



**CALL NO. 201**

**CONTRACT ID. 254504**

**EDMONSON - BUTLER COUNTIES**

**FED/STATE PROJECT NUMBER HSIP 5074(009)**

**DESCRIPTION REEDYVILLE RD (KY 185)**

**WORK TYPE ASPHALT PAVEMENT & ROADWAY REHAB**

**PRIMARY COMPLETION DATE 7/31/2026**

**LETTING DATE: July 24,2025**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME July 24,2025. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

**DBE CERTIFICATION REQUIRED - 11%**

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

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# **PART I**

## **SCOPE OF WORK**

ADMINISTRATIVE DISTRICT - 03

CONTRACT ID - 254504  
HSIP 5074(009)  
COUNTY - BUTLER  
PCN - 0301601852501  
HSIP 5074(009)

REEDYVILLE RD (KY 185) (MP 0) FROM BRIDGE OVER GREEN RIVER TO THE EDMONSON COUNTY LINE 115 FEET NORTH OF THE INTERSECTION WITH KY 70 AND 0.943 MILES NORTH OF KY 70 TO THE EDMONSON COUNTY LINE (MP 7.232), A DISTANCE OF 07.23 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 03-09021.00.  
GEOGRAPHIC COORDINATES LATITUDE 37:12:45.06 LONGITUDE 86:25:59.15  
ADT 1,918

COUNTY - EDMONSON  
PCN - 0303101852501  
HSIP 5074(009)

REEDYVILLE RD (KY 185) (MP 0) FROM BUTLER COUNTY LINE 115 FEET NORTH OF KY 70 TO 0.943 MILES NORTH OF KY 70 AND FROM BUTLER COUNTY LINE 1.239 MILES SOUTH OF KY 238 TO KY 238 (MP 2.182), A DISTANCE OF 02.18 MILES.ASPHALT PAVEMENT & ROADWAY REHAB SYP NO. 03-09021.00.  
GEOGRAPHIC COORDINATES LATITUDE 37:12:45.06 LONGITUDE 86:15:59.15  
ADT 968

COMPLETION DATE(S):  
COMPLETED BY 07/31/2026                      APPLIES TO ENTIRE PROJECT

## **CONTRACT NOTES**

### **INSURANCE**

Refer to Kentucky Standard Specifications for Road and Bridge Construction, current edition.

### **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](http://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 email to [kytc.projectquestions@ky.gov](mailto: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/construction-procurement](http://www.transportation.ky.gov/construction-procurement)). 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 state agency certifies that it is in compliance with the provisions of KRS 45A.150, "Access to contractor's books, documents, papers, records, or other evidence directly pertinent to the contract." The Contractor, as defined in KRS 45A.030, 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 agreement for the purpose of financial audit or program review. 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. Records and other prequalification information confidentially disclosed as part of the bid process shall not be deemed as directly pertinent to the agreement and shall be exempt from disclosure as provided in KRS 61.878(1)(c).

### **BOYCOTT PROVISIONS**

If applicable, the contractor represents that, pursuant to [KRS 45A.607](#), they are not currently engaged in, and will not for the duration of the contract engage in, the boycott of a person or an entity based in or doing business with a jurisdiction with which Kentucky can enjoy open trade. **Note:** The term Boycott does not include actions taken for bona fide business or economic reasons, or actions specifically required by federal or state law.

If applicable, the contractor verifies that, pursuant to KRS 41.480, they do not engage in, and will not for the duration of the contract engage in, in energy company boycotts as defined by KRS 41.472.

### **LOBBYING PROHIBITIONS**

The contractor represents that they, and any subcontractor performing work under the contract, have not violated the agency restrictions contained in [KRS 11A.236](#) during the previous ten (10) years, and pledges to abide by the restrictions set forth in such statute for the duration of the contract awarded.

The contractor further represents that, pursuant to [KRS 45A.328](#), they have not procured an original, subsequent, or similar contract while employing an executive agency lobbyist who was convicted of a crime related to the original, subsequent, or similar contract within five (5) years of the conviction of the lobbyist.

Revised: 1/1/2025

**1.0 BUY AMERICA REQUIREMENT.**

Follow the “Buy America” provisions as required by 23 U.S.C. § 313 and 23 C.F.R. § 635.410. Except as expressly provided herein all manufacturing processes of steel or iron materials including but not limited to structural steel, guardrail materials, corrugated steel, culvert pipe, structural plate, prestressing strands, and steel reinforcing bars shall occur in the United States of America, including the application of:

- Coating,
- Galvanizing,
- Painting, and
- Other coating that protects or enhances the value of steel or iron products.

The following are exempt, unless processed or refined to include substantial amounts of steel or iron material, and may be used regardless of source in the domestic manufacturing process for steel or iron material:

- Pig iron,
- Processed, pelletized, and reduced iron ore material, or
- Processed alloys.

The Contractor shall submit a certification stating that all manufacturing processes involved with the production of steel or iron materials occurred in the United States.

Produce, mill, fabricate, and manufacture in the United States of America all aluminum components of bridges, tunnels, and large sign support systems, for which either shop fabrication, shop inspection, or certified mill test reports are required as the basis of acceptance by the Department.

Use foreign materials only under the following conditions:

- 1) When the materials are not permanently incorporated into the project; or
- 2) When the delivered cost of such materials used does not exceed 0.1 percent of the total Contract amount or \$2,500.00, whichever is greater.

The Contractor shall submit to the Engineer the origin and value of any foreign material used.

**2.0 – BUILD AMERICA, BUY AMERICA (BABA)**

Contractor shall comply with the Federal Highway Administration (FHWA) Buy America Requirement in 23 C.F.R. § 635.410 and all relevant provisions of the Build America, Buy America Act (BABA), contained within the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, §§ 70901-52 enacted November 15, 2021. The BABA requires iron, steel, manufactured products, and construction materials used in infrastructure projects funded by federal financial assistance to be produced in the United States. Comply with 2 C.F.R § 184.

BABA permits FHWA participation in the Contract only if domestic steel and iron will be used on the Project. To be considered domestic, all steel and iron used, and all products manufactured from steel and iron must be produced in the United States and all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied. This requirement does not preclude a minimal use of foreign steel and iron materials, provided the cost of such materials does not exceed 0.1% of the total contract amount under the Contract or \$2,500.00 whichever is greater.

BABA permits FHWA participation in the Contract only if all “construction materials” as defined in the Act are made in the United States. The Buy America preference applies to the following construction materials incorporated into infrastructure projects: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables); glass (including optic glass); Fiber optic cable; optical fiber; lumber; engineered wood; and drywall. Contractor will be

required to use construction materials produced in the United States on this Project. The Contractor shall submit a certification stating that all construction materials are certified to be BABA compliant.

### **3.0 FINAL RULE – FHWA’S BUY AMERICA REGULATION TO TERMINATE GENERAL APPLICABILITY WAIVER FOR MANUFACTURED PRODUCTS**

- **March 17, 2025** (effective date): For all Federal-aid projects obligated on or after March 15, 2025, all iron or steel products, as defined in § 635.410(c)(1)(iii), must comply with FHWA’s Buy America requirements for steel and iron in § 635.410(b). In addition, for all Federal-aid projects obligated on or after March 15, 2025, per § 635.410(c)(2), articles, materials, and supplies should be classified as an iron or steel product, a manufactured product, or another product as specified by law or in 2 CFR part 184 (such other products specified by law or in 2 CFR part 184 include “excluded materials” and “construction materials”); an article, material, or supply must not be considered to fall into multiple categories.
- **October 1, 2025:** The final assembly requirement will become effective for Federal-aid projects obligated on or after October 1, 2025. This means that, for manufactured product to be Buy America compliant, for Federal-aid projects obligated on or after October 1, 2025, final assembly of the manufactured product must occur in the United States.
- **October 1, 2026:** The 55 percent requirement will become effective for Federal-aid projects obligated on or after October 1, 2026. This means that, for manufactured product to be Buy America-compliant, for Federal-aid projects obligated on or after October 1, 2026, all manufactured products permanently incorporated into the project must both be manufactured in the United States (satisfy the final assembly requirement) and have the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States be greater than 55 percent of the total cost of all components of the manufactured product (satisfy the 55 percent requirement).

### **4.0 – ADDITIONAL REQUIREMENTS**

The Contractor has completed and submitted, or shall complete and submit, to the Cabinet a Buy America/Build America, Buy America Certificate prior to the Cabinet issuing the notice to proceed, in the format below. After submittal, the Contractor is bound by its original certification.

A false certification is a criminal act in violation of 18 U.S.C. § 1001. The Contractor has the burden of proof to establish that it’s in compliance.

At the Contractor’s request, the Cabinet may, but is not obligated to, seek a waiver of Buy America requirements if grounds for the waiver exist under 23 C.F.R. § 635.410(c) or will comply with the applicable Buy America requirements if a waiver of those requirements is not available or not pursued by the Cabinet.

Please refer to the Federal Highway Administration’s Buy America webpage for more information.

[Buy America - Construction Program Guide - Contract Administration - Construction - Federal Highway Administration \(dot.gov\)](#)

Effective - June 26, 2025, Letting



**BUY AMERICA / BUILD AMERICA, BUY AMERICA (ACT) MATERIALS CERTIFICATE OF COMPLIANCE**

The Contractor hereby certifies that it will comply with all relevant provisions of the Build America, Buy America Act, contained within the Infrastructure Investment and Jobs Act, Pub. L. NO. 117-58, §§ 70901-52, the requirements of 23 U.S.C. § 313, 23 C.F.R. § 635.410 and 2 C.F.R § 184.

Date Submitted:\_\_\_\_\_

Contractor:\_\_\_\_\_

Signature:\_\_\_\_\_

Printed Name:\_\_\_\_\_

Title:\_\_\_\_\_

**NOTE: THIS CERTIFICATION IS IN ADDITION TO ANY AND ALL REQUIREMENTS OUTLINED IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND/OR SPECIAL NOTES CONTAINED IN THE PROJECT PROPOSAL.**

**FEDERAL CONTRACT NOTES**

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

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

**CIVIL RIGHTS ACT OF 1964**

The Kentucky Transportation Cabinet, Department of Highways, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, disability, income- level, or Limited English Proficiency (LEP)in consideration for an award.

**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 are acceptable per Section 108.01 of the Standard Specifications for Road and Bridge Construction. Sub-Contractors fulfilling a disadvantaged business enterprise goal on a project may enter into a 2<sup>nd</sup> tier subcontract with a Non-DBE Subcontractor. However, in this instance, none of the work subcontracted to the Non-DBE Contractor will count toward fulfilling the established Disadvantaged Goal for the project.

### **DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

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

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

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

### **DBE GOAL**

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

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

### **OBLIGATION OF CONTRACTORS**

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

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

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

### **CERTIFICATION OF CONTRACT GOAL**

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

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

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

### **DBE PARTICIPATION PLAN**

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

The DBE Participation Plan shall include the following:

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

- c) The dollar value of joint ventures. DBE credit for joint ventures will be limited to the dollar amount of the work actually performed by the DBE in the joint venture;
- 4. Written and signed documentation of the bidder's commitment to use a DBE contractor whose participation is being utilized to meet the DBE goal; and
- 5. Written and signed confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment.

**AFTER PROJECT AWARD AND BEFORE NOTICE TO PROCEED/WORK ORDER IS ISSUED (SEE SECTION 103.06, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION)**

Prime Contractors awarded a federally funded project with a DBE Goal greater than zero will be required to submit a fully executed DBE Subcontract, along with the attached FHWA 1273 and Certificate of Liability Insurance for each DBE Firm submitted as part of the previously approved DBE Utilization Plan (TC 14-35). A signed quote or purchase order shall be attached when the DBE subcontractor is a material supplier or broker.

The Certificate of Liability Insurance submitted must meet the requirements outlined in Section 107.18 of the Standard Specifications for Road and Bridge Construction.

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

**CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS**

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

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

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

1. Whether the bidder attended any pre-bid meetings that were scheduled by the Cabinet to inform DBEs of subcontracting opportunities;
2. Whether the bidder provided solicitations through all reasonable and available means;
3. Whether the bidder provided written notice to all DBEs listed in the DBE directory at the time of the letting who are prequalified in the areas of work that the bidder will be subcontracting;
4. Whether the bidder followed up initial solicitations of interest by contacting DBEs to determine with 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 Disadvantaged Enterprise Business Liaison Officer (DEBLO) in the Office for Civil Rights and Small Business Development to give notification of the bidder's inability to get DBE quotes;
5. Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces;
6. Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications, and requirements of the contract;
7. Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached;
8. Whether quotations were received from interested DBE firms but were rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firm's quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy DBE goals;
9. Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be subcontracted includes potential DBE participation;
10. Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal; and
11. Any other evidence that the bidder submits which may show that the bidder has made reasonable good faith efforts to include DBE participation.

### **FAILURE TO MEET GOOD FAITH REQUIREMENT**

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

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

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

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

### **SANCTIONS FOR FAILURE TO MEET DBE REQUIREMENTS OF THE PROJECT**

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

- Suspension of Prequalification;
- 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 and Non-DBE Subcontractors within seven (7) working days after he or she has received payment from the Kentucky Transportation Cabinet for work performed or materials furnished.

### **CONTRACTOR REPORTING**

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

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

\*\*\*\*\* IMPORTANT \*\*\*\*\*

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

Office for Civil Rights and Small Business Development  
6<sup>th</sup> Floor West 200 Mero Street  
Frankfort, KY 40622

The prime contractor should notify the KYTC Office for Civil Rights and Small Business Development seven (7) days prior to DBE contractors commencing work on the project. The contact in this office is Mr. Tony Youssefi. Mr. Youssefi's current contact information is email address – [tyousseffi@ky.gov](mailto:tyousseffi@ky.gov) and the telephone number is (502) 564-3601.

### **DEFAULT OR DECERTIFICATION OF THE DBE**

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

### **PROHIBITION ON TELECOMMUNICATIONS EQUIPMENT OR SERVICES**

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

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



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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

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

**SURFACING AREAS**

The Department estimates the mainline surfacing width to be 21-22.5 feet.  
The Department estimates the total mainline area to be surfaced to be 103,816 square yards.  
The Department estimates the shoulder width to be 1 feet on each side.  
The Department estimates the total shoulder area to be surfaced to be 10,289 square yards.

**ASPHALT MIXTURE**

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

**DGA BASE**

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

**FUEL AND ASPHALT PAY ADJUSTMENT**

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

**OPTION B**

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

**Special Notes Applicable to Project – General Notes & Description of Work**

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**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 from a beginning station number, which is STA 0+00.00 at the Butler/Warren County line on the bridge over the Green River and corresponds to Milepoint 0.000 along KY 185 in Butler County. This project weaves in and out of Butler and Edmonson County, the stationing and corresponding Milepoints for each county are listed below.

Butler Co. MP 0.000 = STA. 0+00.00  
Butler Co. MP 6.610 = BK. STA. 347+78.76 / AHD. STA. 350+31.16  
Butler Co. MP 7.232 = STA. 381+84.96

Edmonson Co. MP 0.000 = STA. 0+00.00  
Edmonson Co. MP 0.941 = BK. STA. 49+79.01 / AHD. STA. 49+95.07  
Edmonson Co. MP 2.185 = STA. 115+36.80

**NOTE:** The existing mile marker signs may not correspond to the proposed work locations.

**LIDAR**

Most survey information was obtained from available KYTC Aerial LIDAR data and should be field verified as appropriate during construction and prior to incorporating the various project work items. Ground survey was performed the culvert crossings and a few other select areas. 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 and environmentally cleared 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.

General Notes & Description of Work  
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**CONTROL**

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

General Notes & Description of Work  
Page 3 of 7

**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:

**Optical Speed Bars.** Curve 13 features proposed thermoplastic optical speed bars in the Southbound direction. The bars are 12 inches wide and begin at Station 197+25 and end at Station 194+25 traveling south. There should be 20 bars total, the first two of which are spaced 20 feet apart and last two spaced 13 feet apart. See the Proposed Optical Speed Bars Summary for more details.

**Install 6" Thermo Edge- and Centerlines.** Thermoplastic roadway striping is to be installed at select locations of the corridor. The work calls for the addition of 6" white edgelines and 6" double yellow centerlines from Station 0+00 to Station 347+79 (MP 0.000 to MP 6.610) in Butler County and Station 0+00 to Station 115+37 (MP 0.000 to MP 2.185) in Edmonson County. Striping outside of these limits is covered by a separate FD05 project. They should be installed after the surface course and any other work to the pavement is complete. See the Striping Summary for more details.

**Superelevation Improvements.** There are multiple curves where superelevation improvements are being proposed. The intent of this work is to bring a consistent pavement cross slope through the identified curves. Refer to the Superelevation Improvement Summary for locations and approximate quantities. The Superelevation Improvements are set up and quantified for the Contractor to utilize Leveling & Wedging in order to achieve the desired superelevation improvements at the identified location(s). The Superelevation Improvement Summary lists the estimated quantities of Leveling & Wedging for each curve; however, 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. After the superelevation improvements have been constructed, the full width of the curves will be overlaid with a surface course. As a result of the superelevation improvements and surfacing operations, the roadside shoulders, fill slopes, and/or ditches will have to be modified to match the final pavement elevations and tie in with the existing ground lines. A quantity of roadway excavation and embankment in place has been estimated for regrading the roadside within the identified curves. See Roadside Regrading Summary for details. A representative cross section is given for each curve showing the proposed superelevation improvements and the resulting roadside grading.

NOTE: Some field adjustments of the proposed shoulder width, fill slope, ditch, and/or superelevation improvement may be required. The proposed shoulder and roadside grading is intended to occur within existing Right-of-Way and NOT disturb any sensitive obstructions (i.e. fences, buildings, utility poles, etc.). Superelevation improvements with sensitive obstructions along the roadside shall still require regrading the roadside, but the slopes may have to be constructed steeper than shown on the representative cross 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 or not impact a sensitive obstruction, and the existing fill slope is 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 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

## General Notes & Description of Work

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reducing the height of the new fill slope grading, and allowing for a flatter new fill slope that will not be steeper than the existing fill slope. Prior to making modifications to the proposed superelevation rate, shoulder width, and/or fill slope, coordinate with and obtain approval from the Engineer.

**Roadside Regrading.** Areas have been identified along the route for Roadside Regrading. The overall intent of the Roadside Regrading work operation is to improve the existing roadside by constructing a proposed width of earth shoulder and regrading the roadside fill slopes, ditch foreslopes, and/or ditch backslopes as flat as possible within the Right-of-Way (or any work areas the Department has obtained through Consent & Release), while NOT disturb any sensitive obstructions (i.e. fences, buildings, utilities, etc.). A variety of information is included in the proposal to communicate the proposed Roadside Regrading.

- The Special Note for Roadside Regrading provides information on:
  - The required materials and construction methods.
  - How roadside regrading is measured and paid.
- The ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS includes:
  - 11 different Figures that show the common conditions and situations that may be encountered when performing Roadside Regrading.
  - Notes that provide guidance on how to adjust the proposed shoulder and/or roadside dimensions so that Roadside Regrading work operations will remain within the Right-of-Way (or Consent & Release work area) and/or not impact a sensitive obstruction.
- The Typical Section(s) show:
  - The desired dimensions of the proposed shoulder, ditch, and/or roadside slopes.
  - NOTE: There may situations where the desired shoulder, ditch, and/or roadside dimensions must be modified based on existing site conditions. When situations arise where the desired roadside dimensions need to be adjusted, the Contractor and Engineer should work together to determine the final dimensions for the proposed shoulder, ditch, and/or roadside slopes. The notes within the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS provide guidance on ways to adjust the Roadside Regrading when common site conditions and constraints are encountered.
- The Roadside Regrading Summary:
  - Lists the locations where Roadside Regrading is to be performed.
  - Lists estimated volumes of excavation and embankment for each Roadside Regrading location to help indicate the approximate level of effort of each Roadside Regrading location. NOTE: the estimated volumes of excavation and embankment are provided for informational purposes only and final payment for Roadside Regrading will be made based on the actual LF of Roadside Regrading performed.
  - Indicates which Figure reference within the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS is the closest representation of each proposed Roadside Regrading location.
  - Lists the Targeted Fill Slope (or Ditch Foreslope) and, if applicable, the Targeted Backslope for each Roadside Regrading location.
  - Indicates if there is a need for Embankment Benching, a DGA Wedge, and Channel Lining for each Roadside Regrading location.
  - If applicable, lists the estimated quantities of DGA, Asphalt Seal Coat, Asphalt Seal Aggregate, Channel Lining, and Geotextile Fabric for each Roadside Regrading location.
  - Summarizes the quantities of the bid items associated with the Roadside Regrading work operation.

## General Notes & Description of Work

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**Remove/Replace Existing Guardrail.** Several locations within the project are set up for guardrail replacement. The approximate locations and estimated quantities are noted on the Guardrail Summary. Refer to the Special Note for Guardrail, Typical Sections, and Plan Sheets for more detail and information on this item of work.

**NOTE:** When the plans call for a Type 1 or Type 4 End Treatment, a MASH eligibility letter from FHWA is required for these end terminals. When a MASH tested eligibility letter is not available for the end terminal being utilized, the most recent NCHRP 350 eligibility letter from FHWA for that terminal will apply. Acceptance of the terminal will be at the discretion of the engineer.

**Eliminate Guardrail.** There are two locations within the project that are set up for guardrail elimination. The existing guardrail is to be removed, and the existing roadway side slopes flattened out. See the Guardrail Summary, Guardrail Elimination Typical Section, and Plan Sheets for more details.

**Bridge Rail Modification using Case I Bridge Guardrail.** There are quantities of Bridge Guardrail Case I included in the contract for modifying the barrier system at the structures identified on the Guardrail Summary. For more information on this item of work, refer to the Special Note for Guardrail and the detail sheet titled: Guardrail on Bridge, Case I.

**Pipe Replacements & Extensions.** There are locations throughout the project where culvert pipes are being extended or replaced. Locations and estimated quantities are noted on the Pipe Drainage Summary. For pipe extensions where the existing pipe is RCP, remove the existing headwall and first section of existing RCP attached to the headwall (approx. 3-4' ft). Other items that may be included with the pipe extensions/replacements include culvert headwalls, sloped & mitered concrete headwalls, intermediate anchor/collar, ditching & shouldering, channel lining, erosion control blanket, asphalt pavement quantities, etc. Refer to the Special Note for Pipe Replacements/Extensions for more information on this item of work.

**DGA Wedge & Chip Seal.** Some sections of "Roadside Regrading" are set up to receive a DGA Wedge & Chip Seal after the roadside regrading operations are complete. Other areas of "Roadside Regrading" are NOT to receive the DGA Wedge & Chip Seal. Construct the DGA Wedge & Chip Seal at the locations identified on the Roadside Regrading Summary, or at locations as directed by the Engineer. The proposed DGA Wedge dimensions are detailed on the Typical Sections. Refer to the Special Note for Roadside Regrading and the Special Note for Double Asphalt Seal Coat for more information on the DGA Wedge & Chip Seal.

**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 replaced to line up with the new ditch line. Refer to the Entrance Detail within the Typical Sections for details on this work item. See the Entrance Summary for the locations and bid items/quantities associated with the entrance pipe replacements. The existing driveway surface is noted on the summary sheet and is to be replaced with like-kind surfacing. The Engineer will make the final determination as to the locations and quantities required to 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.

## General Notes & Description of Work

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**Reinforced Concrete Box Culvert Extensions.** There are several locations within the project where existing reinforced concrete box culverts are being extended. Locations and estimated quantities are noted on the RCBC Summary. Refer to the Structure Plans and Special Note for Box Culvert Extensions for more details and information on this item of 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 Removal & Trimming Summary. Refer to the Special Note for Tree, Stump, and Brush Removal for more information.

**Pavement Repair.** There is one location in Butler County and two locations in Edmonson County that call for Base Failure Pavement Repair. See the Paving Summary, Base Failure Repair Special Note, and Plan sheets for more details.

**Ultra-Thinlay.** The existing roadway is to be resurfaced from Station 350+31 (MP 6.610) to Station 381+85 (MP 7.232) in Butler County as part of a separate FD05 contract. This contract will include an Ultra-Thinlay from Station 0+00 to Station 347+79 (MP 0.000 to MP 6.610) in Butler County and Station 0+00 to Station 115+37 (MP 0.000 to MP 2.185) in Edmonson County. Other items that may be associated with the Ultra-Thinlay include: removal of existing pavement by milling and texturing, construction of edge keys, installation of rumble strips, and application of pavement markings. Refer to the Pavement Summary for more details and to the rumble strip Sepia Drawings for recommended placement of rumble strips.

**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 Drainage 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.

**Intermediate Anchor/Collar.** There are quantities of Class A Concrete included in the contract to construct an intermediate anchor, or collar, around the pipes at the pipe extension locations. This is so the new pipe can be securely connected to the existing pipe. The intermediate anchors shall be constructed as shown on Standard Drawing RDX-060, current edition.



## General Notes & Description of Work

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**Channel Lining.** A total quantity of 754 Tons of Channel Lining Class II has been included in the Pipe Drainage Summary and the Roadside Regrading Summary for use at the locations indicated on both Summaries. An additional 200 Tons of Channel Lining Class II has been included in the contract for potential use around drop box inlets, safety box inlets, inlets and outlets of pipes, along areas of regraded ditch line and/or fill slope, and other areas as directed by the Engineer. 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 22,952 square yards 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.

**Temporary Striping.** A quantity of 14,531 linear feet of Pave Striping – Temp Paint – 4 in has been included in the contract for potential use in the Superelevation Improvement areas, and any other areas as directed by the Engineer. The Contractor and Engineer should work together to determine any locations throughout the project requiring temporary pavement striping. The Engineer will make the final determination as to the quantities and placement of temporary pavement striping.

**Temporary Fence and Fence Replacement.** Impacted fence lines will be removed off Right of Way within the improvement area and placed off Right of Way once work is complete. Fences will be replaced in like kind. Temporary fencing for livestock will be installed for containment prior to removing the existing fence. The contractor shall install a temporary fence equivalent to, or exceeding, that of the existing fence. Locations are noted in the Temporary Fence and Fence Replacement Summary.

### Special Note for Staking

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

1. Contrary to Section 201.03.01, perform items 1 & 2 usually performed by the Engineer.
2. Using the proposed pavement superelevation rates, runout lengths, and runoff lengths, determine the necessary elevation changes along the edges of pavement for each proposed curve and the transitions leading into and out of each curve to achieve the proposed superelevation improvements. The intent is to provide a consistent superelevation throughout each proposed curve and smooth transitions into and out of each curve. Once the elevation changes along the edges of pavement for each proposed curve are determined and prior to starting paving operations, verify the proposed roadside re-grading corresponding to each curve can be constructed so that the new roadside will be flush with the new edges of pavement and the new toe of slope, or top of cut, will remain within the Right-of-Way, or within the general area noted on any applicable Consent & Releases, and/or not impact a sensitive obstruction. If necessary, and with the approval of the Engineer, reduce the proposed superelevation rate of a curve if the new elevations of the edges of pavement will cause the proposed roadside grading to extend beyond the Right-of-Way, or extend outside of the general area described on any applicable Consent & Releases, and/or impact a sensitive obstruction. Alternatively, with the approval of the Engineer and to the extent allowable by the "Roadside Regrading and Embankment Benching Details" and/or the Special Note for Roadside Regrading, the Contractor may be allowed to adjust the proposed dimensions of the roadside grading so the new toe of slope or top of cut will remain within the Right-of-Way, or within the general area noted on any applicable Consent & Releases, and/or not impact a sensitive obstruction. After the final proposed elevation changes along the edges of pavement for each curve 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 proposed 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. Using stakes, paint marks on the pavement, mag nails, and/or any other means approved by the Engineer, the Contractor shall mark and/or stake the proposed sign locations in the field. NOTE: The proposed signs are listed in the proposal by approximate location and are NOT to be taken as the exact location for the signs. During staking operations the Contractor shall review the signing layout and existing field conditions and look for potential conflicts, including but not limited to utilities, driveways, visual obstructions, etc. When conflicts are found, adjust the staked location of signs to mitigate conflicts. Because the sign locations in the proposal are approximate and the location of some signs may need to be adjusted due to conflicts, during staking operations the Contractor shall refer to and utilize the information in the Manual on Uniform on Traffic Control Devices (MUTCD), current edition. The MUTCD cover items such as: appropriate sign location, advance placement distances, and spacing requirements for signing. The intent is for the proposed signs to be consistent with, and meet the requirements of, the MUTCD. Once the proposed sign locations have been staked, notify and coordinate with the District Traffic Engineer, and perform a review of the staked locations. Adjust the staked

Staking  
Page 2 of 2

locations, as directed by the District Traffic Engineer and obtain approval of the final staked locations. This review will also be used to determine if there are any existing signs that require removal and/or relocation. Provide the District Traffic Engineer with 2 weeks of notice when a route will be ready for a review of the staked locations. NOTE: The District Traffic Engineer may determine that the proposed signing, including sign types and messages, needs to be adjusted and/or modified from what is shown in the proposal. Therefore, the Contractor shall not order any sign material for a route until the route has been staked and final sign location approval has been given by the District Traffic Engineer.

5. 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.
6. Using paint marks on the pavement, and/or any other means approved by the Engineer, the Contractor shall layout and pre-mark the proposed striping, pavement markings, etc. Adjust as necessary to accommodate the existing site conditions and to provide proper alignment of the proposed thru and turning lanes. Obtain approval of the pre-marked layout from the Engineer and/or District Traffic Engineer prior to installing the striping and/or pavement markings.
7. Prior to incorporating into the work, obtain the Engineers approval of all revisions determined by the Contractor.
8. Perform any and all other staking operations required to control and construct the work.

## **SPECIAL NOTE FOR EROSION CONTROL**

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### **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 ½ full. Maintain silt fence by removing accumulated trappings and/or replacing the geotextile fabric when it becomes clogged, damaged, or deteriorated, or when directed by the Engineer. Properly dispose of all materials trapped by erosion control devices at approved sites off the right of way obtained by the Contractor at no additional cost to the Department. See 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 Note for Roadside Regrading**

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**I. DESCRIPTION**

Except as provided herein, all work shall be performed in accordance with Department's Standard Specifications, Interim Supplemental Specifications, applicable Standard and Sepia Drawings, applicable Special Provisions and Special Notes, 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) Site Preparation; (3) Roadside Regrading; (4) Constructing Embankments, Embankment Benching, and/or Excavation; (5) Erosion Control; and (6) Any other work as specified in this Contract.

**II. MATERIALS**

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

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. DGA.** Furnish Dense Graded Aggregate as per Section 805.
- D. Asphalt Seal Coat.** See the Special Note for Double Asphalt Seal Coat.
- E. Asphalt Seal Aggregate.** See the Special Note for Double Asphalt Seal Coat.
- F. Channel Lining, Class II.** When listed as a bid item, furnish Channel Lining, Class II as per Section 805.
- G. Geotextile Fabric Class 1.** When listed as a bid item, furnish Geotextile Fabric Class 1 as per Section 843.
- H. Crushed Stone Base.** Furnish Crushed Stone Base as per Section 805.

**III. CONSTRUCTION METHODS**

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. Erosion Control.** See the Special Note for Erosion Control.

Roadside Regrading  
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**C. Site Preparation.** Be responsible for all site preparation including, but not limited to: staking; clearing, grubbing, and removal of all obstructions or any other items; excavation, embankment benching, compacting embankment in place; temporary pollution and erosion control; disposal of excess, waste, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the Engineer.

**D. Staking.** See the Special Note for Staking.

**E. Roadside Regrading.** Perform Roadside Regrading at the approximate locations listed on the Summary Sheets and/or Plan Sheets, the Roadside Regrading Summary, or at locations as directed by the Engineer. All work shall be completed according to Sections 204, 205, and 209, or as specified in the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS, the Typical Sections, the Plan Sheets, or as directed by the Engineer. Roadside Regrading shall consist of any necessary clearing, grubbing, grading, and/or reshaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions detailed on the Typical Sections, and the Roadside Regrading and Embankment Benching Details. Depending on the existing conditions encountered and to achieve the dimensions as detailed in the Typical Sections, Roadside Regrading may also include, but is not limited to: embankment benching, excavating and removing excess material, excavation of rock, providing additional earth material suitable for vegetation growth and grading, shaping, and compacting the earth material.

Provide positive drainage of ditches and slopes at all times during and upon completion of construction. When asphalt surfacing or resurfacing is included in the contract, perform all Roadside Regrading operations as is practical before beginning final surfacing operations.

**F. Embankment Benching.** Embankment Benching shall be required when the existing groundline has an incline greater than 15%. For more information refer to the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS.

**G. DGA Wedge & Chip Seal.** Some, or possibly all, areas of Roadside Regrading may be set up to receive a DGA Wedge & Chip Seal after the Roadside Regrading operations are complete. Other areas of Roadside Regrading may NOT be set up to receive the DGA Wedge & Chip Seal. See the Summary Sheets and/or Plan Sheets for the approximate locations to receive the DGA Wedge & Chip Seal. The Engineer will determine the exact limits of the DGA Wedge & Chip Seal at the time of construction. Construct and compact the DGA as required by Section 302. Place Chip Seal over the entire width of the DGA Wedge. See the Special Note for Double Asphalt Seal Coat for the Chip Seal requirements.

**H. Channel Lining.** Install Class II Channel Lining along any sections of ditches, fill slopes, or ditch backslopes identified in the Proposal, or any other locations the Engineer directs for slope protection or erosion control. When Channel Lining is proposed to be installed along a steep fill slope in order to establish a width of shoulder (as shown in Figure 5 of the ROADSIDE REGRADING AND EMBANKMENT BENCHING DETAILS), the Channel Lining is to be capped with Geotextile Fabric Class 1 and 4" of Crushed Stone Base. In lieu of 4" of Crushed Stone Base, 4" of DGA and a



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Double Asphalt Seal Coat may be specified in the Proposal. Install whichever aggregate capping material the Proposal specifies, or as directed by the Engineer.

- I. 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.
- J. Property Damage.** The Contractor shall be responsible for all damage to public and/or private property resulting from the Contractor's activities. 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.
- K. 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 due to the Contractor's 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.
- L. 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.
- M. 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

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construction within the limits of, or adjacent to, the project. Conduct operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Department will not honor any claims for money or time extension created by the operations of such other parties.

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

- N. Clean Up, Disposal of Waste.** Clean up the project area as work progresses. Dispose of all removed excess material, debris, and 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.
- O. 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.

#### IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Site Preparation.** Other than the bid items listed, the Department will NOT measure Site Preparation for payment, but shall be incidental to the project bid items.
- D. Staking.** See Special Note for Staking.
- E. Roadside Regrading.** Roadside Regrading will not be measured in the field at the time of construction but will be measured as the proposed quantities of Embankment in Place OR Roadway Excavation (whichever is listed as a bid item), increased or decreased by authorized adjustments in accordance with 204.04.02. The proposed quantities for each proposed area listed in the Roadside Regrading Summary will be reviewed by the Engineer or their designee and approved for payment if the Contractor's roadside regrading results are accepted by the Engineer. Generally speaking, for a proposed Roadside Regrading area to be accepted by the Engineer and measured for payment, the Contractor will need to achieve the proposed shoulder, ditch, and/or roadside dimensions, including any necessary embankment benching, detailed on the Typical Section and the corresponding Figure listed on the Roadside Regrading and Embankment Benching Details, unless the Engineer approves an adjustment to the proposed dimensions. See the Special Note for

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Staking for more information about working with the Engineer to determine when it would be appropriate to adjust the proposed dimensions of any particular Roadside Regrading area.

- F. Embankment Benching.** Embankment benching shall be required when the existing groundline has an incline greater than 15% (Approx. 6:1). Excavation of embankment benches shall be incidental; however, embankment benching will be measured as Embankment in Place. On the Roadside Regrading Summary, the Department has included quantities for embankment benching within the bid quantities of Embankment in Place for the proposed areas of Roadside Regrading that are anticipated to require embankment benching.
- G. DGA, CSB.** When listed as bid items, DGA and Crushed Stone Base shall be measured according to Section 302.04.
- H. Chip Seal.** When specified in the contract, the bid items associated with Chip Seal shall be measured according to the Special Note for Double Asphalt Seal Coat.
- I. Channel Lining, Class II.** When listed as a bid item, Class II Channel Lining shall be measured according to Section 703.04.
- J. Geotextile Fabric, Class 1.** When listed as bid items, Geotextile Fabric, Class 1 shall be measured according to Section 214.04.
- K. 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.

**V. BASIS OF PAYMENT**

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Erosion Control.** See Special Note for Erosion Control.
- C. Staking.** See Special Note for Staking.
- D. Roadside Regrading.** The Department will make payment for the completed and accepted quantities under the bid items EMBANKMENT IN PLACE or ROADWAY EXCAVATION (whichever is listed as a bid item). The Department will consider payment full compensation for furnishing all labor, materials, equipment, and incidentals necessary to perform the proposed Roadside Regrading as required by these notes, at the locations indicated on the summary sheets, plans, and/or as directed by the Engineer.

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- E. DGA, CSB.** When listed as bid items, the Department will make payment for DGA and Crushed Stone Base according to Section 302.05.
- F. Chip Seal.** When specified in the contract, the Department will make payment for the bid items associated with Chip Seal according to the Special Note for Double Asphalt Seal Coat.
- G. Channel Lining, Class II.** When listed as a bid item, the Department will make payment for Class II Channel Lining according to Section 703.05.
- H. Geotextile Fabric, Class 1.** When listed as a bid item, the Department will make payment for Geotextile Fabric, Class 1 according to Section 214.05.

## SPECIAL NOTE FOR TREE, STUMP, AND BRUSH REMOVAL

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### 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, trim, and/or remove trees within the clearing dimensions as shown on the Tree Trimming Detail. On this detail, 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. To achieve the tree trimming/clearing dimensions shown on the Tree Trimming Detail, the complete removal of some trees may be necessary. The Department's expectation is that if the trunk or any portion of the trunk of any tree is within the tree trimming/clearing dimensions shown on the Tree Trimming Detail, any such tree shall be cut and removed as part of this bid item. Additionally, if

## Tree, Stump, & Brush Removal

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there are trees whose main trunk is not within the tree trimming/clearing dimensions, but more than approximately 50% of the tree's canopy will be removed due to trimming, any such tree shall be cut and removed as part of this bid item. Cut trees and/or bushes as close to the ground as possible; three inches (3") or less from ground line. All tree stumps within the mowing zone shall 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 herbicide solution specified below. The Contractor and Engineer should work together to identify the trees and/or stumps requiring removal. The Engineer will make the final determination on the decision to remove or leave any trees and/or stumps in question.

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 item "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 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

Tree, Stump, & Brush Removal  
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gallon of solution. The addition of a non-ionic surfactant 5% (v/v) shall be added to the solution to increase uptake of the herbicide solution into the root system. Generic formulations are not acceptable. Mix the herbicide solution in the presence of the Inspector. Include a color indicator in the herbicide solution to mark the treated stumps. Spray or paint the herbicide solution onto all cut stumps within one hour after cutting. Apply the herbicide solution in a manner to avoid drift onto surrounding vegetative ground cover. Stumps in the mowing zone, designated for mechanical grinding treatment, need not receive the herbicide treatment.

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

a. **Glyphosate**

- Active ingredient: **(Glyphosate)**  
\*Glyphosate, N-(phosphonomethyl)glycine, in the form of its  
potassium salt..... 48.7%  
Inert ingredients ..... 51.3%  
Total ..... 100.0%  
\* Contains 660 grams per liter or 5.5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its potassium salt. Equivalent to 540 grams per liter or 4.5 pounds per U.S. gallon of the acid, glyphosate.  
EPA Reg. No. 524-579

b. **Imazapyr**

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

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

- E. **Property Damage.** The Contractor will be responsible for all damage to public and/or private property resulting from his work.
- F. **Coordination with Utility Companies.** NOTICE: Utility locations shown in the plans are approximate and have not been specifically located by the Department. Locate all underground, above ground and overhead utilities prior to beginning construction. The

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Contractor shall have the responsibility for contacting and maintaining liaison with all utility companies that have utilities located within the project limits. Do not disturb existing overhead or underground utilities. It is not anticipated that any utility facilities will need to be relocated and/or adjusted; however, in the event that it is discovered that the work does require that utilities be relocated and/or adjusted, the utility companies will work concurrently with the Utility Owner while they relocate their facilities. The Contractor shall be responsible for repairing all utility damage that occurs as a result of his operations.

- G. Right-of-Way Limits.** The exact limits of the Right-of-Way have not been established by the Department. 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. 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 tree trimming/clearing dimensions.
- D. 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".
- E. Clean Up, Disposal of Waste.** The Department will NOT measure for payment the



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operations of Clean Up and Disposal of Waste. These activities shall be incidental to the project bid items.

- F. 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.
- G. Erosion Control.** See the Special Note for Erosion Control.

V. BASIS OF PAYMENT

- A. Maintain and Control Traffic.** See the Traffic Control Plan.
- B. 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 brush.
- C. Erosion Control.** See the Special Note for Erosion Control.

## ***SPECIAL NOTE***

### **For Tree Removal**

#### **Butler and Edmonson Counties KY 185 Safety Hazard Elimination Project Item No. 3-9021.00**

NO CLEARING OF TREES 5 INCHES OR GREATER (DIAMETER BREAST  
HEIGHT) FROM APRIL 1 - NOVEMBER 14.

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

## SPECIAL NOTE FOR BOX CULVERT EXTENSIONS

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### 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) Removing existing concrete masonry, as necessary; (4) 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.

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**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.

Sheeting, shoring, cofferdams, and/or dewatering methods may be necessary for construction of the culvert. Include all costs in the unit price bid for Foundation Preparation.

**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

## Box Culvert Extensions

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concrete and reinforcement with a minimum overlap of 1'-9", unless otherwise shown in the drawings. Coat exposed ends of cut reinforcement with a bituminous produce to prevent corrosion of the ends of the exposed reinforcement. As an alternative, if the existing headwall is sound, the Engineer may approve leaving the existing headwall in place, in which case the existing parapet should be removed to 6" below proposed roadway elevation. 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, 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.

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**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 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

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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-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.

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**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.

**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 602.05.

**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



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cleaning, but are not approved by the Engineer for measurement of payment, shall be incidental to the box culvert bid items.

## SPECIAL NOTES FOR PIPE REPLACEMENTS / EXTENSIONS

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### 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.

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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.

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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.

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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

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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 PIPELINE INSPECTION**

**1.0 DESCRIPTION.** The Department will perform visual inspections on all pipe on the project. A video inspection will be required on projects having more than 250 linear feet of storm sewer and/or culvert pipe and on routes with an ADT of greater than 1,000 vehicles. Conduct video inspections on all pipe located under the roadway and 50 percent of the remaining pipe not under the roadway. Storm sewer runs and outfall pipes not under the roadway take precedence over rural entrance pipes. Contractors performing this item of work must be prequalified with the Department in the work type J51 (Video Pipe Inspection and Cleaning). Deflection testing shall be completed using a mandrel in accordance with the procedure outlined below or by physical measurement for pipes greater than 36 inches in diameter. Mandrel testing for deflection must be completed prior to the video inspection testing. Unless otherwise noted, Section references herein are to the Department's most current version of the Standard Specifications for Road and Bridge Construction.

**2.0 VIDEO INSPECTION.** Ensure pipe is clear of water, debris or obstructions. Complete the video inspection and any necessary measurement prior to placing the final surface over any pipe. When paving will not be delayed, take measurements 30 days or more after the completion of earthwork to within 1 foot of the finished subgrade. Notify the Engineer a minimum of 24 hours in advance of inspection and notify the Engineer immediately if distresses or locations of improper installation are logged.

### **2.1 INSPECTION FOR DEFECTS AND DISTRESSES**

**A)** Begin at the outlet end and proceed through to the inlet at a speed less than or equal to 30 ft/minute. Remove blockages that will prohibit a continuous operation.

**B)** Document locations of all observed defects and distresses including but not limited to: cracking, spalling, slabbing, exposed reinforcing steel, sags, joint offsets, joint separations, deflections, improper joints/connections, blockages, leaks, rips, tears, buckling, deviation from line and grade, damaged coatings/paved inverts, and other anomalies not consistent with a properly installed pipe.

**C)** During the video inspection provide a continuous 360 degree pan of every pipe joint.

**D)** Identify and measure all cracks greater than 0.1" and joint separations greater than 0.5".

**E)** Video Inspections are conducted from junction to junction which defines a pipe run. A junction is defined as a headwall, drop box inlet, curb box inlet, manhole, buried junction, or other structure that disturbs the continuity of the pipe. Multiple pipe inspections may be conducted from a single set up location, but each pipe run must be on a separate video file and all locations are to be referenced from nearest junction relative to that pipe run.

**F)** Record and submit all data on the TC 64-765 and TC 64-766 forms.

**3.0 MANDREL TESTING.** Mandrel testing will be used for deflection testing. For use on Corrugated Metal Pipe, High Density Polyethylene Pipe, and Polyvinyl Chloride Pipe, use a mandrel device with an odd number of legs (9 minimum) having a length not less than the outside diameter of the mandrel. The diameter of the mandrel at any point shall not be less than the diameter specified in Section 3.6. Mandrels can be a fixed size or a variable size.

**3.1** Use a proving ring or other method recommended by the mandrel manufacturer to verify mandrel diameter prior to inspection. Provide verification documentation for each size mandrel to the Engineer.

**3.2** All deflection measurements are to be based off of the AASHTO Nominal Diameters. Refer to the chart in section 3.6.

**3.3** Begin by using a mandrel set to the 5.0% deflection limit. Place the mandrel in the inlet end of the pipe and pull through to the outlet end. If resistance is met prior to completing the entire run, record the maximum distance achieved from the inlet side, then remove the mandrel and continue the inspection from the outlet end of the pipe toward the inlet end. Record the maximum distance achieved from the outlet side.

**3.4** If no resistance is met at 5.0% then the inspection is complete. If resistance occurred at 5.0% then repeat 3.1 and 3.2 with the mandrel set to the 10.0% deflection limit. If the deflection of entire pipe run cannot be verified with the mandrel then immediately notify the Engineer.

**3.5** Care must be taken when using a mandrel in all pipe material types and lining/coating scenarios. Pipe damaged during the mandrel inspection will be video inspected to determine the extent of the damage. If the damaged pipe was video inspected prior to mandrel inspection then a new video inspection is warranted and supersedes the first video inspection. Immediately notify the Engineer of any damages incurred during the mandrel inspection and submit a revised video inspection report.

**3.6 AASHTO Nominal Diameters and Maximum Deflection Limits.**

Base Pipe Diameter	AASHTO Nominal Diameter	Max. Deflection Limit	
		5.0%	10.0%
(inches)	(inches)	(inches)	
15	14.76	14.02	13.28
18	17.72	16.83	15.95
24	23.62	22.44	21.26
30	29.53	28.05	26.58
36	35.43	33.66	31.89
42	41.34	39.27	37.21
48	47.24	44.88	42.52
54	53.15	50.49	47.84
60	59.06	56.11	53.15



**4.0 PHYSICAL MEASUREMENT OF PIPE DEFLECTION.** Alternate method for deflection testing when there is available access or the pipe is greater than 36 inches in diameter, as per 4.1. Use a contact or non-contact distance instrument. A leveling device is recommended for establishing or verifying vertical and horizontal control.

**4.1** Physical measurements may be taken after installation and compared to the AASHTO Nominal Diameter of the pipe as per Section 3.6. When this method is used, determine the smallest interior diameter of the pipe as measured through the center point of the pipe (D2). All measurements are to be taken from the inside crest of the corrugation. Take the D2 measurements at the most deflected portion of the pipe run in question and at intervals no greater than ten (10) feet through the run. Calculate the deflection as follows:

$$\% \text{ Deflection} = [(AASHTO \text{ Nominal Diameter} - D2) / AASHTO \text{ Nominal Diameter}] \times 100\%$$

Note: The Engineer may require that preset monitoring points be established in the culvert prior to backfilling. For these points the pre-installation measured diameter (D1) is measured and recorded. Deflection may then be calculated from the following formula:

$$\% \text{ Deflection} = [(D1 - D2) / D1] (100\%)$$

**4.2** Record and submit all data.

**5.0 DEDUCTION SCHEDULE.** All pipe deductions shall be handled in accordance with the tables shown below.

FLEXIBLE PIPE DEFLECTION	
Amount of Deflection (%)	Payment
0.0 to 5.0	100% of the Unit Bid Price
5.1 to 9.9	50% of the Unit Bid Price <sup>(1)</sup>
10 or greater	Remove and Replace <sup>(2)</sup>

*<sup>(1)</sup> Provide Structural Analysis for HDPE and metal pipe. Based on the structural analysis, pipe may be allowed to remain in place at the reduced unit price. <sup>(2)</sup> The Department may allow the pipe to remain in place with no pay to the Contractor in instances where it is in the best interest to the public and where the structural analysis demonstrates that the pipe should function adequately.*

RIGID PIPE REMEDIATION TABLE PIPE	
Crack Width (inches)	Payment
≤ 0.1	100% of the Unit Bid Price
Greater than 0.1	Remediate or Replace <sup>(1)</sup>

*<sup>(1)</sup> Provide the Department in writing a method for repairing the observed cracking. Do not begin work until the method has been approved.*

**6.0 PAYMENT.** The Department will measure the quantity in linear feet of pipe to inspect. The Department will make payment for the completed and accepted quantities under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24814EC	Pipeline Inspection	Linear Foot
10065NS	Pipe Deflection Deduction	Dollars

**Special Note for Completion Date & Liquidated Damages**

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**I. COMPLETION DATE**

The ultimate fixed completion date for this project will be **7/31/2026**. Liquidated Damages for failure to complete the project on time will be assessed following Section 108.09.

**II. LIQUIDATED DAMAGES**

In addition to the requirements of Section 108.09, the Department will assess Liquidated Damages in the amount of **\$1,000** per hour for each hour, or fraction of an hour, for any and all lane closures that are in place beyond the time frame(s) noted in the Traffic Control Plan and approved by the Engineer.

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

NOTE: At the sole discretion of the Engineer, all, or part, of these Liquidated Damages may be waived due to unforeseen circumstances, such as unexpected weather.

Activities associated with the Trim & Remove Trees & Brush bid item shall be done between November 15<sup>th</sup> and March 31<sup>st</sup>. Trees and/or bushes that are 5 inches or greater (diameter at breast height) shall not be cut or trimmed between April 1<sup>st</sup> and November 14<sup>th</sup>. Any trees and/or bushes that are cut or trimmed between April 1<sup>st</sup> and November 14<sup>th</sup> will NOT receive payment at the contract unit price. Furthermore, failure to adhere to these restrictions shall result in Liquidated Damages in the amount of **\$477** per affected tree. Activities that are a part of this contract that do not involve the initial trimming and/or cutting of trees and/or bushes will be permitted under the ultimate fixed completion date.

Contrary to Section 108.09, Liquidated Damages will be assessed for the months of December through March.

All liquidated damages will be applied accumulatively.

All other applicable portions of Section 108 apply.

**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

**SPECIAL NOTE FOR ELECTRONIC DELIVERY MANAGEMENT SYSTEM (e-Ticketing) ASPHALT**

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

**1.0 DESCRIPTION.** Incorporate an e-Ticketing Delivery Software for weighed asphalt material delivered to the project to report loads and provide daily running totals of weighed asphalt material for pay items and incidental work during the construction processes from the point of measurement and loading to the point of incorporation to the project.

**2.0 MATERIALS AND EQUIPMENT.** Contractor shall supply material data in JavaScript Object Notation (JSON) documents to the KYTC e-Ticketing Delivery Software (KYTC e-Ticketing Portal) via Application Programming Interface (API) or direct connection. Test and verify that ticket data can be shared from the original source no fewer than 30 days prior to material placement activities. An e-Ticketing Delivery Software supplier can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain material data delivery capabilities. Virtual meetings may be hosted in lieu of on-site meetings when deemed appropriate by the Engineer.

Provide e-Ticketing Delivery Software that will meet the following:

- 1. The e-Ticketing Delivery Software shall be fully integrated with the Contractor’s Load Read-Out scale system at the material source location.
- 2. The e-Ticketing Delivery Software shall provide real-time delivery to KYTC e-Ticketing Portal.
- 3. Transmit any updates to the ticket data within 5 minutes of a change.

**3.0 CONSTRUCTION.** Provide the Engineer with the manufacturer’s specifications and all required documentation for data access at the pre-construction conference.

**A. Construction Requirements**

- 1. Install and operate software in accordance with the manufacturer’s specifications.
- 2. Verify that all pertinent information is provided by the software within the requirements of this Special Note.

**B. Data Deliverables**

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during the project.

**1. Asphalt Material**

**a. Real-time Continuous Data Items**

Provide the Engineer access to JSON documents capable of being transmitted through the KYTC’s e-Ticketing Portal that displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
  - Supplier Name
  - Supplier Address
  - Supplier Phone
  - Plant location
  - Date
  - Time at source
  - Project Location

- Contract ID#
- Carrier Name
- Unique Truck ID
- Description of Material
- Mix Design Number
- Gross, Tare and Net Weight
- Weighmaster

**4.0 MEASUREMENT.** The Department will not measure the electronic delivery management system.

**5.0 PAYMENT.** The Department will not measure this work for payment and will consider all items contained in this note to be incidental to the asphalt mixtures on the project, as applicable.

May 5, 2025

**SPECIAL NOTE FOR ELECTRONIC DELIVERY MANAGEMENT SYSTEM (e-Ticketing) AGGREGATE**

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

**1.0 DESCRIPTION.** Incorporate an e-Ticketing Delivery Software for weighed aggregate material delivered to the project to report loads and provide daily running totals of weighed aggregate material for pay items and incidental work during the construction processes from the point of measurement and loading to the point of incorporation to the project.

**2.0 MATERIALS AND EQUIPMENT.** Contractor shall supply material data in JavaScript Object Notation (JSON) documents to the KYTC e-Ticketing Delivery Software (KYTC e-Ticketing Portal) via Application Programming Interface (API) or direct connection. Test and verify that ticket data can be shared from the original source no fewer than 30 days prior to material placement activities. An e-Ticketing Delivery Software supplier can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verifications, and data management and processing as needed during the Project to maintain material data delivery capabilities. Virtual meetings may be hosted in lieu of on-site meetings when deemed appropriate by the Engineer.

Provide e-Ticketing Delivery Software that will meet the following:

- 1. The e-Ticketing Delivery Software shall be fully integrated with the Contractor’s Load Read-Out scale system at the material source location.
- 2. The e-Ticketing Delivery Software shall provide real-time delivery to KYTC e-Ticketing Portal.
- 3. Transmit any updates to the ticket data within 5 minutes of a change.

**3.0 CONSTRUCTION.** Provide the Engineer with the manufacturer’s specifications and all required documentation for data access at the pre-construction conference.

**A. Construction Requirements**

- 1. Install and operate software in accordance with the manufacturer’s specifications.
- 2. Verify that all pertinent information is provided by the software within the requirements of this Special Note.

**B. Data Deliverables**

Provide to the Engineer a means in which to gather report summaries by way of iOS apps, web pages, or any other method at the disposal of the Engineer. The Engineer may request data at any time during the project.

**1. Aggregate Material**

**a. Real-time Continuous Data Items**

Provide the Engineer access to JSON documents capable of being transmitted through the KYTC’s e-Ticketing Portal that displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
  - Supplier Name
  - Supplier Address
  - Supplier Phone
  - Plant location
  - Date
  - Time at source
  - Project Location

- Contract ID#
- Carrier Name
- Unique Truck ID
- Description of Material
- Load Number
- Gross, Tare and Net Weight
- Weighmaster

**4.0 MEASUREMENT.** The Department will measure the electronic delivery management system as a lump sum item.

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

1. Payment is full compensation for all work associated with providing all required equipment, training, and documentation.
2. Payment will be full compensation for costs related to providing the e-Ticketing Delivery Software, including integration with plant load-out systems, and report viewing/exporting process. All quality control procedures including the software representative’s technical support and on-site training shall be included in the Contract lump sum price.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
26248EC	ELECTRONIC DELIVERY MGMT SYSTEM-AGG	LS

May 5, 2025



**SPECIAL NOTE FOR EXPERIMENTAL KYCT AND FIELD RUT TESTING**  
**June 2025 Update**

**1.0 General**

**1.1 Description.** The KYCT (Kentucky Method for Cracking Test) and the IDEAL-RT/IDT-HT test results will help determine if the mixture is susceptible to cracking and rutting. During the experimental phase, data will be gathered and analyzed by the Department to determine the durability and stability of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and field rutting test methods.

**2.0 Equipment**

**2.1 KYCT Testing Equipment.** The Department will require a Marshall Test Press with digital recording capabilities. Other CT testing equipment may be used for testing with prior approval by the Department.

**2.2 Water Baths.** One or more water baths will be required that can maintain a temperature of 77° +/- 1.8° F with a digital thermometer showing the water bath temperature. Also, one water bath shall have the ability to suspend gyratory specimen fully submerged in water in accordance with AASHTO T-166, current edition.

**2.3 Field Rutting Tests.** If the contractor elects to perform the IDEAL-RT test, in conformance with ASTM D8360-22, the acquisition of the “Option A” or “Option B” test fixture is required. If the IDT-HT is desired, the test press utilized for the KYTC is sufficient. The Department shall approve all test configurations at their discretion.

**2.4 Gyratory Molds.** Gyratory molds will be required to assist in the production of gyratory specimens in accordance with AASHTO T-312, current edition.

**2.5 Ovens.** Adequate (minimum of two ovens) will be required to accommodate the additional molds and asphalt mixture necessary to perform the acceptance testing as outlined in Section 402 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

**2.6 Department Equipment.** The Department will provide gyratory molds, PINE 850 Test Press with digital recordation, and CT testing equipment to assist during this experimental phase so data can be gathered.

**3.0 Testing Requirements**

**3.1 Acceptance Testing.** Perform all acceptance testing and aggregate gradation as according with Section 402 and Section 403 of the Kentucky Standard Specifications for Road and Bridge Construction, current edition.

**3.2 KYCT Testing.** Perform crack resistance analysis (KYCT) in accordance with the current Kentucky Method for KYCT Index Testing during the plant production of all surface mixtures. Conform to KYTC Specifications for Mix Design approvals. All production testing is currently informational.

**3.2.1 KYCT Frequency.** Obtain an adequate sample of hot mix asphalt to ensure the acceptance testing, gradation, and KYCT gyratory samples can be fabricated and is representative of the bituminous mixture. Acceptance specimens shall be fabricated first, then after the specified amount of oven conditioning, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens will be required one per subplot produced from the same asphalt material and at the same time as the acceptance specimen is sampled and tested.

**3.2.2 Number of Specimens and Conditioning.** Fabricate specimens in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three replicates for cracking resistance analyses and three replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411.

Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

While the fabricated specimens are allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes, find the bulk specific gravity of each specimen according to AASHTO T166. Next, condition the replicates in a 77 °F water bath for 30 minutes +/- 5 minutes. To ensure confidence and reliability of the test results provided by KYCT testing and Field Rut testing, reheating of the asphalt mixture is prohibited.

**3.2.3 Long Term Aging CT's.** For long-term aging and cracking resistance considerations in mix design, mix and condition 3 specimens uncovered for 20 hours at compaction temperature in accordance with KM 64-411. Perform KYCT testing in accordance with KM 64-450 and record the results on the Long-Term KYCT tab of the latest version of the MixPack.

**3.2.4 Record Times.** For each subplot, record the time required between drying aggregates in the plant to KYCT specimen fabrication. The production time may vary due to the time that the bituminous material is held in the silo. Record the preconditioning time when the time exceeds the one-hour specimen cool down time as required in accordance with The Kentucky Method for KYCT Index Testing. The preconditioning time may exceed an hour if the technician is unable to complete the test on the same day or within the specified times as outlined in The Kentucky Method for KYCT Index Testing. The production time and the preconditioning time shall be recorded on the AMAW.

**3.2.5 File Name.** As according to section 7.12 of The Kentucky Method for KYCT Index Testing, save the filename with the following format: "CID\_Approved Mix Number\_Lot Number\_Sublot Number\_Date"

**3.3 Field Rut Testing.** Perform the rut resistance analysis (IDEAL-RT or IDT-HT) in accordance with ASTM D8360-22 or ALDOT458, respectively. Contrary to ASTM D8360 & ALDOT458, precondition the test specimens in a water bath or forced draft oven at 50 °C +/- 1 °C for 60 +/- 5 min before completing the test.

**3.3.1 Field Rut Testing Frequency.** Perform one test per lot of mixture produced. The plant produced bituminous material sampled for the field rut test does not have to be obtained at the same time as the acceptance and KYCT sample. If the field rut test sample is not obtained at the same time as the KYCT sample, determine the Maximum Specific Gravity of the KYCT sample in accordance with AASHTO T-209 coinciding with the test specimens.

**3.3.2 Number of Specimens and Conditioning.** Fabricate in accordance with the Kentucky Method for KYCT Index Testing. Contrary to the method, for field specimens, fabricate three

replicates for rutting resistance analyses. The specimens shall be compacted at the temperature in accordance with KM 64-411. Contrary to the Kentucky Method, plant produced bituminous material shall be short-term conditioned immediately after sampling for two hours uncovered in the oven at compaction temperature in accordance with KM 64-411.

**3.3.3 Record Times.** Record the production time as according to section 3.2.3 in this special note. Also record the time that the specimens were fabricated. All times shall be recorded on the AMAW.

**3.3.4 File Name.** Record all field rut data in the latest version of the AMAW.

**4.0 Data**

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and field rut testing within five working days once all testing has been completed for a lot to Central Materials Lab and the District Materials Engineer. Also, any data and or comments that the asphalt contractor or district personnel deem informational during this experimental phase, shall also be submitted to the Central Materials Lab and the District Materials Engineer. Any questions or comments regarding any item in this Special Note can be directed to the Central Office, Division of Materials, Asphalt Branch.

**5.0 Payment**

Any additional labor and testing equipment that is required to fabricate and test the KYCT and field rut specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and field rut specimens if a producer does not possess the proper equipment.

June 12<sup>th</sup>, 2025

**SPECIAL NOTE FOR RECYCLED ASPHALT PAVEMENT (RAP) STOCKPILE MANAGEMENT**

**I. GENERAL**

The use of reclaimed asphalt pavement (RAP) from Department projects or other approved sources in hot mix asphalt (HMA) or warm mix asphalt (WMA) shall be subject to stockpile management and handling of material as described in this section.

The Department approves RAP on a stockpile basis, following the process set forth in this method. The contractor’s responsibilities in the process are as follows:

- To obtain the Department’s approval of all RAP prior to its use on a Department project and to deliver test data and samples as required
- To monitor and preserve the quality and uniformity of the approved material during storage and handling, adding no unapproved material to the existing stockpile
- To comply with the Department’s requirements regarding replenishment of approved stockpiles

The Department will approve RAP based on its composition and variability in gradation and asphalt content, and on visual inspections of the stockpile, which the Department may conduct at its discretion. The Department may withdraw approval of a stockpile if the requirements of this specification are not followed in good faith.

The Maximum Percentage Allowed in a mix design will be based on these criteria and on the category of RAP source, as defined in this document.

**II. APPROVAL PROCESS**

Qualified asphalt producers (listed in List of Approved Materials-Asphalt Mixing Plants) may submit requests for RAP stockpile approval to the Asphalt Branch, Division of Materials, in the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment. The requester shall provide test results as prescribed in Part IID. The Division of Materials may, at their discretion, collect samples or inspect a RAP stockpile consistent with Section IIE.

Upon completion of the review of testing results and, if applicable, visual inspection, the Division of Materials, Asphalt Branch will approve or disapprove the material by letter and will assign a Stockpile Identification Number for each approved RAP stockpile. Note: The contractor's average gradation and asphalt content, as listed in the approval letter, shall be the gradation used in subsequent mix designs. The approval letter will state the applicable limits on the use of the material in mix designs and will summarize the Department's findings, listing the average gradation and asphalt content from the contractor's tests and the corresponding values found by the Department. Where the Maximum Percentage Allowed is low due to variability, the contractor may elect to improve the uniformity of the material by further processing and may again sample, test, and request approval for the material.

No material shall be added to a stockpile after it has been approved, except as provided in Parts V, VI, and VII below.

**IIA. RAP Quality Management Plan**

For a contractor to receive approval to use RAP on any department project, a RAP Quality Management Plan must first be approved by the department. The RAP Quality Management Plan shall be submitted to the

Division of Materials annually for approval as part of the Contractor's Quality Control Plan/Checklist. The Quality Management Plan is required to demonstrate how the Contractor will provide consistency and quality of material utilized in all asphalt mixes produced for use on Department projects. The Quality Management Plan shall include:

- Unprocessed RAP Stockpiles
  - Designation of stockpile(s) as single or multiple source
  - Designation of stockpile(s) as classified or unclassified
  - Designation of stockpile(s) as captive or continuously replenishing
  - Plan for how stockpile(s) is built (layers, slope, etc.)
  - Plan to minimize stockpile(s) contamination
- Processing and Crushing
  - Equipment used to feed screener or crusher
  - Excavation process based on equipment type
- Processing Millings
  - Single Project or Source
    - Screening, Fractionation, or Crushing plan
  - Multiple Source
    - Process to achieve uniform material from stockpile
    - Screening, Fractionation, or Crushing plan
- Processed RAP Stockpiles
  - Minimization of segregation
  - Minimization of moisture

## **IIB. RAP Stockpile Placement**

All processed RAP stockpiles shall be placed on a sloped, paved surface. The requirement for a paved surface may be waived by the Cabinet if the Contractor's RAP Quality Management Plan demonstrates effective material handling that will minimize deleterious material from beneath the processed stockpile entering the plant. *No processed stockpile will be placed directly on grass or dirt.*

## **IIC. Stockpile Identification Signs**

RAP stockpiles shall be identified with posted signs displaying the gradation of material in the stockpile (course, intermediate, or fine). These signs shall be made of weatherproof material and shall be highly visible. Numerals shall be easily readable from outside the stockpile area. If a stockpile exists in two or more parts, each part must have its own sign.

## **IID. Standard Approval Procedure**

The Contractor shall obtain random samples representative of the entire stockpile and shall have each sample tested for gradation and asphalt content according to KM 64-426, KM 64-427, and AASHTO T308. The material samples must be in its final condition after all crushing and screening. At least one sample shall be obtained for each 1,000 tons of processed RAP, with a minimum of five samples per stockpile. Sampling shall be performed according to the method prescribed for asphalt mix aggregates in the Department's Materials Field Testing and Sampling Manual and KM 64-601. The minimum sampling size (after quartering) for tests of RAP samples is 1,500 g. except for samples containing particles more than one inch in diameter, for which the minimum is 2,000 g.

To request approval of a RAP stockpile, submit the following documents to the Division of Materials. It is the requester's responsibility to correctly address, label, and deliver these submittals:

- Submit request for approval at beginning of the paving season as part of the Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment.
- If requesting approval after paving season begins, submit memo, including stockpile portion of the inspection list for Annual Certification for Previously Approved Asphalt Mixing Plants and Related Equipment, to Division of Materials.
- Reports of the tests prescribed above using the Stockpile <INSERT NAME> document.
- A drawing of the plant site showing the location of the stockpile to be approved *and all other stockpiles on the premises*

**Mail, deliver or email the request form**, with test reports and site drawing, to:

Kentucky Transportation Cabinet  
Division of Materials  
ATTN: Asphalt Branch Manager  
1227 Wilkinson Boulevard  
Frankfort, Kentucky 40601  
  
Robert.Semones@ky.gov

**III. Tests and inspections by the Department**

The Department shall have the right to observe the collection of samples, or to perform the sampling and testing as a verification of contractor submittal. As a condition of approval, the Department may at any time inspect and sample RAP stockpiles for which approval has been requested and may perform additional quality control tests to determine the consistency and quality of the material.

The approval letter issued by the Department will include any results of verification testing performed by the Cabinet. The approved contractor results should be used by mix design technicians in the design calculations.

**III. RAP STOCKPILE TIERED MANAGEMENT AND EFFECTIVE BINDER CONTENT**

The stockpile management and approval requirements will be tiered based on the maximum cold feed percentages as defined in this section and Table 1. below.

Table 1. Tiered Testing Requirements

Mix Type	0-≤12%	12-≤20%	20-≤35%
Surface	Tier 1	Tier 2	Tier 3
Base	Tier 1	Tier 2	Tier 3

**NOTE: All asphalt mixes and binder selection will be subject to Section 409 of the current Standard Specifications.**

The following requirements will apply based on the percentage of RAP in the mix.

Tier 1

Tier 1 mixes (less than or equal to 12% RAP) will be subject to the requirements of sections IIA, IIB, and IIC.

Tier 2

Tier 2 mixes (12% to less than 20% RAP) will be subject to the requirements of Section II in its entirety and Table 2 requirements.

Tier 3

Tier 3 Asphalt Base mixes with 20% to less than 35% RAP, Tier 3 Asphalt Surface mixes with 20% to less than 30% RAP will be subject to Section II in its entirety and Table 2 requirements.

**IV. MAXIMUM PERCENTAGE OF RAP ALLOWED**

The Maximum Percent of RAP allowed in mix designs shall be the lowest percentage determined by the gradation and asphalt content of the RAP, as established under the criteria below, and requirements listed in Section III.

Limits according to range in gradation and bitumen content

The Maximum Percent of RAP Allowed, based on gradation and asphalt content, shall be determined by the Department using the standard deviation of these values. This standard deviation will be calculated using data provided by the contractor from at least five samples. While the contractor is required to provide the data from these tested samples, the Department retains the discretion to perform its own sampling and testing to support or verify its findings. An apparent outlier shall not be considered in determining these ranges. Where one result appears to be unrepresentative of the whole, two or more additional samples shall be tested. The outlying value of all tests shall then be excluded from the range. The maximum percentage of RAP allowable shall be the lowest percentage determined according to Table 2 below.

**Table 2. Maximum Percent RAP According to Variability in Test Results**

	Standard Deviation as calculated above:		
Surface			
% asphalt content	< 0.4	< 0.5	
% passing No. 200 sieve	< 1.25	< 1.5	
% passing Median Sieve	< 4.0	< 5.0	
	Allowable RAP Cold Feed %		
	Tier 3 - 20%-30%	Tier 2 - 12%-20%	Tier 1 - 0%-12%
Base			
% asphalt content	< 0.5	< 0.75	
% passing No. 200 sieve	< 1.5	< 2.25	
% passing Median sieve	< 5.0	< 7.0	
	Allowable RAP Cold Feed %		
	Tier 3 - 20%-35%	Tier 2 - 12%-20%	Tier 1 - 0%-12%

**NOTE: These allowances notwithstanding, the Contractor is required to maintain the mixture within the Mixture Control Tolerances of Kentucky Method 443.**

The percentage allowable in mix designs shall be limited to meet the design criteria for viscosity established in the Standard Specifications.

**V. GENERAL STOCKPILE REQUIREMENTS AND REPLENISHMENT**

**V.A. Single Pavement Source**

**Early approval of material from a single pavement source.** When a new stockpile is to consist entirely of millings removed from a single existing pavement, the stockpile may be approved based on samples taken during the milling and processing operations, prior to completion of milling. The initial stockpile may be approved as either a new stockpile or a new stockpile in continual replenishment status.

For continual replenishment status, samples shall be taken from the processed stockpile after it reaches 1,000 tons. A total of five initial samples, plus one additional sample for every 1,000 tons, is required. As prescribed in Part II above, the contractor shall test all samples and deliver the test results, together with a letter request for approval in Continual Replenishment status, to the address indicated. The stockpile shall be subject to initial approval as prescribed above in Part II. Once approved, it may be replenished without further approvals as provided in Part VII below.

**V.B. Heterogeneous or contaminated material**

Asphalt pavement millings containing traffic detection loops, raised pavement markers, or other debris must be separated and excluded before stockpiling RAP for approval for use in KYTC asphaltic concrete mixtures.

No material other than RAP from an approved stockpile shall be included in mixtures for State projects. The following materials are specifically excluded:

- Material contaminated with foreign matter such as liquids, soil, concrete, or debris
- Plant waste, especially waste containing abnormal concentrations of bitumen, drum build-up, or material from spills or plant clean-up operations

The following materials shall not be added to or placed in proximity to an approved stockpile but may be accumulated in a separate stockpile and submitted for approval according to Part III:

- Production mixtures returned to the plant for any reason.
- Mis-proportioned mixtures, especially those generated at start-up.

**VI. REPLENISHMENT OF STOCKPILES**

An approved RAP stockpile may be replenished with Department approval, provided the replenishment material meets all necessary requirements for approval and maintains uniformity in gradation and asphalt content as outlined in this document.

**VI.A. Procedure and approval criteria**

The procedure for requesting approval of a stockpile replenishment, that is not in continual replenishment status, shall be the same as for approval of an original stockpile, and the material for the replenishment shall meet all criteria for approval as a new stockpile. RAP proposed for replenishment shall be sampled and tested by the Contractor for gradation and asphalt cement as prescribed in Section II above. The Laboratory shall



review these results and provide approval for use in Department asphalt mix designs, according to Table 2 above.

**VI.B. Effect of replenishment on existing approved mix designs**

Replenishment of a stockpile may render certain mix designs invalid, depending on the percent RAP allowed in the design and on the difference in average properties between the old and new stockpiles. A replenished stockpile may be used as the RAP ingredient in an existing approved design provided that:

1. The Maximum Percent Allowed for the replenishment stockpile equals or exceeds the percent RAP called for in the mix design. In no case may the Maximum Percent Allowed be exceeded.

However, if a mix design calls for up to 5.0 percent more than the Maximum Percent Allowed for the replenishment, the *design* may be adjusted, with approval, to use the lower percent allowed, provided that the production mixture continues to meet all acceptance criteria. For example, a design which calls for 20 percent RAP may be adjusted and produced with 15 percent if it continues to meet for acceptance.

**VII. CONTINUAL REPLENISHMENT WITHOUT RE-APPROVAL**

At the request of the contractor, a previously approved stockpile may be placed in Continual Replenishment Status and may be replenished any number of times without re-approval provided that:

1. Replenishment is within six months of the last stockpile addition.
2. The contractor shall continue to monitor and test the materials added to the stockpile and shall forward these results to the Division of Materials for every 1,000 tons of RAP added to the stockpile.
3. The contractor must certify that replenishment materials are free of contaminants.
4. The Department shall be notified by letter to the Director of the Division of Materials that the stockpile is being replenished on a continual basis.
5. The RAP Maximum Percent Allowed for continual replenishment shall be limited by Sections III and IV.

**Note: Upon request, one 20-pound sample bag of RAP for each Continual Replenishment Stockpile shall be submitted to the Division of Materials for petrographic analysis every 12 months.**

The Department may inspect, sample, and test such stockpiles at its discretion and may, upon determining that the stockpile is unsuitable, withdraw approval of the material and all mix designs which include it. Approval of the stockpile may be withdrawn at any time based upon extreme or erratic ingredient proportions, unsuitable ingredients, or poor performance, as determined by the Division of Materials, Asphalt Branch. The Department will conduct periodic comparison testing on the opposite quarters of samples submitted by the Contractor for special replenishment approval category. The approval of the stockpile may be withdrawn if

erroneous information was found on the contractor’s testing and/or improper sampling procedures were involved after a thorough investigation.

**VIII. DEPLETION OF STOCKPILE AND EXPIRATION OF APPROVAL**

When a stockpile has been fully depleted, the Contractor may replenish it within 24 months after the date of depletion; a depleted stockpile not replenished after 24 months will be removed from the approved list and may not be replenished.

Approval of a stockpile may be withdrawn if, in the finding of the Division of Materials, Asphalt Branch, the total amount of material used in new mixtures equals the total tonnage of the original stockpile plus all approved replenishments. Six years from the original approval of a stockpile or from its most recent replenishment, a stockpile shall be presumed to be depleted, and its approval shall expire. This shall apply to all stockpiles, regardless of status or history of use.

**IX. RECORDS**

The Contractor shall maintain records at the plant site on all RAP stockpiles. These records shall be available for inspection by representatives of the Department and shall include the following:

- All test results.
- The Department’s approval letter for each stockpile and replenishment, together with the Contractor’s requests for approval and all data submitted therewith.
- A current drawing of all stockpile locations at the plant site, including unapproved stockpiles, showing stockpile numbers of all stockpiles approved for State work.

**X. RELOCATION OF STOCKPILE**

If material from an approved RAP stockpile is to be moved to another location, the contractor shall seek approval from the Department prior to its further use on State projects. A letter request shall be submitted to the Division of Materials indicating the current stockpile location, the total quantity of material to be moved, and the amount, if any, to remain in the current location. The Division of Materials will issue an approval letter applicable to the new location.

June 18, 2025

## **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 DOUBLE ASPHALT SEAL COAT**

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

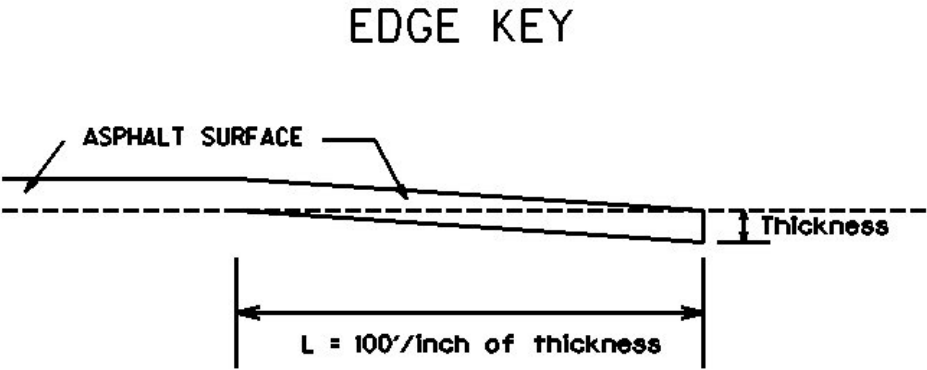
The Department will not measure any surface preparation required prior to applying the asphalt seal coat, but shall be incidental to “Asphalt Material for Asphalt Seal Coat”.

1-3215 Double Asphalt Seal Coat  
01/02/2012

**SPECIAL NOTE FOR EDGE KEY**

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Construct Edge Keys at the beginning of project, end of project, at railroad crossings, and at 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 make payment for this work at the Contract unit price per ton for Asphalt Pavement Milling and Texturing, 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 = 1.0 Inches**

**L = 100 LF**

**L= Length of Edge Key**

SPECIAL NOTES FOR GUARDRAIL

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I. DESCRIPTION

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

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

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

II. MATERIALS

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

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Guardrail.** Furnish guardrail system components according to Section 814 and the Standard and Sepia Drawings; except use steel posts only, no alternates. Furnish approximately 6,095 LF Extra Length Post (7-foot length, steel, no alternates).
- C. **Delineators for Guardrail.** Furnish white and/or yellow Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- D. **DGA.** Furnish Dense Graded Aggregate as per Section 805.
- E. **Erosion Control.** See the Special Note for Erosion Control.

III. CONSTRUCTION METHODS

- A. **Maintain and Control Traffic.** See Traffic Control Plan.
- B. **Site Preparation.** Remove existing guardrail system, including the guardrail end treatments, Bridge End connectors and all other elements of the existing guardrail system as per Section 719, except that the Contractor will take possession of all concrete posts and all concrete associated with the existing bridge and/or guardrail end treatments. Locate all disposal areas off the Right of Way. Be responsible for all site preparation, including but

Guardrail  
Page 2 of 4

not limited to, clearing and grubbing, excavation, embankment, and removal of all obstructions or any other items; regrading, reshaping, adding and compacting of suitable materials on the existing shoulders to provide proper template or foundation for the guardrail; filling voids left as the result of removing existing guardrail and guard posts with dry sand; temporary pollution and erosion control; disposal of excess, waste materials, and debris; and final dressing, cleanup, and seeding and protection. Perform all site preparation as approved or directed by the engineer.

- C. Guardrail.** Except as specified herein, construct guardrail system according to Section 719 and the Standard and Sepia Drawings, current editions. Locations listed on the summary and/or shown on the drawings are approximate only. The Engineer will determine the exact termini for individual guardrail installations and locations for Extra Length Posts at the time of construction. Unless directed otherwise by the Engineer, provide a minimum two (2) foot shoulder width. Construct radii at entrances and road intersections as directed by the Engineer.

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

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

- D. DGA.** Place and compact DGA along and under the guardrail as shown on the Typical Section(s) or as directed by the Engineer. Place a Double Asphalt Seal Coat over the entire width of the DGA along and under the guardrail. See the Special Note for Double Asphalt Seal Coat.
- E. Delineators for Guardrail.** Construct Delineators for Guardrail according to Standard Drawing RBR-055 – Delineators for Guardrail, current edition.
- F. 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.
- G. 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

Guardrail  
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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 guardrail operations at no additional cost to the Department.

- H. Right of Way Limits.** The Department has not established the exact limits of the Right-of-Way. Limit work activities to obvious Right-of-Way, permanent or temporary easements, and work areas secured by the Department through consent and release of the adjacent property owners. Be responsible for all encroachments onto private lands.
- I. 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.
- J. 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.
- K. Erosion Control.** See the Special Note for Erosion Control.

