



CALL NO. 104

CONTRACT ID. 231323

HARDIN COUNTY

FED/STATE PROJECT NUMBER STP 6000 (146)

DESCRIPTION SAINT JOHN ROAD (KY 1357)

WORK TYPE GRADE & DRAIN WITH BRIDGE

PRIMARY COMPLETION DATE 220 WORKING DAYS

LETTING DATE: June 22,2023

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME June 22,2023. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

PLANS AVAILABLE FOR THIS PROJECT.

DBE CERTIFICATION REQUIRED - 10%

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

TABLE OF CONTENTS

PART I	SCOPE OF WORK <ul style="list-style-type: none">• PROJECT(S), COMPLETION DATE(S), & LIQUIDATED DAMAGES• CONTRACT NOTES• FEDERAL CONTRACT NOTES• ASPHALT MIXTURE• DGA BASE• DGA BASE FOR SHOULDERS• INCIDENTAL SURFACING• FUEL AND ASPHALT PAY ADJUSTMENT• ASPHALT PAVEMENT RIDE QUALITY CAT A• COMPACTION OPTION A• MATERIAL TRANSFER VEHICLE (MTV)• SPECIAL NOTE(S) APPLICABLE TO PROJECT• TREE REMOVAL• WASTE AND BORROW SITES• PIPELINE INSPECTION• PAVER MOUNTED TEMPERATURE PROFILES• NON-TRACKING TACK COAT• EXPERIMENTAL KYCT AND HAMBURG TESTING• BRIDGE DEMOLITION, RENOVATION AND ASBESTOS ABATEMENT• ASBESTOS ABATEMENT REPORT• RIGHT OF WAY CERTIFICATION• UTILITY IMPACT & RAIL CERTIFICATION NOTES• GENERAL UTILITY NOTES• GAS STANDARD UTILITY BID ITEMS• GASLINE SPECS• SEWER STANDARD UTILITY BID ITEMS• SEWERLINE SPECS• KPDES STORM WATER PERMIT, BMP AND ENOI• COMMUNICATING ALL PROMISES• PERMIT(S)
PART II	SPECIFICATIONS AND STANDARD DRAWINGS <ul style="list-style-type: none">• STANDARD AND SUPPLEMENTAL SPECIFICATIONS• [SN-1I] PORTABLE CHANGEABLE SIGNS• [SN-11N] LONGITUDINAL PAVEMENT JOINT ADHESIVE
PART III	EMPLOYMENT, WAGE AND RECORD REQUIREMENTS <ul style="list-style-type: none">• FEDERAL-AID CONSTRUCTION CONTRACTS - FHWA 1273• NONDISCRIMINATION OF EMPLOYEES• EXECUTIVE BRANCH CODE OF ETHICS• PROJECT WAGE RATES LOCALITY 3 / FEDERAL• NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EEO HARDIN
PART IV	INSURANCE
PART V	BID ITEMS

PART I
SCOPE OF WORK

ADMINISTRATIVE DISTRICT - 04

CONTRACT ID - 231323
STP 6000 (146)
COUNTY - HARDIN
PCN - DE04713572323
STP 6000 (146)

SAINT JOHN ROAD (KY 1357) IMPROVE ISSUES FROM US31W BYPASS TO RING ROAD (KY 3005), A DISTANCE OF 01.65 MILES.GRADE & DRAIN WITH BRIDGE SYP NO. 04-08801.00.
GEOGRAPHIC COORDINATES LATITUDE 37:41:41.00 LONGITUDE 85:53:46.00
ADT 9,198

COMPLETION DATE(S):
220 WORKING Days APPLIES TO CONTRACT

CONTRACT NOTES

PROPOSAL ADDENDA

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

BID SUBMITTAL

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

JOINT VENTURE BIDDING

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

UNDERGROUND FACILITY DAMAGE PROTECTION

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

REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY

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

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

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

SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT

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

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

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

HARDWOOD REMOVAL RESTRICTIONS

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

INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES

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

ACCESS TO RECORDS

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

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

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

BUILD AMERICA, BUY AMERICA ACT (BABA)

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (IIJA), Pub. L. No. 117-58, includes the Build America, Buy America Act (“the Act”). Pub. L. No. 117-58, §§70901-52. The Act strengthens the Buy America preference to include “construction materials.” The current temporary waiver for **“construction materials”** will expire on November 10, 2022.

The Act will apply to construction materials as outlined in the guidance issued in OMB [M-22-11](#).

Construction Materials – Includes an article, material, or supply – other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives – that is or consists primarily of:

- Non-ferrous metals
- Plastic/polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall.

Construction Materials only applies to items, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project.

Construction Materials does not apply to tools, equipment or supplies brought to the jobsite and removed before completion.

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.

February 1, 2023

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 2nd 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.

UPON AWARD AND BEFORE A WORK ORDER WILL BE ISSUED

Contractors must submit the signed subcontract between the contractor and the DBE contractor, along with the DBE's certificate of insurance. If the DBE is a supplier of materials for the project, a signed purchase order must be submitted to the Division of Construction Procurement.

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

CONSIDERATION OF GOOD FAITH EFFORTS REQUESTS

If the DBE participation submitted in the bid by the apparent lowest responsive bidder does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit a Good Faith Effort Package to satisfy the Cabinet that sufficient good faith efforts were made to meet the contract goals prior to submission of the bid. Efforts to increase the goal after bid submission will not be considered in justifying the good faith effort, unless the contractor can show that the proposed DBE was solicited prior to the letting date. DBEs utilized in achieving the DBE goal must be certified and prequalified for the work items at the time the bid is submitted. One complete set (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
6th 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. Melvin Byne. Mr. Byne's current contact information is email address – melvin.bynes2@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)

Revised: 5/3/2022

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

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

SECTION 7 is expanded by the following new Article:

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

Pursuant to Title 46CFR Part 381, the Contractor agrees

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

ASPHALT MIXTURE

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

DGA BASE

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

DGA BASE FOR SHOULDERS

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

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

INCIDENTAL SURFACING

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

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.

ASPHALT PAVEMENT RIDE QUALITY CATEGORY A

The Department will apply Pavement Rideability Requirements on this project in accordance with Section 410, Category A.

OPTION A

Be advised that the Department will accept compaction of asphalt mixtures furnished for driving lanes and ramps, at 1 inch (25mm) or greater, on this project according to OPTION A in accordance with Section 402 and Section 403 of the current Standard Specifications. The Department will require joint cores as described in Section 402.03.02 for surface mixtures only. The Department will accept compaction of all other asphalt mixtures according to OPTION B.

MATERIAL TRANSFER VEHICLE (MTV)

Provide and use a MTV in accordance with Sections 403.02.10 and 403.03.05.

SPECIAL NOTE FOR WORK PERMITTED IN 2023
KY 1357 (SAINT JOHN ROAD)
HARDIN COUNTY ITEM NO. 4-8801.00

Due to utility relocation issues, only limited construction activities will be allowed for the 2023 construction year. The Contractor will only be permitted to perform the following work in 2023:

- Phase 1 Bridge Work for the Bridge Over Billy Creek (Sta. 47+62.28)
- Construction of the Precast Concrete Box Culverts on Entrances Lt. of Sta. 53+48.9 and Lt. of Sta 56+52.2 and Associated Entrance Work with Temporary Ties to Existing KY 1357
- Proposed Roadway Work from Sta. 38+00 to Sta. 51+00 (Coordination with Nolin RECC and KDL will be Required)
- Sewer and Gas Relocations
- Other Proposed Work Approved by the Engineer

Unless flaggers are present, two lanes of traffic must be maintained at all times. Due to the restricted work allowed in 2023, revisions to the Traffic Control Plan (TCP) included in the plans will be needed. The Contractor is to provide any proposed TCP revisions to the Engineer for review and obtain the Engineer's approval before beginning work in the area impacted by the revised TCP. The TCP provided in the plans is to be used for work after 2023 unless a revised TCP is provided to the Engineer and approved by the Engineer.

SPECIAL NOTE FOR CONCRETE SEALING

These Notes or designated portions thereof, apply where so indicated on the plans, proposals or bidding instruction.

- I. DESCRIPTION. Perform all work in accordance with the Department's 2019 Standard Specifications, and applicable Supplemental Specifications, the attached sketches, and these Notes. Section references are to the Standard Specifications.
This work consists of: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

II. MATERIALS.

- A. Sealer. Use one of the following:

Product	Supplier
Protectosil BHN	Evonik Industries
Protectosil 300S	Evonik Industries
TK-590-40 Tri-Silane 40%	TK Products
SW-244-100	Chemical Products Industries, Inc.
TK-590-1 MS Tri-Silane	TK Products
MasterProtect H1000	BASF
Aquanil Plus 40	ChemMasters
SIL-ACT ATS-100	Advanced Chemical Technologies
Certivex Penseal BTS 100%	Vexcon
Pentreat 244-40	W.R. Meadows
Aquanil Plus 40A	ChemMasters

- B. Coverage Rate:** Follow all manufacturers recommendations for coverage rates except the application rate must not exceed the square footage coverage rate per gallon of sealer as given in the chart below. If the manufacturer recommends a coverage rate greater than given in the table below, apply sealer at the rate given in the table below for the chosen sealers silane percentage.

% Silane	Coverage rate (ft ² /gallon)
100	300
40	120
20	60

III. CONSTRUCTION.

- A. Curing Compound.** Contrary to Section 609.03.12 of the specifications, curing compound is not to be used on this deck due to potentially causing issues with the concrete sealer. During the deck pour, finishing, and tining operations the Class AA concrete shall be kept continuously moist with the use of a mister until burlap or curing blankets are applied to the surface. At no point should water be pooling or running off the surface or the surface of the concrete be allowed to become dry. After the burlap or curing blankets are installed, cure in accordance with the specifications. Include all costs in the unit price bid for Class AA concrete. Failure to properly cure the concrete in accordance with this note and the specifications may result in weakened or cracked concrete. If the concrete is weakened or cracked due to improper curing, the contractor will be responsible for providing alternates to fix the issues to the Engineer for review and the contractor will be solely responsible for all costs to do so, up to complete replacement. Do not begin any construction on fixing any issues without approval of the Engineer.
- B. Cleaning the Deck.** Dry clean the deck to remove all loose debris. Remove all visible hydrocarbons from the surface with detergent approved by the manufacturer of the deck sealant. Pressure wash all surfaces to be sealed at 2000 to 3000 psi. Install pressure gauges at each wand to verify pressure. Use 30° fan tip or as recommended by the manufacturer of the deck sealant. Hold pressure washing wand a minimum of 45° from the deck with a maximum stand-off distance of 12 inches.
- C. Sealing the Deck.** Allow new concrete to cure a minimum 28 days prior to application of sealer. Monitor weather conditions prior to sealer application. Refer to manufacturer's recommendations for proper ambient conditions. Do not apply sealer if precipitation is anticipated within the time stated by the manufacturer. Allow the deck to dry 24 hours (after washing or rain event) before sealer application. The deck can be reopened to traffic while drying. Sealer must be applied within 48 hours of washing or the deck must be rewashed. Divide the deck into predefined areas of specific square footage to aid in determining usage. Comply with manufacturer's usage recommendation. Using a low

pressure pump, apply sealer and spread evenly with broom or squeegee; do not allow pooling to remain. When each predefined area is complete, measure the amount of sealer used to verify proper usage. After sealing, follow manufacturer's recommended cure time before opening to traffic. On vertical surfaces, apply the sealer in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern.

