CLASS II AND III.....RDD-040-05

PIPE CULVERT HEADWALLS
12" – 27" - SINGLE LINE PIPE
CONCRETE HEADWALLS FOR 12" - 27" CIRCULAR PIPE CULVERTS.....RDH-005-02

TYPICAL DRAINAGE INSTALLATIONS
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (12" – 24" PIPE).....RDI-001-10
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (27" – 42" PIPE).....RDI-002-05
CULVERT, ENTRANCE & STORM SEWER PIPE TYPES & COVER HEIGHTS (NON-CIRULAR,
15" – 60" PIPE).....RDI-011-03
PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER PIPE.....RDI-020-09
PIPE BEDDING, TRENCH CONDITION.....RDI-025-05
EROSION CONTROL BLANKET SLOPE INSTALLATION.....RDI-040-01
EROSION CONTROL BLANKET CHANNEL INSTALLATION.....RDI-041-01

MISCELLANEOUS DRAINAGE
SILT TRAP - TYPE B.....RDX-225-01
SILT TRAP - TYPE C.....RDX-230-01

~ *PAVEMENT* ~
MEDIANS, CURBS, APPROACHES, ENTRANCES, ETC.
APPROACHES, ENTRANCES, AND MAIL BOX TURNOUT.....RPM-110-07

Standard Drawings That Apply
Page 2 of 2

TRAFFIC
~ *TEMPORARY* ~
TRAFFIC CONTROL

LANE CLOSURE MULTI-LANE HIGHWAY CASE I.....	TTC-115-03
SHOULDER CLOSURE.....	TTC-135-02

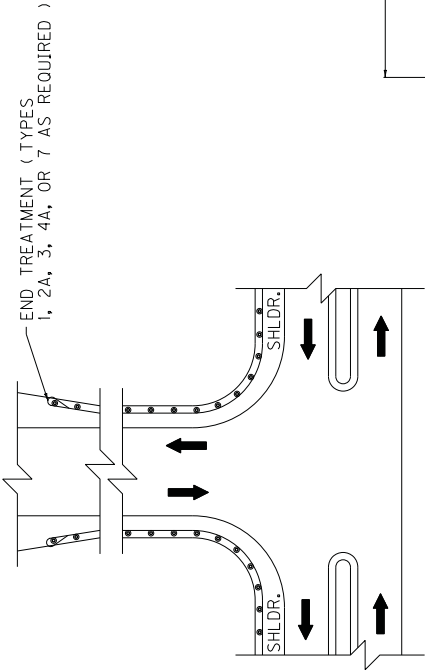
STRIPING OPERATIONS

MOBILE OPERATION FOR PAINT STRIPING CASE II	TTS-105-02
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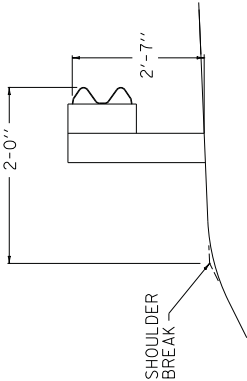
COUNTY OF	ITEM NO.	SHEET NO.

~ NOTES ~

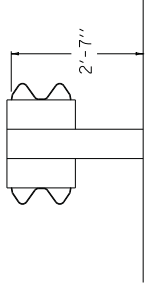
1. FOR END TREATMENT TYPE 4A USE CUR. STD. DWG. RBR-035 FOR OFFSETS.
2. THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET: (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).