#### IV. METHOD OF MEASUREMENT

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Site preparation.** Other than the bid items listed, the Department will not measure Site Preparation for separate payment but shall be incidental to the Guardrail, End Treatments, Bridge End Connectors, and Terminal Sections, as applicable.
- C. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will measure according to Section 719.04.
- D. DGA.** The Department will measure according to Section 302.04.
- E. Delineators for Guardrail.** See Standard Drawing RBR-055 – Delineators for Guardrail.
- F. Clean Up, Disposal of Waste, Final Dressing, and Seeding and Protection.** The Department will NOT measure for payment the operations of: Clean Up, Disposal of Waste, and Final Dressing. These activities shall be incidental. Seeding and Protection will be measured according to Section 212.
- G. Erosion Control.** See the Special Note for Erosion Control.



Guardrail  
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**V. BASIS OF PAYMENT**

- A. Maintain and Control Traffic.** See Traffic Control Plan.
- B. Guardrail, Extra Length Post, End Treatments, Bridge End Connectors, Terminal Sections, and Remove Guardrail.** The Department will make payment according to Section 719.05.
- C. DGA.** The Department will make payment according to Section 302.05.
- D. Delineators for Guardrail.** See Standard Drawing RBR-055 – Delineators for Guardrail.
- E. Erosion Control.** See the Special Note for Erosion Control.

**SPECIAL NOTE FOR  
ASPHALT MILLING AND TEXTURING**

Begin paving operations within **48 hours** of commencement of the milling operation. Continue paving operations continuously until completed. If paving operations are not begun within this time period, the Department will assess liquidated damages at the rate prescribed by Section 108.09 until such time as paving operations are begun.

Take possession of the millings and recycle the millings or dispose of the millings off the Right-of-Way at sites obtained by the Contractor at no additional cost to the Department.

1-3520 48 hours Contractor keeps millings  
01/2/2012

**SPECIAL NOTE FOR BASE FAILURE REPAIR**

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Repair locations listed on the summary are approximate only. The Engineer will determine actual repair locations and dimensions at the time of construction. Prior to milling and/or resurfacing, saw cut the existing pavement, asphalt surface, base, DGA, and PCC pavement (if present). Excavate to an approximate depth of 12 inches below the existing pavement surface level. Use all possible care to avoid damaging existing culvert pipes and any existing underground utilities. Repair or restore any damaged items at no additional cost to the Department. Waste all removed materials 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.

On the same day trench is excavated, backfill the excavated area with 6 inches of Crushed Limestone Size No. 23, wrapped on the bottom and sides in Class 2 Geotextile Fabric, and 6 inches of Class 2 Asphalt Base 0.75 D PG 64-22, in 3.0 inch maximum courses, up to the existing pavement surface. Compact the asphalt base to the proper compaction as required by Section 403. Seal the asphalt base with leveling and wedging. Perform all base failure repairs in such a manner that removal and replacement are completed on the same day. Do this work as one of the Contractor's first operations in order to allow further compaction by traffic. Do not mill or place new asphalt surface over repaired base failure areas until a minimum of 14 calendar days have elapsed after placement of the final course of asphalt base. After the 14 calendar day waiting period, and/or when the Engineer determines the base failure repair areas have sufficiently stabilized, begin milling and/or resurfacing operations. Prior to milling and/or constructing the new asphalt surface, level and wedge any settlement of the repair areas.

The bidder must draw his or her own conclusions as to the conditions to be encountered. The Department does not give any guarantee as to the accuracy of the data and no claim will be considered for additional compensation of the materials encountered that are not in accord with the classification shown.

Accept payment at the Contract unit prices per square yard for Base Failure Repair and per ton for Leveling and Wedging as full compensation for all labor, materials, equipment, and incidentals for saw cutting pavement and excavating and disposing of all materials; furnishing and placing crushed limestone stone wrapped in geotextile fabric; furnishing and placing asphalt base up to the pavement boundary; leveling and wedging until the repair areas stabilize; and all other items necessary to complete the work according to these notes to the satisfaction of the Engineer.

### **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, Supplemental 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 shall 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

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 or emergency vehicle on an official run arrives on the scene, make provisions for the passage of the school bus or emergency vehicle as quickly as possible.

Unless otherwise approved by the Engineer, no lane closures will be allowed during the following times:

Labor Day Weekend	3 pm Friday, August 29, 2025 – 8 pm Monday, September 1, 2025
Thanksgiving Holiday	3 pm Wednesday, November 26, 2025 – 8 pm Sunday, November 30, 2025
Christmas Holiday	7 am Thursday, December 24, 2025 – 8 pm Friday, December 25, 2025
New Year’s Day Holiday	7 am Wednesday, December 31, 2025 – 8 pm Thursday, January 1, 2026
Easter Weekend	3 pm Friday, April 3, 2026 – 8 pm Sunday, April 5, 2026
Memorial Day Weekend	3 pm Friday, May 22, 2026 – 8 pm Monday, May 25, 2026
Independence Day	3 pm Friday, July 3, 2026 – 8 pm Saturday, July 4, 2026
Labor Day Weekend	3 pm Friday, September 5, 2026 – 8 pm Monday, September 7, 2026

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

The Contractor shall submit proposed lane closure days and times to the Engineer at least 14 calendar days in advance for approval. Liquidated Damages will be assessed for each hour or fraction of an hour that a lane closure is in place outside of an approved time period. See the Special Notes for Completion Dates & Liquidated Damages for details on the Liquidated Damages amount.

LANE CLOSURES

Long term lane closures shall not be allowed; therefore, lane closures will not be measured for payment. Do not leave lane closures in place during non-working hours and prohibited periods

TEMPORARY SIGNS

Temporary signposts 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. Temporary

Traffic Control Plan  
Page 2 of 8

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

Provide changeable message signs in advance of and within the project at locations determined by the Engineer. If work is in progress concurrently in both directions or if more than one lane closure is in place in the same direction of travel, provide additional changeable message signs as directed by the Engineer. Place changeable message signs approximately one mile in advance of the anticipated queue at each lane closure. As the actual queue lengthens and/or shortens, relocate or provide additional changeable message signs so that traffic has warning of slowed or stopped traffic at least one mile but not more than two miles before reaching the end of the actual queue. The Engineer may vary the designated locations as the work progresses. The Engineer will determine the messages to be displayed. In the event of damage or mechanical/electrical failure, repair or replace the Changeable Message Sign. If the damage or mechanical/electrical failure is identified during active work operations, repair or replace the Changeable Message Sign within 6 hours. If the damage or mechanical/electrical failure is identified when there are no active work operations on the project, repair or replace the Changeable Message Sign within 12 hours. The Department will measure for payment the maximum number of Changeable Message Signs in concurrent use at the same time on a single day on all sections of the contract. The Department will measure individual Changeable Message Signs only once for payment, regardless of how many times they are set, reset, removed, and/or relocated during the duration of the project. The Department will not measure for payment any replacements for damaged Changeable Message Signs or any changeable message signs the Engineer directs to be replaced due to poor condition or readability. Retain possession of the Changeable Message Signs upon completion of the work.

### **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.

### **TEMPORARY ENTRANCES**

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

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

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

### **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.

### **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.

## **USE AND PLACEMENT OF CHANGEABLE MESSAGE SIGNS**

The following policy is based upon current Changeable Message Signs (CMS) standards and practice from many sources, including the Federal Highway Administration (FHWA), other State Departments of Transportation, and Traffic Safety Associations. It is understood that each CMS installation or use requires individual consideration due to the specific location or purpose. However, there will be elements that are constant in nearly all applications. Accordingly, these recommended guidelines bring a level of uniformity, while still being open to regional experience and engineering judgment.

### **Application**

The primary purpose of CMS is to advise the driver of unexpected traffic and routing situations. Examples of applications where CMS can be effective include:

- Closures (road, lane, bridge, ramp, shoulder, interstate)
- Changes in alignment or surface conditions
- Significant delays, congestion
- Construction/maintenance activities (delays, future activities)
- Detours/alternative routes
- Special events with traffic and safety implications
- Crash/incidents
- Vehicle restrictions (width, height, weight, flammable)
- Advance notice of new traffic control devices
- Real-time traffic conditions (must be kept up to date)
- Weather /driving conditions, environmental conditions, Roadway Weather Information Systems
- Emergency Situations
- Referral to Highway Advisory Radio (if available)
- Messages as approved by the County Engineer's Office

### **CMS should not be used for:**

- Replacement of static signs (e.g. ROAD WORK AHEAD), regulatory signage (e.g. speed limits), pavement markings, standard traffic control devices, conventional warning or guide signs.
- Replacement of lighted arrow board
- Advertising (Don't advertise the event unless clarifying "action" to be taken by driver – e.g. Speedway traffic next exit)
- Generic messages
- Test messages (portable signs only)
- Describe recurrent congestion (e.g. rush hour)
- Public service announcements (not traffic related)



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### **Messages**

Basic principles that are important to providing proper messages and ensuring the proper operation of a CMS are:

- Visible for at least ½ mile under ideal daytime and nighttime conditions
- Legible from all lanes a minimum of 650 feet
- Entire message readable twice while traveling at the posted speed
- No more than two message panels should be used (three panels may be used on roadways where vehicles are traveling less than 45 mph). A panel is the message that fits on the face of the sign without flipping or scrolling.
- Each panel should convey a single thought; short and concise
- Do not use two unrelated panels on a sign
- Do not use the sign for two unrelated messages
- Should not scroll text horizontally or vertically
- Should not contain both the words left and right
- Use standardized abbreviations and messages
- Should be accurate and timely
- Avoid filler/unnecessary words and periods (hazardous, a, an, the)
- Avoid use of speed limits
- Use words (not numbers) for dates

### **Placement**

Placement of the CMS is important to ensure that the sign is visible to the driver and provides ample time to take any necessary action. Some of the following principles may only be applicable to controlled access roadways. The basic principles of placement for a CMS are:

- When 2 signs are needed, place on same side of roadway and at least 1,000 feet apart
- Place behind semi-rigid/rigid protection (guardrail, barrier) or outside of the clear zone
- Place 1,000 feet in advance of work zone; at least one mile ahead of decision point
- Normally place on right side of roadway; but should be placed closest to the affected lane so that either side is acceptable
- Signs should not be dual mounted (one on each side of roadway facing same direction)
- Point trailer hitch downstream
- Secure to immovable object to prevent theft (if necessary)
- Do not place in sags or just beyond crest
- Check for reflection of sun to prevent the blinding of motorist
- Should be turned ~3 degrees outward from perpendicular to the edge of pavement
- Bottom of sign should be 7 feet above the elevation of edge of roadway
- Should be removed when not in use

**Standard Abbreviations**

The following is a list of standard abbreviations to be used on CMS:

<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
Access	ACCS	CRASH AHEAD/ USE ACCS RD NEXT RIGHT
Alternate	ALT	CRASH AHEAD/ USE ALT RTE NEXT RIGHT
Avenue	AVE	FIFTH AVE CLOSED/ DETOUR NEXT LEFT
Blocked	BLKD	FIFTH AVE BLKD/ MERGE LEFT
Boulevard	BLVD	MAIN BLVD CLOSED/ USE ALT RTE
Bridge	BRDG	SMITH BRDG CLOSED/ USE ALT RTE
Cardinal Directions	N, S, E, W	N I75 CLOSED/ DETOUR EXIT 30
Center	CNTR	CNTR LANE CLOSED/ MERGE LEFT
Commercial	COMM	OVRSZ COMM VEH/ USE I275
Condition	COND	ICY COND POSSIBLE
Congested	CONG	HVY CONG NEXT 3 MI
Construction	CONST	CONST WORK AHEAD/ EXPECT DELAYS
Downtown	DWNTN	DWNTN TRAF USE EX 40
Eastbound	E-BND	E-BND I64 CLOSED/ DETOUR EXIT 20
Emergency	EMER	EMER VEH AHEAD/ PREPARE TO STOP
Entrance, Enter	EX, EXT	DWNTN TRAF USE EX 40
Expressway	EXPWY	WTRSN EXPWY CLOSED/ DETOUR EXIT 10
Freeway	FRWY, FWY	GN SYNDR FWY CLOSED/ DETOUR EXIT 15
Hazardous Materials	HAZMAT	HAZMAT IN ROADWAY/ ALL TRAF EXIT 25
Highway	HWY	CRASH ON AA HWY/ EXPECT DELAYS
Hour	HR	CRASH ON AA HWY/ 2 HR DELAY
Information	INFO	TRAF INFO TUNE TO 1240 AM
Interstate	I	E-BND I64 CLOSED/ DETOUR EXIT 20
Lane	LN	LN CLOSED MERGE LEFT
Left	LFT	LANE CLOSED MERGE LFT
Local	LOC	LOC TRAF USE ALT RTE
Maintenance	MAINT	MAINT WRK ON BRDG/ SLOW
Major	MAJ	MAJ DELAYS I75/ USE ALT RTE
Mile	MI	CRASH 3 MI AHEAD/ USE ALT RTE
Minor	MNR	CRASH 3 MI MNR DELAY
Minutes	MIN	CRASH 3 MI/ 30 MIN DELAY
Northbound	N-BND	N-BND I75 CLOSED/ DETOUR EXIT 50
Oversized	OVRSZ	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Parking	PKING	EVENT PKING NEXT RGT
Parkway	PKWY	CUM PKWAY TRAF/ DETOUR EXIT 60
Prepare	PREP	CRASH 3 MI/ PREP TO STOP
Right	RGT	EVENT PKING NEXT RGT
Road	RD	HAZMAT IN RD/ ALL TRAF EXIT 25
Roadwork	RDWK	RDWK NEXT 4 MI/ POSSIBLE DELAYS
Route	RTE	MAJ DELAYS I75/ USE ALT RTE
Shoulder	SHLDR	SHLDR CLOSED NEXT 5 MI
Slippery	SLIP	SLIP COND POSSIBLE/ SLOW SPD
Southbound	S-BND	S-BND I75 CLOSED/ DETOUR EXIT 50
Speed	SPD	SLIP COND POSSIBLE/ SLOW SPD

**Standard Abbreviations** (cont.)

<u>Word</u>	<u>Abbrev</u>	<u>Example</u>
Street	ST	MAIN ST CLOSED/ USE ALT RTE
Traffic	TRAF	CUM PKWAY TRAF/ DETOUR EXIT 60
Vehicle	VEH	OVRSZ COMM VEH/ USE I275 NEXT RIGHT
Westbound	W-BND	W-BND I64 CLOSED/ DETOUR EXIT 50
Work	WRK	CONST WRK 2MI/ POSSIBLE DELAYS

Certain abbreviations are prone to inviting confusion because another word is abbreviated or could be abbreviated in the same way. DO NOT USE THESE ABBREVIATIONS:

<u>Abbrev</u>	<u>Intended Word</u>	<u>Word Erroneously Given</u>
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (merge)
LOC	Local	Location
LT	Light (traffic)	Left
PARK	Parking	Park
POLL	Pollution (index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
TEMP	Temporary	Temperature
WRNG	Warning	Wrong

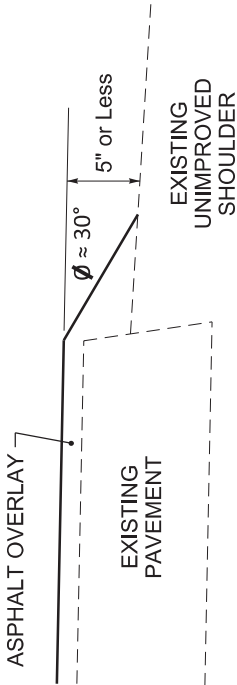
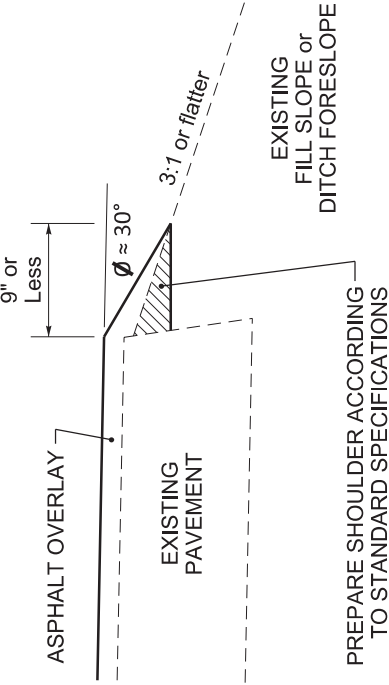
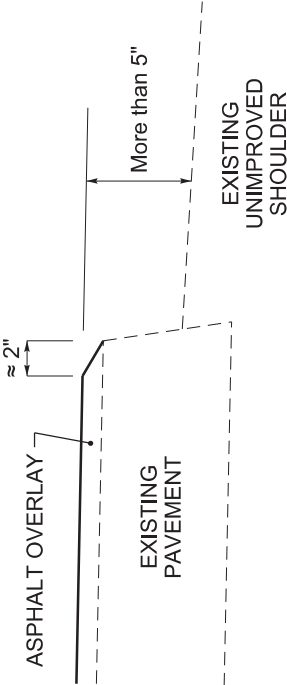
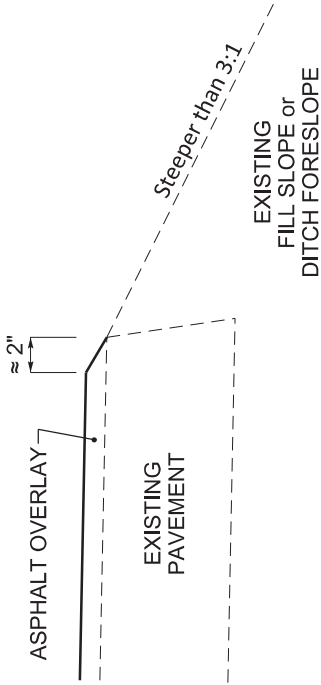
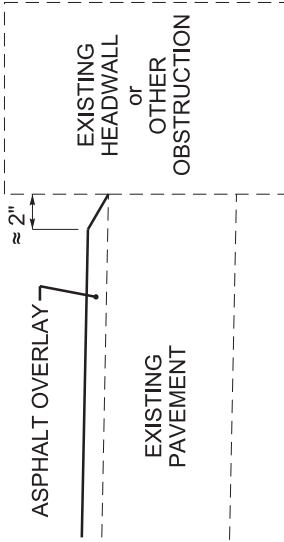
**Typical Messages**

The following is a list of typical messages used on CMS. The list consists of the reason or problem that you want the driver to be aware of and the action that you want the driver to take.

<u>Reason/Problem</u>	<u>Action</u>
CRASH AHEAD	ALL TRAFFIC EXIT RT
CRASH/XX MILES	AVOID DELAY USE XX
XX ROAD CLOSED	CONSIDER ALT ROUTE
XX EXIT CLOSED	DETOUR
BRIDGE CLOSED	DETOUR XX MILES
BRIDGE/(SLIPPERY, ICE, ETC.)	DO NOT PASS
CENTER/LANE/CLOSED	EXPECT DELAYS
DELAY(S), MAJOR/DELAYS	FOLLOW ALT ROUTE
DEBRIS AHEAD	KEEP LEFT
DENSE FOG	KEEP RIGHT
DISABLED/VEHICLE	MERGE XX MILES
EMER/VEHICLES/ONLY	MERGE LEFT
EVENT PARKING	MERGE RIGHT
EXIT XX CLOSED	ONE-WAY TRAFFIC
FLAGGER XX MILES	PASS TO LEFT

Typical Messages (cont.)

Reason/Problem	Action
FOG XX MILES	PASS TO RIGHT
FREEWAY CLOSED	PREPARE TO STOP
FRESH OIL	REDUCE SPEED
HAZMAT SPILL	SLOW
ICE	SLOW DOWN
INCIDENT AHEAD	STAY IN LANE
LANES (NARROW, SHIFT, MERGE, ETC.)	STOP AHEAD
LEFT LANE CLOSED	STOP XX MILES
LEFT LANE NARROWS	TUNE RADIO 1610 AM
LEFT 2 LANES CLOSED	USE NN ROAD
LEFT SHOULDER CLOSED	USE CENTER LANE
LOOSE GRAVEL	USE DETOUR ROUTE
MEDIAN WORK XX MILES	USE LEFT TURN LANE
MOVING WORK ZONE, WORKERS IN ROADWAY	USE NEXT EXIT
NEXT EXIT CLOSED	USE RIGHT LANE
NO OVERSIZED LOADS	WATCH FOR FLAGGER
NO PASSING	
NO SHOULDER	
ONE LANE BRIDGE	
PEOPLE CROSSING	
RAMP CLOSED	
RAMP (SLIPPERY, ICE, ETC.)	
RIGHT LANE CLOSED	
RIGHT LANE NARROWS	
RIGHT SHOULDER CLOSED	
ROAD CLOSED	
ROAD CLOSED XX MILES	
ROAD (SLIPPERY, ICE, ETC.)	
ROAD WORK	
ROAD WORK (OR CONSTRUCTION) (TONIGHT, TODAY, TOMORROW, DATE)	
ROAD WORK XX MILES	
SHOULDER (SLIPPERY, ICE, SOFT, BLOCKED, ETC.)	
NEW SIGNAL XX MILES	
SLOW 1 (OR 2) - WAY TRAFFIC	
SOFT SHOULDER	
STALLED VEHICLES AHEAD	
TRAFFIC BACKUP	
TRAFFIC SLOWS	
TRUCK CROSSING	
TRUCKS ENTERING	
TOW TRUCK AHEAD	
UNEVEN LANES	
WATER ON ROAD	
WET PAINT	
WORK ZONE XX MILES	
WORKERS AHEAD	

<div><div>DURABLE PAVEMENT EDGE DETAIL</div><div>(Resurfacing adjacent to low shoulder with dropoff of 5 inches or less)</div><div></div></div>	<div><div>DURABLE PAVEMENT EDGE DETAIL</div><div>(Resurfacing adjacent to fill slope or ditch foreslope that is 3:1 or less)</div><div></div><div>PREPARE SHOULDER ACCORDING TO STANDARD SPECIFICATIONS</div></div>
<div><div>DURABLE PAVEMENT EDGE DETAIL</div><div>(Resurfacing adjacent to low shoulder with dropoff of more than 5 inches)</div><div></div></div>	<div><div>DURABLE PAVEMENT EDGE DETAIL</div><div>(Resurfacing adjacent to fill slope or ditch foreslope that is steeper than 3:1)</div><div></div></div>
<div><div>DURABLE PAVEMENT EDGE DETAIL</div><div>(Resurfacing adjacent to an obstruction, such as an existing headwall)</div><div></div></div>	<div><div>NOTES</div><div><div>1. DETAILS DO NOT APPLY TO OVERLAYS LESS THAN 1 INCH THICK.</div><div>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.</div></div></div> <div><div>DRAWING NOT TO SCALE</div><div>DURABLE PAVEMENT EDGE DETAILS</div></div>



KENTUCKY TRANSPORTATION CABINET

Department of Highways

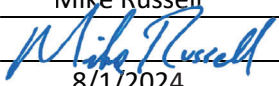

DIVISION OF RIGHT OF WAY & UTILITIES

TC 62-226

Rev. 01/2016

Page 1 of 1

RIGHT OF WAY CERTIFICATION

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #		COUNTY		PROJECT # (STATE)	PROJECT # (FEDERAL)
3-9021.00		Butler/Edmonson		12F0 FD52 016 1074901R	HSIP 5074 (009)
PROJECT DESCRIPTION					
Perform low cost safety improvements on KY 185.					
<input 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 checked="" 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		3	EXCEPTION (S) Parcel #	ANTICIPATED DATE OF POSSESSION WITH EXPLANATION	
Number of Parcels That Have Been Acquired					
Signed Deed		3			
Condemnation					
Signed ROE					
Notes/ Comments (Text is limited. Use additional sheet if necessary.)					
One parcel (P. 002) has signed a Consent & Release.					
LPA RW Project Manager			Right of Way Supervisor		
Printed Name			Printed Name		Mike Russell
Signature			Signature		
Date			Date		8/1/2024
Right of Way Director			FHWA		
Printed Name			Printed Name		
Signature			Signature		No Signature Required as per FHWA-KYTC Current Stewardship Agreement
Date		Digitally signed by Kelly Divine Date: 2024.08.01 11:46:17 -05'00'	Date		

UTILITIES AND RAIL CERTIFICATION NOTE

Butler/Edmonson County - HSIP 5074(009)  
FD52 016 1074901U  
Safety Improvements along KY 185 from MP 0.000 to MP 7.232 (Butler  
County) and MP 0.000 to MP 2.182 (Edmonson County)  
Item No. 3-9021.00

GENERAL PROJECT NOTES ON UTILITIES

For all projects over 2000 linear feet, which are defined as a “Large Project” in KRS 367.4903(18), the awarded contractor shall initially mark the first 2000 linear feet minimally of proposed excavation or construction boundaries of the project to be worked using the procedure set forth in KRS 367.4909(9)(k). This temporary field locating of the project excavation boundary shall take place prior to submitting an excavation location request to the underground utility protection Kentucky Contact Center. For large projects, the awarded contractor shall work with the impacted utilities to determine when additional white lining of the remainder of the project site will take place. This provision shall not alter or relieve the awarded contractor from complying with requirements of KRS 367.4905 to 367.4917 in their entirety.

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

The contractor will be responsible for contacting all utility facility owners on the subject project to coordinate his/her activities. The contractor will coordinate his/her 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.

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

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

If an unknown utility is encountered, the contractor will be responsible for arranging an on-site meeting with utility representatives and the Engineer to discuss possible impacts and solutions to either avoid the utility or relocate the utility.

Edmonson County Water District has existing water mains along KY 185 in Edmonson County. These facilities are to remain in place and are not to be disturbed as marked “Do Not Disturb” on the plan sheets.

The Gas Group - Pollitt Energy has existing gas lines along KY 185 in Edmonson County. These facilities are to remain in place and are not to be disturbed as marked “Do Not Disturb” on the plan sheets.

Butler County Water System has existing water lines along KY 185 in Edmonson County. These facilities are to remain in place and are not to be disturbed as marked “Do Not Disturb” on the plan sheets.

Spectrum Cable has existing lines along KY 185 in Edmonson County. These facilities are to remain in place and are not to be disturbed as marked “Do Not Disturb” on the plan sheets.

Windstream Communications has existing lines along KY 185 in Edmonson County. These facilities are to remain in place and are not to be disturbed as marked “Do Not Disturb” on the plan sheets.

Level 3 Communications has existing lines along KY 185 in Edmonson County. These facilities are to remain in place and are not to be disturbed as marked “Do Not Disturb” on the plan sheets.

\*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

Windstream Communications: Underground telecommunications facilities to be relocated at the following locations. Work to be completed by October 31, 2025.

- Sta. 109+03 to Sta. 111+63 LT (Butler)
- Sta. 202+15 RT (Butler)
- Sta. 246+97 RT (Butler)
- Sta. 274+81 RT (Butler)
- Sta. 37+30 RT (Edmonson)
- Sta. 106+97 RT (Edmonson)



UTILITIES AND RAIL CERTIFICATION NOTE

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Item No. 3-9021.00

**Level 3 Communications:** Underground fiber to be relocated at the following locations. Work to be completed by August 30, 2025.

- Sta. 50+65 RT (Butler)
- Sta. 70+00 to Sta. 72+59 RT (Butler)
- Sta. 78+29 RT (Butler)
- Sta. 119+25 RT (Butler)
- Sta. 159+07 RT (Butler)
- Sta. 179+48 RT (Butler)
- Sta. 186+90 RT (Butler)
- Sta. 187+06 RT (Butler)
- Sta. 215+87 RT (Butler)
- Sta. 225+56 RT (Butler)
- Sta. 278+75 RT (Butler)
- Sta. 308+72 RT (Butler)
- Sta. 361+14 RT (Butler)
- Sta. 5+25 RT (Edmonson)
- Sta. 9+38 RT (Edmonson)
- Sta. 33+60 RT (Edmonson)
- Sta. 50+53 RT (Edmonson)
- Sta. 53+88 RT (Edmonson)
- Sta. 60+80 RT (Edmonson)
- Sta. 63+39 RT (Edmonson)
- Sta. 69+73 RT (Edmonson)
- Sta. 81+93 RT (Edmonson)
- Sta. 90+82 RT (Edmonson)
- Sta. 93+55 RT (Edmonson)
- Sta. 106+97 RT (Edmonson)

UTILITIES AND RAIL CERTIFICATION NOTE

Butler/Edmonson County - HSIP 5074(009)  
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**Spectrum Cable:** Underground telecommunications facilities to be relocated at the following locations. Work completed on April 29, 2025.

- Sta. 357+34 LT (Butler)
- Sta. 361+14 LT (Butler)
- Sta. 372+40 LT (Butler)
- Sta. 373+00 to Sta. 376+95 LT (Butler)
- Sta. 18+88 LT (Edmonson)
- Sta. 31+83 to Sta. 39+93 LT (Edmonson)
- Sta. 33+60 LT (Edmonson)
- Sta. 50+53 LT (Edmonson)
- Sta. 51+25 to Sta. 56+15 LT (Edmonson)
- Sta. 53+88 LT (Edmonson)
- Sta. 58+53 LT (Edmonson)
- Sta. 60+80 LT (Edmonson)
- Sta. 68+29 to Sta. 68+54 LT (Edmonson)
- Sta. 75+35 LT (Edmonson)
- Sta. 81+93 LT (Edmonson)
- Sta. 88+05 LT (Edmonson)
- Sta. 93+55 LT (Edmonson)

**Butler County Water System:** Water mains to be relocated at the following locations. Work to be completed by August 30, 2025.

- Sta. 202+15 LT (Butler)
- Sta. 256+66 LT (Butler)
- Sta. 316+00 to Sta. 318+50 LT (Butler)
- Sta. 329+49 to Sta. 332+41 LT (Butler)
- Sta. 332+00 LT (Butler)

UTILITIES AND RAIL CERTIFICATION NOTE

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

N/A

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

N/A

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ No Rail Involvement    ☐ Rail Involved    ☐ Rail Adjacent

UTILITIES AND RAIL CERTIFICATION NOTE

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AREA UTILITIES CONTACT LIST

<u>Utility Company/Agency</u>	<u>Contact Name</u>	<u>Contact Information</u>
1. Warren Rural Electric Cooperative Corporation	Jonathan Lindsey	<a href="mailto:jonathanl@wrecc.com">jonathanl@wrecc.com</a> 270-791-9908
	Justin Browning	<a href="mailto:jbrowning@wrecc.com">jbrowning@wrecc.com</a> 270-779-5783
2. Windstream Communications	Steve Johnson	<a href="mailto:steve.johnson@windstream.com">steve.johnson@windstream.com</a> 859-357-6209
	Todd Moore	<a href="mailto:Ronald.moore@windstream.com">Ronald.moore@windstream.com</a> 1-502-818-7605
3. Level 3 Communications	Patrick Barks	<a href="mailto:Patrick.barks@lumen.com">Patrick.barks@lumen.com</a> 1-812-341-7335
	Joe Dailey	<a href="mailto:joe.dailey@justengineeringinc.com">joe.dailey@justengineeringinc.com</a> 1-502-995-8348
4. Spectrum Cable	Justin Sturgeon	<a href="mailto:Justin.Sturgeon@charter.com">Justin.Sturgeon@charter.com</a> 1-812-253-2767
	Michael Curtis Vincent	<a href="mailto:Michael.Vincent@charter.com">Michael.Vincent@charter.com</a> 1-270-557-9581
5. Butler County Water System	Clint Harbison	<a href="mailto:clinh@warrenwater.com">clinh@warrenwater.com</a> 270-590-6854
	Tim Minnicks	<a href="mailto:tim@warrenwater.com">tim@warrenwater.com</a> 270-791-1380
6. Edmonson County Water District	Kevin Shaw	<a href="mailto:Kevin.shaw@ecwdwater.com">Kevin.shaw@ecwdwater.com</a> 270-597-2165
7. The Gas Group – Pollitt Energy	Basil Clark Pollitt	<a href="mailto:thegasgroupinc@yahoo.com">thegasgroupinc@yahoo.com</a> 1-813-789-6257

**NOTE: The Utilities Contact List is provided as informational only, and may not be a complete list of all Utility Companies with facilities in the project area.**

KYTC BMP Plan for Project CID ## - ####



**Kentucky Transportation Cabinet**

**Highway District 3**

**And**

**\_\_\_\_\_ (2), Construction**

**Kentucky Pollutant Discharge Elimination System**

**Permit KYR10**

**Best Management Practices (BMP) plan**

**Groundwater protection plan**

**For Highway Construction Activities**

**For**

**Highway Safety Improvement Project on KY 185 in  
Butler/Edmonson County**

**Project: CID ## - ####**

KYTC BMP Plan for Project CID ## - ####

Project information

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

- 1. Owner – Kentucky Transportation Cabinet, District 3
- 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): KY 185
- 6. Latitude/Longitude (project mid-point): 37° 12' 40", -86° 25' 58"
- 7. County (project mid-point): BUTLER
- 8. Project start date (date work will begin): (2)
- 9. Projected completion date: (2)

## KYTC BMP Plan for Project CID ## - ####

### A. Site description:

1. Nature of Construction Activity (from letting project description): (1)
2. Order of major soil disturbing activities: (2) and (3)
3. Projected volume of material to be moved: 22,939 LF Ditching & Shouldering;
4. Estimate of total project area (acres): 77.2
5. Estimate of area to be disturbed (acres): 16.6
6. Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information.
7. Data describing existing soil condition: Silt Loam, designated CL-ML and CL in the USCS. & (2)
8. Data describing existing discharge water quality (if any):
9. Receiving water name: Green River, Big Reedy Creek, Big Reedy Branch
10. TMDLs and Pollutants of Concern in Receiving Waters: *No TDML's were involved on this project.*
11. Site map – Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
12. Potential sources of pollutants:  
The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris. (3)

## KYTC BMP Plan for Project CID ## - ####

### B. Sediment and Erosion Control Measures:

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

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

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



KYTC BMP Plan for Project CID ## - ####

- 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 pipes 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 and drop inlets after they are placed
  - Channel Lining
  - Erosion Control Blanket
  - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
  - Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
  - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
  - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
  - Additional Channel Lining and/or Erosion Control Blanket.
  - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
  - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probable 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

KYTC BMP Plan for Project CID ## - ####

- 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: *This project does not include storm water BMPs or flow controls for post-construction use.*

**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.

4. Spill Prevention

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

- **Good Housekeeping:**

## KYTC BMP Plan for Project CID ## - ####

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

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

### ➤ **Hazardous Products:**

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

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

**The following product-specific practices will be followed onsite:**

### ➤ **Petroleum Products:**

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

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

## KYTC BMP Plan for Project CID ## - ####

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

### ➤ **Fertilizers:**

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

### ➤ **Paints:**

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

### ➤ **Concrete Truck Washout:**

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

### ➤ **Spill Control Practices**

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

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

## KYTC BMP Plan for Project CID ## - ####

- 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 cleanup 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) Typically use: *There are no other local (MS4) requirements that are expected to be necessary for this project. (If MS4 requirements are necessary, it will be noted on the CE in Section M. Water Resource Impacts.)*

## E. Maintenance

1. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.
- Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.
  - Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. *There are no such BMP's for this project.*

## F. Inspections

## KYTC BMP Plan for Project CID ## - ####

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.

## G. Non – Storm Water discharges

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

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

KYTC BMP Plan for Project CID ## - ####

- Uncontaminated groundwater and rain water (from dewatering during excavation).

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

H. Groundwater Protection Plan (3)

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

- Contractors statement: (3)

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

- \_\_\_\_\_ 2. (e) land treatment or land disposal of a pollutant;
- \_\_\_\_\_ 2. (f) Storing, ..., or related handling of hazardous waste, solid waste or special waste, ..., in tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);
- \_\_\_\_\_ 2. (g) .... Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;
- \_\_\_\_\_ 2. (j) Storing or related handling of road oils, dust suppressants, ....., at a central location;
- \_\_\_\_\_ 2. (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);
- \_\_\_\_\_ 2. (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

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

\_\_\_\_\_ 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.



## KYTC BMP Plan for Project CID ## - ####

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 name<sup>2</sup> signature

(3) Signed \_\_\_\_\_ title \_\_\_\_\_, \_\_\_\_\_  
 Typed or printed name<sup>1</sup> \_\_\_\_\_ 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 ## - ####

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 name<sup>1</sup>signature

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

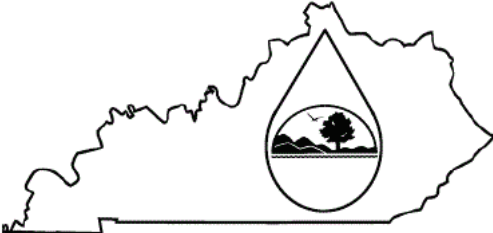
**Item No.: 03-9021.00**  
**Butler/Edmonson County**  
**Highway Safety Improvement Project along KY 185**  
**from MP 0.00 – 7.232 (Butler) & MP 0.000 – 2.182 (Edmonson)**

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An electronic Notice of Intent (eNOI) for obtaining coverage under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Stormwater Discharges Associated with Construction Activities (KYR10) has been drafted, a copy of which is attached. Upon award, the Contractor will be identified in Section III of the form as the “Building Contractor” and the eNOI will be submitted for approval to the Kentucky Division of Water. The Contractor shall be responsible for advancing the work within this contract 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.

**eForm Submittal ID: 508843**

**eForm Transaction ID: 5f8c63c3-9389-4c2a-a7d4-20d7c10c6910**



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/KYR10%20Instructions.pdf)

Click here to obtain information and a copy of the KPDES General Permit.  
(<https://eec.ky.gov/Environmental-Protection/Water/PermitCert/KPDES/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:(*) <div></div>		Agency Interest ID: <div>Agency Interest ID</div>		Permit Number:(✓) <div>KPDES Permit Number</div>	
If change to existing permit coverage is requested, describe the changes for which modification of coverage is being sought:(✓) <div></div>					
<div>ELIGIBILITY:</div> <div>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.</div>					
<div>COVERAGE:</div> <div>Applicants shall complete and submit the eNOI-SWCA a minimum of seven (7) days before the proposed date for commencement of construction activities. Applicants shall receive written notification from the Division of Water before being authorized to discharge under the terms of the KYR10 General Permit.</div>					
<div>EXCLUSIONS:</div> <div>The following are excluded from coverage under this general permit:</div> <div>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;</div> <div>2) Any operation that the DOW determines an individual permit would better address the discharges from that operation;</div> <div>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.</div>					
SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)					
Company Name:(✓) <div>Kentucky Transportation Cabinet, District 3</div>		First Name:(✓) <div>Gavin</div>		M.I.: <div>MI</div>	Last Name:(✓) <div>Hodges</div>
Mailing Address:(*) <div>900 Morgantown Road</div>		City:(*) <div>Bowling Green</div>		State:(*) <div>Kentucky</div>	
Zip:(*) <div>42101</div>		eMail Address:(*) <div>Gavin.Hodges@ky.gov</div>		Business Phone:(*) <div>502-764-2070</div>	
Alternate Phone: <div>- - -</div>		Additional Facility Operator information(Co-Permittee) required ?(*) <div>No</div>			
SECTION II -- GENERAL SITE LOCATION INFORMATION					
Project Name:(*) <div>KYTC Project: Item 3-9021.00</div>		Status of Owner/Operator(*) <div>State Government</div>		SIC Code(*) <div>1611 Highway and Street Cons</div>	
Company Name:(✓) <div>Kentucky Transportation Cabinet, District 3</div>		First Name:(✓) <div>Gavin</div>		M.I.: <div>MI</div>	Last Name:(✓) <div>Hodges</div>
Site Physical Address:(*) <div>900 Morgantown Road</div>					
City:(*) <div>Bowling Green</div>		State:(*) <div>Kentucky</div>		Zip:(*) <div>42101</div>	
County:(*) <div>Butler</div>		Latitude(decimal degrees)(*)DMS to DD Converter ( <a href="https://www.fcc.gov/media/radio/dms-decimal">https://www.fcc.gov/media/radio/dms-decimal</a> ) <div>37.211111</div>		Longitude(decimal degrees)(*) <div>-86.432778</div>	

SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION 	
Project Description:(*) <div>HSIP project consisting of ditching, shoulder, asphalt paving, replacement and/or extension of various pipes, box culvert extensions, guardrail, tree trimming and/or cutting</div>	
Was the pre-development land used for agriculture ?(*) <div>No</div>	Will there be demolition of any structure built or renovated before January 1, 1980 ?(*) <div>No</div>
Select the type of construction site (check all that apply)(*) <div><div><input type="checkbox"/> Single-Family Residential</div><div><input type="checkbox"/> Multi-Family Residential</div><div><input type="checkbox"/> Commercial</div><div><input type="checkbox"/> Industrial</div><div><input type="checkbox"/> Institutional</div><div><input checked="" type="checkbox"/> Highway or Road</div><div><input type="checkbox"/> Utility</div><div><input type="checkbox"/> Other</div></div>	
a. For single projects provide the following information	
Total Number of Acres in Project:(✓) <div>77.2</div>	Total Number of Acres Disturbed:(✓) <div>16.6</div>
Anticipated Start Date:(✓) <div></div>	Anticipated Completion Date:(✓) <div></div>
b. For common plans of development provide the following information	
Total Number of Acres in Project:(✓) <div># Acre(s)</div>	Total Number of Acres Disturbed:(✓) <div># Acre(s)</div>
Number of individual lots in development, if applicable:(✓) <div># lot(s)</div>	Number of lots in development:(✓) <div># lot(s)</div>
Total acreage of lots intended to be developed:(✓) <div>Project Acres</div>	Number of acres intended to be disturbed at any one time:(✓) <div>Disturbed Acres</div>
Anticipated Start Date:(✓) <div></div>	Anticipated Completion Date:(✓) <div></div>
List Building Contractor(s) at the time of Application:(✓) <div><div><div><div><div></div><div>+</div></div><div>Company Name</div><div></div></div><div></div></div><div></div></div>	
SECTION IV -- INFORMATION IS ALWAYS REQUIRED FOR ONSITE POINT OF DISCHARGE AND RECEIVING WATER 	
Discharge Point(s):(*)	

	Unnamed Tributary?	Latitude	Longitude	Receiving Water Name		
1	No	37.154306	86.41075	Green River	Delete	
2	Yes	37.233139	86.433944	Big Reedy Creek	Delete	
3	No	37.254389	86.441306	Big Reedy Creek	Delete	
4	Yes	37.256639	86.440583	Big Reedy Creek	Delete	
5	No	37.271083	86.436861	Big Reedy Branch	Delete	
6	No	37.163583	86.42025	Green River	Delete	
7	Yes	37.166222	86.423389	Green River	Delete	
8	Yes	37.170278	86.424583	Green River	Delete	
9	Yes	37.172611	86.42525	Green River	Delete	
10	Yes	37.195778	86.438056	Big Reedy Creek	Delete	



This grid can be edited either directly on this page or by editing the information in an excel sheet.  
If you would like to edit this information in an excel sheet, first use the right button (export) to download the sheet.  
After adding your data, save the sheet, and use the left button (import) to import the same file to this grid.

SECTION V -- Section V MUST BE COMPLETED IF WITHIN A MS4 AREA

Name of MS4:

SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY, FLOODPLAIN OR THE RIPARIAN ZONE?

Will the project require construction activities in a water body or the riparian zone?: (\*)

Yes

If Yes, describe scope of activity: (✓)

Culvert pipe extensions and replacements and box culvert extensions.

Is a Clean Water Act 404 permit required?:(\*)

Yes

Is a Clean Water Act 401 Water Quality Certification required?:(\*)

Yes

SECTION VII -- NOI PREPARER INFORMATION

First Name:(\*)

First Name

M.I.:

MI

Last Name:(\*)

Last Name

Company Name:(\*)

Company Name

Mailing Address:(\*)

Mailing Address

City:(\*)

City

State:(\*)

Zip:(\*)

Zip

eMail Address:(\*)

eMail Address

Business Phone:(\*)

- -

Alternate 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:(\*)

- -

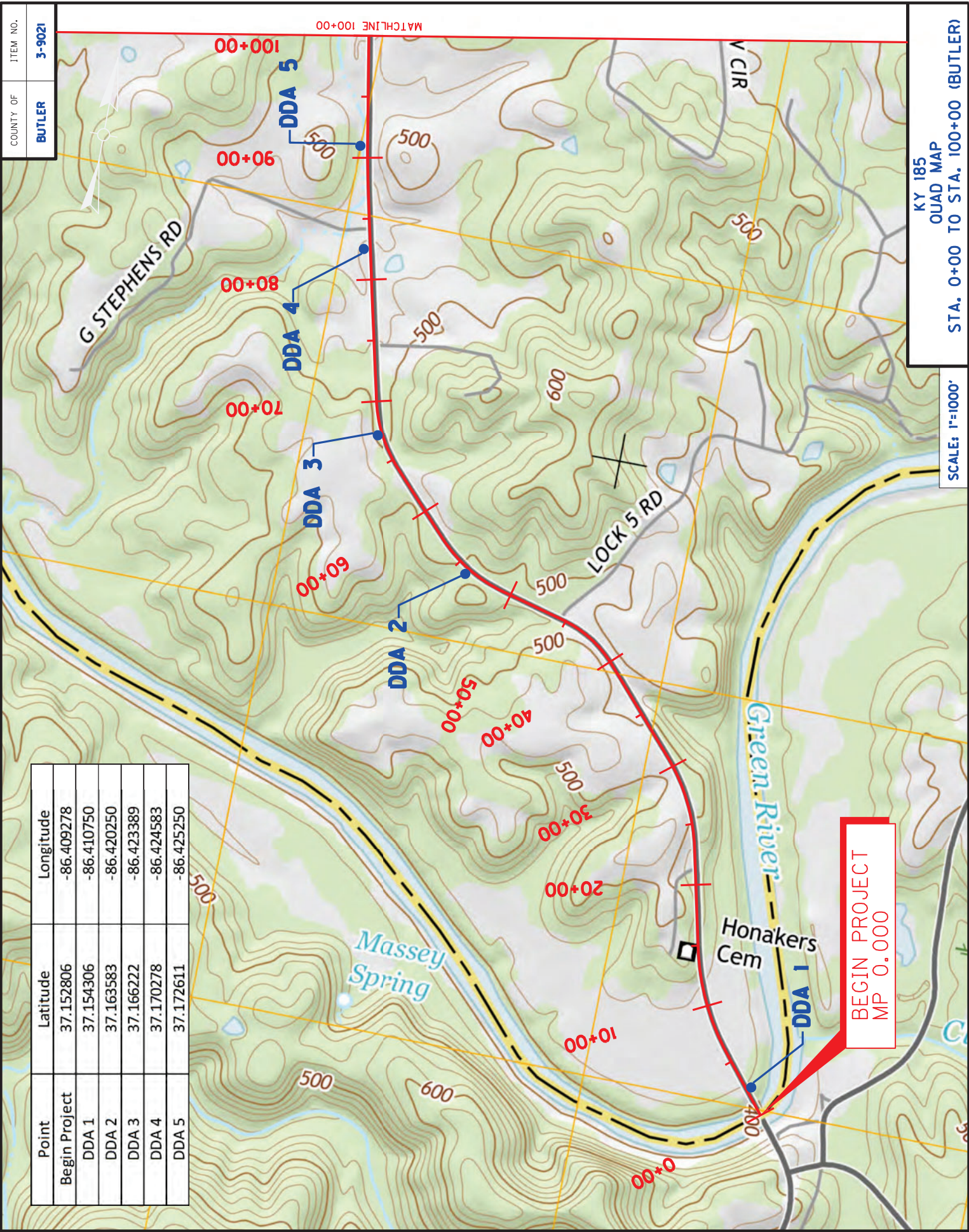
Alternate Phone:

- -

Signature Date:(\*)

Date

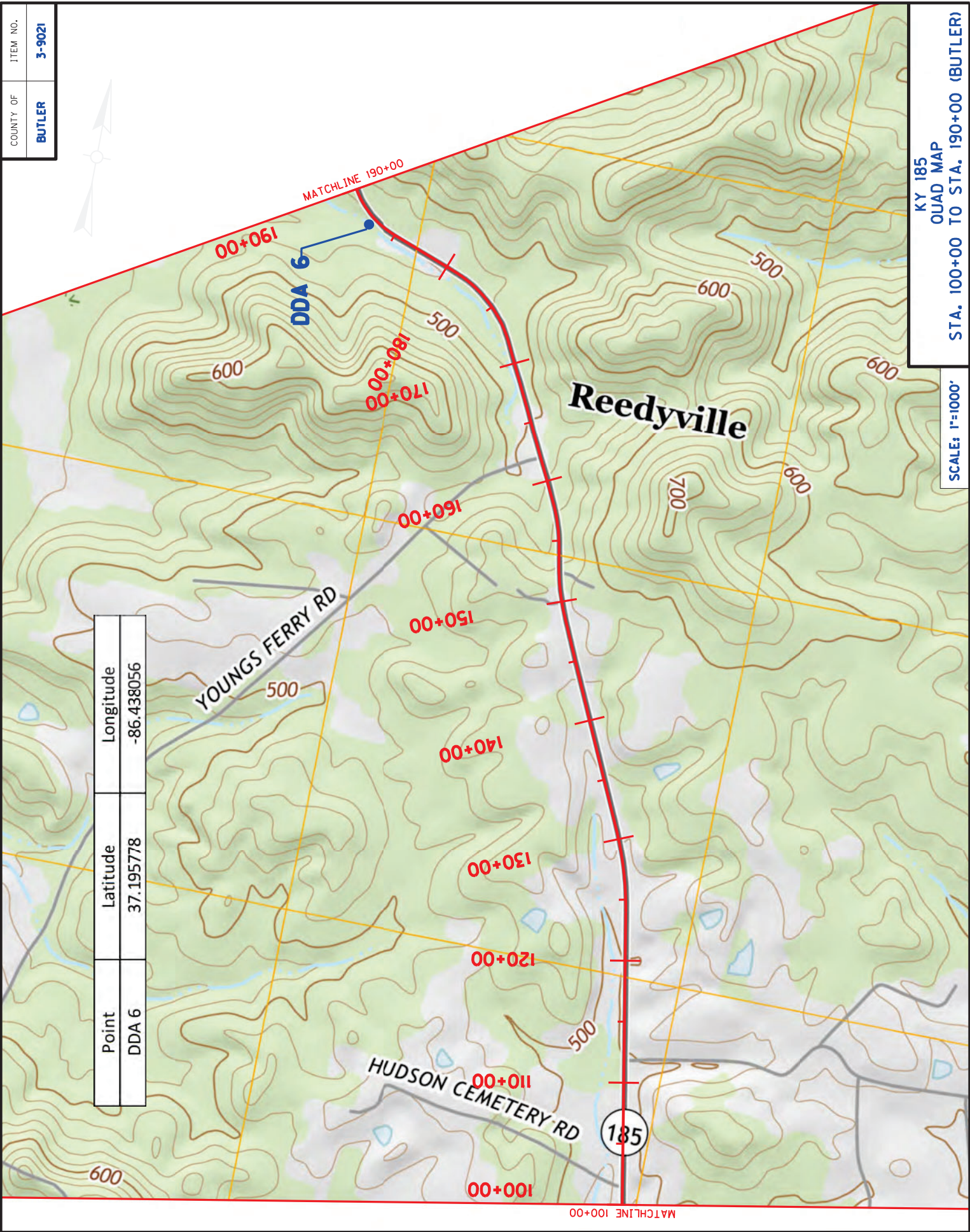




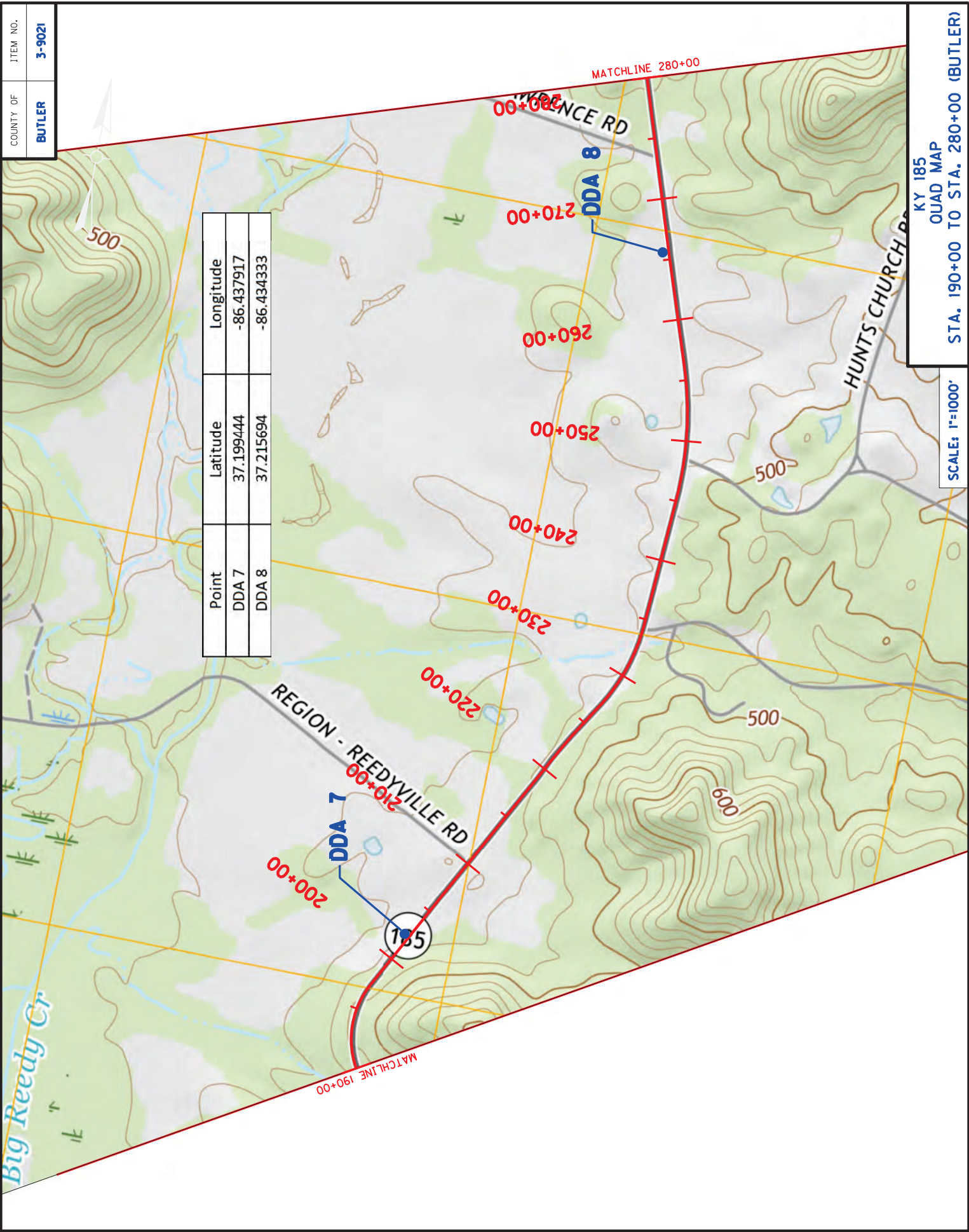
KY 185  
QUAD MAP  
STA. 0+00 TO STA. 100+00 (BUTLER)

SCALE: 1"=1000'



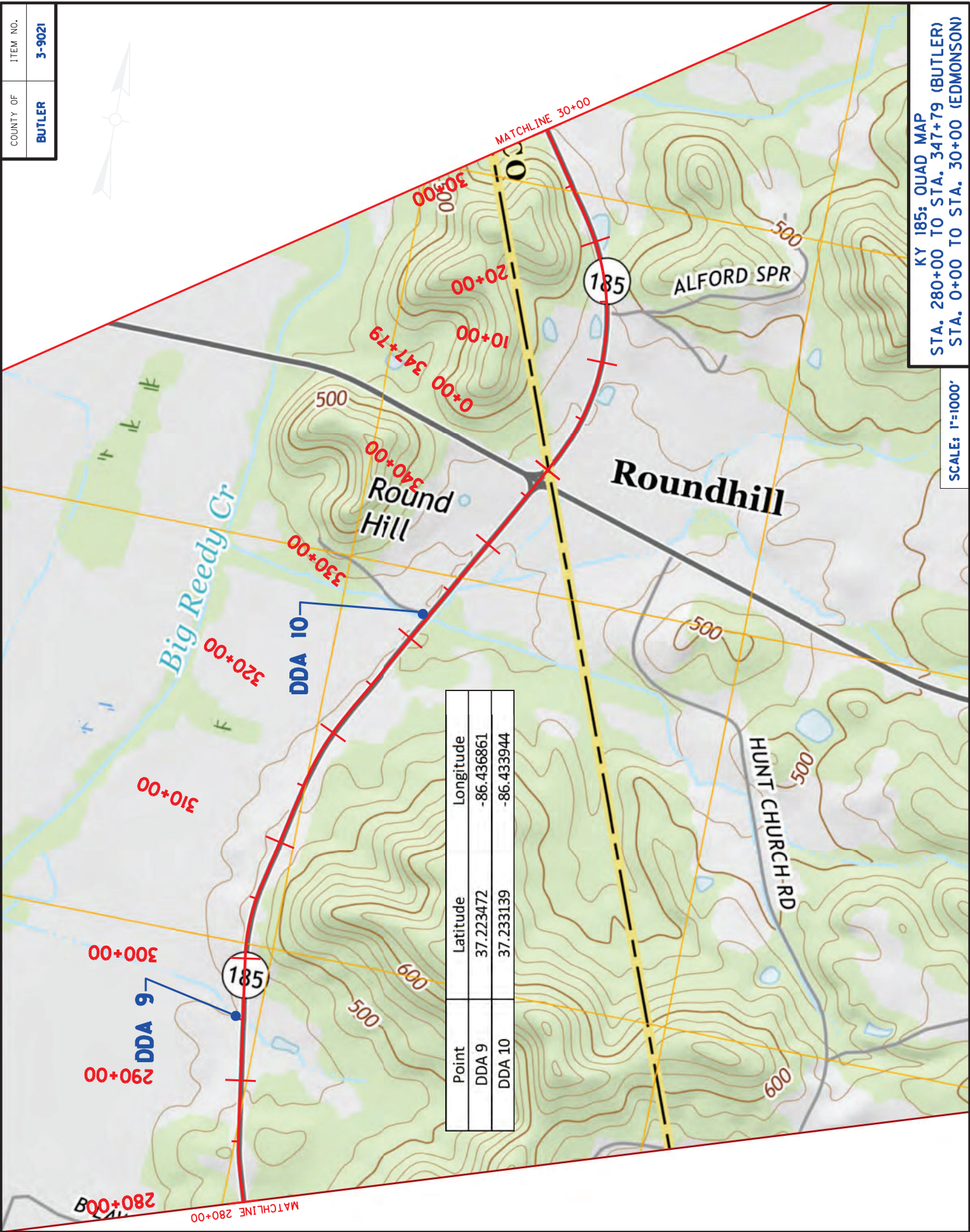




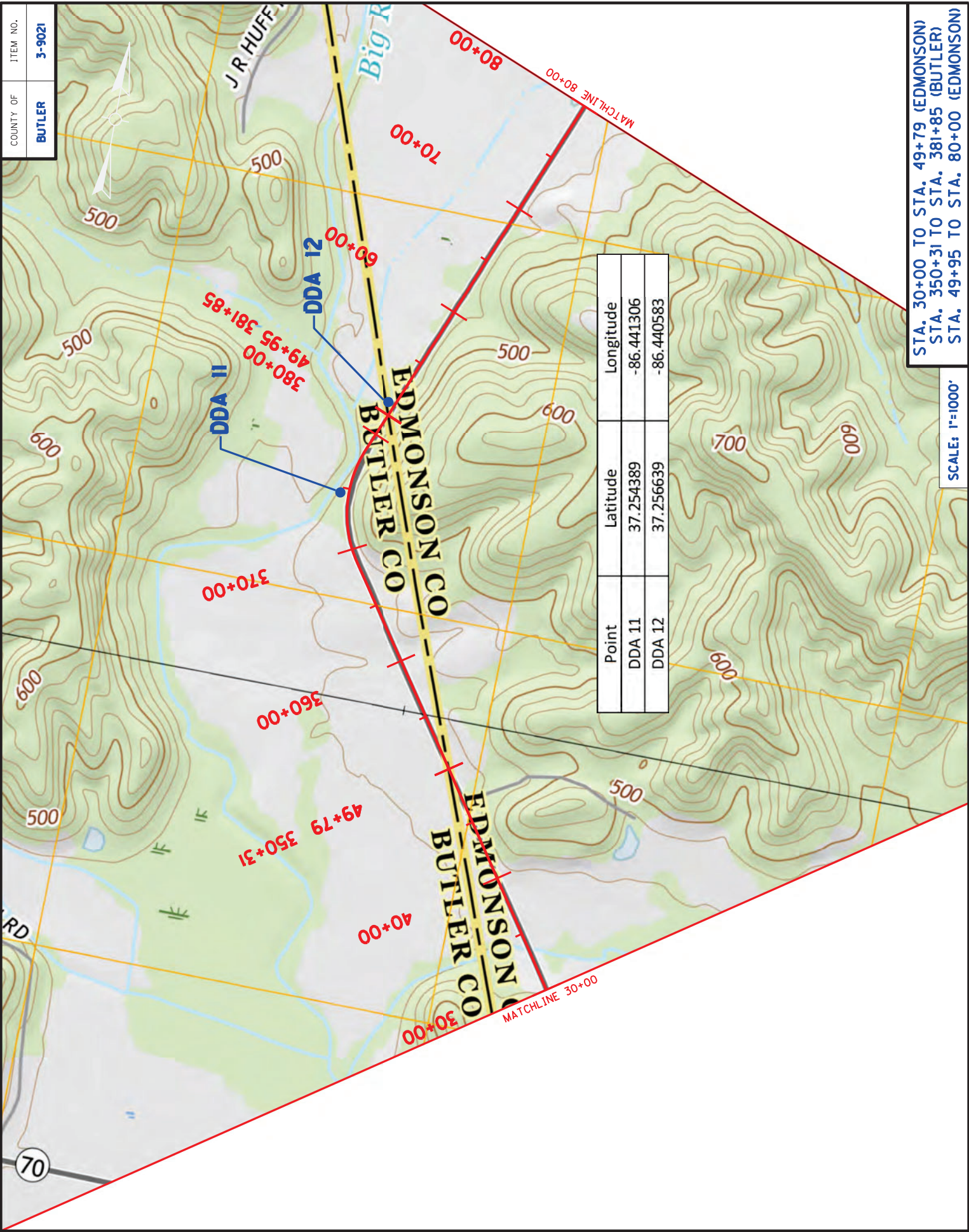


COUNTY OF	BUTLER
ITEM NO.	3-9021



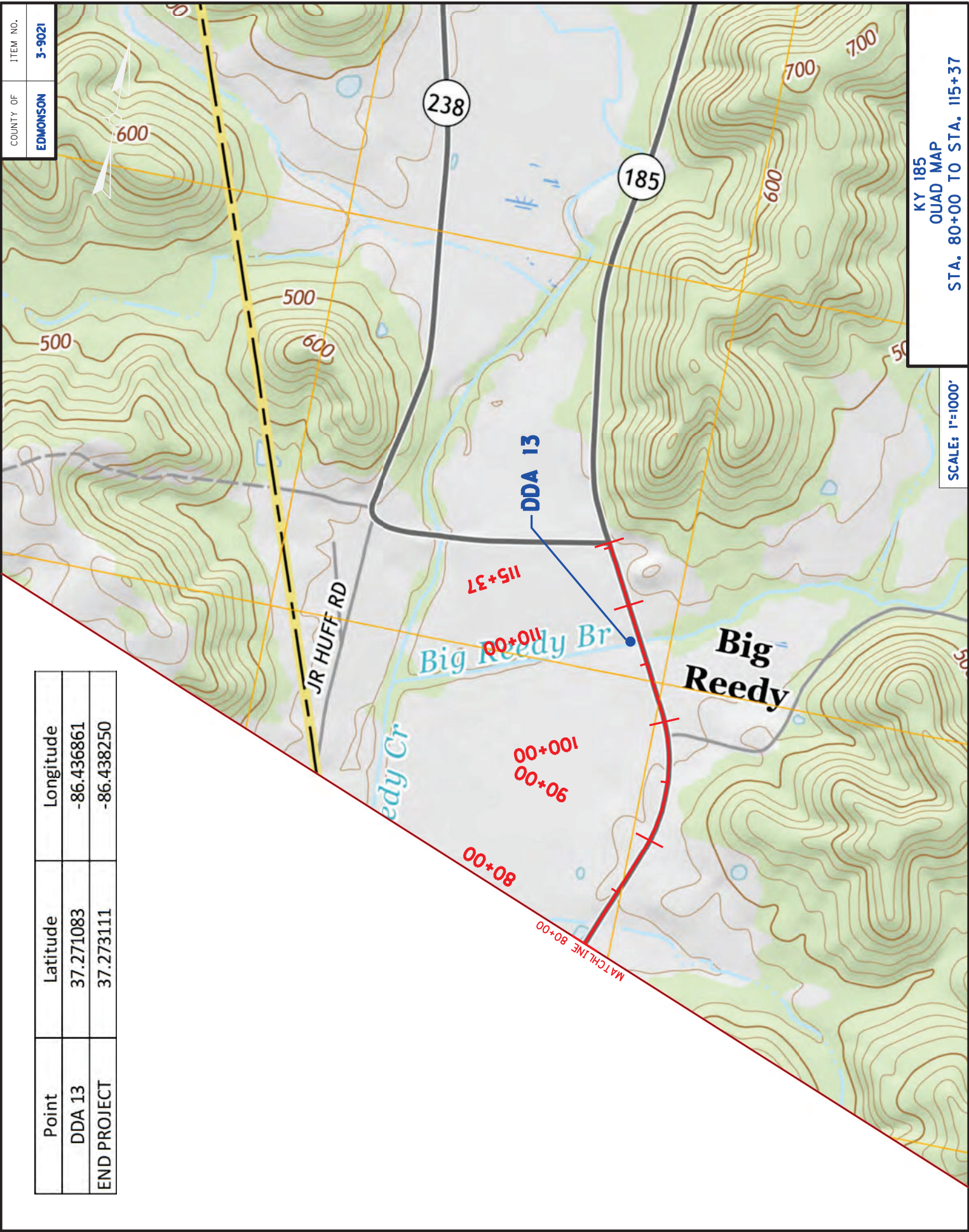






STA. 30+00 TO STA. 49+79 (EDMONSON)  
STA. 350+31 TO STA. 381+85 (BUTLER)  
STA. 49+95 TO STA. 80+00 (EDMONSON)



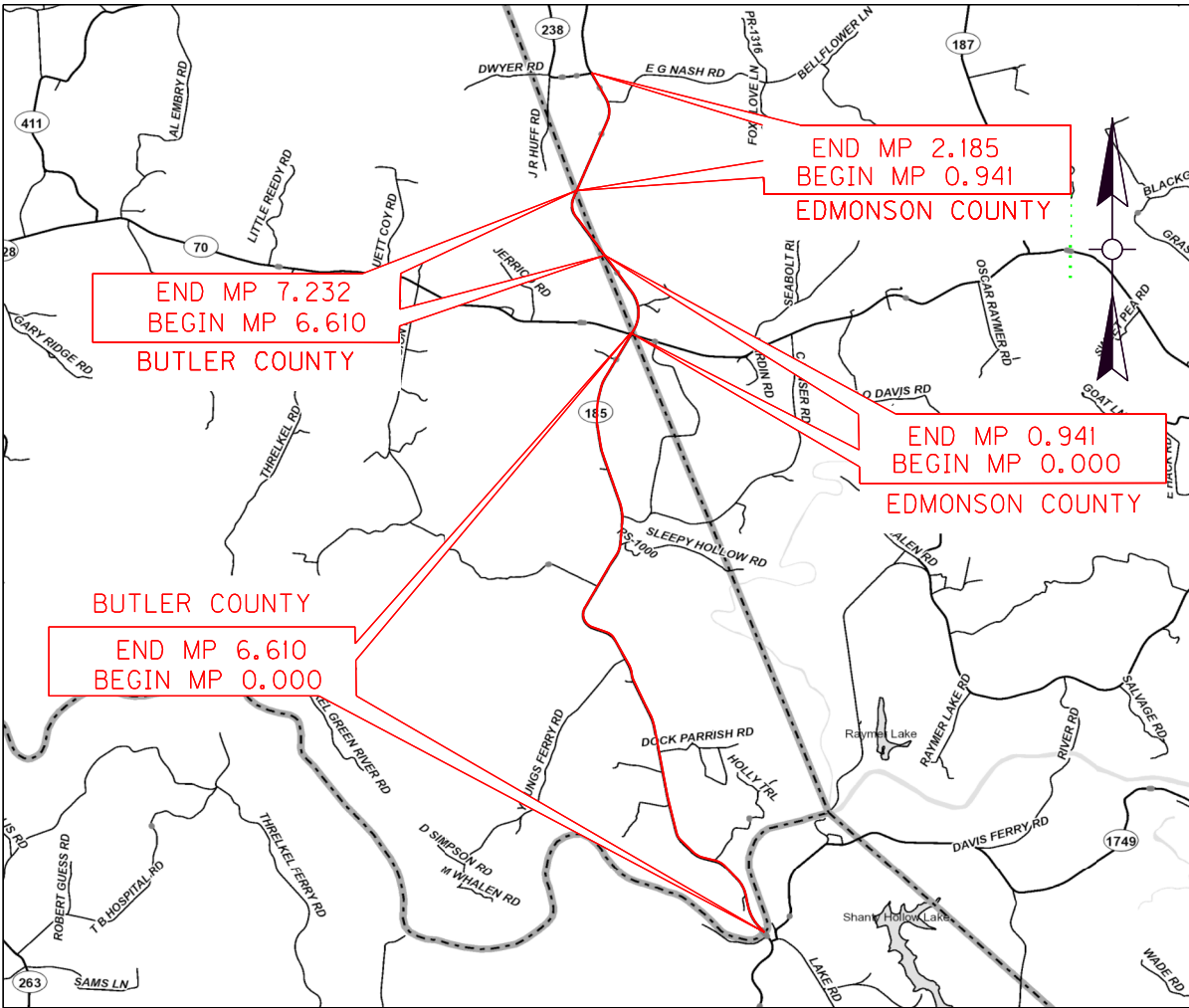


Point	Latitude	Longitude
DDA 13	37.271083	-86.436861
END PROJECT	37.273111	-86.438250

KY 185  
QUAD MAP  
STA. 80+00 TO STA. 115+37

SCALE: 1"=1000'

COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021.00

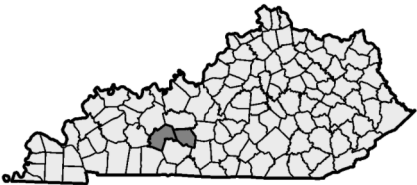


BUTLER COUNTY: 7.232 MILES  
EDMONSON COUNTY: 2.185 MILES  
PROJECT TOTAL: 9.417 MILES

SCALE: NTS

**BUTLER & EDMONSON  
COUNTY  
KY 185**

PROJECT \_\_\_\_\_  
NUMBERS: \_\_\_\_\_



MATERIAL SUMMARY

CONTRACT ID: 254504

HSIP 5074(009)

0301601852501

REEDYVILLE RD (KY 185) FROM BRIDGE OVER GREEN RIVER TO THE EDMONSON COUNTY LINE 115 FEET NORTH OF THE INTERSECTION WITH KY 70 AND 0.943 MILES NORTH OF KY 70 TO THE EDMONSON COUNTY LINE ASPHALT PAVEMENT & ROADWAY REHAB, A DISTANCE OF 7.23 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0005	00001	DGA BASE	872.00	TON
0010	00100	ASPHALT SEAL AGGREGATE	92.00	TON
0015	00103	ASPHALT SEAL COAT	11.00	TON
0020	00190	LEVELING & WEDGING PG64-22	1,039.00	TON
0025	00356	ASPHALT MATERIAL FOR TACK	37.00	TON
0030	02677	ASPHALT PAVE MILLING & TEXTURING	622.00	TON
0035	03240	BASE FAILURE REPAIR	1,322.00	SQYD
0040	21653ES403	CL2 ASPH SURF NO.4D PG64-22	4,954.00	TON
0045	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	117.00	EACH
0050	02230	EMBANKMENT IN PLACE	6,737.00	CUYD
0055	02355	GUARDRAIL-STEEL W BEAM-S FACE A	100.00	LF
0060	02360	GUARDRAIL TERMINAL SECTION NO 1	16.00	EACH
0065	02367	GUARDRAIL END TREATMENT TYPE 1	4.00	EACH
0070	02369	GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH
0075	02381	REMOVE GUARDRAIL	5,034.00	LF
0080	02391	GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH
0085	02483	CHANNEL LINING CLASS II	603.00	TON
0090	02602	FABRIC-GEOTEXTILE CLASS 1	35.00	SQYD
0095	02650	MAINTAIN & CONTROL TRAFFIC - BUTLER KY 185 HSIP	1.00	LS
0100	02671	PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH
0105	02676	MOBILIZATION FOR MILL & TEXT - BUTLER KY 185 HSIP	1.00	LS
0110	02690	SAFELOADING	13.50	CUYD
0115	02697	EDGE LINE RUMBLE STRIPS	69,558.00	LF
0120	02701	TEMP SILT FENCE	19,607.00	LF
0125	02703	SILT TRAP TYPE A	6.00	EACH
0130	02704	SILT TRAP TYPE B	53.00	EACH
0135	02706	CLEAN SILT TRAP TYPE A	6.00	EACH
0140	02707	CLEAN SILT TRAP TYPE B	53.00	EACH
0145	02726	STAKING - BUTLER KY 185 HSIP	1.00	LS
0150	03269	TRIM & REMOVE TREES & BRUSH	3,230.00	LF
0155	05950	EROSION CONTROL BLANKET	17,825.00	SQYD
0160	05963	INITIAL FERTILIZER	2.00	TON
0165	05985	SEEDING AND PROTECTION	41,928.00	SQYD
0170	06510	PAVE STRIPING-TEMP PAINT-4 IN	14,531.00	LF
0175	06542	PAVE STRIPING-THERMO-6 IN W	71,853.00	LF
0180	06543	PAVE STRIPING-THERMO-6 IN Y	71,853.00	LF
0185	06546	PAVE STRIPING-THERMO-12 IN W	60.00	LF
0190	08003	FOUNDATION PREPARATION - BUTLER KY 185 HSIP	1.00	LS
0195	08100	CONCRETE-CLASS A	163.00	CUYD
0200	08150	STEEL REINFORCEMENT	15,290.00	LB
0205	08805	GUARDRAIL-BRIDGE CASE I	100.00	LF
0210	10020NS	FUEL ADJUSTMENT	12,894.00	DOLL
0215	10030NS	ASPHALT ADJUSTMENT	23,430.00	DOLL



MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0220	20191ED	OBJECT MARKER TY 3	5.00	EACH
0225	21134ND	REMOVE-STORE AND REINSTALL SIGN	21.00	EACH
0230	21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	5,339.00	LF
0235	26248EC	ELECTRONIC DELIVERY MGMT SYSTEM - AGG	1.00	LS
0240	00440	ENTRANCE PIPE-15 IN	30.00	LF
0245	00462	CULVERT PIPE-18 IN	64.00	LF
0250	00464	CULVERT PIPE-24 IN	254.00	LF
0255	00466	CULVERT PIPE-30 IN	48.00	LF
0260	00469	CULVERT PIPE-42 IN	18.00	LF
0265	01210	PIPE CULVERT HEADWALL-30 IN	1.00	EACH
0270	01310	REMOVE PIPE	148.00	LF
0275	01381	METAL END SECTION TY 2-18 IN	1.00	EACH
0280	01585	REMOVE DROP BOX INLET	2.00	EACH
0285	01727	SAFETY BOX INLET-24 IN SDB-1	2.00	EACH
0290	01729	SAFETY BOX INLET-24 IN DBL SDB-5	2.00	EACH
0295	02625	REMOVE HEADWALL	31.00	EACH
0300	03262	CLEAN PIPE STRUCTURE	4.00	EACH
0305	24814EC	PIPELINE INSPECTION	727.00	LF
0310	26131ED	SLOPED AND MITERED HEADWALL-18 IN	4.00	EACH
0315	26132ED	SLOPED AND MITERED HEADWALL-24 IN	15.00	EACH
0320	26133ED	SLOPED AND MITERED HEADWALL-30 IN	3.00	EACH
0325	26135ED	SLOPED AND MITERED HEADWALL-42 IN	1.00	EACH
0330	02569	DEMOBILIZATION	1.00	LS

CONTRACT ID: 254504

HSIP 5074(009)

0303101852501

REEDYVILLE RD (KY 185) FROM BUTLER COUNTY LINE 115 FEET NORTH OF KY 70 TO 0.943 MILES NORTH OF KY 70 AND FROM BUTLER COUNTY LINE 1.239 MILES SOUTH OF KY 238 TO KY 238 ASPHALT PAVEMENT & ROADWAY REHAB, A DISTANCE OF 2.18 MILES.