D. Inspection: Monitor all aspects of the project to assure compliance to this specification. Observe and document general conditions during the entirety of the project. Verify that each phase of work has been satisfactorily completed prior to beginning the next phase. Phases are described as follows:

1. Dry cleaning to remove loose debris, verify and document:
 - a. All debris has been removed and disposed of properly.
2. Removal of hydrocarbons, verify and document:
 - a. The manufacturer's recommended detergent is used for removal.
 - b. Hydrocarbons have been satisfactorily removed.
3. Pressure washing, verify and document:
 - a. Washing pressure at the wand.
 - b. Tip size used.
 - c. Wash angle and stand-off distance.
 - d. The deck is satisfactorily cleaned.
4. Sealer application, verify and document:
 - a. Proper cure time for new concrete.
 - b. Deck surface is dry.
 1. Document time since washed.
 2. Was deck opened to traffic after washing?
 - c. Ambient conditions.
 1. Document ambient temperature, surface temperature, relative humidity, and dew point.
 - d. Application and distribution method.
 - e. Coverage to be complete and even.
 - f. Material is not allowed to remain pooled.
 - g. Monitor material usage.
 - h. No traffic until proper cure time is allowed.

IV. MEASUREMENT

- A. Concrete Sealing.** The Department will measure the quantity per square feet of each area sealed.

V. PAYMENT

- A. Concrete Sealing.** Payment at the contract unit price per square feet is full compensation for the following: (1) Furnish all labor, materials, tools, and equipment; (2) Clean the bridge deck; (3) Seal the bridge deck; (4) Maintain & control traffic; and, (5) Any other work specified as part of this contract.

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

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 a GPS Fleet Management System for all HMA delivered to the project in order to monitor, track, and report loads of HMA during the construction processes from the point of measurement and loading to the point of incorporation to the project.

2.0 MATERIALS AND EQUIPMENT. Submit to the Engineer for approval, no fewer than 30 days prior to HMA placement activities, a GPS fleet management system supplier that 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 equipment.

Provide operator settings, user manuals, training videos, and required viewing/export software for review. Provide equipment that will meet the following:

1. A wireless fleet management or GPS device that is capable of tracking all delivery trucks (both company-owned and third-party) must be installed on all trucks and equipment (dump trucks, belly dumps, side-load dumps, transfer vehicles, pavers, or any other trucks/vehicles) used to transfer and incorporate HMA into the project. KYTC personnel shall have the ability to access Real Time monitoring through the use of a mobile device such as an iPad, smartphone, etc.
2. The fleet management system shall be fully integrated with the Contractor's Load Read-Out scale system at the HMA plant site.
3. The fleet management system shall have the ability to measure and track vehicles and their contents (weights and material types) continuously from the plant site to the project site. The system shall have internal battery backup capabilities due to loss of power, and have the ability to store data if GPS connectivity is lost and transmit that same data when unit re-establishes connectivity. To be considered continuous, no two data points shall be more than 60 seconds apart unless the vehicle is stopped. Duration of stop time for any reason shall be recorded.

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 equipment in accordance with the manufacturer's specifications.
2. Verify the GPS is working 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 paving operations.

1. Real-time Continuous Data Items

Provide the Engineer access to a GIS map-based data viewer which displays the following information in real-time with a web-based system compatible with iOS and Windows environments.

- Each Truck
 - UniqueTruck ID
 - Truck status
 - Time At Source
 - Time At Destination
 - Time At Paver
 - Time At Scale
 - Time to and from plant/job
 - Time Stopped with Engine Running
 - Time of last transmission
 - Location (Latitude and Longitude in decimal degrees to nearest 0.0000001) every 60 seconds
 - Description of Material being transported (i.e. asphalt base, asphalt surface)
 - Mix Design Number
 - Net Weight of material being transported to the nearest 0.01 ton
 - Running Daily Total of Net Weight of material being transported to nearest 0.01 ton.
 - Project Number
- Scale Location
- Project Location
- Point of Delivery (i.e. paver)

2. Daily Summary

The following summary information shall be provided to the Engineer electronically within 4 hours of beginning operations on the next working day

- For each Material
 - List of Individual Loads
 - Contractor Name
 - Project Number
 - Unique Truck ID
 - Net Weight For Payment (nearest 0.01 tons)
 - Date
 - Mix Temperature at Time of Loading, Fahrenheit (to be key entered by plant)
 - Time Loaded
 - Time Unloaded
 - Delivery Location (Latitude/Longitude in decimal degrees to nearest 0.0000001)
- For each Bid Item
 - Total Quantity for Payment (nearest 0.01 tons)

4.0 MEASUREMENT. The Department will measure the HMA 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. Delays due to GPS satellite reception of signals or equipment breakdowns will not be considered justification for contract modifications or contract extensions.
- 3. Payment will be full compensation for costs related to providing the GPS system, including all equipped pavers and transfer vehicles, integration with plant load-out systems, and any software required for the construction and reporting process. All quality control procedures including the GPS systems 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>
24986EC	HMA ELECTRONIC DELIVERY MANAGEMENT SYSTEM	LS

PROJECT MATERIALS RELEASE FORM
FOR SIGNAL AND LIGHTING

Note: Email form with signatures to KYTC's warehouse (kim.stamper@ky.gov) at least two (2) days prior to arrival for pickup. Ensure Contractor's delivery driver has a copy of form with signatures. Failure to do either may result in long delays or refusal to distribute materials upon arrival.

Item Number: 4-8801.00

County: 047 Hardin

Description: Signal rebuild at KY3005 King Rd & KY1357 St John Rd

Cabinets	Master code	
1	T-01-0020	Base Mounted 332 Cabinet
1	T-01-0105	ATC Controller
1	T-01-0106	1C w/Maxtime (this should go with item ATC controller)
1	T-01-0501	Conflict Monitor, Model 2018
3	T-01-0510	Isolator, Model 242 (1 for 2070, plus for ped detector and railroad)
7	T-01-0700	Load Switches

Signals		
10	T-02-0009	Siemens 3 Section Signal
4	T-02-0032	Siemen 3 section backplate
2	T-02-0033	Siemen 4 secton 12" signal (poly)
2	T-02-0043	Siemen 4-sec. straight signal backplate
2	T-02-0090	Pedestrian signal housing
4	T-02-0300	LED Module 12" red arrow
8	T-02-0310	LED Module 12" yellow arrow
2	T-02-0320	LED Module 12" green arrow
8	T-02-0330	LED Module 12" red ball
8	T-02-0340	LED Module 12" yellow ball
8	T-02-0350	LED Module 12" green ball
2	T-02-0365	LED Countdown Pedestrian Module

Special items		
1	T-02-0504	Router (this includes power supply/antenna/cabling)
2	T-06-0710	Ped Detector Pole Mount FSA Box
2	T-06-0730	Ped Button w/o Plunger
2	T-17-0015	9 X 15 Countdown Ped Sign DBL Sided
1		Radar

Poles		
4	T-04-0020	Steel Strain Pole 30 foot

REQUIRED

Electrical Contractor Supervisor _____ Contact number for Supervisor _____

Project Engineer _____ Contact number for Project Engineer _____

Project Engineer attests that the mentioned contractor is the actual electrical contractor on this project

Signature of Project Engineer or Designee _____

SPECIAL NOTE

For Tree Removal

**Hardin County
IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND
MAINTENANCE ISSUES ALONG KY-1357
Item No. 4-8801**

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

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

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 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 Standard Specifications for Road and Bridge Construction, current edition.

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 ⁽¹⁾
10 or greater	Remove and Replace ⁽²⁾

⁽¹⁾ 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. ⁽²⁾ 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 ⁽¹⁾

(1) 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

Rev 9/2021

SPECIAL NOTE FOR PAVER MOUNTED TEMPERATURE PROFILES

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. Provide a paver mounted infrared temperature equipment to continually monitor the temperature of the asphalt mat immediately behind all paver(s) during the placement operations for all mainline pavements (including ramps for Interstates and Parkways) within the project limits. Provide thermal profiles that include material temperature and measurement locations.

2.0 MATERIALS AND EQUIPMENT. In addition to the equipment specified in Subsection 403.02 Utilize a thermal equipment supplier that can provide a qualified representative for on-site technical assistance during the initial setup, pre-construction verification, and data management and processing as needed during the Project to maintain equipment within specifications and requirements.

Provide operator settings, user manuals, required viewing/export software for analysis. Ensure the temperature equipment will meet the following:

(A) A device with one or more infrared sensors that is capable of measuring in at least 1 foot intervals across the paving width, with a minimum width of 12 feet, or extending to the recording limits of the equipment, whichever is greater. A **Maximum of two (2)** brackets are allowed in the influence area under the sensors. A temperature profile must be made on at least 1 foot intervals longitudinally down the road:

(B) Infrared sensor(s):

(1) Measuring from 32°F to 400°F with an accuracy of $\pm 2.0\%$ of the sensor reading.

(C) Ability to measure the following:

(1) The placement distance using a Global Positioning System (GPS) or a Distance Measuring Instrument (DMI) and a Global Positioning System (GPS).

(2) Stationing

(D) GPS: Accuracy ± 4 feet in the X and Y Direction

(E) Latest version of software to collect, display, retain and analyze the mat temperature readings during placement. The software must have the ability to create and analyze:

(1) Full collected width of the thermal profiles,

(2) Paver speed and

(3) Paver stops and duration for the entire Project.

(F) Ability to export data automatically to a remote data server ("the cloud").

At the preconstruction meeting, provide the Cabinet with rights to allow for web access to the data file location. Access to the data is not to be hindered in any way. The Contractor will provide the Cabinet with any vendor specific software, user id, passwords, etc. needed to access the data through this service, cost of this access is incidental to the thermal profile bid item. The Cabinet is to have access to all data as it is being collected. If a third party is used for collecting and distributing the data the Cabinet is to have the same access rights and time as the Contractor.