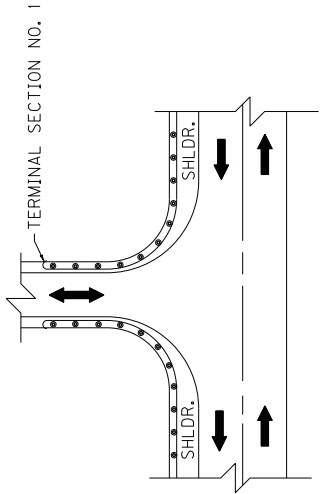
APPROACH ROADS



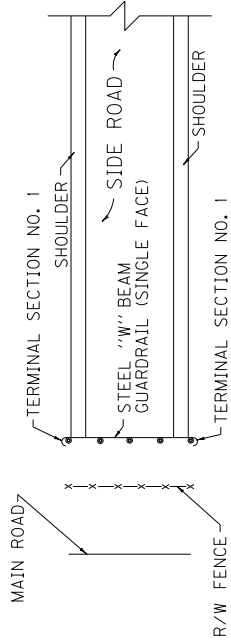
NORMAL GUARDRAIL INSTALLATION



TYPICAL DOUBLE FACE
GUARDRAIL INSTALLATION



ENTRANCES



GUARDRAIL USED AS A BARRICADE

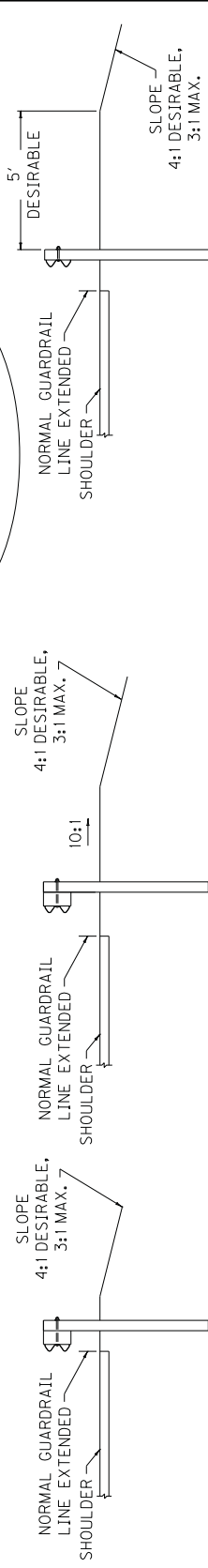
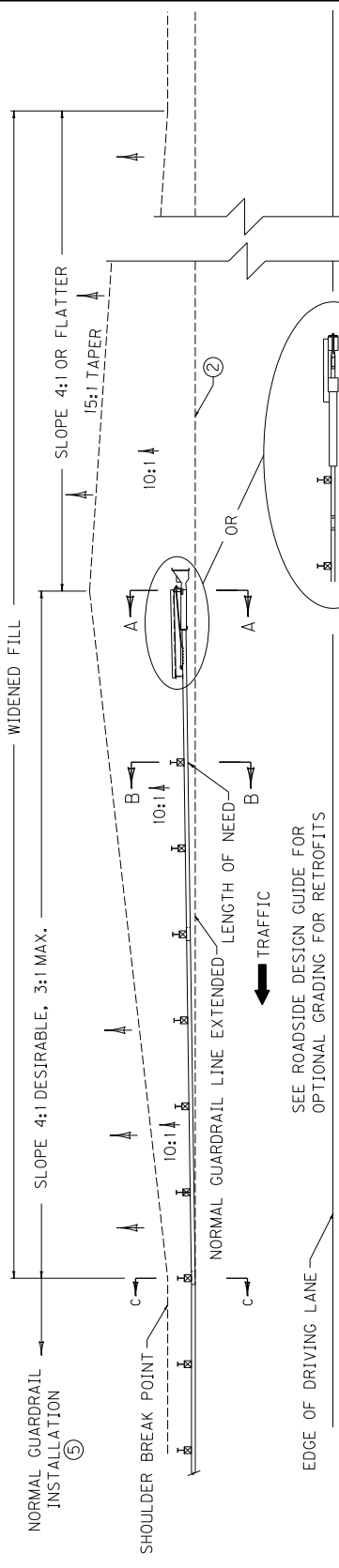
USE WITH CUR. STD. DWG.
RBI-002, RBR-035

KENTUCKY
DEPARTMENT OF HIGHWAYS
TYPICAL GUARDRAIL
INSTALLATIONS

SUBMITTED: *[Signature]* 11-17-17
DIRECTOR DIVISION OF DESIGN DATE

024

COUNTY OF	ITEM NO.	SHEET NO.