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0335	00001	DGA BASE	340.00	TON
0340	00100	ASPHALT SEAL AGGREGATE	37.00	TON
0345	00103	ASPHALT SEAL COAT	4.00	TON
0350	00190	LEVELING & WEDGING PG64-22	3.00	TON
0355	00356	ASPHALT MATERIAL FOR TACK	11.00	TON
0360	02677	ASPHALT PAVE MILLING & TEXTURING	13.00	TON
0365	03240	BASE FAILURE REPAIR	28.00	SQYD
0370	21653ES403	CL2 ASPH SURF NO.4D PG64-22	1,494.00	TON
0375	01987	DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	36.00	EACH
0380	02230	EMBANKMENT IN PLACE	1,284.00	CUYD
0385	02259	FENCE-TEMP	589.00	LF
0390	02268	REMOVE & REPLACE FENCE	589.00	LF
0395	02360	GUARDRAIL TERMINAL SECTION NO 1	4.00	EACH
0400	02381	REMOVE GUARDRAIL	1,711.00	LF
0405	02483	CHANNEL LINING CLASS II	351.00	TON
0410	02602	FABRIC-GEOTEXTILE CLASS 1	19.00	SQYD
0415	02625	REMOVE HEADWALL	23.00	EACH

MATERIAL SUMMARY

Project Line No	Bid Code	DESCRIPTION	Quantity	Unit
0420	02676	MOBILIZATION FOR MILL & TEXT - EDMONSON KY 185 HSIP	1.00	LS
0425	02690	SAFELOADING	2.20	CUYD
0430	02697	EDGE LINE RUMBLE STRIPS	23,041.00	LF
0435	02701	TEMP SILT FENCE	3,159.00	LF
0440	02703	SILT TRAP TYPE A	5.00	EACH
0445	02704	SILT TRAP TYPE B	15.00	EACH
0450	02706	CLEAN SILT TRAP TYPE A	5.00	EACH
0455	02707	CLEAN SILT TRAP TYPE B	15.00	EACH
0460	03269	TRIM & REMOVE TREES & BRUSH	535.00	LF
0465	05950	EROSION CONTROL BLANKET	5,127.00	SQYD
0470	05963	INITIAL FERTILIZER	1.00	TON
0475	05985	SEEDING AND PROTECTION	5,660.00	SQYD
0480	06542	PAVE STRIPING-THERMO-6 IN W	23,074.00	LF
0485	06543	PAVE STRIPING-THERMO-6 IN Y	23,074.00	LF
0490	08003	FOUNDATION PREPARATION - EDMONSON KY 185 HSIP	1.00	LS
0495	08100	CONCRETE-CLASS A	164.10	CUYD
0500	08150	STEEL REINFORCEMENT	17,917.00	LB
0505	10020NS	FUEL ADJUSTMENT	2,330.00	DOLL
0510	10030NS	ASPHALT ADJUSTMENT	5,853.00	DOLL
0515	21134ND	REMOVE-STORE AND REINSTALL SIGN	5.00	EACH
0520	21802EN	G/R STEEL W BEAM-S FACE (7 FT POST)	1,740.00	LF
0525	26248EC	ELECTRONIC DELIVERY MGMT SYSTEM - AGG	1.00	LS
0530	00440	ENTRANCE PIPE-15 IN	24.00	LF
0535	00462	CULVERT PIPE-18 IN	180.00	LF
0540	00464	CULVERT PIPE-24 IN	27.00	LF
0545	01204	PIPE CULVERT HEADWALL-18 IN	1.00	EACH
0550	01310	REMOVE PIPE	128.00	LF
0555	01726	SAFETY BOX INLET-18 IN SDB-1	4.00	EACH
0560	01728	SAFETY BOX INLET-18 IN DBL SDB-5	2.00	EACH
0565	01729	SAFETY BOX INLET-24 IN DBL SDB-5	1.00	EACH
0570	03262	CLEAN PIPE STRUCTURE	1.00	EACH
0575	26131ED	SLOPED AND MITERED HEADWALL-18 IN	10.00	EACH
0580	26132ED	SLOPED AND MITERED HEADWALL-24 IN	2.00	EACH
0585	02569	DEMOBILIZATION	1.00	LS



GENERAL SUMMARY

COUNTY OF	ITEM NO.
BUTLER	3-9021.00

ITEM	DESCRIPTION	UNIT	TOTAL PROJECT
00001	DGA BASE ①⑤⑦	TON	872
00100	ASPHALT SEAL AGGREGATE ①⑤	TON	92
00103	ASPHALT SEAL COAT ①⑤	TON	11
00190	LEVELING & WEDGING PG64-22 ③④	TON	1,039
00356	ASPHALT MATERIAL FOR TACK ④	TON	37
00440	ENTRANCE PIPE - 15 IN ⑦	LF	30
00462	CULVERT PIPE-18 IN ①②	LF	64
00464	CULVERT PIPE-24 IN ②	LF	254
00466	CULVERT PIPE-30 IN ②	LF	48
00469	CULVERT PIPE-42 IN ②	LF	18
01210	PIPE CULVERT HEADWALL-30 IN ②	EACH	1
01310	REMOVE PIPE ②	LF	148
01381	METAL END SECTION TY 2-18 IN ①	EACH	1
01585	REMOVE DROP BOX INLET ②	EACH	2
01727	SAFETY BOX INLET-24 IN SDB-1 ②	EACH	2
01729	SAFETY BOX INLET-24 IN DBL SDB-5 ②	EACH	2
01987	DELINEATOR FOR GUARDRAIL B/W ①	EACH	117
02230	EMBANKMENT IN PLACE ⑤	CU YD	6,737
02355	GUARDRAIL-STEEL W BEAM-S FACE A ①	LF	100
02360	GUARDRAIL TERMINAL SECTION NO 1 ①	EACH	16
02367	GUARDRAIL END TREATMENT TYPE 1 ①	EACH	4
02369	GUARDRAIL END TREATMENT TYPE 2A ①	EACH	1
02381	REMOVE GUARDRAIL ①	LF	5,034
02391	GUARDRAIL END TREATMENT TYPE 4A ①	EACH	1
02483	CHANNEL LINING CLASS II ②⑤⑩	TON	603
02569	DEMOBILIZATION	LS	1
02602	FABRIC-GEOTEXTILE CLASS I ⑤	SQ YD	35
02625	REMOVE HEADWALL ②⑨	EACH	31
02650	MAINTAIN & CONTROL TRAFFIC ⑫	LS	1
02671	PORTABLE CHANGEABLE MESSAGE SIGN ⑫	EACH	4
02676	MOBILIZATION FOR MILL & TEXT ④	LS	1
02677	ASPHALT PAVE MILLING & TEXTURING ③④	TON	622
02690	SAFEOLOADING ②	CU YD	13.5
02697	EDGE LINE RUMBLE STRIPS ④	LF	69,558
02701	TEMP SILT FENCE	LF	19,607
02703	SILT TRAP TYPE A	EACH	6
02704	SILT TRAP TYPE B	EACH	53
02706	CLEAN SILT TRAP TYPE A	EACH	6
02707	CLEAN SILT TRAP TYPE B	EACH	53
02726	STAKING ⑫	LS	1
03240	BASE FAILURE REPAIR ④	SQ YD	1,322

① QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY

② QUANTITY CARRIED OVER FROM PIPE DRAINAGE SUMMARY

③ QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY

④ QUANTITY CARRIED OVER FROM PAVING SUMMARY

⑤ QUANTITY CARRIED OVER FROM ROADSIDE REGRADING SUMMARY

⑥ QUANTITY CARRIED OVER FROM STRIPING SUMMARY

⑦ QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY

⑧ QUANTITY CARRIED OVER FROM TREE TRIMMING SUMMARY

⑨ QUANTITY CARRIED OVER FROM RCBC EXTENSION SUMMARY

⑩ INCLUDES 100 ADDITIONAL TONS FOR USE AS DIRECTED BY ENGINEER

⑪ FOR USE AS DIRECTED BY THE ENGINEER

⑫ INCLUDES EDMONSON COUNTY

⑬ INCLUDES 472 SY FROM TREE TRIMMING SUMMARY

⑭ QUANTITY CARRIED OVER FROM TEMP. FENCE & FENCE REPLACE. SUMMARY

KY 185  
GENERAL SUMMARY  
BUTLER COUNTY

COUNTY OF	ITEM NO.
BUTLER	3-9021.00

① QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY	⑩ INCLUDES 100 ADDITIONAL TONS FOR USE AS DIRECTED BY ENGINEER
② QUANTITY CARRIED OVER FROM PIPE DRAINAGE SUMMARY	⑪ FOR USE AS DIRECTED BY THE ENGINEER
③ QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY	⑫ INCLUDES EDMONSON COUNTY
④ QUANTITY CARRIED OVER FROM PAVING SUMMARY	⑬ INCLUDES 472 SY FROM TREE TRIMMING SUMMARY
⑤ QUANTITY CARRIED OVER FROM ROADSIDE REGRADING SUMMARY	⑭ QUANTITY CARRIED OVER FROM TEMP. FENCE & FENCE REPLACE. SUMMARY
⑥ QUANTITY CARRIED OVER FROM STRIPING SUMMARY	
⑦ QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY	
⑧ QUANTITY CARRIED OVER FROM TREE TRIMMING SUMMARY	
⑨ QUANTITY CARRIED OVER FROM RCBC EXTENSION SUMMARY	

KY 185  
 GENERAL SUMMARY  
 BUTLER COUNTY

KY 185  
GENERAL SUMMARY  
BUTLER COUNTY

GENERAL SUMMARY				COUNTY OF	ITEM NO.
				EDMONSON	3-9021.00
ITEM	DESCRIPTION	UNIT	TOTAL PROJECT		
00001	DGA BASE ①⑤	TON	340		
00100	ASPHALT SEAL AGGREGATE ①⑤	TON	37		
00103	ASPHALT SEAL COAT ①⑤	TON	4		
00190	LEVELING & WEDGING PG64-22 ④	TON	3		
00356	ASPHALT MATERIAL FOR TACK ④	TON	11		
00440	ENTRANCE PIPE-15 IN ②	LF	24		
00462	CULVERT PIPE-18 IN ②	LF	180		
00464	CULVERT PIPE-24 IN ②	LF	27		
01204	PIPE CULVERT HEADWALL-18 IN ②	EACH	1		
01310	REMOVE PIPE ②	LF	128		
01726	SAFETY BOX INLET-18 IN SDB-1 ②	EACH	4		
01728	SAFETY BOX INLET-18 IN DBL SDB-5 ②	EACH	2		
01729	SAFETY BOX INLET-24 IN DBL SDB-5 ②	EACH	1		
01987	DELINEATOR FOR GUARDRAIL B/W ①	EACH	36		
02268	EMBANKMENT IN PLACE ⑤	CUYD	1,284		
02259	FENCE-TEMP ⑭	LF	589		
02268	REMOVE & REPLACE FENCE ⑭	LF	589		
02360	GUARDRAIL TERMINAL SECTION NO 1 ①	EACH	4		
02381	REMOVE GUARDRAIL ①	LF	1,711		
02483	CHANNEL LINING CLASS II ②⑤⑩	TON	351		
02569	DEMobilIZATION	LS	1		
02602	FABRIC-GEOTEXTILE CLASS I ⑤	SQ YD	19		
02625	REMOVE HEADWALL ②⑨	EACH	23		
02676	MOBILIZATION FOR MILL & TEXT ④	LS	1		
02677	ASPHALT PAVE MILLING & TEXTURING ④	TON	13		
02690	SAFELOADING ②	CU YD	2.2		
02697	EDGE LINE RUMBLE STRIPS ④	LF	23,041		
02701	TEMP SILT FENCE	LF	3,159		
02703	SILT TRAP TYPE A	EACH	5		
02704	SILT TRAP TYPE B	EACH	15		
02706	CLEAN SILT TRAP TYPE A	EACH	5		
02707	CLEAN SILT TRAP TYPE B	EACH	15		
03240	BASE FAILURE REPAIR ④	SQ YD	28		
03262	CLEAN PIPE STRUCTURE ②	EACH	1		
03269	TRIM & REMOVE TREES & BRUSH ⑧	LF	535		
05950	EROSION CONTROL BLANKET	SQ YD	5,127		
05963	INITIAL FERTILIZER	TON	1		
05985	SEEDING AND PROTECTION	SOYD	5,660		
06542	PAVE STRIPING-THERMO-6 IN W ⑥	LF	23,074		
06543	PAVE STRIPING-THERMO-6 IN Y ⑥	LF	23,074		
				KY 185 GENERAL SUMMARY EDMONSON COUNTY	
① QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY					
② QUANTITY CARRIED OVER FROM PIPE DRAINAGE SUMMARY					
③ QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY					
④ QUANTITY CARRIED OVER FROM PAVING SUMMARY					
⑤ QUANTITY CARRIED OVER FROM ROADSIDE REGRAIDING SUMMARY					
⑥ QUANTITY CARRIED OVER FROM STRIPING SUMMARY					
⑦ QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY					
⑧ QUANTITY CARRIED OVER FROM TREE TRIMMING SUMMARY					
⑨ QUANTITY CARRIED OVER FROM RCBC EXTENSION SUMMARY					
⑩ INCLUDES 100 ADDITIONAL TONS FOR USE AS DIRECTED BY ENGINEER					
⑪ FOR USE AS DIRECTED BY THE ENGINEER					
⑫ INCLUDES EDMONSON COUNTY					
⑬ INCLUDES 472 SY FROM TREE TRIMMING SUMMARY					
⑭ QUANTITY CARRIED OVER FROM TEMP. FENCE & FENCE REPLACE. SUMMARY					

COUNTY OF	ITEM NO.
EDMONSON	3-9021.00

① QUANTITY CARRIED OVER FROM GUARDRAIL SUMMARY	⑩ INCLUDES 100 ADDITIONAL TONS FOR USE AS DIRECTED BY ENGINEER
② QUANTITY CARRIED OVER FROM PIPE DRAINAGE SUMMARY	⑪ FOR USE AS DIRECTED BY THE ENGINEER
③ QUANTITY CARRIED OVER FROM SUPERELEVATION IMPROVEMENT SUMMARY	⑫ INCLUDES EDMONSON COUNTY
④ QUANTITY CARRIED OVER FROM PAVING SUMMARY	⑬ INCLUDES 472 SY FROM TREE TRIMMING SUMMARY
⑤ QUANTITY CARRIED OVER FROM ROADSIDE REGRADE SUMMARY	⑭ QUANTITY CARRIED OVER FROM TEMP. FENCE & FENCE REPLACE. SUMMARY
⑥ QUANTITY CARRIED OVER FROM STRIPING SUMMARY	
⑦ QUANTITY CARRIED OVER FROM ENTRANCE SUMMARY	
⑧ QUANTITY CARRIED OVER FROM TREE TRIMMING SUMMARY	
⑨ QUANTITY CARRIED OVER FROM RCBC EXTENSION SUMMARY	

KY 185  
 GENERAL SUMMARY  
 EDMONSON COUNTY

GUARDRAIL SUMMARY

Guardrail Summary										Butler & Edmonson County										Route: KY 185																			
Notes: Begin/End Milepoints are estimated to include the entire length of the Rail AND the End Treatments. The Engineer may adjust the proposed guardrail termini to ensure proper installation of the guardrail system.																																							
Proposed Guardrail to be Constructed															Existing Guardrail to be Removed																								
Side of Road	Proposed BEGINNING Treatment	Approx. BEGIN Milepoint	Approx. END Milepoint	Approx. Station	Proposed ENDING Treatment	Proposed Length (LF)	Number of Radius	Rail	Remarks	Side of Road	Approx. BEGIN Milepoint	Approx. BEGIN Station	Approx. END Milepoint	Approx. END Station	Existing Length (LF)																								
BUTLER COUNTY																																							
RT	Single Face A	2+24	0.042	11+65	0.221	Terminal Section 1		1	Retrofit to tie down at bridge *see D&S tab for building up shoulder	RT	2+24		0.042	11+65	941																								
RT	Terminal Section 1	11+87	0.225	16+43	0.311	Type 4A		1		RT	11+87		0.225	16+43	456																								
RT	Type 1	18+00	0.341	24+81	0.470	Type 1		1		RT	18+30		0.347	24+68	638																								
RT		31+78	0.602	36+53	0.692	Terminal Section 1		1	Connect to existing Ty 1 ET *see D&S tab for building up shoulder	RT	31+78		0.602	36+53	475																								
RT	Terminal Section 1	108+91	2.063	111+62	2.114	Terminal Section 1		2		RT	108+91		2.063	111+62	271																								
RT	Type 1	330+00	6.250	331+53	6.279	Terminal Section 1		1					0.000	0.000	0																								
RT	Terminal Section 1	331+74	6.283	331+85	6.285			1	At ending, connect to Guardrail-Bridge Case I				0.000	0.000	0																								
RT		331+85	6.285	332+27	6.293				Guardrail-Bridge Case I				0.000	0.000	0																								
RT	Single Face A	332+27	6.293	334+27	6.331	Terminal Section 1		1	At beginning, install 25 LF of Single Face A and connect to Guardrail-Bridge Case I				0.000	0.000	0																								
EDMONSON COUNTY																																							
LT	Single Face A	2+23	0.042	11+72	0.222	Terminal Section 1		1	Retrofit to tie down at bridge *see D&S tab for building up shoulder	LT	2+23		0.042	11+72	949																								
LT	Terminal Section 1	11+84	0.224	14+34	0.272	Type 2A		2		LT	11+84		0.224	14+34	250																								
LT	Type 1	109+03	2.065	111+63	2.114	Terminal Section 1		1		LT	109+03		2.065	111+63	260																								
LT	Terminal Section 1	112+45	2.130	119+67	2.266			2	Connect to existing Ty 1 ET	LT	112+45		2.130	119+67	722																								
LT	Terminal Section 1	329+75	6.245	331+35	6.276	Terminal Section 1		2					0.000	0.000	0																								
LT	Terminal Section 1	331+50	6.278	331+75	6.283	Single Face A		1	At ending, Install 25 LF of Single Face A and connect to Guardrail-Bridge Case I	LT	331+49		6.278	332+21	72																								
LT		331+75	6.283	332+16	6.291			0	Guardrail-Bridge Case I				0.000	0.000	0																								
LT		332+16	6.291	332+28	6.293	Terminal Section 1		1	At beginning, connect to Guardrail-Bridge Case I				0.000	0.000	0																								
BUTLER COUNTY TOTALS :															EDMONSON COUNTY TOTALS :															5,034									
RT	Terminal Section 1	30+68	0.581	39+69	0.752	Terminal Section 1		2	*see D&S tab for building up shoulder	RT	30+68		0.581	39+69	901																								
LT	Terminal Section 1	31+83	0.603	39+93	0.756	Terminal Section 1		2	*see D&S tab for building up shoulder	LT	31+83		0.603	39+93	810																								
EDMONSON COUNTY TOTALS:															1,711.00																								

BUTLER COUNTY										EDMONSON COUNTY									
ITEM	DESCRIPTION	UNIT	QUANTITY	ITEM	DESCRIPTION	UNIT	QUANTITY	ITEM	DESCRIPTION	UNIT	QUANTITY	ITEM	DESCRIPTION	UNIT	QUANTITY	ITEM	DESCRIPTION	UNIT	QUANTITY
1	DGA	TON	452	1	DGA	TON	134	1	DGA	TON	134	1	DGA	TON	134	1	DGA	TON	134
100	ASPHALT SEAL AGGREGATE	TON	48	100	ASPHALT SEAL AGGREGATE	TON	15	100	ASPHALT SEAL AGGREGATE	TON	15	100	ASPHALT SEAL AGGREGATE	TON	15	100	ASPHALT SEAL AGGREGATE	TON	15
103	ASPHALT SEAL COAT	TON	6	103	ASPHALT SEAL COAT	TON	2	103	ASPHALT SEAL COAT	TON	2	103	ASPHALT SEAL COAT	TON	2	103	ASPHALT SEAL COAT	TON	2
462	CULVERT PIPE-18 IN	LF	25	462	CULVERT PIPE-18 IN	LF	25	462	CULVERT PIPE-18 IN	LF	25	462	CULVERT PIPE-18 IN	LF	25	462	CULVERT PIPE-18 IN	LF	25
1381	METAL END SECTION TY 2-18 IN	EACH	1	1381	METAL END SECTION TY 2-18 IN	EACH	1	1381	METAL END SECTION TY 2-18 IN	EACH	1	1381	METAL END SECTION TY 2-18 IN	EACH	1	1381	METAL END SECTION TY 2-18 IN	EACH	1
1987	DELINEATOR FOR GUARDRAIL B/W	EACH	117	1987	DELINEATOR FOR GUARDRAIL B/W	EACH	117	1987	DELINEATOR FOR GUARDRAIL B/W	EACH	117	1987	DELINEATOR FOR GUARDRAIL B/W	EACH	117	1987	DELINEATOR FOR GUARDRAIL B/W	EACH	117
2355	GUARDRAIL STEEL W BEAM-S FACE A	LF	100	2355	GUARDRAIL STEEL W BEAM-S FACE A	LF	100	2355	GUARDRAIL STEEL W BEAM-S FACE A	LF	100	2355	GUARDRAIL STEEL W BEAM-S FACE A	LF	100	2355	GUARDRAIL STEEL W BEAM-S FACE A	LF	100
2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	16	2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	16	2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	16	2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	16	2360	GUARDRAIL TERMINAL SECTION NO 1	EACH	16
2367	GUARDRAIL END TREATMENT TYPE 1	EACH	4	2367	GUARDRAIL END TREATMENT TYPE 1	EACH	4	2367	GUARDRAIL END TREATMENT TYPE 1	EACH	4	2367	GUARDRAIL END TREATMENT TYPE 1	EACH	4	2367	GUARDRAIL END TREATMENT TYPE 1	EACH	4
2369	GUARDRAIL END TREATMENT TYPE 2A	EACH	1	2369	GUARDRAIL END TREATMENT TYPE 2A	EACH	1	2369	GUARDRAIL END TREATMENT TYPE 2A	EACH	1	2369	GUARDRAIL END TREATMENT TYPE 2A	EACH	1	2369	GUARDRAIL END TREATMENT TYPE 2A	EACH	1
2381	REMOVE GUARDRAIL	LF	5,034	2381	REMOVE GUARDRAIL	LF	5,034	2381	REMOVE GUARDRAIL	LF	5,034	2381	REMOVE GUARDRAIL	LF	5,034	2381	REMOVE GUARDRAIL	LF	5,034
2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	1	2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	1	2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	1	2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	1	2391	GUARDRAIL END TREATMENT TYPE 4A	EACH	1
8805	GUARDRAIL-BRIDGE CASE I	LF	100	8805	GUARDRAIL-BRIDGE CASE I	LF	100	8805	GUARDRAIL-BRIDGE CASE I	LF	100	8805	GUARDRAIL-BRIDGE CASE I	LF	100	8805	GUARDRAIL-BRIDGE CASE I	LF	100
20191ED	OBJECT MARKER TY 3	EACH	5	20191ED	OBJECT MARKER TY 3	EACH	5	20191ED	OBJECT MARKER TY 3	EACH	5	20191ED	OBJECT MARKER TY 3	EACH	5	20191ED	OBJECT MARKER TY 3	EACH	5
21802EN	G/R STEEL W BEAM-S FACE (7-FT POST)	LF	5,339	21802EN	G/R STEEL W BEAM-S FACE (7-FT POST)	LF	5,339	21802EN	G/R STEEL W BEAM-S FACE (7-FT POST)	LF	5,339	21802EN	G/R STEEL W BEAM-S FACE (7-FT POST)	LF	5,339	21802EN	G/R STEEL W BEAM-S FACE (7-FT POST)	LF	5,339

- NOTES:
- THESE NUMBERS ARE FOR ESTIMATE PURPOSES ONLY. FINAL LOCATIONS AND QUANTITIES WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
  - ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY.

BUTLER  
EDMONSON  
3-9021.00

## EXTEND/REPLACE CULVERT PIPES

EDMONSON COUNTY TOTALS:	128	14	0	24	180	27	0	0	24	1	43	2.2
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ITEM	EDMONSON COUNTY DESCRIPTION	UNIT	QUANTITY
450	ENTRANCE PIPE 1/2 IN	LF	24
451	CULVERT PIPE 18 IN	LF	10
452	CULVERT PIPE 24 IN	LF	27
453	CULVERT PIPE 30 IN	LF	27
454	PIPE CULVERT HEADWALL 18 IN	EACH	1
1204	REMOVE PIPE	LF	128
1205	SAFETY BOX INLET 8 IN SDR-11	EACH	1
1206	SAFETY BOX INLET 12 IN SDR-11	EACH	1
1207	SAFETY BOX INLET 18 IN SDR-11	EACH	1
1208	SAFETY BOX INLET 24 IN SDR-11	EACH	1
2483	CHANNEL LINING CASE II	TON	43
2625	REMOVE HEADWALL	EACH	14
7890	SAFELOADING	CY/D	2.2
2482	CLEAN PIPE STRUCTURE	EACH	1
2483	SAFETY BOX INLET 18 IN SDR-11	EACH	2
2013B2D	SLOPED & INTERED HEADWALL 18 IN	EACH	50
2013B2D	SLOPED & INTERED HEADWALL 24 IN	EACH	2

# KY 185 PIPE DRAINAGE SUMMARY

SUPERELEVATION IMPROVEMENT SUMMARY

SUPERELEVATION IMPROVEMENT																
Curve No.	Crashes Potentially Related to Superelevation	PC Station	PC Milepoint	PT Station	PT Milepoint	Advisory Speed	Radius	Length of Curve (ft)	Existing Superelevation	Ideal Superelevation	Proposed Superelevation	Leveling & Wedging PG 64-22 (ton)	Asphalt Pave Milling & Texturing (ton)	Asphalt Surface No. 4D PG64-22 (Ton)	Ditching & Shouldering (LF)	REMARKS
BUTLER COUNTY																
1 NB	0	05+78.16	0.110	14+79.24	0.280		1,950	901	-4.8%	-6.0%	-					No Work Done
1 SB									5.7%	6.0%	-					
2 NB	0	23+01.52	0.436	30+87.59	0.585		1,550	786	3.2%	7.0%	-					No Work Done
2 SB									-6.7%	-7.0%	-					
3 WB	1	39+74.73	0.753	45+33.68	0.859		950	559	6.4%	8.0%	-					No Work Done
3 EB									-8.8%	-8.0%	-					
4 WB	0	50+62.94	0.959	57+38.53	1.087		1,200	676	-4.7%	-7.8%	-					No Work Done
4 EB									3.0%	7.8%	-					
5 NB	0	64+12.24	1.214	70+17.91	1.329		1,150	606	-6.6%	-7.8%	-					No Work Done
5 SB									3.8%	7.8%	-					
6 NB	0	78+93.88	1.495	79+37.67	1.503		9,720	44	NC	NC	-					No Work Done
6 SB									NC	NC	-					
7 NB	0	87+03.31	1.648	91+76.45	1.738		9,720	473	-0.9%	NC	-					No Work Done
7 SB									-2.2%	NC	-					
8 NB	0	123+95.69	2.348	130+94.77	2.480		2,750	699	1.9%	4.6%	-					No Work Done
8 SB									-4.5%	-4.6%	-					
9 NB	0	139+39.33	2.640	140+22.31	2.656		9,720	83	NC	NC	-					No Work Done
9 SB									NC	NC	-					
10 NB	0	148+76.57	2.818	153+06.88	2.899		1,770	430	-1.8%	-6.4%	-	51	47	**	550	Southbound Only
10 SB									-0.8%	6.4%	2.0%	48	33	**	558	Northbound Only
11 NB	0	154+43.21	2.925	158+22.13	2.907		1,350	379	1.8%	7.4%	4.0%		43	**		No Work Done
11 SB									-6.4%	-7.4%	-		47	**		
12 WB	0	171+71.34	3.252	179+23.24	3.395	35 MPH	1,000	752	6.7%	5.0%	-					No Work Done
12 EB						35 MPH			-9.1%	-5.0%	-					
13 NB	10	185+14.34	3.507	197+25.43	3.736	35 MPH	712	1,211	-7.9%	-6.2%	-6.0%	73	73	**	1392	Both Directions
13 SB						35 MPH			3.4%	6.2%	6.0%	125	83	**	1392	
14 NB	0	209+47.48	3.967	209+77.21	3.973		9,720	30	NC	NC	-					No Work Done
14 SB									NC	NC	-					
15 NB	0	222+01.61	4.205	224+42.29	4.250		3,500	241	0.4%	-3.8%	-2.0%	43	66	**	361	Both Directions
15 SB									-3.9%	3.8%	2.0%	126	11	**	361	
16 NB	0	226+87.17	4.297	234+59.24	4.443		1,550	772	3.3%	7.0%	-					No Work Done
16 SB									-7.0%	-7.0%	-					
17 NB	0	245+19.28	4.644	256+20.50	4.852		2,850	1,101	1.1%	4.6%	-					No Work Done
17 SB									-4.3%	-4.6%	-					
18 NB	0	266+48.45	5.047	267+58.81	5.068		9,720	110	NC	NC	-					No Work Done
18 SB									NC	NC	-					
19 NB	0	281+74.85	5.336	285+79.60	5.413		2,500	405	-3.6%	-5.0%	-					No Work Done
19 SB									1.0%	5.0%	-					
20 NB	1	300+16.95	5.685	305+96.71	5.795		1,600	580	-2.2%	-6.8%	-		61	**		Southbound Only
20 SB									-0.3%	6.8%	3.0%	78	39	**	729	
21 NB	0	315+27.91	5.971	321+51.59	6.089		2,150	624	-3.1%	-5.6%	-		65	**		Southbound Only
21 SB									0.2%	5.6%	3.0%	71	47	**	773	
22 NB	0	341+42.37	6.466	343+17.88	6.500		9,720	176	NC	NC	-					No Work Done
22 SB									NC	NC	-					
EDMONSON COUNTY																
23 NB	0	01+15.13	0.022	21+84.04	0.414		1,900	2,069	3.6%	6.2%	-					No Work Done
23 SB									-5.8%	-6.2%	-					
BUTLER COUNTY																
24 WB	0	357+40.10	6.769	357+63.91	6.773		9,720	24	NC	NC	-					No Work Done
24 EB									NC	NC	-					
25 NB	0	368+84.37	6.986	378+53.81	7.169	35 MPH	975	969	-6.1%	-8.0%	-	18		86	1148	Southbound Only
25 SB						35 MPH			3.0%	8.0%	4.0%	261		86		
EDMONSON COUNTY																
26 NB	0	59+87.58	1.134	60+17.46	1.140		9,720	30	NC	NC	-					No Work Done
26 SB									NC	NC	-					
27 NB	1 (0 Wet)	88+80.24	1.682	101+01.99	1.913	45 MPH	1,410	1,222	2.5%	7.2%	-					No Work Done
27 SB						45 MPH			-4.2%	-7.2%	-					
BUTLER COUNTY SUPERELEVATION TOTALS:												894	615	172	7265	

\*Quantities for Curve 25 only. Stripping quantities for all other curves are included in the Ultra-Thinlay Summary.  
\*\*Asphalt surface quantities are included in the Ultra-Thinlay Summary.

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  - ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY.
  - ALL SUPERELEVATION IMPROVEMENTS ARE IN BUTLER COUNTY

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
00190	LEVELING & WEDGING PG64-22	TON	894
02677	ASPHALT PAVE MILLING & TEXTURING	TON	615
06510	PAVE STRIPING-TEMP PAINT-4 IN	LF	14,531
06542	* PAVE STRIPING-THERMO-6 IN W	LF	2,296
6543	* PAVE STRIPING-THERMO-6 IN Y	LF	2,296
21653E403	CL2 ASPH SURF NO. 4D PG 64-22	TON	172



COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021.00

PAVING SUMMARY

PAVEMENT REPAIR									
Begin Milepoint	Begin Station	End Milepoint	End Station	Length	Width	Base Failure Repair (sq yd)	Leveling and Wedging (ton)	Asphalt Surface No. 4D PG64-22 (Ton)	Edgeline Rumble Strips (LF)
0.300	15+83	0.400	21+12	529	22.5	1322	145	**	**
BUTLER COUNTY TOTALS:						1,322	145	0	0

EDMONSON COUNTY									
1.018	53+75	1.023	54+00	25	5	14	2	**	**
1.425	75+22	1.429	75+47	25	5	14	2	**	**
EDMONSON COUNTY TOTALS:						28	3	0	0

\*\*Asphalt surface and edgeline rumble strip quantities are Included in the Ultra-Thinlay Summary.

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
190	LEVELING AND WEDGING	TON	145
3240	BASE FAILURE REPAIR	SQYD	1,322

EDMONSON COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
190	LEVELING AND WEDGING	TON	3
3240	BASE FAILURE REPAIR	SQYD	28

ULTRA-THINLAY														
Begin Milepoint	Begin Station	End Milepoint	End Station	Length	Width	Thinlay Area (sq yd)	Thinlay Thickness (in)	Asphalt Surface No. 4D PG64-22	Asphalt Tack (Ton)	Edgeline Rumble Strips (LF)	Edge Key Length (ft)	Edge Key Width (ft)	Edge Key Average Depth (in)	Milling & Texturing (Ton)
0.000	0+00	6.610	347+79	34,779	22.5	86,947	1.00	4,782	36.5	69,558	100	22.5	0.5	6.9
BUTLER COUNTY TOTALS:								4,782	37	69,558				7

EDMONSON COUNTY														
0.000	0+00	0.941	49+79	4,979	21.5	11,894	1.00	654	5.0	9,958	100	21.5	0.5	6.6
0.941	49+95	2.185	115+37	6,542	21.0	15,264	1.00	840	6.4	13,083	100	21.0	0.5	6.4
EDMONSON COUNTY TOTALS:								1,494	11	23,041				13

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
356	ASPHALT MATERIAL FOR TACK	TON	37
2676	MOBILIZATION FOR MILL & TEXT	LS	1
2677	ASPHALT PAVE MILLING & TEXTURING	TON	7
2697	EDGE LINE RUMBLE STRIPS	LF	69,558
21653ES403	CL2 ASPH SURF NO. 4D PG64-22	TON	4,782

EDMONSON COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
356	ASPHALT MATERIAL FOR TACK	TON	11
2676	MOBILIZATION FOR MILL & TEXT	LS	1
2677	ASPHALT PAVE MILLING & TEXTURING	TON	13
2697	EDGE LINE RUMBLE STRIPS	LF	23,041
21653ES403	CL2 ASPH SURF NO. 4D PG64-22	TON	1,494

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2. ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY.



ROADSIDE REGRADING SUMMARY

Butler/Edmonson County KY 185

Notes:																			
* The "Figure References" noted below refer to the Figure number within the Roadside Regrading and Embankment Benching Detail Sheet that is the closest representation of the intended Roadside Regrading.																			
** Roadside Regrading will not be measured in the field at the time of construction but will be measured as the proposed quantities of Embankment in Place AND/OR Roadway Excavation, increased or decreased by authorized adjustments in accordance with 204.04.02. See Special Note for Roadside Regrading.																			
Road	Side of Road	LOCATION				Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Roadside Regrading Detail Sheet Figure Ref.*	Embankment Benching Required?	Target Fill Slope or Ditch Foreslope	Target Ditch Backslope	Include DGA Wedge? (Yes/No)	DGA (TONS)	Asphalt Seal Coat (TON)	Asphalt Seal Aggregate (TON)	Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	Geotex. Fabric Class I (SQ YD)	Remarks
		Approx. BEGIN Milepoint	Approx. END Milepoint	Station	Length (LF)														
BUTLER COUNTY																			
LT	2+23	0.042	11+72	0.222	949	141	0	Figure 1	No	3 : 1		Yes	98	1.27	10.55	No			raise shoulder up for guardrail
RT	2+24	0.042	11+65	0.221	941	70	418	Figure 3	Yes	2:1		Yes	97	1.26	10.46	No			raise shoulder up for guardrail
RT	31+78	0.602	36+53	0.692	475	35	528	Figure 3	Yes	2 : 1		Yes	49	0.64	5.28	No			raise shoulder up for guardrail
LT	45+50	0.862	46+50	0.881	100	19	185	Figure 5	Yes	2 : 1		Yes	4	0.05	0.42	Yes - Fill Slope	150	17	outside of curve 4
LT	52+00	0.985	56+00	1.061	400	30	74	Figure 3	Yes	3 : 1		Yes	16	0.20	1.67	No			
RT	64+75	1.226	66+75	1.264	200	15	74	Figure 2	Yes	3 : 1		Yes	8	0.10	0.84	No			
LT	65+00	1.231	69+50	1.316	450	33	133	Figure 2	Yes	3 : 1		Yes	18	0.23	1.88	No			outside of curve 5
RT	70+00	1.326	72+60	1.375	260	19	193	Figure 2	Yes	3 : 1		No				No			
RT	79+00	1.496	83+50	1.581	450	33	200	Figure 2	Yes	3:1		No				No			
RT	84+50	1.600	87+75	1.662	325	24	144	Figure 2	Yes	3:1		No				No			
RT	90+50	1.714	91+75	1.738	125	19	0	Figure 7	No	3 : 1	2 : 1	No				Yes - Ditch	167		
RT	99+25	1.880	101+00	1.913	175	13	32	Figure 2	Yes	3 : 1		Yes	7	0.09	0.73	No			
RT	101+00	1.913	102+50	1.941	150	17	22	Figure 9	Yes	3 : 1	2 : 1	Yes	6	0.08	0.63	No			
RT	109+20	2.068	110+25	2.088	105	16	0	Figure 5	Yes	1 : 1	1:1	Yes	5	0.06	0.44	Yes - Fill Slope	88	18	
LT	111+00	2.102	111+80	2.117	80	18	89	Figure 3	Yes	2:1		Yes	4	0.04	0.34	No			
LT	112+40	2.129	117+00	2.216	460	153	119	Figure 1	No	3 : 1	2 : 1	Yes	24	0.31	2.56	No			
RT	121+75	2.306	124+75	2.363	300	11	11	Figure 8	No	3 : 1	2 : 1	No				No			
RT	129+80	2.458	133+00	2.519	320	12	119	Figure 2	Yes	3 : 1		No				No			
LT	131+50	2.491	133+00	2.519	150	6	6	Figure 8	No	3 : 1		No				No			
LT	148+02	2.803	153+82	2.913	580	21	129	Figure 2	Yes	3 : 1		No				No			SE Improvement
RT	153+39	2.905	159+26	3.016	587	22	65	Figure 3	Yes	3 : 1		No				No			SE Improvement
LT	165+75	3.139	169+75	3.215	400	59	296	Figure 3	Yes	3 : 1		No				No			
RT	177+25	3.357	179+25	3.395	200	7	7	Figure 8	No	3 : 1	2 : 1	No				No			
RT	179+50	3.400	180+75	3.423	125	9	32	Figure 9	Yes	3 : 1	2 : 1	No				No			
LT	184+12	3.487	198+27	3.755	1,415	314	1,572	Figure 3	Yes	2 : 1		No				No			SE Improvement
RT	184+12	3.487	198+27	3.755	1,415	105	524	Figure 3	Yes	2 : 1		No				No			SE Improvement
LT	202+50	3.835	205+00	3.883	250	28	46	Figure 2	Yes	3 : 1		No				No			
LT	216+75	4.105	219+75	4.162	300	33	67	Figure 2	Yes	3 : 1		No				No			
LT	221+27	4.191	225+17	4.265	390	14	72	Figure 2	Yes	3 : 1		No				No			SE Improvement
RT	221+27	4.191	225+17	4.265	390	14	72	Figure 2	No	3 : 1	2 : 1	No				No			SE Improvement
RT	231+00	4.375	233+25	4.418	225	33	125	Figure 3	Yes	3 : 1		Yes	9	0.12	0.94	No			outside curve 16
LT	252+30	4.778	256+40	4.856	410	61	182	Figure 2	Yes	3 : 1		No				No			
RT	253+49	4.801	254+49	4.820	100	11	63	Figure 2	Yes	3 : 1		No				No			
LT	278+00	5.265	279+80	5.299	180	13	13	Figure 8	No	3 : 1	2 : 1	No				No			
LT	288+79	5.470	289+29	5.479	50	7	46	Figure 3	Yes	2 : 1		No				No			
LT	294+72	5.582	295+22	5.591	50	7	46	Figure 2	Yes	3 : 1		No				No			
LT	299+28	5.668	306+86	5.812	758	28	140	Figure 3	Yes	3 : 1		No				No			SE Improvement
LT	314+39	5.954	316+00	5.985	161	6	18	Figure 3	Yes	3 : 1		No				No			SE Improvement
LT	316+00	5.985	318+50	6.032	250	9	9	Figure 9	No	3 : 1	2:1	No				No			SE Improvement
LT	318+50	6.032	322+41	6.106	391	14	43	Figure 3	Yes	3 : 1		No				No			SE Improvement
LT	329+49	6.240	332+21	6.292	272	30	151	Figure 3	Yes	2 : 1		Yes	28	0.37	3.03	No			raise shoulder up for guardrail
RT	333+00	6.307	340+00	6.439	700	78	389	Figure 3	Yes	2 : 1		Yes	36	0.47	3.89	No			raise shoulder up for guardrail
LT	367+80	6.966	379+58	7.189	1,178	44	262	Figure 3	Yes	3 : 1		No				No			SE Improvement
RT	372+40	7.053	376+95	7.139	455	17	17	Figure 8	No	3 : 1	2 : 1	No				No			
BUTLER COUNTY TOTALS:						1,670	6,737					409	5	44		405	35		

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ROADSIDE REGRADING SUMMARY

Roadside Regrading Summary

Butler/Edmonson County

KY 185

Notes:																			
* The "Figure References" noted below refer to the Figure number within the Roadside Regrading and Embankment Benching Detail Sheet that is the closest representation of the intended Roadside Regrading.																			
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EDMONSON COUNTY																			
Road	Side of Road	LOCATION			Length (LF)	Estimated Excavation Volume** (CU YD)	Estimated Embankment Volume** (CU YD)	Roadside Regrading Detail Sheet Figure Ref.*	Embankment Benching Required?	Target Fill Slope or Ditch Foreslope	Target Ditch Backslope	Include DGA Wedge? (Yes/No)	Asphalt		Channel Line Ditch, Fill Slope or Cut Slope? (Yes/No)	Channel Lining Class II (TONS)	Geotex. Fabric Class 1 (SQ YD)	Remarks	
		Approx. BEGIN Milepoint	Approx. END Milepoint	Approx. END Milepoint									DGA (TONS)	Seal Aggregate (TON)					
RT	2+50	0.047	5+00	0.095	19	46	Figure 2	Yes	3 : 1			Yes	10	0.13	1.05	No		outside curve 23	
LT	5+25	0.099	7+45	0.141	16	57	Figure 9	Yes	3 : 1	2 : 1		Yes	9	0.11	0.92	No			
RT	18+00	0.341	19+13	0.362	17	25	Figure 5	Yes	2 : 1			Yes	5	0.06	0.48	Yes - Fill Slope	208	19	outside curve 23
RT	21+13	0.400	21+63	0.410	9	13	Figure 2	Yes	3 : 1			No				No		outside curve 23	
RT	30+68	0.581	39+69	0.752	167	334	Figure 3	Yes	2 : 1			Yes	93	1.21	10.02	No		raise shoulder up for guardrail	
LT	31+83	0.603	39+93	0.756	150	300	Figure 3	Yes	2 : 1			Yes	83	1.08	9.00	No		raise shoulder up for guardrail	
RT	47+50	0.900	48+00	0.909	7	28	Figure 2	Yes	3 : 1			No				No			
LT	51+25	0.971	56+15	1.063	73	363	Figure 3	Yes	3 : 1			No				No			
RT	63+14	1.196	64+14	1.215	100	4	Figure 9	Yes	3 : 1	2 : 1		No				No			
LT	68+29	1.293	68+54	1.298	25	4	Figure 2	Yes	3 : 1			No				No		flatten slope only	
RT	90+50	1.714	92+00	1.742	150	11	Figure 2	Yes	3 : 1			Yes	6	0.08	0.63	No		outside curve 27	
RT	97+52	1.847	98+50	1.866	98	7	Figure 7	No	3 : 1	2 : 1		No				No		reshape to drain	
LT	97+56	1.848	98+31	1.862	75	6	Figure 7	No	3 : 1	2 : 1		No				No		reshape to drain	
EDMONSON COUNTY TOTALS:												206	3	22		208	19		

BUTLER COUNTY		
ITEM	DESCRIPTION	QUANTITY
1	DGA BASE	TON 409
100	ASPHALT SEAL AGGREGATE	TON 44
103	ASPHALT SEAL COAT	TON 5
2200	ROADWAY EXCAVATION	CY 1,670
2230	EMBANKMENT IN PLACE	CY 6,737
2483	CHANNEL LINING CLASS II	TON 405
2602	FABRIC-GEOTEXTILE CLASS 1	SQYD 35

EDMONSON COUNTY		
ITEM	DESCRIPTION	QUANTITY
1	DGA BASE	TON 206
100	ASPHALT SEAL AGGREGATE	TON 22
103	ASPHALT SEAL COAT	TON 3
2200	ROADWAY EXCAVATION	CY 489
2230	EMBANKMENT IN PLACE	CY 1,284
2483	CHANNEL LINING CLASS II	TON 208
2602	FABRIC-GEOTEXTILE CLASS 1	SQYD 19

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STRIPING SUMMARY

COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021.00

PROPOSED OPTICAL SPEED BARS												
Curve Number	Travel Direction	Begin Station	End Station	Length of Segment (ft)	Width of Line (in)	Length of Line (in)	Approach Speed (mph)	Advisory Speed (mph)	Spacing between first two bars (ft)	Spacing between last two bars (ft)	Number of Bars	Total Length of 12" White Line
BUTLER COUNTY												
13	SB	194+25	197+14	289	12	18	55	35	20	13	20	60

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
6546	PAVE STRIPING-THERMO-12 IN W	LF	60

SPEED BAR SPACING		
Bars	Spacing	Station
1-2	--	197+14
2-3	20	196+94
3-4	19	196+75
4-5	19	196+56
5-6	18	196+38
6-7	18	196+20
7-8	17	196+03
8-9	17	195+86
9-10	16	195+70
10-11	16	195+54
11-12	16	195+38
12-13	15	195+23
13-14	15	195+08
14-15	15	194+93
15-16	14	194+79
16-17	14	194+65
17-18	14	194+51
18-19	13	194+38
19-20	13	194+25

INSTALL 6" THERMO EDGELINES & DOUBLE CENTERLINE						
Offset	Begin Station	Begin Milepoint	End Station	End Milepoint	Pave Striping- Thermo-6 in W	Pave Striping- Thermo-6 in Y
BUTLER COUNTY						
LT	0+00	0.000	347+79	6.610	34,779	34,779
RT	0+00	0.000	347+79	6.610	34,779	34,779
BUTLER COUNTY TOTALS:					69,558	69,558
EDMONSON COUNTY						
LT	0+00	0.000	115+37	2.185	11,537	11,537
RT	0+00	0.000	115+37	2.185	11,537	11,537
EDMONSON COUNTY TOTALS:					23,074	23,074

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
6542	PAVE STRIPING-THERMO-6 IN W	LF	69,558
6543	PAVE STRIPING-THERMO-6 IN Y	LF	69,558

EDMONSON COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
6542	PAVE STRIPING-THERMO-6 IN W	LF	23,074
6543	PAVE STRIPING-THERMO-6 IN Y	LF	23,074

ENTRANCE SUMMARY

ENTRANCE SUMMARY						
Station	Skew	LT/RT	Width (ft)	Length (ft)	DGA (tons)	Entrance Pipe (LF)
BUTLER COUNTY						
150+00	0°	LT	20	8	0.59	--
159+32	0°	RT	30	10	1.1	--
191+00	0°	LT	36	8	1.1	--
192+00	66°	LT	25	8	0.7	--
221+08	0°	LT	20	15	1.1	--
319+80	0°	LT	18	15	1.0	--
329+41	0°	LT	12	54	2.4	--
331+35	0°	RT	12	66	3.0	30 LF - 15" PIPE
BUTLER COUNTY TOTALS:					11.0	30

TEMPORARY FENCE AND FENCE REPLACEMENT

TEMPORARY FENCE AND FENCE REPLACEMENT							
Offset	Begin Milepoint	Begin Station	End Milepoint	End Station	Temporary Fence (LF)	Remove & Replace	Existing Fence Type
RT	0.640	33+80	0.752	39+69	589	589	Barbed Wire Electric Fence
EDMONSON COUNTY TOTALS:					589	589	

EDMONSON COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
2259	FENCE-TEMP	LF	589
2268	REMOVE & REPLACE FENCE	LF	589

NOTES:

1. THESE NUMBERS ARE FOR ESTIMATE PURPOSES ONLY. FINAL LOCATIONS AND QUANTITIES WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY.

KY 185  
STRIPING, FENCE,  
AND ENTRANCE SUMMARY

TREE TRIMMING SUMMARY

Trim and Remove Trees and Brush Summary

County: Butler/Edmonson Route: KY 185

Notes: \* intent of remarks is to provide the contractor with the an approximate level of effort for each location. Refer to the Staking note and Special Note for Tree Stump and Brush Removal for further details about expected level of effort, particularly Part B of the Construction Methods which describes when complete removal of trees are required.  
\*\* Approximate Dimensions for Tree Clearing. Actual Dimensions determined in the Field by Engineer. Refer to Staking note.

Side of Road	LOCATION				Length (LF)	"X" Dimension **	"Y" Dimension **	Case 1 * Tree Trimming without Undergrowth Removal	Case 1B * Tree Trimming with Undergrowth Removal	Case 2 * Tree Trimming and/or Tree Removal without Undergrowth Removal	Case 2B * Tree Trimming and/or Tree Removal with Undergrowth Removal	Case 3B * Undergrowth Removal Only	Remarks *
	Approx. BEGIN Station	Approx. BEGIN Milepoint	Approx. END Station	Approx. END Milepoint									
BUTLER COUNTY													
LT	16+00	0.303	20+00	0.379	400	10	75	X					Tree canopy trimming only is expected at this location.
LT	22+00	0.417	23+00	0.436	100	10	75			X			Estimated linear foot quantity is for complete removal of 3 trees (2-18" & 1-24" in diameter).
LT	50+00	0.947	50+50	0.956	50	8	75	X					Tree canopy trimming only is expected at this location.
LT	56+10	1.063	56+25	1.065	15	5	75			X			Estimated linear foot quantity is for complete removal of 1 tree (2-18" in diameter)
LT	59+50	1.127	60+15	1.139	65	8	60		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is
LT	61+00	1.155	61+50	1.165	50	8	75			X			Estimated linear foot quantity is for complete removal of 1 trees (1 - 30" in diameter).
LT	64+50	1.222	65+25	1.236	75	5	60	X					Tree canopy trimming only is expected at this location.
LT	148+50	2.813	149+00	2.822	50	5	60	X					Tree canopy trimming only is expected at this location.
LT	150+00	2.841	151+00	2.860	100	5	60	X					Tree canopy trimming only is expected at this location.
LT	156+00	2.955	157+00	2.973	100	8	60			X			Estimated linear foot quantity is for complete removal of 1 trees (5 - 24" in diameter).
LT	185+80	3.519	186+50	3.532	70	8	60			X			Estimated linear foot quantity is for complete removal of 3 trees (3 18" in diameter).
LT	196+70	3.725	197+30	3.737	60	10	60	X					Tree canopy trimming only is expected at this location.
LT	213+75	4.048	214+20	4.057	45	5	75			X			Estimated linear foot quantity is for complete removal of 2 trees (2-24" in diameter).
LT	256+50	4.858	257+00	4.867	50	10	50		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is
LT	266+25	5.043	267+60	5.068	135	10	50	X					Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is
LT	276+50	5.237	277+20	5.250	70	5	45			X			Estimated linear foot quantity is for complete removal of 2 trees (2-18" in diameter).
LT	371+00	7.027	374+00	7.083	300	10	75		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is
RT	59+50	1.127	63+75	1.207	425	10	75		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is expected at this location. Add erosion control blanket.
RT	154+00	2.917	155+00	2.936	100	20	75		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is
RT	175+00	3.314	177+00	3.352	200	10	75	X					Tree canopy trimming only is expected at this location.
RT	292+00	5.530	293+00	5.549	100	10	50	X					Tree canopy trimming only is expected at this location.
RT	324+50	6.146	327+00	6.193	250	10	75			X			Estimated linear foot quantity is for complete removal of 1 trees (1-24" in diameter).
RT	328+00	6.212	330+00	6.250	200	10	60	X					Tree canopy trimming only is expected at this location.
RT	333+00	6.307	335+00	6.345	200	10	50				X		Estimated linear foot quantity is for complete removal of 2 trees (18"-24" in diameter). Undergrowth removal to right-of-way line is expected at this location.
RT	335+40	6.352	335+60	6.356	20	10	50				X		Estimated linear foot quantity is for complete removal of 3 trees (18-24" in diameter). Undergrowth removal to right-of-way line is expected at this location.
EDMONSON COUNTY													
LT	20+00	0.379	21+75	0.412	175	20	50	X					Tree canopy trimming only is expected at this location. Electric overhead lines in this
LT	28+80	0.545	29+40	0.557	60	20	40		X				Tree canopy trimming to X dimension and undergrowth removal to right-of-way line is
LT	58+00	1.098	59+50	1.127	150	20	75				X		Estimated linear foot quantity is for complete removal of 1 trees (24" in diameter). Undergrowth removal to right-of-way line is expected at this location.
RT	18+75	0.355	19+50	0.369	75	10	60			X			Estimated linear foot quantity is for complete removal of 2 trees (18-24" in
RT	68+00	1.288	68+75	1.302	75	20	75			X			Estimated linear foot quantity is for complete removal of 1 trees (24" in diameter).

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
03269	TRIM & REMOVE TREES & BRUSH	LF	3,230
05950	EROSION CONTROL BLANKET	SQ.YD	472

EDMONSON COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
03269	TRIM & REMOVE TREES & BRUSH	LF	535

NOTES:  
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2. ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY.

KY 185  
TREE TRIMMING SUMMARY

COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021.00

RCBC EXTENSION SUMMARY

RCBC EXTENSION TABULATION										
Station	Milepoint	Skew	Size	Extension End	Extension LT (L.F)	Extension RT (L.F)	Existing Length (L.F)	Class "A" Concrete (CY)	Steel Reinforcement (lb)	Remove Headwall (each)
BUTLER COUNTY										
202+15	3.829	45° LT	3'x5'	LT & RT	10	9	49.6	26.4	3430	2
256+66	4.861	30° RT	4'x4'	LT & RT	8	5	44.8	24.1	3123	2
265+60	5.030	0°	4'x4'	LT	8	-	36.1	11.6	1510	1
332+00	6.288	21° LT	12'x4.5'	-	-	-	32.5	5.2	627	
357+34	6.768	30° RT	Dbl. 6'x3'	LT & RT	5.5	4.5	31	29.6	3843	2
361+14	6.840	30° RT	3'x3'	LT & RT	13	9	35.9	21.2	2757	2
BUTLER COUNTY TOTALS:								118.1	15,290	9
EDMONSON COUNTY										
5+25	0.099	0°	5'x2'	LT & RT	6	8	29.2	14.2	1848	2
33+60	0.636	27° RT	Dbl. 10'x5'	-	-	-	29.8	6.6	558	1
60+80	1.152	30° RT	5'x3'	LT & RT	8.5	8	31.7	21.8	2833	2
69+73	1.321	0°	5'x2'	RT	-	8	29.6	7.8	1014	1
81+93	1.552	30° LT	Dbl. 10'x4'	LT & RT	5.5	4.5	31	44.3	5756	2
106+97	2.026	0°	Trpl. 10'x6'	RT	-	8	27.4	45.4	5908	1
EDMONSON COUNTY TOTALS:								140.1	17,917	9

\*cost includes removing 2' of existing box culvert for each extension

BUTLER COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
08100	Class A Concrete	CY	118.1
08150	Steel Reinforcement	LB	15,290
02625	Remove Headwall	EACH	9
08003	Foundation Preparation	LS	1

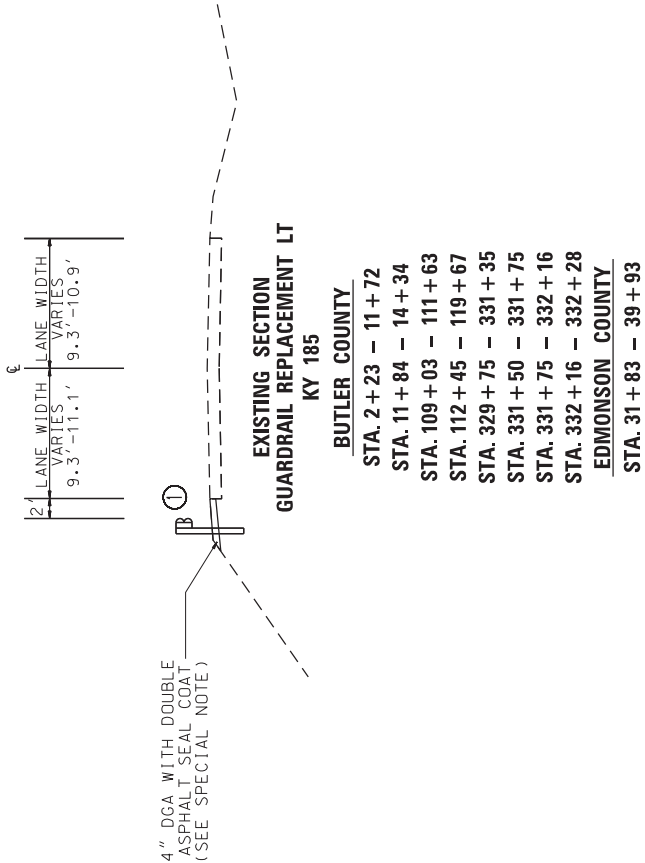
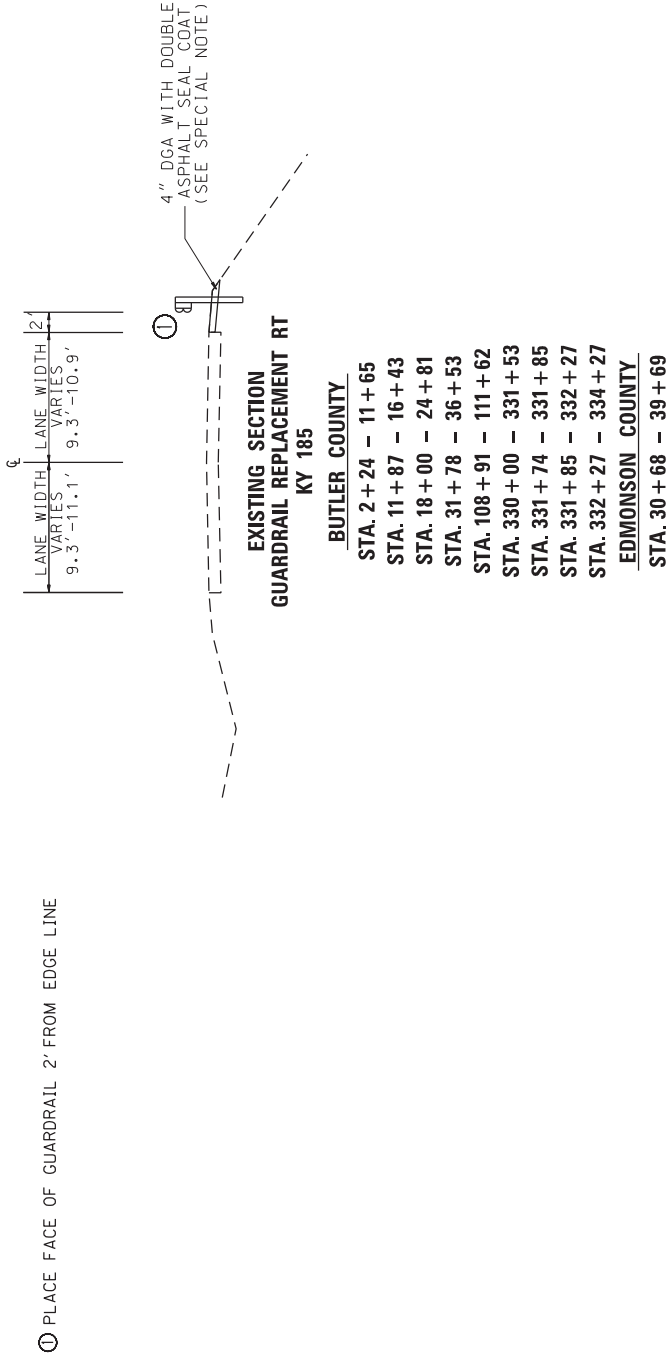
EDMONSON COUNTY			
ITEM	DESCRIPTION	UNIT	QUANTITY
08100	Class A Concrete	CY	140.1
08150	Steel Reinforcement	LB	17,917
02625	Remove Headwall	EACH	9
08003	Foundation Preparation	LS	1

- NOTES:
1. THESE NUMBERS ARE FOR ESTIMATE PURPOSES ONLY. FINAL LOCATIONS AND QUANTITIES WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

2. ALL QUANTITIES CARRIED OVER TO THE GENERAL SUMMARY.

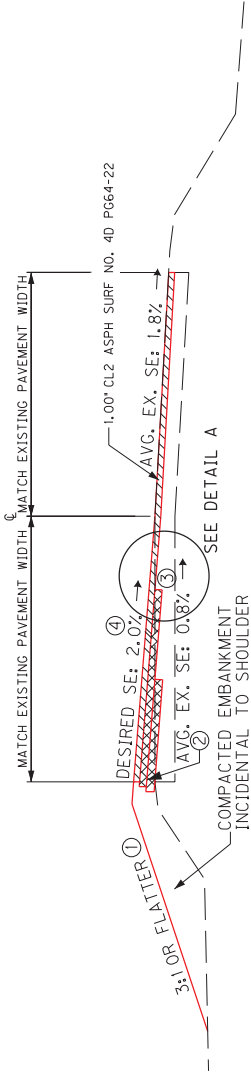
COUNTY OF	ITEM NO.	SHEET
BUTLER EDMONSON	3-9021	

GUARDRAIL REPLACEMENT TYPICAL SECTIONS



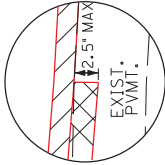
COUNTY OF	ITEM NO.	SHEET
BUTLER EDMONSON	3-9021	

SUPERELEVATION IMPROVEMENT TYPICAL SECTIONS

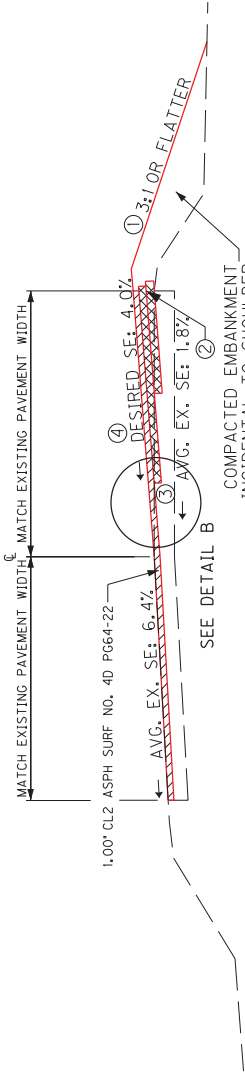


CURVE 10 SUPERELEVATION IMPROVEMENT

5 STA. 148+02 TO STA. 153+82

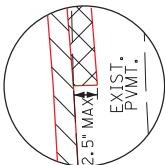


DETAIL A



CURVE 11 SUPERELEVATION IMPROVEMENT

5 STA. 153+39 TO STA. 159+26



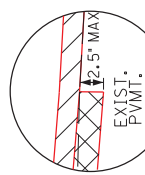
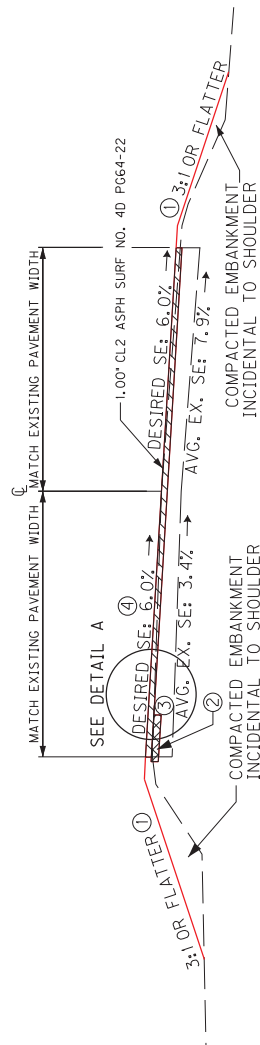
DETAIL B

- 1 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTIONS. (SLOPE MAY BE STEEPER THAN 3:1)
- 2 LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- 3 MAXIMUM DEPTH OF MILLING AT LONGITUDINAL EDGE KEY SHALL BE 2.5".
- 4 FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.
- 5 STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.



COUNTY OF	ITEM NO.	SHEET NO.
BUTLER EDMONSON	3-9021	5

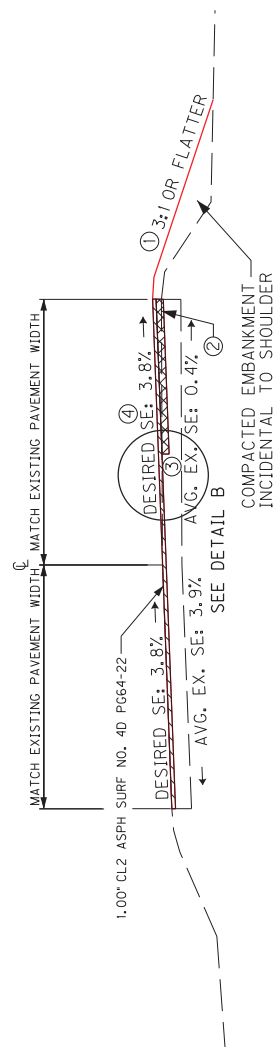
## SUPERELEVATION IMPROVEMENT TYPICAL SECTIONS



### DETAIL A

## CURVE 13 SUPERELEVATION IMPROVEMENT

STA. 184+12 TO STA. 198+27 (5)



DETAIL B

## CURVE 15 SUPERELEVATION IMPROVEMENT

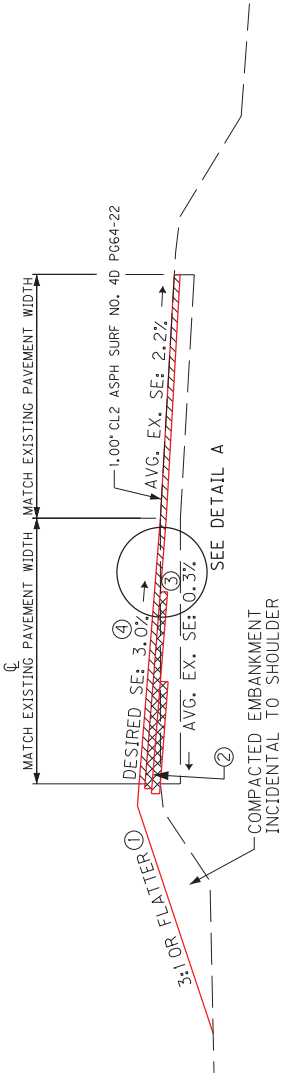
⑤ STA. 221+27 TO STA. 225+17

- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTIONS. (SLOPE MAY BE STEEPER THAN 3:1)
- ② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- ③ MAXIMUM DEPTH OF MILLING AT LONGITUDINAL EDGE KEY SHALL BE 2.5".
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.
- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.



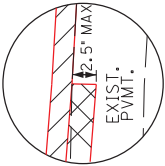
COUNTY OF	ITEM NO.	SHEET
BUTLER EDMONSON	3-9021	

SUPERELEVATION IMPROVEMENT TYPICAL SECTIONS

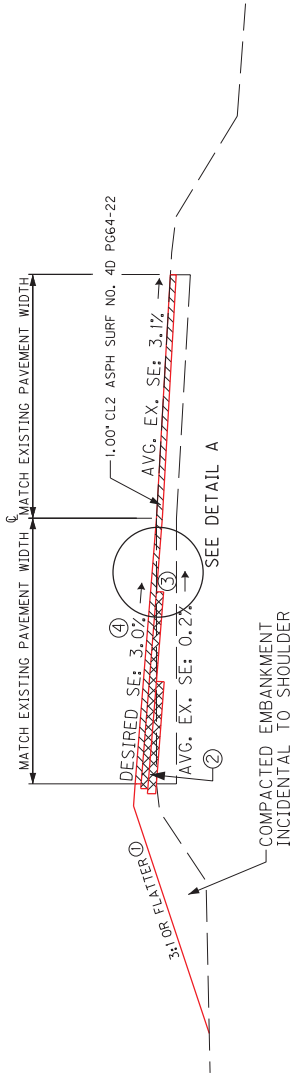


CURVE 20 SUPERELEVATION IMPROVEMENT

STA. 299+28 TO STA. 306+86 ⑤



DETAIL A



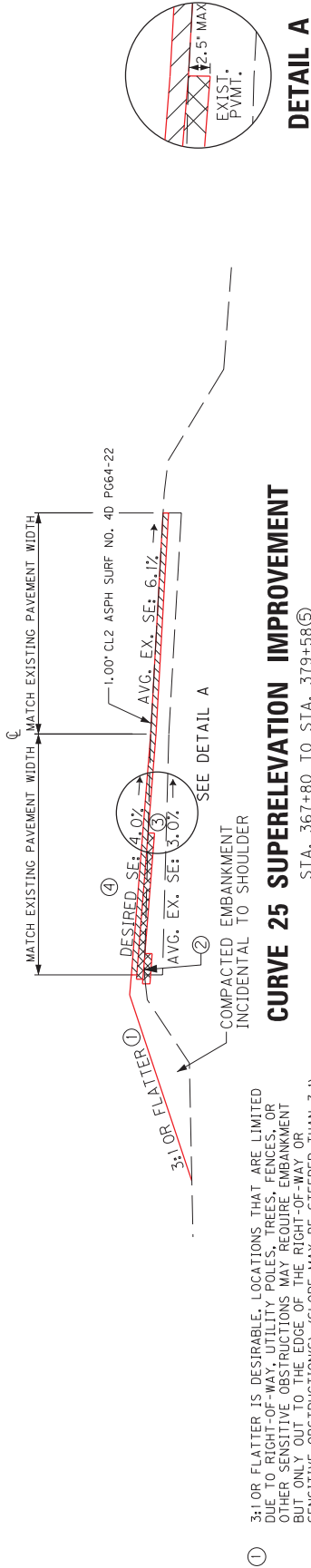
CURVE 21 SUPERELEVATION IMPROVEMENT

STA. 314+39 TO STA. 322+41 ⑤

- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTIONS. (SLOPE MAY BE STEEPER THAN 3:1)
- ② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- ③ MAXIMUM DEPTH OF MILLING AT LONGITUDINAL EDGE KEY SHALL BE 2.5".
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.
- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.

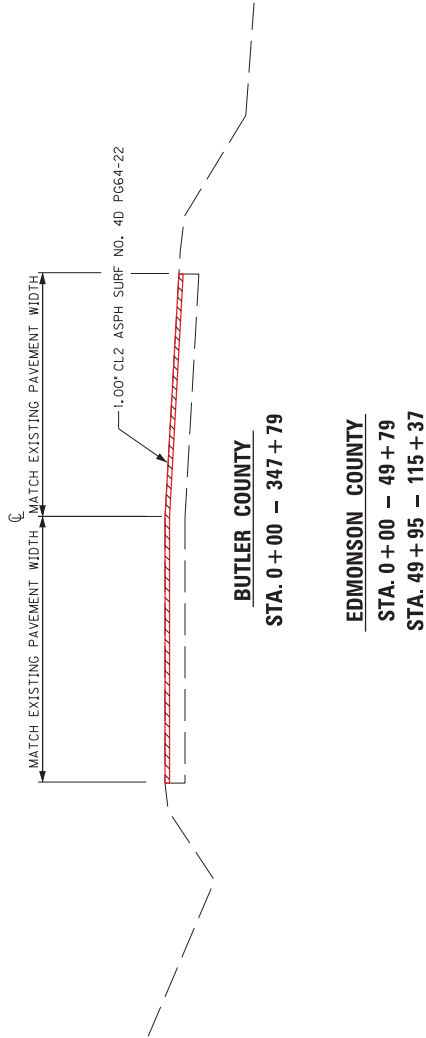
COUNTY OF	ITEM NO.	SHEET
BUTLER EDMONSON	3-9021	

SUPERELEVATION IMPROVEMENT TYPICAL SECTIONS

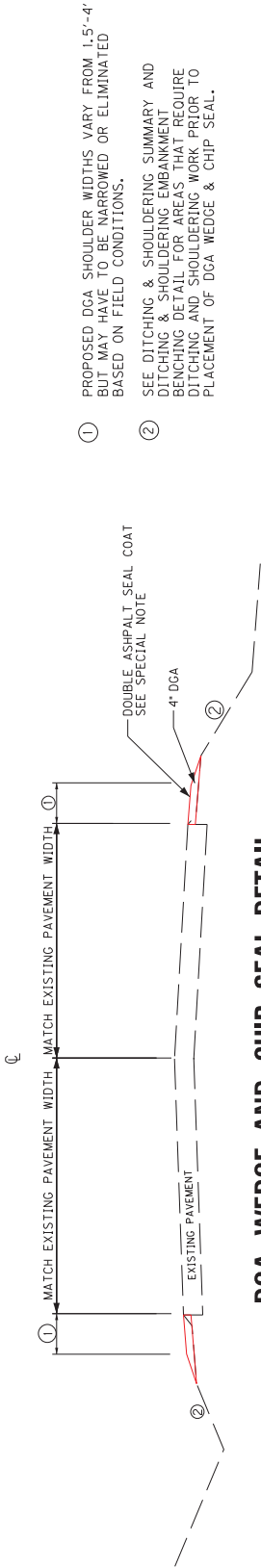


- ① 3:1 OR FLATTER IS DESIRABLE. LOCATIONS THAT ARE LIMITED DUE TO RIGHT-OF-WAY, UTILITY POLES, TREES, FENCES, OR OTHER SENSITIVE OBSTRUCTIONS MAY REQUIRE EMBANKMENT BUT ONLY OUT TO THE EDGE OF THE RIGHT-OF-WAY OR SENSITIVE OBSTRUCTION(S). (SLOPE MAY BE STEEPER THAN 3:1)
- ② LEVELING & WEDGING MIX DESIGN WILL BE BASED ON THE LIFT THICKNESSES BEING PLACED FOR EACH CURVE. NUMBER AND THICKNESS OF LIFTS SHOWN IN THESE DETAILS ARE GRAPHICAL REPRESENTATIONS ONLY AND ARE NOT MEANT TO BE TAKEN AS AN INDICATION OF ACTUAL FIELD CONDITIONS.
- ③ MAXIMUM DEPTH OF MILLING AT LONGITUDINAL EDGE KEY SHALL BE 2.5".
- ④ FINAL SUPERELEVATION RATE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. DESIRED SUPERELEVATION RATE MAY NEED TO BE MODIFIED IN ORDER TO REMAIN WITHIN RIGHT-OF-WAY OR AVOID A SENSITIVE OBSTRUCTION.
- ⑤ STATION LIMITS INCLUDE SUPERELEVATION TRANSITIONS.

ULTRA THINLAY TYPICAL SECTION



COUNTY OF	ITEM NO.	SHEET
BUTLER EDMONSON	3-9021	



- ① PROPOSED DGA SHOULDER WIDTHS VARY FROM 1.5'-4' BUT MAY HAVE TO BE NARROWED OR ELIMINATED BASED ON FIELD CONDITIONS.
- ② SEE DITCHING & SHOULDERING SUMMARY AND DITCHING & SHOULDERING EMBANKMENT BENCHING DETAIL FOR AREAS THAT REQUIRE DITCHING AND SHOULDERING WORK PRIOR TO PLACEMENT OF DGA WEDGE & CHIP SEAL.

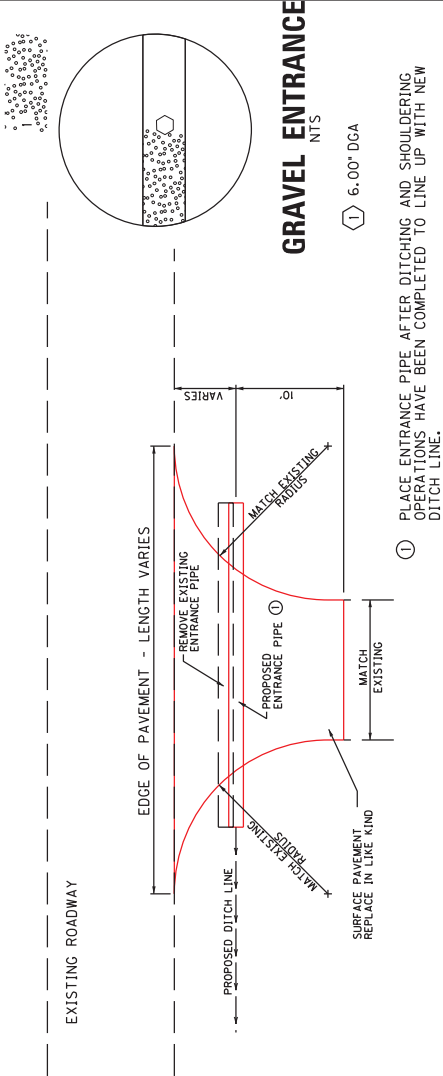
DGA WEDGE AND CHIP SEAL DETAIL

BUTLER COUNTY

- STA. 2 + 23 - 11 + 72 LT, WIDTH = 4'
- STA. 2 + 24 - 11 + 65 RT, WIDTH = 4'
- STA. 31 + 78 - 36 + 53 RT, WIDTH = 4'
- STA. 45 + 50 - 46 + 50 LT, WIDTH = 1.5'
- STA. 52 + 00 - 56 + 00 LT, WIDTH = 1.5'
- STA. 64 + 75 - 66 + 75 RT, WIDTH = 1.5'
- STA. 65 + 00 - 69 + 50 LT, WIDTH = 1.5'
- STA. 99 + 25 - 101 + 00 RT, WIDTH = 1.5'
- STA. 101 + 00 - 102 + 50 RT, WIDTH = 1.5'
- STA. 109 + 20 - 110 + 25 RT, WIDTH = 1.5'
- STA. 111 + 00 - 111 + 80 LT, WIDTH = 1.5'
- STA. 112 + 40 - 117 + 00 LT, WIDTH = 2'
- STA. 231 + 00 - 233 + 25 RT, WIDTH = 1.5'
- STA. 329 + 49 - 332 + 21 LT, WIDTH = 4'
- STA. 333 + 00 - 340 + 00 RT, WIDTH = 2'

EDMONSON COUNTY

- STA. 2 + 50 - 5 + 00 RT, WIDTH = 1.5'
- STA. 5 + 25 - 7 + 45 LT, WIDTH = 1.5'
- STA. 18 + 00 - 19 + 13 RT, WIDTH = 1.5'
- STA. 30 + 68 - 39 + 69 RT, WIDTH = 4'
- STA. 31 + 83 - 39 + 93 LT, WIDTH = 4'
- STA. 90 + 50 - 92 + 00 RT, WIDTH = 1.5'

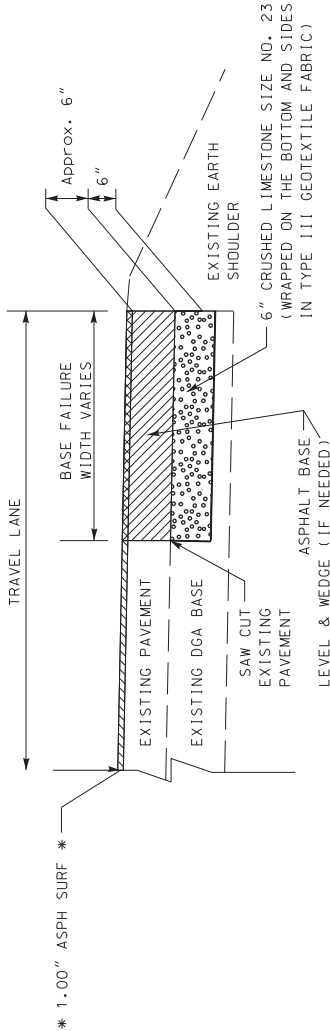


ENTRANCE DETAIL

COUNTY OF	ITEM NO.	SHEET
BUTLER	3-9021	
EDMONSON		

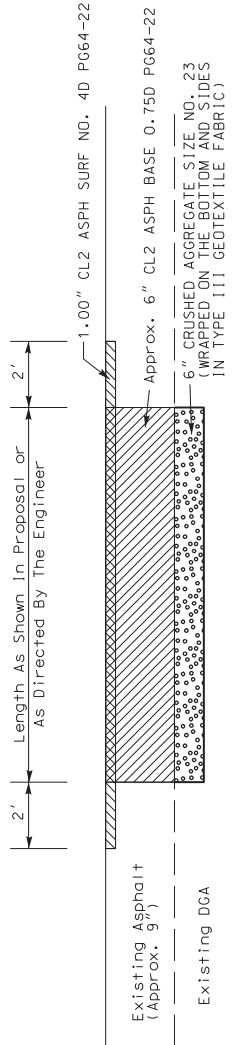
# BASE FAILURE REPAIR DETAILS

BASE FAILURE CROSS SECTION DETAIL

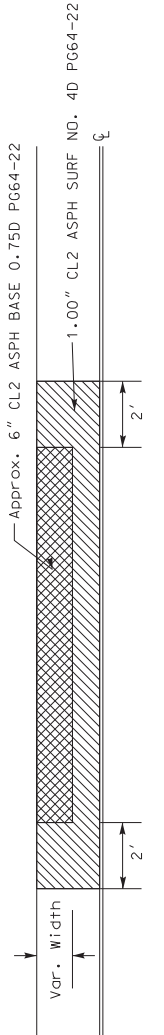


\* For Base Failure Repair locations within the limits of Resurfacing/Overlay Sections # 1 & 2, Overlay the Base Failure Repair with 1.00" Asph Surf, according to the Special Notes.  
For Base Failure Repair locations outside of the Resurfacing Limits, Mill & Inlay 1.00" Asph Surf according to the "Profile" and "Top View" details below, and according to the Special Notes.

BASE FAILURE PROFILE DETAIL



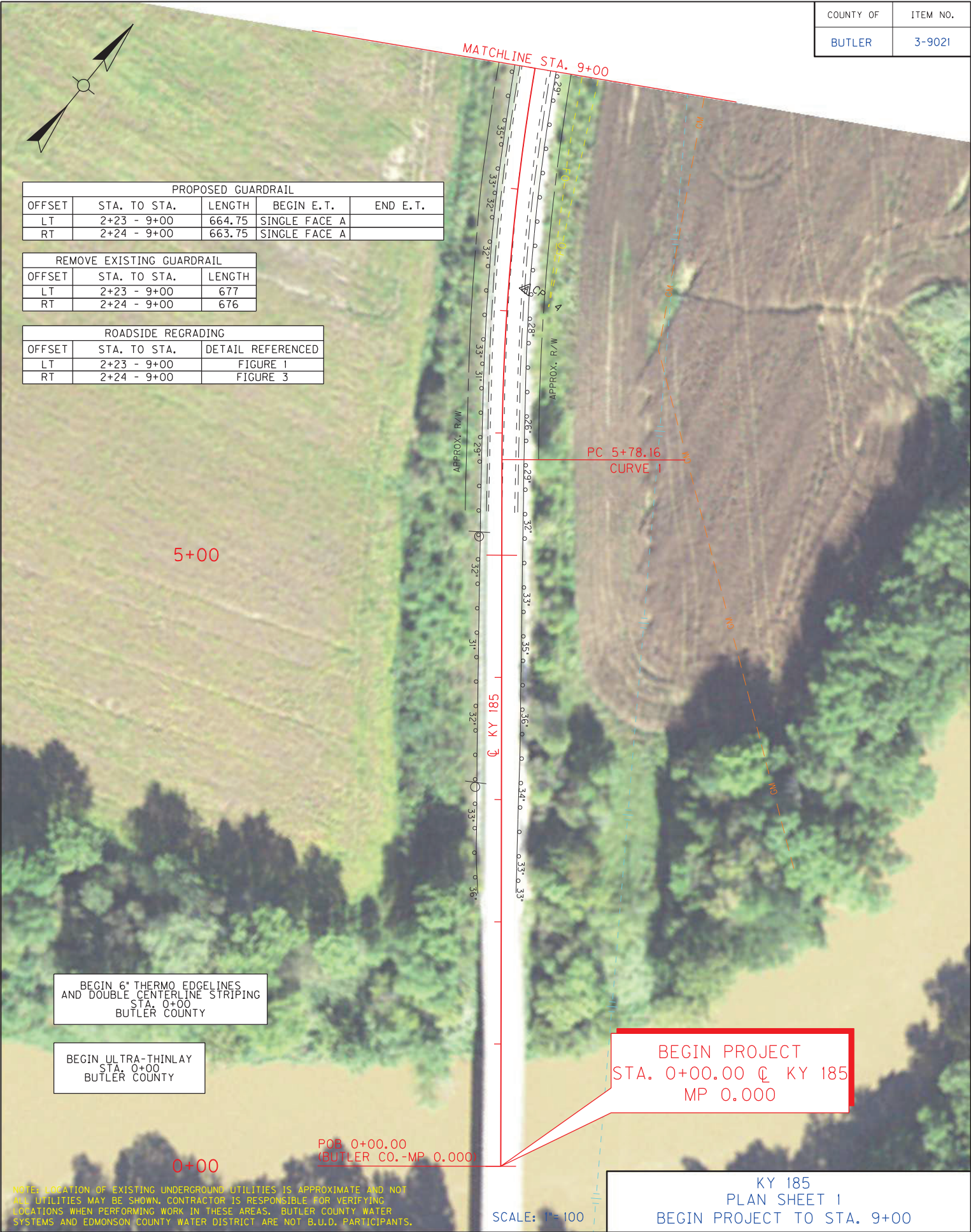
BASE FAILURE TOP VIEW DETAIL



FOR MORE INFORMATION, REFER TO THE "SPECIAL NOTE FOR BASE FAILURE REPAIR"

- ① "BASE FAILURE" locations are listed elsewhere in the proposal. The Engineer shall make the final determination as to the width, depth, and length, and the exact location of each base failure. Once work has begun, the contractor will work continuously until the asphalt base is completed.