This web-based software must also provide the Department with the ability to download the raw files and software and to convert them into the correct format.

(G) The thermal profile data files must provide the following data in a neat easy to read table format.

(1) Project information including Road Name and Number, PCN, Beginning and Ending MPs.

(2) IR Bar Manufacturer and Model number

(3) Number of Temperature Sensors (N)

(4) Spacing between sensors and height of sensors above the asphalt mat

(5) Total number of individual records taken each day (DATA BLOCK)

- (a) Date and Time reading taken
- (b) Latitude and Longitude
- (c) Distance paver has moved from last test location
- (d) Direction and speed of the paver
- (e) Surface temperature of each of the sensors

3.0 CONSTRUCTION. Provide the Engineer with all required documentation at the pre-construction conference.

- (A) Install and operate equipment in accordance with the manufacturer’s specifications.
- (B) Verify that the temperature sensors are within ± 2.0% using an independent temperature device on a material of known temperature. Collect and compare the GPS coordinates from the equipment with an independent measuring device.
 - (1) Ensure the independent survey grade GPS measurement device is calibrated to the correct coordinate system (using a control point), prior to using these coordinates to validate the equipment GPS.
 - (2) The comparison is considered acceptable if the coordinates are within 4 feet of each other in the X and Y direction.
- (C) Collect thermal profiles on all Driving Lanes during the paving operation and transfer the data to the “cloud” network or if automatic data transmission is not available, transfer the data to the Engineer at the end of daily paving.
- (D) Contact the Department immediately when System Failure occurs. Daily Percent Coverage will be considered zero when the repairs are not completed within two (2) working days of System Failure. The start of this two (2) working day period begins the next working day after System Failure.
- (E) Evaluate thermal profile segments, every 150 feet, and summarize the segregation of temperature results. Results are to be labeled as Minimal 0°-25°F, Moderate 25.1°-50°F and Severe >50°. Severe readings over 3 consecutive segments or over 4 or more segments in a day warrant investigation on the cause of the differential temperature distribution.

4.0 MEASUREMENT. The Department will measure the total area of the pavement lanes mapped by the infrared scanners. Full payment will be provided for all lanes with greater than 85% coverage. Partial payment will be made for all areas covered from 50% coverage to 85% coverage at the following rate Coverage area percentage X Total bid amount. And area with less than 50% coverage will not be measured for payment.

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. Delays due to GPS satellite reception of signals or equipment breakdowns will not be considered justification for contract modifications or contract extensions.

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
24891EC	PAVE MOUNT INFRARED TEMP EQUIPMENT	SQFT

SPECIAL NOTE FOR NON-TRACKING TACK COAT

1. **DESCRIPTION AND USAGE.** This specification covers the requirements and practices for applying a non-tracking tack asphalt coating. Place this material on the existing pavement course, prior to placement of a new asphalt pavement layer. Use when expedited paving is necessary or when asphalt tracking would negatively impact the surrounding area. This material is not suitable for other uses. Ensure material can “break” within 15 minutes under conditions listed in 3.2.
2. **MATERIALS, EQUIPMENT, AND PERSONNEL.**

2.1 Non-Tracking Tack. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide a tack conforming to the following material requirements:

Property	Specification	Test Procedure
Viscosity, SFS, 77 ° F	20 – 100	AASHTO T 72
Sieve, %	0.3 max.	AASHTO T 59
Asphalt Residue ¹ , %	50 min.	AASHTO T 59
Oil Distillate, %	1.0 max.	AASHTO T 59
Residue Penetration, 77 ° F	0 - 30	AASHTO T 49
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	AASHTO T 315
Softening Point, ° F	149 min.	AASHTO T 53
Solubility, %	97.5 min.	AASHTO T 44

¹ Bring sample to 212 °F over a 10-15 minute period. Maintain 212 °F for 15-20 minutes or until 30-40 mL of water has distilled. Continue distillation as specified in T59.

- 2.2. **Equipment.** Provide a distributor truck capable of heating, circulating, and spraying the tack between 170 °F and 180 °F. Do not exceed 180 °F. Circulate the material while heating. Provide the correct nozzles that is recommend by the producer to ensure proper coverage of tack is obtained. Ensure the bar can be raised to between 14” and 18” from the roadway.
- 2.3. **Personnel.** Ensure the tack supplier has provided training to the contractor on the installation procedures for this product. Make a technical representative from the supplier available at the request of the Engineer.

3. CONSTRUCTION.

3.1 **Surface Preparation.** Prior to the application of the non-tracking tack, ensure the pavement surface is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the surface by scraping, sweeping, and the use of compressed air. Ensure this preparation process occurs shortly before application to prevent the return of debris on to the pavement. If rain is expected within one hour after application, do not apply material. Apply material only when the surface is dry, and no precipitation is expected.

3.2 Non-tracking Tack Application. Placement of non-tracking tack is not permitted from October 1st to May 15th. When applying material, ensure the roadway temperature is a minimum of 40°F and rising. Prior to application, demonstrate competence in applying the tack according to this note to the satisfaction of the Engineer. Heat the tack in the distributor to between 170 – 180 °F. After the initial heating, between 170 – 180 °F, the material may be sprayed between 165 °F and 180 °F. Do not apply outside this temperature range. Apply material at a minimum rate of 0.70 pounds (0.08 gallons) per square yard. Ensure full coverage of the material on the pavement surface. Full coverage of this material is critical. Increase material application rate if needed to achieve full coverage. Schedule the work so that, at the end of the day's production, all non-tracking tack is covered with the asphalt mixture. If for some reason the non-tracking tack cannot be covered by an asphalt mixture, ensure the non-tracking tack material is clean and reapply the non-tracking tack prior to placing the asphalt mixture. Do not heat material more than twice in one day.

3.3 Non-tracking Tack Certification. Furnish the tack certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a sample of non-tracking tack be taken from the distributor at a rate of one sample per 15,000 tons of mix. Take two 1 gallon samples of the heated material and forward the sample to the Division of Materials for testing within 7 days. Ensure the product temperature is between 170 and 180 °F at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of non-tracking tack in tons. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of non-tracking tack, the cleaning of the pavement surface, or furnishing and placing the non-tracking tack. The Department will consider all such items incidental to the non-tracking tack.
5. PAYMENT. The Department will pay for the non-tracking tack at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. Non-tracking tack will not be permitted for use from October 1st to May 15th. During this timeframe, the department will allow the use of an approved asphalt emulsion in lieu of a non-tracking tack product but will not adjust the unit bid price of the material. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

Non-Tracking Tack Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Viscosity, SFS, 77 ° F	20 – 100	19 - 102	17 - 18	15 - 16	14	≤13
			103 - 105	106 - 107	108 - 109	≥ 110
Sieve, %	0.30 max.	≤ 0.40	0.41 - 0.50	0.51 - 0.60	0.61 - 0.70	≥ 0.71
Asphalt Residue, %	50 min.	≥49.0	48.5 – 48.9	48.0 – 48.4	47.5-47.9	≤ 47.4
Oil Distillate, %	1.0 max.	≤1.0	1.1-1.5	1.6 - 1.7	1.8-1.9	>2.0
Residue Penetration, 77 ° F.	30 max.	≤ 31	32 - 33	34 - 35	36 - 37	≥ 38
Original Dynamic Shear (G*/sin δ), 82 ° C	1.0 min.	≥0.95	0.92 – 0.94	0.90 – 0.91	0.85 - 0.89	≤ 0.84
Softening Point, ° F	149 min.	≥145	142 - 144	140 - 141	138 - 139	≤ 137
Solubility, %	97.5 min.	≥ 97.0	96.8 – 96.9	96.6 – 96.7	96.4 – 96.5	≤ 96.3

Code
24970EC

Pay Item
Asphalt Material for Tack Non-Tracking

Pay Unit
Ton

Revised: May 23, 2022

SPECIAL NOTE FOR EXPERIMENTAL KYCT AND HAMBURG TESTING

1.0 General

1.1 Description. The KYCT (Kentucky Method for Cracking Test) and the Hamburg 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 of the bituminous mixes. Additionally, the data will help the Department to create future performance-based specifications which will include the KYCT and Hamburg test methods.

2.0 Equipment

2.1 KYCT Testing Equipment. The Department will require a Marshall Test Press with digital recordation 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 Hamburg Wheel Track Testing. The department encourages the use of the PTI APA/Hamburg Jr. test equipment to perform the loaded wheel testing. The Department will allow different equipment for the Hamburg testing, but the testing device must be approved by the Department prior to testing.

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. Hamburg test specimens will be submitted to the Division of Materials for testing on the PTI APA/Hamburg Jr if the asphalt contractor or district materials office does not have an approved Hamburg testing device.

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 mix design phase and during the plant production of all surface mixtures. For mix design approvals, submit KYCT results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for verification.

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 immediately after, fabricate the KYCT samples with the gyratory compactor in accordance with Section 2.4 of this Special Note. Analysis of the KYCT specimens and gradation 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 a minimum of 3 and up to 6 test specimens. The specimens shall be compacted at the temperature in accordance with KM 64-411. KYCT mix design specimens shall be short-term conditioned uncovered for four hours at compaction 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. Additionally, fabricated specimens shall be allowed to cool in air (fan is permissible) for 30 minutes +/- 5 minutes and conditioned 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 Hamburg testing, reheating of the asphalt mixture is prohibited.

3.2.3 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.

3.2.4 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 Hamburg Testing. Perform the rut resistance analysis (Hamburg) in accordance with AASTHO T-324, not to exceed 20,000 passes for all bituminous mixtures during the mix design phase and production. For mix design approvals, submit Hamburg results on the Department MixPack. For Class 4 mixtures, submit ingredient materials to the Division of Materials for informational verification.

3.3.1 Hamburg Testing Frequency. Perform testing and analysis per lot of material. The plant produced bituminous material sampled for the Hamburg test does not have to be obtained at the same time as the acceptance and KYCT sample. If the Hamburg 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 Hamburg specimens.

3.3.2 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 and the time the Hamburg testing was started. All times shall be recorded on the AMAW.

3.3.3 File Name. Save the Excel spreadsheet with the following file name; “Hamburg_CID_Approved Mix Number_Lot Number_Sublot Number_Date” and upload the file into the AMAW.

4.0 Data

Submit the AMAW and all test data that was obtained for acceptance, gradation, KYCT, and Hamburg 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 Hamburg specimens shall be considered incidental to the asphalt surface line item. The Department will perform the testing for the KYCT and Hamburg specimens if a producer does not possess the proper equipment.