SECTION C-C

SECTION B-B

SECTION A-A

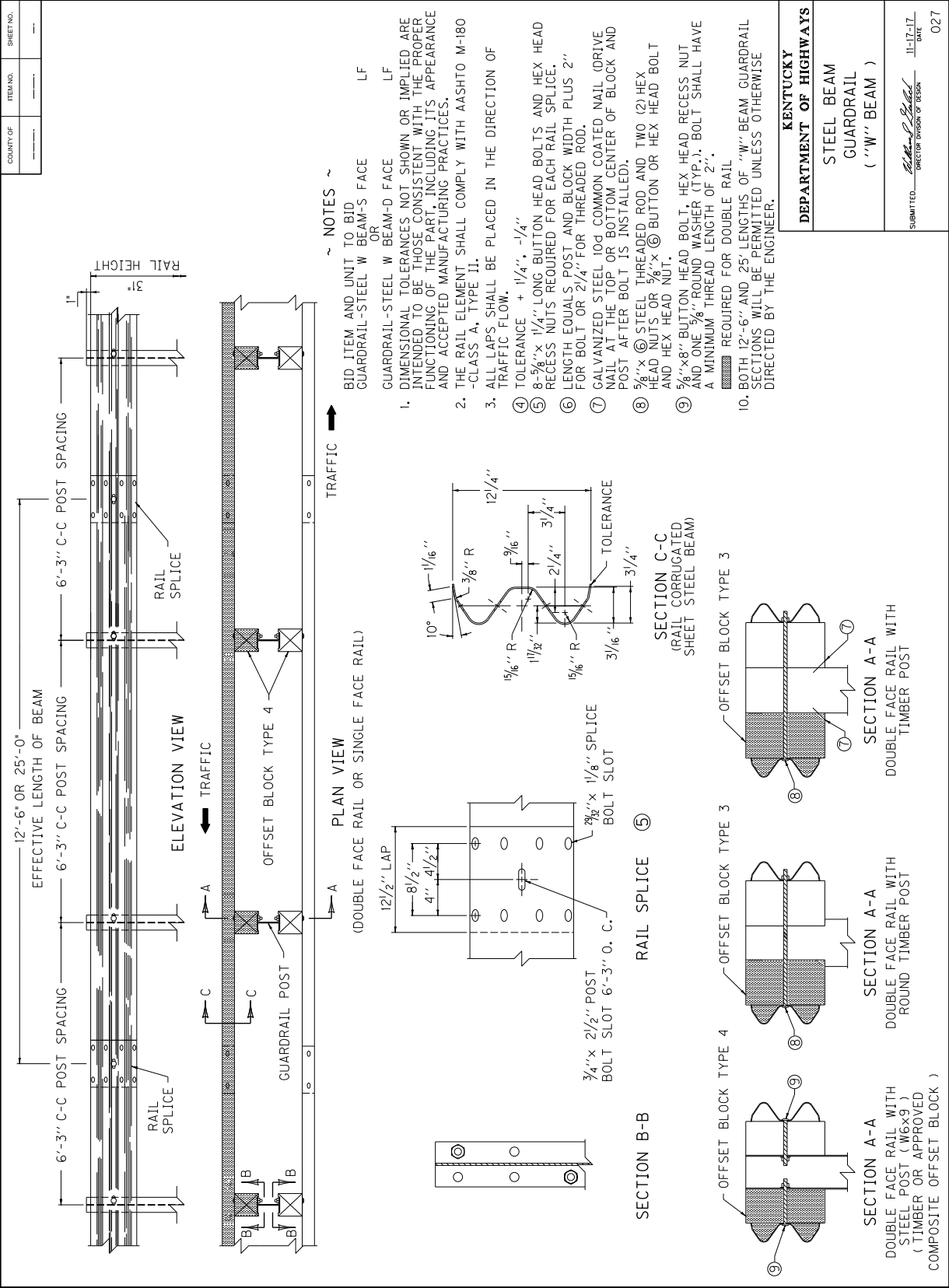
~ NOTES ~

- BID ITEMS AND UNIT TO BID: GUARDRAIL END TREATMENT TYPE 1 EACH CUYD
- THE MINIMUM LENGTH OF GUARDRAIL, INCLUDING THE END TREATMENT, PRECEDING A FIXED OBJECT IS 200 FEET (LENGTH MAY BE REDUCED SHOULD FIELD CONDITIONS WARRANT).
- GUARDRAIL EXTRUDER EDGE CLOSEST TO TRAFFIC SHALL BE PLACED ON NORMAL GUARDRAIL LINE EXTENDED.
- END TREATMENT TYPE 1 MAY BE ATTACHED TO CURVED GUARDRAIL PROVIDED CURVE IS A 550' RADIUS OR MORE. END TREATMENT TYPE 1 SHALL BE INSTALLED ON A STRAIGHT LINE TAPER WITHIN THE PAY LIMITS.
- INTENDED USE: FILLS WITH ADEQUATE VEHICLE RECOVERY ZONE BEHIND GUARDRAIL.
- FOR MAINTENANCE AND REPAIR PROJECTS, USE "GUARDRAIL SYSTEM TRANSITION "SEPIA 33". TO TRANSITION BACK TO 27" OR 29" GUARDRAIL HEIGHT, IF ONLY THE TERMINAL IS PROPOSED TO BE REPLACED.

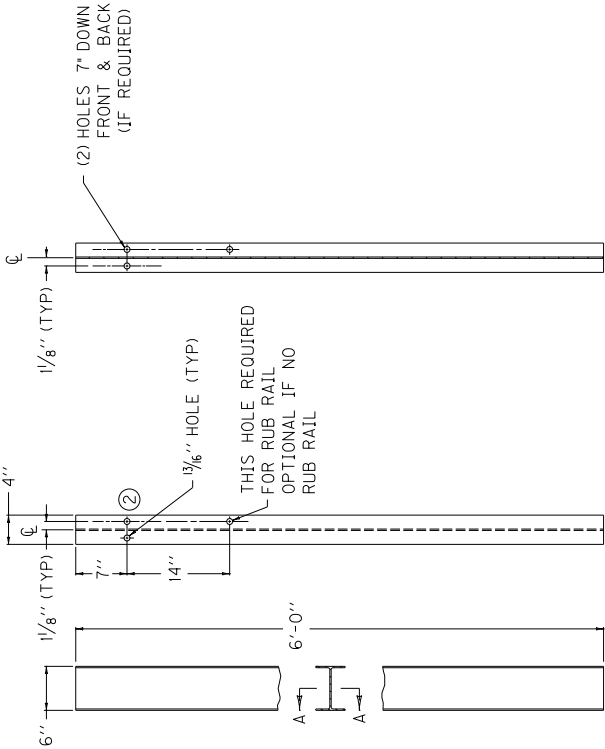
GUARDRAIL END TREATMENT TYPE 1
INSTALLED ON A CURVE

USE WITH CUR. STD. DWG.
RBR-020

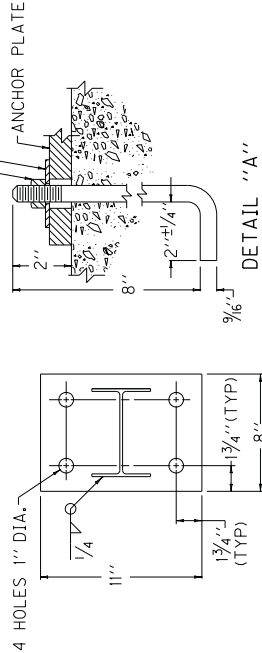
KENTUCKY DEPARTMENT OF HIGHWAYS INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1	SUBMITTED: <i>Michael J. Miller</i> DIRECTOR DIVISION OF DESIGN 11-17-17 DATE
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COUNTY OF	ITEM NO.	SHEET NO.