Bid Items for this work are as follows:  
00190 LEVELING AND WEDGING  
00301 CL2 ASPH SURF NO. 4D PG64-22  
03240 BASE FAILURE REPAIR





COUNTY OF	ITEM NO.
BUTLER	3-9021















COUNTY OF	ITEM NO.
BUTLER	3-9021

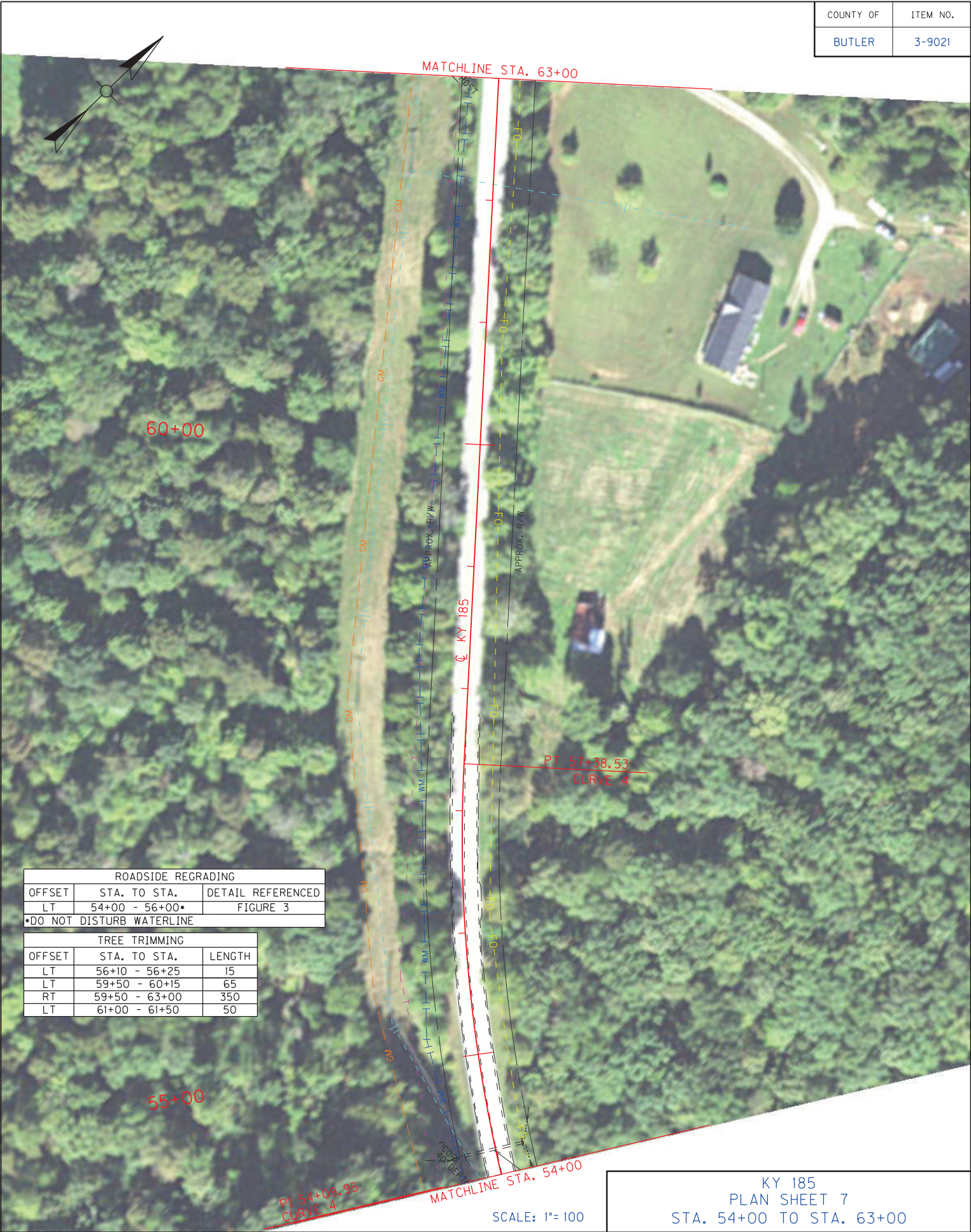


COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021





COUNTY OF	ITEM NO.
BUTLER	3-9021

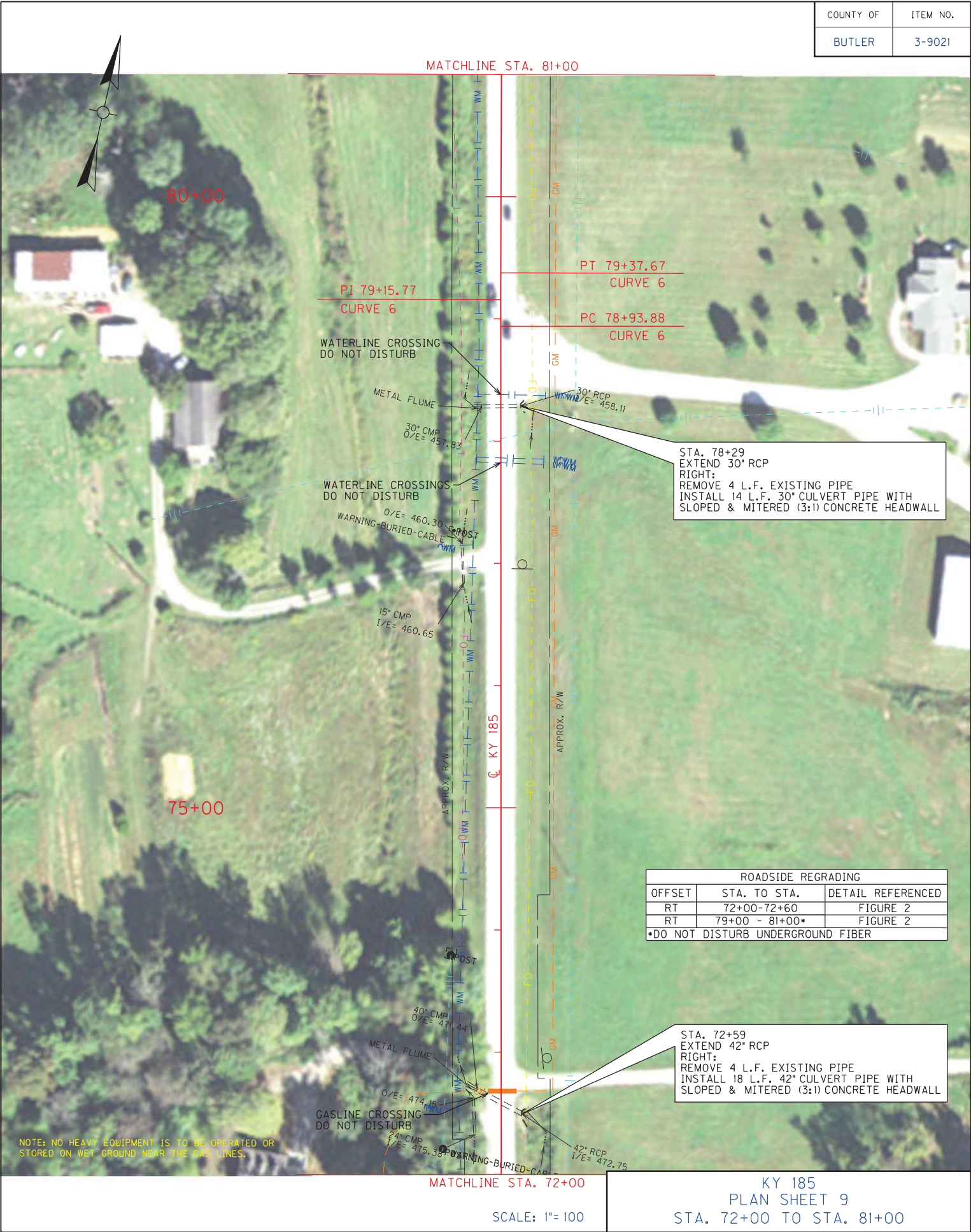








COUNTY OF	ITEM NO.
BUTLER	3-9021





COUNTY OF	ITEM NO.
BUTLER	3-9021





COUNTY OF	ITEM NO.
BUTLER	3-9021

**ROADSIDE REGRADE**

OFFSET	STA. TO STA.	DETAIL REFERENCED
RT	90+50 - 91+75 *	FIGURE 7

\*DO NOT DISTURB WATERLINE AND UNDERGROUND FIBER

Other labels on plan: MATCHLINE STA. 99+00, MATCHLINE STA. 90+00, 95+00, 90+00, KY 185, PT 91+76.45, CURVE 7, 18' RCP, 1/E= 454.98, 6' W x 3' H RCBC, 1/E= 458.05, O/E= 457.7, O/E= 452.84, APPROX. R/W, C/W, C/M, W/M, F.O., and various dashed and solid lines representing the road and regrading areas.

SCALE: 1"= 100	KY 185 PLAN SHEET 11 STA. 90+00 TO STA. 99+00
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KY 185  
PLAN SHEET 11  
STA. 90+00 TO STA. 99+00



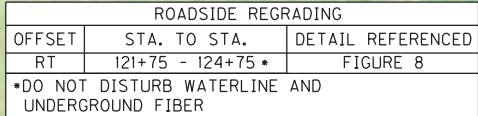




COUNTY OF	ITEM NO.
BUTLER	3-9021













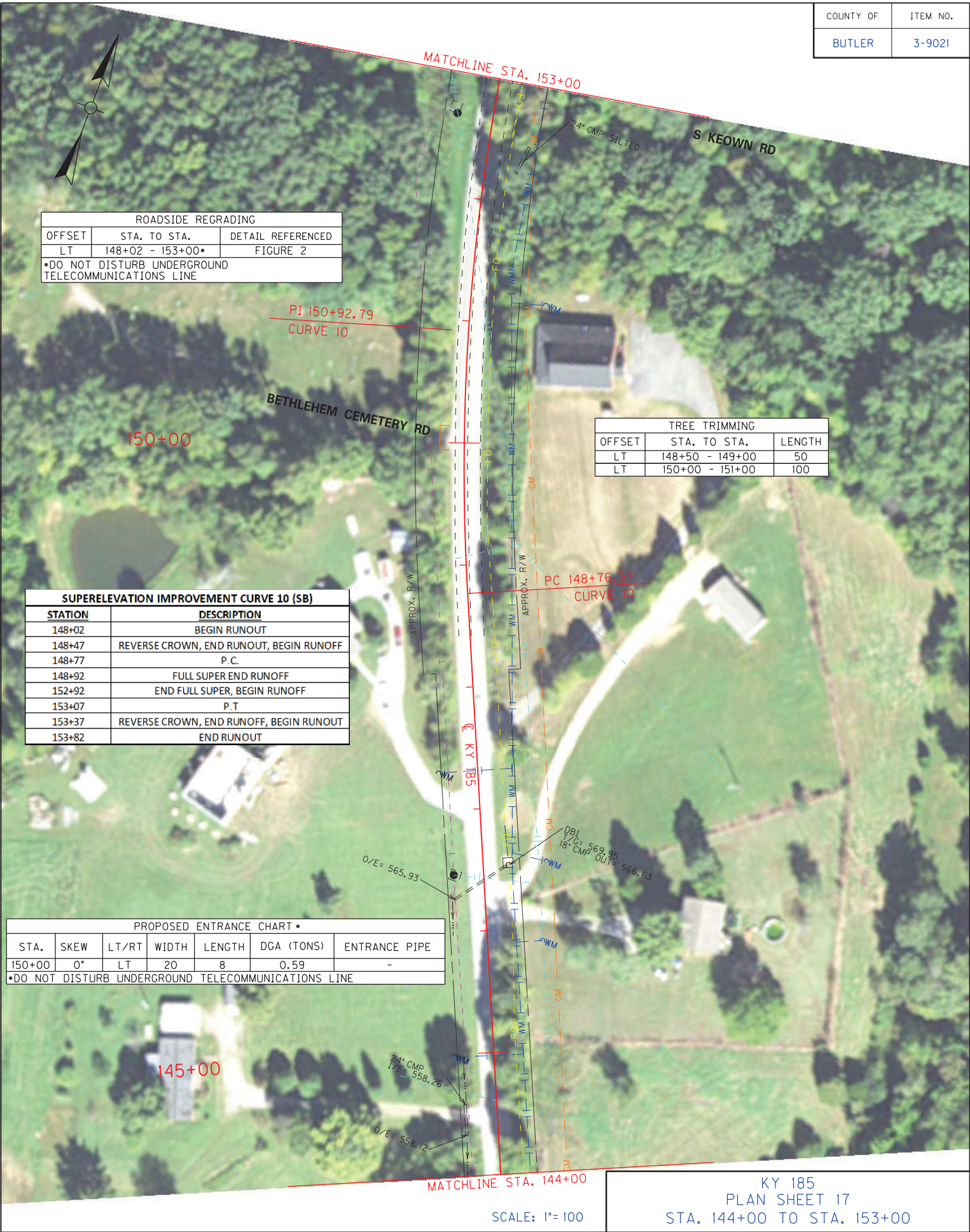
COUNTY OF	ITEM NO.
BUTLER	3-9021



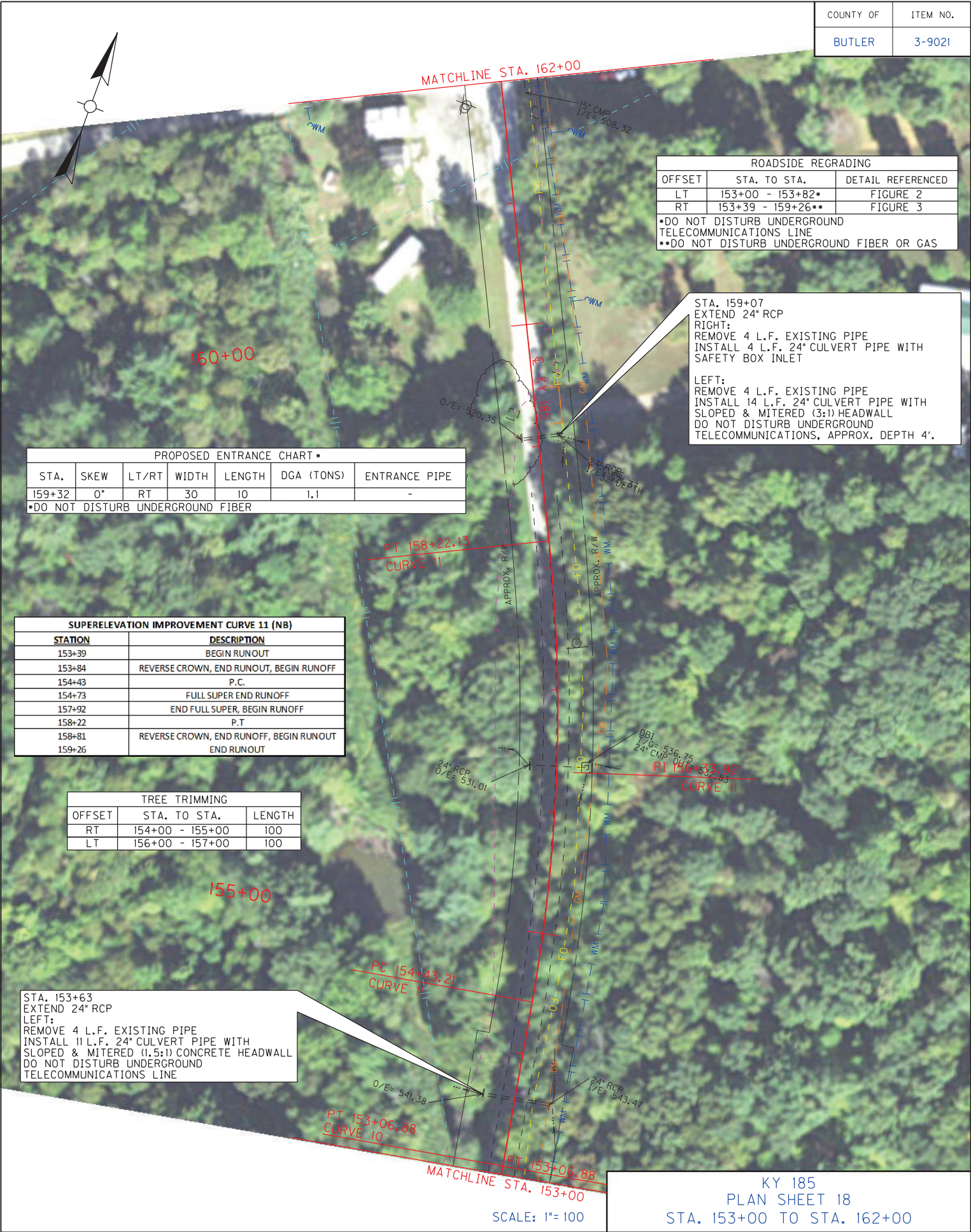
SCALE: 1"= 100

KY 185  
PLAN SHEET 16  
STA. 135+00 TO STA. 144+00

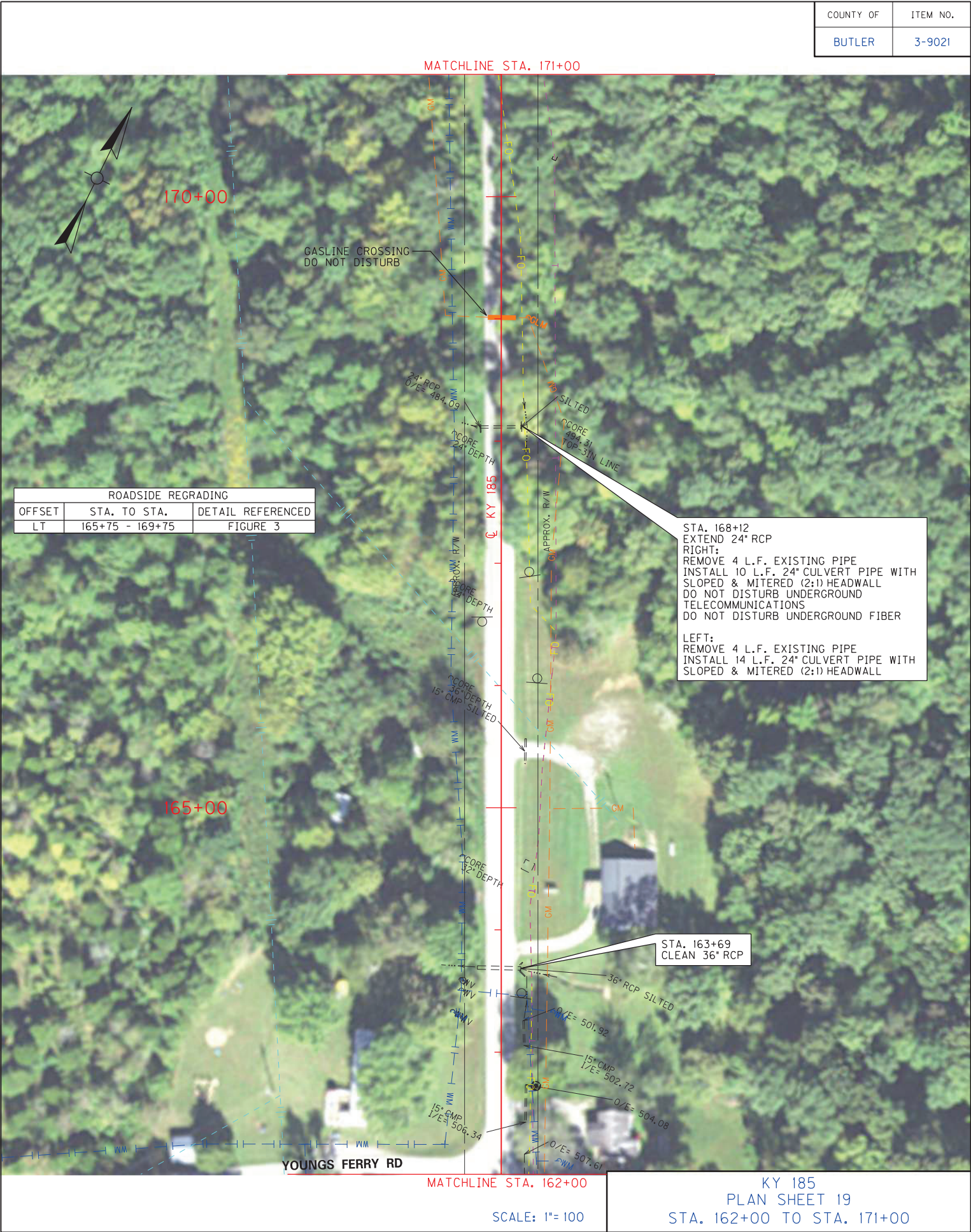




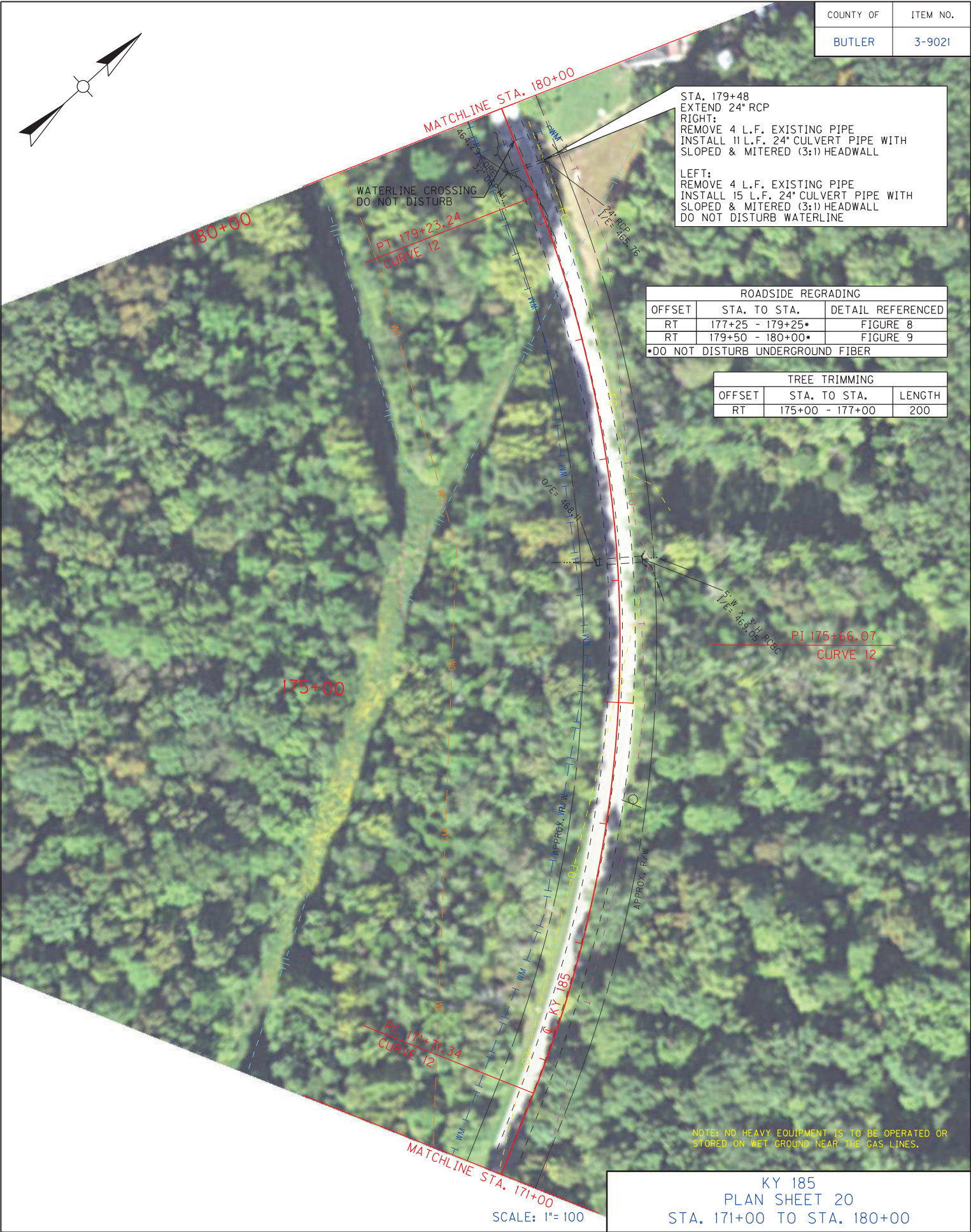




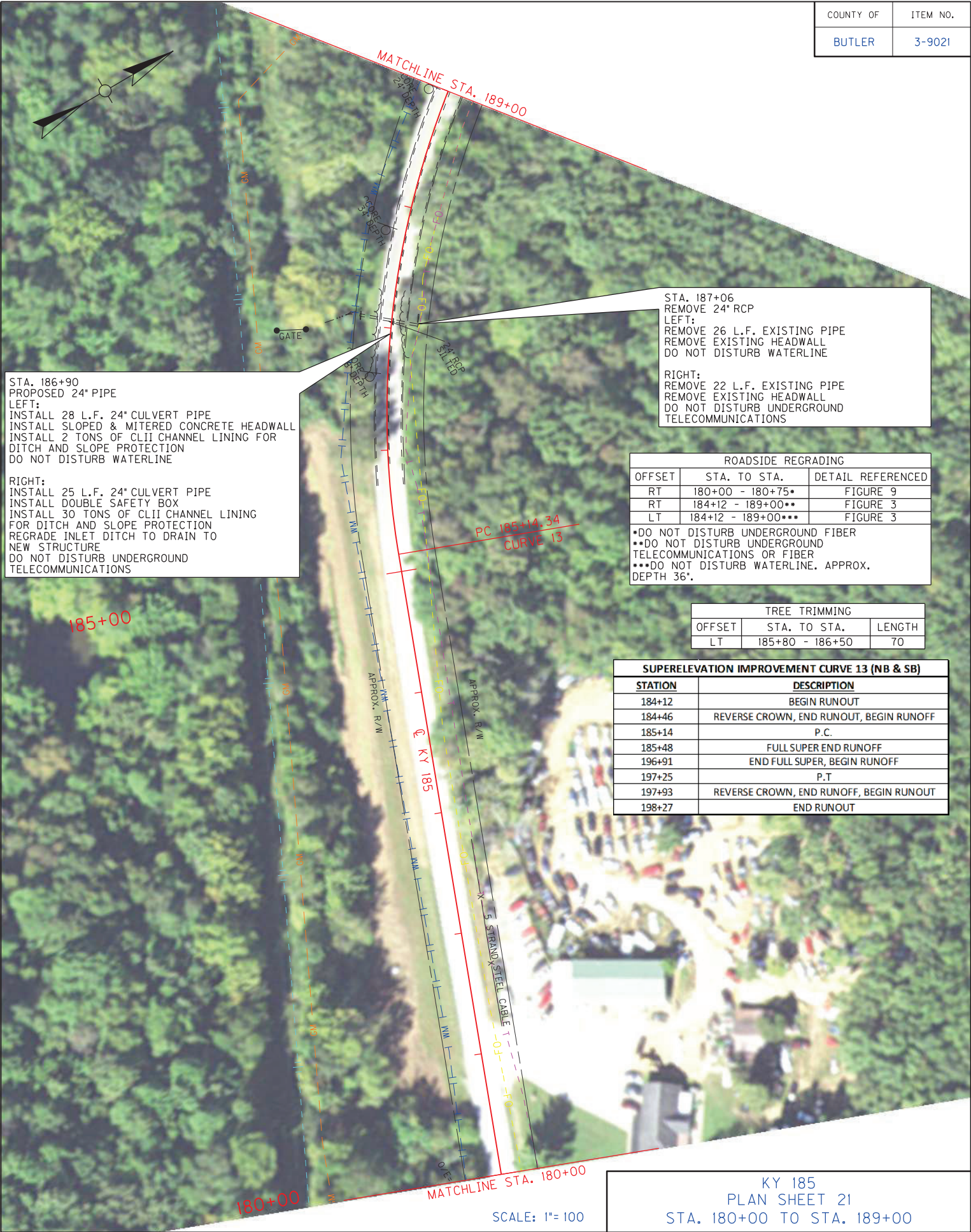




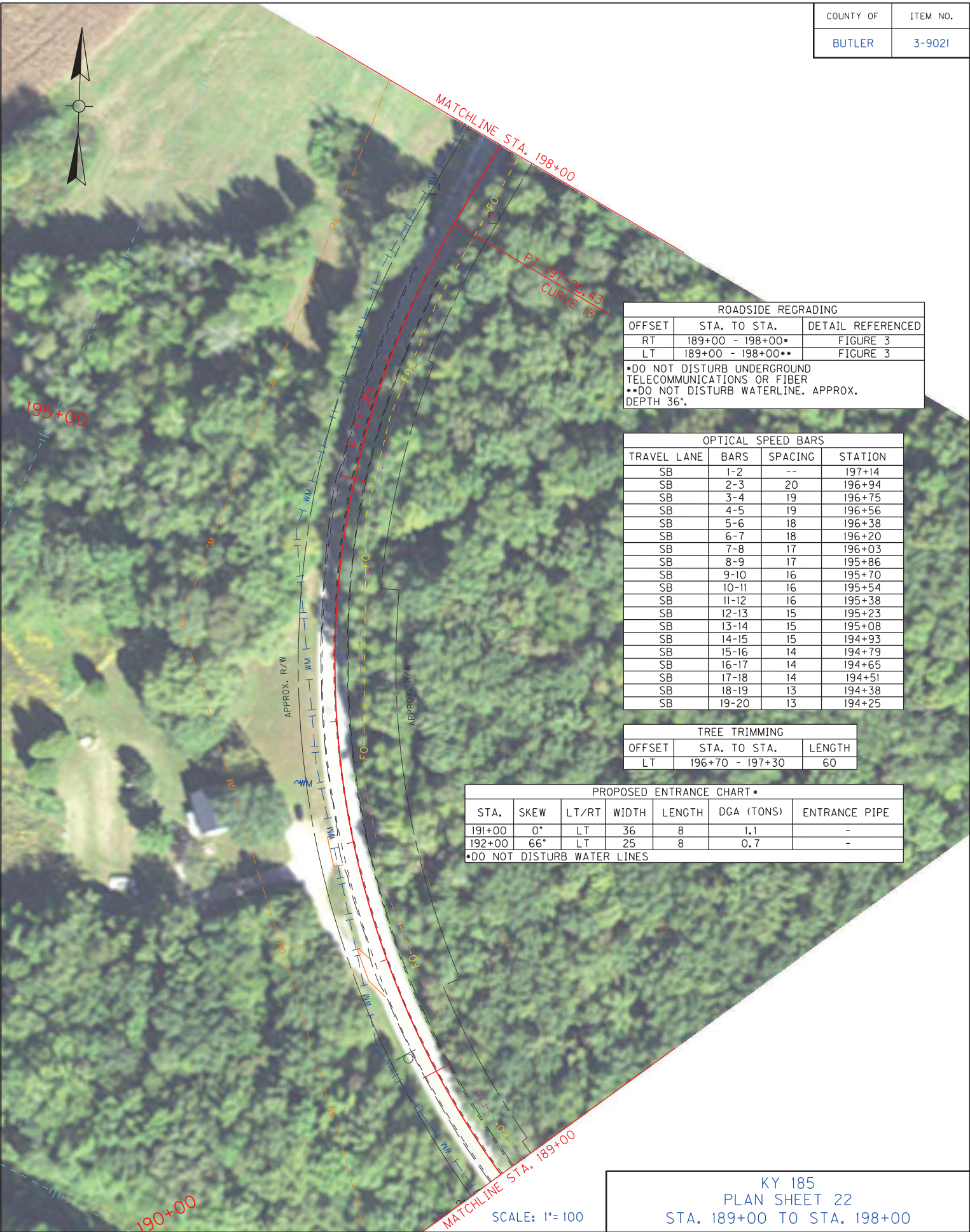














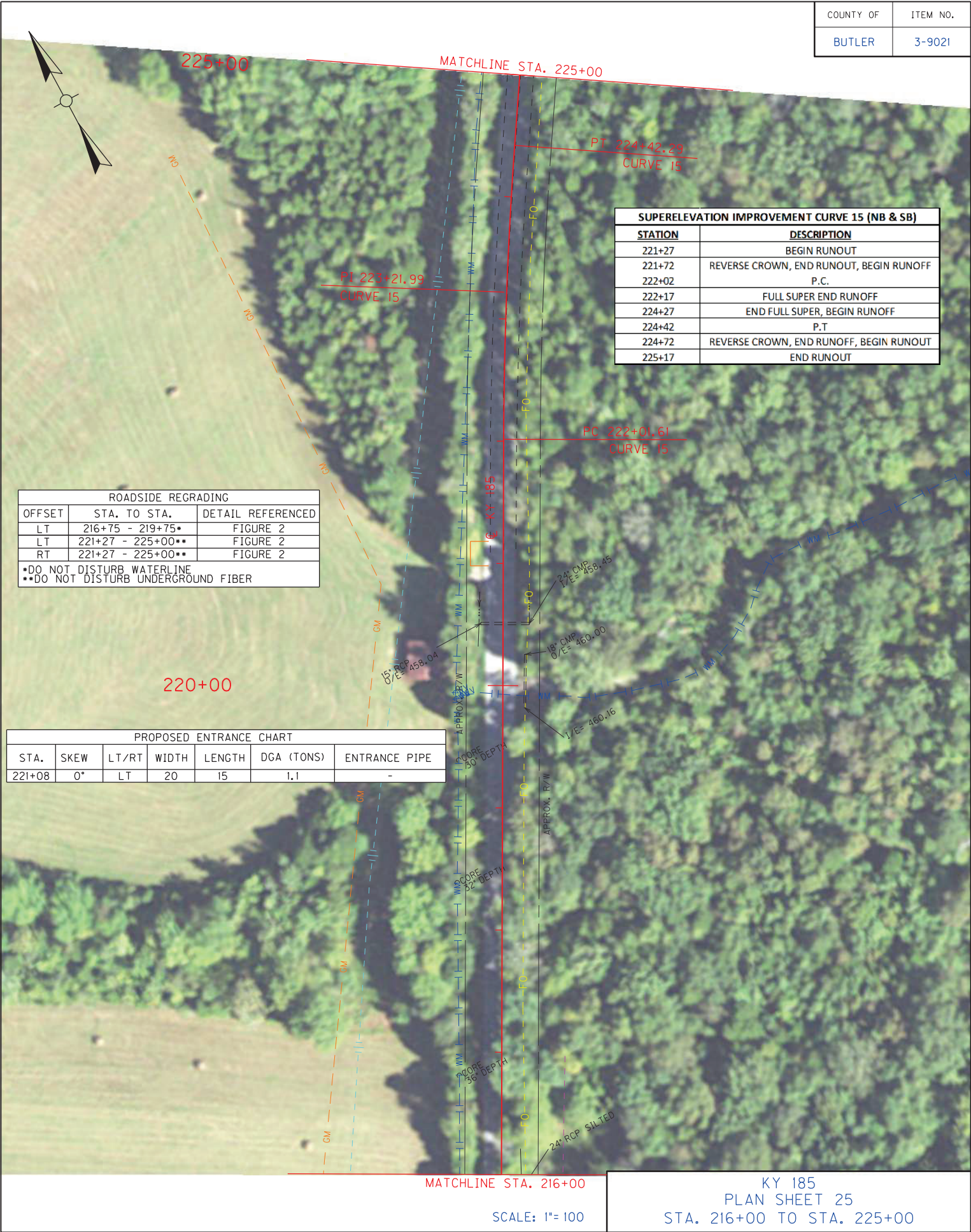




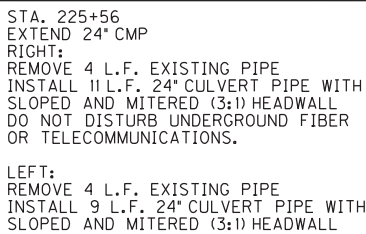
COUNTY OF	ITEM NO.
BUTLER	3-9021













COUNTY OF	ITEM NO.
BUTLER	3-9021









COUNTY OF	ITEM NO.
BUTLER	3-9021





COUNTY OF	ITEM NO.
BUTLER	3-9021



TREE TRIMMING		
OFFSET	STA. TO STA.	LENGTH
LT	266+25 - 267+60	135

KY 185  
 PLAN SHEET 30  
 STA. 261+00 TO STA. 270+00

SCALE: 1"= 100



COUNTY OF	ITEM NO.
BUTLER	3-9021



ROADSIDE REGRADING		
OFFSET	STA. TO STA.	DETAIL REFERENCED
LT	278+00 - 279+00	FIGURE 8

TREE TRIMMING		
OFFSET	STA. TO STA.	LENGTH
LT	276+50 - 277+20	70

STA. 278+75  
EXTEND 18" RCP  
RIGHT:  
REMOVE 4 L.F. EXISTING PIPE  
INSTALL 10 L.F. 18" CULVERT PIPE WITH  
SLOPED AND MITERED (2:1) HEADWALL  
  
LEFT:  
REMOVE 4 L.F. EXISTING PIPE  
INSTALL 12 L.F. 18" CULVERT PIPE WITH  
SLOPED AND MITERED (2:1) HEADWALL

STA. 274+81  
EXTEND 30" RCP  
RIGHT:  
REMOVE 4 L.F. EXISTING PIPE  
INSTALL 11 L.F. 30" CULVERT PIPE WITH  
SLOPED AND MITERED (2:1) HEADWALL  
DO NOT DISTURB UNDERGROUND FIBER

KY 185  
PLAN SHEET 31  
STA. 270+00 TO STA. 279+00

SCALE: 1"= 100



COUNTY OF	ITEM NO.
BUTLER	3-9021



ROADSIDE REGRAVING		
OFFSET	STA. TO STA.	DETAIL REFERENCED
LT	279+00 - 279+80	FIGURE 8

KY 185  
PLAN SHEET 32  
STA. 279+00 TO STA. 288+00

SCALE: 1"= 100



COUNTY OF	ITEM NO.
BUTLER	3-9021



TREE TRIMMING		
OFFSET	STA. TO STA.	LENGTH
RT	292+00 - 293+00	100

ROADSIDE REGRADING		
OFFSET	STA. TO STA.	DETAIL REFERENCED
LT	288+79 - 289+29	FIGURE 3
LT	294+72 - 295+22	FIGURE 2

KY 185  
PLAN SHEET 33  
STA. 288+00 TO STA. 297+00

SCALE: 1"= 100



COUNTY OF	ITEM NO.
BUTLER	3-9021

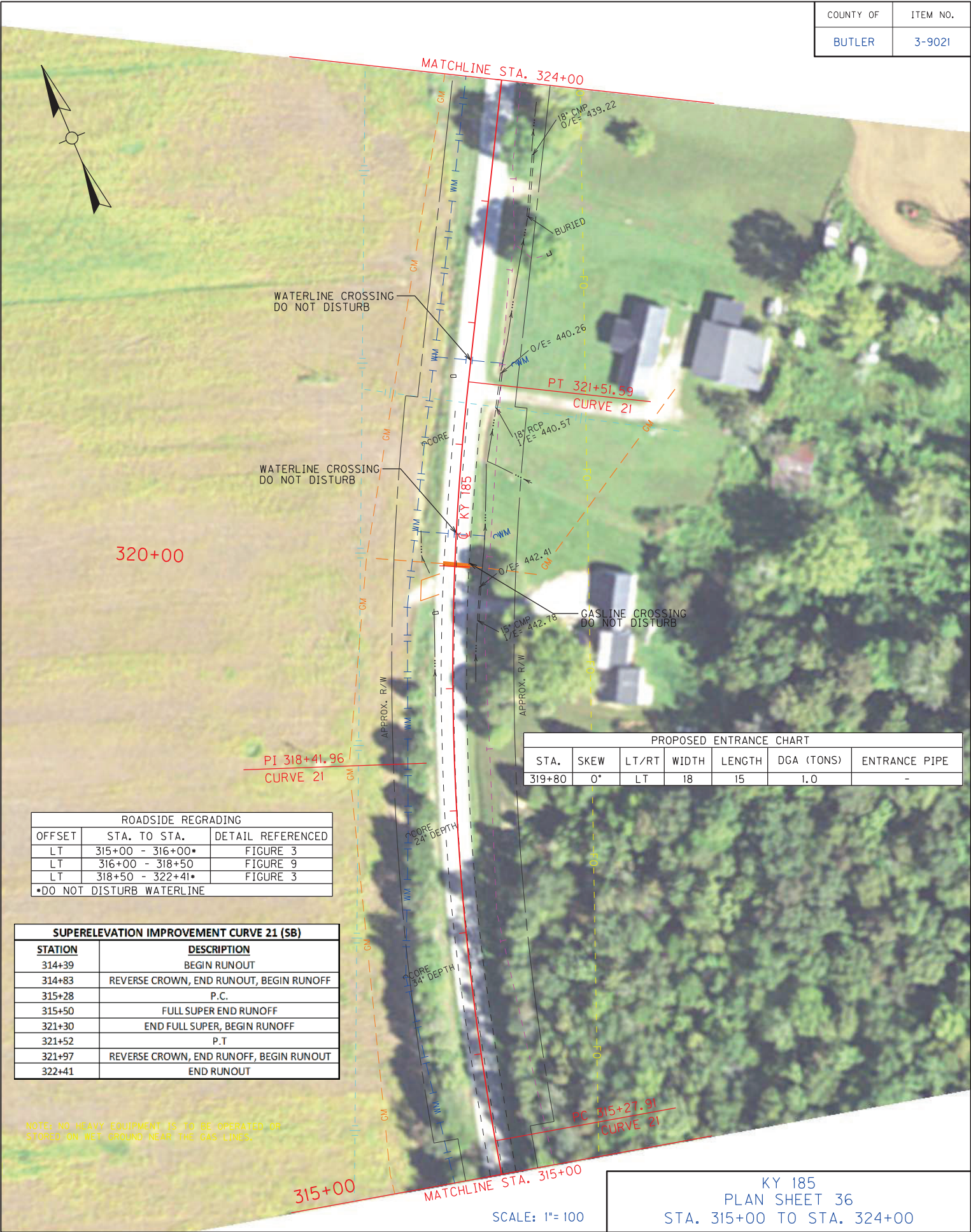






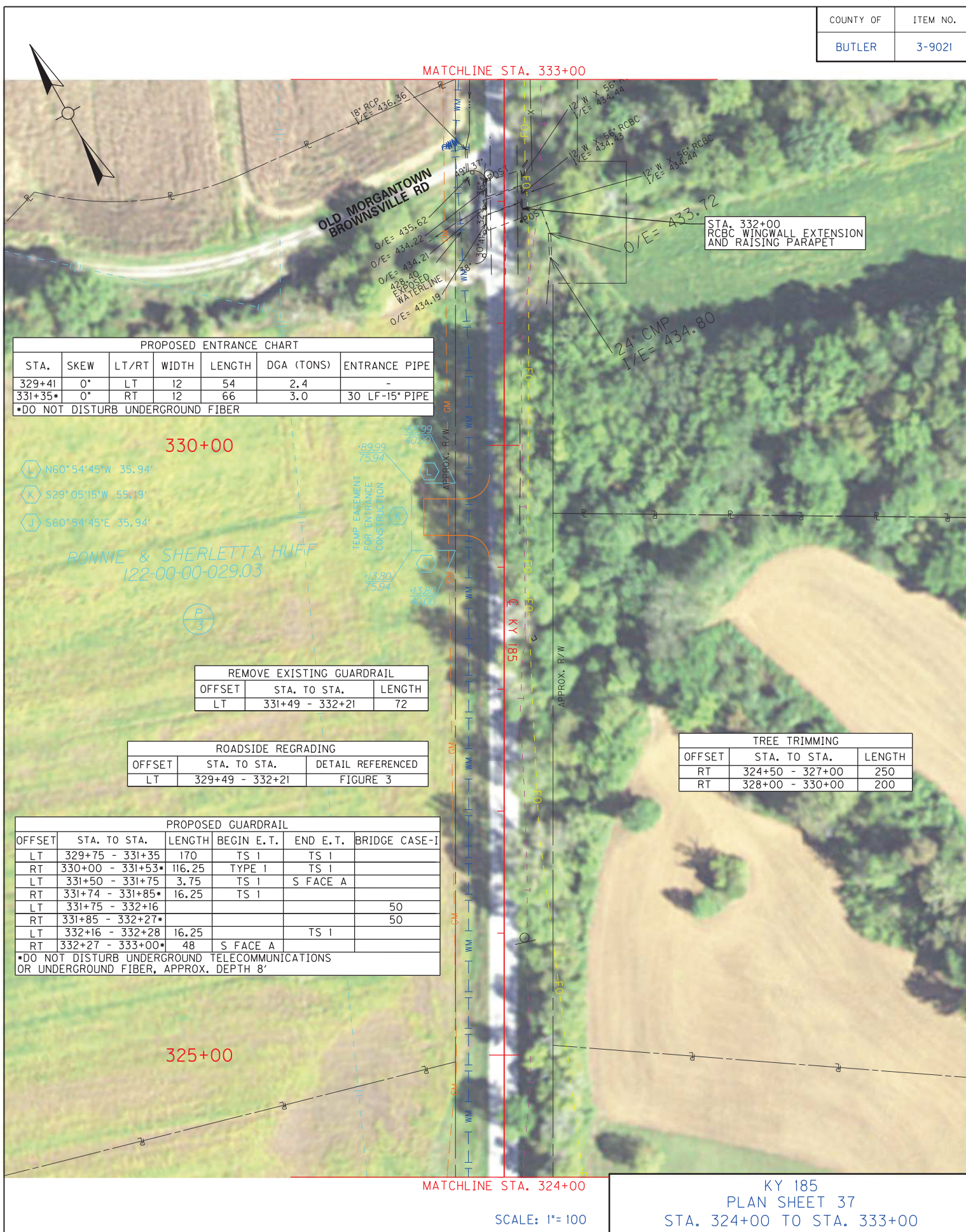


COUNTY OF	ITEM NO.
BUTLER	3-9021





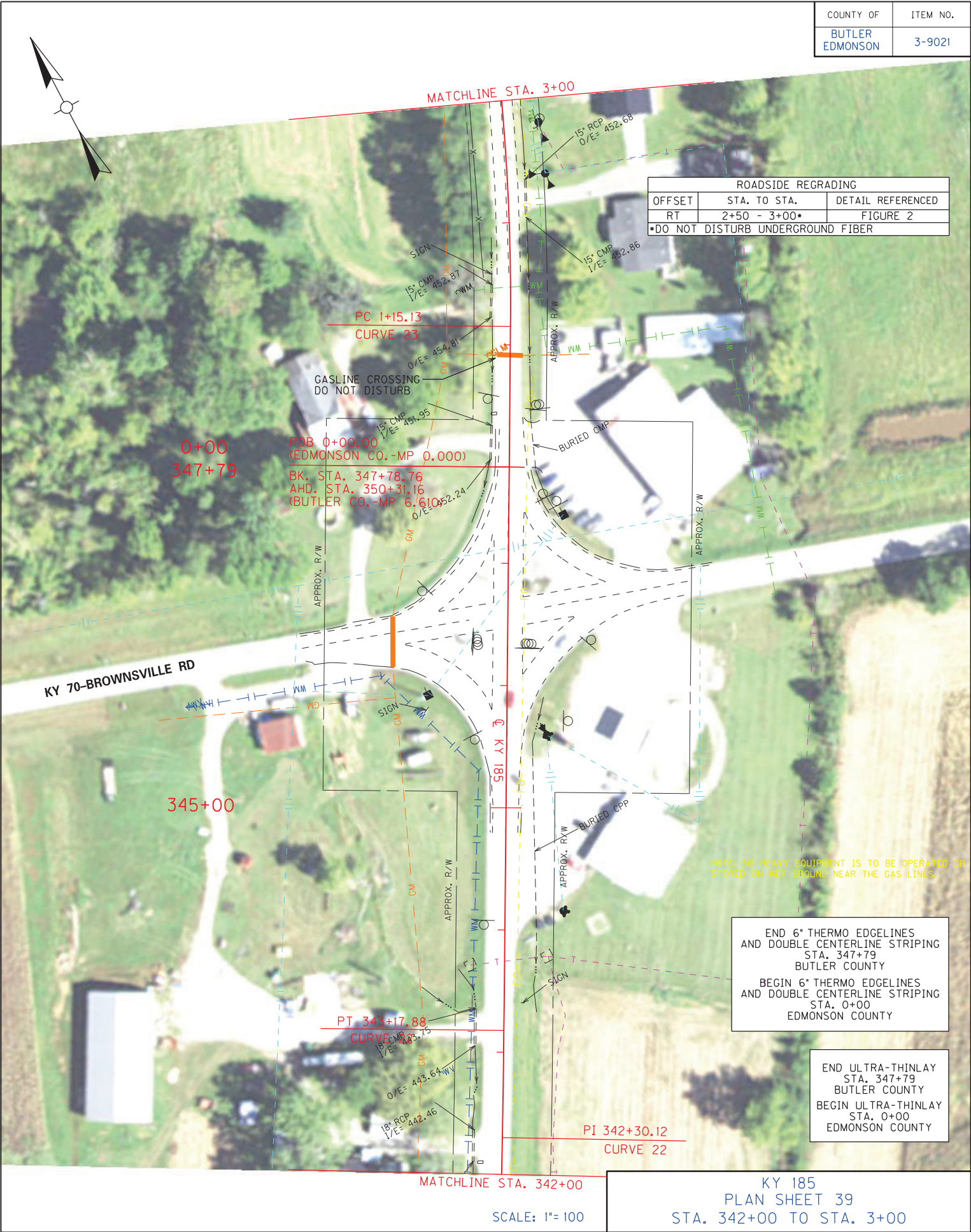
COUNTY OF	ITEM NO.
BUTLER	3-9021















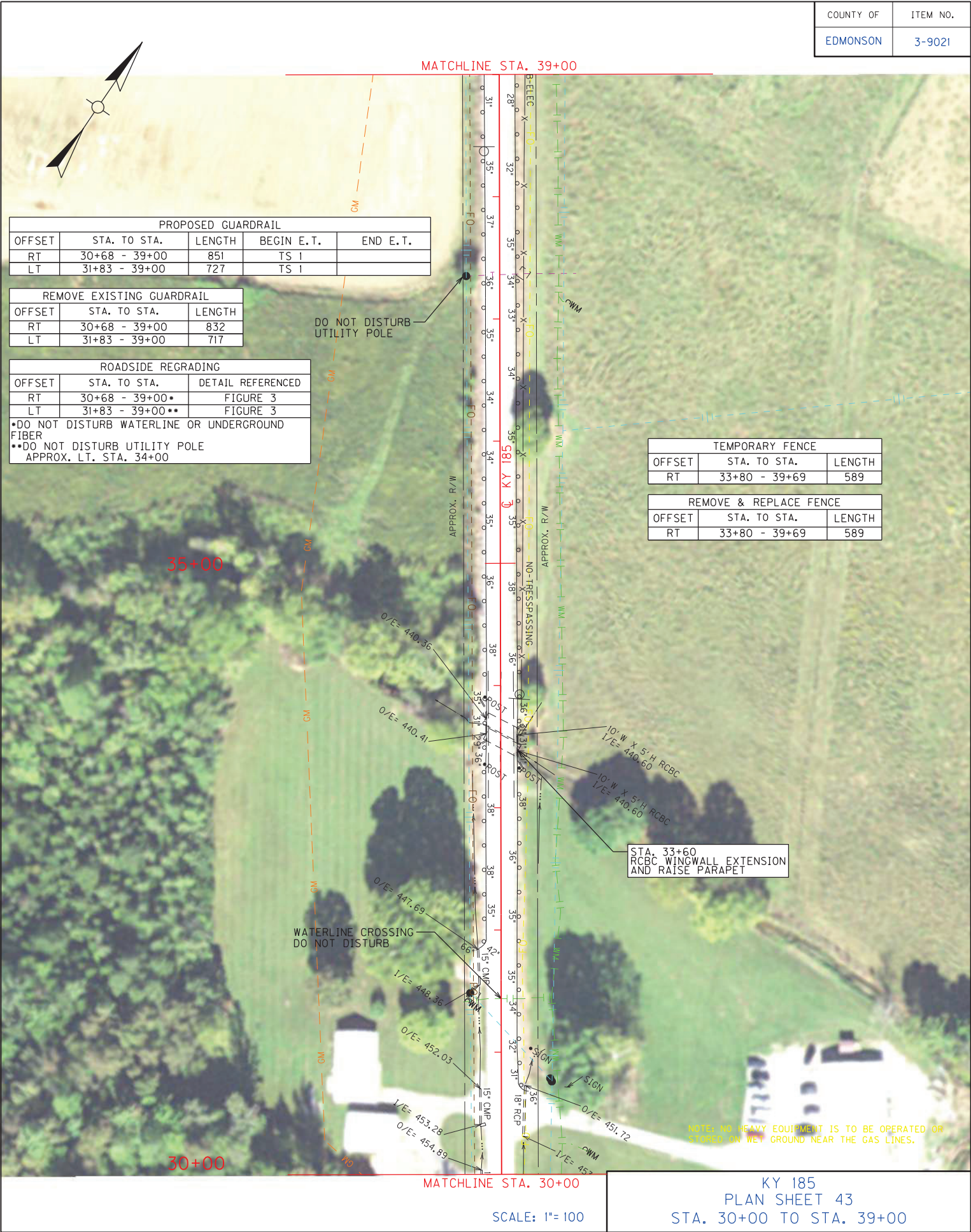














COUNTY OF	ITEM NO.
EDMONSON	3-9021

**PROPOSED GUARDRAIL**

OFFSET	STA. TO STA.	LENGTH	BEGIN E.T.	END E.T.
RT	39+00 - 39+69	69		TS 1
LT	39+00 - 39+93	93		TS 1

**REMOVE EXISTING GUARDRAIL**

OFFSET	STA. TO STA.	LENGTH
RT	39+00 - 39+69	69
LT	39+00 - 39+93	93

**ROADSIDE REGRADING**

OFFSET	STA. TO STA.	DETAIL REFERENCED
RT	39+00 - 39+69	FIGURE 3
LT	39+00 - 39+93	FIGURE 3
RT	47+50 - 48+00*	FIGURE 2

\*DO NOT DISTURB UNDERGROUND FIBER

KY 185  
 PLAN SHEET 44  
 STA. 39+00 TO STA. 48+00

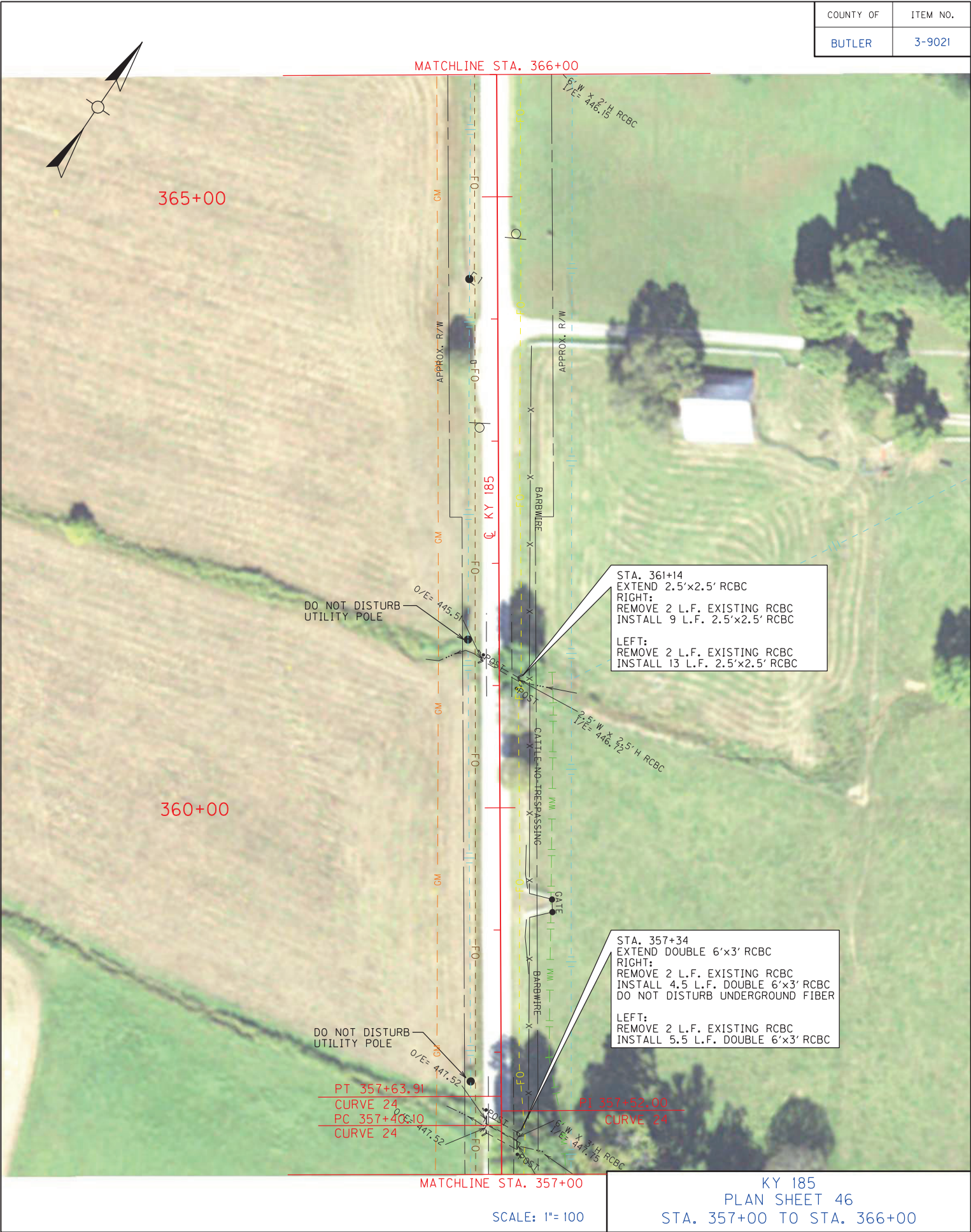
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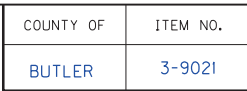
COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021