June 15th, 2022

Special Note for Bridge Demolition, Renovation and Asbestos Abatement

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

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

SPECIAL NOTE FOR STRUCTURE REMOVAL

Notice of Intent (NOI) to Division of Air Quality

The roadway contractor is required to file a Notice of Intent (NOI) to the Division of Air Quality ten (10) business days (M-F) prior to the start of any demolition or rehabilitation work on the bridge superstructure (047B00082N). Please use the KY Environmental and Energy Cabinet eForm Portal (<https://dep.gateway.ky.gov/eForms/Account/Home.aspx>) to complete this task. It is also advised that copies of the submittal are also sent to the Frankfort Regional Office of the Division of Air Quality. Copies may be submitted electronically by email to the Regional Office Supervisor.

KY Division of Air Quality
Frankfort Regional Office
300 Sower Blvd
Frankfort, KY 40601
Natasha.Parker@ky.gov



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET

200 Mero Street
Frankfort, Kentucky 406 01

Jim Gray
SECRETARY

Asbestos Inspection Survey

To: Joe Ferguson

District: 4

Date: May 18, 2023

Conducted By: O'Dail Lawson

Report Prepared By: O'Dail Lawson

Project and Structure Identification

Project Number: Hardin 04-8801

Structure ID: 047B00082N

Structure Location: St. Jude Road over Billy's Creek

Sample Description: Any suspect materials collected were negative for asbestos.

Inspection Date: May 17, 2023

Results and Recommendations

The results of the samples collected were negative for the presence of asbestos above 1%.
No abatement is required at this time.

It is recommended that this report accompany the 10-Day Notice of Intent for Demolition ([Notification Form DEP 7036](#)) which is to be submitted to the Kentucky Division of Air Quality prior to abatement, demolition, or renovation of any building or structure in the Commonwealth.

AJHA #1 02459

(502) 564-7250 fax (502) 564-5655

Page 1

ENVIRONMENTAL TRAINING CONCEPTS, INC
P.O. Box 99603 Louisville, KY 40269
(502)640-2951

Certification Number: ETC-AIR-0322223-00200


O'Dail Lawson


has on 03-22-2023 attended and successfully completed the requirements and passed the examination with a score of 70% of better on the entitled course.

ASBESTOS INSPECTOR REFRESHER

Training was in accordance with 40 CFR Part 763 (AHERA) approved by the Commonwealth of Kentucky, the Indiana Department of Environmental Management, Tennessee Department of Environment & Conservation and The Arkansas Department of Environmental Quality. The above student received requisite training for Asbestos Accreditation under Title II of the Toxic Substance Act (TSCA).

Conducted at: 1520 Alliant Ave., Louisville, KY


Name: Training Manager


Expiration Date: 03-22-2024
Name: Instructor

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

<input checked="" type="checkbox"/>	Original	<input type="checkbox"/>	Re-Certification	RIGHT OF WAY CERTIFICATION	
ITEM #		COUNTY		PROJECT # (STATE)	PROJECT # (FEDERAL)
4-8801		Hardin		12FO FD52 047 89428 01R	STP 6000(146)
PROJECT DESCRIPTION					
Improve safety , geometrics, drainage, and maintenance issues along KY 1357 (St John Rd) from US 31W Bypass to KY 3005.					
<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		63	EXCEPTION (S) Parcel #		ANTICIPATED DATE OF POSSESSION WITH EXPLANATION
Number of Parcels That Have Been Acquired					
Signed Deed		63			
Condemnation		0			
Signed ROE		0			
Notes/ Comments (Use Additional Sheet if necessary)					
LPA RW Project Manager			Right of Way Supervisor		
Printed Name			Printed Name		Michael H Price
Signature			Signature		2020.08.21
Date			Date		<i>Michael H Price</i> 11:31:08 -04'00'
Right of Way Director			FHWA		
Printed Name			Printed Name		No Signature Required
Signature		<i>[Signature]</i> 2020.08.21	Signature		as per FHWA-KYTC
Date		10:46:23 -05'00'	Date		Current Stewardship Agreement

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
00STP6000146
FD52 047 8942801U
Mile point: 14.614 TO 16.292
IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD). (14CCN) (2022CCR)
ITEM NUMBER: 04-8801.00

PROJECT NOTES ON UTILITIES

The contractor should be aware that there is UTILITY WORK INCLUDED IN THIS ROAD CONSTRUCTION CONTRACT. The Contractor shall review the GENERAL UTILITY NOTES AND INSTRUCTIONS which may include KYTC Utility Bid Item Descriptions, utility owner supplied specifications, plans, list of utility owner preapproved subcontractors, and other instructions. Utility contractors may be added via addendum if KYTC is instructed to do so by the utility owner. Potential contractors must seek prequalification from the utility owner. Any revisions must be sent from the utility owner to KYTC a minimum of one week prior to bid opening.

For all projects under 2000 Linear feet which require a normal excavation locate request pursuant to KRS 367.4901-4917, the awarded contractor shall field mark the proposed excavation or construction boundaries of the project (also called white lining) using the procedure set forth in KRS 367.4909(9)(k). 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.

Please 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 activities. The contractor will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, it is unlikely to conflict with the existing utilities beyond minor facility adjustments. Where conflicts with utility facilities are unavoidable, the contractor will coordinate any necessary relocation work with the facility owner and Resident Engineer. The Kentucky Transportation Cabinet maintains the right to remove or alter portions of this contract if a utility conflict occurs. The utility facilities as noted in the previous section(s) have been determined using data garnered by varied means and with varying degrees of accuracy: from the facility owners, a result of S.U.E., field inspections, and/or reviews of record drawings. The facilities

UTILITIES AND RAIL CERTIFICATION NOTE

**Hardin County
00STP6000146
FD52 047 8942801U
Mile point: 14.614 TO 16.292
IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS
RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD). (14CCN) (2022CCR)
ITEM NUMBER: 04-8801.00**

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.

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

Monument Chemical - Natural Gas – Shallow crossing indicated on plan sheet R12. Approximate location 46+00.

Louisville Gas & Electric - Natural Gas – Shallow crossings indicated on plan sheet R22. Approximate location 91+50. These are 20 inch & 16 inch HP lines.

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

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
00STP6000146
FD52 047 8942801U
Mile point: 14.614 TO 16.292
IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD). (14CCN) (2022CCR)
ITEM NUMBER: 04-8801.00

THE FOLLOWING FACILITY OWNERS ARE RELOCATING/ADJUSTING THEIR FACILITIES WITHIN THE PROJECT LIMITS AND WILL BE COMPLETE PRIOR TO CONSTRUCTION

Kentucky Utilities - Electric - Completed. Plans available via supplemental folder.

Brandenburg Telephone Co. - Telephone, Phase I complete. Plans available via supplemental folder.

East Kentucky Power - Completed. Plans available via supplemental folder

THE FOLLOWING FACILITY OWNERS HAVE FACILITIES TO BE RELOCATED/ADJUSTED BY THE OWNER OR THEIR SUBCONTRACTOR AND IS TO BE COORDINATED WITH THE ROAD CONTRACT

Nolin RECC – Electric – complete except for 38+00 to 47+00. Nolin existing facilities have been removed in this range. Coordinate with Nolin for new installation in this area. Plans available via supplemental folder.

Kentucky Data Link – Internet – Existing facilities are aerial throughout project corridor. Removal of existing facilities from Sta 38+00 to Sta 47+00 require coordination. Anticipated completion April 30, 2024.

Comcast – Internet/Cable – Existing facilities are aerial throughout project corridor. Anticipated completion April 30, 2024.

Windstream – Telephone - Plans available via supplemental folder. Anticipated completion April 30, 2024.

Brandenburg Telephone Company - Existing facilities are aerial and underground throughout project corridor. Phase II anticipated completion April 30, 2024.

UTILITIES AND RAIL CERTIFICATION NOTE

Hardin County
00STP6000146
FD52 047 8942801U
Mile point: 14.614 TO 16.292
IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD). (14CCN) (2022CCR)
ITEM NUMBER: 04-8801.00

Hardin Co. Water District No. 2 - Plans available via supplemental folder. Sta 7+00 to Croghan Drive, anticipated completion June 1, 2023. From Croghan Drive to Sta 94+00, anticipated completion of April 30, 2024.

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

City of Elizabethtown Gas - Natural Gas – plans included in contract plan set. Materials to be provided by City of Elizabethtown. See general utility note for list. Bid items with ending description “INST” indicate install only. The city will be providing materials for these items. Plans available via supplemental folder.

City of Elizabethtown – Sanitary Sewer - plans included in contract plan set. Plans available via supplemental folder.

RAIL COMPANIES HAVE FACILITIES IN CONJUNCTION WITH THIS PROJECT AS NOTED

☒ No Rail Involvement ☐ Rail Involved ☐ Rail Adjacent

UTILITIES AND RAIL CERTIFICATION NOTE

<p>Hardin County 00STP6000146 FD52 047 8942801U Mile point: 14.614 TO 16.292 IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD). (14CCN) (2022CCR) ITEM NUMBER: 04-8801.00</p>

AREA FACILITY OWNER CONTACT LIST

Facility Owner	Address	Contact Name	Phone	Email
Brandenburg Telephone Co. - Telephone	2840 Leitchfield Rd Elizabethtown KY 42702	Kyle Dalton	2709824466	kyle.dalton@brandenburgtel.com
City of Elizabethtown Gas - Natural Gas	200 West Dixie Ave. Elizabethtown KY 42701	Matthew Hobbs	2702682288	matthew.hobbs@elizabethtownky.gov
City of Elizabethtown Sewer - Sewer	200 West Dixie Avenue Elizabethtown KY 42702	Michael Page	2707656121	michael.page@elizabethtownky.gov
Comcast Communications - CATV	2919 Ring Road Elizabethtown KY 42701	Stephen Gaddie	2704011543	Stephen_Gaddie@comcast.com
East Kentucky Power Cooperative - Electric	PO Box 707 Winchester KY 40391	Brad Young	8597459287	Brad.Young@ekpc.coop
Hardin County Water District #2 - Water	1951 West Park Road Elizabethtown KY 42701	Forrest Pollock	2703079744	fpollock@hcwd2.org
Kentucky Utilities - Electric	820 West Broadway Louisville KY 40202	Caroline Justice	5026273708	Caroline.Justice@lge-ku.com

UTILITIES AND RAIL CERTIFICATION NOTE

<p align="center"> Hardin County 00STP6000146 FD52 047 8942801U Mile point: 14.614 TO 16.292 IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD). (14CCN) (2022CCR) ITEM NUMBER: 04-8801.00 </p>
--