~ W6 X 9.0 STEEL POST ① ~



PLAN VIEW

SEE DETAIL "A"

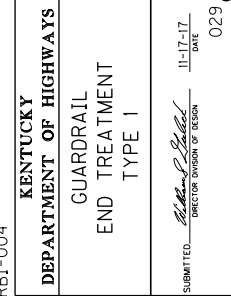
REAR ELEVATION

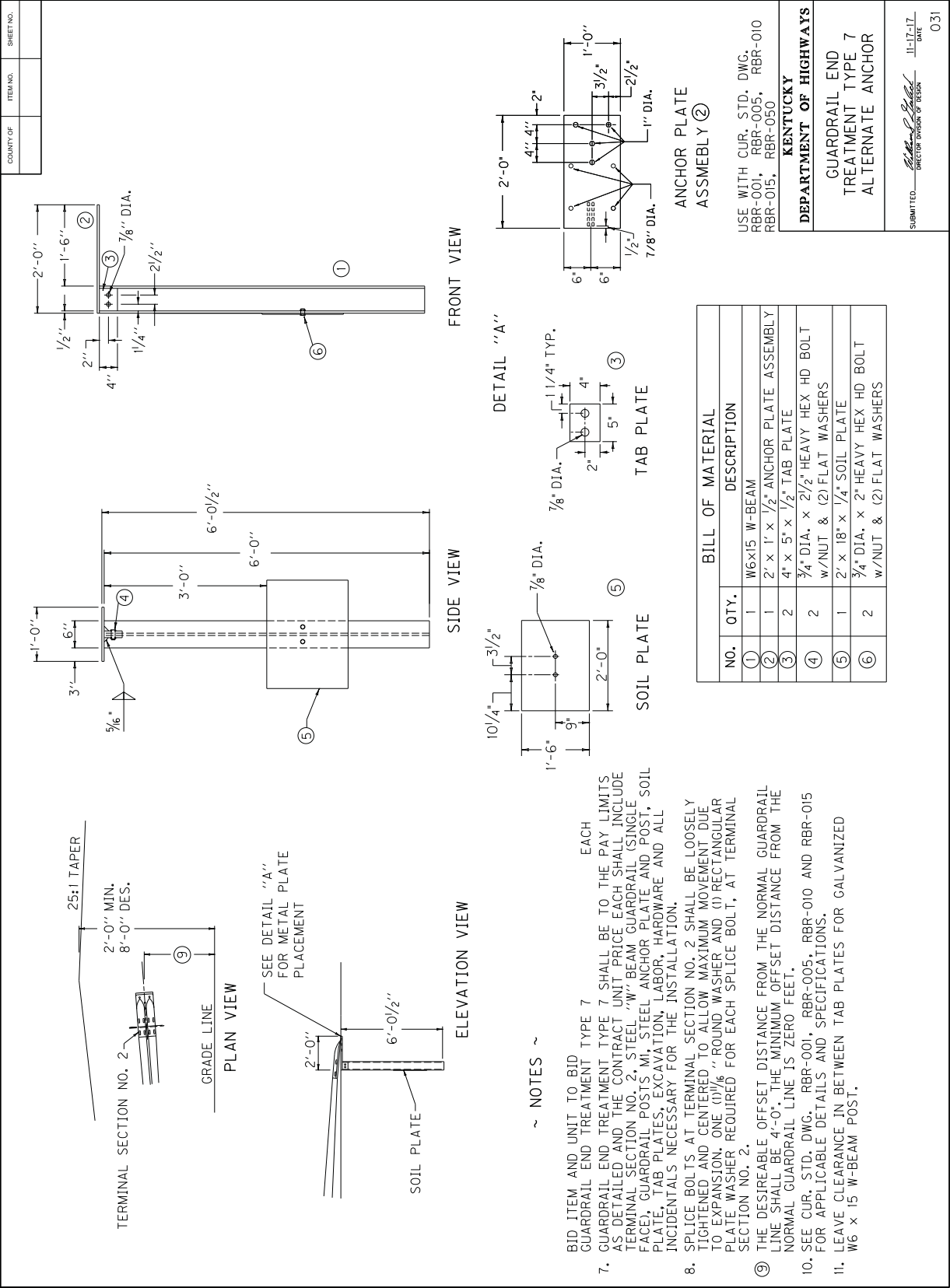
PLAN VIEW

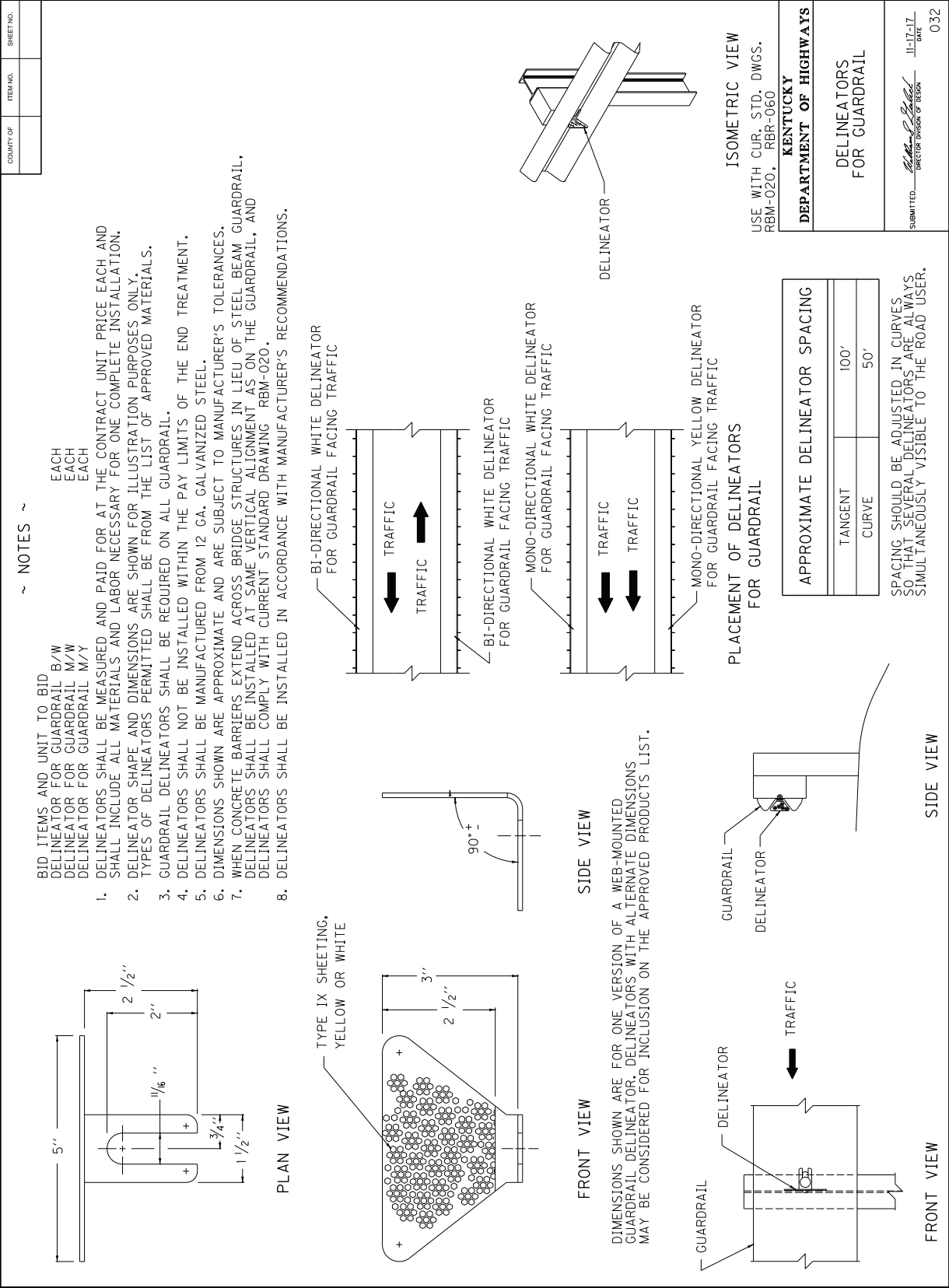
OFFSET BLOCK TYPE 4
6" X 8" (Nominal Size)
(TIMBER OR APPROVED COMPOSITE)
(FOR USE WITH STEEL POST ONLY)

- ~ NOTES ~
- ① W6 X 8.5 IS AN ACCEPTABLE ALTERNATE.
 - ② THESE HOLES ARE REQUIRED FOR ATTACHING RAIL.