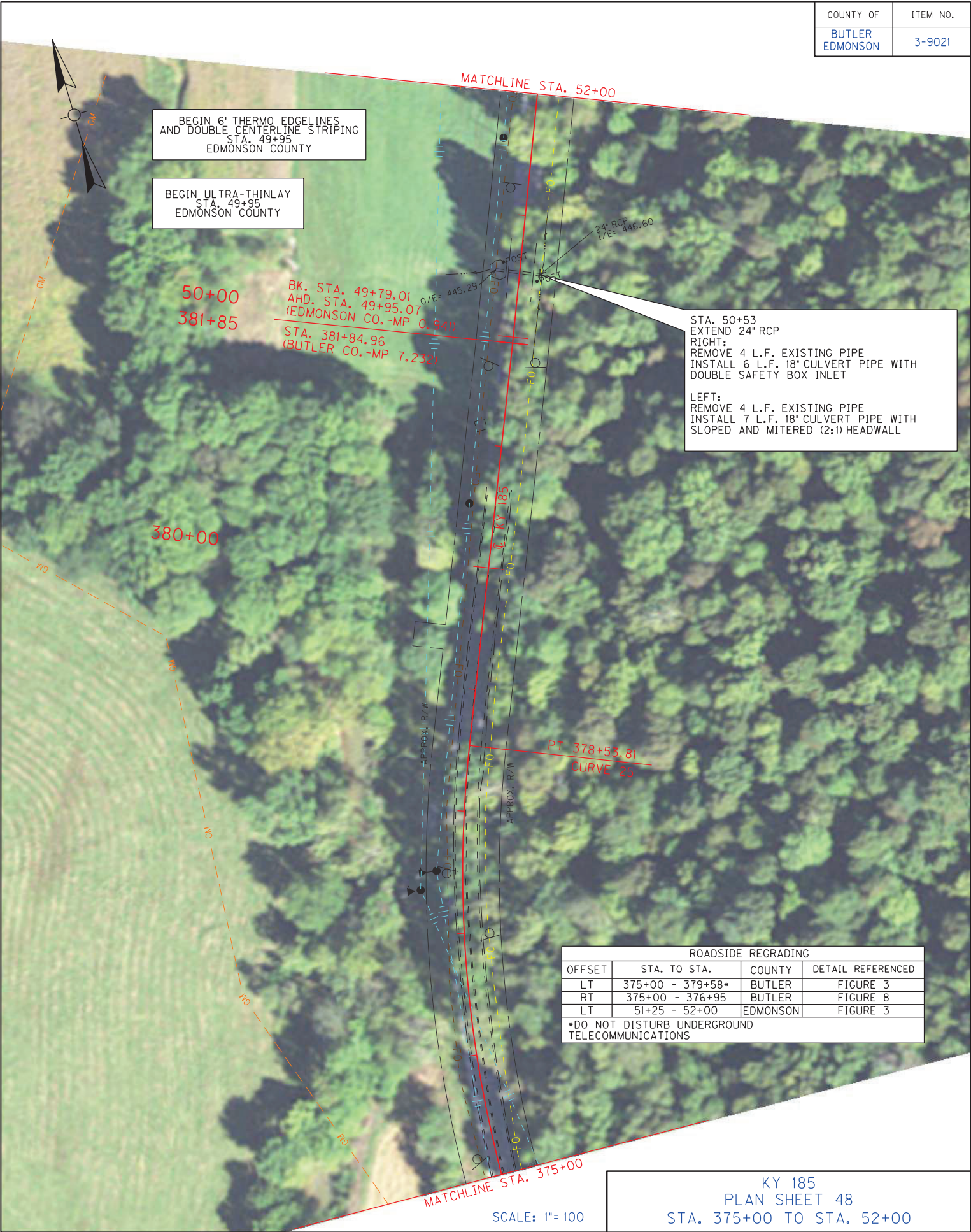




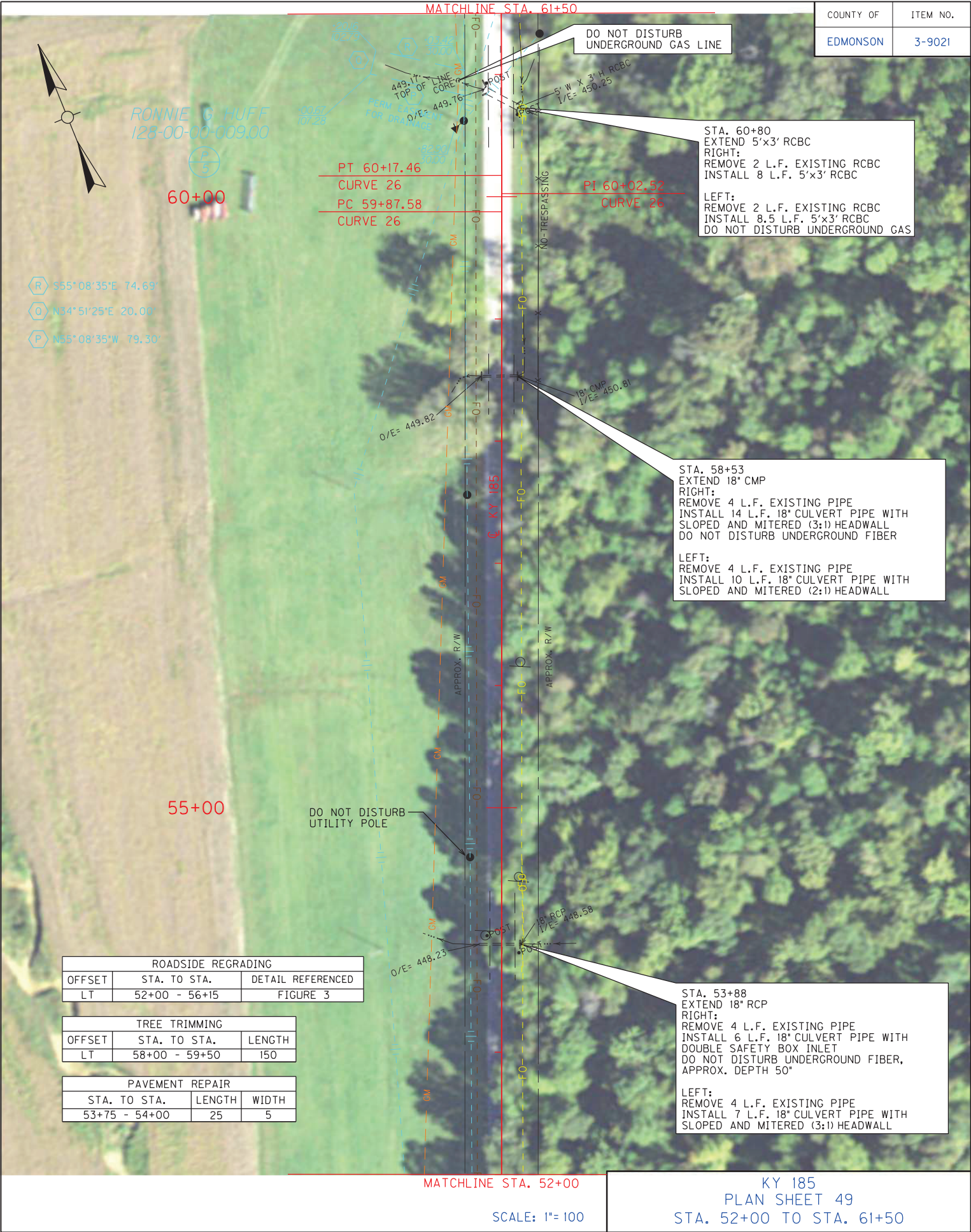




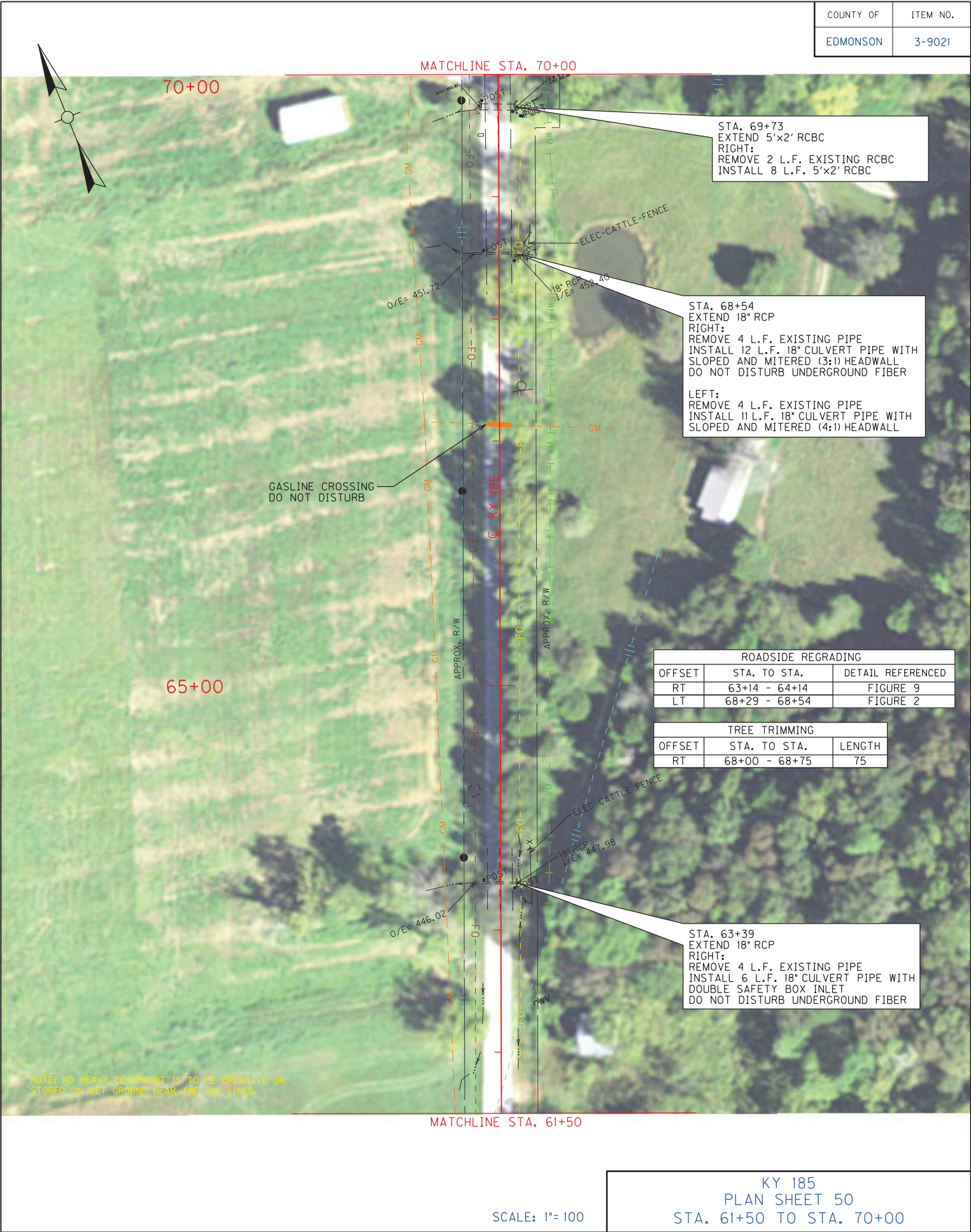






















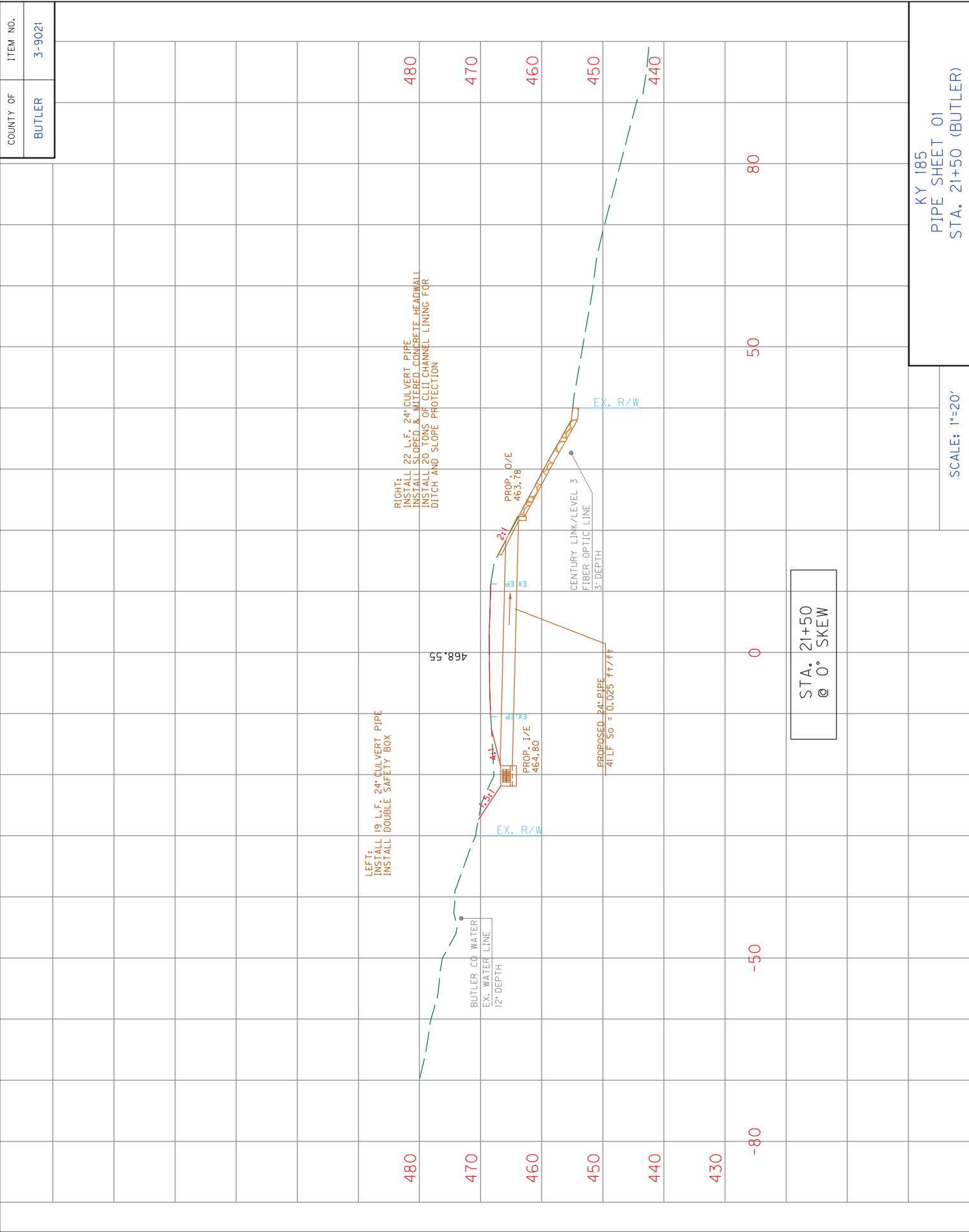


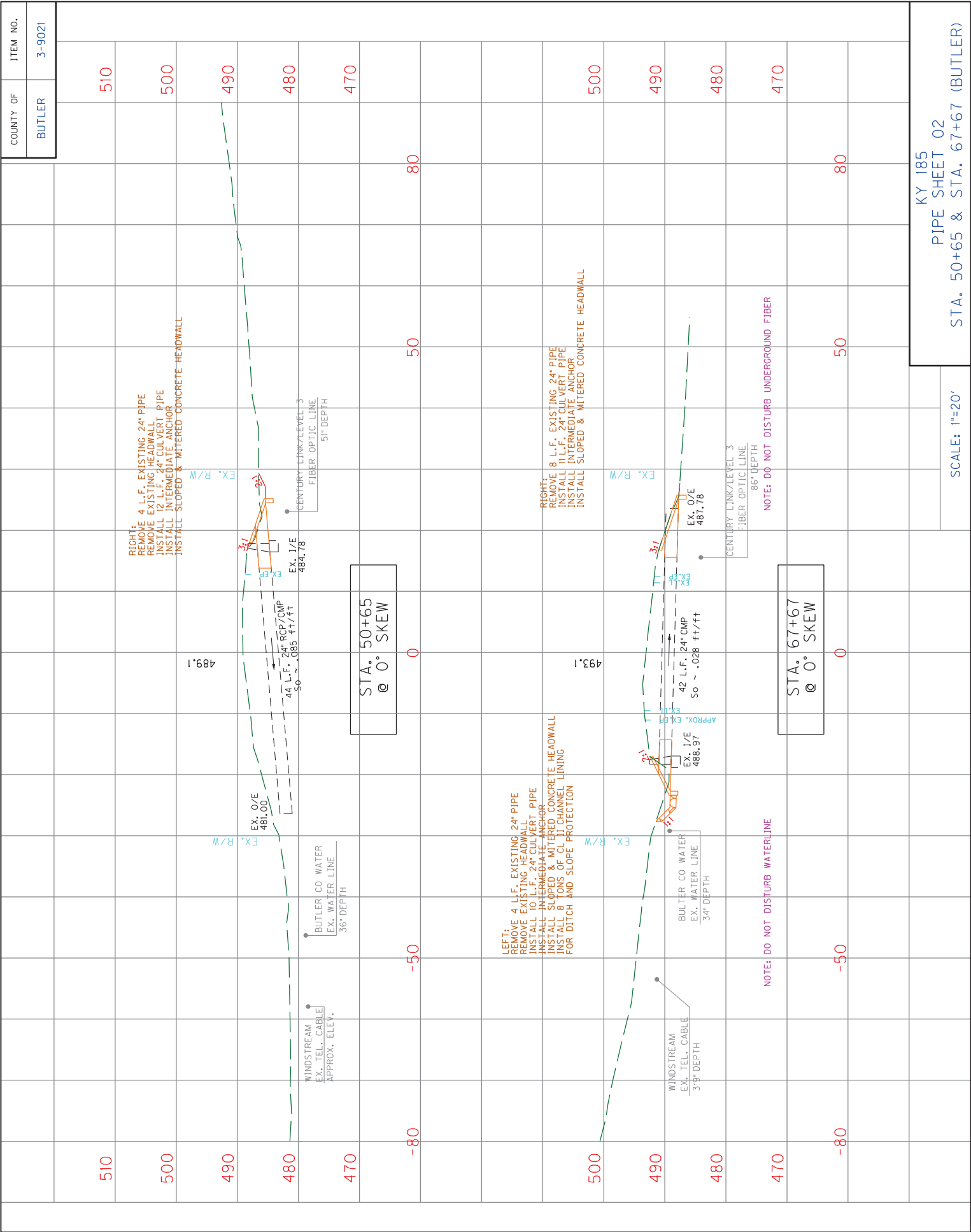


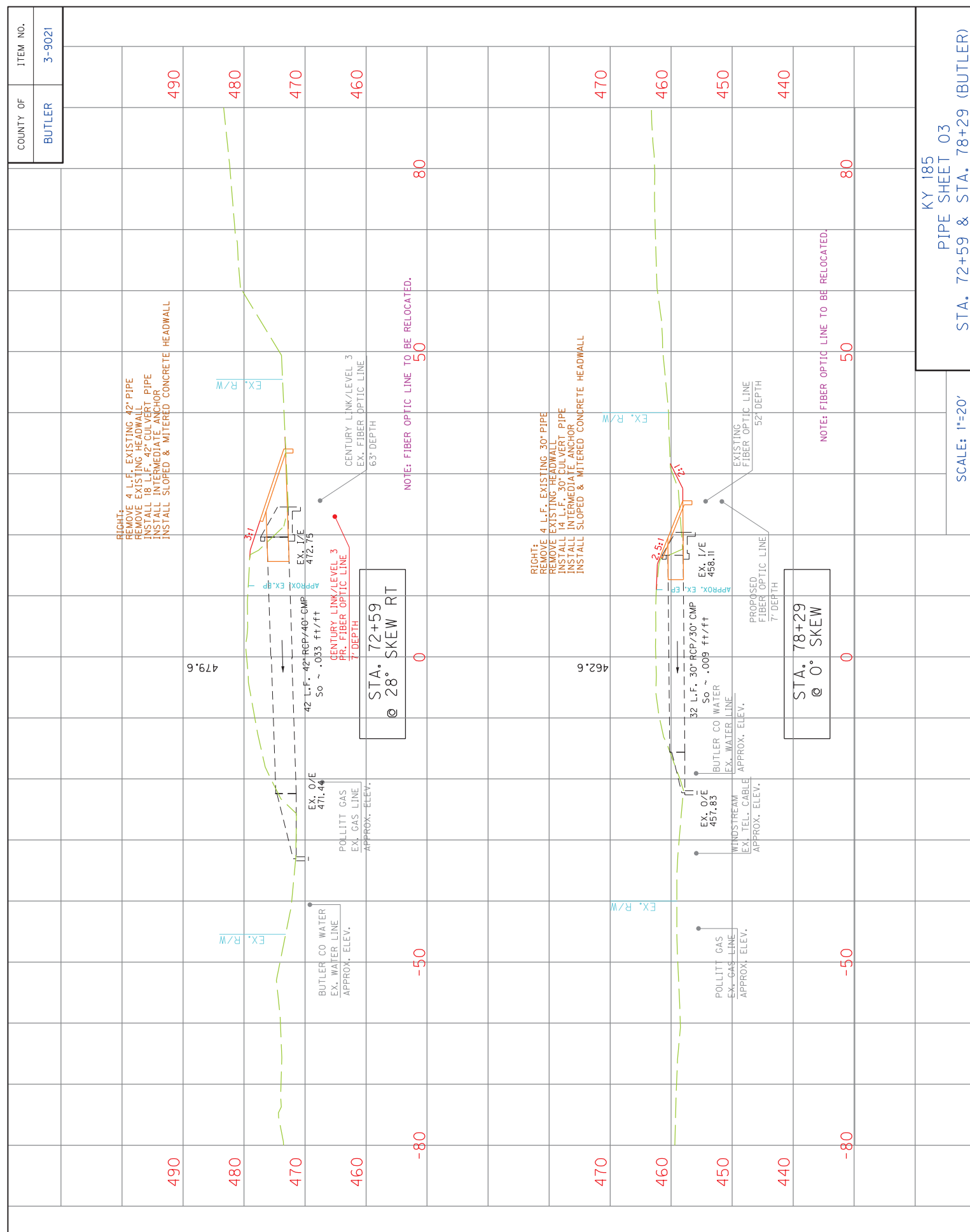




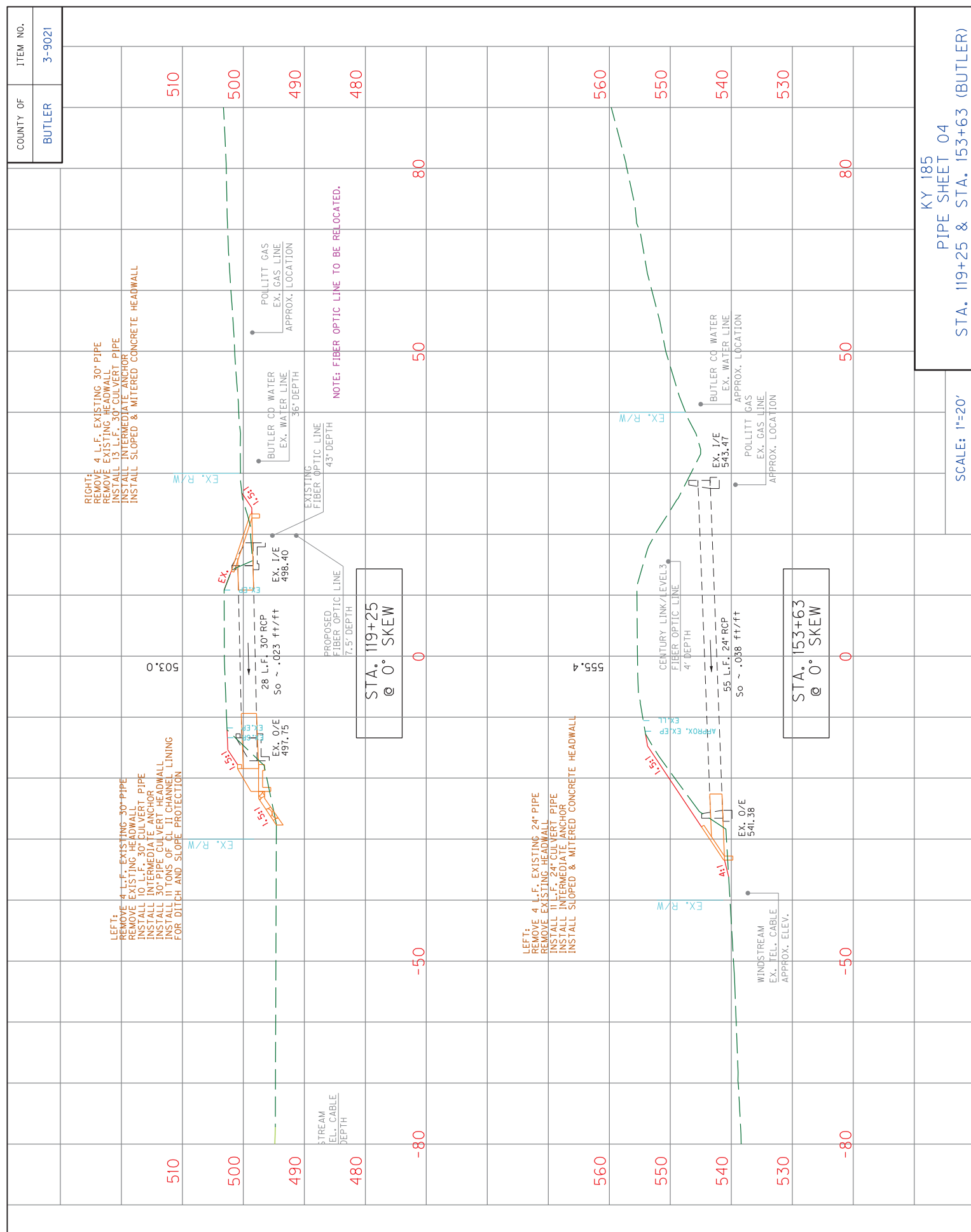


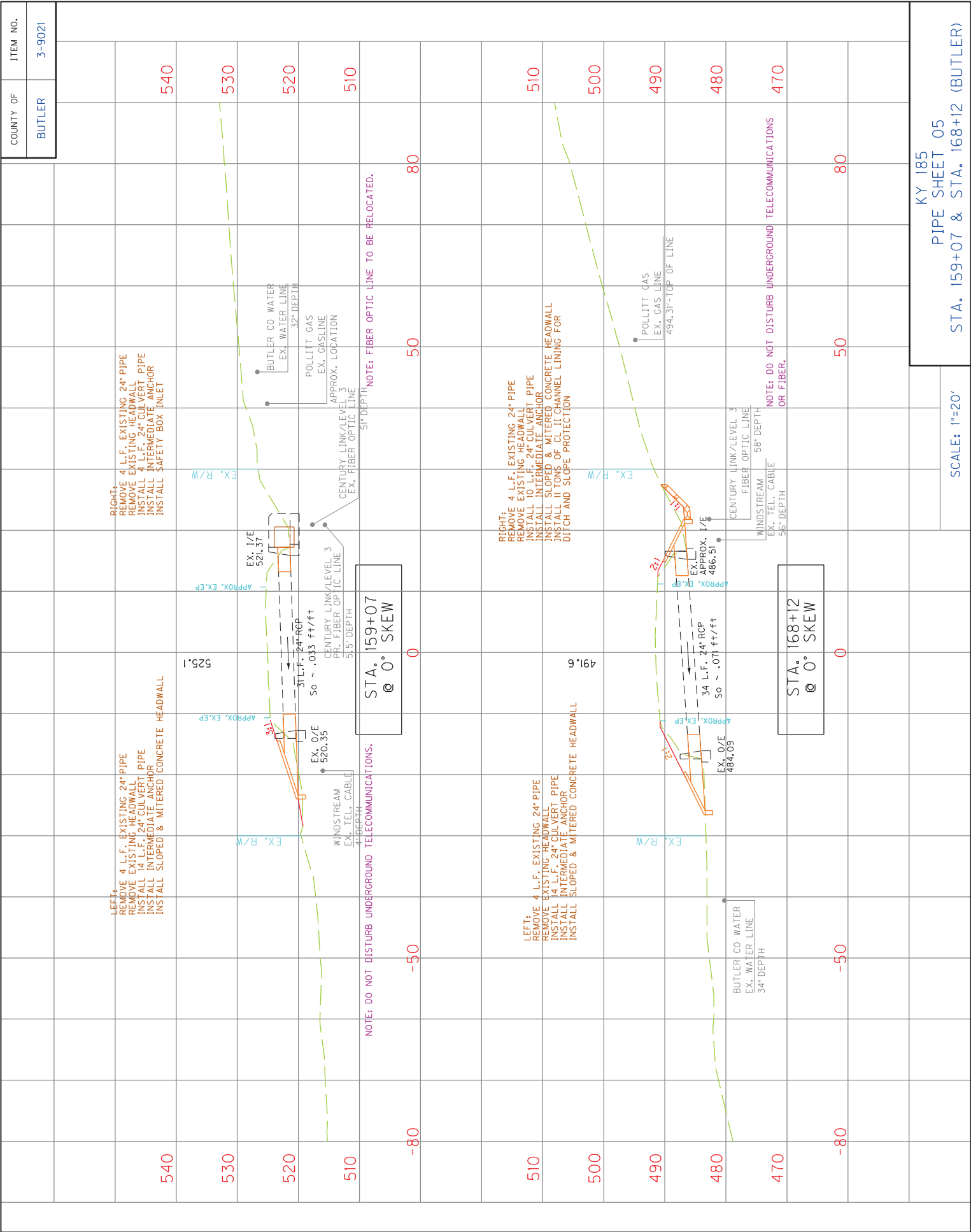


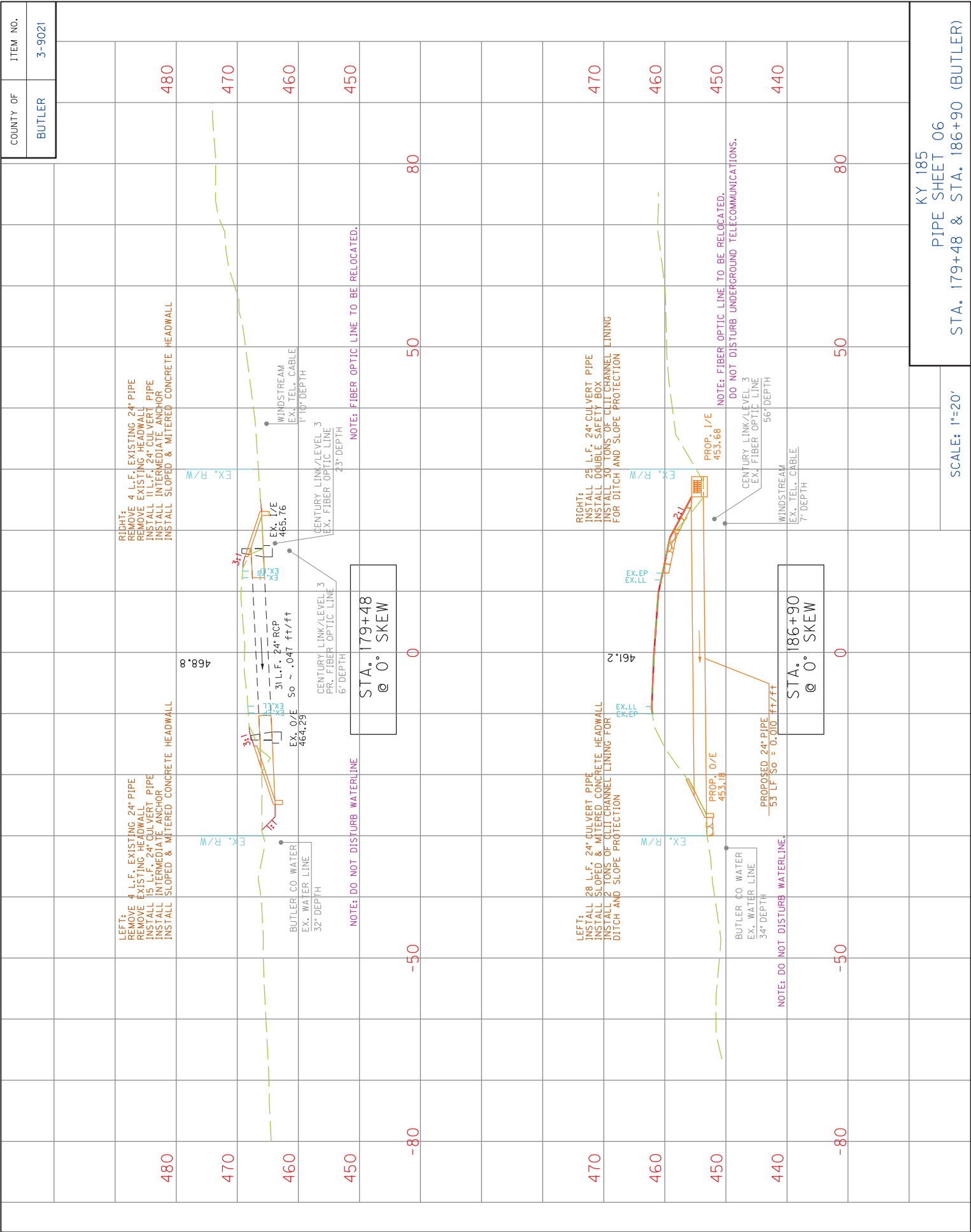




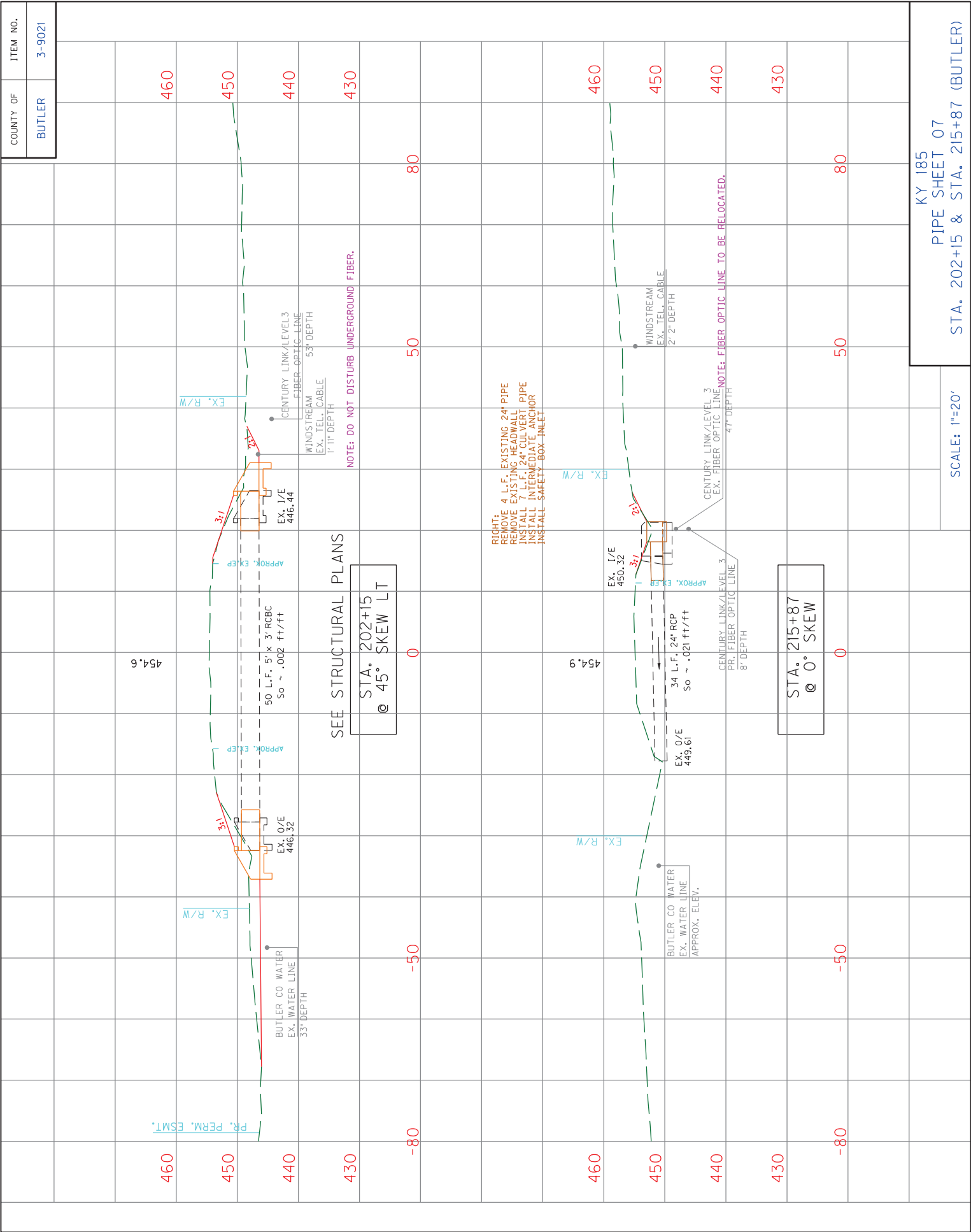


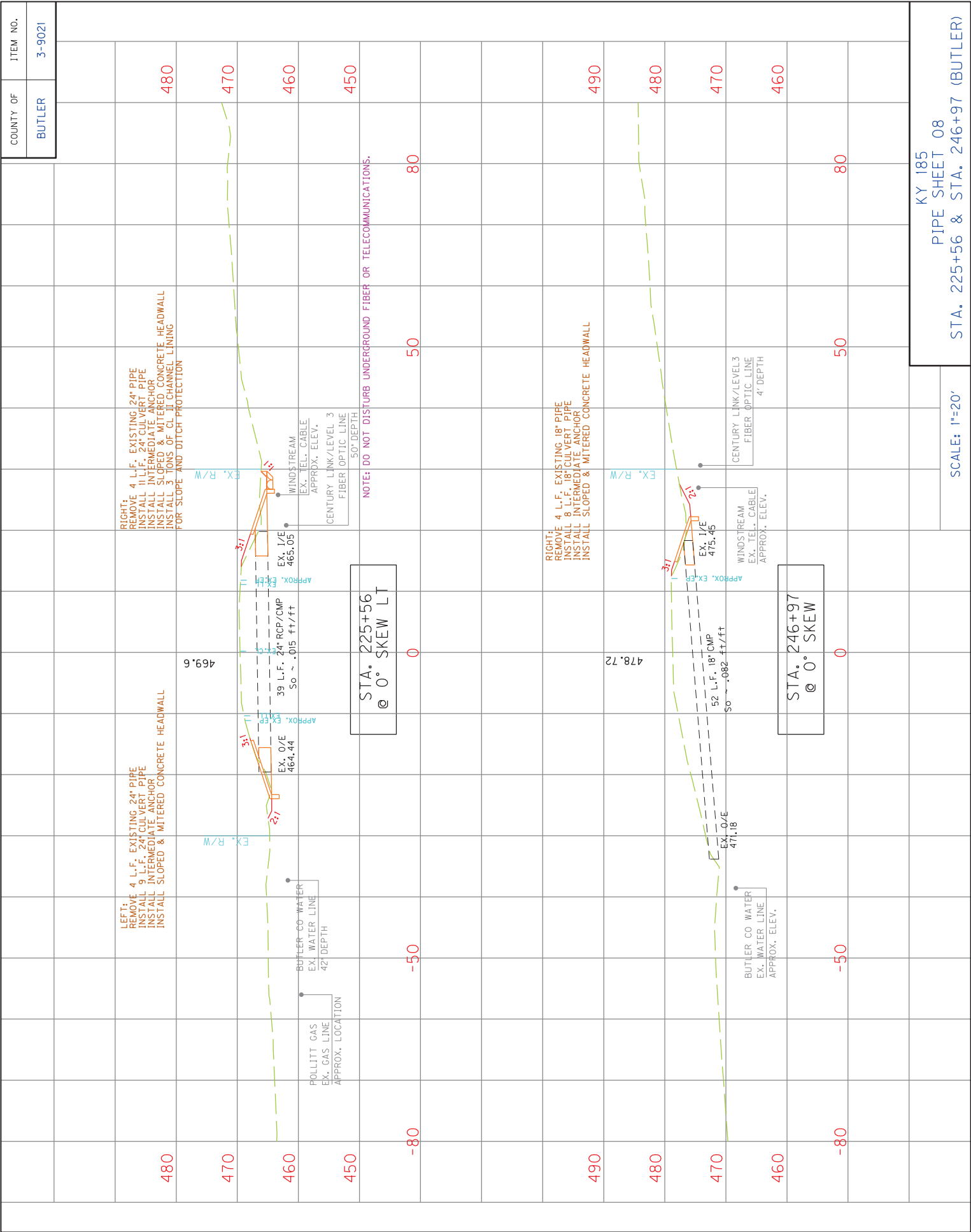






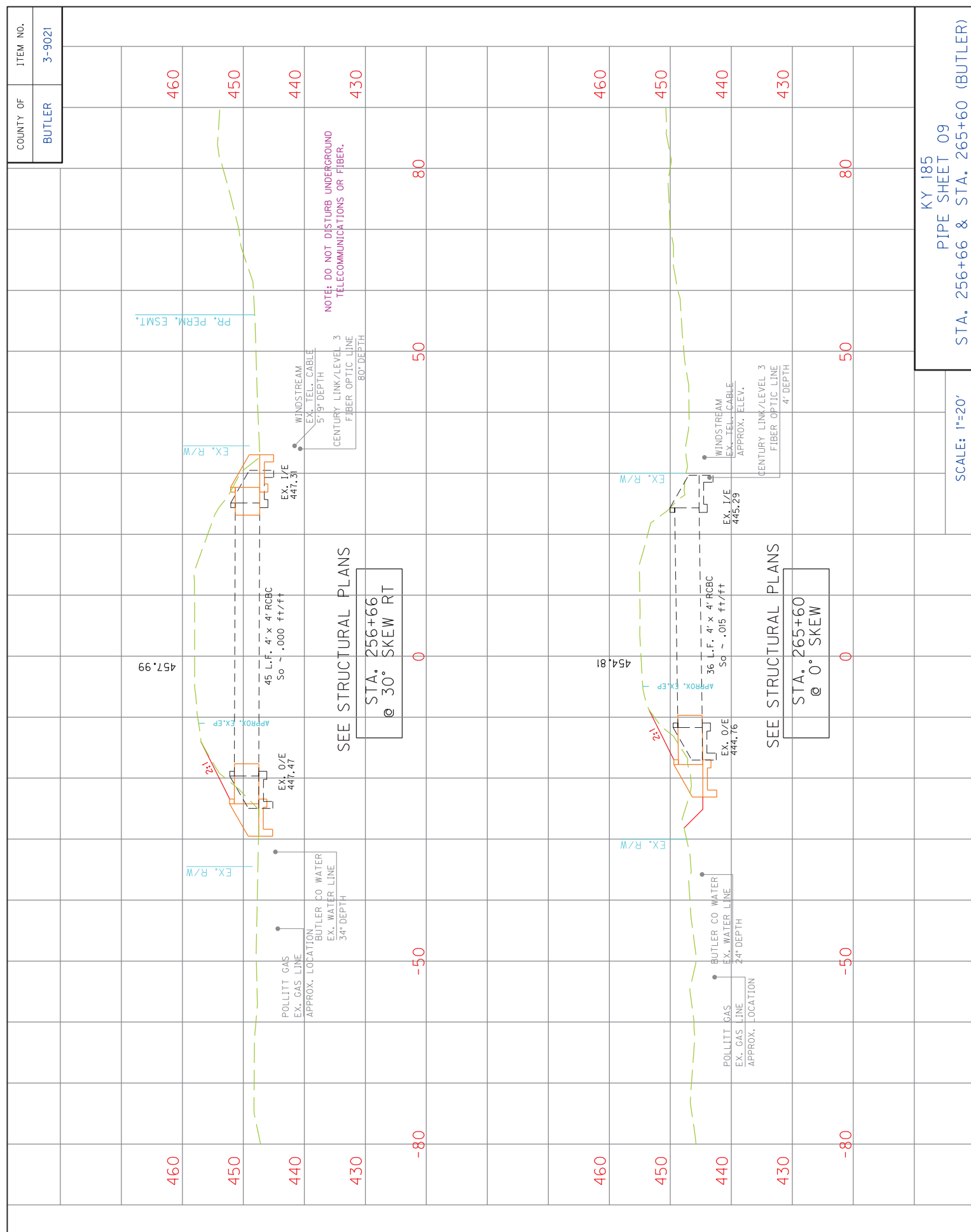




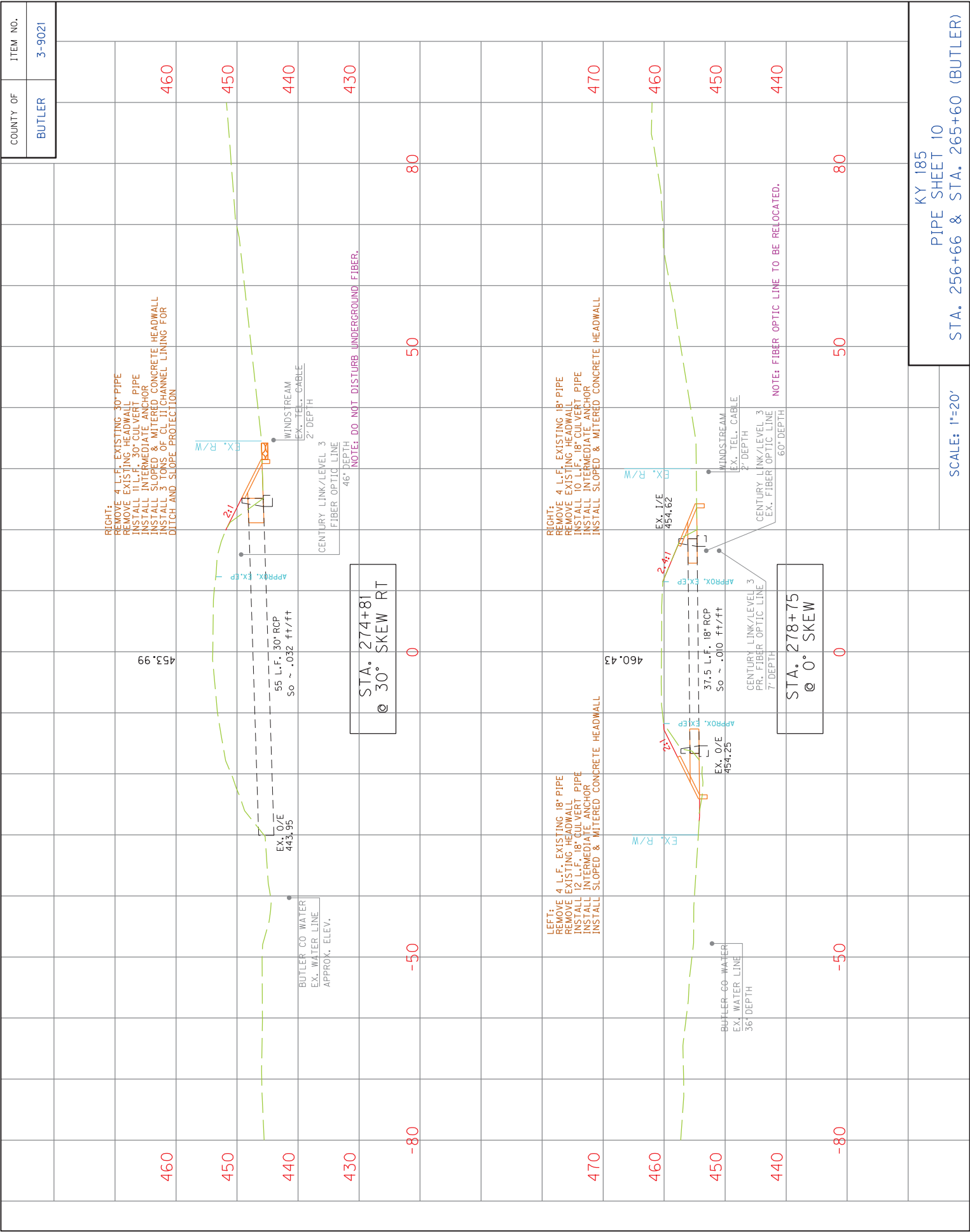


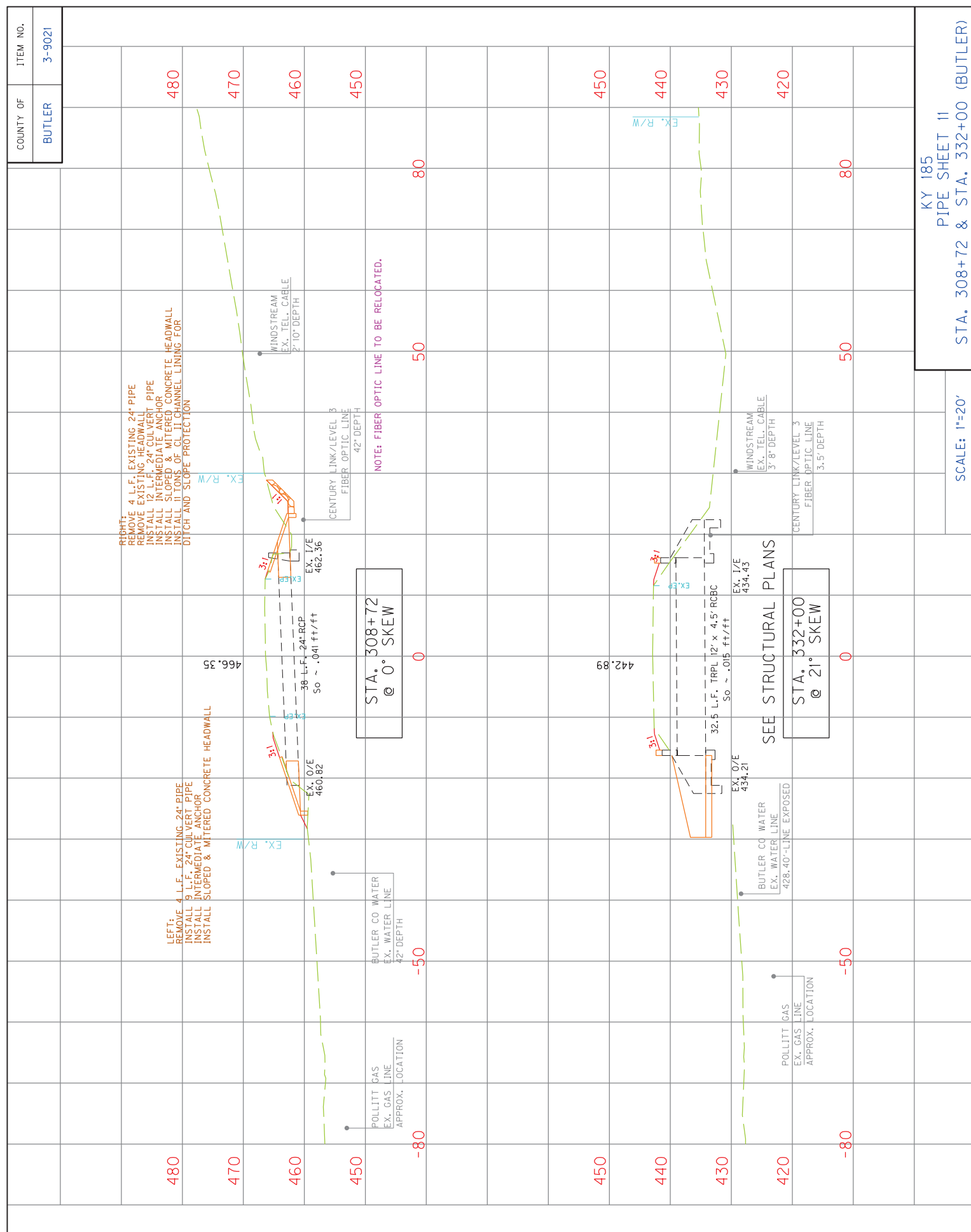
KY 185  
PIPE SHEET 08  
STA. 225+56 & STA. 246+97 (BUTLER)

SCALE: 1"=20'







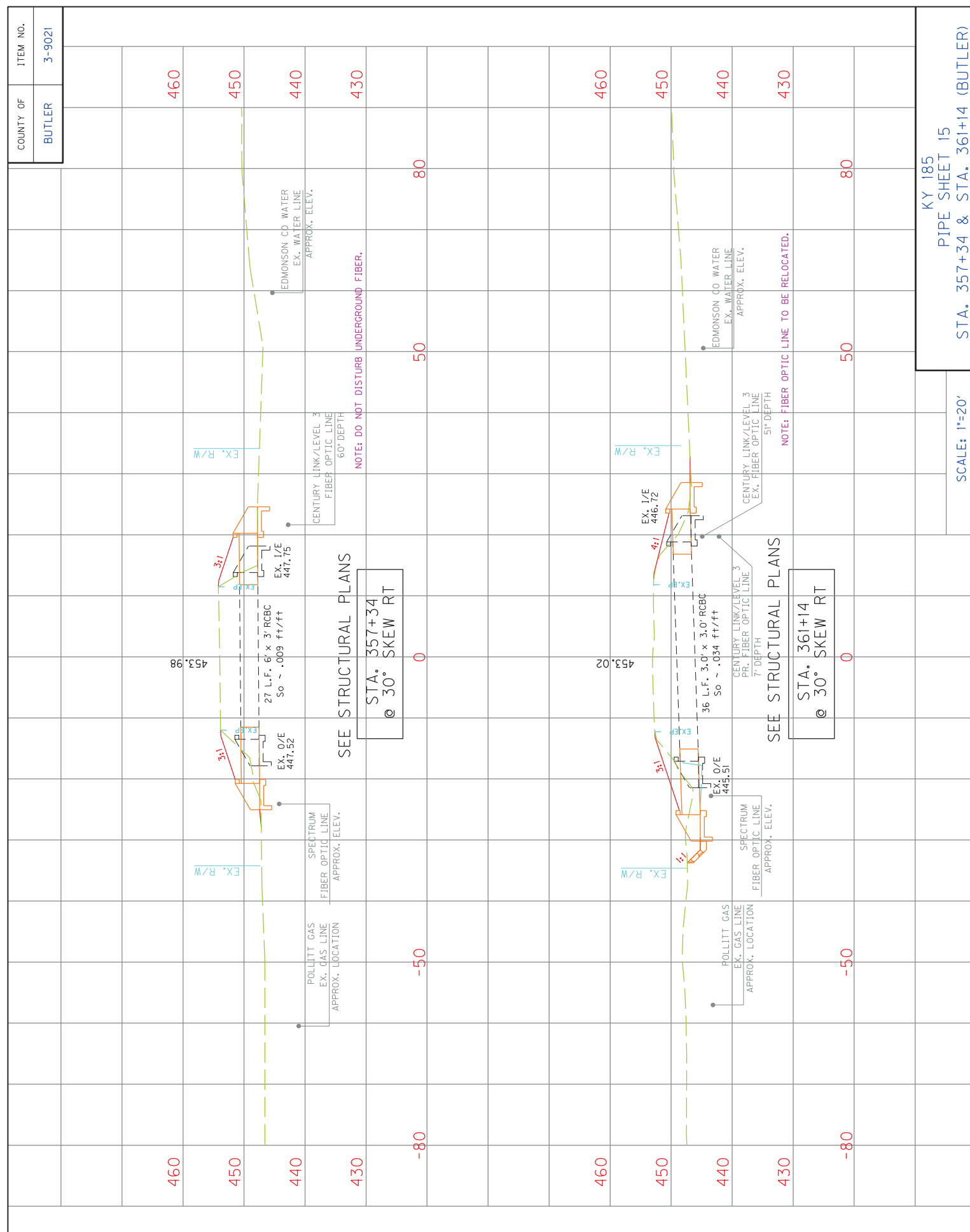


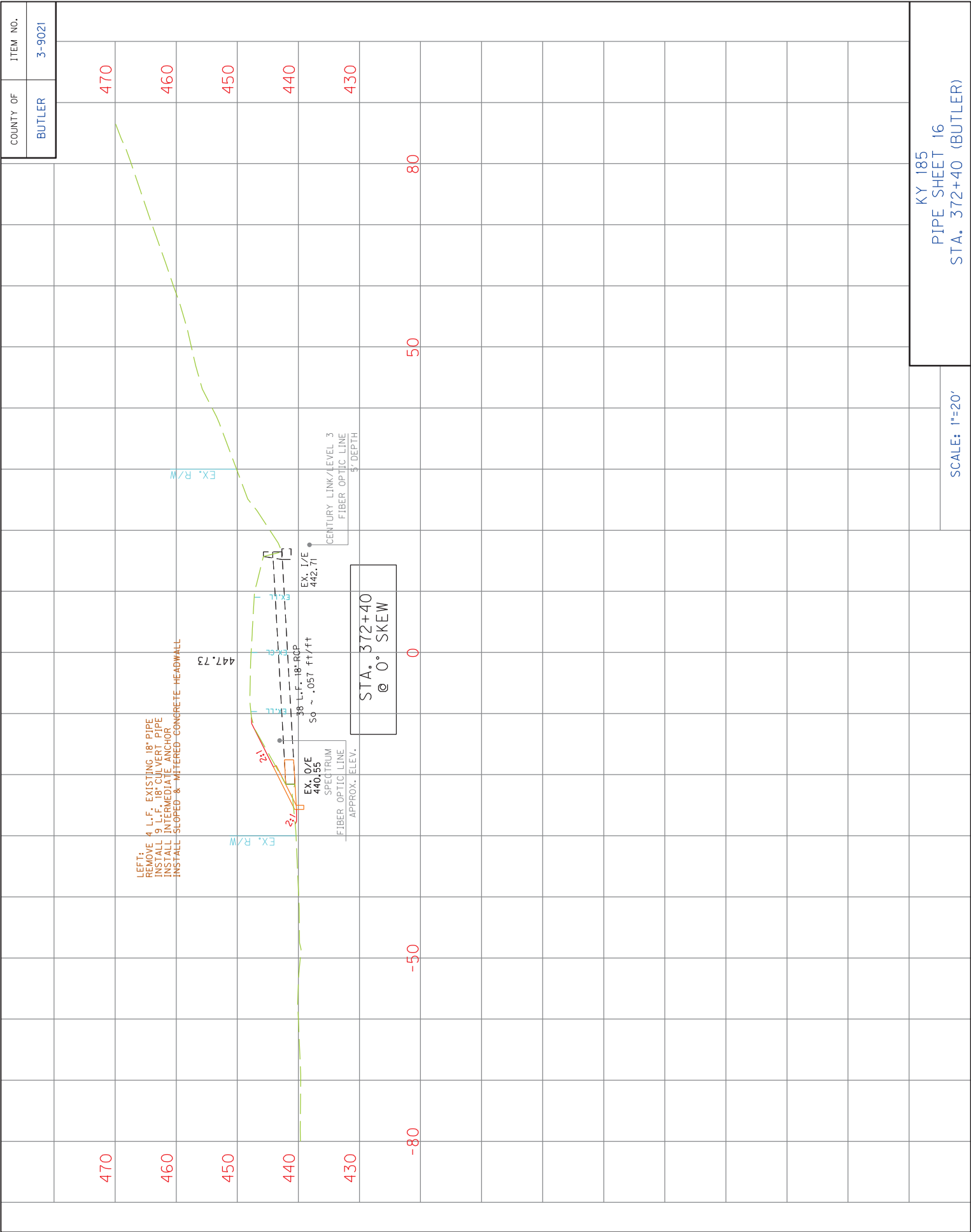
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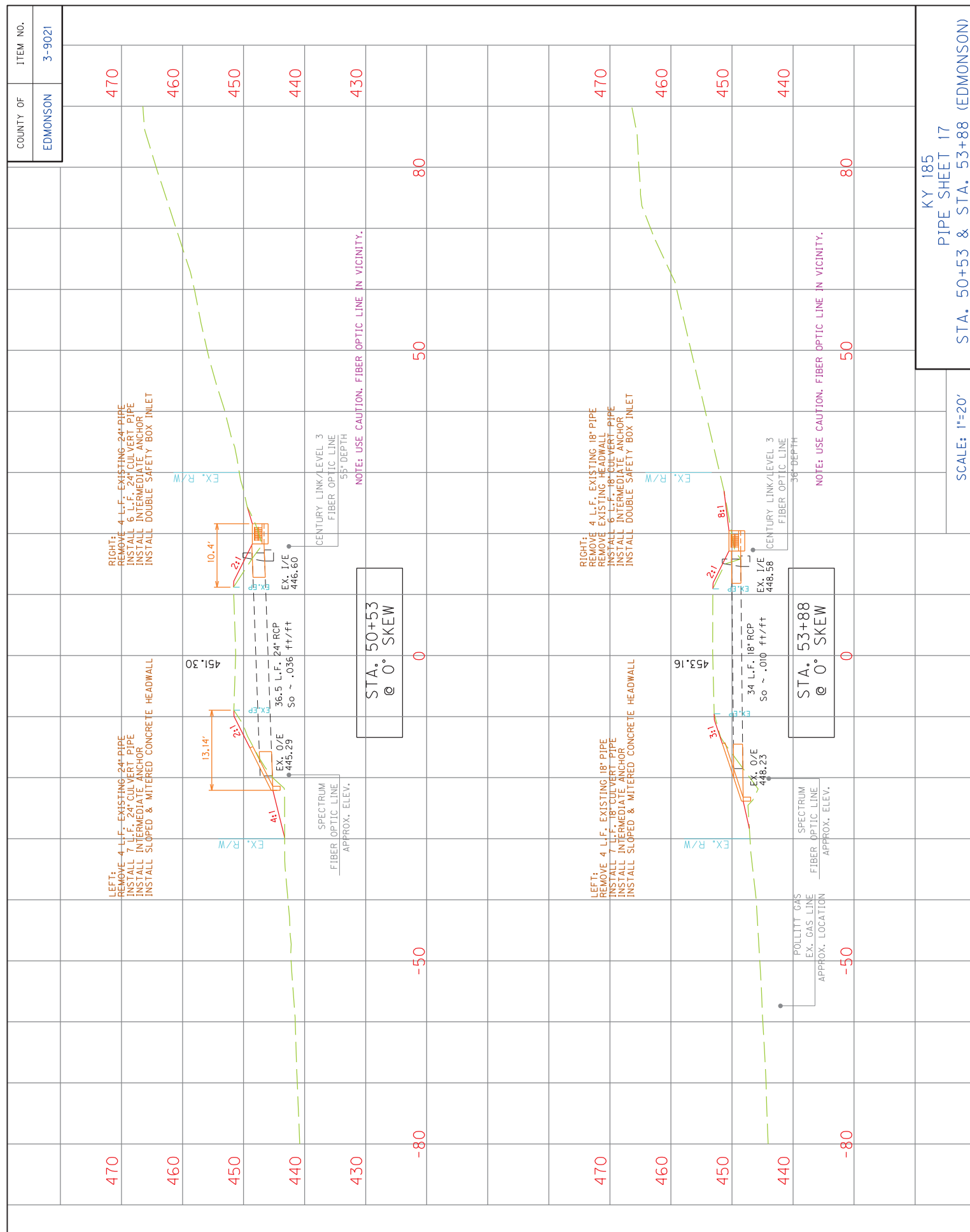






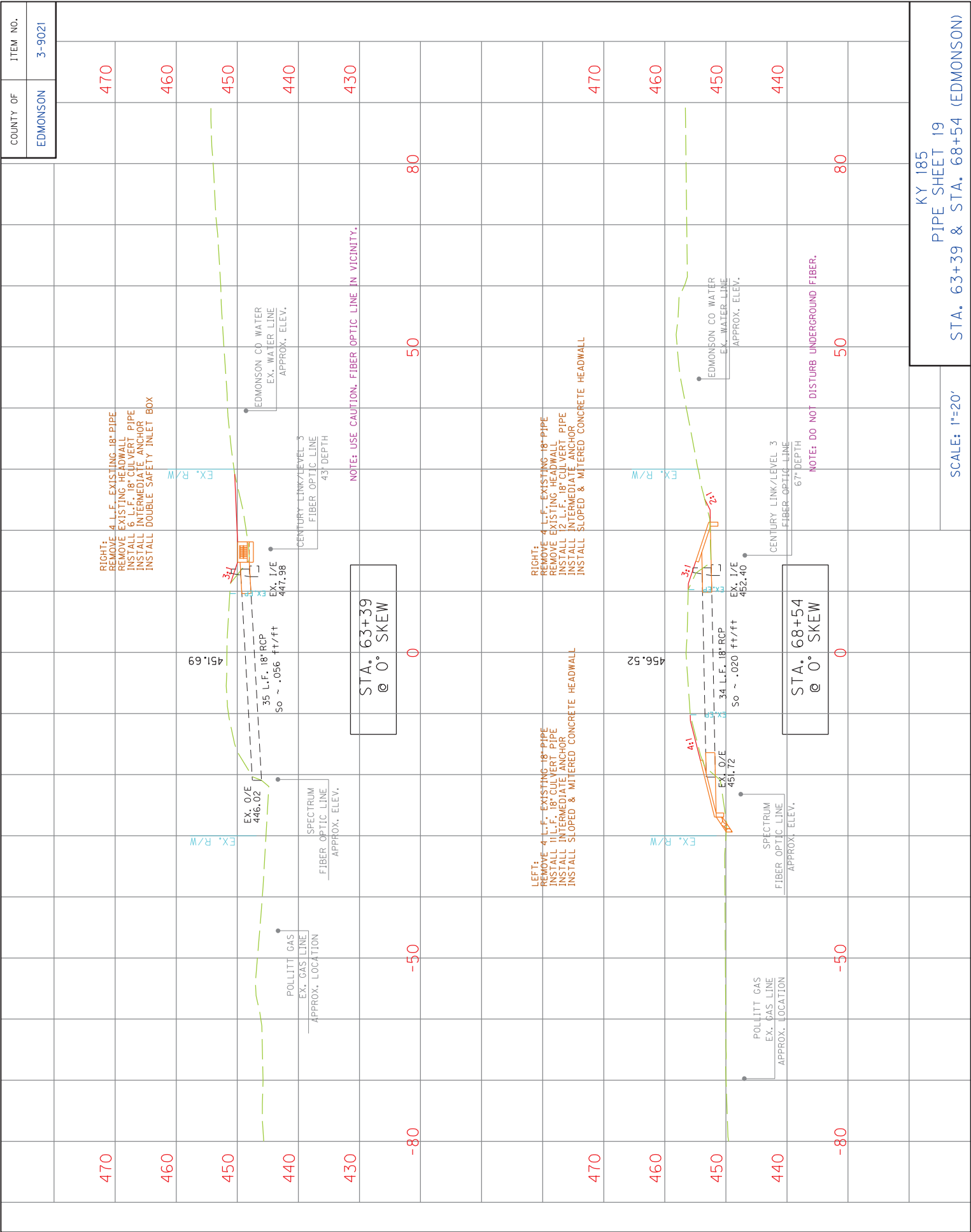




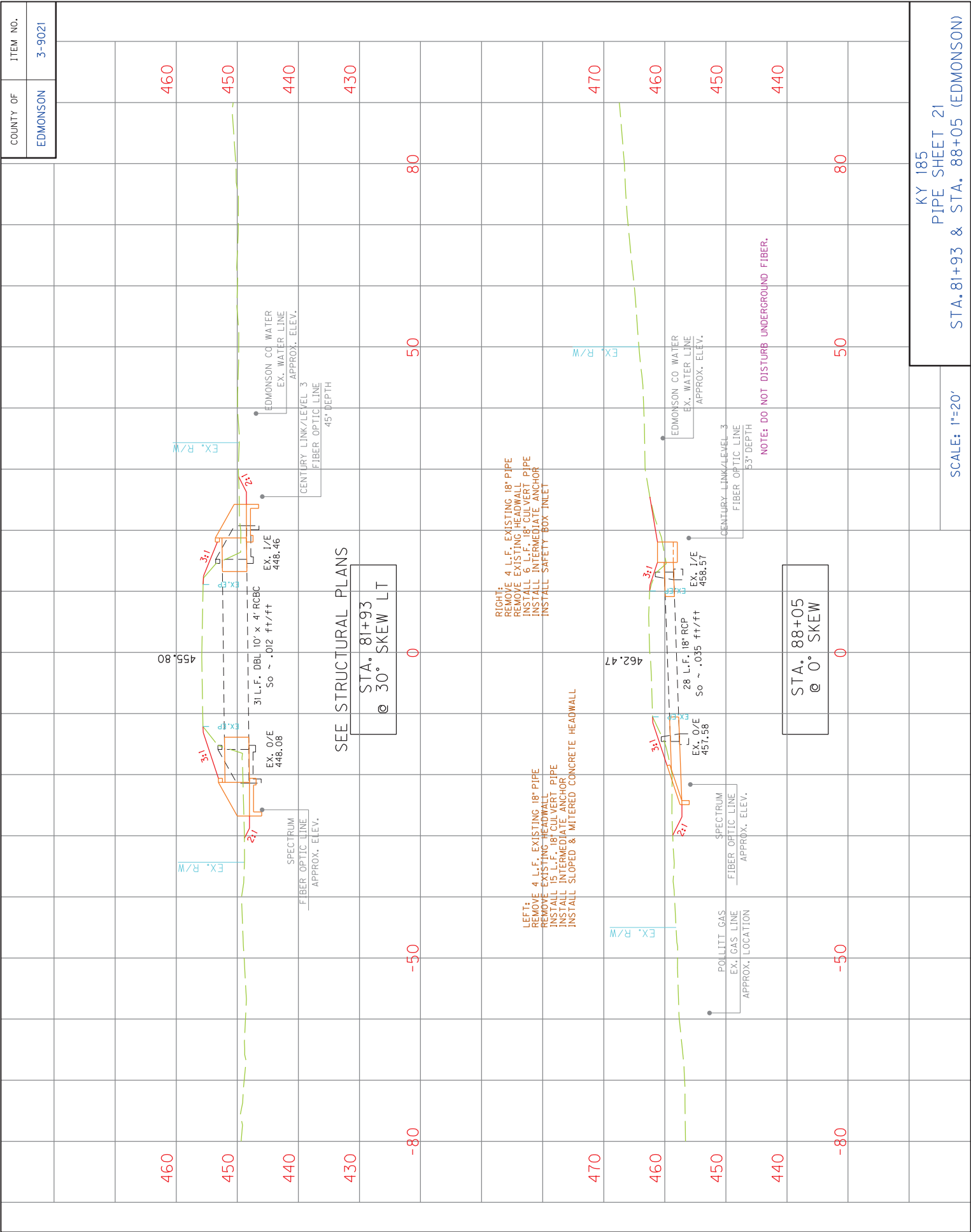




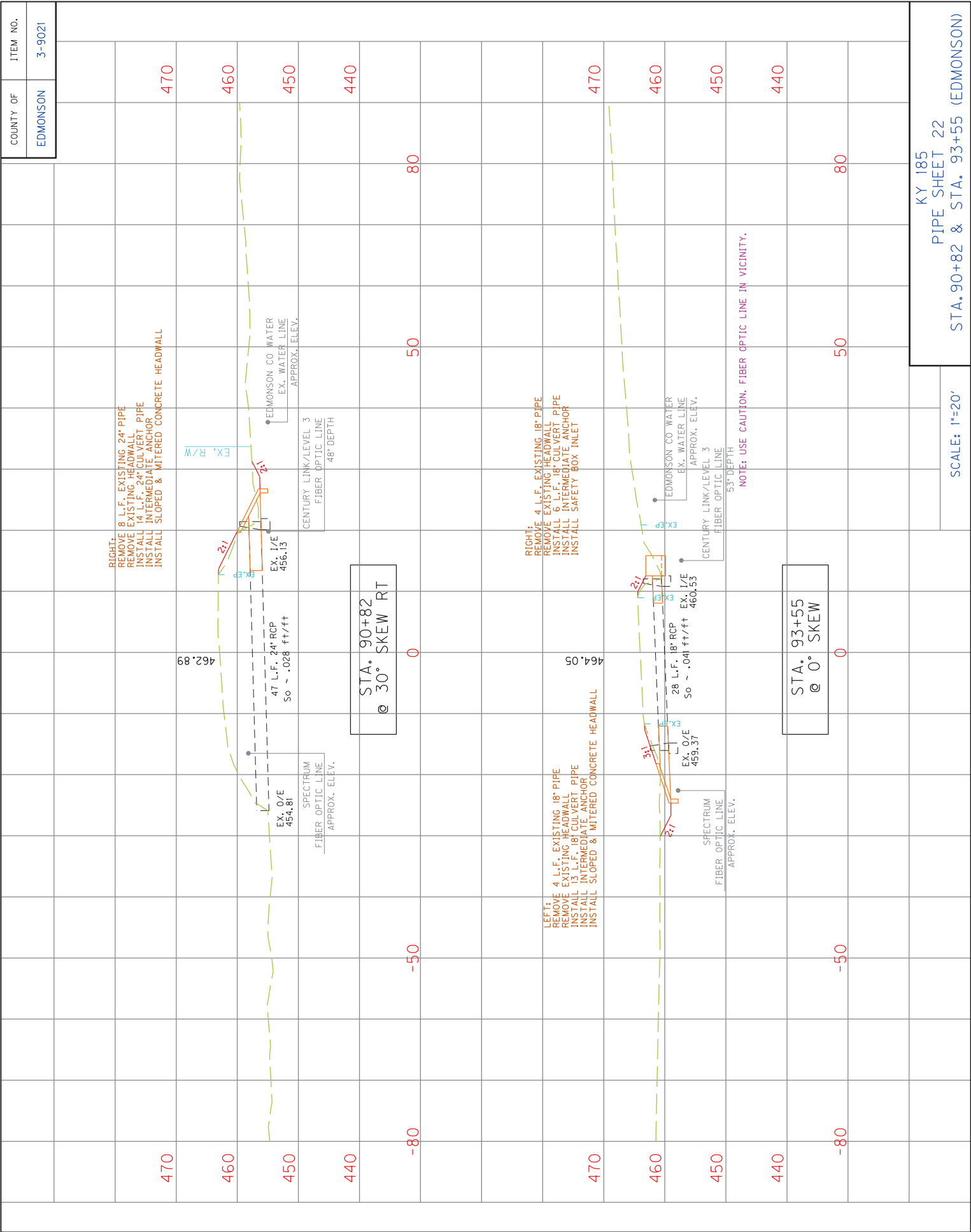


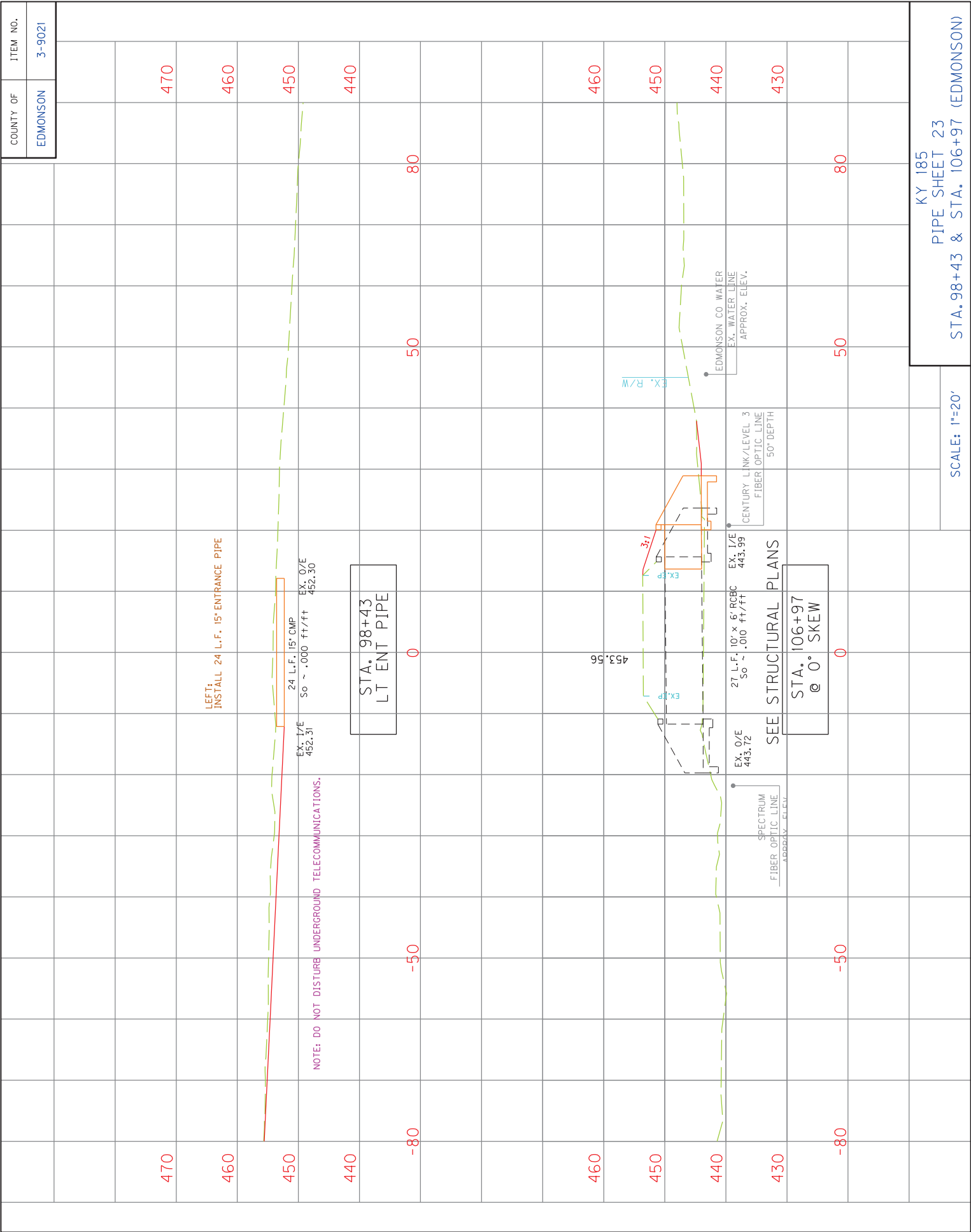












GENERAL NOTES

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

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 SPECIFICATIONS ARE TO THE CURRENT EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

DESIGN LOAD: THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE CURRENT AASHTO SPECIFICATIONS. THE EFFECTIVE WEIGHT OF FILL MATERIAL IS 120 LBS/CF AND THE LIVE LOAD IS THE KYHL-93 TRUCK OR TANDEM. THE LIVE LOADS ARE CALCULATED BY INCREASING THE HL-93 DESIGN TRUCK OR TANDEM BY 25%.

DESIGN METHOD: ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD RESISTANCE FACTOR METHOD AS SPECIFIED IN THE AASHTO SPECIFICATIONS.

DESIGN STRESSES: FOR CLASS "A" CONCRETE,  $f'_c = 3,500$  P.S.I.  
FOR STEEL REINFORCEMENT,  $F_y = 60,000$  P.S.I.,  $n = 9$ .

CONCRETE: CLASS "A" SHALL BE USED THROUGHOUT.

BEVELED EDGES: ALL EXPOSED EDGES SHALL BE BEVELED  $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

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. BARS DESIGNATED BY SUFFIX (E) SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE SPECS. BARS DESIGNATED BY SUFFIX (S) SHALL BE CONSIDERED STIRRUPS FOR THE PURPOSE OF BEND DIAMETERS. DUE TO THE GENERIC NATURE OF SOME EXTENSIONS AND LIMITED DETAILS SHOWN HEREIN, FIELD CUT BARS TO FACILITATE PLACEMENT WHENEVER REQUIRED. THIS INCLUDES, BUT IS NOT LIMITED TO, TRANSVERSE AND LONGITUDINAL BARREL BARS NEAR SKEWED ENDS AND VERTICAL AND HORIZONTAL WINGWALL BARS.

SAWCUTTING EXISTING CONCRETE: PRIOR TO THE REMOVAL OF THE EXISTING CONCRETE MASONRY, CUT THE SURFACE WITH A CONCRETE SAW TO A DEPTH OF ONE INCH TO FACILITATE A NEAT LINE. THE COST OF CUTTING CONCRETE SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR REMOVE HEADWALL.

DIMENSIONS: DIMENSIONS ARE FOR A NORMAL TEMPERATURE OF 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

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 APPLICATION INSTRUCTIONS. THE WORK AND MATERIAL IS INCIDENTAL TO THE UNIT PRICE FOR CLASS "A" CONCRETE.

CONSTRUCTION NOTE: REMOVE PORTIONS OF THE EXISTING CULVERT TO THE LIMITS SHOWN HEREIN. EXISTING REINFORCING STEEL SHALL BE THOROUGHLY CLEANED OF CONCRETE AND STRAIGHTENED FOR USE TO BOND THE NEW CONCRETE WITH A MINIMUM PROJECTION OF 1'-9". AS AN ALTERNATE, CENTER 3'-0" LONG, #6 DOWEL BARS @ 12" SPACING INTO THE EXISTING SLABS AND WALLS. EMBEDDED 1'-6" INTO EXISTING CULVERT CONCRETE. EPOXY GROUT DOWEL BARS USING A TYPE IV EPOXY MEETING THE REQUIREMENTS OF SECTION 826. FOLLOW THE MANUFACTURER'S APPLICATION INSTRUCTIONS. THE WORK AND MATERIALS ARE INCIDENTAL TO UNIT PRICE BID FOR CLASS "A" CONCRETE.

COMPLETION OF STRUCTURE: THE CONTRACTOR IS REQUIRED TO COMPLETE THE STRUCTURE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL, LABOR OR CONSTRUCTION OPERATIONS, NOT OTHERWISE SPECIFIED, ARE TO BE INCLUDED IN THE BID ITEM MOST APPROPRIATE TO THE WORK INVOLVED. THIS MAY INCLUDE COFFERDAMS, SHORING, EXCAVATIONS, BACKFILLING, REMOVAL OF ALL OR PART OF EXISTING STRUCTURES, PHASED CONSTRUCTION, INCIDENTAL MATERIALS, LABOR OR ANY OTHER ITEMS REQUIRED TO COMPLETE THE STRUCTURE.

CULVERTS WITH YIELDING FOUNDATIONS: DURING CONSTRUCTION OF THE YIELDING FOUNDATION, ANY POOR SOILS ENCOUNTERED SHOULD BE UNDERCUT TO A MINIMUM OF TWO (2) FEET BELOW THE BOTTOM SLAB OF THE CULVERT OR WINGWALL FOOTINGS, AS APPLICABLE. THE RESULTING EXCAVATED AREAS SHOULD THEN BE BACKFILLED WITH "GRANULAR EMBANKMENT", NON-ERODIBLE ONLY, MEETING THE MATERIAL REQUIREMENTS OF SECTION 805 IN THE CURRENT EDITION OF THE KENTUCKY STANDARD SPECIFICATIONS. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR FOUNDATION PREPARATION.

CULVERTS WITH UNYIELDING FOUNDATIONS: IF SOLID ROCK IS NOT ENCOUNTERED AT THE DESIGN FOOTING ELEVATION, SOIL MUST BE EXCAVATED AND BACKFILLED WITH "GRANULAR EMBANKMENT", NON-ERODIBLE ONLY, MEETING THE MATERIAL REQUIREMENTS OF SECTION 805 IN THE CURRENT EDITION OF THE KENTUCKY STANDARD SPECIFICATIONS WITH THE EXCEPTION THAT THE MAXIMUM SIZE IS 4 INCHES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR FOUNDATION PREPARATION.

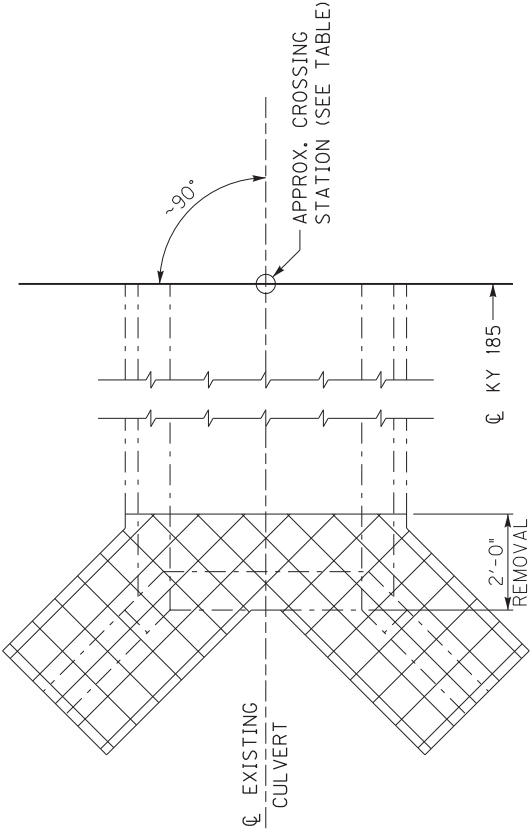
CONSTRUCTION NOTES: TEMPORARY SHEETING, SHORING, COFFERDAMS, AND/OR DEWATERING METHODS MAY BE NECESSARY FOR CONSTRUCTION OF THE CULVERT. INCLUDE ALL COSTS IN THE PRICE BID FOR FOUNDATION PREPARATION.

SOLID ROCK EXCAVATION MAY BE REQUIRED FOR CONSTRUCTION OF THE CULVERTS.

IF SOLID ROCK IS ENCOUNTERED PRIOR TO REACHING THE SPECIFIED APRON DEPTH, EMBED APRON THE MINIMUM OF 1'-0" INTO SOLID ROCK OR THE SPECIFIED APRON DEPTH.

ALL APRONS AND FOOTINGS EXCAVATIONS IN BEDROCK SHALL BE CUT NEATLY SO THAT NO FORMING OR BACKFILLING IS NECESSARY IN THE CONSTRUCTION OF THE PORTIONS OF THE APRONS AND FOOTINGS LOCATED IN ROCK. CONCRETE SHALL BE PLACED DIRECTLY AGAINST THE CUT ROCK FACES. MASS CONCRETE SHALL 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. THE BEDROCK MAY BE HIGHLY SUSCEPTIBLE TO WEATHERING AND SOFTENING IN THE PRESENCE OF WATER. WATER MUST BE KEPT OUT OF THE EXCAVATIONS. THE FOOTING STEEL AND CONCRETE SHOULD BE PLACED THE SAME DAY AS OR AS SOON AS PRACTICAL AFTER THE EXCAVATION IS MADE. IF THE BEDROCK BECOMES SOFTENED AT BEARING ELEVATION, THE SOFTENED MATERIAL SHALL BE UNDERCUT TO UNWEATHERED MATERIAL PRIOR TO PLACING THE CONCRETE. SEASONAL GROUNDWATER FLUCTUATIONS MAY CAUSE GROUNDWATER INFILTRATION INTO THE EXCAVATIONS AND A DEWATERING METHOD MAY BE NECESSARY. ALL COSTS FOR EXTRA CONCRETE TO BE INCIDENTAL TO PRICE BID FOR CLASS "A" CONCRETE.

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



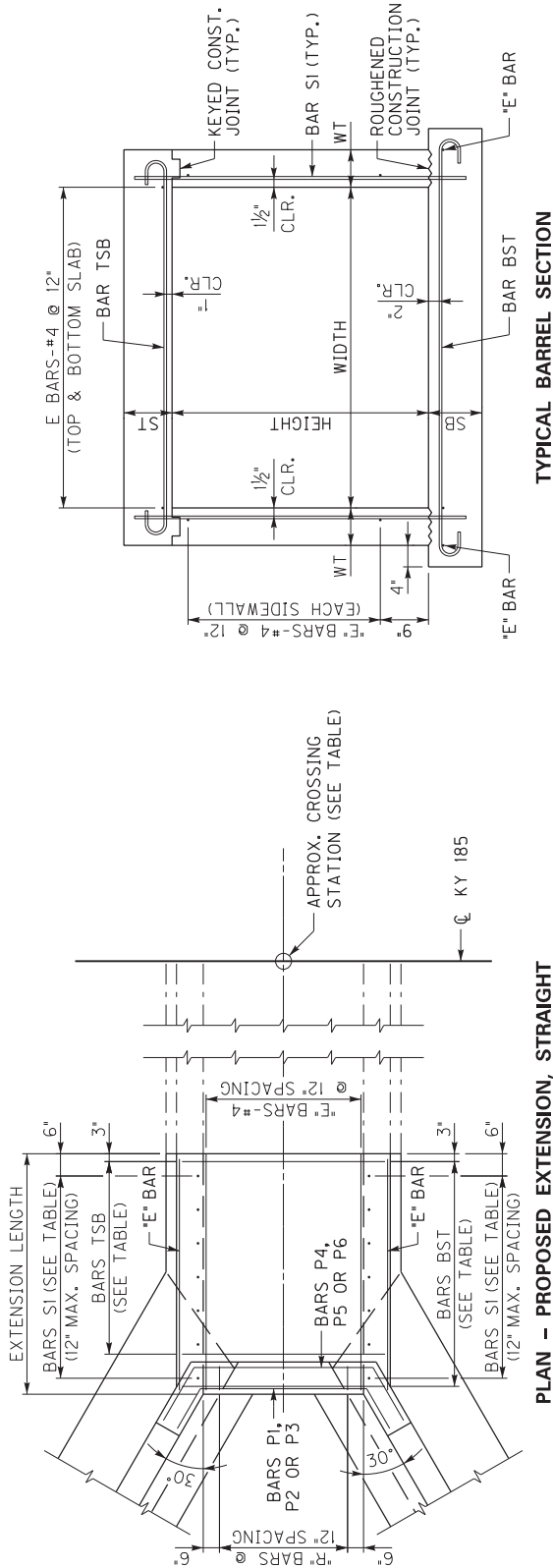
**SINGLE BARREL, STRAIGHT**

APPROXIMATE LIMITS OF REMOVAL — 

**DEMOLITION OF EXISTING CULVERT**



COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

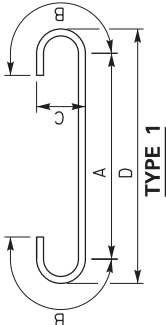


SINGLE BARREL – STRAIGHT – R.C.B.C. EXTENSION TABLE

EXISTING DATA				DIMENSIONS					"BST" – TYPE 1										"TSB" – TYPE 1								"S1"			"E"–#4	
STA.	WIDTH	HEIGHT	EXT. LENGTH	EXT. END	ST (IN)	SB (IN)	WT (IN)	NO.	SIZE	SPA.	LENGTH	A	B	C	D	NO.	SIZE	SPA.	LENGTH	A	B	C	D	NO.	SIZE	LENGTH	NO.	LENGTH			
5+25	5'-0"	2'-0"	6'-0"	INLET	8	9	10	12	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"	10	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	12	#4	3'-0"	18	5'-10"			
5+25	5'-0"	2'-0"	8'-0"	OUTLET	8	9	10	16	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"	14	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	16	#4	3'-0"	18	7'-10"			
69+73	5'-0"	2'-0"	8'-0"	INLET	8	9	10	16	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"	14	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	16	#4	3'-0"	18	7'-10"			
265+60	4'-0"	4'-0"	8'-0"	OUTLET	8	9	10	16	#5	6"	7'-3"	5'-7"	0'-10"	0'-5"	6'-0"	14	#5	6"	6'-7"	4'-11"	0'-10"	0'-5"	5'-4"	16	#4	5'-0"	20	7'-10"			

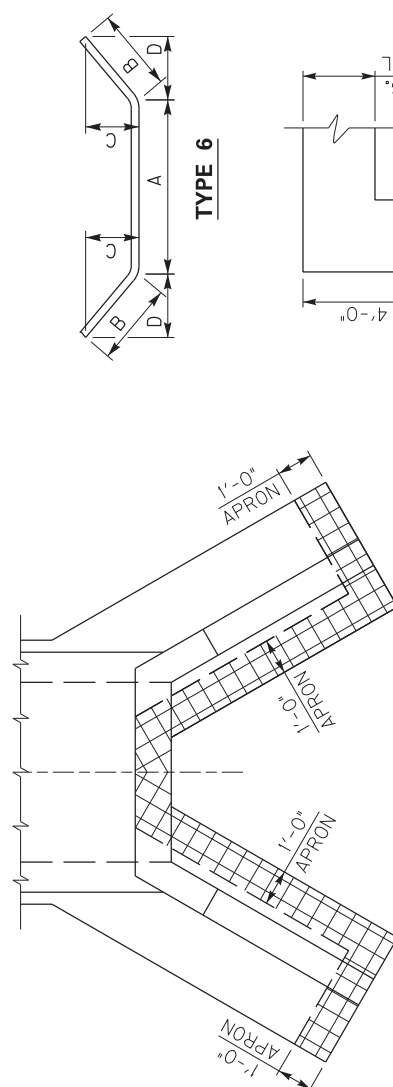
TABLE NOTE:  
EXISTING DATA SHOWN IS APPROXIMATE ONLY. CONTRACTOR TO CONFIRM  
EXISTING CONDITIONS AND MAKE ADJUSTMENTS BEFORE ORDERING REINFORCING.

REBAR NOTES:  
BARS "S1" & "E" ARE STRAIGHT BARS. THE TOTAL BAR NUMBER LISTED IN THE  
TABLE IS THE TOTAL NUMBER REQUIRED AT EACH STATION.

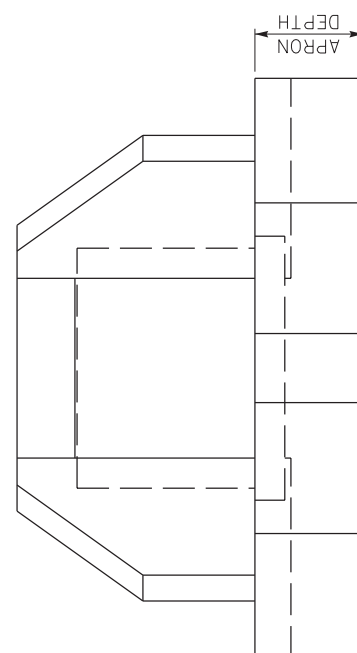


[illegible]

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



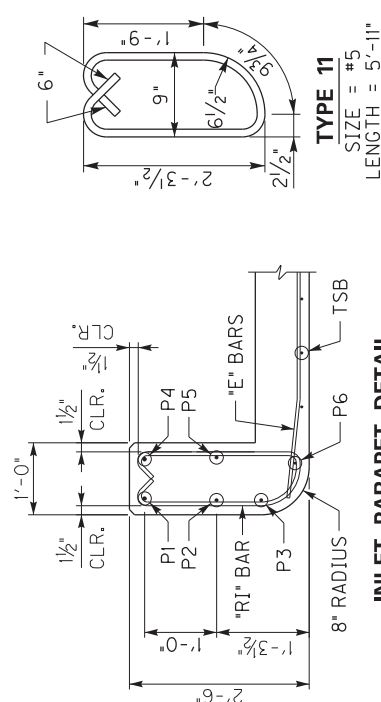
## PLAN - STRAIGHT



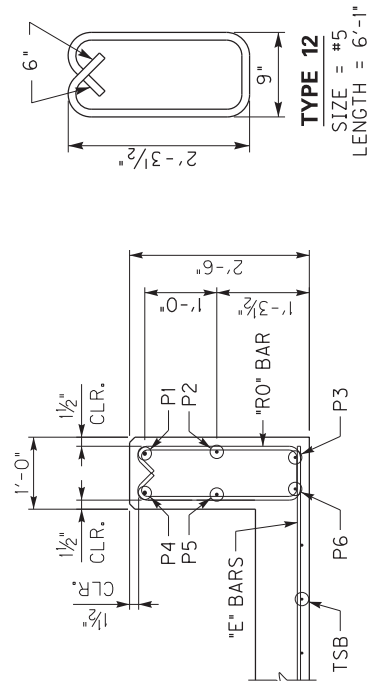
## END ELEVATION - STRAIGHT

LIMITS OF APRON — 

# LIMITS OF APRON CONSTRUCTION

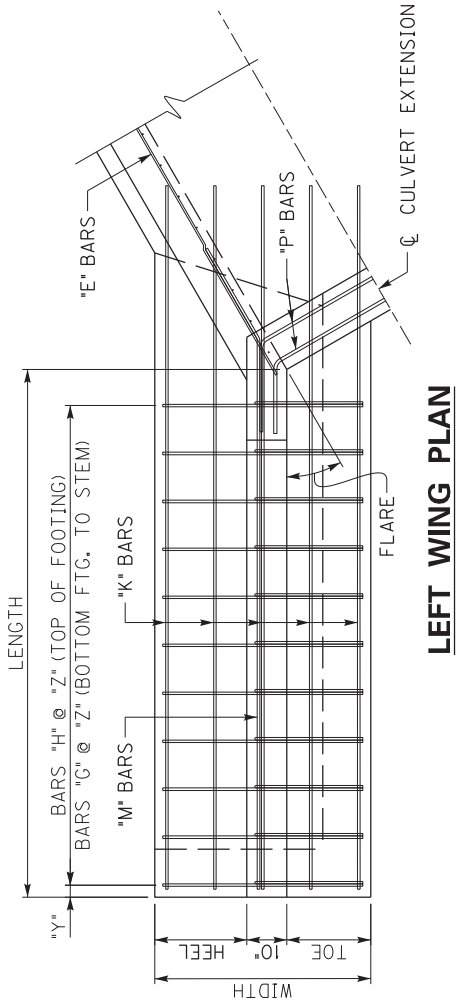


### INLET PARAPET DETAIL



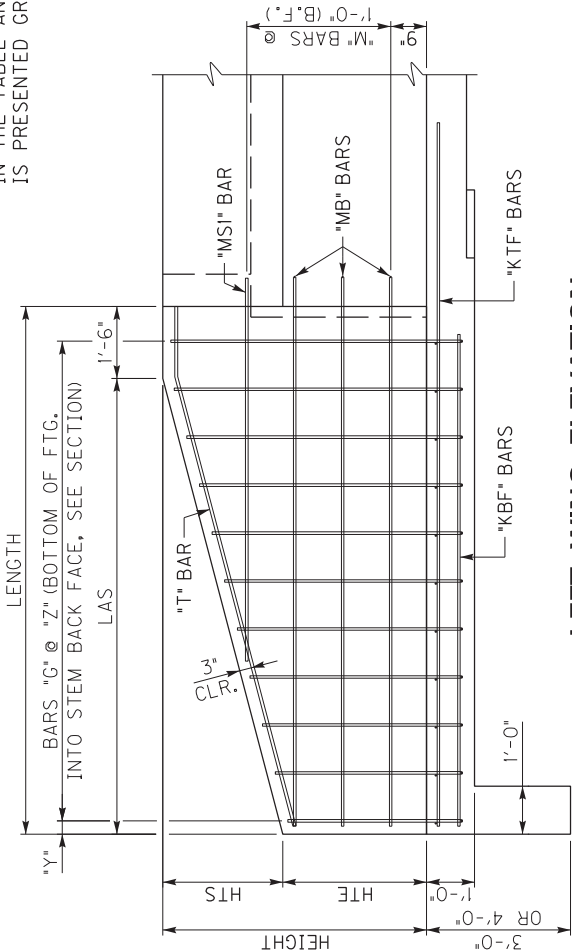
## OUTLET PARAPET DETAIL

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



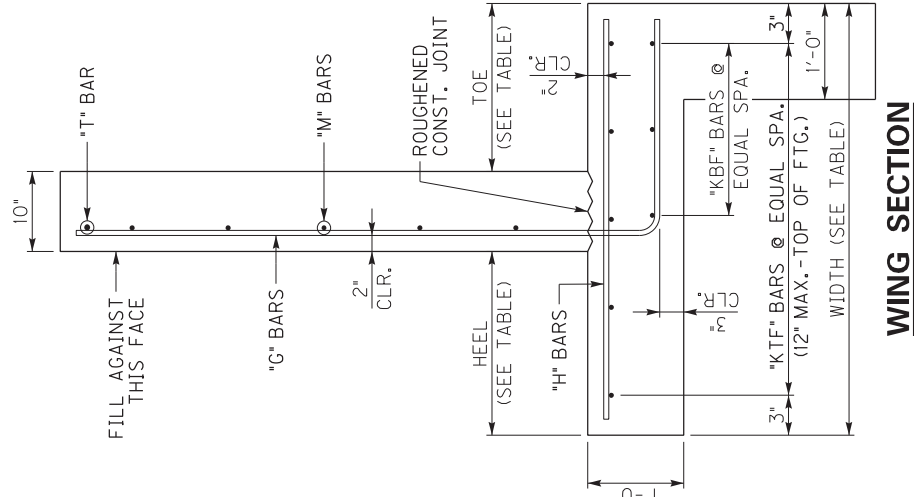
LEFT WING PLAN

NOTE:  
WING DETAILS SHOWN ARE A GRAPHICAL REPRESENTATION ONLY AND NOT TO SCALE. THE NUMBER OF BARS REQUIRED IS SHOWN IN THE TABLE AND MAY DIFFER FROM WHAT IS PRESENTED GRAPHICALLY.



LEFT WING ELEVATION

(LEFT WING SHOWN; RIGHT WING SIMILAR, BUT OPPOSITE HAND)



WING SECTION

NOTE:  
FOR WING DIMENSIONS & REINFORCING VARIABLES, SEE APPROPRIATE TABLE.