Louisville Gas & Electric - Natural Gas	820 West Broadway Louisville KY 40202	Caroline Justice	5026273708	caroline.justice@lge-ku.com
Monument Chemical - Natural Gas	2450 Olin Road Brandenburg KY 40108	Danny Williams Nathan Beavin	2704226233 2706687361	dwilliams@monumentchemical.com nbeavin@hotmail.com
Nolin Rural Electric Cooperative Corp - Electric	411 Ring Road Elizabethtown ky 42701	Jeremy Jones	2702681909	jjones@nolinrecc.com
Windstream Holdings II, LLC - Telephone	111 South Main Street Elizabethtown KY 42701	Steve Johnson	8593576209	steve.johnson@windstream.com
KY Data Link (KDL)	111 South Main Street Elizabethtown KY 42701	James Galvin	2707489249	James.galvin@windstream.com

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

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

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

PROTECTION OF EXISTING UTILITIES

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

PREQUALIFIED UTILITY CONTRACTORS

Some utility owners may require contractors that perform relocation work on their respective facilities as a part of the road contract be prequalified or preapproved by the utility owner. **Utility contractors may be added via addendum if KYTC is instructed to do so by the utility owner. Potential contractors must seek prequalification from the utility owner. Any revisions must be sent from the utility owner to KYTC a minimum of one week prior to bid opening.** Those utility owners with a prequalification or preapproval requirement are as follows:

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

The bidding contractor needs to review the above list and choose from the list of approved subcontractors at the end of these general notes as identified above before bidding. When the list of approved subcontractors is provided, only subcontractors shown on the following list(s) will be allowed to work on that utility as a part of this contract. In such instances, the utility subcontractor is not required to be prequalified with the KYTC Division of Construction Procurement.

IF A UTILITY SUPPLIED CONTRACTOR LIST IS NOT PROVIDED

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

CONTRACT ADMINISTRATION RELATIVE TO UTILITY WORK

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

SUBMITTALS AND CORRESPONDENCE

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

ENGINEER

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

INSPECTOR OR RESIDENT PROJECT REPRESENTATIVE

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

NOTICE TO UTILITY OWNERS OF THE START OF WORK

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

UTILITY SHUTDOWNS

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

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

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

CUSTOMER SERVICE AND LATERAL ABANDONMENTS When temporary or permanent abandonment of customer water, gas, or sewer services or laterals are necessary during relocation of utilities included in the contract, the utility contractor shall perform these abandonments as part of the contract as incidental work. No separate payment will be made for service line and lateral abandonments. The contractor shall provide all labor, equipment and materials to accomplish the temporary or permanent abandonment in accordance with the plans, specifications and/or as directed by the engineer. Abandonment may include, but is not limited to, digging down on a water or gas main at the tap to turn off the tap valve

or corporation stop and/or capping or plugging the tap, digging down on a sewer tap at the main and plugging or capping the tap, digging down on a service line or lateral at a location shown on the plans or agreeable to the engineer and capping or plugging, or performing any other work necessary to abandon the service or lateral to satisfactorily accomplish the final utility relocation.

STATIONS AND DISTANCES

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

RESTORATION

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

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

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

MATERIAL

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

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

City of Elizabethtown – Gas – See attached list.

SECURITY OF SUPPLIED MATERIALS

If any utility materials are to be supplied by the utility owner, it will be the responsibility of the utility contractor to secure all utility owner supplied materials after delivery to the project site. The utility contractor shall coordinate directly with the utility owner and their suppliers for delivery and security of

the supplied materials. Any materials supplied by the utility owner and delivered to the construction site that are subsequently stolen, damaged or vandalized and deemed unusable shall be replaced with like materials at the contractor's expense.

Standard Gas Bid Item Descriptions

BOLLARDS This item is for payment for furnishing and installing protective guard posts at above ground utility installations. A bollard may consist of, but not limited to, a steel post set in concrete or any other substantial post material. This item shall include all labor, equipment, and materials needed for complete installation of the bollard as specified by the utility owner specifications and plans. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

NOTE: A bid code for this item has been established in standard roadway bid items and shall be used for payment of this item. The bid code is 21341ND.

G DIRECTIONAL BORE Payment under this item is made whenever the plans or specifications specifically show directional boring is to be utilized in order to minimize the impact of open cut for the installation of gas main under streets, creeks, etc. Payment under this item shall include the specified bore pipe, labor, and equipment. No separate payment shall be made for bore pipe installed in the bore whether used as a carrier pipe or an encasement of a separate carrier pipe. Carrier pipe installed within a bore pipe shall be paid separately under pipe items. Payment under this item shall be for all sizes and not be size specific. No separate bid items will be established for size variations. The bore pipe sizes to be included under this item shall be as shown on the plans and/or in the specifications. This bid item shall also include the cost of pre and/or post directional bore gas installation video inspection of adjacent sanitary and storm sewer mains, manholes, and laterals when the utility specifications associated with the contract require such video inspection. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

G ELECTRONIC ID MARKER This bid item is to pay for labor, equipment, computer programming, and installation of an electronic ID marker at the locations shown on the plans or as directed by the engineer. The marker may be in the form of a ball, disk, cylinder, post, or other shape as required by specification and may be buried, at grade, or above grade as specified. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. Paid EACH (EA) when complete.

NOTE: This bid item is not for payment of standard non-electronic markers or monuments. A separate "Line Marker" bid item is established for this purpose.

G ENCASEMENT STEEL BORED This item shall include the steel encasement pipe size as specified on the plans and in the specifications, casing spacers, end seals, vents, labor, and equipment to bore and install the encasement in accordance with the plans and specifications, complete and ready for use. The size shall be the measured internal diameter of the encasement pipe. The sizes of encasement to be paid under the size ranges specified in the bid items shall be as follows:

- Range 1 = All encasement sizes greater than 2 inches to and including 6 inches
- Range 2 = All encasement sizes greater than 6 inches to and including 10 inches
- Range 3 = All encasement sizes greater than 10 inches to and including 14 inches
- Range 4 = All encasement sizes greater than 14 inches to and including 18 inches
- Range 5 = All encasement sizes greater than 18 inches to and including 24 inches
- Range 6 = All encasement sizes greater than 24 inches

(Encasement sizes of 2 inches internal diameter or less shall not be paid separately; but, shall be considered incidental to the carrier pipe.) Payment under this bid item shall not include the carrier pipe. Carrier pipe shall be paid under a separate bid item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

G ENCASEMENT STEEL OPEN CUT This item shall include the steel encasement pipe size as specified on the plans and in the specifications, casing spacers, end seals, vents, labor, and equipment to open cut and install the encasement in accordance with the plans and specifications, complete and ready for use. The size shall be the measured internal diameter of the encasement pipe. The size encasement to be paid under the size ranges specified in the bid items shall be as follows:

- Range 1 = All encasement sizes greater than 2 inches to and including 6 inches
- Range 2 = All encasement sizes greater than 6 inches to and including 10 inches
- Range 3 = All encasement sizes greater than 10 inches to and including 14 inches
- Range 4 = All encasement sizes greater than 14 inches to and including 18 inches
- Range 5 = All encasement sizes greater than 18 inches to and including 24 inches
- Range 6 = All encasement sizes greater than 24 inches

(Encasement sizes of 2 inches internal diameter or less shall not be paid separately; but, shall be considered incidental to the carrier pipe.) Payment under this bid item shall not include the carrier pipe. Carrier pipe shall be paid under a separate bid item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

G FARM TAP AND REGULATOR This item is for the installation of gas service tap and regulator assembly on a gas transmission main. This item shall include excavation, labor, equipment, and all tapping, piping, fittings, and regulator materials to install the farm tap and regulator assembly in accordance with the plans, specifications, and standard drawings complete and ready for use. Only one pay item has been established for Farm Tap and Regulator installations. Payment shall be made under this item regardless of farm tap service and regulator size. No separate pay items will be established for size variation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G LINE MARKER This item is for payment for furnishing and installing a gas utility line marker as specified by the utility owner specifications and plans. A line marker may consist of a post or monument of whatever materials specified and shall include markings and/or signage on same as specified by plans or specifications. This item shall include all labor, equipment, and materials needed for complete installation of the marker. This item shall be paid EACH (EA) when complete.

NOTE: This bid item is not for payment of "Electronic ID Markers". Electronic ID Markers are paid under a separate bid item.

G MAIN ABANDON This bid item is in full payment for all efforts in abandonment of all gas mains and facilities shown to be abandoned on the plans, for removal of any sections of abandoned main that is in conflict with road construction, and for nitrogen purge and plug of any sections of main that are to remain. All work shall be done in accordance with the plans and specifications, and in accordance with

all pipeline safety regulations. This bid item is for all work to abandon and purge gas main in the total project regardless of size or length. No adjustment in the unit bid price will be allowed if the scope of work described in this item should increase in this contract for any reason. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item is to be paid LUMP SUM (LS) when complete.

G MAIN POINT RELOCATE This item is intended for payment for horizontal and/or vertical relocation of a short length of an existing main at the locations shown on the plans. This bid item is to be used to relocate an existing gas main at point locations such as to clear a conflict at a proposed drainage structure, pipe or any other similar short relocation situation. All new materials are to be used. The materials provided shall be of the same type and specification as those that exist. Substitution of alternative materials shall be approved by the engineer in advance on a case by case basis. Payment under this item shall be for each location requiring an existing main to be relocated horizontally or vertically regardless of pipe size or relocation length. No separate pay items will be established for pipe size variations or relocation segment length variations. Main Point Relocate shall not be paid on a linear feet basis; but shall be paid EACH (EA) at each location when complete and placed in service. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced.