 - ③ TIMBER OR COMPOSITE BLOCKOUTS MAY BE USED WITH STEEL POST.

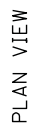
KENTUCKY DEPARTMENT OF HIGHWAYS
STEEL GUARDRAIL POSTS
SUBMITTED: <i>William P. Sabel</i> DATE: 3-06-18 DIRECTOR DIVISION OF DESIGN
028







COUNTY OF _____	ITEM NO. _____	SHEET NO. _____
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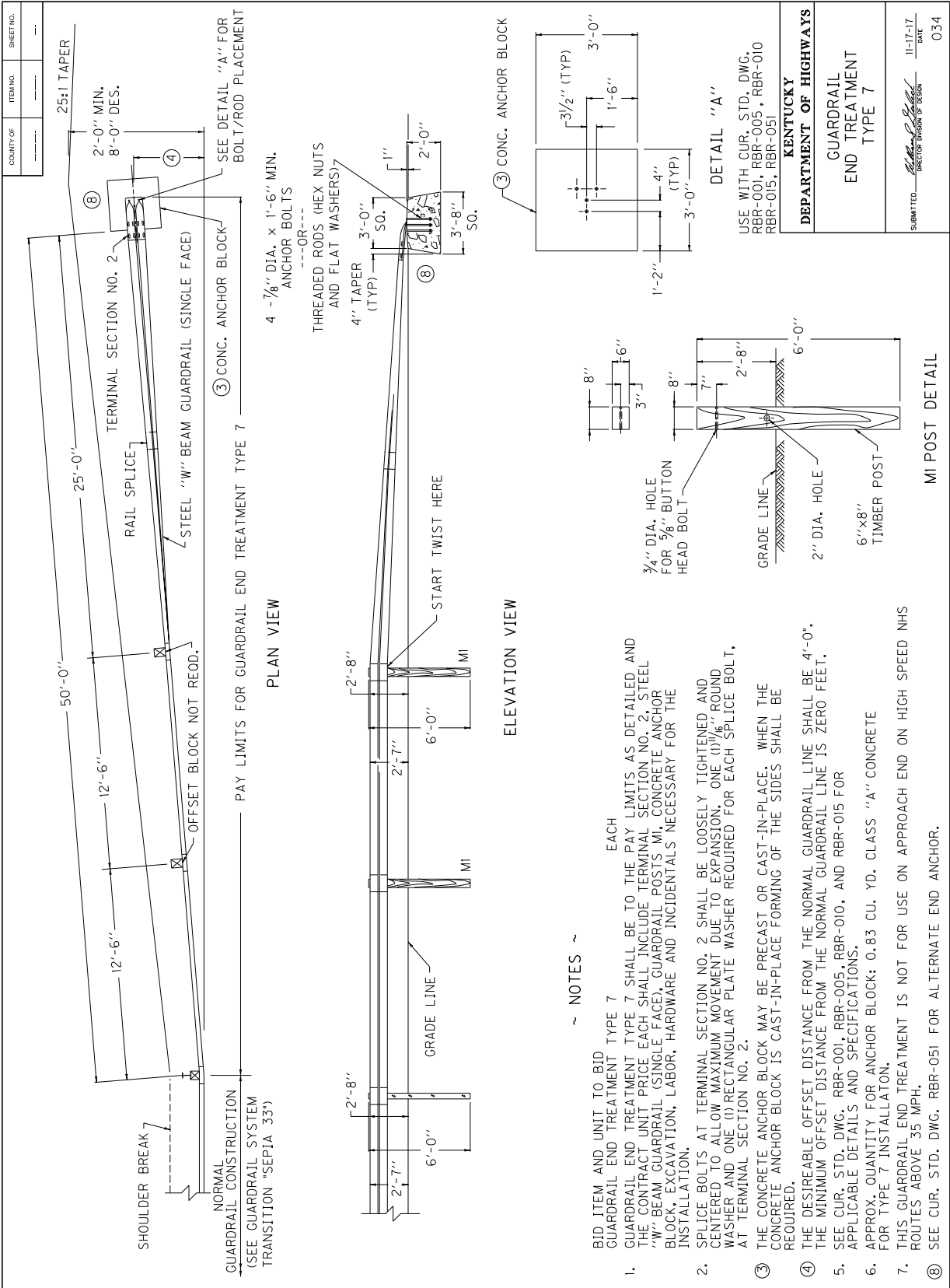
• 12'-6" TRANSITION FROM 29" TO 31" SHOWN.
25'-0" REQUIRED FOR 27" TO 31" TRANSITION.