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

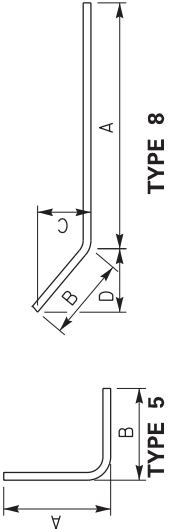
SINGLE BARREL – STRAIGHT – R.C.B.C. WINGWALL TABLE

GENERAL DATA			DIMENSIONS										"G" – TYPE 5						"H"				
STATION	EXT. END	FLARE	NO.	LENGTH	LAS	WIDTH	HEEL	TOE	HEIGHT	HTE	HTS	NO.	SIZE	"Y"	"Z"	LENGTH	A	B	NO.	SIZE	"Y"	"Z"	LENGTH
5+25	BOTH	30°	4	5'-0"	3'-6"	2'-7"	1'-0"	0'-9"	4'-6"	2'-3"	2'-3"	20	#4	4 1/2"	12"	6'-4"	5'-1"	1'-3"	20	#4	4 1/2"	12"	2'-3"
69+73	INLET	30°	2	5'-0"	3'-6"	2'-7"	1'-0"	0'-9"	4'-6"	2'-3"	2'-3"	10	#4	4 1/2"	12"	6'-4"	5'-1"	1'-3"	10	#4	4 1/2"	12"	2'-3"
265+60	OUTLET	30°	2	8'-0"	6'-6"	3'-10"	1'-9"	1'-3"	6'-6"	3'-0"	3'-6"	16	#4	4 1/2"	12"	8'-10"	7'-1"	1'-9"	16	#4	4 1/2"	12"	3'-6"

SINGLE BARREL – STRAIGHT – R.C.B.C. WINGWALL TABLE – CONTINUED

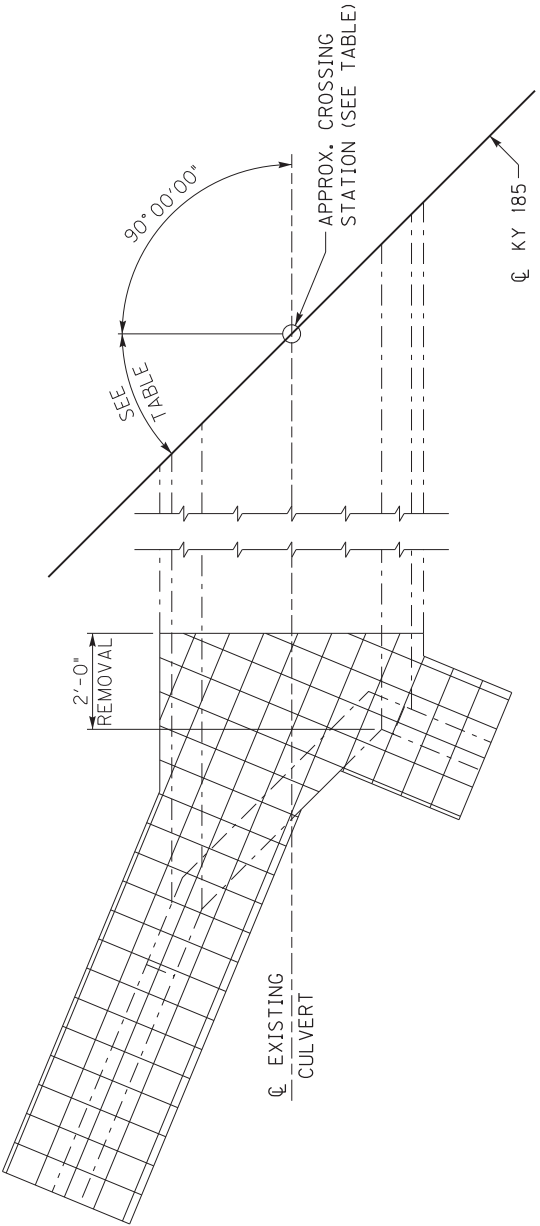
STATION	EXT. END	"KBF"			"KTF"				"MB" – TYPE 8								"MS1"				"T" – TYPE 8, #6					
		NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	A	B	C	D	NO.	SIZE	LENGTH	NO.	LENGTH	A	B	C	D			
5+25	BOTH	8	#4	5'-2"	12	#4	6'-11"	8	#4	7'-7"	5'-5"	2'-2"	1'-1"	1'-10/2"	4	#4	4'-6"	4	6'-0"	4'-0"	2'-0"	1'-1"	1'-8"			
69+73	INLET	4	#4	5'-2"	6	#4	6'-11"	4	#4	7'-7"	5'-5"	2'-2"	1'-1"	1'-10/2"	2	#4	4'-6"	2	6'-0"	4'-0"	2'-0"	1'-1"	1'-8"			
265+60	OUTLET	4	#4	8'-6"	10	#4	11'-2"	8	#4	10'-7"	8'-5"	2'-2"	1'-1"	1'-10/2"	2	#4	4'-11"	2	9'-3"	7'-3"	2'-0"	0'-11/2"	1'-9"			

REBAR NOTES:  
BARS "KBF", "KTF", "H" & "MS1" ARE STRAIGHT BARS. THE "G" BAR STEM LEG LENGTH IS GIVEN AT THE TALLEST POINT FOR THE SLOPING WING AND SHALL BE FIELD CUT TO FACILITATE CONCRETE PLACEMENT. SOME "KTF" & "MB" BARS ALSO REQUIRE A FIELD CUT TO FACILITATE PLACEMENT OF CONCRETE. ALL FIELD CUT BARS SHALL MAINTAIN A 2" MIN. CLEARANCE FROM THE CONCRETE FACE. THE BAR NUMBER TOTAL LISTED IN THE TABLE IS THE TOTAL NUMBER REQUIRED AT EACH STATION.

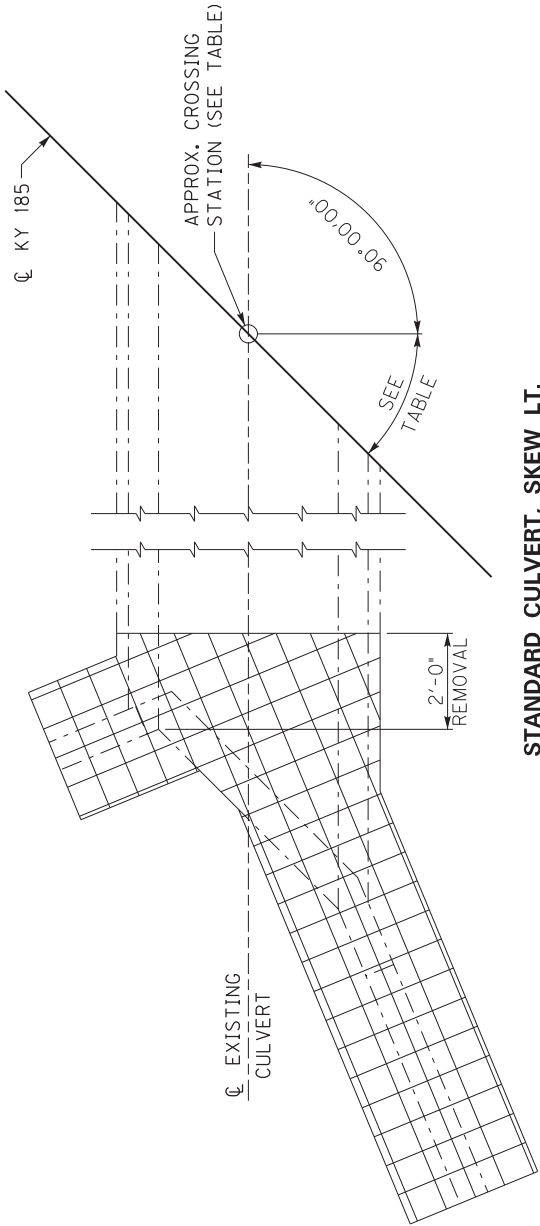




COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



**STANDARD CULVERT, SKEW RT.**  
45° SKEW SHOWN, OTHERS SIMILAR



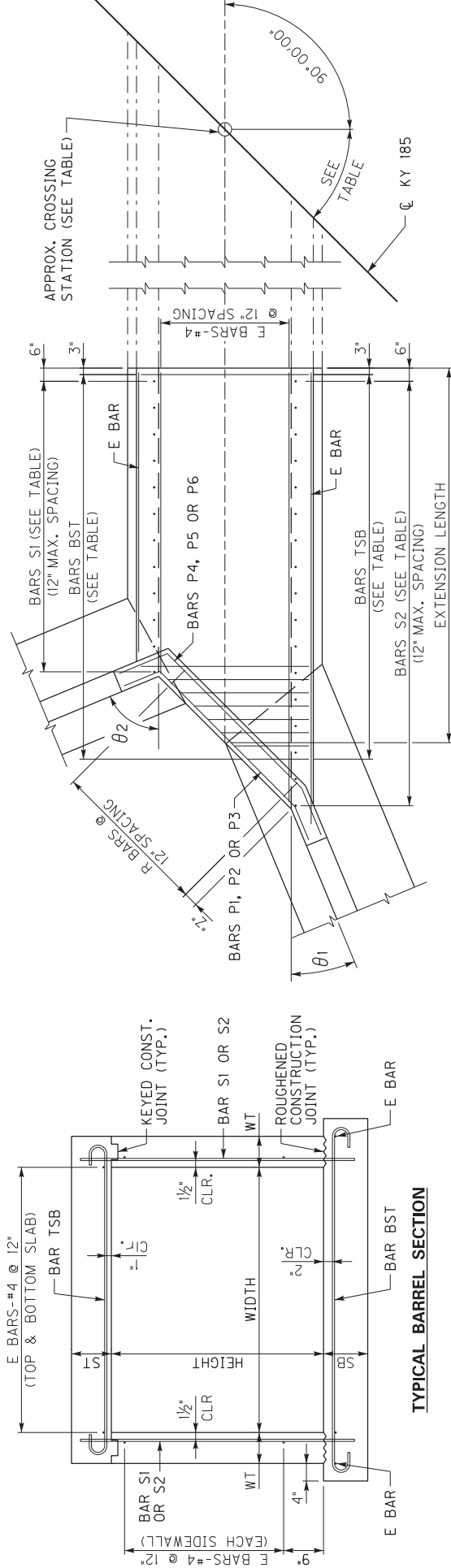
**STANDARD CULVERT, SKEW LT.**  
45° SKEW SHOWN, OTHERS SIMILAR

APPROXIMATE LIMITS OF REMOVAL — 

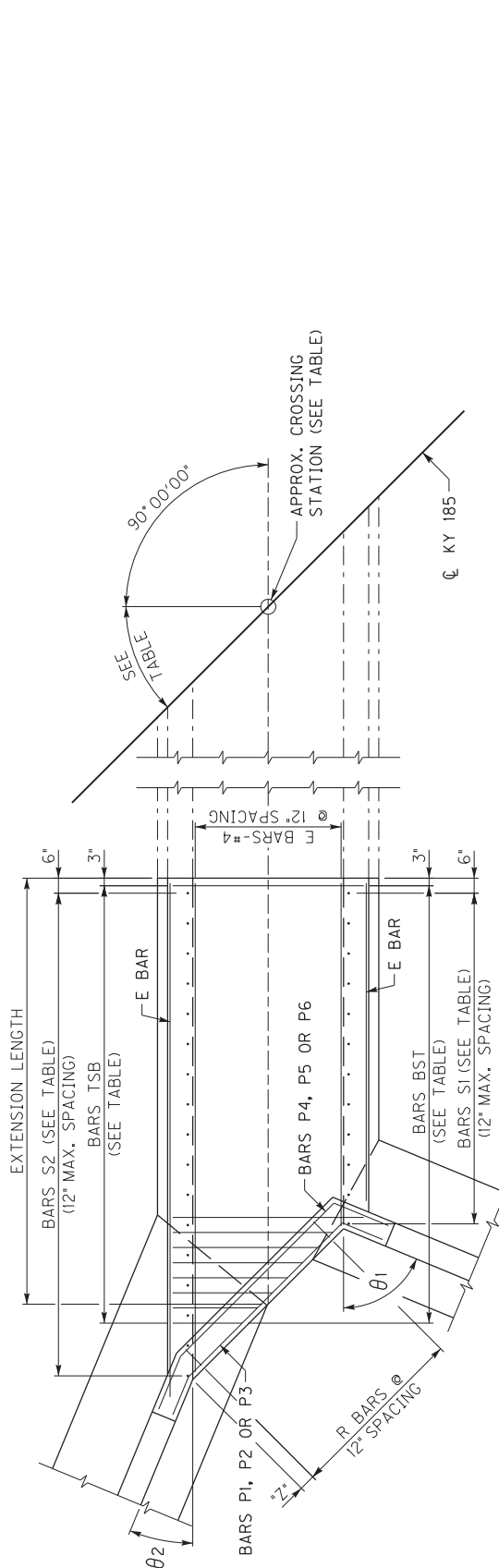
**DEMOLITION OF EXISTING CULVERT**

KY 185 CULVERT EXTENSIONS  
SKEWED CULVERT DEMOLITION LIMITS  
SHEET 7 OF 28

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



PLAN - PROPOSED EXTENSION, SKEW LT.  
45° SKEW SHOWN, OTHERS SIMILAR



PLAN - PROPOSED EXTENSION, SKEW RT.  
45° SKEW SHOWN, OTHERS SIMILAR

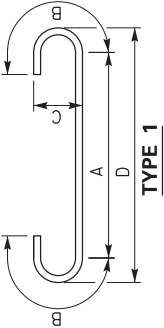
COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

SINGLE BARREL – SKEWED – R.C.B.C. EXT. TABLE																
EXISTING DATA				"BST" – TYPE 1												
STA.	SKEW	WIDTH	HEIGHT	EXT. LENGTH	EXT. END	ST (IN)	SB (IN)	WT (IN)	NO.	SIZE	SPA.	LENGTH	A	B	C	D
60+80	30°RT.	5'-0"	3'-0"	8'-0"	INLET	8	9	10	17	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"
60+80	30°RT.	5'-0"	3'-0"	8'-6"	OUTLET	8	9	10	18	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"
202+15	45°LT.	5'-0"	3'-0"	9'-0"	INLET	8	9	10	20	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"
202+15	45°LT.	5'-0"	3'-0"	10'-0"	OUTLET	8	9	10	22	#5	6"	8'-3"	6'-7"	0'-10"	0'-5"	7'-0"
256+66	30°RT.	4'-0"	4'-0"	8'-0"	OUTLET	8	9	10	16	#5	6"	7'-3"	5'-7"	0'-10"	0'-5"	6'-0"
256+66	30°RT.	4'-0"	4'-0"	5'-0"	INLET	8	9	10	10	#5	6"	7'-3"	5'-7"	0'-10"	0'-5"	6'-0"
361+14	30°RT.	3'-0"	3'-0"	9'-0"	INLET	7	8	10	17	#4	6"	6'-0"	4'-8"	0'-8"	0'-4"	5'-0"
361+14	30°RT.	3'-0"	3'-0"	13'-0"	OUTLET	7	8	10	26	#4	6"	6'-0"	4'-8"	0'-8"	0'-4"	5'-0"

SINGLE BARREL – SKEWED – R.C.B.C. EXT. TABLE – CONT'D																			
EXISTING DATA				"TSB" – TYPE 1								"S1"			"S2"		"E"–#4		
STA.	SKEW	WIDTH	HEIGHT	NO.	SIZE	SPA.	LENGTH	A	B	C	D	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	LENGTH
60+80	30°RT.	5'-0"	3'-0"	17	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	7	#5	4'-0"	10	#5	4'-0"	19	9'-3"
60+80	30°RT.	5'-0"	3'-0"	18	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	7	#5	4'-0"	10	#5	4'-0"	19	9'-9"
202+15	45°LT.	5'-0"	3'-0"	20	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	7	#5	4'-0"	12	#5	4'-0"	20	11'-6"
202+15	45°LT.	5'-0"	3'-0"	22	#5	6"	7'-7"	5'-11"	0'-10"	0'-5"	6'-4"	8	#5	4'-0"	13	#5	4'-0"	20	12'-6"
256+66	30°RT.	4'-0"	4'-0"	16	#5	6"	6'-7"	4'-11"	0'-10"	0'-5"	5'-4"	7	#4	5'-0"	9	#4	5'-0"	20	9'-0"
256+66	30°RT.	4'-0"	4'-0"	10	#5	6"	6'-7"	4'-11"	0'-10"	0'-5"	5'-4"	4	#4	5'-0"	6	#4	5'-0"	20	6'-0"
361+14	30°RT.	3'-0"	3'-0"	17	#4	6"	5'-4"	4'-0"	0'-8"	0'-4"	4'-4"	8	#4	3'-10"	10	#4	3'-10"	16	9'-9"
361+14	30°RT.	3'-0"	3'-0"	26	#4	6"	5'-4"	4'-0"	0'-8"	0'-4"	4'-4"	12	#4	3'-10"	14	#4	3'-10"	16	13'-9"

TABLE NOTE:  
EXISTING DATA SHOWN IS APPROXIMATE ONLY. CONTRACTOR TO CONFIRM EXISTING CONDITIONS AND MAKE ADJUSTMENTS BEFORE ORDERING REINFORCING.

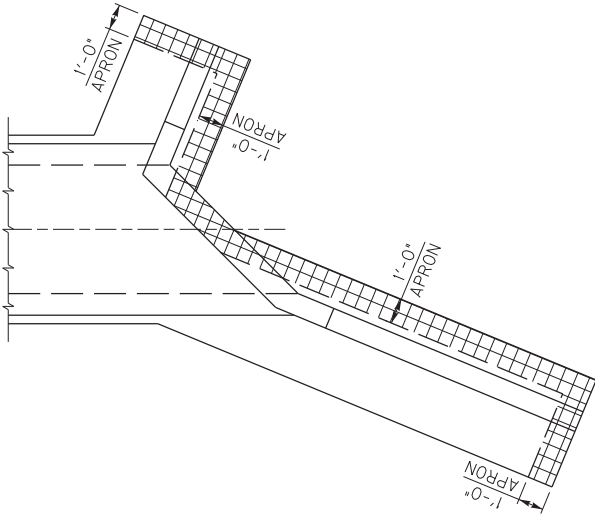
REBAR NOTES:  
BARS "S1", "S2" & "E" ARE STRAIGHT BARS. "E" BAR LENGTH IS GIVEN ALONG THE LONGEST SIDE FOR SKEWED CONDITIONS AND SHALL BE FIELD CUT TO FACILITATE PLACEMENT ELSEWHERE. SIMILARLY, BARS "BST" & "TSB" ARE DIMENSIONED PERPENDICULAR TO THE BOX OPENING AND SHALL BE FIELD CUT AT THE SKEWED END TO FACILITATE PLACEMENT. MAINTAIN A 2" CLEARANCE FROM THE CONCRETE FACE FOR ALL FIELD CUT BARS. THE TOTAL BAR NUMBER LISTED IN THE TABLE IS THE NUMBER REQUIRED AT EACH STATION.



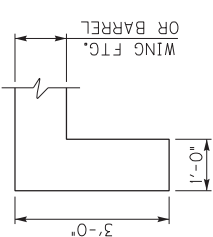
COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

SINGLE BARREL – SKEWED – R.C.B.C. PARAPET TABLE

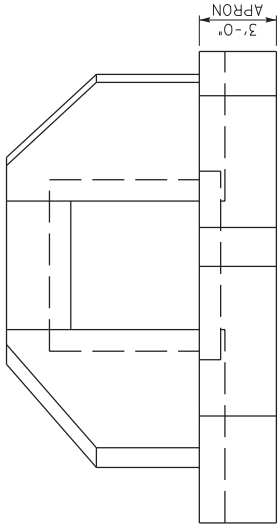
EXISTING DATA			"P1"--#6, "P2"--#5, "P3"--BELOW (TYPE 6)										"P4"--#6, "P5"--#5, "P6"--BELOW (TYPE 6)										"RI"	"RO"		
STATION	SIZE	SKEW	EXT. END	NUMBER		P3	LENGTH	A	B	C	$\theta_1$	$\theta_2$	NUMBER		P6	LENGTH	A	B	C	$\theta_1$	$\theta_2$	NO.	"Z"	NO.	"Z"	
				P1	P2	SZ.	NO.						P4	P5	SZ.	NO.										
60+80	5'x3'	30°RT	BOTH	2	2	#5	2	8'-9"	6'-0"	1'-5"	1'-4"	60°	30°	2	2	#5	2	9'-7"	5'-9"	1'-11"	60°	30°	6	6"	6	6"
202+15	5'x3'	45°LT	BOTH	2	2	#5	2	10'-0"	7'-3"	1'-5"	1'-4"	22.5°	67.5°	2	2	#5	2	10'-11"	7'-0"	2'-0"	22.5°	67.5°	7	9"	7	9"
256+66	4'x4'	30°RT	BOTH	2	2	#5	2	7'-7"	4'-10"	1'-5"	1'-4"	60°	30°	2	2	#5	2	8'-5"	4'-7"	1'-11"	60°	30°	5	6"	5	6"
361+14	3'x3'	30°RT	BOTH	2	2	#5	2	6'-6"	3'-8"	1'-5"	1'-5"	60°	30°	2	2	#5	2	7'-3"	3'-5"	1'-11"	60°	30°	4	6"	4	6"



PLAN – SKEW RT.  
45° SKEW SHOWN, OTHERS SIMILAR



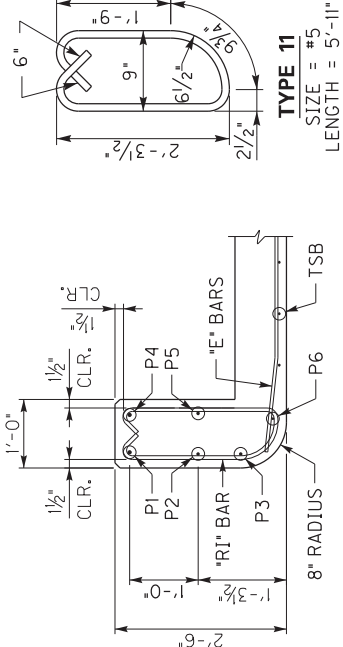
SECTION THRU APRON



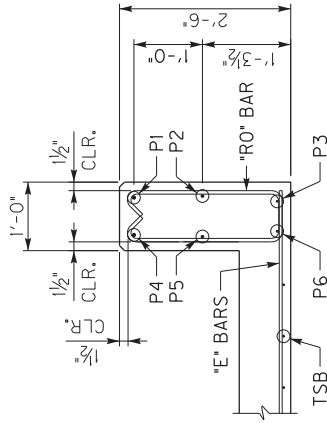
END ELEVATION – SKEW RT.  
(SKEW LEFT SIMILAR, BUT OPPOSITE HAND)

LIMITS OF APRON —

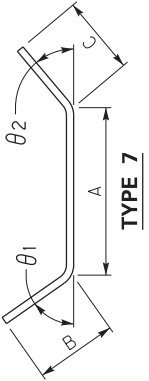
LIMITS OF APRON CONSTRUCTION



INLET PARAPET DETAIL



OUTLET PARAPET DETAIL

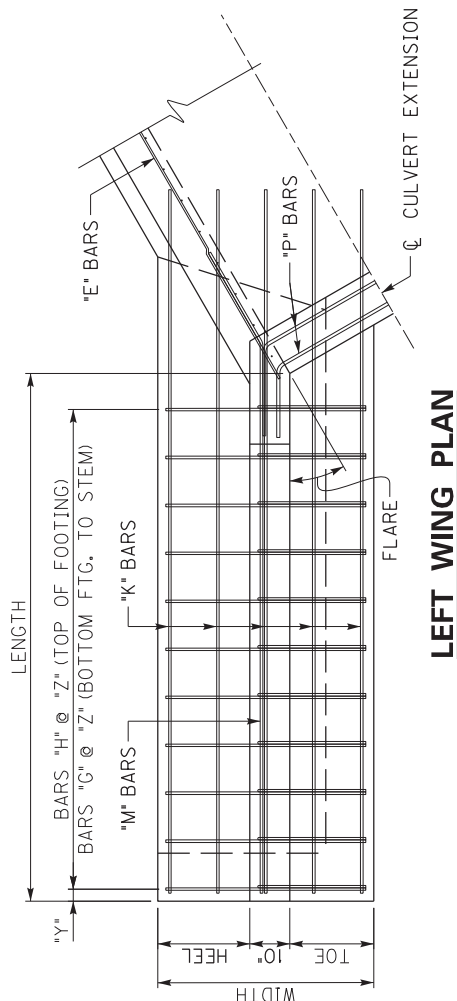


TYPE 7

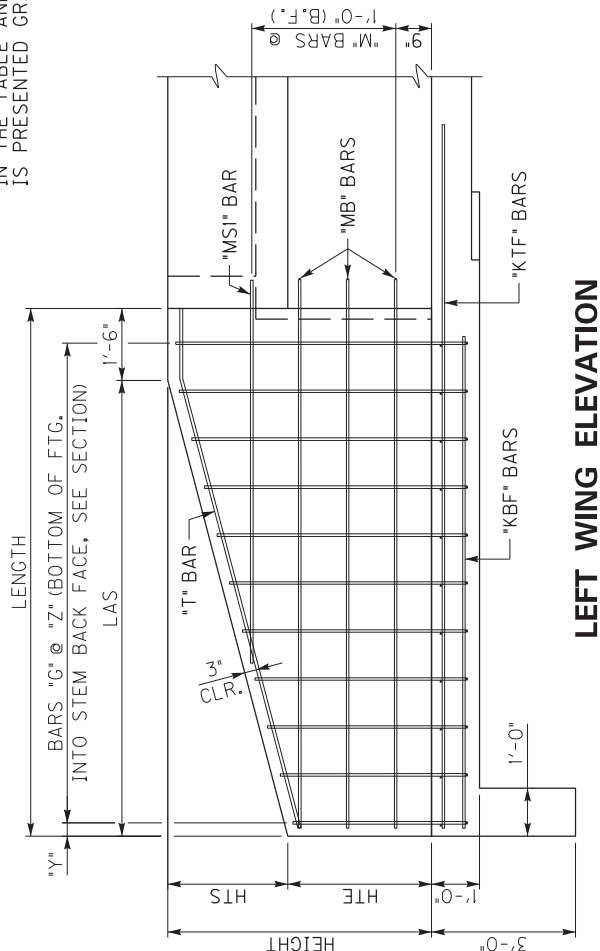


COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

NOTE: DEPENDING ON THE CULVERT SKEW TO ROADWAY, LEFT & RIGHT WINGS MAY VARY GREATLY IN LENGTH, BAR TOTALS, AND FOOTING SIZE. LEFT WING DETAILS SHOWN HERE; RIGHT WING LAYOUT SIMILAR.



NOTE: WING DETAILS SHOWN ARE A GRAPHICAL REPRESENTATION ONLY AND NOT TO SCALE. THE NUMBER OF BARS REQUIRED IS SHOWN IN THE TABLE AND MAY DIFFER FROM WHAT IS PRESENTED GRAPHICALLY.



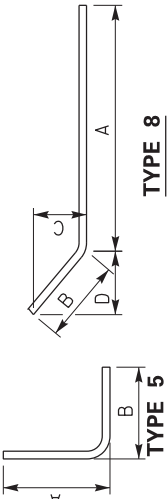
NOTE: FOR WING DIMENSIONS & REINFORCING VARIABLES, SEE APPROPRIATE TABLE.

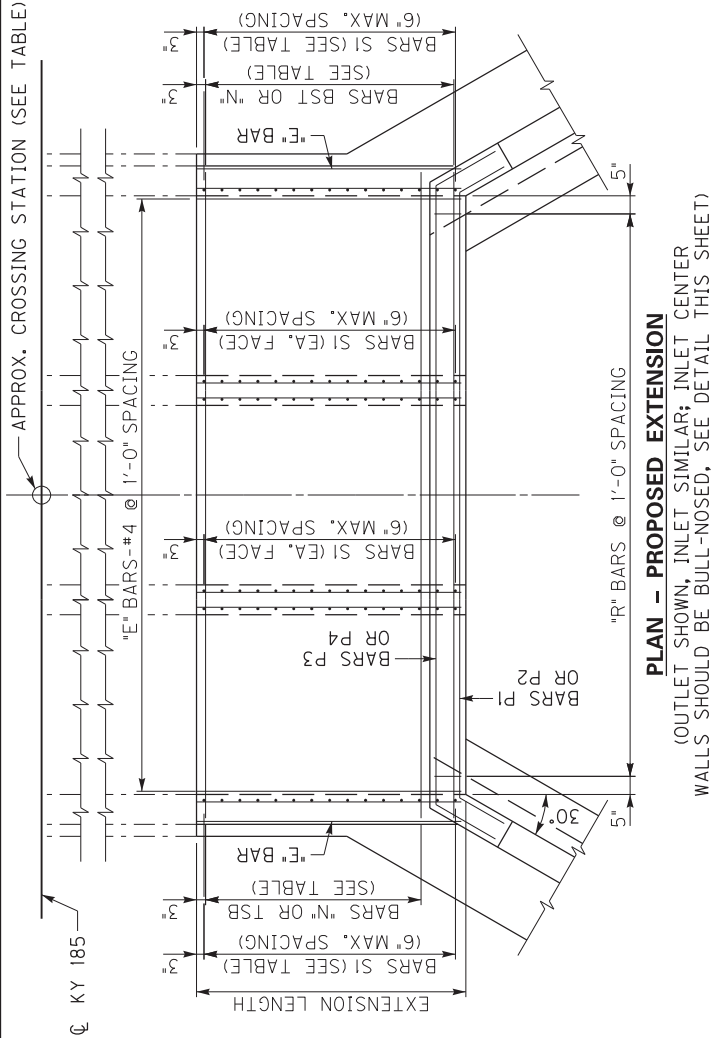
KY 185 CULVERT EXTENSIONS  
 SKEWED BARREL WINGWALL SCHEMATIC  
 SHEET 11 OF 28

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

SINGLE BARREL – SKEWED – R.C.B.C. WINGWALL TABLE																
GENERAL DATA				DIMENSIONS							"G" – TYPE 5			"H"		
STATION	EXT. END	FLARE	WING	NO.	LENGTH	LAS	WIDTH	HEEL	TOE	HEIGHT	HTE	HTS	NO.	SIZE	"Y"	"Z"
60+80	BOTH	30°	LEFT	2	9'-0"	7'-6"	3'-10"	1'-6"	1'-6"	5'-6"	3'-3"	2'-3"	18	#5	3"	12"
60+80	BOTH	60°	RIGHT	2	5'-6"	4'-0"	3'-2"	1'-4"	1'-0"	5'-6"	3'-3"	2'-3"	10	#5	6"	12"
202+15	BOTH	22.5°	RIGHT	2	12'-0"	10'-6"	4'-7"	2'-0"	1'-9"	5'-6"	3'-3"	2'-3"	24	#5	3"	12"
202+15	BOTH	67.5°	LEFT	2	5'-0"	3'-6"	3'-0"	1'-2"	1'-0"	5'-6"	3'-3"	2'-3"	10	#5	3"	12"
256+66	BOTH	30°	LEFT	2	11'-0"	9'-6"	4'-10"	2'-0"	2'-0"	6'-6"	3'-9"	2'-9"	22	#5	4 1/2"	6"
256+66	BOTH	60°	RIGHT	2	6'-6"	5'-0"	3'-10"	1'-6"	1'-6"	6'-6"	3'-9"	2'-9"	6	#5	6"	12"
361+14	BOTH	30°	LEFT	2	9'-0"	7'-6"	3'-10"	1'-6"	1'-6"	5'-6"	3'-3"	2'-3"	18	#5	3"	12"
361+14	BOTH	60°	RIGHT	2	5'-6"	4'-0"	3'-2"	1'-4"	1'-0"	5'-6"	3'-3"	2'-3"	10	#5	6"	12"

SINGLE BARREL – SKEWED – R.C.B.C. WINGWALL TABLE – CONTINUED																							
STATION	EXT. END	"KBF"			"KTF"			"MB" – TYPE 8					"MS1"			"T" – TYPE 8, #6							
		NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	A	B	C	D	NO.	SIZE	LENGTH	NO.	LENGTH	A	B	C	D			
60+80	BOTH	6	#5	10'-6"	10	#5	12'-6"	6	#5	11'-7"	9'-5"	2'-2"	1'-1"	1'-10 1/2"	2	#5	7'-3"	2	9'-8"	7'-8"	2'-0"	0'-7"	1'-11"
60+80	BOTH	4	#5	5'-3"	8	#5	7'-3"	6	#5	7'-7"	5'-5"	2'-2"	1'-10 1/2"	1'-1"	2	#5	4'-9"	2	6'-5"	4'-5"	2'-0"	0'-11 1/2"	1'-9"
202+15	BOTH	6	#5	14'-7"	12	#5	17'-3"	6	#5	14'-11"	12'-9"	2'-2"	0'-10"	2'-0"	2	#5	9'-5"	2	12'-7"	10'-7"	2'-0"	0'-5"	1'-11 1/2"
202+15	BOTH	4	#5	4'-3"	8	#5	6'-5"	6	#5	7'-0"	4'-10"	2'-2"	2'-0"	0'-10"	2	#5	4'-6"	2	6'-0"	4'-0"	2'-0"	1'-1"	1'-8 1/2"
256+66	BOTH	3	#5	13'-9"	6	#5	16'-0"	4	#5	12'-7"	11'-5"	2'-2"	1'-1"	1'-10 1/2"	2	#5	7'-6"	2	11'-9"	9'-9"	2'-0"	0'-6 5/8"	1'-11"
256+66	BOTH	3	#5	6'-7"	5	#5	8'-10"	4	#5	8'-7"	6'-5"	2'-2"	1'-10 1/2"	1'-1"	2	#5	4'-11"	2	7'-7"	5'-7"	2'-0"	0'-11 5/8"	1'-9"
361+14	BOTH	6	#5	10'-6"	10	#5	12'-6"	6	#5	11'-7"	9'-5"	2'-2"	1'-1"	1'-10 1/2"	2	#5	7'-3"	2	9'-8"	7'-8"	2'-0"	0'-7"	1'-11"
361+14	BOTH	4	#5	5'-3"	8	#5	7'-3"	6	#5	7'-7"	5'-5"	2'-2"	1'-10 1/2"	1'-1"	2	#5	4'-9"	2	6'-5"	4'-5"	2'-0"	0'-11 1/2"	1'-9"





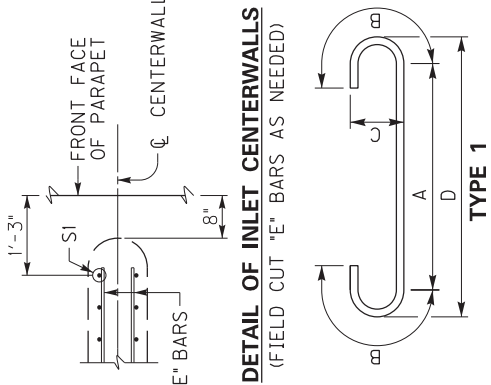
DEMOLITION NOTE:  
FOR DEMOLITION LIMITS, SEE DEMOLITION  
DETAILS FOR STANDARD STRAIGHT CULVERT.

REBAR NOTES:  
BARS "N", "SI" & "E" ARE STRAIGHT BARS.  
THE TOTAL BAR NUMBER LISTED IN THE TABLE  
IS THE TOTAL NUMBER REQUIRED AT EACH STATION.

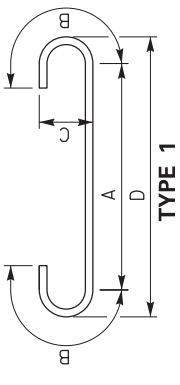
TABLE NOTE:  
EXISTING DATA SHOWN IS APPROXIMATE ONLY.  
CONTRACTOR TO CONFIRM EXISTING CONDITIONS AND  
MAKE ADJUSTMENTS BEFORE ORDERING REINFORCING.

TRIPLE BARREL – STRAIGHT – R.C.B.C. EXTENSION TABLE

EXISTING DATA			DIMENSIONS										"BST" – TYPE 1, #5 AT 6" SPA.						"TSB" – TYPE 1, #5 AT 6" SPA.						"N"--#6			"S1"			"E"--#4		
STATION	WIDTH	HEIGHT	EXT. LENGTH	EXT. END	ST (IN)	SB (IN)	WT (IN)	WTE (IN)	NO.	LENGTH	A	B	C	D	NO.	LENGTH	A	B	C	D	NO.	LENGTH	NO.	SIZE	LENGTH	NO.	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH
106+97	10'-0"	6'-0"	8'-0"	INLET	12	14	12	10	16	35'-4"	33'-6"	0'-11"	0'-6"	34'-0"	14	34'-8"	32'-8"	0'-11"	0'-6"	33'-4"	30	22'-0"	60	#4	7'-9"	158	7'-10"						



DETAIL OF INLET CENTERWALLS  
(FIELD CUT "E" BARS AS NEEDED)

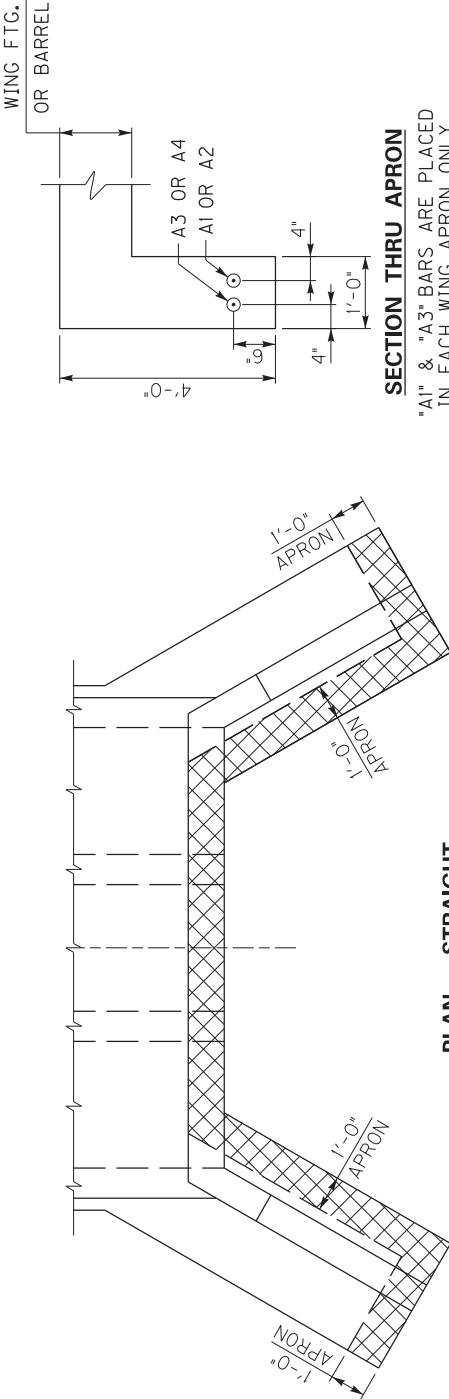


TRIPLE BARREL - STRAIGHT - R.C.B.C. PARAPET TABLE

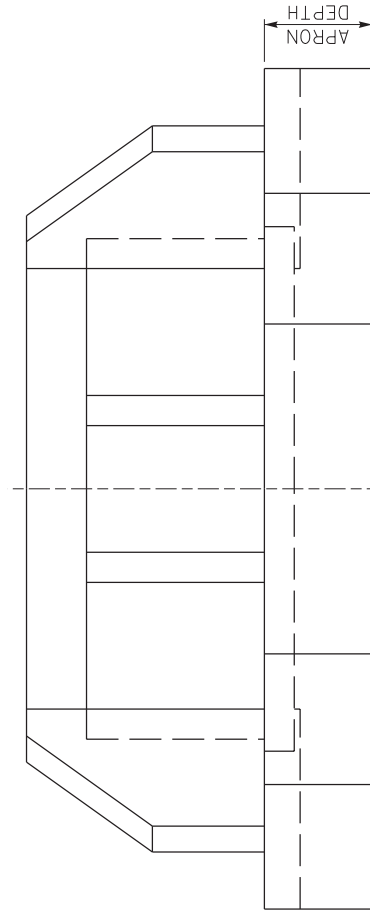
EXISTING DATA									
STATION		"P1"--#6 & "P2"--#5 (TYPE 6)		"P3"--#6 & "P4"--#5 (TYPE 6)		"RI"--#6 (TYPE 6)		"RO"--#6 (TYPE 6)	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
106+97	TRPL 10'x6'	2	35'-2"	2	36'-3"	1	36'-3"	2	36'-3"

TRIPLE BARREL - STRAIGHT - R.C.B.C. APRON TABLE

APRON DATA									
STATION		"A1"--#6 (TYPE 5)		"A2"--#6 (TYPE 6)		"A3"--#6 (TYPE 5)		"A4"--#6 (TYPE 6)	
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
106+97	TRPL 10'x6'	2	35'-2"	2	36'-3"	1	36'-3"	2	36'-3"



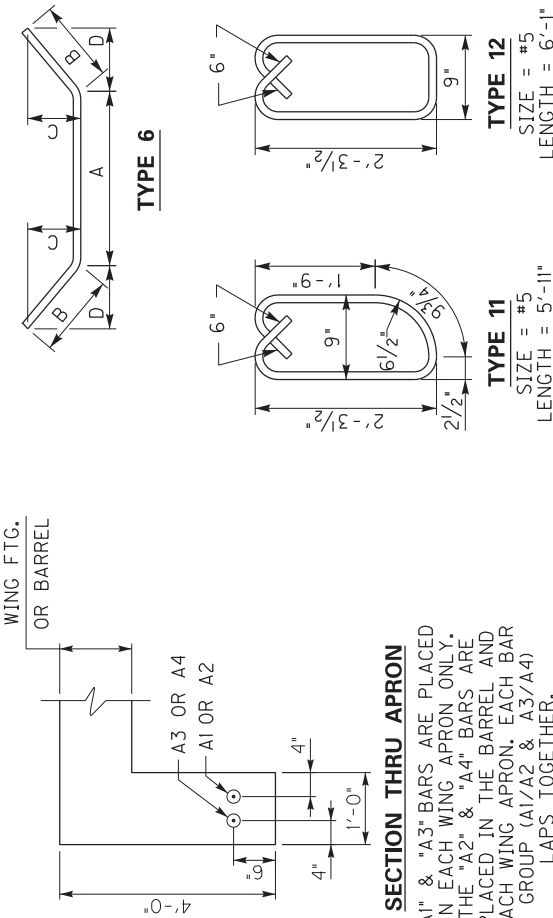
PLAN - STRAIGHT



END ELEVATION - STRAIGHT

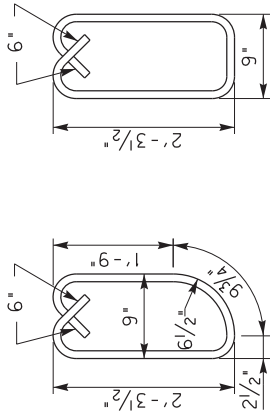
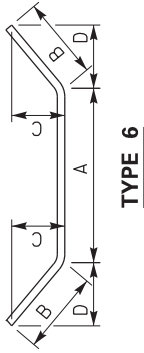
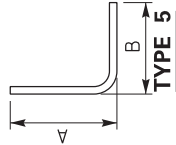
LIMITS OF APRON

LIMITS OF APRON CONSTRUCTION



SECTION THRU APRON

"A1" & "A3" BARS ARE PLACED IN EACH WING APRON ONLY. THE "A2" & "A4" BARS ARE PLACED IN THE BARREL AND EACH WING APRON. EACH BAR GROUP (A1/A2 & A3/A4) LAPS TOGETHER.

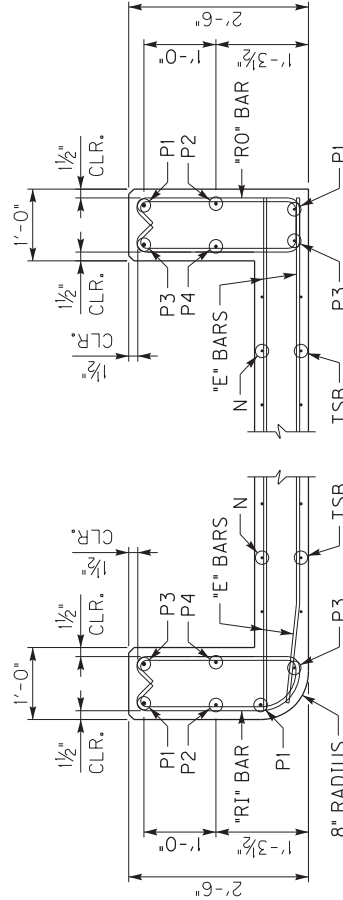


TYPE 11

SIZE = #5  
LENGTH = 5'-11"

TYPE 12

SIZE = #5  
LENGTH = 6'-1"



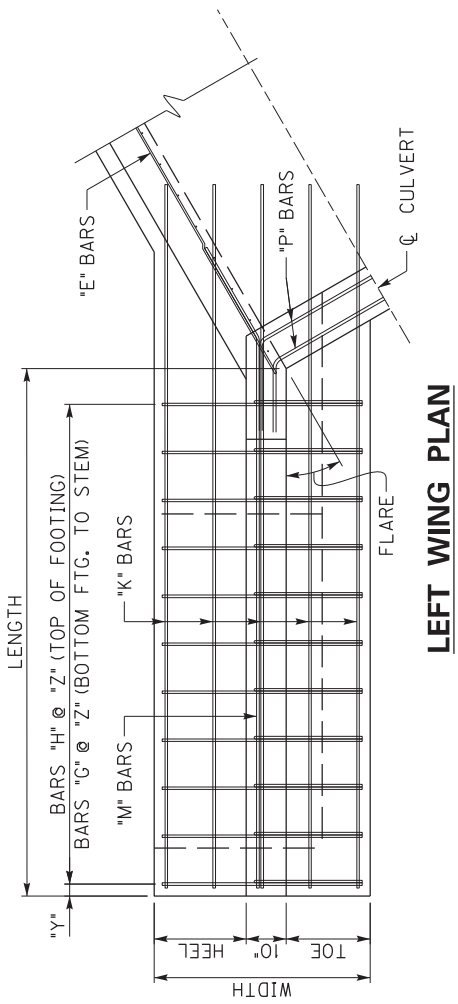
INLET PARAPET DETAIL

OUTLET PARAPET DETAIL

NOTE: "N" BARS & TOP LAYER  
"E" BARS ARE APPLICABLE  
ONLY TO MULTIPLE BARRELS.

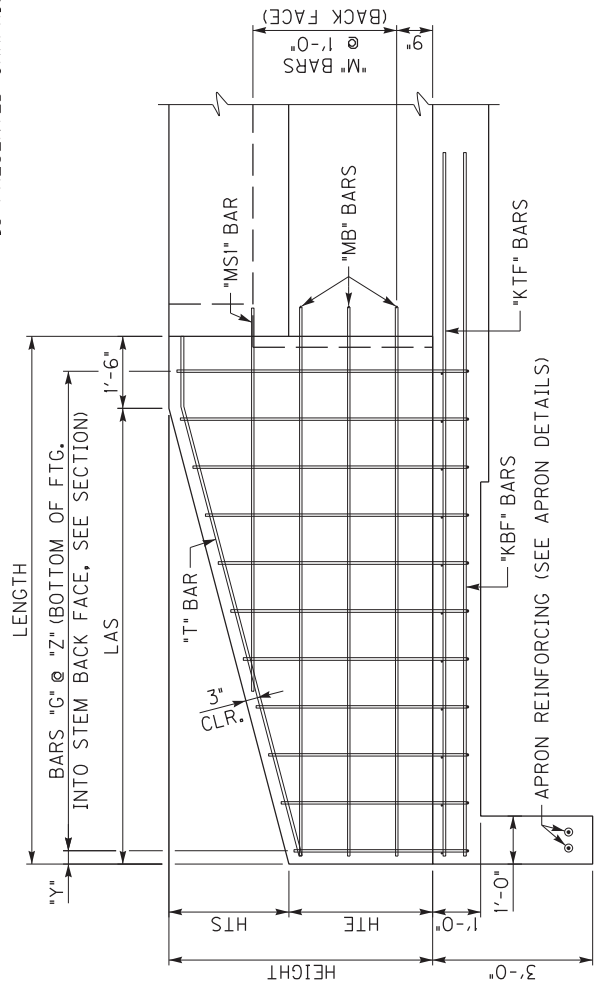


COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



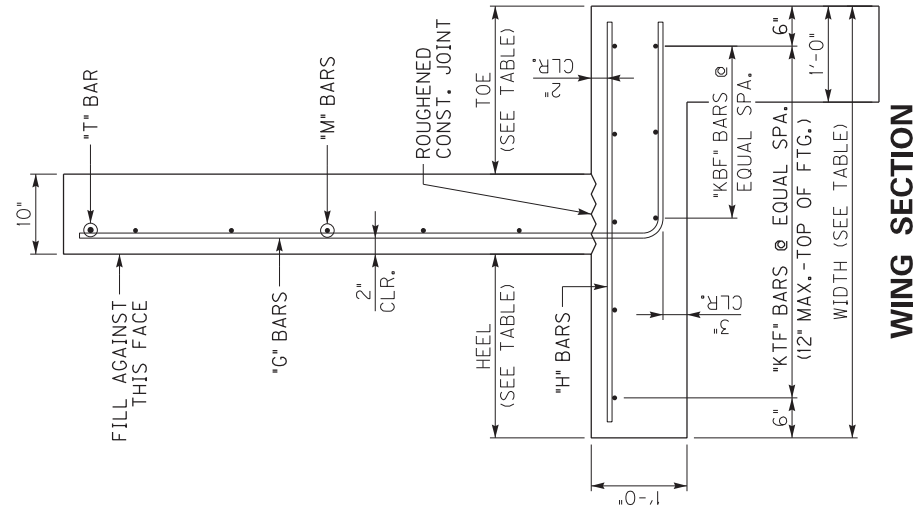
LEFT WING PLAN

NOTE:  
WING DETAILS SHOWN ARE A GRAPHICAL REPRESENTATION ONLY AND NOT TO SCALE. THE NUMBER OF BARS REQUIRED IS SHOWN IN THE TABLE AND MAY DIFFER FROM WHAT IS PRESENTED GRAPHICALLY.



LEFT WING ELEVATION

(LEFT WING SHOWN; RIGHT WING SIMILAR, BUT OPPOSITE HAND)



WING SECTION

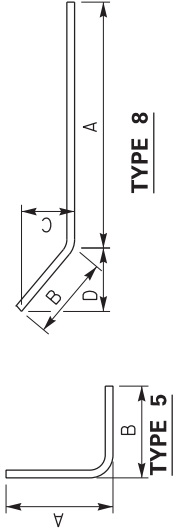
NOTE:  
FOR WING DIMENSIONS & REINFORCING VARIABLES, SEE APPROPRIATE TABLE.

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

TRIPLE BARREL – STRAIGHT – R.C.B.C. WINGWALL TABLE																					
GENERAL DATA				DIMENSIONS								"G" – TYPE 5, #5						"H"—#5			
STATION	EXT. END	FLARE	NO.	LENGTH	LAS	WIDTH	HEEL	TOE	HEIGHT	HTE	HTS	NO.	"Y"	"Z"	LENGTH	A	B	NO.	"Y"	"Z"	LENGTH
106+97	INLET	30°	2	11'-0"	9'-6"	5'-0"	2'-2"	2'-0"	8'-6"	3'-9"	4'-9"	30	3"	9"	11'-7"	9'-1"	2'-6"	30	3"	9"	4'-8"

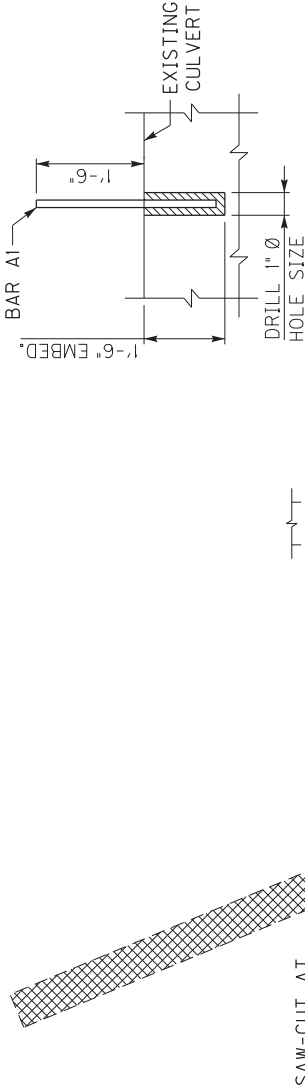
TRIPLE BARREL – STRAIGHT – R.C.B.C. WINGWALL TABLE – CONT'D																			
STATION	EXT. END	"KBF"--#5			"KTF"--#5			"MB" – TYPE 8, #5				"MS1"--#5			"T" – TYPE 8, #6				
		NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	A	B	C	D	NO.	LENGTH	NO.	LENGTH	A	B	C	D
106+97	INLET	6	15'-3"	12	15'-3"	12	13'-7"	11'-5"	2'-2"	1'-1"	1'-10½"	2	5'-2"	2	12'-6"	10'-6"	2'-0"	0'-10¾"	1'-9½"

REBAR NOTES:  
BARS "KBF", "KTF", "H" & "MS1" ARE STRAIGHT BARS. THE "G" BAR STEM LEG LENGTH IS GIVEN AT THE TALLEST POINT FOR THE SLOPING WING AND SHALL BE FIELD CUT TO FACILITATE CONCRETE PLACEMENT. SOME "KTF" & "MB" BARS ALSO REQUIRE A FIELD CUT TO FACILITATE PLACEMENT OF CONCRETE. ALL FIELD CUT BARS SHALL MAINTAIN A 2" MIN. CLEARANCE FROM THE CONCRETE FACE. THE BAR NUMBER TOTAL LISTED IN THE TABLE IS THE TOTAL NUMBER REQUIRED AT EACH STATION.

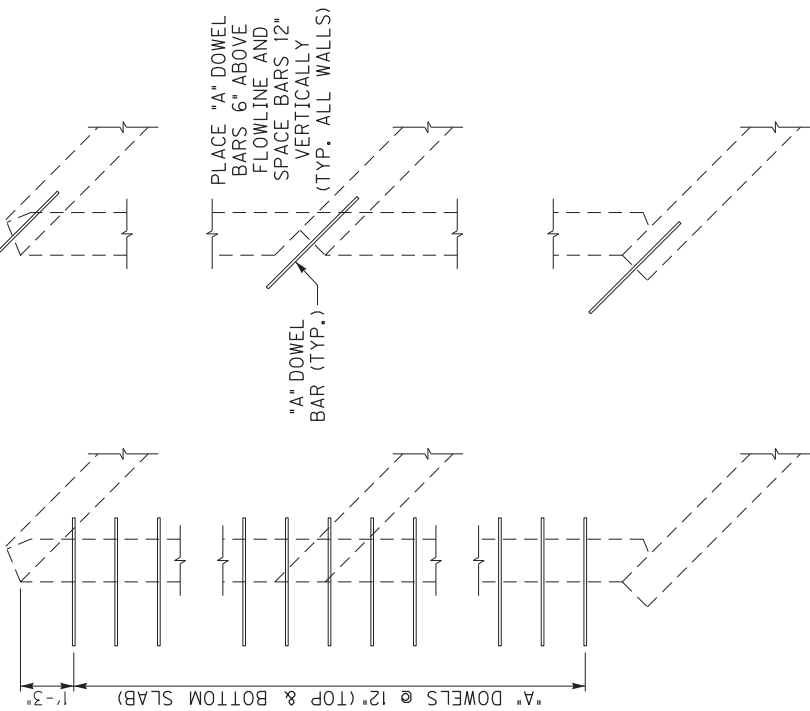


ADDITIONAL GENERAL NOTES

APPLY A COMMERCIAL GRADE CAULKING COMPOUND TO THE EXISTING PARAPET & NEW TOP SLAB INTERFACE PRIOR TO BACKFILLING. THIS WORK AND MATERIAL IS INCIDENTAL TO THE UNIT PRICE OF CONCRETE.



DOWEL DETAIL



TOP / BOTTOM SLAB  
CENTER BARS IN SLABS

SIDEWALL / CENTER WALL  
CENTER BARS IN WALLS

DOWEL BAR PLACEMENT

NOTE:

DRILLING & GROUTING ("A"): REINFORCING, DOWELS AND ANCHORS INSTALLED INTO EXISTING CONCRETE SHALL BE PLACED IN ACCORDANCE WITH SECTION 511 OF THE SPECIFICATIONS AND ANY APPROPRIATE MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING REINFORCING. THE ANCHORAGE SYSTEM SHALL PROVIDE A PULLOUT STRENGTH OF EQUAL OR GREATER CAPACITY AS THE CORRESPONDING REINFORCING STEEL. THIS WORK AND MATERIAL IS INCIDENTAL TO THE UNIT PRICE OF CONCRETE.

"A" DOWELS

STATION	SKIEW	WIDTH	HEIGHT	EXT. END	TYPE	NUMBER	SIZE	LENGTH
357+34	30° RT	6'-0"	3'-0"	OUTLET	STR	37	#6	3'-0"
357+34	30° RT	6'-0"	3'-0"	INLET	STR	37	#6	3'-0"
81+93	30° LT	10'-0"	4'-0"	OUTLET	STR	58	#6	3'-0"
81+93	30° LT	10'-0"	4'-0"	INLET	STR	58	#6	3'-0"

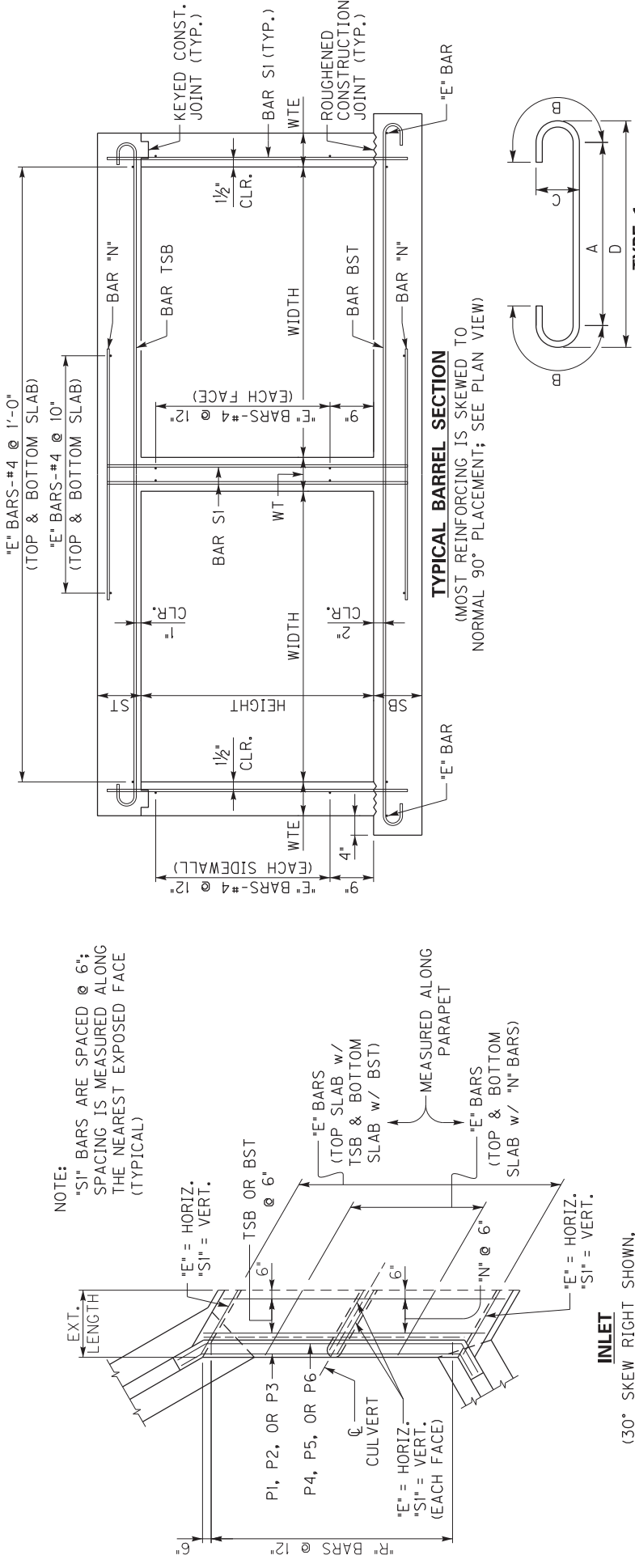
COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

DOUBLE BARREL – SKEWED – R.C.B.C. EXTENSION TABLE

EXISTING DATA				"BST" – (TYPE 1)													
				DIMENSIONS													
STATION	SKEW	WIDTH	HEIGHT	EXTENSION LENGTH	EXTENSION END	ST (IN)	SB (IN)	WT (IN)	WTE (IN)	NO.	SIZE	SPACING	LENGTH	A	B	C	D
357+34	30° RT	6'-0"	3'-0"	5'-6"	OUTLET	12"	14"	10"	10"	9	#5	6"	18'-4"	16'-8"	0'-10"	0'-5"	17'-1"
357+34	30° RT	6'-0"	3'-0"	4'-6"	INLET	12"	14"	10"	10"	7	#5	6"	18'-4"	16'-8"	0'-10"	0'-5"	17'-1"
81+93	30° LT	10'-0"	4'-0"	5'-6"	OUTLET	12"	14"	12"	10"	9	#6	6"	27'-9"	25'-11"	0'-11"	0'-6"	26'-5"
81+93	30° LT	10'-0"	4'-0"	4'-6"	INLET	12"	14"	12"	10"	7	#6	6"	27'-9"	25'-11"	0'-11"	0'-6"	26'-5"

DOUBLE BARREL – SKEWED – R.C.B.C. EXTENSION TABLE – CONTINUED

EXISTING DATA			"TSB" – (TYPE 1)										"N"			"S1" at 6" SPA.				"E"	
STATION	SKEW	WIDTH	HEIGHT	NO.	SIZE	SPACING	LENGTH	A	B	C	D	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	NO.	SIZE	LENGTH	
357+34	30° RT	6'-0"	3'-0"	7	#5	6"	17'-7"	15'-11"	0'-10"	0'-5"	16'-4"	16	#5	7'-0"	40	#4	4'-9"	58	#4	5'-3"	
357+34	30° RT	6'-0"	3'-0"	5	#5	6"	17'-7"	15'-11"	0'-10"	0'-5"	16'-4"	12	#5	7'-0"	32	#4	4'-9"	58	#4	4'-3"	
81+93	30° LT	10'-0"	4'-0"	7	#6	6"	27'-1"	25'-3"	0'-11"	0'-6"	25'-9"	16	#6	12'-9"	40	#4	5'-9"	90	#4	5'-3"	
81+93	30° LT	10'-0"	4'-0"	5	#6	6"	27'-1"	25'-3"	0'-11"	0'-6"	25'-9"	12	#6	12'-9"	32	#4	5'-9"	90	#4	4'-3"	



NOTE: CENTER WALL SHOULD BE BULL-NOSED TO FACILITATE SMOOTH FLOW. FOR BULL-NOSE DETAIL, SEE SHEET 13.



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BUTLER/ EDMONSON	03-9021.00

DOUBLE BARREL – SKEWED – R.C.B.C. PARAPET TABLE

EXISTING DATA

"P1", "P2", & "P3" – (TYPE 7)

STATION	SIZE	SKEW	EXT. END	P1		P2		P3		A	B	C	$\theta_1$	$\theta_2$
				SIZE	NO.	SIZE	NO.	SIZE	NO.					
357+34	DBL. 6'x3'	30° RT	BOTH	#6	2	#5	2	#5	2	15'-0"	1'-5"	1'-4"	60°	30°
81+93	DBL. 10'x4'	30° LT	BOTH	#6	2	#5	2	#6	2	24'-5"	1'-4"	1'-5"	30°	60°

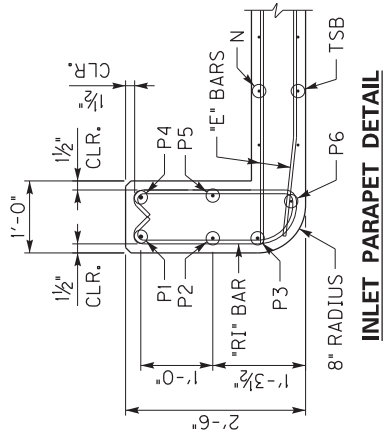
DOUBLE BARREL – SKEWED – R.C.B.C. PARAPET TABLE – CONTINUED

EXISTING DATA

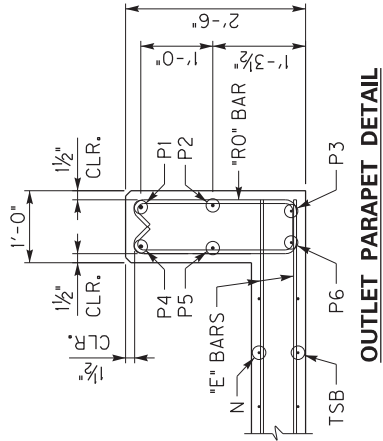
"P4", "P5", & "P6" – (TYPE 7)

"RI" "RO"

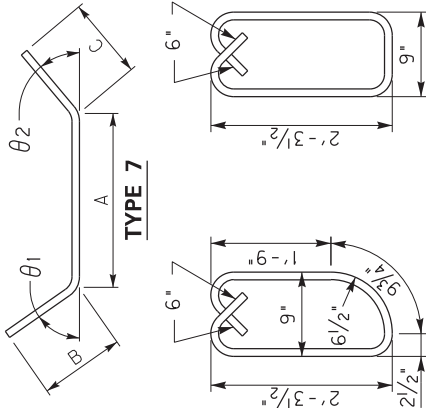
STATION	SIZE	SKEW	EXT. END	P4			P5			P6			A	B	C	$\theta_1$	$\theta_2$	"RI" NO.	"RO" NO.
				SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.						
357+34	DBL. 6'x3'	30° RT	BOTH	#6	2	#5	2	#5	2	#5	2	#5	2	18'-6"	1'-11"	1'-10"	60°	15	6"
81+93	DBL. 10'x4'	30° LT	BOTH	#6	2	#5	2	#5	2	#6	2	#6	2	28'-0"	1'-10"	1'-11"	30°	24	6"



INLET PARAPET DETAIL



OUTLET PARAPET DETAIL



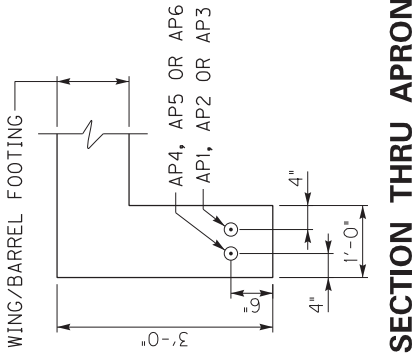
TYPE 11

SIZE = #5  
LENGTH = 5'-11"

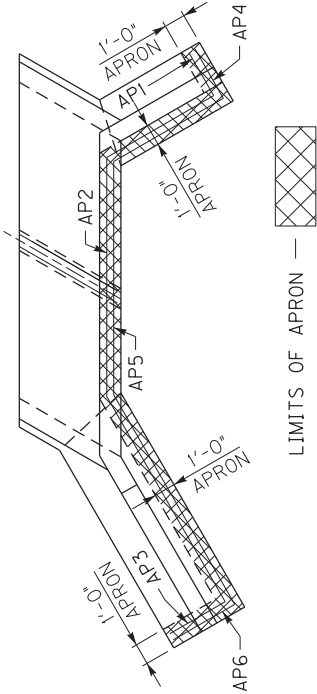
TYPE 12

SIZE = #5  
LENGTH = 6'-1"

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



SECTION THRU APRON



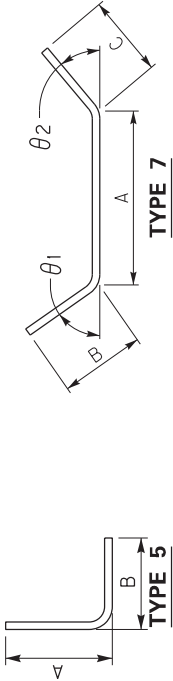
LIMITS OF APRON —

LIMITS OF APRON CONSTRUCTION  
(30° SKEW RIGHT SHOWN, OTHERS SIMILAR)

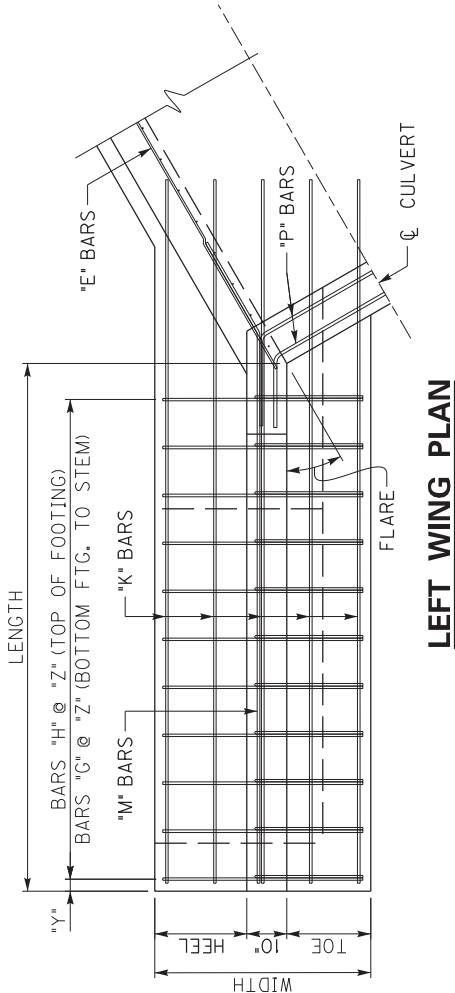
DOUBLE BARREL – SKEWED – R.C.B.C. APRON TABLE

STATION	"AP1" – (TYPE 5)					"AP2" – (TYPE 7)					"AP3" – (TYPE 5)				
	NO.	SIZE	LENGTH	A	B	NO.	SIZE	LENGTH	A	B	NO.	SIZE	LENGTH	A	B
357+34	2	#5	8'-1"	2'-4"	5'-9"	2	#5	17'-3"	11'-3"	3'-0"	2	#5	14'-1"	3'-0"	11'-1"
81+93	2	#6	18'-0"	4'-0"	14'-0"	2	#6	25'-1"	19'-1"	3'-0"	2	#6	10'-1"	3'-0"	7'-1"

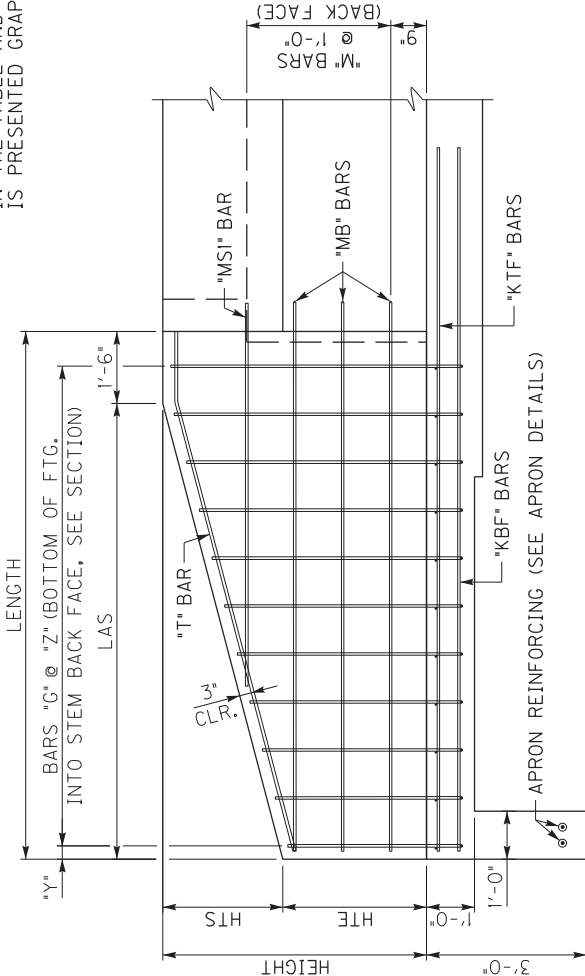
STATION	"AP4" – (TYPE 5)					"AP5" – (TYPE 7)					"AP6" – (TYPE 5)				
	NO.	SIZE	LENGTH	A	B	NO.	SIZE	LENGTH	A	B	NO.	SIZE	LENGTH	A	B
357+34	2	#5	8'-7"	2'-8"	5'-11"	2	#5	17'-0"	11'-0"	3'-0"	2	#5	14'-8"	3'-4"	11'-4"
81+93	2	#6	18'-7"	4'-4"	14'-3"	2	#6	24'-0"	18'-10"	3'-0"	2	#6	10'-7"	3'-4"	7'-3"



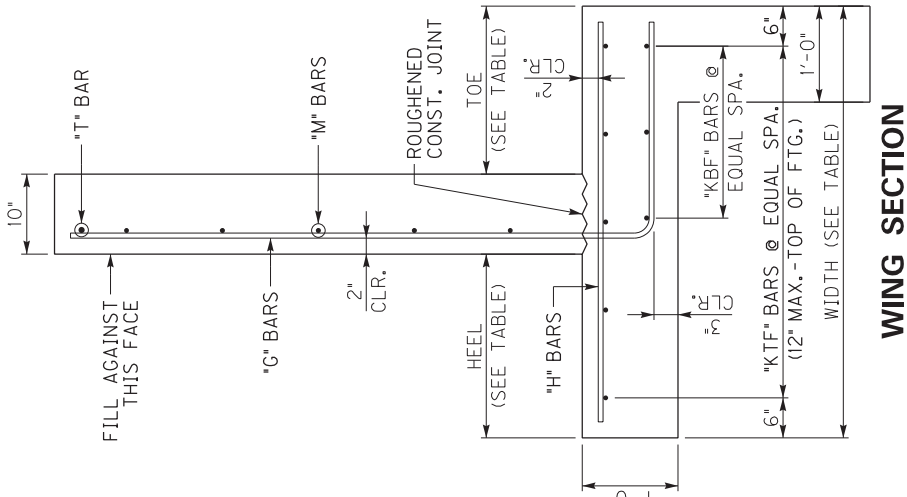
COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



NOTE:  
WING DETAILS SHOWN ARE A GRAPHICAL REPRESENTATION ONLY AND NOT TO SCALE. THE NUMBER OF BARS REQUIRED IS SHOWN IN THE TABLE AND MAY DIFFER FROM WHAT IS PRESENTED GRAPHICALLY.



(LEFT WING SHOWN; RIGHT WING SIMILAR, BUT OPPOSITE HAND)



NOTE:  
FOR WING DIMENSIONS & REINFORCING VARIABLES, SEE APPROPRIATE TABLE.

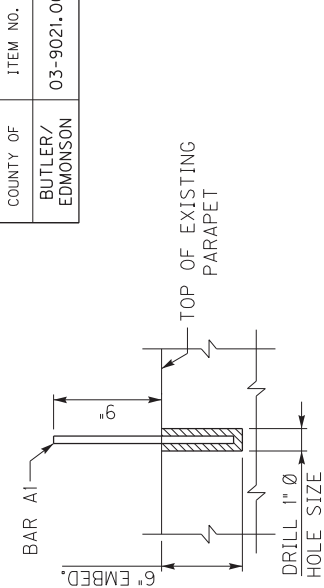
COUNTY OF	ITEM NO.
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DOUBLE BARREL – SKEWED – R.C.B.C. WINGWALL TABLE																			
GENERAL DATA					DIMENSIONS										"G" – TYPE 5				
STATION	EXT. END	FLARE	WING	NO.	LENGTH	LAS	WIDTH	HEEL	TOE	HEIGHT	HTE	HTS	NO.	SIZE	"Y"	"Z"	LENGTH	A	B
357+34	BOTH	30°	LEFT	2	9'-0"	7'-6"	3'-10"	1'-6"	1'-6"	5'-6"	3'-3"	2'-3"	18	#5	3"	12"	8'-1"	6'-1"	2'-0"
357+34	BOTH	60°	RIGHT	2	5'-6"	4'-0"	3'-2"	1'-4"	1'-0"	5'-6"	3'-3"	2'-3"	10	#5	6"	12"	7'-7"	6'-1"	1'-6"
81+93	BOTH	30°	RIGHT	2	11'-0"	9'-6"	4'-10"	2'-0"	2'-0"	6'-6"	3'-9"	2'-9"	42	#5	4 1/2"	6"	9'-7"	7'-1"	2'-6"
81+93	BOTH	60°	LEFT	2	6'-6"	5'-0"	3'-10"	1'-6"	1'-6"	6'-6"	3'-9"	2'-9"	24	#5	6"	12"	9'-1"	7'-1"	2'-0"
										"H"					"Y"	"Z"	SIZE	"Y"	LENGTH
															3"	12"	#5	3"	3'-6"
															6"	12"	#5	6"	2'-10"
															4 1/2"	6"	#5	4 1/2"	4'-6"
															6"	12"	#5	6"	3'-6"

DOUBLE BARREL – SKEWED – R.C.B.C. WINGWALL TABLE – CONTINUED																										
STATION				"KBF"				"KTF"				"MB" – TYPE 8				"MS1"				"T" – TYPE 8, #6						
	NO.	SIZE	LENGTH		NO.	SIZE	LENGTH		NO.	SIZE	LENGTH		A	B	C	D		NO.	SIZE	LENGTH		LENGTH	A	B	C	D
357+34	6	#5	10'-6"		10	#5	12'-6"		6	#5	11'-7"		9'-5"	2'-2"	1'-1"	1'-10 1/2"		2	#5	7'-3"		9'-8"	7'-8"	2'-0"	0'-7"	1'-11"
357+34	4	#5	5'-3"		8	#5	7'-3"		6	#5	7'-7"		5'-5"	2'-2"	1'-10 1/2"	1'-1"		2	#5	4'-9"		6'-5"	4'-5"	2'-0"	0'-11 1/2"	1'-9"
81+93	6	#5	13'-9"		12	#5	16'-0"		8	#5	12'-7"		11'-5"	2'-2"	1'-1"	1'-10 1/2"		2	#5	7'-6"		11'-9"	9'-9"	2'-0"	0'-6 5/8"	1'-11"
81+93	6	#5	6'-7"		10	#5	8'-10"		8	#5	8'-7"		6'-5"	2'-2"	1'-10 1/2"	1'-1"		2	#5	4'-11"		7'-7"	5'-7"	2'-0"	0'-11 5/8"	1'-9"



**NOTE:**  
LAYOUT OF EXTENSION REINFORCING WAS BASED ON THE 1939 KENTUCKY CULVERT PLANS, DRAWING #07470. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATIONS AND DIMENSIONS PRIOR TO ORDERING REINFORCING.

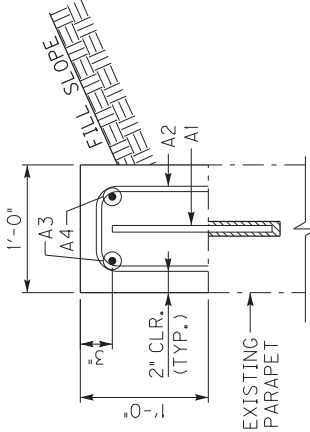
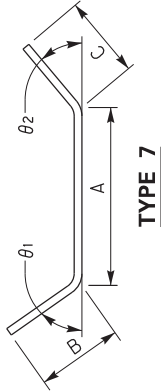
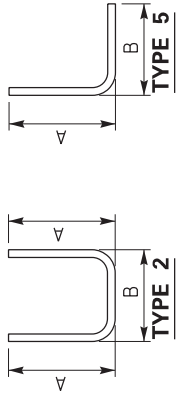


**DOWEL DETAIL**

(DETAIL FOR BAR A1 SHOWN, DETAIL FOR OTHER BARS SIMILAR)  
DRILLING & GROUTING: REINFORCING, DOWELS, AND ANCHORS INSTALLED INTO EXISTING CONCRETE SHALL BE PLACED IN ACCORDANCE WITH SECTION 511 OF THE SPECIFICATIONS AND ANY APPROPRIATE MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING REINFORCING. THE ANCHORAGE SYSTEM SHALL PROVIDE A PULLOUT STRENGTH OF EQUAL OR GREATER CAPACITY AS THE CORRESPONDING REINFORCING STEEL. THIS WORK AND MATERIAL IS INCIDENTAL TO THE UNIT PRICE FOR CONCRETE.