G METER AND REGULATOR This bid item description shall be used for all meter and regulator bid items of every size except those defined as "Special". These pay items are for all labor, equipment, and materials needed for the installation of a service meter and regulator assembly at the locations shown on the plans or as directed by the engineer in accordance with specifications and standard drawings complete and ready for use. Materials to be provided under this bid item shall include, but are not limited to, meter, regulator, piping, fittings, building anchoring brackets, and hardware needed to create and install the assembly. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G PIPE This description shall apply to all polyethylene/plastic and steel pipe bid items of every size and type to be used as gas main, except those bid items defined as "Special". This item includes the pipe specified by the plans and specifications, all fittings (including, but not limited to, bends, tees, reducers, plugs, and caps), tracing wire with test boxes (if required by specification), corrosion protective coatings of steel pipe and fittings, labor, equipment, excavation, bedding, restoration, pressure testing, backfill, etc., required to install the specified new pipe and new fittings at the locations shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. For steel pipe, this bid item shall include all cathodic protection anodes, lead wire, test boxes or stations, and any accessories. No additional payment will be made for rock excavation. This bid item shall include material and placement of flowable fill under existing and proposed pavement, and wherever else specified on the plans or in the specifications. This bid item shall also include the cost of pre and/or post directional bore gas installation video inspection of adjacent sanitary and storm sewer mains, manholes, and laterals when the utility specifications associated with the contract require such video inspection. Measurement of quantities under this item shall be through valves (including horizontal measurements through above grade valves), fittings, encasements, and directional bores (only when a separate carrier pipe is specified within the directional bore pipe). Measurements shall be further defined to be to the center of tie-in where new pipe contacts existing pipe at the center of connecting fittings, to the outside face of vault or structure walls, or to the point of main termination at dead ends. No separate payment will be made under pipe items when the directional bore pipe is the carrier pipe. Please refer to the Utility

Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

G REGULATOR STATION Includes all labor, equipment, materials and restoration, to install a new gas regulator station as indicated on plans and on standard drawings complete and ready for use. Only one pay item has been established for regulator station installations. Payment shall be made under this item regardless of regulator station size. No separate pay items will be established for size variation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

NOTE: This item is to be used to pay for regulator stations to reduce the pressure of gas from a higher pressure main to feed a lower pressure main. This item is not to be used to pay for regulators used on individual customer service lines.

G SERVICE LONG SIDE This bid item description shall apply to all service line installations of every size bid up to and including 2 inch inside diameter, except those service bid items defined as "Special". This item includes the specified piping material, main tap, coupling for connecting the new piping to the surviving existing piping, encasement of 2 inches or less internal diameter (if required by plan or specification), labor, equipment, excavation, backfill, testing, and restoration, at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. This bid item is to pay for service installations where the ends of the service connection are on opposite sides of the public roadway and the service line crosses the centerline of the public roadway as shown on the plans. The length of the service line is not to be specified. Payment under this item shall not be restricted by a minimum or maximum length. The contractor shall draw his own conclusions as to the length of piping that may be needed. Payment under this item shall include boring, jacking, or excavating across the public roadway for placement. Placement of a service across a private residential or commercial entrance alone shall not be reason to make payment under this item. Private or commercial entrances shall not be considered a public roadway in defining payment under this item. This pay item does not include installation or relocation of meters. Meters will be paid separately. This bid item shall also include the cost of pre and/or post directional bore gas installation video inspection of adjacent sanitary and storm sewer mains, manholes, and laterals when the utility specifications associated with the contract require such video inspection. No additional payment will be made for rock excavation or for special bedding required in rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G SERVICE SHORT SIDE This bid item description shall apply to all service line installations of every size up to and including 2 inch internal diameter, except those service bid items defined as "Special". This item includes installation of the specified piping material of the size specified on plans, encasement of 2 inches or less internal diameter (if required by plan or specification), main tap, coupling for connecting the new piping to the surviving existing piping, labor, equipment, excavation, backfill, testing, and restoration, at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. This bid item is to pay for service installations where both ends of the service connection are on the same side of the public roadway, or when an existing service crossing a public roadway will remain and is being extended, reconnected, or relocated with all work on one side of the public roadway centerline as shown on the plans. The length of the service line is not to be specified and shall not be restricted to any minimum or maximum length. Payment shall be made under this item even if the service crosses a private residential or commercial entrance; but, not a public roadway. Private or commercial entrances shall not be considered a public

roadway in defining payment under this item. The contractor shall draw his own conclusions as to the length of piping that may be needed. This pay item does not include installation or relocation of meters. Meters will be paid separately. This bid item shall also include the cost of pre and/or post directional bore gas installation video inspection of adjacent sanitary and storm sewer mains, manholes, and laterals when the utility specifications associated with the contract require such video inspection. No additional payment will be made for rock excavation or for bedding required in rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

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

G TIE-IN This bid description shall be used for all polyethylene/plastic or steel gas main tie-in bid items of every size except those that include a temporary bypass or are defined as "Special". This item includes all labor, equipment, excavation, fittings, sleeves, reducers, couplings, restoration, testing and backfill required to make the gas main tie-in as shown on the plans, and in accordance with the specifications complete and ready for use. Pipe for tie-ins shall be paid under separate bid items. No additional payment will be made for rock excavation. This bid item shall also include material and placement of flowable fill backfill under existing and proposed pavement, and wherever else specified on the plans or in the specifications. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G TIE-IN W/BYPASS This bid description shall be used for all polyethylene/plastic or steel gas main tie-in bid items that include temporary bypass of every size except those defined as "Special". This item includes all labor, equipment (including tapping, stopple and/or squeeze equipment), excavation, permanent and temporary fittings (including, but not limited to, tees, split tees, bends, reducers, plugs, caps, and couplings), temporary bypass piping, restoration, testing and backfill required to make the gas main tie-in with temporary bypass as shown on the plans, and in accordance with the specifications complete and ready for use. Mainline pipe for tie-ins shall be paid under separate bid items. No additional payment will be made for rock excavation. This bid item shall also include material and placement of flowable fill backfill under existing and proposed pavement, and wherever else specified on the plans or in the specifications. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

NOTE: The tie-in size reflected in the bid item reflects the nominal internal diameter size of the main gas line being tied-in, not the bypass pipe size.

G VALVE This description shall apply to all buried valves of every size and type required in the plans and specifications except those bid items defined as "Special". Payment under this description is to be

for gas valves being installed with new main. This item includes the valve as specified in the plans and specifications, protective coating and corrosion protection, labor, equipment, excavation, valve box and valve stem extensions, backfill, restoration, testing, and etc., required to install the specified valve at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G VALVE ABOVE GRADE This description shall apply to all above grade valve assemblies of every size and type required in the plans and specifications except those bid items defined as "Special". Payment under this description is to be for above grade gas valves being installed with new main. This item includes the above grade valve, pipe, and fittings as specified in the plans, specifications and standard drawings. This bid items shall also include protective coating and corrosion protection, labor, equipment, excavation, backfill, restoration, testing, etc., required to install the specified above grade valve at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G VALVE BOX ADJUST Includes all labor, equipment, valve box and valve stem extensions (if required), excavation, backfill, concrete pad around valve box (when specified in specifications or plans), restoration, etc. to adjust the top of the box to finished grade complete and ready for use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

G WELD X-RAY INSPECTION This description shall apply to all radiographic x-ray inspections of steel pipe joints of every size within the pipe size ranges given in the bid item text. This bid includes all labor, equipment, materials, to assess the acceptability of the weld to comply with specifications and to industry and regulatory standards. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) for each pipe joint inspected.

City of Elizabethtown



Natural Gas Department

Plans and Specifications for
Gas Service Piping Installations

(270)763-4215

Table of Contents

<u>Third-Party Damage Prevention</u>	<u>p.3</u>
<u>Introduction</u>	<u>p.4</u>
<u>General Coverage</u>	<u>p.5</u>
<u>Service Lines</u>	<u>p.5</u>
<u>Ownership and Responsibility</u>	<u>p.5</u>
<u>Material and Installation-Steel Piping</u>	<u>p.6</u>
<u>Material and Installation-polyethylene (PE) Piping</u>	<u>p.8</u>
<u>General Requirements Governing Service Line</u>	<u>p.10</u>
<u>Meters and Service Pressure Regulators</u>	<u>p.11</u>
A. <u>General</u>	<u>p.11</u>
B. <u>Location</u>	<u>p.11</u>
C. <u>Installation</u>	<u>p.12</u>
D. <u>Equipment Connections to Building Piping</u>	<u>p.15</u>
E. <u>Concealed Piping and Buildings</u>	<u>p.16</u>
<u>Combustion Dilution and Ventilation Air</u>	<u>p.16</u>
<u>Electrical</u>	<u>p.18</u>
<u>Equipment Installation</u>	<u>p.19</u>
<u>Equipment Venting</u>	<u>p.20</u>
<u>Appliances Requiring Venting</u>	<u>p.20</u>
<u>Proper Venting for Gas Appliances</u>	<u>p.21</u>
<u>Venting into Masonry Chimneys</u>	<u>p.24</u>
<u>Through Outside Wall Venting</u>	<u>p.24</u>

Visual Indicator of Poor Performance p.24

Inspection and Testing p.26

Required Fees for Gas Service p.27

Pipe Sizing Charts

Schedule 40 Metallic Pipe p.28

Corrugated Stainless Steel Tubing p.29

Polyethylene Plastic Pipe p.30

Diagrams for meter loops, regulator stations and mobile home installations p.31

Third-Party Damage Prevention

The City has in effect a damage prevention program, required under Federal Pipeline Safety Regulation Part 192.614. Those individuals and/or companies who have intent to excavate in the vicinity of the pipeline facilities in either Hardin or Meade counties in Kentucky are required to notify Kentucky 811 by calling 811 a minimum of two working days prior to beginning any excavation activities. Upon notification of planned excavations, personnel will be dispatched to locate and mark with temporary yellow flags and/or yellow paint system pipelines in the area of excavation.

Failure to comply with these requirements will result in the billing and collection of costs incurred for repairs made due to third-party negligence. Failure to comply with these requirements may also result in a penalty and/or fine to the third-party.

Introduction

These requirements and specifications governing the installation, maintenance inspection and testing of house piping, appliance connections, appliances on customer premises are published by the City of Elizabethtown Natural Gas Department for the instruction and guidance of those persons and firms doing gas fitting work within its jurisdictional area. These requirements and specifications have been adopted in the interest of safe and adequate service to the customer. The term "City" when hereinafter used shall mean the City of Elizabethtown Natural Gas Department, its property and personnel. The term "Customer" when hereinafter used shall mean any person who receives gas service from the City of Elizabethtown Natural Gas Department.

These requirements and specifications govern service to both newly constructed and existing structures where any alterations or changes to the gas piping or appurtenances are being made. It shall be the duty of the customer, owner or their representative to notify the City of any changes affecting gas piping including: meters, regulators, customer service lines, customer house piping on, in or about the premises whether these actions are occasioned by accident or design. Gas service shall not be reinstated to the premises until all requirements have been met and the lines have been tested, inspected and approved. When altering or extending house piping or service lines; all changes shall be made to conform to these requirements and specifications.

When conditions are not specifically covered in these requirements and specifications or other local codes, reference may be made to the current edition of the NFPA #54 **National Fuel Gas Code**.

IT IS NOT INTENDED THAT THESE REQUIREMENTS AND SPECIFICATIONS BE ALL INCLUSIVE, AND WHERE UNUSUAL CONDITIONS ARISE OR WHERE SPECIAL SERVICE IS REQUIRED, THE CITY IS TO BE CONSULTED BEFORE PROCEEDING WITH THE WORK.