NOTES

- 1) WHERE POST OFFSET IS CONSTRAINED, AND WHEN THE EXISTING SHOULDER IS WIDER THAN 4 FEET, THE EXISTING SHOULDER MAY BE REDUCED UP TO 2 INCHES TO ACCOMMODATE THE 8 INCH BLOCKS OF THE MGS GUARDRAIL, WHERE SITE CONSTRAINTS PROHIBIT THE POST FROM BEING PLACED AT LEAST 6 INCHES IN FRONT OF THE SLOPE BREAK POINT, USE 7 FOOT POSTS.
- 2) MGS TRANSITION FROM EXISTING GUARDRAIL SHALL BE COMPLETED OUTSIDE THE 50 FEET MGS END TERMINAL LIMITS.

KENTUCKY DEPARTMENT OF HIGHWAYS	GUARDRAIL SYSTEM TRANSITION	SUBMITTED <u>William J. Pineda</u> 4-04-18 DIRECTOR DIVISION OF DESIGN DATE	033
	(Blank space for additional information or signature)	(Blank space for additional information or signature)	(Blank space for additional information or signature)



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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

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

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

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

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

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

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

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

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

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

VII. SAFETY: ACCIDENT PREVENTION

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

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

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

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

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

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

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

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

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

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

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

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

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

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

- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

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

2. Instructions for Certification - Lower Tier Participants:

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

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

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

this transaction originated may pursue available remedies, including suspension and/or debarment.

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

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

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

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

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

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

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

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

* * * * *

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

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS**

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

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

**KRS CHAPTER 344
EFFECTIVE JUNE 16, 1972**

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

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

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

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

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

Revised: January 25, 2017

Standard Title VI/Non-Discrimination Assurances

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

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, **Federal Highway Administration**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the **Federal Highway Administration** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the **Federal Highway Administration**, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the **Federal Highway Administration** may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the **Federal Highway Administration** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Standard Title VI/Non-Discrimination Statutes and Authorities

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

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

EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

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

Revised: January 27, 2017

General Decision Number: KY190038 02/15/2019 KY38

Superseded General Decision Number: KY20180100

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.60 for calendar year 2019 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 \$10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	02/15/2019

BRIN0004-003 06/01/2017

BRECKENRIDGE COUNTY

Rates Fringes

BRICKLAYER.....	\$ 26.80	12.38

BRKY0001-005 06/01/2017		

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE,
MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE
COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 26.80	12.38

BRKY0002-006 06/01/2017		

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 27.81	13.01

BRKY0007-004 06/01/2017		

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 32.98	19.02

BRKY0017-004 06/01/2017		

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 26.47	12.76

CARP0064-001 05/01/2015		

	Rates	Fringes
CARPENTER.....	\$ 27.50	16.06
Diver.....	\$ 41.63	16.06
PILEDRIVERMAN.....	\$ 27.75	16.06

ELEC0212-008 06/04/2018

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 28.39	18.98

* ELEC0212-014 11/26/2018		

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 24.35	10.99

ELEC0317-012 06/01/2018		

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen)		
Cable Splicer.....	\$ 32.68	18.13
Electrician.....	\$ 33.75	20.03

ELEC0369-007 05/30/2018		

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL, CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT, SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 31.66	17.01

* ELEC0575-002 12/31/2018		

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 32.75	16.69

ENGI0181-018 07/01/2017		

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 31.95	15.15
GROUP 2.....	\$ 29.09	15.15
GROUP 3.....	\$ 29.54	15.15
GROUP 4.....	\$ 28.77	15.15

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All Scoop; Carry Deck Crane; Central Compressor Plant; Cherry Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill

Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

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

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

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

IRON0044-009 06/01/2018

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,
BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Western two-thirds, including Townships of Dover,

Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);

NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);

OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);

SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 26.76	21.20
Structural.....	\$ 28.17	21.20

IRON0070-006 06/01/2018		

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN, GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE, WASHINGTON & WOODFORD

BOURBON (Southern two-thirds, including Townships of Austerlity, Centerville, Clintonville, Elizabeth, Hutchison, Littlerock, North Middletown & Paris);

CARROLL (Western two-thirds, including Townships of Carrollton, Easterday, English, Locust, Louis, Prestonville & Worthville);

CLARK (Western two-thirds, including Townships of Becknerville, Flanagan, Ford, Pine Grove, Winchester & Wyandotte);

OWEN (Eastern eighth, including Townships of Glenmary, Gratz, Monterey, Perry Park & Tacketts Mill);

SCOTT (Southern third, including Townships of Georgetown, Great Crossing, Newtown, Stampling Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 28.79	22.50

IRON0769-007 06/01/2018		

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN

CLARK (Eastern third, including townships of Bloomingdale, Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);

FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksville, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);

MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale);

NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

	Rates	Fringes
IRONWORKER		
ZONE 1.....	\$ 31.67	25.27
ZONE 2.....	\$ 31.67	25.27
ZONE 3.....	\$ 31.67	25.27

ZONE 1 - (no base rate increase) Up to 10 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius & over of Union Hall, 1643 Greenup Ave, Ashland, KY.

LABO0189-003 07/01/2018

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

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

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

LABO0189-008 07/01/2018

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

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

Air); Water Blaster

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

LABO0189-009 07/01/2018

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.07	14.21
GROUP 2.....	\$ 23.32	14.21
GROUP 3.....	\$ 23.37	14.21
GROUP 4.....	\$ 23.97	14.21

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter
Tender; Cement Mason Tender; Cleaning of Machines;
Concrete; Demolition; Dredging; Environmental - Nuclear,
Radiation, Toxic & Hazardous Waste - Level D; Flagperson;
Grade Checker; Hand Digging & Hand Back Filling; Highway
Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;
Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail
& Fence Installer; Signal Person; Sound Barrier Installer;
Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
Saw Operator; Deckhand Scow Man; Dry Cement Handler;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Level C; Forklift Operator for Masonary; Form Setter;
Green Concrete Cutting; Hand Operated Grouter & Grinder
Machine Operator; Jackhammer; Pavement Breaker; Paving
Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
Vibrator Operator; Wagon Driller

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

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

Blasters; Troxler & Concrete Tester if Laborer is Utilized

PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender and/or Containment Builder..	\$ 18.90	5.90
Brush & Roller.....	\$ 21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 22.30	5.90
Sandblasting & Waterblasting.....	\$ 22.05	5.90
Spray.....	\$ 21.80	5.90

PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder.....	\$ 20.73	9.06
Brush & Roller.....	\$ 23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 24.39	9.06
Sandblasting & Water Blasting.....	\$ 24.14	9.06
Spray.....	\$ 23.89	9.06

PAIN0118-004 06/01/2018

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN,
HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY,
SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 22.00	12.52
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 23.00	12.52

PAIN1072-003 12/01/2018

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams;		
Tension Towers & Energized		
Substations.....	\$ 33.33	18.50
Power Generating Facilities.	\$ 30.09	18.50

PLUM0248-003 06/01/2018		

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 36.00	20.23

PLUM0392-007 06/01/2018		

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

	Rates	Fringes
Plumbers and Pipefitters.....	\$ 32.01	19.67

PLUM0502-003 08/01/2018		

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN (Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 34.62	20.78

SUKY2010-160 10/08/2001		

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 16.57	7.34
GROUP 2.....	\$ 16.68	7.34
GROUP 3.....	\$ 16.86	7.34
GROUP 4.....	\$ 16.96	7.34

TRUCK DRIVER CLASSIFICATIONS

- GROUP 1 - Mobile Batch Truck Tender
- GROUP 2 - Greaser; Tire Changer; & Mechanic Tender
- GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole Trailer when used to pull building materials and equipment; Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic
- GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &

Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame
when used in transporting materials; Ross Carrier; Forklift
when used to transport building materials; & Pavement
Breaker

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
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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 to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
9.6%	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 Grayson County.

PART IV

INSURANCE

Refer to
Kentucky Standard Specifications for Road and Bridge Construction,
current edition