**BILL OF REINFORCEMENT**

MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	A	B	C	$\theta_1$	$\theta_2$
A1	STR	88	#6	1'-3"	PARAPETS					
A2	2	88	#4	2'-2"	PARAPETS	0'-10"	0'-8"			
A3	7	2	#6	42'-8"	PARAPETS	40'-8"	1'-4"	0'-8"	35°	55°
A4	7	2	#6	43'-5"	PARAPETS	41'-0"	1'-6"	0'-11"	35°	55°
G1	5	5	#4	6'-3"	WINGWALL	4'-5"	1'-11"			
H1	STR	5	#4	3'-5"	WINGWALL					
K1	STR	7	#4	5'-10"	WINGWALL					
M1	STR	4	#4	5'-10"	WINGWALL					



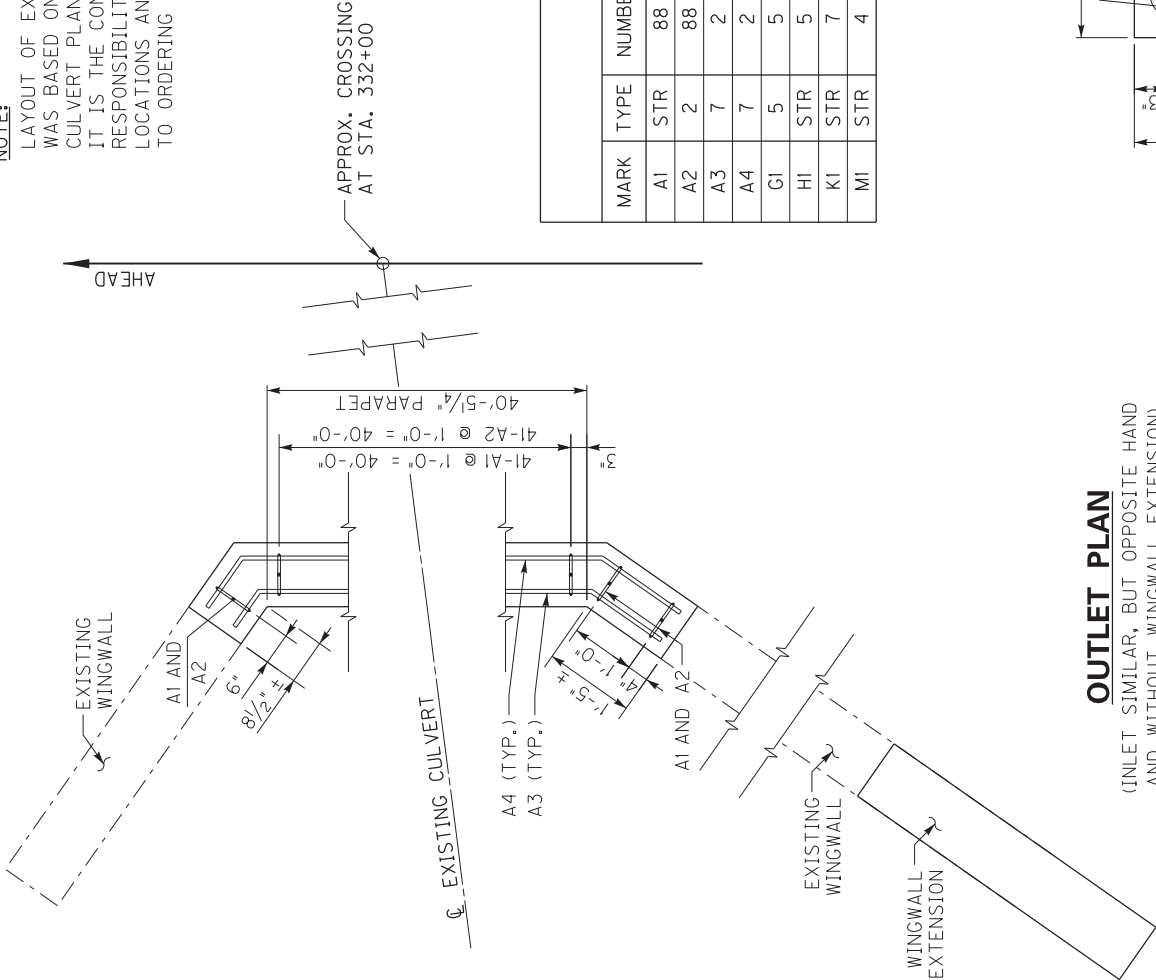
**PARAPET SECTION**

TRIPLE 12x4.5 CULVERT @ STA. 332+00  
KY 185 CULVERT EXTENSIONS  
PARAPET & WING EXTENSION DETAILS 1  
SHEET 23 OF 28

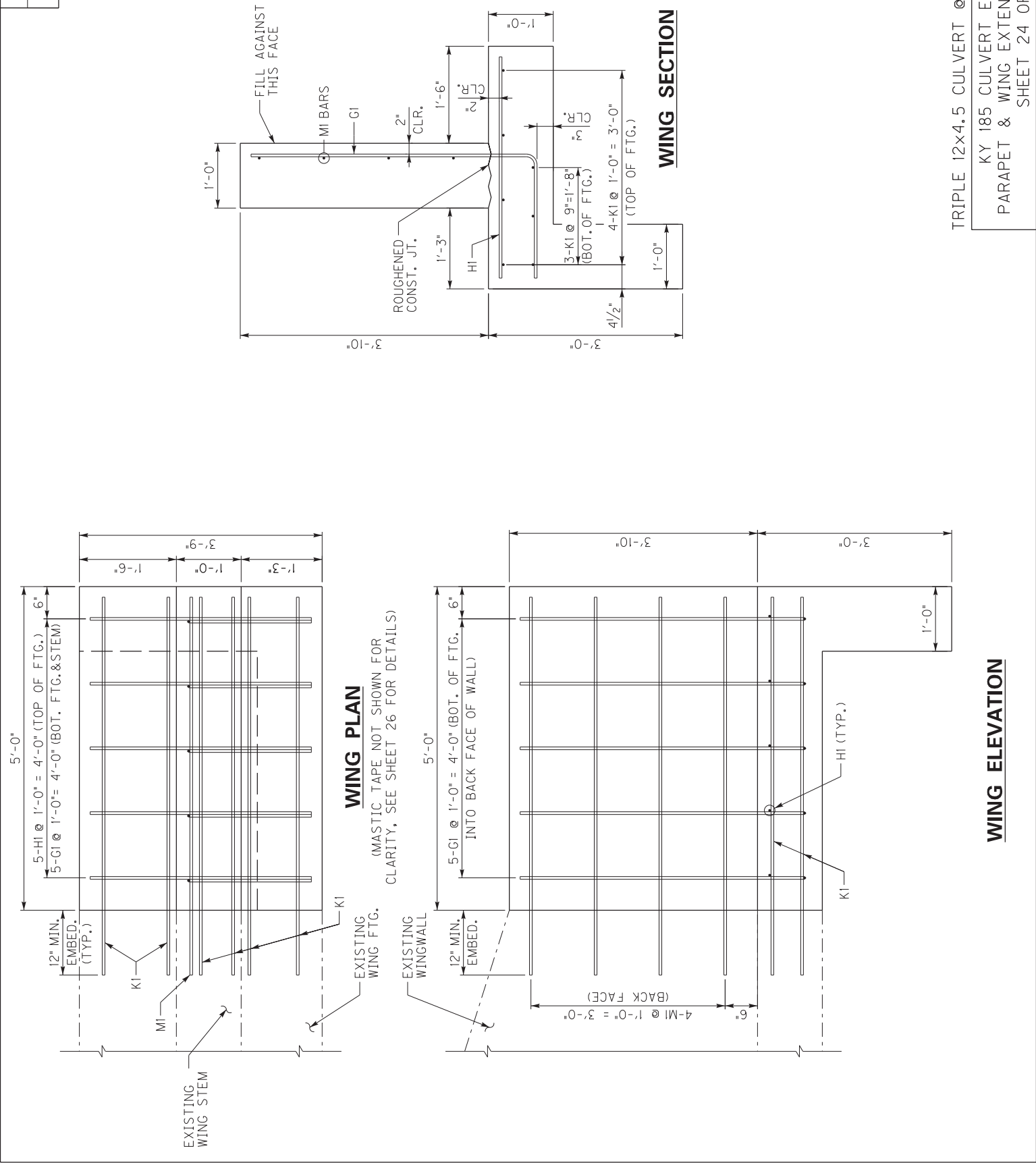
**OUTLET PLAN**

(INLET SIMILAR, BUT OPPOSITE HAND AND WITHOUT WINGWALL EXTENSION)

**NOTE:**  
EXTEND INLET AND OUTLET PARAPETS AS SHOWN. WINGWALL EXTENSION ONLY REQUIRED AT OUTLET.



COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



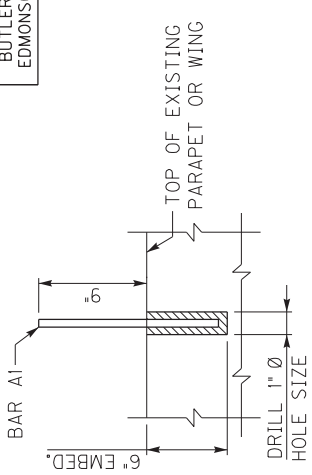
TRIPLE 12x4.5 CULVERT @ STA. 332+00

KY 185 CULVERT EXTENSIONS

PARAPET & WING EXTENSION DETAILS 2

SHEET 24 OF 28

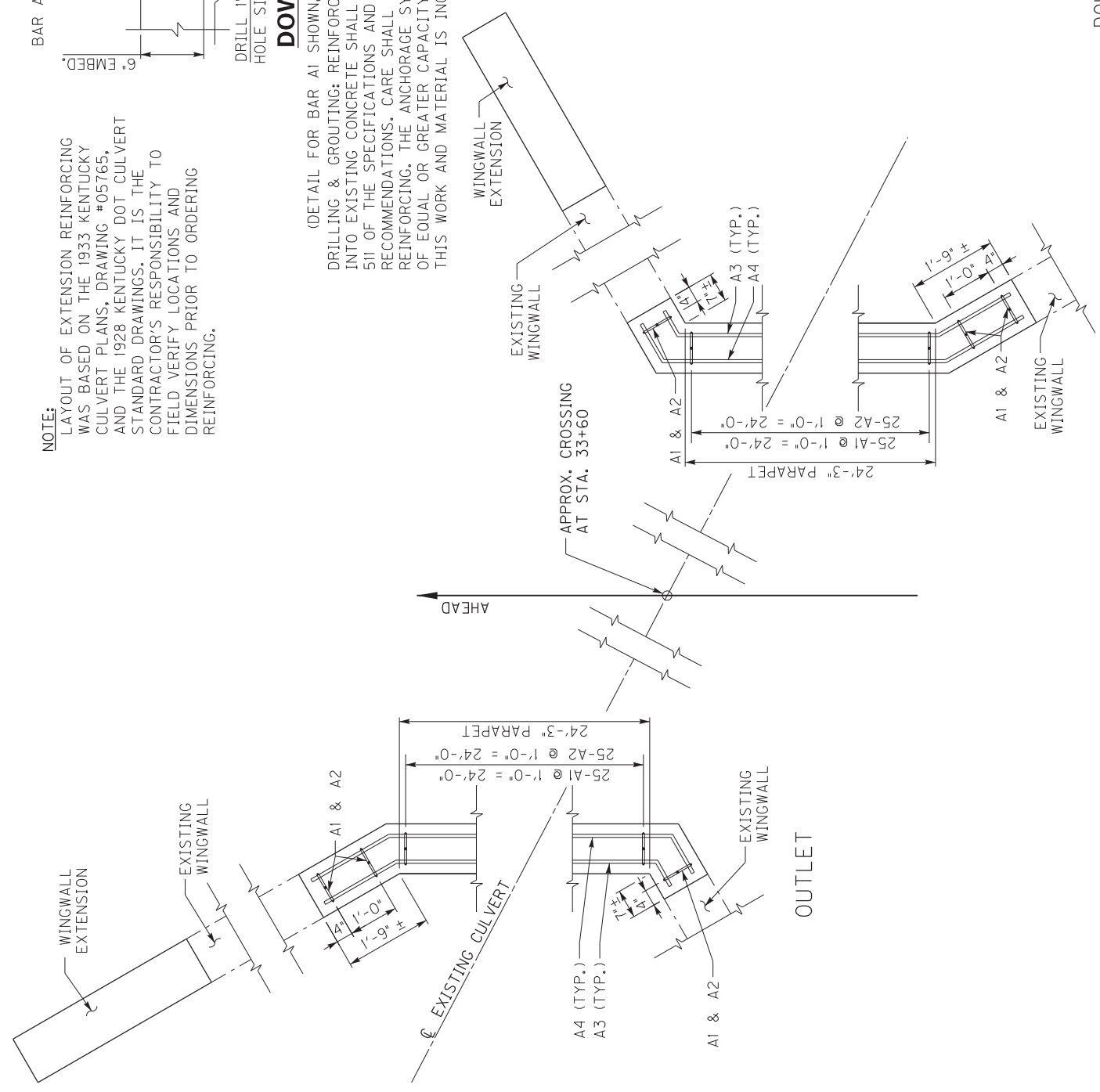
COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00



**NOTE:**  
LAYOUT OF EXTENSION REINFORCING WAS BASED ON THE 1933 KENTUCKY CULVERT PLANS, DRAWING #05765, AND THE 1928 KENTUCKY DOT CULVERT STANDARD DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATIONS AND DIMENSIONS PRIOR TO ORDERING REINFORCING.

**DOWEL DETAIL**

(DETAIL FOR BAR A1 SHOWN, DETAIL FOR OTHER BARS SIMILAR)  
DRILLING & GROUTING: REINFORCING, DOWELS, AND ANCHORS INSTALLED INTO EXISTING CONCRETE SHALL BE PLACED IN ACCORDANCE WITH SECTION 511 OF THE SPECIFICATIONS AND ANY APPROPRIATE MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO EXISTING REINFORCING. THE ANCHORAGE SYSTEM SHALL PROVIDE A PULLOUT STRENGTH OF EQUAL OR GREATER CAPACITY AS THE CORRESPONDING REINFORCING STEEL. THIS WORK AND MATERIAL IS INCIDENTAL TO THE UNIT PRICE FOR CONCRETE.



**PARAPET SECTION**

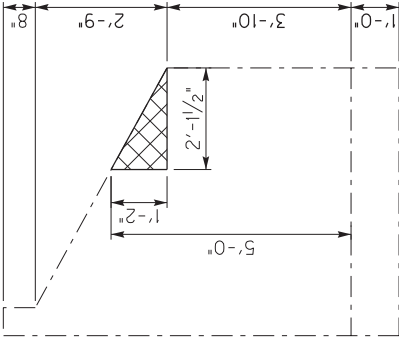
DOUBLE 10x5 CULVERT @ STA. 33+60  
KY 185 CULVERT EXTENSIONS  
PARAPET & WING EXTENSION DETAILS 1  
SHEET 25 OF 28

**PLAN**

INLET

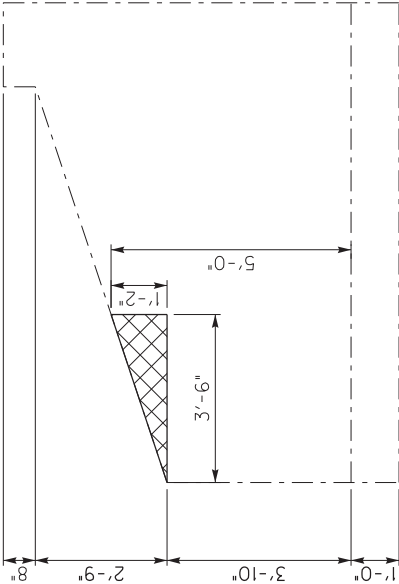
OUTLET

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

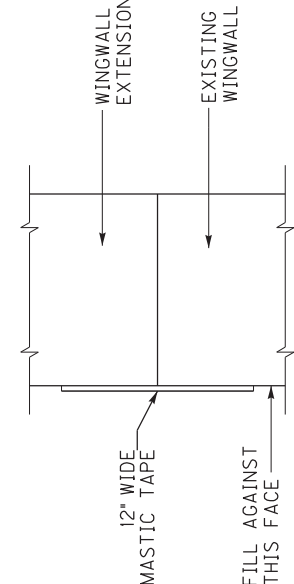


- APPROXIMATE LIMITS OF REMOVAL

DEMOLITION OF EXISTING INLET WING



DEMOLITION OF EXISTING OUTLET WING



JOINT WATERPROOFING DETAIL

12" WIDE MASTIC TAPE TO WATERPROOF THE JOINT BETWEEN THE EXISTING WINGWALL AND THE WINGWALL EXTENSION.

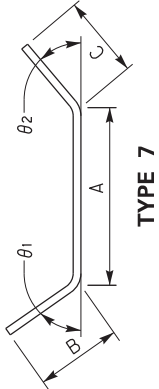
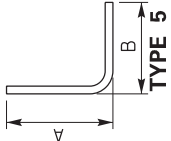
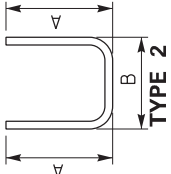
MASTIC TAPE: MASTIC TAPE USED TO SEAL JOINTS IS TO MEET THE REQUIREMENTS OF ASTM C-877 TYPE I, II, OR III. THE JOINT IS TO BE COVERED WITH 12" WIDE MASTIC TAPE. PRIOR TO APPLICATION, THE JOINT SURFACE SHALL BE CLEAN AND FREE OF DIRT, DEBRIS, OR DELETERIOUS MATERIAL. PRIMER, IF REQUIRED BY THE TAPE MANUFACTURER, SHALL BE APPLIED FOR A MINIMUM WIDTH OF 9" ON EACH SIDE OF THE JOINT.

MASTIC TAPE SHALL BE EITHER:  
EZ-WRAP RUBBER BY PRESS-SEAL CASKET CORPORATION,  
SEAL WRAP BY MAR MAC MANUFACTURING CO. INC.,  
CADILLOC BY THE UP RUBBER CO. INC.  
OR APPROVED EQUAL.

MASTIC TAPE SHALL COVER THE JOINT CONTINUOUSLY UNLESS OTHERWISE SHOWN IN THE PLANS. MASTIC TAPE SHALL BE SPLICED BY TAPING A MINIMUM OF 6" AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH THE OVERLAP RUNNING DOWNHILL.

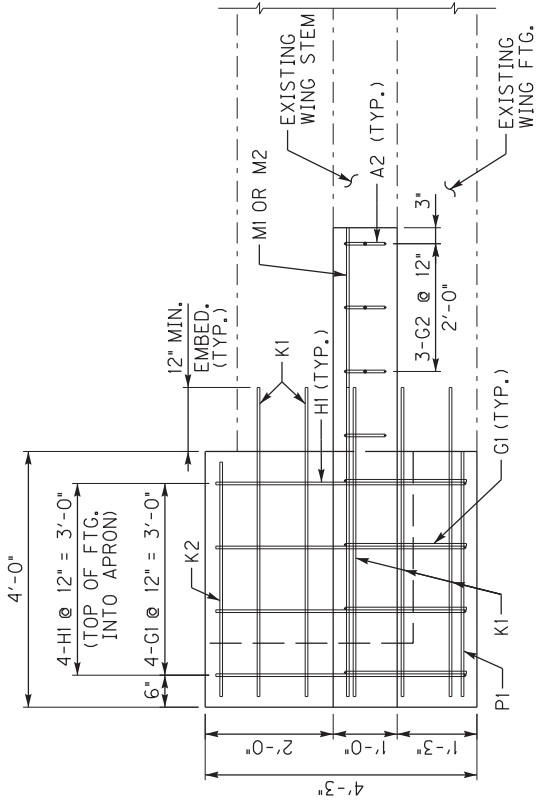
THE COST OF LABOR, MATERIALS, AND INCIDENTAL ITEMS FOR FURNISHING AND INSTALLING MASTIC TAPE SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR CONCRETE CLASS 'A' AND NO SEPARATE MEASUREMENT OF PAYMENT SHALL BE MADE.

MARK	TYPE	NUMBER	SIZE	LENGTH	LOCATION	A	B	C	θ <sub>1</sub>	θ <sub>2</sub>
A1	STR	56	#6	1'-3"	PARAPETS					
A2	2	63	#4	2'-2"	ALL LOCATIONS	0'-10"	0'-8"			
A3	7	2	#6	26'-6"	PARAPETS	24'-5"	0'-6"	1'-7"	60°	30°
A4	7	2	#6	27'-5"	PARAPETS	24'-10"	0'-10"	1'-9"	60°	30°
G1	5	8	#4	7'-4"	WINGWALLS	5'-7"	1'-11"			
G2	STR	5	#4	1'-6"	WINGWALLS					
H1	5	8	#4	7'-5"	WINGWALLS	3'-10"	3'-7"			
K1	STR	16	#4	4'-10"	WINGWALLS					
K2	STR	2	#4	3'-10"	WINGWALLS					
M1	STR	8	#4	4'-10"	WINGWALLS					
M2	STR	2	#4	7'-4"	OUTLET WINGWALL					
M3	STR	2	#4	5'-11"	INLET WINGWALL					
P1	STR	6	#4	3'-10"	WINGWALLS					



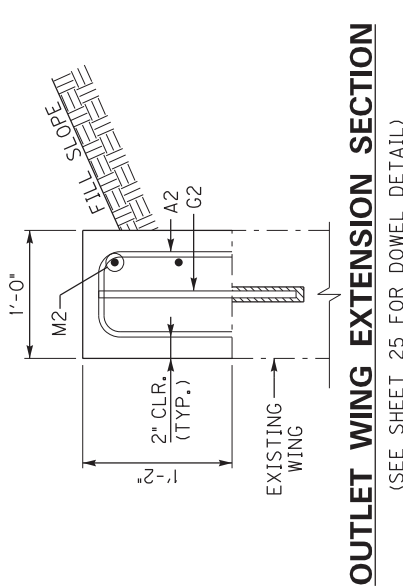


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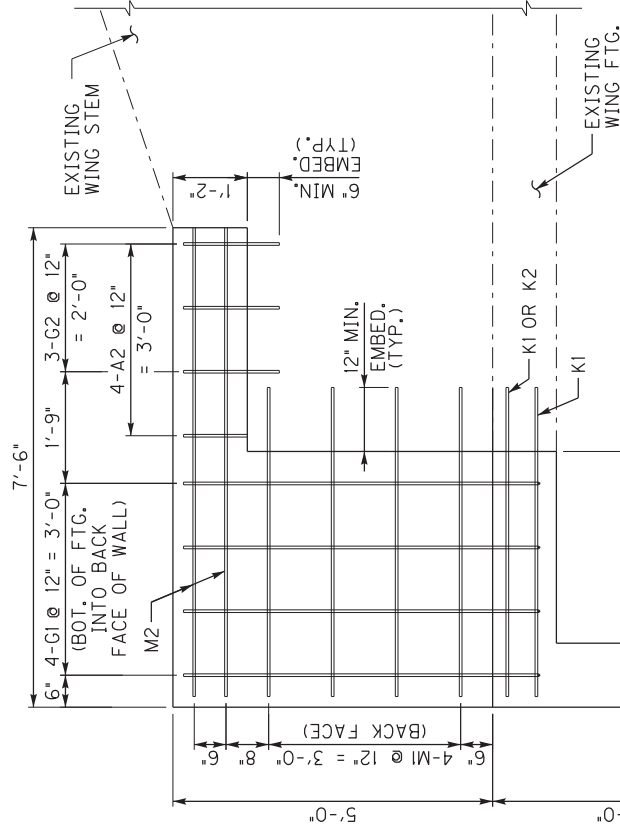
OUTLET WING PLAN

(MASTIC TAPE NOT SHOWN FOR CLARITY)

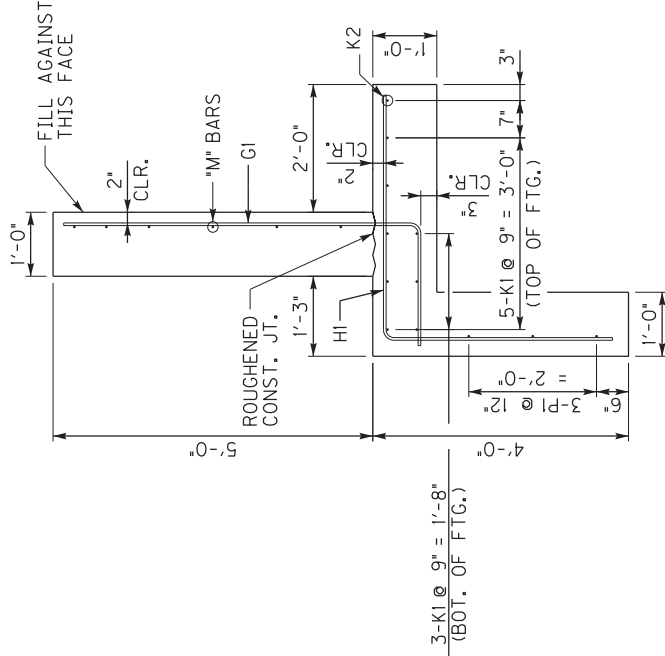


OUTLET WING EXTENSION SECTION

(SEE SHEET 25 FOR DOWEL DETAIL)



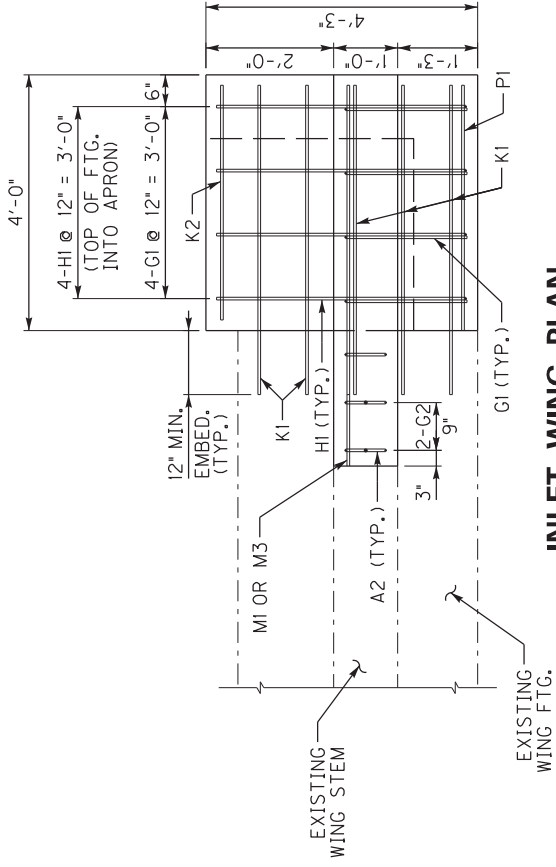
OUTLET WING ELEVATION



OUTLET WING SECTION

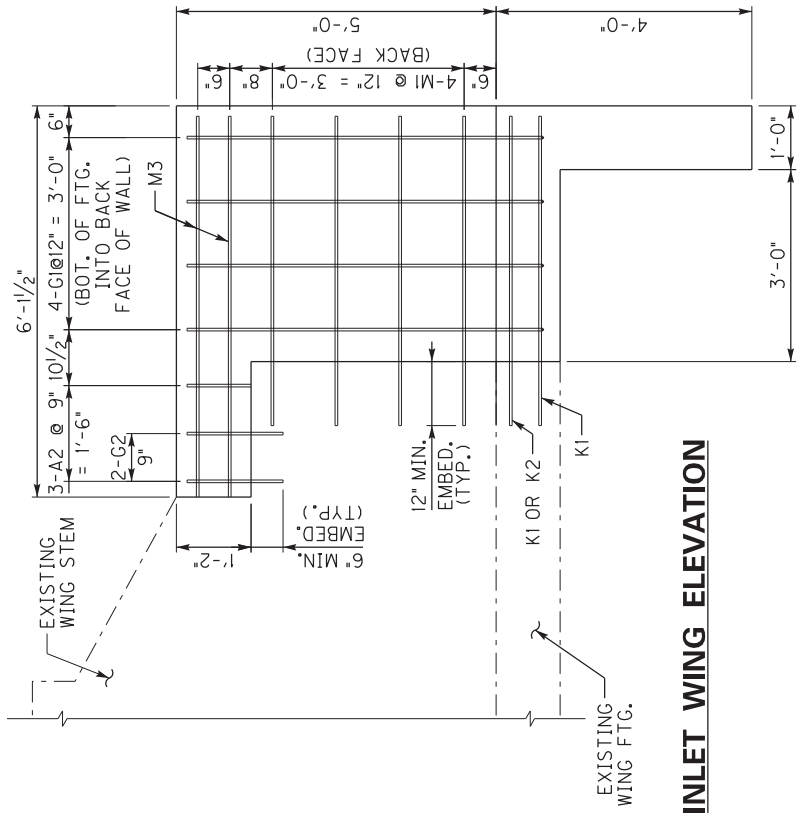
DOUBLE 10x5 CULVERT @ STA. 33+60  
KY 185 CULVERT EXTENSIONS  
PARAPET & WING EXTENSION DETAILS 3  
SHEET 27 OF 28

COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	03-9021.00

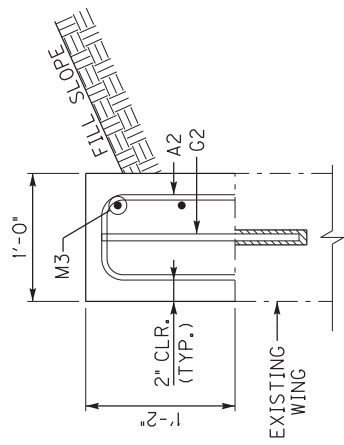


INLET WING PLAN

(MASTIC TAPE NOT SHOWN FOR CLARITY)

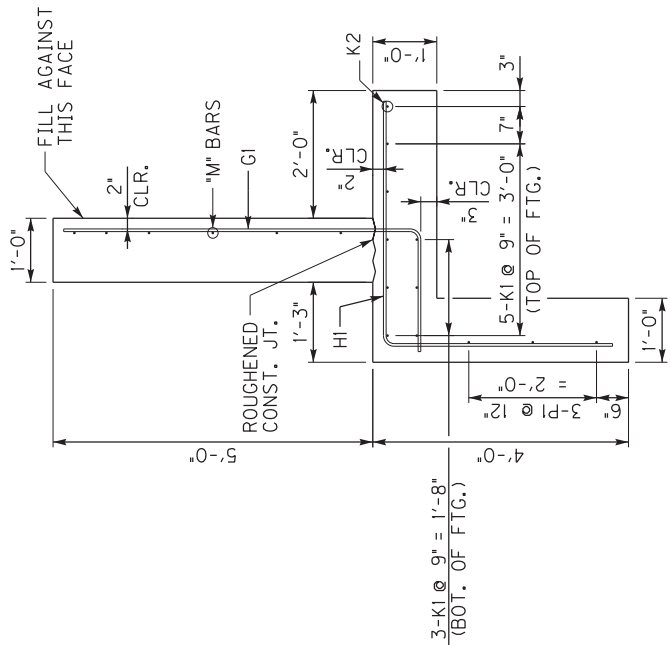


INLET WING ELEVATION

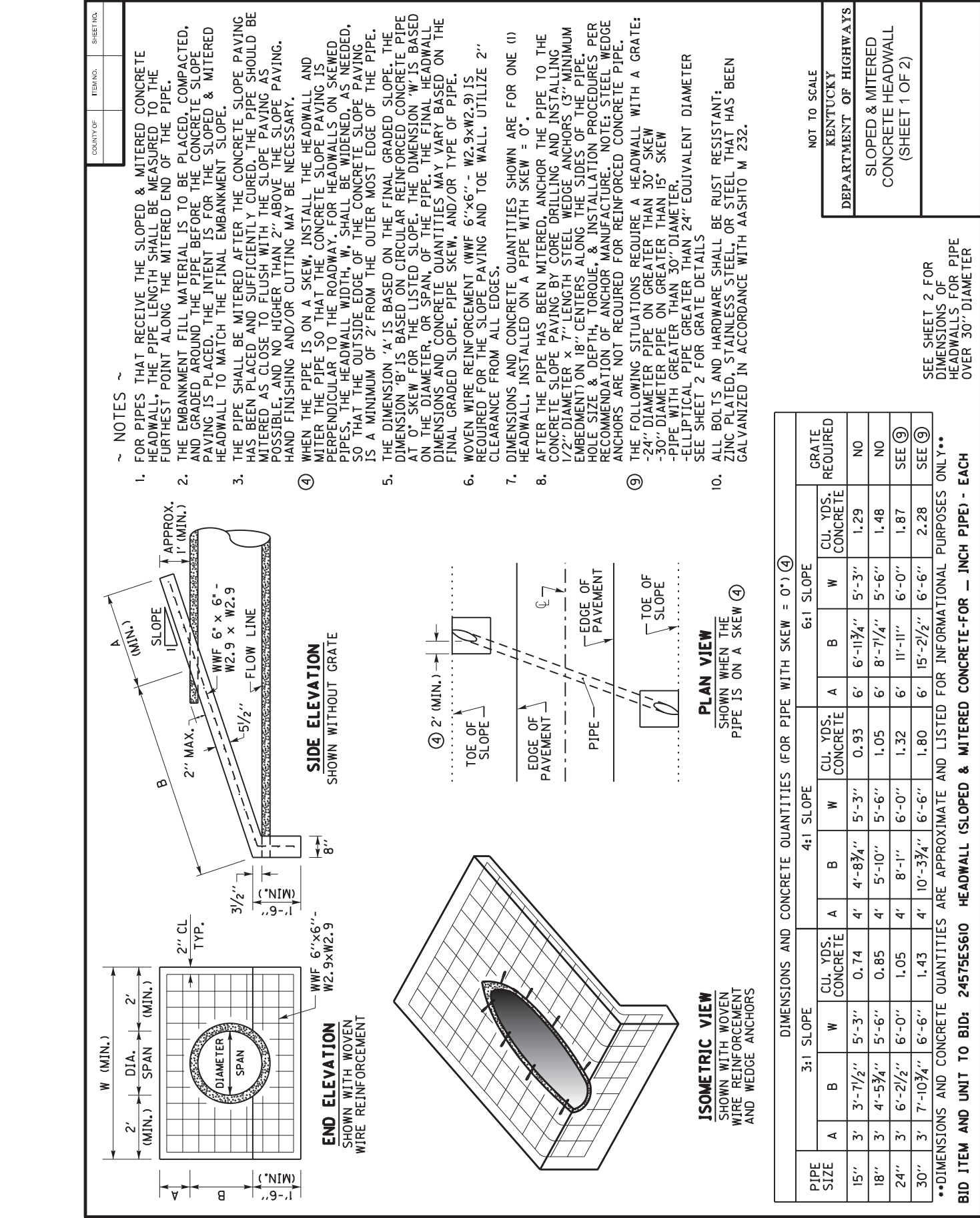


INLET WING EXTENSION SECTION

(SEE SHEET 25 FOR DOWEL DETAIL)



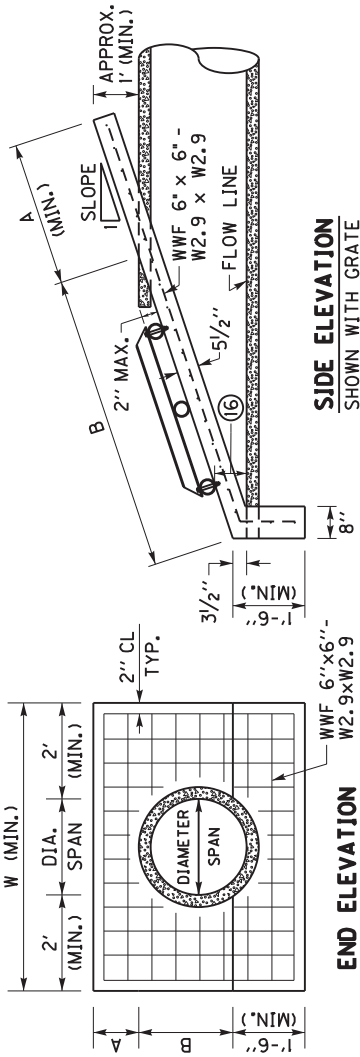
INLET WING SECTION



COUNTY OF	FEED NO.	SHEET NO.

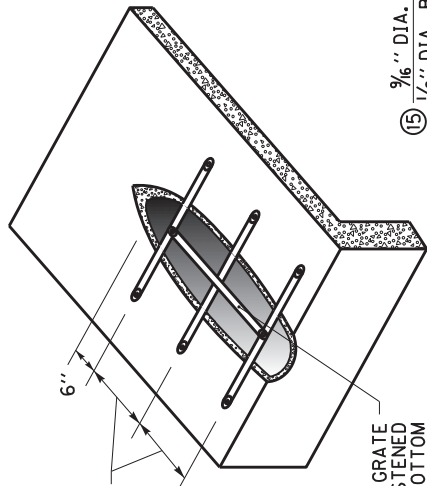
~ NOTES ~

- SEE SHEET 1 FOR NOTES 1 THRU 8
9. 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
10. ALL BOLTS AND HARDWARE SHALL BE RUST RESISTANT:  
ZINC PLATED, STAINLESS STEEL, OR STEEL THAT HAS BEEN GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
11. THE PIPE USED TO CONSTRUCT THE GRATE SHALL BE STEEL, SCHEDULE 40, CONFORMING TO ASTM A53, AND GALVANIZED IN ACCORDANCE WITH AASHTO M III AFTER FABRICATION.
12. ANY RAW METAL EXPOSED BY FIELD CUTTING AND/OR DRILLING SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND.
13. 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.
14. CENTER BOLT HOLE SHALL ONLY BE DRILLED IN THE TOP AND BOTTOM PARALLEL BARS.
15. 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.
16. THE BOTTOM PARALLEL BAR IS TO BE PLACED SO THAT IT IS APPROX. 6" ABOVE THE FLOWLINE OF THE PIPE.

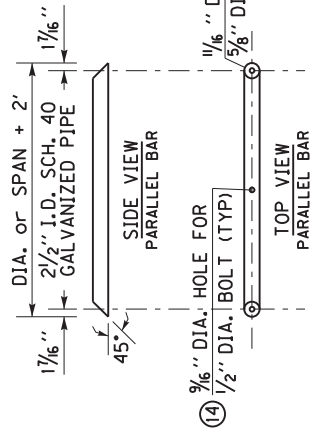
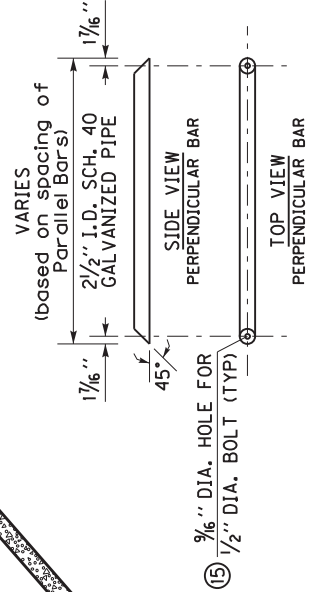


END ELEVATION  
SHOWN WITH WOVEN  
WIRE REINFORCEMENT

PARALLEL GRATE  
BARS TO BE  
EVENLY SPACED  
(24" MAX. SPACING)



ISOMETRIC VIEW  
SHOWING HEADWALL  
WITH GRATE



PIPE FOR GRATE DETAILS

SEE NOTE 9 TO DETERMINE  
IF GRATE IS REQUIRED

PIPE SIZE	3:1 SLOPE				4:1 SLOPE				6:1 SLOPE				GRATE REQUIRED
	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	A	B	W	CU. YDS. CONCRETE	
36"	3'	9'-7 1/2"	7'-0"	1.51	4'	12'-6 1/2"	7'-0"	1.91	6'	18'-6"	7'-0"	2.42	YES
42"	3'	11'-4"	7'-6"	1.76	4'	14'-9 1/4"	7'-6"	2.23	6'	21'-9 1/2"	7'-6"	3.19	YES

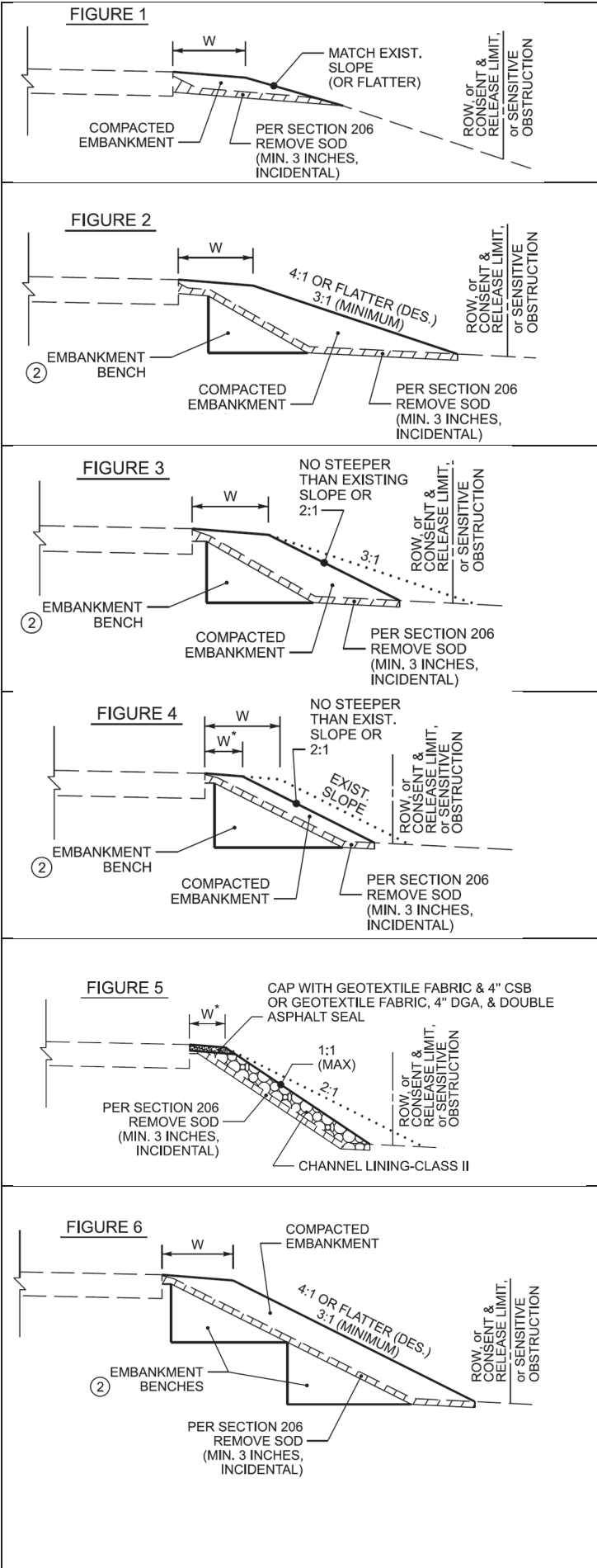
••DIMENSIONS AND CONCRETE QUANTITIES ARE APPROXIMATE AND LISTED FOR INFORMATIONAL PURPOSES ONLY••

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

NOT TO SCALE
KENTUCKY
DEPARTMENT OF HIGHWAYS
SLOPED & MITERED CONCRETE HEADWALL (SHEET 2 OF 2)

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





- ~NOTES~**

Roadside Regrading Bid Items and Units to bid:

  - Bid Item 2230 Embankment in Place – CUYD
  - Bid Item 2200 Roadway Excavation – CUYD

1. The bid items listed above for Roadside Regrading shall consist of any and all necessary clearing and grubbing, grading, and/or shaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions, as detailed on the Typical Sections. Final payment will be based on the proposed quantities of embankment and/or excavation, and will include all work and incidentals necessary to perform the Roadside Regrading according to these details, notes, and other information found elsewhere in the proposal or Standard Specifications. In the case of a discrepancy, refer to Section 105.05 of the Standard Specifications. Depending on the existing conditions encountered, Roadside Regrading may also include, but is not limited to:

  - Providing additional earth material and grading, shaping, and compacting the earth material to achieve the dimensions shown on the Typical Sections. Compact material according to Section 206 of the Standard Specifications.  
Note: Additional earth material provided shall be suitable for vegetation growth.
  - Excavating and removing excess material to achieve the dimensions shown on the Typical Sections.
  - Embankment benching.

2. Embankment benching will be required when the existing groundline has an incline greater than 15% (Approx. 6:1). Excavation of embankment benches shall be incidental; however, embankment benching will be measured as Embankment in Place. The following are guidelines for embankment benching used in conjunction with the bid items for Roadside Regrading:

  - The typical height (or rise) is 1' to 6'.
  - The typical width (or run) will vary based on the height of the bench.
  - Multiple small benches may be used, and may be more advantageous as this will require processing less earthwork and may help avoid any existing underground utilities.

3. As shown in **Figure 1**, in some situations, minor shouldering, with minimal additional earth material, may be all that is required to reshape the earth shoulder to the proposed width and bring it flush with the edge of pavement.

4. As shown in **Figure 2**, most situations will require additional earth material to achieve the proposed earth shoulder width. It is desired that the resulting fill slope be installed as flat as possible and shall remain within the Right-of-Way and/or any Consent & Release areas obtained by KYTC noted in the proposal, while also avoiding any sensitive obstructions.

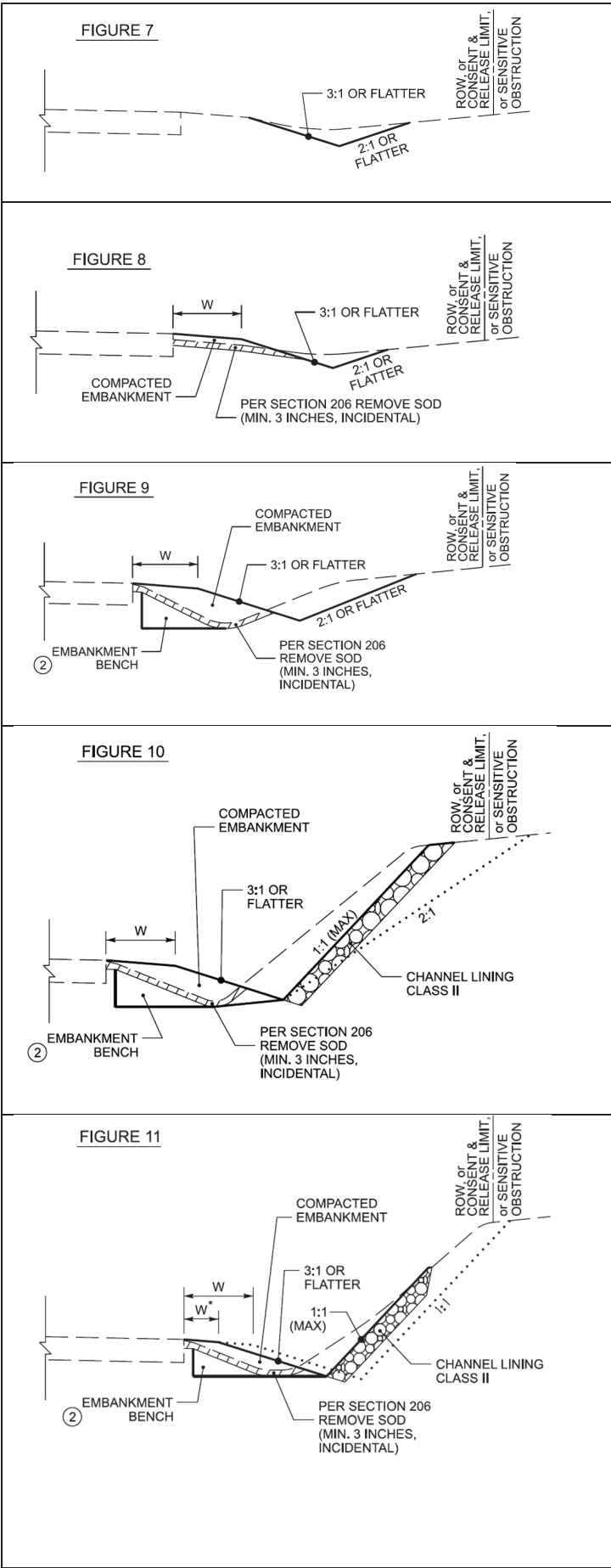
5. As shown in **Figure 3**, if a 3:1 fill slope will result in the toe of slope extending beyond the Right-of-Way or outside of a Consent & Release area obtained by KYTC noted in the proposal, or will impact a sensitive obstruction, then the fill slope may be installed steeper than 3:1, but no steeper than the existing fill slope, or a 2:1, whichever is flatter.

6. As shown in **Figure 4**, if matching the existing fill slope or installing a 2:1 fill slope (whichever is flatter) still results in the toe of slope extending beyond the Right-of-Way or outside of a Consent & Release area obtained by KYTC noted in the proposal, or still impacts a sensitive obstructions, then the proposed earth shoulder width may be reduced so that the resulting toe of slope will remain within the Right-of-Way or Consent & Release area, and/or not impact the sensitive obstruction.

7. As shown in **Figure 5**, if the existing fill slope is steeper than 2:1 and there is not enough space to install a 2:1 fill slope without extending beyond the Right-of-Way or outside of a Consent & Release area obtained by KYTC noted in the proposal, and/or impacts a sensitive obstructions, then Class II Channel Lining may be installed along the steep existing slope in order to establish a width of aggregate shoulder. These locations will be noted in the proposal. The Channel Lining is to be capped with Geotextile Fabric Class 1 and 4" of crushed stone base or 4" of DGA with Double Asphalt Seal Coat.

8. As shown in **Figure 6**, as the height of the fill increases, multiple embankment benches may be required. Refer to Note 2 for more information about embankment benching.

See Sheet 2 of 2 for Notes 9 through 13.
- Roadside Regrading  
and Embankment Details  
Sheet 1 of 2



- ~NOTES~

Roadside Regrading Bid Items and Units to bid:

  - Bid Item 2230 Embankment in Place – CUYD
  - Bid Item 2200 Roadway Excavation – CUYD

1. The bid items listed above for Roadside Regrading shall consist of any and all necessary clearing and grubbing, grading, and/or shaping of the existing shoulder, ditch, and/or roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions, as detailed on the Typical Sections. Final payment will be based on the proposed quantities of embankment and/or excavation, and will include all work and incidentals necessary to perform the Roadside Regrading according to these details, notes, and other information found elsewhere in the proposal or Standard Specifications. In the case of a discrepancy, refer to Section 105.05 of the Standard Specifications. Depending on the existing conditions encountered, Roadside Regrading may also include, but is not limited to:

  - Providing additional earth material and grading, shaping, and compacting the earth material to achieve the dimensions shown on the Typical Sections. Compact material according to Section 206 of the Standard Specifications.  
Note: Additional earth material provided shall be suitable for vegetation growth.
  - Excavating and removing excess material to achieve the dimensions shown on the Typical Sections.
  - Embankment benching.

2. Embankment benching will be required when the existing groundline has an incline greater than 15% (Approx. 6:1). Excavation of embankment benches shall be incidental; however, embankment benching will be measured as Embankment in Place. The following are guidelines for embankment benching used in conjunction with the bid items for Roadside Regrading:

  - The typical height (or rise) is 1' to 6'.
  - The typical width (or run) will vary based on the height of the bench.
  - Multiple small benches may be used, and may be more advantageous as this will require processing less earthwork and may help avoid any existing underground utilities.

See Sheet 1 of 2 for Notes 3 through 8.

9. As shown in Figure 7, in some situations, all that may be required is to clean out the existing ditch and reshape it to the proposed dimensions. The material excavated from the ditch may be re-used elsewhere on the project, provided the Engineer determines the material removed from the ditch is suitable for the intended re-use.

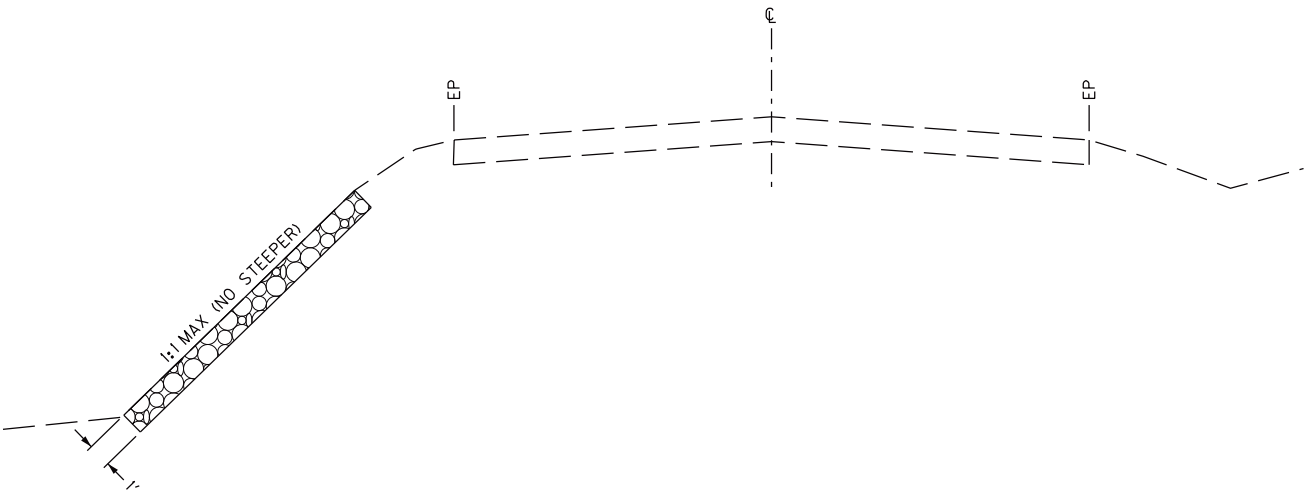
10. As shown in Figure 8, in some situations, the ditch and shoulder may only need minor regrading and/or reshaping. The material excavated from the ditch may be used to reshape the earth shoulder, provided the Engineer determines the material removed from the ditch is suitable for shouldering. If the material is not suitable, additional earth material may be required.

11. As shown in Figure 9, in most situations, regrading and reshaping the roadside to achieve the proposed shoulder, ditch, and/or roadside dimensions will result in moving the ditch further away from the roadway. It is desired that the ditch foreslopes be 3:1 or flatter and the ditch backslopes be 2:1 or flatter. It is also desired that the new ditch backslope remain within the Right-of-Way and/or any Consent & Release area obtained by KYTC noted in the proposal, while also avoiding any sensitive obstructions.

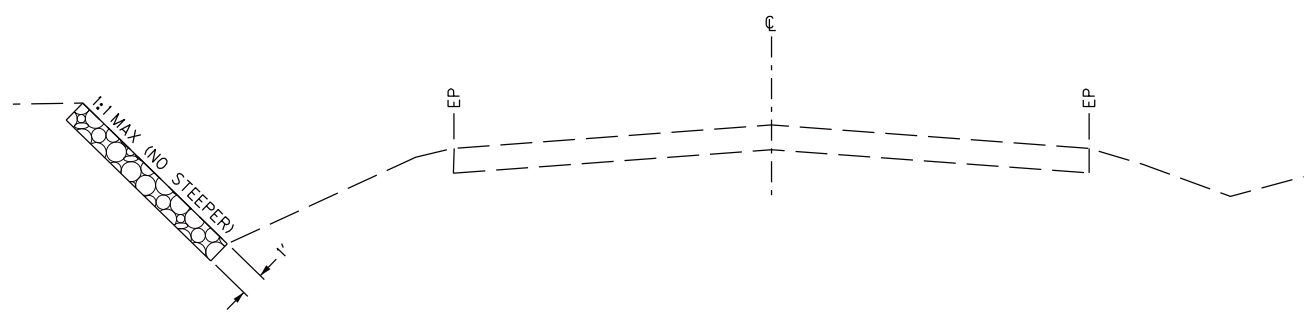
12. As shown in Figure 10, if installing a 2:1 ditch backslope will result in the top of cut extending beyond the Right-of-Way and/or any Consent & Release area obtained by KYTC noted in the proposal, and/or impacting a sensitive obstruction, then the ditch backslope may be installed steeper than 2:1, up to 1:1 maximum. In this situation, the ditch backslope shall have Class II Channel Lining installed for slope protection.

13. As shown in Figure 11, if using a 1:1 ditch backslope still results in the top of cut extending beyond the Right-of-Way and/or outside any Consent & Release area obtained by KYTC noted in the proposal, and/or still impacts a sensitive obstruction, then the proposed earth shoulder width may be reduced so that the steep ditch backslope can be installed within the Right-of-Way and/or avoid a sensitive obstruction.
- Roadside Regrading  
and Embankment Details  
Sheet 2 of 2

COUNTY OF	ITEM NO.	SHEET NO.



**PROTECTION DETAIL FOR EMBANKMENT FILL SLOPE**



**PROTECTION DETAIL FOR DITCH BACKSLOPE**

**NOTES:**

- 1. SEE CHANNEL LINING SUMMARY FOR APPROXIMATE LOCATIONS OF SLOPE PROTECTION.
- 2. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- 3. EXCAVATION IS INCIDENTAL TO THE PLACEMENT OF THE CHANNEL LINING.



**Case 1:**  
**Tree Trimming without Undergrowth Removal**



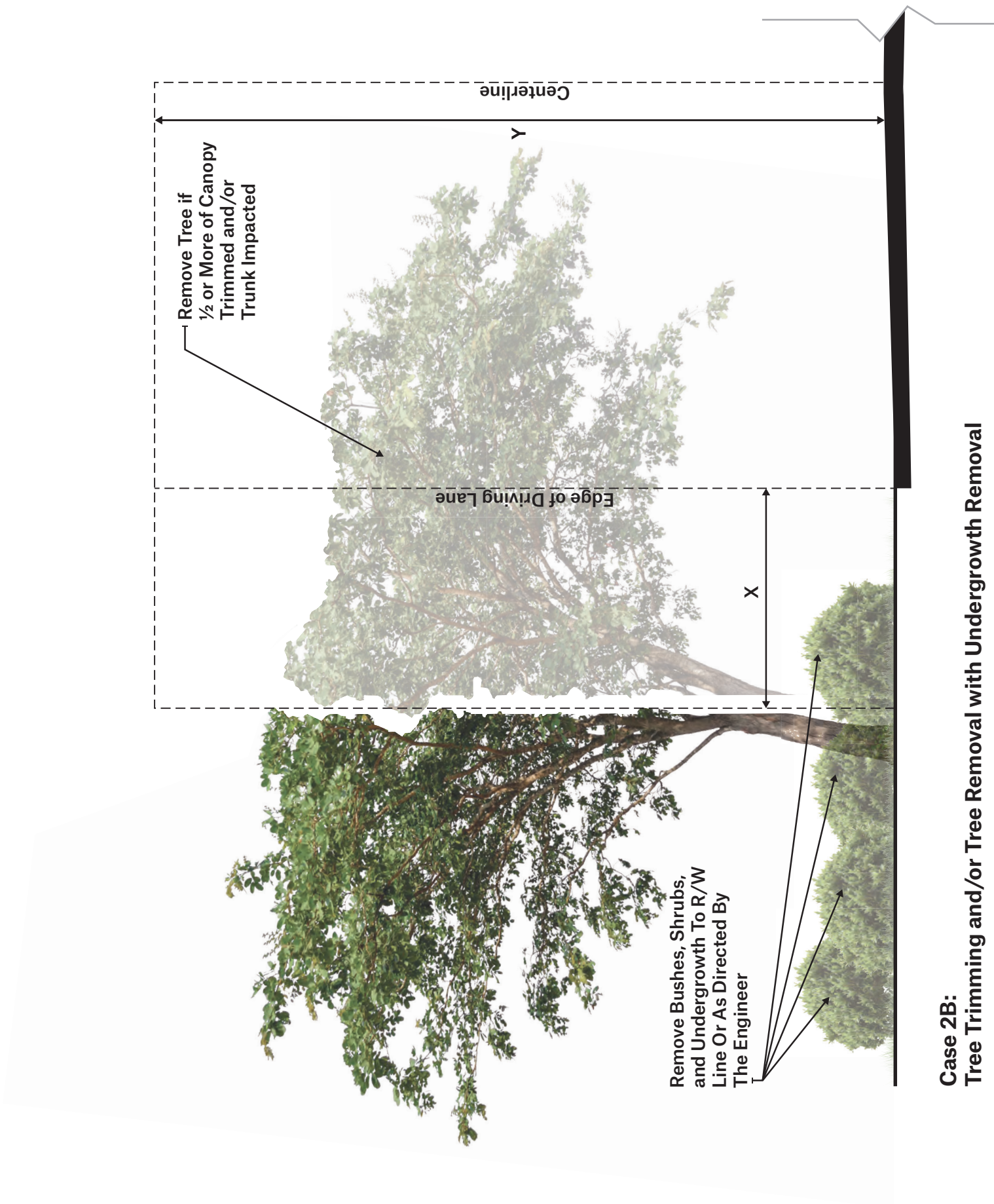


**Case 1B:**  
**Tree Trimming with Undergrowth Removal**

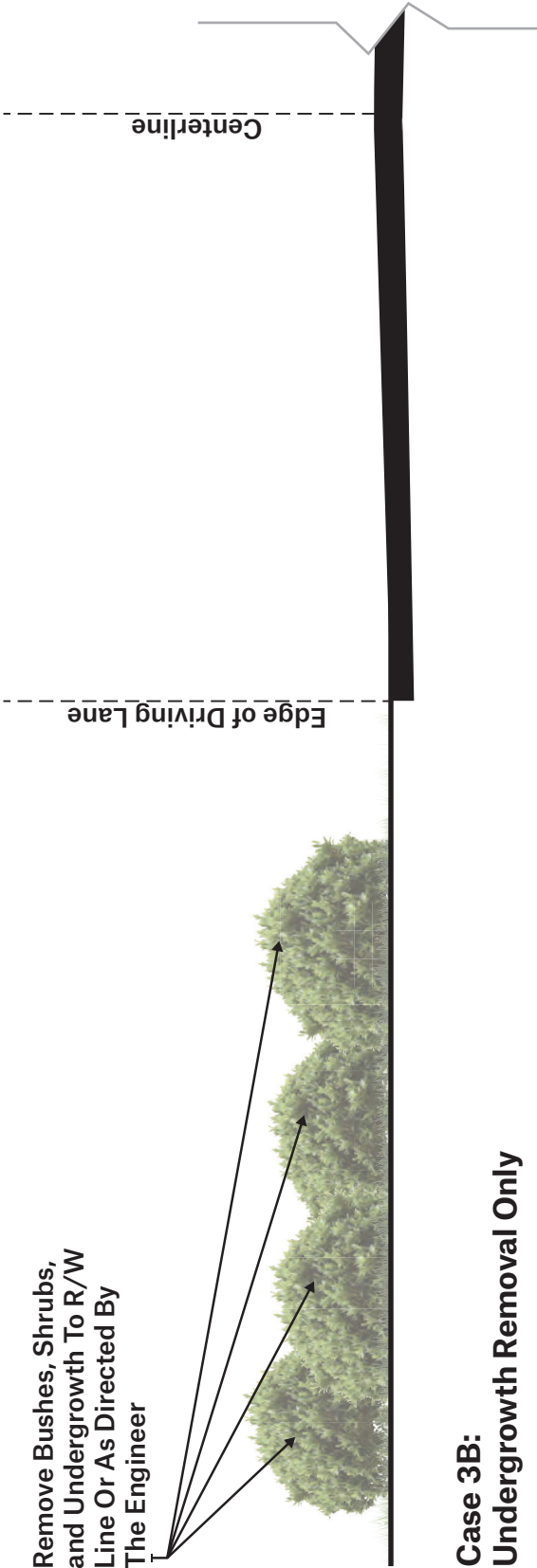


**Case 2:**  
**Tree Trimming and/or Tree Removal without Undergrowth Removal**





**Case 2B:**  
**Tree Trimming and/or Tree Removal with Undergrowth Removal**



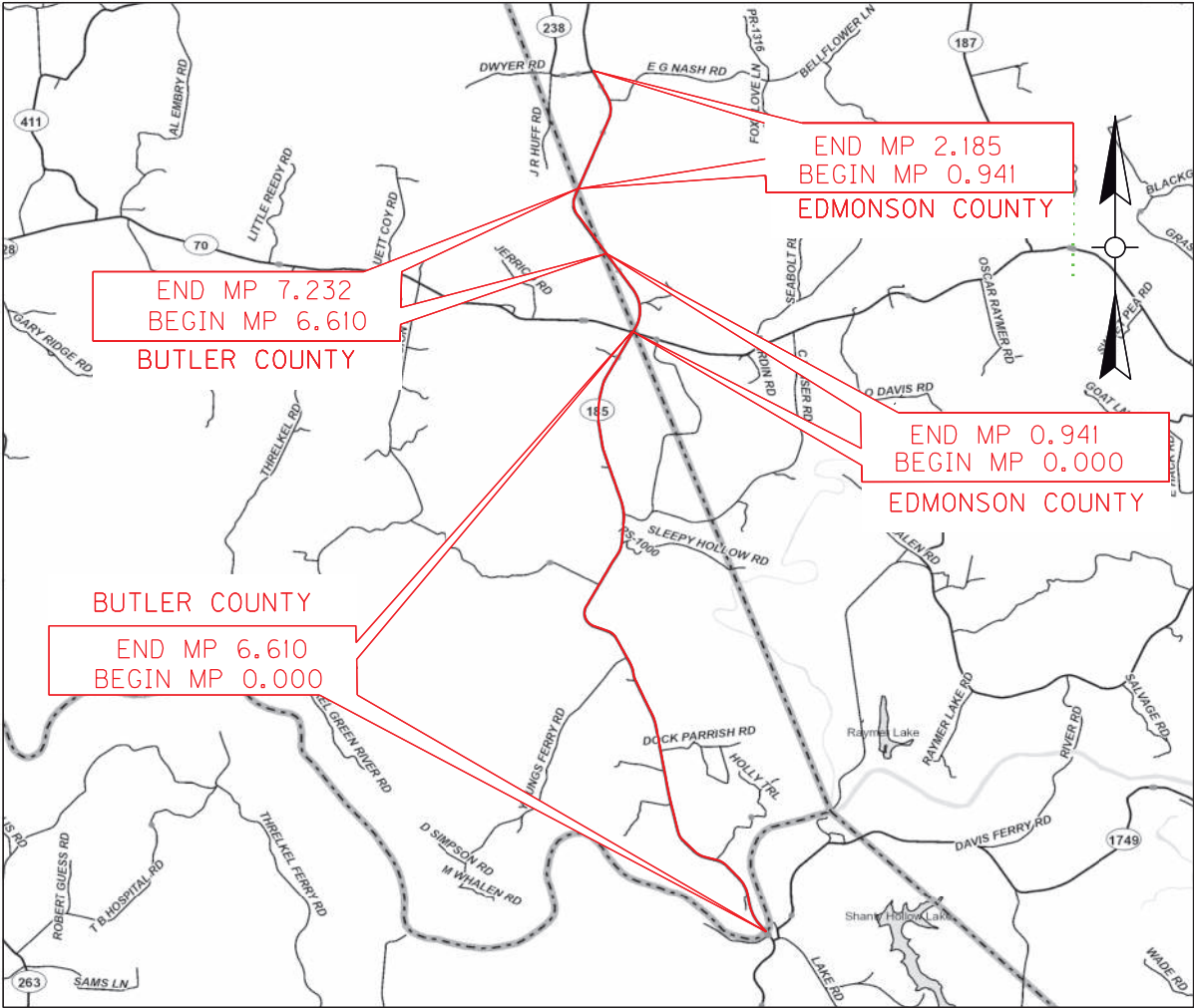
**Case 3B:  
Undergrowth Removal Only**



COUNTY OF	ITEM NO.
BUTLER EDMONSON	3-9021.00

RIGHT OF WAY

PLANS

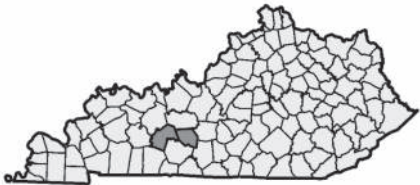


BUTLER COUNTY: 7.232 MILES  
EDMONSON COUNTY: 2.185 MILES  
PROJECT TOTAL: 9.417 MILES

SCALE: NTS

BUTLER & EDMONSON  
COUNTY  
KY 185

PROJECT \_\_\_\_\_  
NUMBERS: \_\_\_\_\_



## RIGHT OF WAY PLANS









COUNTY OF	ITEM NO.
BUTLER	3-9021

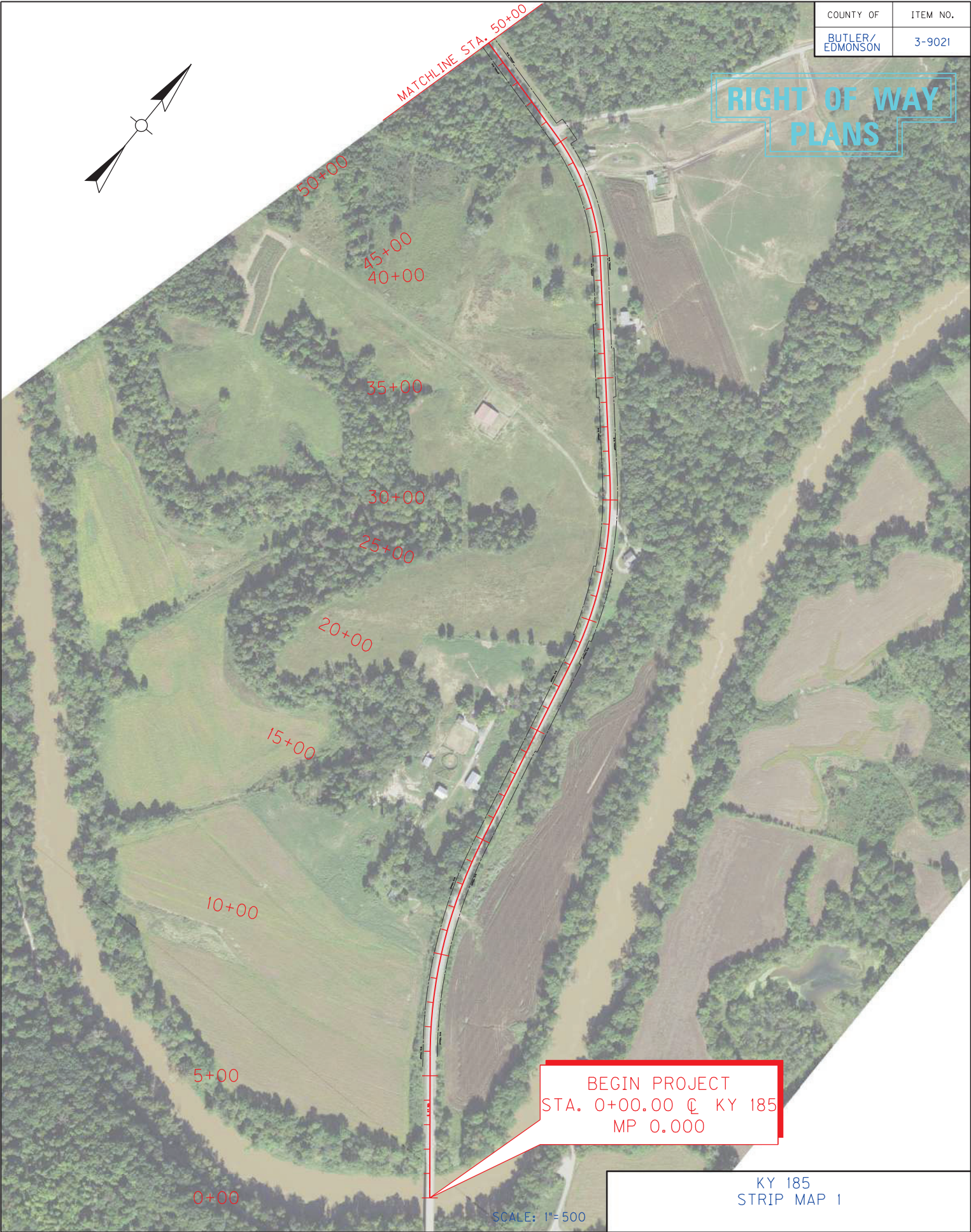






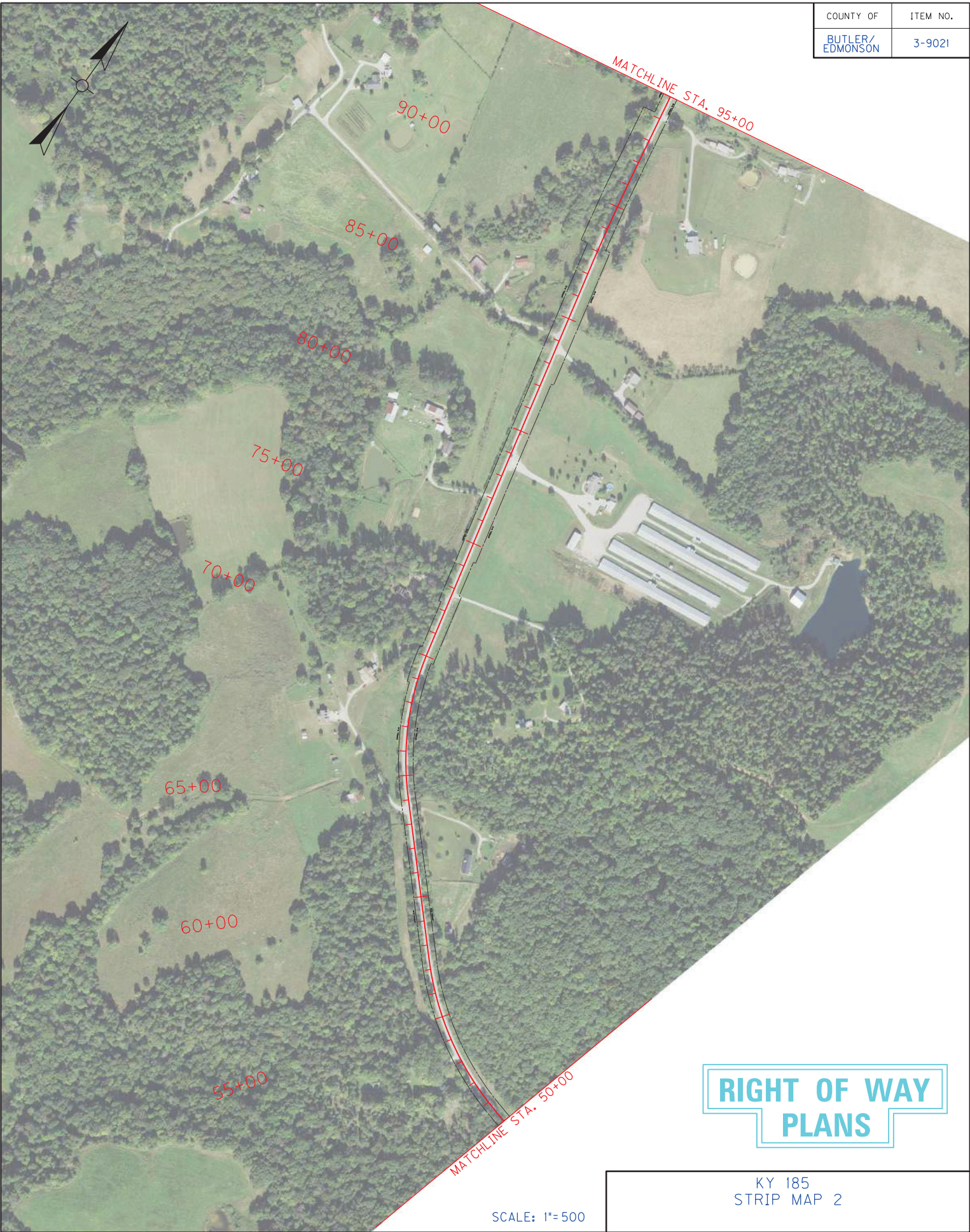
<div> <div>RIGHT OF WAY</div> <div>PLANS</div> </div>	<div> <div>KY 185</div> <div>RW SUMMARY</div> </div>
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COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	3-9021

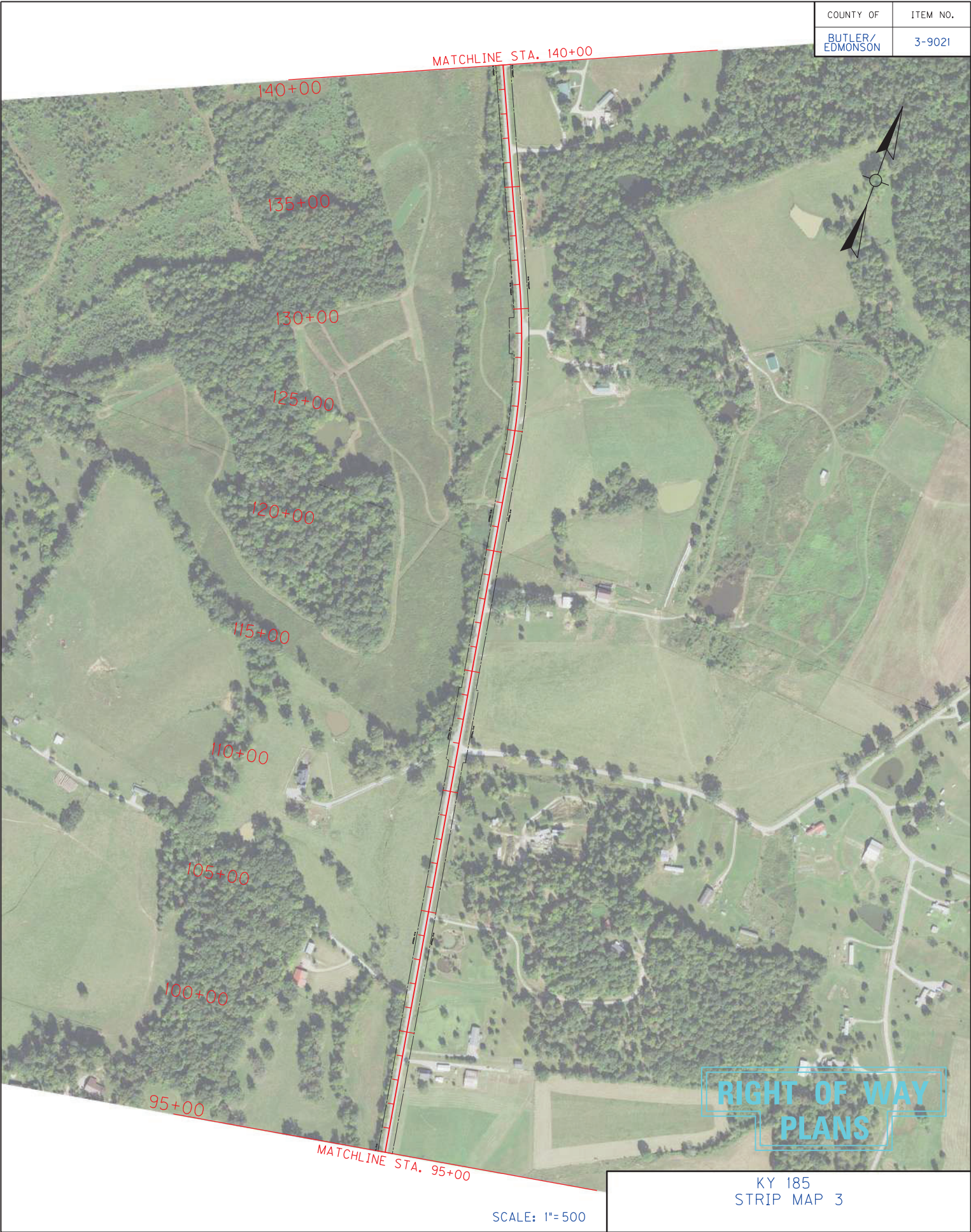


**RIGHT OF WAY  
PLANS**

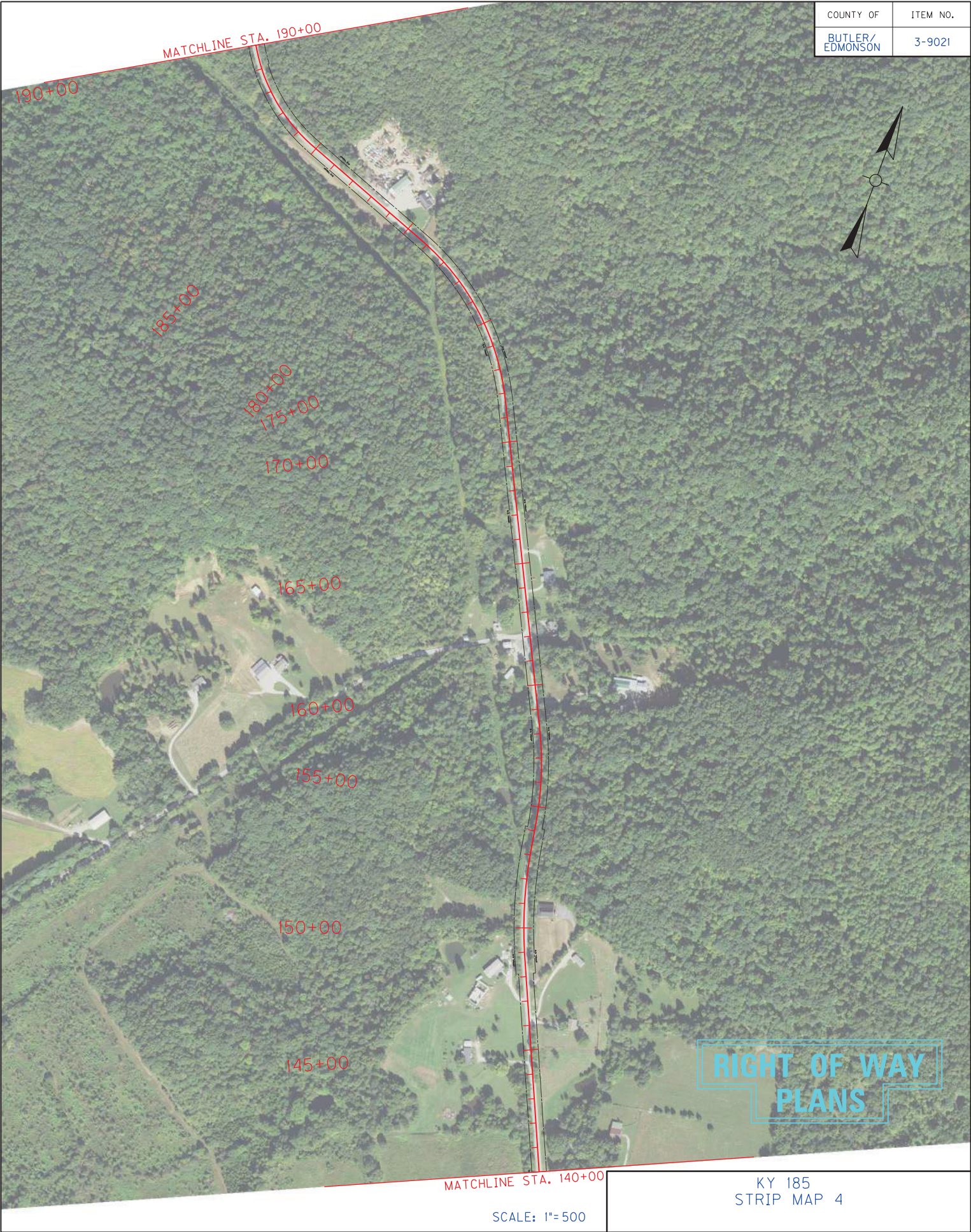
KY 185  
STRIP MAP 2

SCALE: 1"= 500

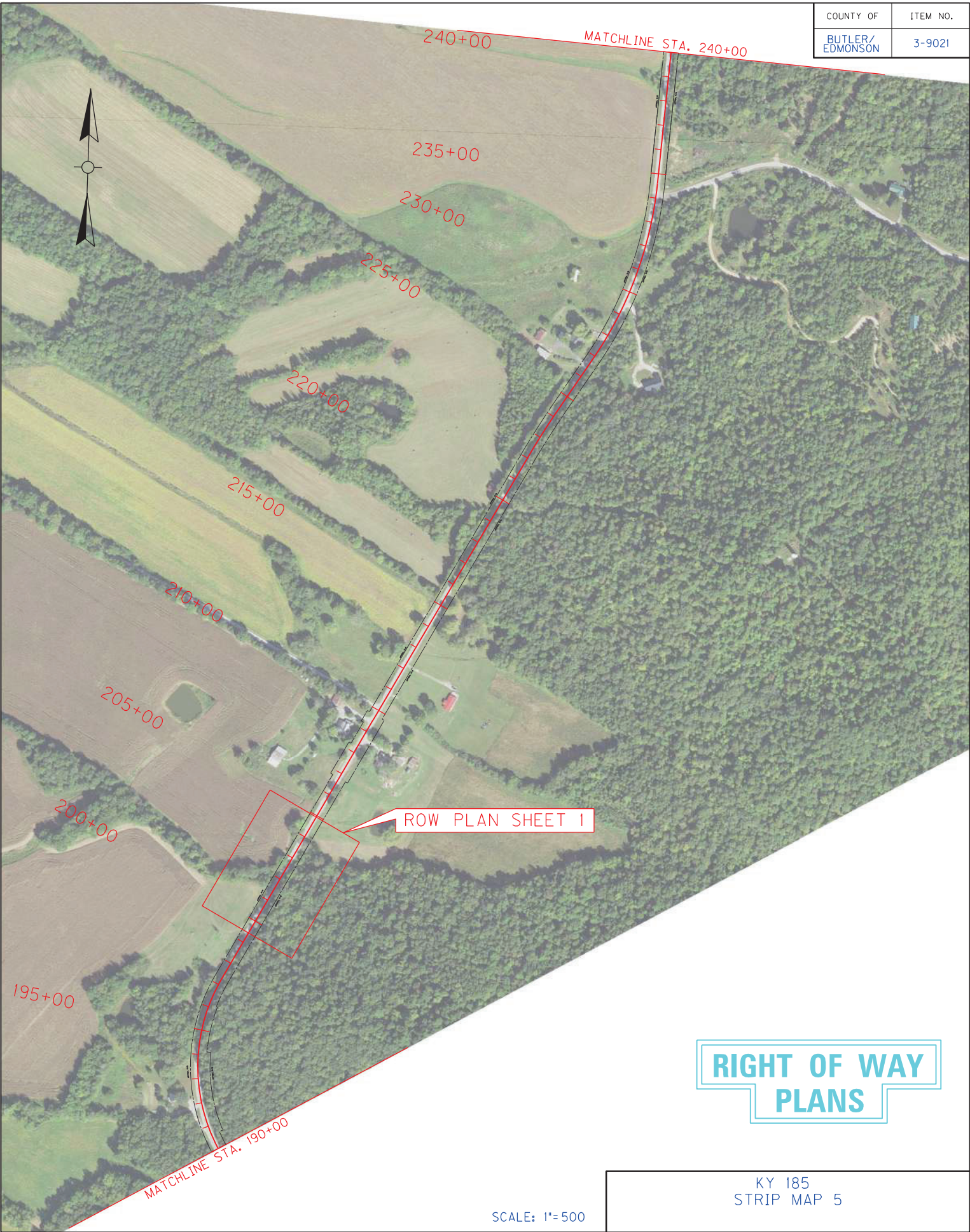














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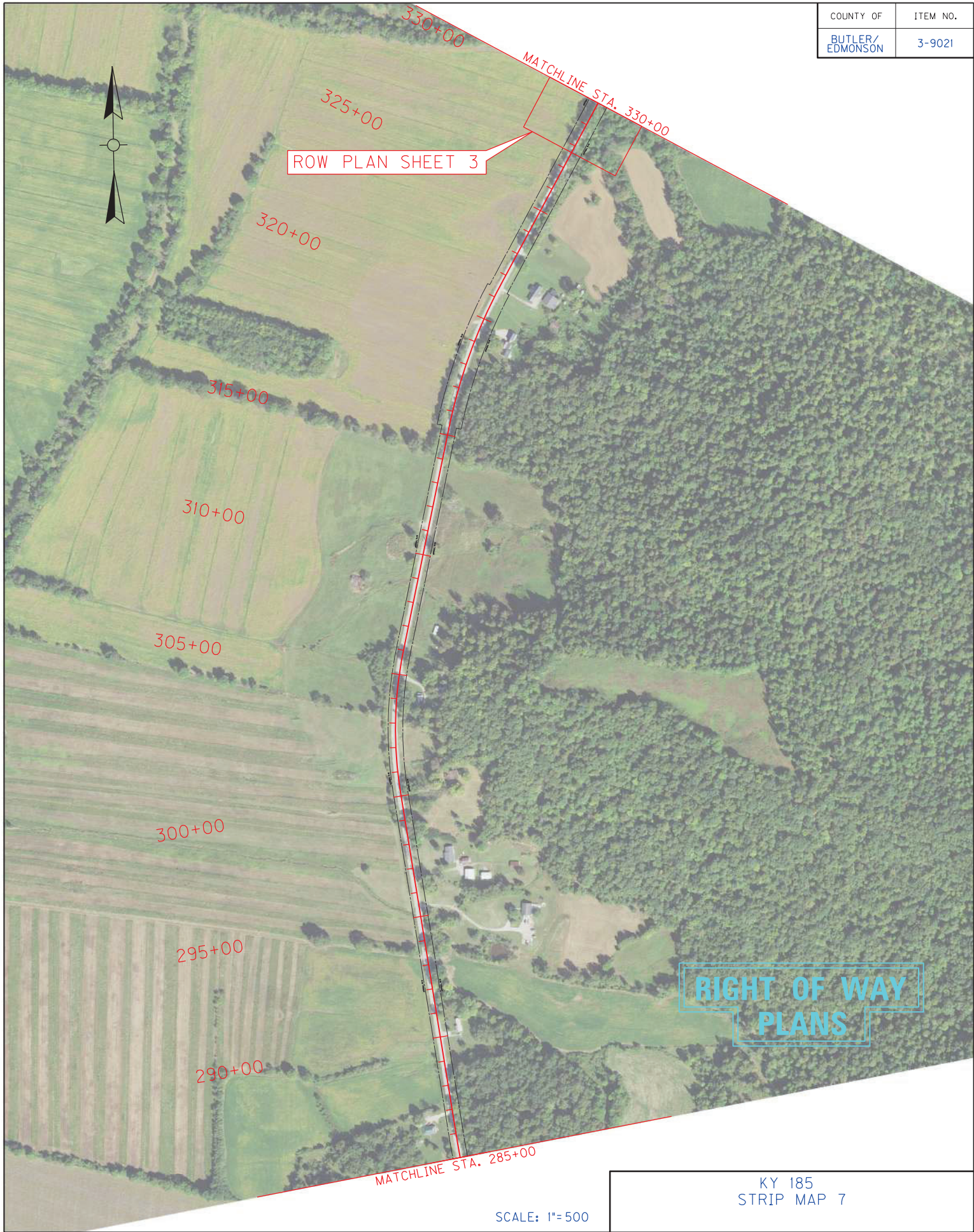