The City shall inspect each service for compliance with these specifications and refuse gas service to any premises where the gas piping does not conform to these requirements and specifications. The Customer shall assume responsibility for any defective material or faulty workmanship in the installation of the house piping, appliances or appliance connections. The Customer shall also assume responsibility for any loss or damage which arises as a result of such defective material or faulty workmanship on any job of gas fitting. If any questions arise on any type of gas related problem, call the City at (270) 763-4215, Monday through Friday 8:00 A.M to 4:30 P.M.

General Coverage

Coverage of piping systems includes design, design material, components, fabrication, assembly, installation, testing and inspection.

Coverage of gas utilization equipment and related accessories includes installation, combustion, dilution, ventilation air, venting, acceptability of equipment and inspections.

Service Lines

The general term "service line" is commonly used to designate the complete line or connection between the main and the meter setting on the customer's premises. The City's "service line" is from the main up to and including the curb valve and all piping downstream of the curb valve and includes all piping necessary to extend to the meter setting. The meter setting consists of the shut-off valve, regulator, meter and all piping to the outlet side of meter. The "house-line" consists of all piping downstream of the meter outlet and includes all interior and exterior low-pressure piping.

Ownership and Responsibility

1. The City's service line consists of the connection at the main, all necessary pipe to extend to the property line or curb valve location, the curb valve and the curb valve box as well as the meter set. This connection is made by the City or its representative and remains the property and responsibility of the City.
2. The materials, installation and location of the customer house-line shall be subject to requirements and specifications contained herein. Such line shall be subject to inspection and may be required to be tested at any time as provided herein.

Materials and Installation – Steel Piping

1. The Minimum size of the service line connection by the City shall be one inch, and the next larger size shall be two-inch. The size installed shall permit the delivery of the estimated maximum hourly rate with ½" water column pressure drop or less between the main and the meter location.
2. Where more than one length of pipe is required, welding shall be used.
3. The location of the point of delivery shall be acceptable to the City.
4. The customer, owner or their representative shall contact the Gas Department at 270-763-4215 for information as to size, location and termination points of the service line.
5. The customer house line should enter the foundation above grade. If it is necessary that the house line enter below grade, the City must be consulted.
6. Where turns are required, offsets consisting of bends or welded ells not to exceed 92 degrees will be permitted as long as the piping is not distorted or kinked. Damaged coating must be repaired.
7. The service line should not be laid under concrete or other hard surface walks or driveways except where it may be necessary to cross under such walks or driveways which extend from the curb to the foundation wall and the full width of the property (ex. Service stations and places of business). Where a customer service line is installed under these conditions, casing and venting shall be installed at the customer's expense. Casing and venting shall not be necessary if the curb valve is not located under the hard surface and the hard surface is cut away (12) twelve inches in all directions from the riser. The area around the service riser shall be filled with a non-compacting material.
8. Each length of pipe shall be examined before connecting and any dirt or obstruction removed.
9. Service lines shall terminate at an outside meter setting and incorporate a regulator.
10. No heavy weight material such as stones, concrete block, brick or building debris shall be placed in the service line ditch or in the backfill over the service line. No heavy equipment shall be run over the service line ditch after it has been backfilled.

- 11. Any gas piping in contact with soil or other material that could corrode the piping shall be protected against corrosion in an approved manner. Piping shall not be installed in contact with cinders. Threaded or socket welded joints shall not be used on piping in contact with soil or where internal or external crevice corrosion is known to occur. Piping used in this type of installation shall be either welded, coated, cathodically protected steel or a non-corroding material such as polyethylene (PE) piping.**

Materials and Installation –Polyethylene (PE) Piping

This section is intended to provide understandable guidelines for the installation of polyethylene (PE) plastic gas lines. All other guidelines as set out in this code shall also apply.

Plastic pipe and fittings shall be used outside and underground only and shall conform to **STANDARD SPECIFICATIONS FOR THERMOPLASTIC GAS PRESSURE PIPE TUBING AND FITTINGS, ASTM-D2513**. Pipe to be used shall be marked "GAS" and ASTM-D2513. It shall have a wall thickness of at least .099". All transition fittings and service risers shall conform to federal and manufacturers' specifications for use with polyethylene (PE) pipe.

1. Any person installing plastic (PE) pipe is required by this code to be certified for such installations. Upon inquiry by the City's Representative, proof of certification must be provided.
2. All materials shall be inspected by the City's representative to ensure that all materials meet specifications.
3. **Piping shall be handled with care.** Gouges, grooves and notches in pipe can cause pipe failure. Defects of this nature shall be prevented and or eliminated. Excessive pipe bends, edged pipe or damaged pipe of any kind shall not be used.
4. Plastic pipe trenches shall not be backfilled until inspected and accepted by the City's Representative.
5. When joining pipe by fusion methods, the pipe can be lowered into the trench only when all fusion joints have properly cooled according to accepted procedures.
6. Pipe shall be snaked in the trench to provide a means of expansion and contraction. Avoid pulling the pipe "taut" at all times.
7. Plastic pipe shall have a minimum cover of twenty-four (24) inches to accommodate tracer wire and warning tape.
8. Plastic pipe is a non-conductive material and does not readily reflect conventional locating signals. To insure locating ability, a "tracer wire" shall be installed in the trench.
9. Tracer wire shall be a minimum #10 AWG stranded, insulated wire. The wire shall be inspected prior to backfilling. The wire should be installed within four inches of the piping but should not touch the gas pipe.
10. #10 AWG insulated stranded wire shall be attached to a non-metallic riser or house siding at the meter set to facilitate ease of locating and prevent accidental damage from future excavations. Electrical continuity

must be maintained. Connection must be made using a split bolt connector. The connection must be wrapped in rubber tape and wrapped a second time in electrical tape.

11. Warning tape shall be installed approximately nine (9) inches below final grade to act as a warning for those doing future excavations. The tape shall read **"CAUTION BURIED GAS LINE"**.
12. All backfill material shall be free of rock, gravel, building debris and other materials that could damage the pipe. Bedding the pipe in sand does not negate this requirement.
13. When piping must be laid in rocky ground, through gravel, soil containing gravel or material which may damage the pipe, the line shall be protected by encasement in schedule 40 or heavier PVC pipe. The casing shall be a minimum of 2 full inch sizes larger than the plastic gas line.
14. Where compression-type mechanical joints are used, an internal, tubular, rigid stiffener shall be used in conjunction with the fitting. The stiffener shall be flush with the end of the pipe or tubing and shall extend at least to the outside end of the compression fitting when installed. The stiffener shall be free of rough or sharp edges and shall not be a force fit into the plastic. Split tubular stiffeners shall not be used.
15. As an alternate method of protection, the line may be bedded in sand. The sand shall extend six inches below and six inches above the gas pipe.
16. All sections of plastic (PE) pipe are required by this code to be pressure tested to minimum of (10) ten psig for at least 15 minutes and accepted by the City's Representative prior to being connected.
17. Risers for plastic pipe shall be permanently mounted to the structure wall by means of two split ring connectors or their equivalent. One connector must be located approximately 2 inches below the service head adapter. The service head adapter shall be located approximately 6 inches above finish grade.

18. Plastic pipe may in some cases be used to replace outdoor underground piping by the insertion method. The City must be consulted before using this method.
19. Risers may be of an approved pre-fabricated type or may be field constructed by use of schedule 40 black steel pipe and an approved service head adapter. The schedule 40 black steel casing must extend a minimum of one (1) foot below and 6" above finished grade. A grommet must be installed to protect entry of the plastic pipe into the steel riser casing.

General Requirements Governing Service Lines

1. Each building served with gas shall have a separate customer service line. A separate service line may not necessarily be laid for gas service to a garage, workshop or other building on a lot where a service line to the residence or main building of the customer already exists.
2. Curb valves and curb boxes should be located at the property line. Curb valve boxes must be installed so as to be protected from possible damage by outside forces. The installer shall install the curb box directly above the curb valve to guarantee proper valve access. The general contractor may be charged for any damages to the curb box.
3. For duplexes or apartment buildings, multiple meters may be installed in a manifold if approved by the City. A multiple meter fee is required for any manifold installation.
4. Meters at multiple meter installations shall be plainly marked by permanent means attached by the installer designating which building or part of the building each meter supplies.
5. Each meter shall have a separate meter stop and regulator.
6. Where meters are manifold at one location, a valve controlling the gas supply to all meters must be provided in addition to the stops controlling the supply to each meter.

Meters and Service Pressure Regulators

A. General

1. The City will furnish a meter, meter valve and regulator for each customer. These appurtenances shall remain the property of the City. The installation may be done by a plumber, contractor, or an individual in a manner acceptable to the City. All screwed fittings are to be black, malleable iron. Bushings, thread protectors, all-thread nipples, cast iron fittings, street fittings, galvanized or copper fittings and solder type fittings and connections **are not** permitted with the exception of above ground insulated unions installed for cathodic protection purposes. All fittings must have tapered threads. Running threads are not to be used.
2. **Where necessary to make piping alterations, a contractor or plumber shall first call the City to close the meter valve. The meter valve shall be shut off and locked. The City shall be notified to turn the gas back on.**

B. Location

1. The City reserves the right to determine meter location and capacity.
2. Gas meters shall be installed as near as practical to the point where the house line enters the building and shall be placed as to be readily accessible for examination, reading and replacement.
3. The gas meter shall not be installed in a small, unvented or confined space.
4. A gas meter shall not be placed where it will be subject to physical damage such as in driveways, public passages, etc., or where it will be subjected to excessive corrosion. The customer must provide protection in the event the meter set location is in an area where damage could occur.
5. Gas Meters shall be located a minimum horizontal distance of three (3) feet from any electrical panel, electric meter, equipment disconnects or switch, electrical outlet and other equipment capable of producing a spark. Meter sets should be located at least three (3) feet horizontally from windows unless the windows are of the sealed or non-opening type.
6. Gas meters shall be securely supported so as not to exert a strain on the meter.
7. Pressure regulators and meters supplied from intermediate and high pressure mains shall be installed outside of the building.
8. Plantings or landscaping shall not hinder meter set maintenance or cause damage to or hindrance of access to the meter set.

C. Installation

1. An approved tamper-proof, locking type valve (a valve designed and constructed to minimize the possibility of the removal of the core of the valve accidentally or willfully) shall be installed in the piping between the service line and the meter inlet.
2. The distance between the meter set and any wall should not be less than eight (8) inches. The bottom of the meter and service head adapter shall be a minimum of six (6) inches above finished grade.
3. Meter settings must be plumb and level so the meter will line up properly with the meter connections. Large meter installations, AL 800 and larger, shall have a by-pass installed for on-site testing by a City representative.
4. When passing through a masonry wall, piping shall be protected by encasing it in a protective (PVC) sleeve. Sleeves should be sealed by means of a non-corrosive agent that allows minor movement of piping.
5. Large meter sets, AL 800 and larger, that do not have by-pass piping and are shut off for any reason shall have by-pass piping installed before service will be restored.
6. The City is not responsible for providing required fittings (other than those provide with paid meter fees).