PART V

BID ITEMS

Report Date 7/2/19

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	15.00	TON		\$	
0020	00003		CRUSHED STONE BASE	1,333.00	TON		\$	
0030	00100		ASPHALT SEAL AGGREGATE	169.00	TON		\$	
0040	00103		ASPHALT SEAL COAT	20.00	TON		\$	
0050	00190		LEVELING & WEDGING PG64-22	1,885.00	TON		\$	
0060	00212		CL2 ASPH BASE 1.00D PG64-22	833.00	TON		\$	
0070	00307		CL2 ASPH SURF 0.38B PG64-22	3,291.00	TON		\$	
0080	02676		MOBILIZATION FOR MILL & TEXT (GRAYSON KY 1214)	1.00	LS		\$	
0090	02677		ASPHALT PAVE MILLING & TEXTURING	52.00	TON		\$	
0100	24970EC		ASPHALT MATERIAL FOR TACK NON- TRACKING	13.20	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0110	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	14.00	EACH		\$	
0120	02159		TEMP DITCH	2,053.00	LF		\$	
0130	02160		CLEAN TEMP DITCH	1,026.00	LF		\$	
0140	02223		GRANULAR EMBANKMENT	6,226.00	CUYD		\$	
0150	02230		EMBANKMENT IN PLACE	988.00	CUYD		\$	
0160	02268		REMOVE & REPLACE FENCE (5 STRAND BARBED WIRE WITH WOODEN POSTS)	150.00	LF		\$	
0170	02268		REMOVE & REPLACE FENCE (6 STRAND BARBED WIRE WITH T POSTS & WOODEN POSTS KNOTTED)	379.00	LF		\$	
0180	02268		REMOVE & REPLACE FENCE (6 STRAND BARBED WIRE WITH T POSTS)	308.00	LF		\$	
0190	02268		REMOVE & REPLACE FENCE (6 STRAND BARBED WIRE WITH WOODEN POSTS)	140.00	LF		\$	
0200	02351		GUARDRAIL-STEEL W BEAM-S FACE	3,021.70	LF		\$	
0210	02360		GUARDRAIL TERMINAL SECTION NO 1	5.00	EACH		\$	
0220	02367		GUARDRAIL END TREATMENT TYPE 1	5.00	EACH		\$	
0230	02371		GUARDRAIL END TREATMENT TYPE 7	1.00	EACH		\$	
0240	02377		GUARDRAIL CONNECTOR TO BRIDGE END TY C	4.00	EACH		\$	
0250	02381		REMOVE GUARDRAIL	2,783.00	LF		\$	
0260	02391		GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH		\$	
0270	02483		CHANNEL LINING CLASS II	612.00	TON		\$	
0280	02545		CLEARING AND GRUBBING (APPROX 2 ACRES)	1.00	LS		\$	
0290	02562		TEMPORARY SIGNS	2,250.00	SQFT		\$	
0300	02585		EDGE KEY	267.00	LF		\$	
0310	02650		MAINTAIN & CONTROL TRAFFIC (GRAYSON KY 1214)	1.00	LS		\$	
0320	02701		TEMP SILT FENCE	2,053.00	LF		\$	

Report Date 7/2/19

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0330	02726		STAKING (GRAYSON KY 1214)	1.00	LS		\$	
0340	03269		TRIM & REMOVE TREES & BRUSH	600.00	LF		\$	
0350	05950		EROSION CONTROL BLANKET	1,644.00	SQYD		\$	
0360	05952		TEMP MULCH	7,311.00	SQYD		\$	
0370	05953		TEMP SEEDING AND PROTECTION	4,874.00	SQYD		\$	
0380	05985		SEEDING AND PROTECTION	9,747.00	SQYD		\$	
0390	05989		SPECIAL SEEDING CROWN VETCH	3,201.00	SQYD		\$	
0400	06514		PAVE STRIPING-PERM PAINT-4 IN	29,916.00	LF		\$	
0410	20191ED		OBJECT MARKER TY 3	5.00	EACH		\$	
0420	23326EC		EXCAVATION-UNCLASSIFIED	1,181.00	CUYD		\$	
0430	24978ED		RECONSTRUCT STONE MASONRY WALL	20.00	LF		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0440	00440		ENTRANCE PIPE-15 IN	313.00	LF		\$	
0450	00461		CULVERT PIPE-15 IN	38.00	LF		\$	
0460	00462		CULVERT PIPE-18 IN	220.00	LF		\$	
0470	00464		CULVERT PIPE-24 IN	55.00	LF		\$	
0480	01310		REMOVE PIPE	396.00	LF		\$	
0490	01544		DROP BOX INLET TYPE 11	2.00	EACH		\$	
0500	01726		SAFETY BOX INLET-18 IN SDB-1	1.00	EACH		\$	
0510	02237		DITCHING	3,746.00	LF		\$	
0520	02625		REMOVE HEADWALL (INCLUDES 9 RCBC WINGWALLS)	27.00	EACH		\$	
0530	03262		CLEAN PIPE STRUCTURE	5.00	EACH		\$	
0540	24575ES610		HEADWALL (SLOPED & MITERED CONCRETE-FOR 18 INCH PIPE)	1.00	EACH		\$	
0550	24575ES610		HEADWALL (STANDARD HEADWALL-18 INCH)	1.00	EACH		\$	

Section: 0004 - BRIDGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0560	08002		STRUCTURE EXCAV-SOLID ROCK	200.40	CUYD		\$	
0570	08003		FOUNDATION PREPARATION (RCBC AT STA 1116+56)	1.00	LS		\$	
0580	08003		FOUNDATION PREPARATION (RCBC AT STA 1817+19)	1.00	LS		\$	
0590	08003		FOUNDATION PREPARATION (RCBC AT STA 1900+35)	1.00	LS		\$	
0600	08003		FOUNDATION PREPARATION (RCBC AT STA 2500+69)	1.00	LS		\$	
0610	08003		FOUNDATION PREPARATION (RCBC AT STA 410+51)	1.00	LS		\$	
0620	08003		FOUNDATION PREPARATION (RCBC AT STA 700+53)	1.00	LS		\$	
0630	08100		CONCRETE-CLASS A	374.80	CUYD		\$	

Report Date 7/2/19

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0640	08150		STEEL REINFORCEMENT	60,035.00	LB		\$	

Section: 0005 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0650	02569		DEMOBILIZATION	1.00	LS		\$	