SCALE: 1"= 500

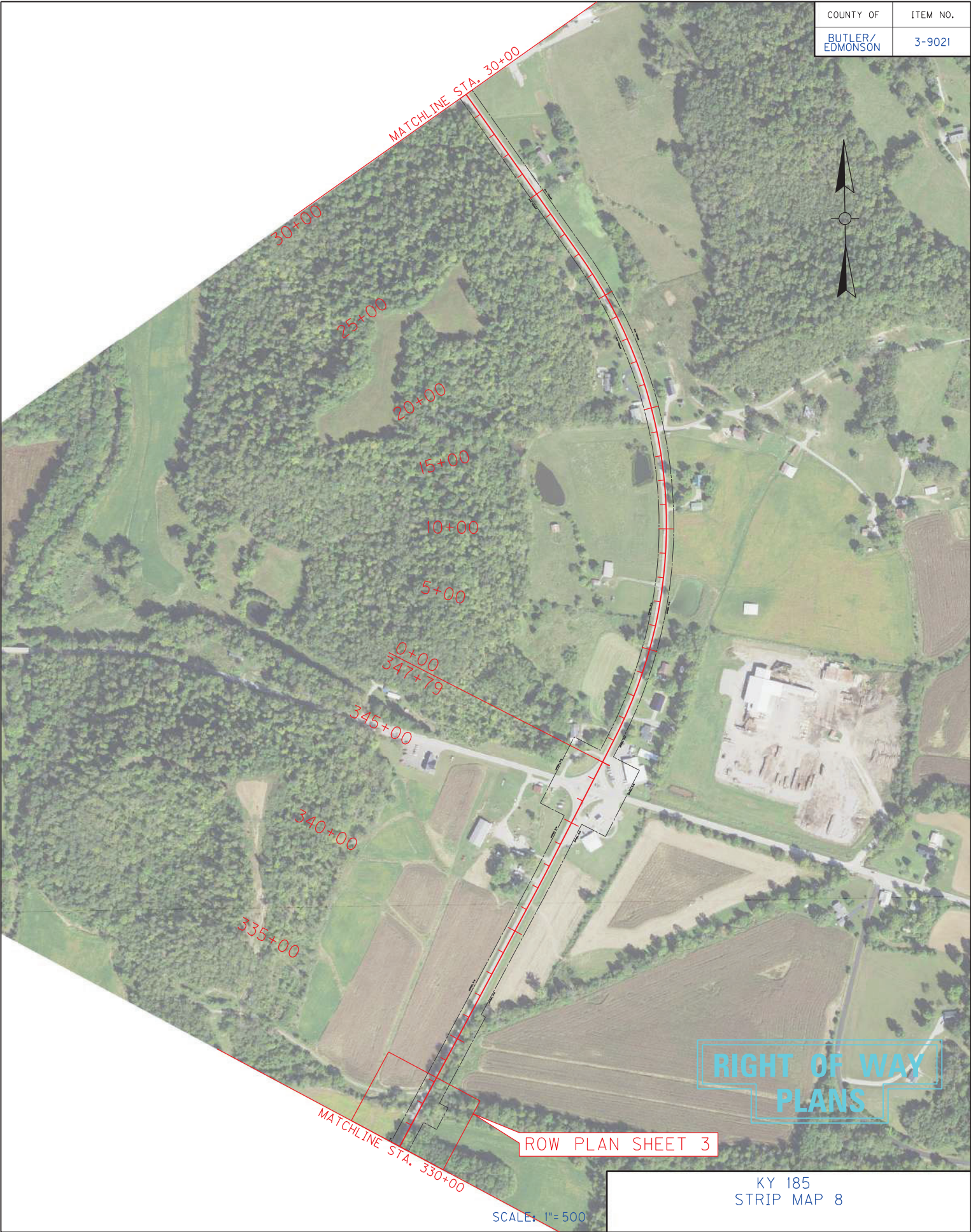
KY 185  
STRIP MAP 6



COUNTY OF	ITEM NO.
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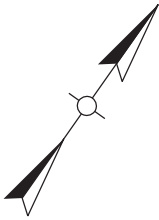








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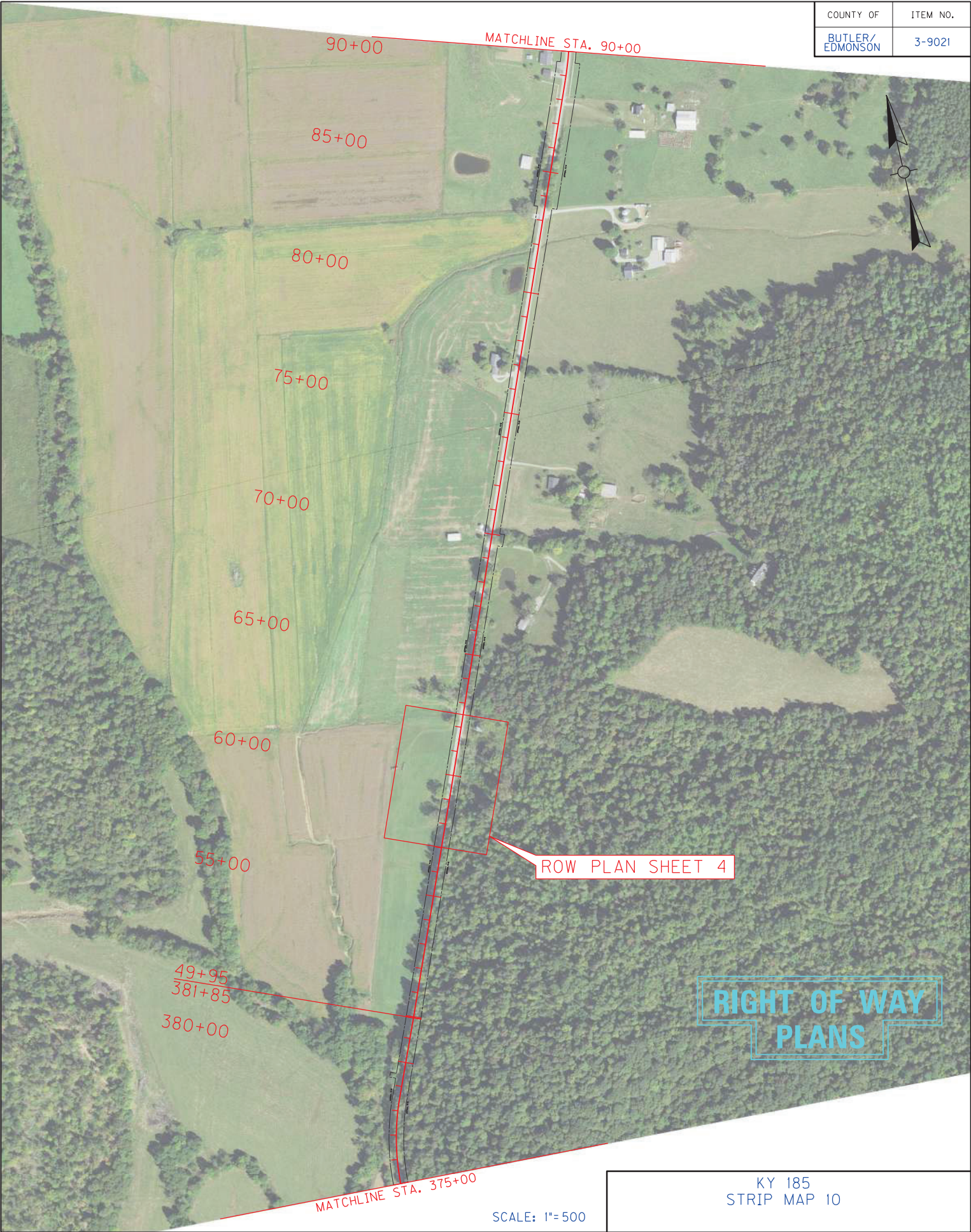
RIGHT OF WAY  
PLANS

MATCHLINE STA. 30+00

SCALE: 1"= 500

KY 185  
STRIP MAP 9







COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	3-9021



RIGHT OF WAY  
PLANS

MATCHLINE STA. 90+00

SCALE: 1"= 500

KY 185  
STRIP MAP 11



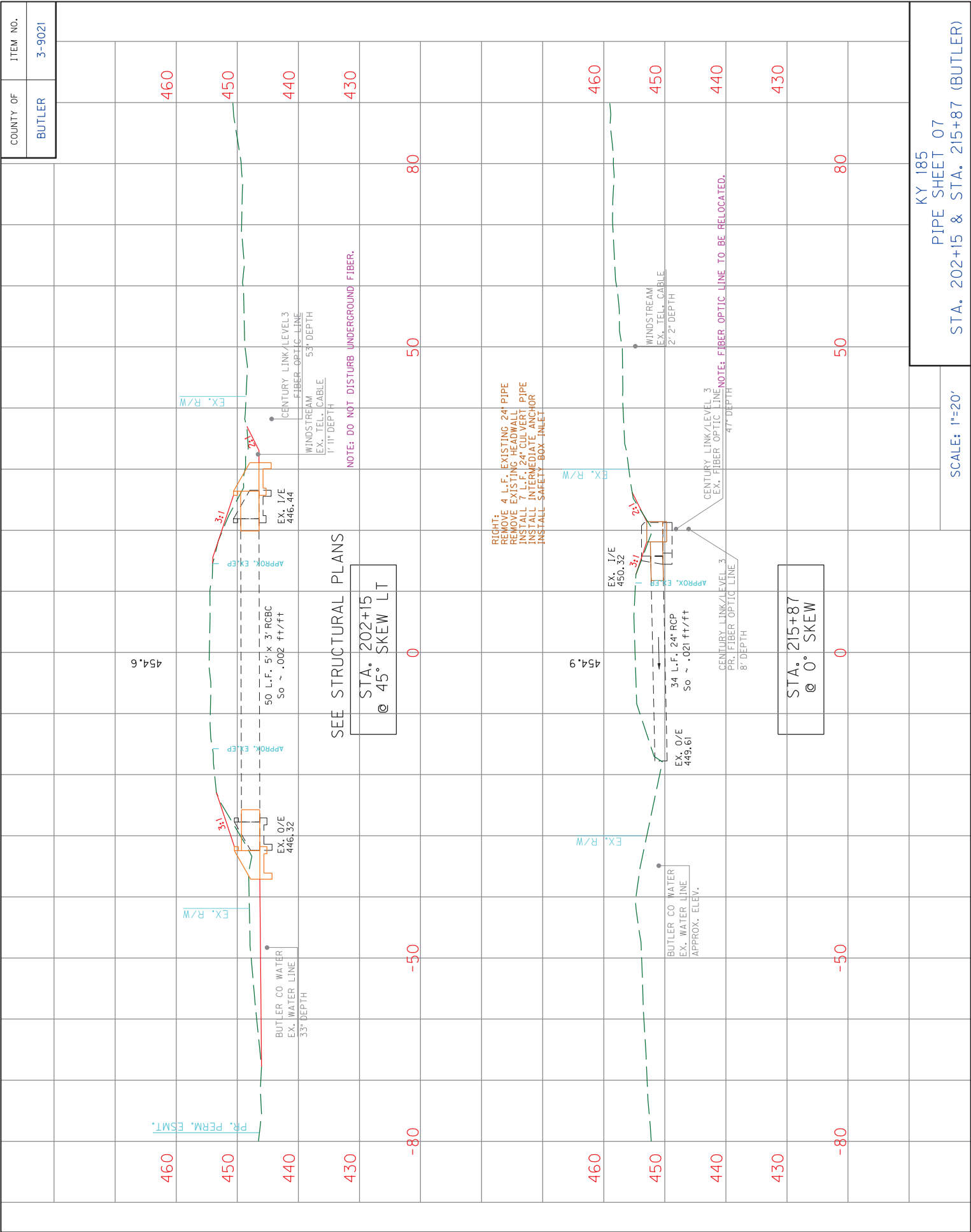
COUNTY OF	ITEM NO.
BUTLER/ EDMONSON	3-9021

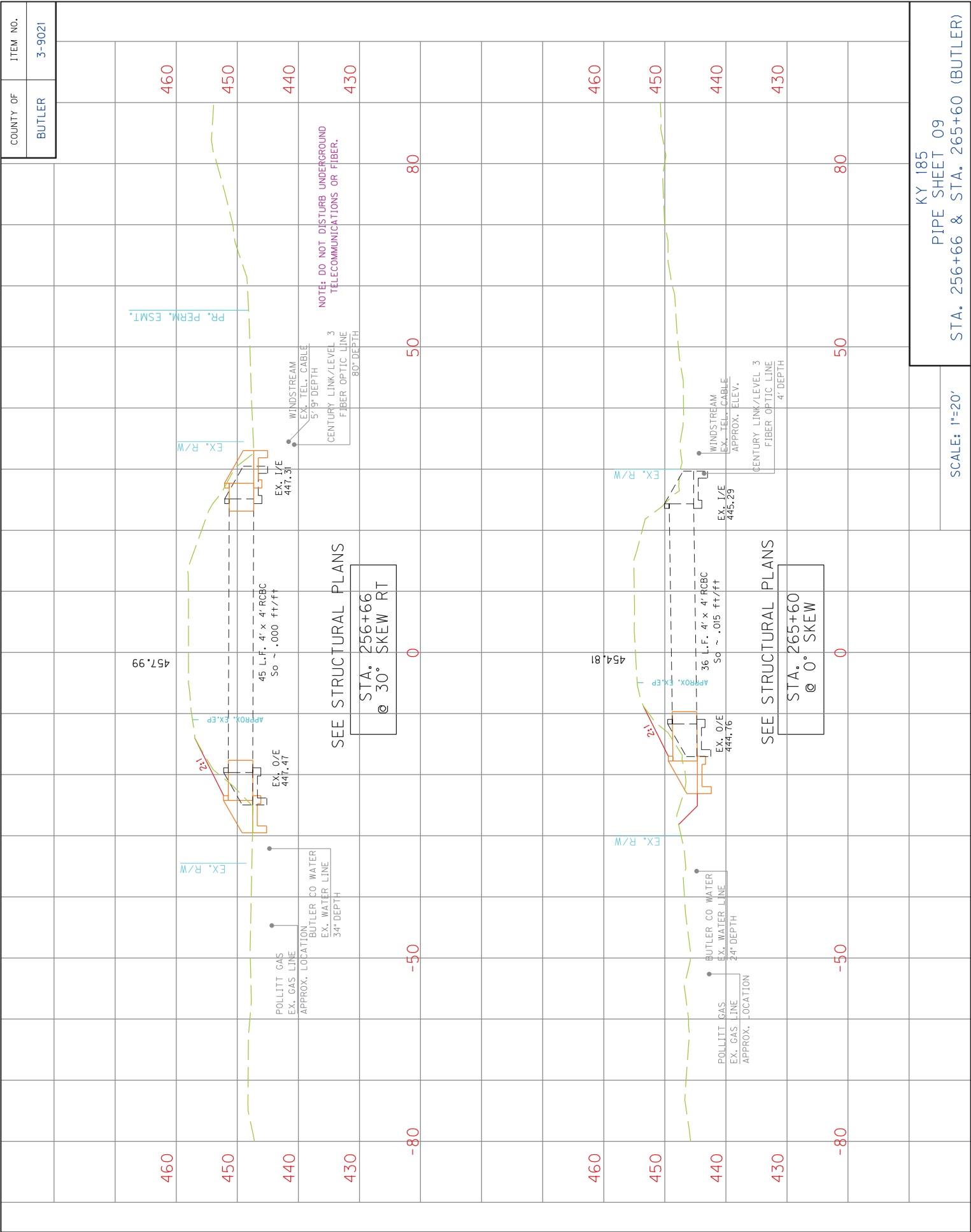
KY 185 COORDINATES			
POINT	STATION	State Plane Coordinates	
		NORTH (Y)	EAST (X)
POB	0 + 00.00 (BUTLER-MP 0.000)	3579899.43	4729109.95
PC	5 + 78.16	3580348.78	4728746.14
PI	10 + 36.89	3580705.30	4728457.48
PT	14 + 79.24	3581153.13	4728358.04
PC	23 + 01.52	3581955.85	4728179.80
PI	27 + 03.20	3582347.98	4728092.73
PT	30 + 87.59	3582648.47	4727826.17
PC	39 + 74.73	3583312.12	4727237.45
PI	42 + 62.56	3583527.44	4727046.44
PT	45 + 33.68	3583600.54	4726768.05
PC	50 + 62.94	3583734.96	4726256.15
PI	54 + 09.95	3583823.09	4725920.52
PT	57 + 38.53	3584076.75	4725683.72
PC	64 + 12.24	3584569.24	4725224.00
PI	67 + 22.27	3584795.87	4725012.44
PT	70 + 17.91	3585098.13	4724943.46
PC	78 + 93.88	3585952.15	4724748.58
PI	79 + 15.77	3585973.49	4724743.71
PT	79 + 37.67	3585994.86	4724738.94
PC	87 + 03.31	3586742.07	4724571.96
PI	89 + 39.93	3586973.00	4724520.36
PT	91 + 76.45	3587206.16	4724480.06
PC	123 + 95.69	3590378.35	4723931.71
PI	127 + 47.13	3590724.65	4723871.85
PT	130 + 94.77	3591044.77	4723726.82
PC	139 + 39.33	3591814.06	4723378.30
PI	139 + 80.82	3591851.86	4723361.18
PT	140 + 22.31	3591889.79	4723344.38
PC	148 + 76.57	3592670.90	4722998.51
PI	150 + 92.79	3592868.61	4722910.97
PT	153 + 06.88	3593081.58	4722873.59
PC	154 + 43.21	3593215.85	4722850.03
PI	156 + 33.92	3593403.69	4722817.06
PT	158 + 22.13	3593575.05	4722733.35
PC	171 + 71.34	3594787.35	4722141.14
PI	175 + 66.07	3595142.01	4721967.88
PT	179 + 23.24	3595282.72	4721599.09
PC	185 + 14.34	3595493.43	4721046.81
PI	193 + 25.63	3595782.63	4720288.83
PT	197 + 25.43	3596496.66	4720673.97
PC	209 + 47.48	3597572.23	4721254.11
PI	209 + 62.35	3597585.31	4721261.17
PT	209 + 77.21	3597598.37	4721268.26
PC	222 + 01.61	3598674.22	4721852.82
PI	223 + 21.99	3598780.00	4721910.29
PT	224 + 42.29	3598881.58	4721974.90
PC	226 + 87.17	3599088.22	4722106.32
PI	230 + 81.39	3599420.85	4722317.88
PT	234 + 59.24	3599814.15	4722344.82

KY 185 COORDINATES			
POINT	STATION	State Plane Coordinates	
		NORTH (Y)	EAST (X)
PC	245 + 19.28	3600871.72	4722417.24
PI	250 + 76.85	3601427.98	4722455.34
PT	256 + 20.50	3601957.59	4722281.00
PC	266 + 48.45	3602933.99	4721959.57
PI	267 + 03.63	3602986.41	4721942.32
PT	267 + 58.81	3603039.01	4721925.66
PC	281 + 74.85	3604388.99	4721498.19
PI	283 + 77.67	3604582.34	4721436.96
PT	285 + 79.60	3604783.04	4721407.70
PC	300 + 16.95	3606205.35	4721200.35
PI	303 + 10.04	3606495.38	4721158.07
PT	305 + 96.71	3606781.56	4721221.34
PC	315 + 27.91	3607690.81	4721422.36
PI	318 + 41.96	3607997.45	4721490.16
PT	321 + 51.59	3608271.89	4721642.83
PC	341 + 42.37	3610011.58	4722610.63
PI	342 + 30.12	3610088.27	4722653.30
PT	343 + 17.88	3610165.72	4722694.57
EQNBK	347 + 78.76 (BUTLER-MP 6.610)	3610572.46	4722911.31
BUTLER/EDMONSON COUNTY LINE			
POB	0 + 00.00 (EDMONSON-MP 0.000)	3610572.46	4722911.31
PC	1 + 15.13	3610674.06	4722965.46
PI	12 + 65.57	3611689.34	4723506.50
PT	21 + 84.04	3612639.31	4722857.59
EQNBK	49 + 79.01 (EDMONSON-MP 0.941)	3614947.22	4721281.08
EDMONSON/BUTLER COUNTY LINE			
EQNAHD	350 + 31.16 (BUTLER-MP 6.610)	3614947.22	4721281.08
PC	357 + 40.10	3615532.61	4720881.20
PI	357 + 52.00	3615542.44	4720874.48
PT	357 + 63.91	3615552.26	4720867.74
PC	368 + 84.37	3616475.91	4720233.48
PI	374 + 13.41	3616912.03	4719934.00
PT	378 + 53.81	3617400.83	4720136.40
POE	381 + 84.96 (BUTLER-MP 7.232)	3617706.79	4720263.08
BUTLER/EDMONSON COUNTY LINE			
EQNAHD	49 + 95.07 (EDMONSON-MP 0.941)	3617706.79	4720263.08
PC	59 + 87.58	3618626.52	4720636.14
PI	60 + 02.52	3618640.36	4720641.75
PT	60 + 17.46	3618654.22	4720647.32
PC	88 + 80.24	3621310.38	4721715.20
PI	95 + 32.44	3621915.50	4721958.49
PT	101 + 01.99	3622492.72	4721654.87
POE	115 + 36.80 (EDMONSON-MP 2.185)	3623762.59	4720986.94

RIGHT OF WAY  
PLANS

KY 185  
COORDINATE CONTROL









# MOU Concessions / CAP Notes

Friday, January 26, 2024 11:02 AM

**P. 02 (Vernon)** - KYTC secured a Consent & Release for this parcel. Advise to remain strictly within easement area. Property owners may be contentious. Signed document language reads as follows:

*Complete construction of the reinforced concrete box culvert at Rt. Station 256+66. Two feet of existing reinforced concrete box culvert will be removed. The extended reinforced concrete box culvert will be 45 feet long and 4' by 4'. A 430 square foot area on the subject property will be used to complete construction. To forgo any additional area required, the property owners, Roosevelt and Kathy Vernon, agree to a consent and release to complete the necessary dirt work associated with the construction of the reinforced concrete box culvert.*

*\*\*\*KYTC and property owners agree that anything outside the scope of work outside this project that will hurt, harm, or bring about damages to the owners, property, or KYTC personnel will save owners harmless.*

**P. 03 (Huff)** - *KYTC will construct a 30 foot wide, paved field entrance located at Station 331+67.* (Andrew Stewart forwarded plan sheet created by PRIME on 9/25/2023)

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\_\_\_\_\_

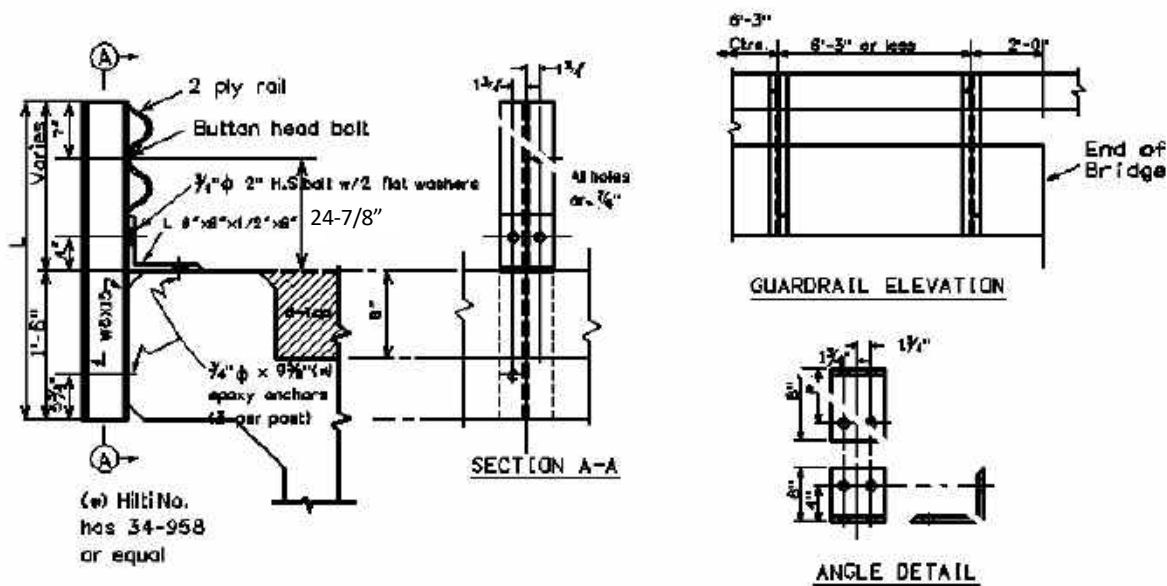
Printed Contractor’s Representative\_\_\_\_\_ & Date\_\_\_\_\_

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.



GUARDRAIL ON BRIDGE, CASE I  
BLACKTOP FLUSH WITH CURB OR ABOVE



Bridge MP	D =	W =	L =	No. Posts	LF of 2 PLY Rail
6.3			36"	15	42

D = Curb Height                      W = Width of Bridge Curb                      L = Length of Guardrail Post

**WARRANTS:** When guardrail can be bolted to the back of the bridge curb, and where the bridge surface is flush with the top of curb or above, and where the clear distance between the faces of the guardrail is less than 20 Feet, remove existing concrete and/or guardrail bridge rail and use Case I Bridge Guardrail.

**NOTES:**

1. If asphalt paving is included in the Contract and the dimension from the top of the existing riding surface to the top of the curb is 2 inches or less, pave the new surface flush to the top of the curb, and use Case I Bridge Guardrail.
2. Do not use Case I Bridge Guardrail if the existing pavement is not flush with the top of curb and asphalt paving is not included in the Contract or if the dimension from the top of the existing riding surface to the top of the curb is greater than 2 inches.

COUNTY OF	ITEM NO.	SHEET NO.

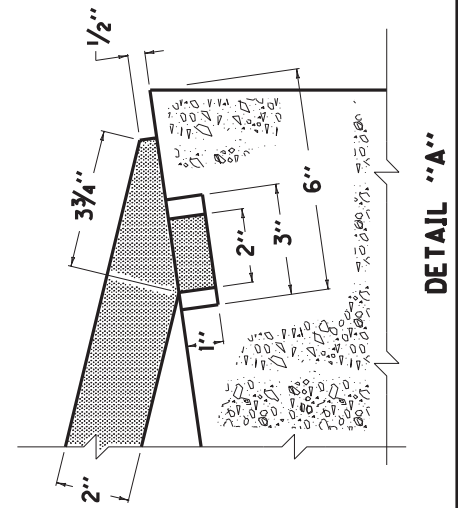
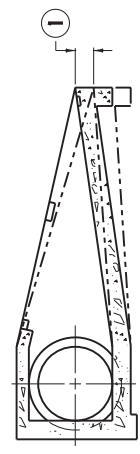
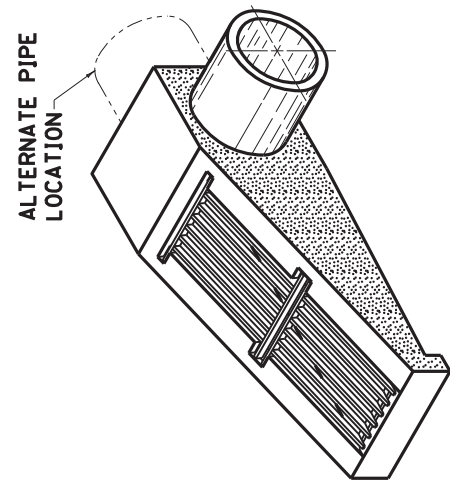
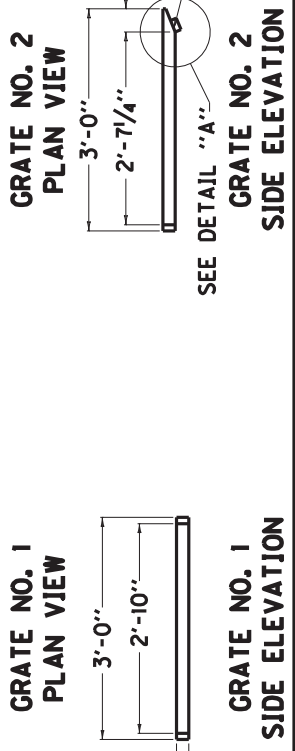
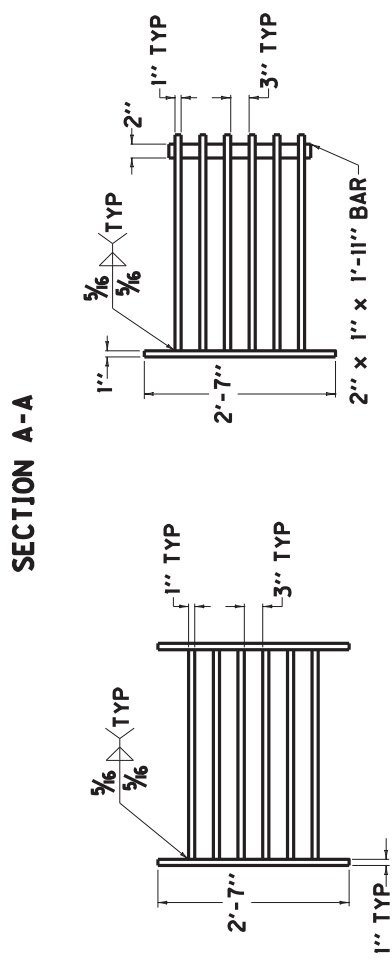
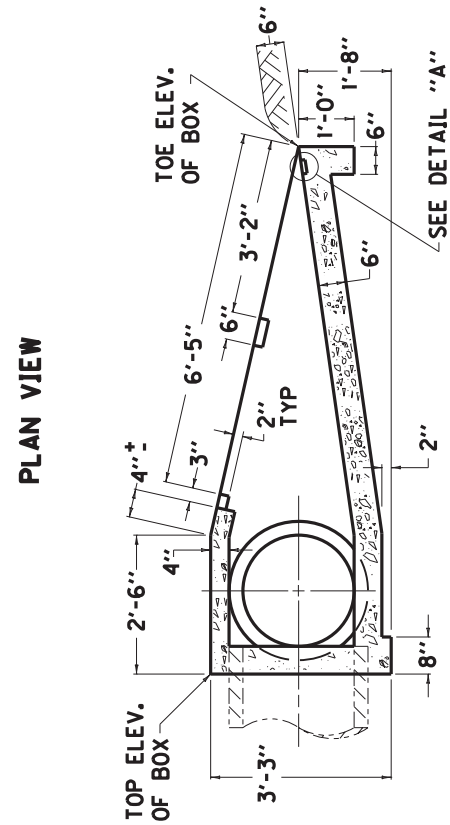
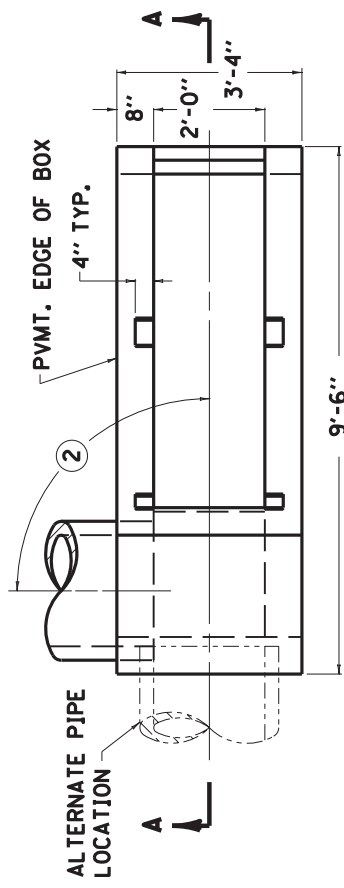
## NOTES

ITEM CODE	BID ITEM	UNIT
1726	SAFETY BOX INLET-18 INCH SDB-I	EACH
1727	SAFETY BOX INLET-24 INCH SDB-I	EACH

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

① TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.

② SKEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.



APPROXIMATE QUANTITIES			
CLASS "A"	GRATE	LBS. STRUCTURAL STEEL	
CUBIC YARDS	NUMBER	EACH GRATE	TOTAL POUNDS
1.44	1	145	298
	2	153	

### SECTIONAL VIEW

## ISOMETRIC VIEW

## DETAIL "A"

KENTUCKY  
DEPARTMENT OF HIGHWAYS

**SAFETY TYPE  
BOX INLET  
(18" OR 24")**

APPROVED \_\_\_\_\_  
*[Signature]* DISTRICT ENGINEER

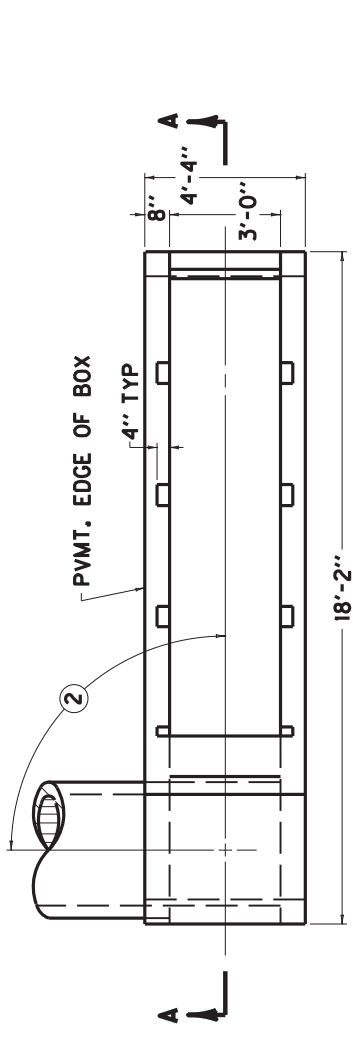
Contract ID: 06-0A-3-007 254  
Page 0.0 of 1

COUNTY OF	ITEM NO.	SHEET NO.

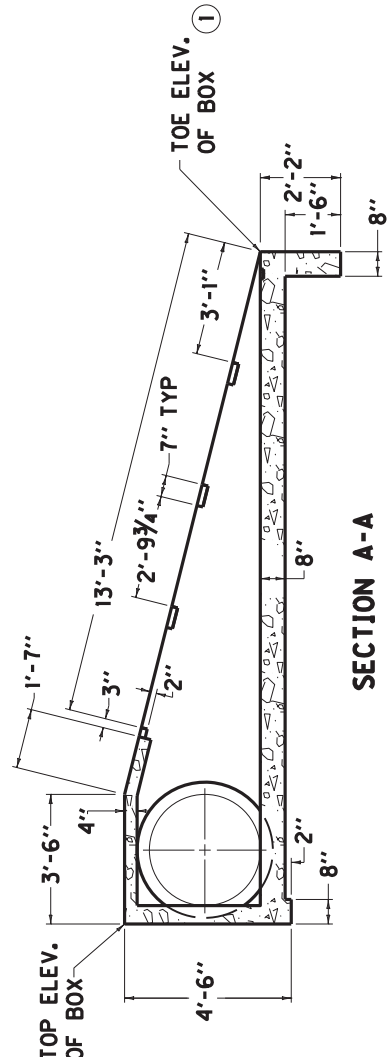
NOTES

- ITEM CODE      BID ITEM      UNIT
- 2304NS710      SAFETY BOX INLET-36 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.
- ① TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.
- ② SKEW OF BOX SHALL VARY TO FIT EXISTING FIELD CONDITIONS.
3. ALL QUANTITIES ARE FOR ONE HEADWALL.

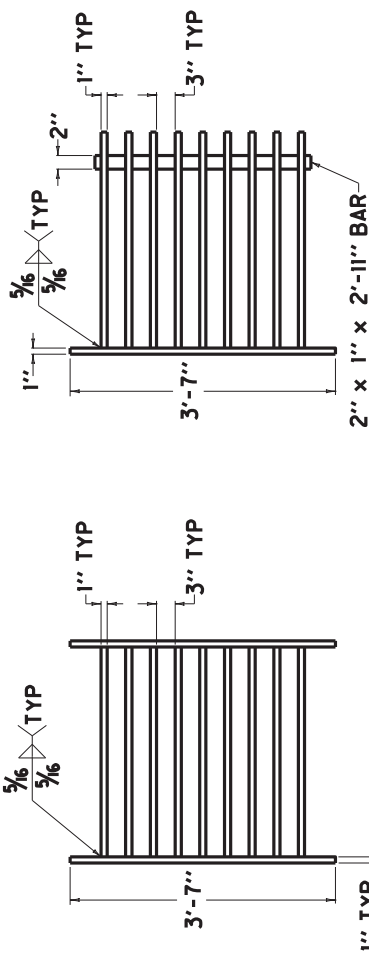
APPROXIMATE QUANTITIES					
CLASS "A" CONC.	CUBIC YARDS	GRATE NUMBER	NO. OF GRATES REQ'D.	LBS.	
				STRUCTURAL STEEL	REINF. STEEL
4.51		1	3	896	261
		2	1		



PLAN VIEW

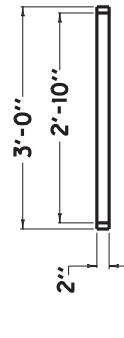


SECTION A-A

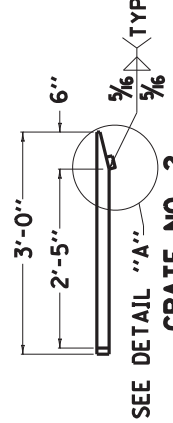


GRATE NO. 1  
PLAN VIEW

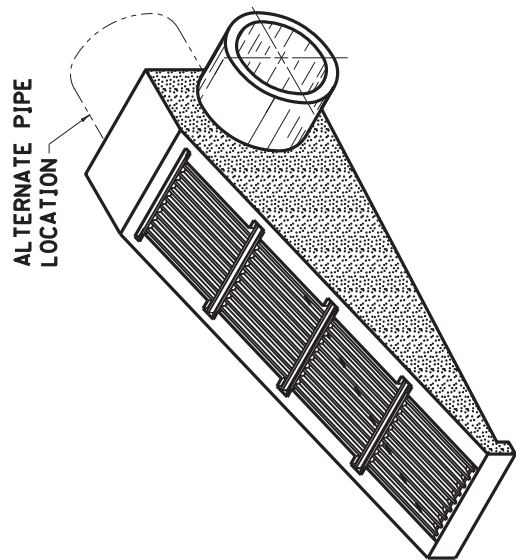
GRATE NO. 2  
PLAN VIEW



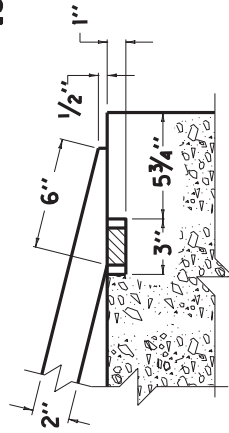
GRATE NO. 1  
SIDE ELEVATION



GRATE NO. 2  
SIDE ELEVATION



ISOMETRIC VIEW



DETAIL "A"

COUNTY OF	ITEM NO.	SHEET NO.

NOTES

- 1. NUMBER OF BARS IN ONE HEADWALL.
- 2. DIMENSIONS ARE O. TO O. OF BARS.
- 3. ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.

BENT BAR SHAPES



K=3'-6"

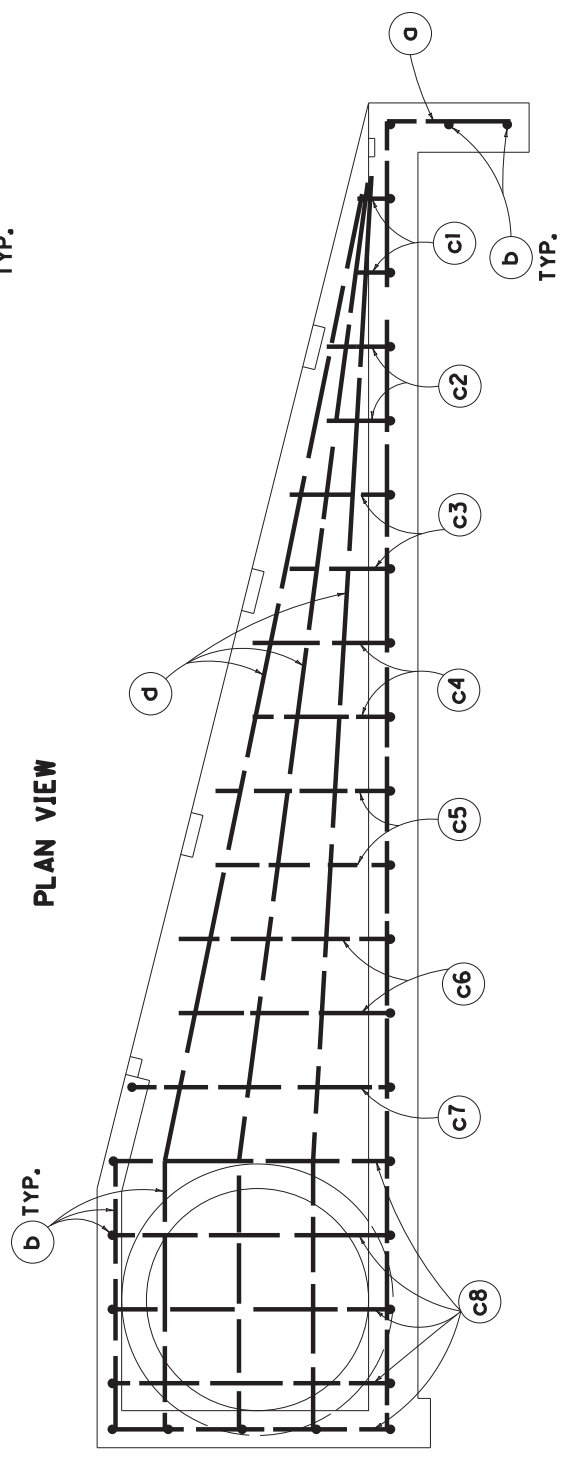
BARS (C)



K=1'-8"

BARS (C)

PLAN VIEW



ELEVATION VIEW

MATERIAL	SIZE	NO	LGTH		K
			FT	IN	
MARK	①		FT	IN	
36"					
a	4	5	19	6	1 8
b	4	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: [Signature] PROJECT ENGINEER  
06-04-2008  
Contract: 254504  
Page 03 of 340



COUNTY OF

ITEM NO.

SHEET

NOTES

ITEM CODE    BID ITEM    UNIT

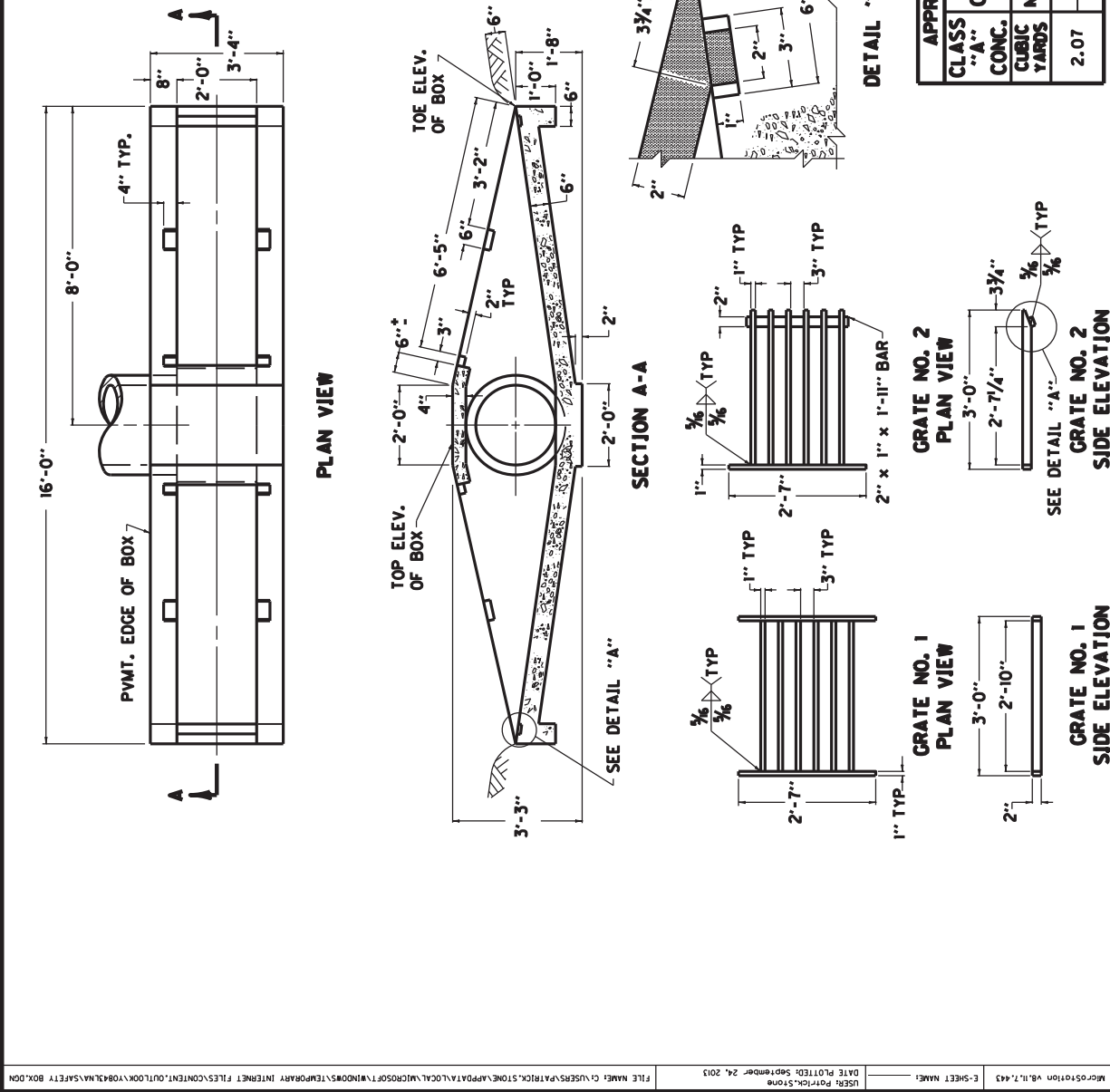
1728    SAFETY BOX INLET-18 IN DBL SDB-5    EACH

1729    SAFETY BOX INLET-24 IN DBL SDB-5    EACH

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

① TOE OF BOX SHALL BE RAISED OR LOWERED TO FIT EXISTING FIELD CONDITIONS.

② ANGLE BETWEEN BOX WALLS MAY VARY TO FIT EXISTING FIELD CONDITIONS.



DBL SAFETY BOX INLET DETAIL SHEET

N/A

**PART II**

**SPECIFICATIONS AND STANDARD DRAWINGS**

### **STANDARD SPECIFICATIONS**

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2019* and *Standard Drawings, Edition of 2020*.

### **SUPPLEMENTAL SPECIFICATIONS**

The contractor shall use the Supplemental Specifications that are effective at the time of letting. The Supplemental Specifications can be found at the following link:  
<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

## **SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS**

This Special Note will apply when indicated on the plans or in the proposal.

**1.0 DESCRIPTION.** Furnish, install, operate, and maintain variable message signs at the locations shown on the plans or designated by the Engineer. Remove and retain possession of variable message signs when they are no longer needed on the project.

## **2.0 MATERIALS.**

**2.1 General.** Use LED Variable Message Signs Class I, II, or III, as appropriate, from the Department's List of Approved Materials.

Unclassified signs may be submitted for approval by the Engineer. The Engineer may require a daytime and nighttime demonstration. The Engineer will make a final decision within 30 days after all required information is received.

### **2.2 Sign and Controls.** All signs must:

- 1) Provide 3-line messages with each line being 8 characters long and at least 18 inches tall. Each character comprises 35 pixels.
- 2) Provide at least 40 preprogrammed messages available for use at any time. Provide for quick and easy change of the displayed message; editing of the message; and additions of new messages.
- 3) Provide a controller consisting of:
  - a) Keyboard or keypad.
  - b) Readout that mimics the actual sign display. (When LCD or LCD type readout is used, include backlighting and heating or otherwise arrange for viewing in cold temperatures.)
  - c) Non-volatile memory or suitable memory with battery backup for storing pre-programmed messages.
  - d) Logic circuitry to control the sequence of messages and flash rate.
- 4) Provide a serial interface that is capable of supporting complete remote control ability through land line and cellular telephone operation. Include communication software capable of immediately updating the message, providing complete sign status, and allowing message library queries and updates.
- 5) Allow a single person easily to raise the sign to a satisfactory height above the pavement during use, and lower the sign during travel.
- 6) Be Highway Orange on all exterior surfaces of the trailer, supports, and controller cabinet.
- 7) Provide operation in ambient temperatures from -30 to + 120 degrees Fahrenheit during snow, rain and other inclement weather.
- 8) Provide the driver board as part of a module. All modules are interchangeable, and have plug and socket arrangements for disconnection and reconnection. Printed circuit boards associated with driver boards have a conformable coating to protect against moisture.
- 9) Provide a sign case sealed against rain, snow, dust, insects, etc. The lens is UV stabilized clear plastic (polycarbonate, acrylic, or other approved material) angled to prevent glare.
- 10) Provide a flat black UV protected coating on the sign hardware, character PCB, and appropriate lens areas.
- 11) Provide a photocell control to provide automatic dimming.



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

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

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

2.3 Power.

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

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

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

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

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

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

11  
the actual number of individual signs acceptably furnished and operated during the project. The Department will not measure signs replaced due to damage or rejection.

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

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

Effective June 15, 2012

2020 STANDARD DRAWINGS THAT APPLY

ROADWAY  
~ BARRIERS ~

GUARDRAIL CONNECTORS TO BRIDGE ENDS

GUARDRAIL CONNECTOR TO BRIDGE END TYPE A COMPONENTS .....	RBC-002-04
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A AND A-1 COMPONENTS .....	RBC-003-09
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A.....	RBC-005-01
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A NOTES .....	RBC-005N
GUARDRAIL CONNECTOR TO BRIDGE END TYPE A-1 .....	RBC-006-01

TYPICAL BARRIER INSTALLATIONS

TYPICAL GUARDRAIL INSTALLATIONS.....	RBI-001-12
TYPICAL GUARDRAIL INSTALLATIONS.....	RBI-002-07
TYPICAL INSTALLATION FOR GUARDRAIL END TREATMENT TYPE 2A .....	RBI-003-09
INSTALLATION OF GUARDRAIL END TREATMENT TYPE 1 .....	RBI-004-06

GUARDRAIL HARDWARE

STEEL BEAM GUARDRAIL (W-BEAM) .....	RBR-001-13
GUARDRAIL COMPONENTS .....	RBR-005-11
GUARDRAIL TERMINAL SECTIONS .....	RBR-010-06
STEEL GUARDRAIL POSTS .....	RBR-015-06
GUARDRAIL END TREATMENT TYPE 1 .....	RBR-020-07
GUARDRAIL END TREATMENT TYPE 2A.....	RBR-025-06
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## **PART III**

### **EMPLOYMENT, WAGE AND RECORD REQUIREMENTS**

REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
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- XII. Use of United States-Flag Vessels:

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, United States Code, as required in 23 CFR 633.102(b) (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). 23 CFR 633.102(e).

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. 23 CFR 633.102(e).

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) in accordance with 23 CFR 633.102. 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 solicitation-for-bids or request-for-proposals 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). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A 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 Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 230, Subpart A, 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 (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 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 Part 35 and 29 CFR Part 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. 23 CFR 230.409 (g)(4) & (5).

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, sexual orientation, gender identity, 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 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 or other knowledgeable company official.

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, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure 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. 23 CFR 230.409. 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 thereunder. 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, sexual orientation, gender identity, 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, 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. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**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 more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, 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, sexual orientation, gender identity, 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), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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 (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), 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 basic hourly 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. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. 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 classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must 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. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

- (i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

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

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must 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 be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate 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 used 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) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) 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 will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). 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.

(4) 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 will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The 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.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

### 3. Records and certified payrolls (29 CFR 5.5)

*a. Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

*(2) Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

*(3) Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must 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.

*(4) Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

*b. Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

*(2) Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDL/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

*(3) Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working 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 [29 CFR part 3](#); and

(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(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

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



(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform 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 (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. 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. 23 CFR 230.111(e)(2). 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 journeyworkers 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 as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 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 as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, 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 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 [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), 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 watchpersons 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. 29 CFR 5.5.

**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 and interest from the date of the underpayment. 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 watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* 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.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, 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 that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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" in paragraph 1 of Section VI 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: (based on longstanding interpretation)

- (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. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), 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. Pursuant to 23 CFR 635.116(c), 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. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **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 Part 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. 23 CFR 635.108.

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 Part 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). 29 CFR 1926.10.

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 Part 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 11, 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 (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

**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. 2 CFR 180.220 and 1200.220.

**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. 2 CFR 180.320.
- 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. 2 CFR 180.325.
- 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. 2 CFR 180.345 and 180.350.

- 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, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient 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 recipient or subrecipient 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. 2 CFR 180.330.
- 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. 2 CFR 180.220 and 180.300.
- 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. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. 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 System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.
- 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 CFR 180.325.

\* \* \* \* \*

**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 CFR 180.335;.
  - (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, 2 CFR 180.800;
  - (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, 2 CFR 180.700 and 180.800; 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. 2 CFR 180.335(d).
  - (5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and
  - (6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).
- b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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**3. 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). 2 CFR 180.220 and 1200.220.
- a. By signing and submitting this proposal, the prospective lower tier participant 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. 2 CFR 180.365.
- 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, Subpart I, 180.900 – 180.1020, 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 recipient or subrecipient 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 recipient or subrecipient 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. 2 CFR 1200.220 and 1200.332.
- 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. 2 CFR 180.220 and 1200.220.
- 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 System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.
- 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. 2 CFR 180.325.

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

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

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

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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 Part 20, App. A.

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.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. 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. 46 CFR 381.7.

2. 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 (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

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

The Executive Branch Code of Ethics created by Kentucky Revised Statutes (KRS) Chapter 11A, effective July 14, 1992, establishes the ethical standards that govern the conduct of all executive branch employees. The Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

A present or former public servant listed in KRS 11A.010(9)(a) to (g) shall not, within one (1) year following termination of his or her 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 one (1) year, he or she personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his or her 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 to obtain private benefits.

If you have worked for the executive branch of state government within the past year, 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, 1025 Capital Center Drive, Suite 105, Frankfort, Kentucky 40601; telephone (502) 564-7954.



"General Decision Number: KY20250040 05/16/2025

Superseded General Decision Number: KY20240040

State: Kentucky

Construction Type: Highway

Counties: Allen, Ballard, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Edmonson, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Simpson, Todd, Trigg, Union, Warren and Webster 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: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"><li>. Executive Order 14026 generally applies to the contract.</li><li>. The contractor must pay all covered workers at least \$17.75 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 2025.</li></ul>
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"><li>. Executive Order 13658 generally applies to the contract.</li><li>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</li></ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker  
protections under the Executive Orders is available at  
<http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	02/28/2025
2	04/04/2025
3	05/16/2025

BRIN0004-002 06/01/2024

BALLARD, BUTLER, CALDWELL, CARLISLE, CRITTENDEN, DAVIESS,  
EDMONSON, FULTON, GRAVES, HANCOCK, HENDERSON, HICKMAN,  
HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCRACKEN, MCLEAN,  
MUHLENBERG, OHIO, UNION, and WEBSTER COUNTIES

	Rates	Fringes
BRICKLAYER		
Ballard, Caldwell, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, Marshall, and McCracken Counties.....	\$ 33.70	16.57
Butler, Edmonson, Hopkins, Muhlenberg, and Ohio Counties.....	\$ 33.70	16.57
Daviess, Hancock, Henderson, McLean, Union, and Webster Counties.....	\$ 33.70	16.57
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BRTN0004-005 06/01/2024		

ALLEN, CALLOWAY, CHRISTIAN, LOGAN, SIMPSON, TODD, TRIGG, and  
WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 33.70	16.57
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* CARP0357-002 04/01/2025		

	Rates	Fringes
CARPENTER.....	\$ 33.89	24.02
DIVER.....	\$ 51.21	24.02
PILEDRIVERMAN.....	\$ 34.39	24.02
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ELEC0369-006 05/29/2024		

BUTLER, EDMONSON, LOGAN, TODD & WARREN COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 37.88	21.38
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ELEC0429-001 06/01/2024		

ALLEN & SIMPSON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 34.92	14.75
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ELEC0816-002 06/01/2024		

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,  
FULTON (Except a 5 mile radius of City Hall in Fulton), GRAVES,  
HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCRACKEN & TRIGG COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 35.67	28%+8.60
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Cable spicers receive \$.25 per hour additional.		
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ELEC1701-003 07/01/2024		

DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO,  
UNION & WEBSTER COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 37.10	8.60+30.8%
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Cable spicers receive \$.25 per hour additional.		
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ELEC1925-002 01/01/2025		

FULTON COUNTY (Up to a 5 mile radius of City Hall in Fulton):

	Rates	Fringes
CABLE SPLICER.....	\$ 28.85	15.50
ELECTRICIAN.....	\$ 28.60	15.49
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ENGI0181-017 07/01/2024		

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 40.05	19.10
GROUP 2.....	\$ 37.19	19.10
GROUP 3.....	\$ 37.64	19.10
GROUP 4.....	\$ 36.87	19.10

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 equals or exceeds 150 ft. - \$1.00 above 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.

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IRON0070-005 06/01/2024

BUTLER COUNTY (Eastern eighth, including the Townships of Decker, Lee & Tilford);  
EDMONSON COUNTY (Northern three-fourths, including the Townships of Asphalt, Bee Spring, Brownsville, Grassland, Huff, Kyrock, Lindseyville, Mammoth Cave, Ollie, Prosperity, Rhoda, Sunfish & Sweden)

	Rates	Fringes
IRONWORKER		
Structural; Ornamental;		
Reinforcing; Precast		
Concrete Erectors.....	\$ 34.59	25.00
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IRON0103-004 08/01/2024		



DAVIESS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, OHIO, UNION & WEBSTER COUNTIES  
BUTLER COUNTY (Townships of Aberdeen, Bancock, Casey, Dexterville, Dunbar, Elfie, Gilstrap, Huntsville, Logansport, Monford, Morgantown, Provo, Rochester, South Hill & Welchs Creek);  
CALDWELL COUNTY (Northeastern third, including the Township of Creswell);  
CHRISTIAN COUNTY (Northern third, including the Townships of Apex, Crofton, Kelly, Mannington & Wynns);  
CRITTENDEN COUNTY (Northeastern half, including the Townships of Grove, Mattoon, Repton, Shady Grove & Tribune);  
MUHLENBERG COUNTY (Townships of Bavier, Beech Creek Junction, Benton, Brennen, Browder, Central City, Cleaton, Depoy, Drakesboro, Eunis, Graham, Hillside, Luzerne, Lynn City, Martwick, McNary, Millport, Moorman, Nelson, Paradise, Powderly, South Carrollton, Tarina & Weir)

	Rates	Fringes
Ironworkers:.....	\$ 35.34	26.4
-----		
IRON0492-003 05/01/2024		

ALLEN, LOGAN, SIMPSON, TODD & WARREN COUNTIES  
BUTLER COUNTY (Southern third, including the Townships of Boston, Berrys Lick, Dimple, Jetson, Quality, Sharer, Sugar Grove & Woodbury);  
CHRISTIAN COUNTY (Eastern two-thirds, including the Townships of Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);  
EDMONSON COUNTY (Southern fourth, including the Townships of Chalybeate & Rocky Hill);  
MUHLENBERG COUNTY (Southern eighth, including the Townships of Dunnior, Penrod & Rosewood)

	Rates	Fringes
Ironworkers:.....	\$ 33.73	16.38
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IRON0782-006 08/01/2024		

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCracken & TRIGG COUNTIES  
CALDWELL COUNTY (Southwestern two-thirds, including the Townships of Cedar Bluff, Cider, Claxton, Cobb, Crowtown, Dulaney, Farmersville, Fredonia, McGowan, Otter Pond & Princeton);  
CHRISTIAN COUNTY (Western third, Excluding the Townships of Apex, Crofton, Kelly, Mannington, Wynns, Bennettstown, Casky, Herndon, Hopkinsville, Howell, Masonville, Pembroke & Thompsonville);  
CRITTENDEN COUNTY (Southwestern half, including the Townships of Crayne, Dycusburg, Frances, Marion, Mexico, Midway, Sheridan & Told)

	Rates	Fringes
Ironworkers:		
Projects with a total contract cost of \$20,000,000.00 or above.....	\$ 35.75	26.34

All Other Work.....	\$ 34.01	24.83
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LAB00189-005 07/01/2024		

BALLARD, CALLOWAY, CARLISLE, FULTON, GRAVES, HICKMAN,  
LIVINGSTON, LYON, MARSHALL & MCCracken COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.96	18.58
GROUP 2.....	\$ 24.21	18.58
GROUP 3.....	\$ 24.26	18.58
GROUP 4.....	\$ 24.86	18.58

LABORER 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; Blaster; 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

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LAB00189-006 07/01/2024		

ALLEN, BUTLER, CALDWELL, CHRISTIAN, DAVIESS, EDMONSON, HANCOCK,  
HOPKINS, LOGAN, MCLEAN, MUHLENBERG, OHIO, SIMPSON, TODD, TRIGG  
& WARREN COUNTIES

Laborers:

GROUP 1.....	\$ 23.96	18.58
GROUP 2.....	\$ 24.26	18.58
GROUP 3.....	\$ 24.21	18.58
GROUP 4.....	\$ 24.86	18.58

LABORER 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; Blaster; 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

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LAB00561-001 07/01/2024

CRITTENDEN, HENDERSON, UNION & WEBSTER COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 25.22	18.10
GROUP 2.....	\$ 25.47	18.10
GROUP 3.....	\$ 25.52	18.10
GROUP 4.....	\$ 26.12	18.10

LABORER 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; Blaster; 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

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PAIN0032-002 09/01/2024

BALLARD COUNTY

	Rates	Fringes
Painters:		
Bridges.....	\$ 36.77	21.77
All Other Work.....	\$ 34.47	21.77
Spray, Blast, Steam, High & Hazardous (Including Lead Abatement) and All Epoxy - \$1.00 Premium		

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PAIN0118-003 06/01/2014

EDMONSON COUNTY:

	Rates	Fringes
Painters:		
Brush & Roller.....	\$ 18.50	11.97
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 19.50	11.97

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PAIN0156-006 04/01/2024

DAVIESS, HANCOCK, HENDERSON, MCLEAN, OHIO, UNION & WEBSTER



COUNTIES

	Rates	Fringes
Painters:		
BRIDGES		
GROUP 1.....	\$ 30.77	20.30
GROUP 3.....	\$ 31.77	20.30
GROUP 4.....	\$ 35.00	20.30
ALL OTHER WORK:		
GROUP 1.....	\$ 29.62	20.30
GROUP 2.....	\$ 30.37	20.30
GROUP 3.....	\$ 30.62	20.30
GROUP 4.....	\$ 31.77	20.30

PAINTER CLASSIFICATIONS

GROUP 1 - Brush & Roller

GROUP 2 - Plasterers

- GROUP 3 - Spray; Sandblast; Power Tools; Waterblast;  
Steamcleaning; Brush & Roller of Mastics, Creosotes, Kwinch  
Koate & Coal Tar Epoxy
- GROUP 4 - Spray of Mastics, Creosotes, Kwinch Koate & Coal  
Tar Epoxy

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PAIN0500-002 06/01/2024

CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN, FULTON,  
GRAVES, HICKMAN, HOPKINS, LIVINGSTON, LYON, MARSHALL, MCCracken  
& TRIGG COUNTIES:

	Rates	Fringes
Painters:		
Bridges.....	\$ 30.75	15.50
All Other Work.....	\$ 24.50	15.50

- Waterblasting units with 3500 PSI and above - \$.50 premium  
Spraypainting and all abrasive blasting - \$1.00 premium  
Work 40 ft. and above ground level - \$1.00 premium

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PLUM0184-002 07/01/2024

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,  
FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL, MCCracken  
and TRIGG COUNTIES

	Rates	Fringes
Plumber; Steamfitter.....	\$ 41.01	20.28

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PLUM0502-004 08/01/2024

ALLEN, BUTLER, EDMONSON, SIMPSON & WARREN

Rates	Fringes
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Plumber; Steamfitter.....	\$ 41.90	24.89
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PLUM0633-002 08/01/2024		

DAVISS, HANCOCK, HENDERSON, HOPKINS, LOGAN, MCLEAN,  
MUHLENBERG, OHIO, TODD, UNION & WEBSTER COUNTIES:

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 38.41	22.26
-----		
TEAM0089-003 03/31/2024		

ALLEN, BUTLER, EDMONSON, LOGAN, SIMPSON & WARREN COUNTIES

	Rates	Fringes
Truck drivers:		
Zone 1:		
Group 1.....	\$ 23.53	27.39
Group 2.....	\$ 23.70	27.39
Group 3.....	\$ 23.78	27.39
Group 4.....	\$ 23.80	27.39

GROUP 1 - Greaser; Tire Changer

GROUP 2 - Truck Mechanic; Single Axle Dump; Flat Bed; All  
Terrain Vehicles when used to haul materials; Semi Trailer  
or Pole Trailer when used to pull building materials and  
equipment; Tandem Axle Dump; Driver of Distributors

GROUP 3 - Mixer All Types

GROUP 4 - Winch and A-Frame when used in transporting  
materials; Ross Carrier; Fork Lift when used to transport  
building materials; Driver on Pavement Breaker; Euclid and  
Other Heavy Earth Moving Equipment; Low Boy; Articulator  
Cat; Five Axle Vehicle

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TEAM0215-003 03/31/2024		

DAVISS, HANCOCK, HENDERSON, HOPKINS, MCLEAN, MUHLENBERG, OHIO  
& WEBSTER COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 25.15	27.39
Group 2.....	\$ 25.38	27.39
Group 3.....	\$ 25.45	27.39
Group 4.....	\$ 25.46	27.39

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when  
used to haul materials; Semi Trailer or Pole Trailer when  
used to pull building materials and equipment; Tandem Axle  
Dump; Driver of Distributors; Mixer All Types

GROUP 4: Euclid and other heavy earth moving equipment; Low

Boy; Articulator Cat; 5 Axle Vehicle; Winch and A- Frame  
when used in transporting materials; Ross Carrier; Fork  
Lift when used to transport building materials; Driver on  
Pavement Breaker

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TEAM0236-001 03/31/2024

BALLARD, CALDWELL, CALLOWAY, CARLISLE, CHRISTIAN, CRITTENDEN,  
FULTON, GRAVES, HICKMAN, LIVINGSTON, LYON, MARSHALL,  
MCCRACKEN,TODD & TRIGG COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 23.52	27.39
Group 2.....	\$ 23.70	27.39
Group 3.....	\$ 23.70	27.39
Group 4.....	\$ 23.78	27.39
Group 5.....	\$ 23.80	27.39

GROUP 1: Greaser, Tire Changer

GROUP 2: Truck Mechanic

GROUP 3: Single Axle Dump; Flat Bed; All Terrain Vehicle when  
used to haul materials; Semi Trailer or Pole Trailer when  
used to pull building materials and equipment; Tandem Axle  
Dump; Drivers of Distributors

GROUP 4: Euclid and other heavy earth moving equipment; Low  
Boy; Articulator Cat; Five Axle Vehicle; Winch and A-Frame  
when used in transporting materials; Ross Carrier

GROUP 5: Mixer All Types

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
for Federal Contractors applies to all contracts subject to the  
Davis-Bacon Act for which the contract is awarded (and any  
solicitation was issued) on or after January 1, 2017. If this  
contract is covered by the EO, the contractor must provide  
employees with 1 hour of paid sick leave for every 30 hours  
they work, up to 56 hours of paid sick leave each year.  
Employees must be permitted to use paid sick leave for their  
own illness, injury or other health-related needs, including  
preventive care; to assist a family member (or person who is  
like family to the employee) who is ill, injured, or has other  
health-related needs, including preventive care; or for reasons  
resulting from, or to assist a family member (or person who is  
like family to the employee) who is a victim of, domestic  
violence, sexual assault, or stalking. Additional information  
on contractor requirements and worker protections under the EO  
is available at  
<https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to [davisbaconinfo@dol.gov](mailto:davisbaconinfo@dol.gov) or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to [BCWD-Office@dol.gov](mailto:BCWD-Office@dol.gov) or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via

email to dba.reconsideration@dol.gov or by mail 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 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.

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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

**PART IV**

**BID ITEMS**



254504

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	1,212.00	TON		\$	
0020	00100		ASPHALT SEAL AGGREGATE	129.00	TON		\$	
0030	00103		ASPHALT SEAL COAT	15.00	TON		\$	
0040	00190		LEVELING & WEDGING PG64-22	1,042.00	TON		\$	
0050	00356		ASPHALT MATERIAL FOR TACK	48.00	TON		\$	
0060	02677		ASPHALT PAVE MILLING & TEXTURING	635.00	TON		\$	
0070	03240		BASE FAILURE REPAIR	1,350.00	SQYD		\$	
0080	21653ES403		CL2 ASPH SURF NO.4D PG64-22	6,448.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0090	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	153.00	EACH		\$	
0100	02230		EMBANKMENT IN PLACE	8,021.00	CUYD		\$	
0110	02259		FENCE-TEMP	589.00	LF		\$	
0120	02268		REMOVE & REPLACE FENCE	589.00	LF		\$	
0130	02355		GUARDRAIL-STEEL W BEAM-S FACE A	100.00	LF		\$	
0140	02360		GUARDRAIL TERMINAL SECTION NO 1	20.00	EACH		\$	
0150	02367		GUARDRAIL END TREATMENT TYPE 1	4.00	EACH		\$	
0160	02369		GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH		\$	
0170	02381		REMOVE GUARDRAIL	6,745.00	LF		\$	
0180	02391		GUARDRAIL END TREATMENT TYPE 4A	1.00	EACH		\$	
0190	02483		CHANNEL LINING CLASS II	954.00	TON		\$	
0200	02602		FABRIC-GEOTEXTILE CLASS 1	54.00	SQYD		\$	
0210	02625		REMOVE HEADWALL	23.00	EACH		\$	
0220	02650		MAINTAIN & CONTROL TRAFFIC BUTLER KY 185 HSIP	1.00	LS		\$	
0230	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		\$	
0240	02676		MOBILIZATION FOR MILL & TEXT BUTLER KY 185 HSIP	1.00	LS		\$	
0250	02676		MOBILIZATION FOR MILL & TEXT EDMONSON KY 185 HSIP	1.00	LS		\$	
0260	02690		SAFELOADING	15.70	CUYD		\$	
0270	02697		EDGE LINE RUMBLE STRIPS	92,599.00	LF		\$	
0280	02701		TEMP SILT FENCE	22,766.00	LF		\$	
0290	02703		SILT TRAP TYPE A	11.00	EACH		\$	
0300	02704		SILT TRAP TYPE B	68.00	EACH		\$	
0310	02706		CLEAN SILT TRAP TYPE A	11.00	EACH		\$	
0320	02707		CLEAN SILT TRAP TYPE B	68.00	EACH		\$	
0330	02726		STAKING BUTLER KY 185 HSIP	1.00	LS		\$	
0340	03269		TRIM & REMOVE TREES & BRUSH	3,765.00	LF		\$	
0350	05950		EROSION CONTROL BLANKET	22,952.00	SQYD		\$	
0360	05963		INITIAL FERTILIZER	3.00	TON		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0370	05985		SEEDING AND PROTECTION	47,588.00	SQYD		\$	
0380	06510		PAVE STRIPING-TEMP PAINT-4 IN	14,531.00	LF		\$	
0390	06542		PAVE STRIPING-THERMO-6 IN W	94,927.00	LF		\$	
0400	06543		PAVE STRIPING-THERMO-6 IN Y	94,927.00	LF		\$	
0410	06546		PAVE STRIPING-THERMO-12 IN W	60.00	LF		\$	
0420	08003		FOUNDATION PREPARATION BUTLER KY 185 HSIP	1.00	LS		\$	
0430	08003		FOUNDATION PREPARATION EDMONSON KY 185 HSIP	1.00	LS		\$	
0440	08100		CONCRETE-CLASS A	327.10	CUYD		\$	
0450	08150		STEEL REINFORCEMENT	33,207.00	LB		\$	
0460	08805		GUARDRAIL-BRIDGE CASE I	100.00	LF		\$	
0470	10020NS		FUEL ADJUSTMENT	15,224.00	DOLL	\$1.00	\$	\$15,224.00
0480	10030NS		ASPHALT ADJUSTMENT	29,283.00	DOLL	\$1.00	\$	\$29,283.00
0490	20191ED		OBJECT MARKER TY 3	5.00	EACH		\$	
0500	21134ND		REMOVE-STORE AND REINSTALL SIGN	26.00	EACH		\$	
0510	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	7,079.00	LF		\$	
0520	26248EC		ELECTRONIC DELIVERY MGMT SYSTEM - AGG	1.00	LS		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0530	00440		ENTRANCE PIPE-15 IN	54.00	LF		\$	
0540	00462		CULVERT PIPE-18 IN	244.00	LF		\$	
0550	00464		CULVERT PIPE-24 IN	281.00	LF		\$	
0560	00466		CULVERT PIPE-30 IN	48.00	LF		\$	
0570	00469		CULVERT PIPE-42 IN	18.00	LF		\$	
0580	01204		PIPE CULVERT HEADWALL-18 IN	1.00	EACH		\$	
0590	01210		PIPE CULVERT HEADWALL-30 IN	1.00	EACH		\$	
0600	01310		REMOVE PIPE	276.00	LF		\$	
0610	01381		METAL END SECTION TY 2-18 IN	1.00	EACH		\$	
0620	01585		REMOVE DROP BOX INLET	2.00	EACH		\$	
0630	01726		SAFETY BOX INLET-18 IN SDB-1	4.00	EACH		\$	
0640	01727		SAFETY BOX INLET-24 IN SDB-1	2.00	EACH		\$	
0650	01728		SAFETY BOX INLET-18 IN DBL SDB-5	2.00	EACH		\$	
0660	01729		SAFETY BOX INLET-24 IN DBL SDB-5	3.00	EACH		\$	
0670	02625		REMOVE HEADWALL	31.00	EACH		\$	
0680	03262		CLEAN PIPE STRUCTURE	5.00	EACH		\$	
0690	24814EC		PIPELINE INSPECTION	727.00	LF		\$	
0700	26131ED		SLOPED AND MITERED HEADWALL-18 IN	14.00	EACH		\$	
0710	26132ED		SLOPED AND MITERED HEADWALL-24 IN	17.00	EACH		\$	
0720	26133ED		SLOPED AND MITERED HEADWALL-30 IN	3.00	EACH		\$	
0730	26135ED		SLOPED AND MITERED HEADWALL-42 IN	1.00	EACH		\$	

Section: 0004 - DEMOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
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254504

PROPOSAL BID ITEMS

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0740	02569		DEMOBILIZATION	1.00	LS		\$	