D. Rural Service from High Pressure Lines

When the City has no intermediate pressure mains or lines available and service is desired from a high pressure distribution line, the City will provide suitable regulator/regulators for reducing the pressure from the high pressure distribution line to intermediate pressure at the outlet of the regulator setting. The customer shall provide at his own expense suitable and substantial protection from disturbance by irresponsible parties to regulator/regulators and the meter furnished by the City.

E. Cathodic Protection Requirements

Cathodic protection (corrosion control) shall be provided for all coated steel underground piping by an acceptable method or combination of methods available. **Consult the City on this matter.**

Piping Downstream of Meter

A. Materials

1. Gas piping in buildings shall be schedule 40 steel or annular stainless steel complying with ASME guidelines for continuous, flexible, annular stainless steel gas piping systems installed according to manufacturers' specifications.
2. All fittings shall be malleable iron (except valves, and unions).
3. Running threads, right and left couplings, bushings, cast iron fittings, solder type fittings and connections, thread protectors and street fittings shall not be used.
4. When unions are used, they shall be of the ground joint type with the exception of insulated unions used for cathodic protection
5. Only hard seat valves shall be used, and all valves requiring packing shall be packed.
6. A.G.A. listed flexible metal connectors shall be used in connecting gas appliances when flex connectors are used.
7. When elevated pressure (one pound or more) is desired, permission must be obtained from a gas department representative. If permission is granted, the maximum design operating pressure for piping systems located inside commercial buildings shall not exceed 5 psig. Unless the piping is welded.

B. Installation

1. All gas piping or appliance installations shall be performed with the gas turned off to eliminate hazards from possible gas leakage.
2. The customer, at their expense, shall install the piping from the meter outlet to all gas burning appliances.
3. Gas piping and fittings shall be free from cutting burrs and defects in structure or threading. Thread lubricant, acceptable for natural gas service, is to be used sparingly on male threads only.
4. All pipes shall be securely supported by means of straps or fastenings of permanent material to ceilings and walls, eliminating all strain on piping. Gas piping shall not be used to support other piping or structures.

PIPE SIZE	SUPPORT SPACING
½"	6'
¾" to 1"	8'
1 ¼" or larger (horizontal)	10'
1 ¼" or larger (vertical)	each floor level

5. Gas piping inside any building shall to be run in or through a circulating air duct, clothes chute, and chimney, ventilating duct, dumb waiter or elevator shaft. Gas piping cannot be installed in solid walls or partitions. Gas piping may be installed through combustion air openings or ducts and accessible above ceiling spaces even if such spaces could possibly be used as a plenum. Gas piping may be installed in hollow walls or partitions.
6. Gas piping shall not be laid in or under a concrete floor or slab unless properly encased and vented.
7. When a flexible metal connector is used it shall connect to a solid pipe outlet in the same room as the appliance it serves. The length of the connection shall be as short as practical. It shall be installed so as to be protected against possible physical and or thermal damage. Connection of the flex line shall be made downstream of the appliance stop. Solid pipe must be run to a point 1 inch past the threads outside of the appliance cabinet before the flex connector is installed. The flex connector shall not be smaller in size than the automatic valve opening to which it is connected.
8. The unthreaded portion of the gas piping shall extend no less than one (1) inch through finished ceilings or indoor/outdoor walls. All unused outlets are to be securely capped or plugged.
9. The unthreaded portion of gas piping shall extend a minimum of two (2) inches above the surface of finished floors.
10. A readily accessible shut-off valve shall be installed ahead of each gas-burning appliance. The shut-off valve shall be installed in the same room and within six (6) feet of the appliance it serves. It shall be installed upstream of the sediment trap and flex line connection.
11. Any gas burning appliance not factory equipped with a sediment trap shall have one installed. Sediment traps must be a minimum of four (4) inches in length and be installed downstream of the appliance stop.
12. Piping and fittings shall be sized according to the NFPA 54 National Fuel Gas Code. The pipe size of each section of gas piping shall be determined using the longest length of piping from the point of delivery to the most remote outlet and the load of the section. Drop line to gas burning appliances shall not be smaller in size than the connection at the appliance automatic gas valve.

13. Connections shall not be made between the gas line and any other line carrying a fluid or gas other than that in the mains. A regulator which has gas on one side of the diaphragm and water, air or steam at more than atmospheric pressure on the other side of the diaphragm shall not be installed.
14. Gas piping may be installed in accessible spaces between a fixed ceiling and a drop ceiling whether or not such spaces are used as a plenum
15. Gas piping outlets shall not be located behind doors.
16. When remodeling or extending existing piping, it shall be checked to determine if it has adequate capacity. Where capacity cannot be maintained from existing piping, a separate line from the meter may supply appliances or the existing piping may be resized and upgraded.
17. An accessible shut off valve shall be provided upstream of each pressure regulator. Where two gas pressure regulators are installed in series in a single gas line, a manual valve shall not be required at the second regulator.

C. Roof Equipment

1. At least (6) feet of clearance shall be maintained between any part of the equipment and the edge of a roof or similar elevated location. Where clearance cannot be maintained, hand railings at least 42 inches in height shall be provided on the exposed side/sides.
2. Gas utilization equipment located on roofs or other elevated locations shall be accessible by means of a permanently mounted, protected, exterior ladder or stairs (Commercial applications).
3. Buildings of more than fifteen feet in height shall have an inside means of access to the roof.

D. Equipment Connections to Building Piping

1. Listed gas appliance connectors (Flex lines) must be installed in the same room as the equipment they serve. The connector shall be installed so as to be protected against possible physical or thermal damage (they cannot be installed inside a furnace cabinet). The connector shall be of minimum practical length, not to exceed six (6) feet (for a kitchen range only). The connector shall not be concealed and shall not extend from one room to another or pass through wall partitions, ceilings or floors. Connectors cannot be joined together to create a longer connector. **Continuous, flexible, annular stainless steel systems are not classified as flex lines.**

2. All gas utilization equipment using electrical controls shall have the controls connected into a permanently live electrical circuit before a final inspection by the representative can be made.

E. Concealed Piping in Buildings

1. Where gas piping is to be concealed; unions, tubing fittings, right and left couplings, bushings, swing joints, and compression couplings made by combinations of fittings shall not be used.

Exception #1 – Joining piping by welding shall be permitted

Exception #2 – Fittings listed for use in concealed spaces that have been demonstrated to sustain, without leakage, any forces due to temperature expansion or contraction, vibration, or fatigue based on their geographic location, application or operation shall be permitted to be used.

Exception #3 – where it becomes necessary to insert fittings in gas piping that has been installed in a concealed location, the pipe shall be permitted to be reconnected by welding or flanges. If annular stainless steel must be repaired due to fire or other hazards, recommended manufacturers' procedures shall be followed.

Combustion Dilution and Ventilation Air

1. When normal infiltration does not provide the necessary air for combustion, dilution and ventilation, outside air must be introduced. Additional air must be introduced if the volume of the space containing the gas utilization equipment does not equal fifty cubic feet of free air per one thousand BTUs of combined input rating of all gas utilization equipment located in the space. This does not pertain to category 4 equipment (direct vent) if intake as well as vent piping is properly installed. Both intake and exhaust piping must be installed in order to be classified as direct vent equipment.
2. When equipment is located in a confined space (Reference 1 above) and air for combustion, ventilation, and dilution is taken from inside the building, there must be two permanent openings provided. Each opening shall have a minimum free area of one square inch per one thousand BTUs of combined input rating of all gas utilization equipment located in the space but not less than one hundred square inches. One opening shall be located with twelve inches of the top and one opening shall be located within twelve inches of the bottom of the enclosure. These openings must be installed into as many walls or doors as needed to make the space meet volumetric specifications for an unconfined space. Combustion air cannot be taken from bedrooms or bathrooms.
3. If air for combustion, dilution and ventilation is taken directly from the outdoors, each opening shall have a minimum free area of one square inch per for thousand BTUs of combined input ratings of all gas utilization equipment located in the space.

4. In communicating with the outdoors through horizontal ducts, each opening shall have a minimum free area of one square inch per two thousand BTUs of the total combined input rating of all equipment located in the space. When ducts are used, they shall be of the same crossed sectional area as the free opening to which they connect. Air duct dimensions shall not be less than three inches.
5. One permanent opening commencing within twelve inches of the top of the enclosure shall be permitted if the equipment has clearances of at least one inch from the sides and back and six inches from the front of the appliance. The opening shall communicate directly with the outdoors or shall communicate through a vertical or horizontal duct to the outdoors or spaces that communicate freely with the outdoors. They shall have a minimum free area of one square inch per three thousand BTUs of total input rating on all gas equipment located in the space but not less than the sum of the areas of all vent connectors in the confined space.
6. Combination of air from the indoors and from the outdoors. Where the building in which the gas burning appliances are located is not of unusually tight construction and the communicating interior spaces containing the gas burning appliances comply with all requirements except the volumetric requirement, combustion, dilution and ventilation air may be obtained by opening the room to the outdoors utilizing a combination of indoor and outdoor air prorated in accordance with the National Fuel Gas Code.
 - (A) Combine the input ratings of all gas appliances located in the space.
 - (B) Perform calculations to determine the total number of BTUs the inside air volume will support ($\text{Length} \times \text{Width} \times \text{Height}$ divided by fifty). Air for combustion, ventilation, and dilution cannot be taken from bedrooms or bathrooms.
 - (C) Cut two openings into available inside air space. They shall be large enough to contain one square inch of free area per one thousand BTUs but not less than one hundred square inches. One opening shall be located within one foot of the ceiling and one opening within one foot of the floor of the confined space.
 - (D) Reduce the total combined BTUs rating by the number of BTUs the inside air space will support.
 - (E) Cut two openings to the outside air space sized to the pro-rated BTU input. The openings shall have 1 square inch of free area per 4000 pro-rated BTUs. One opening shall be located within one foot of the ceiling and one within one foot of the floor of the confined space. The openings shall communicate directly with the outdoors. Openings shall have no dimension smaller than 3 inches.
 - (F) Cut one opening to the outside air space sized to the pro-rated BTU input. The openings shall have 1 square inch of free area per 3000 pro-rated BTUs. The opening shall be located within one foot of the ceiling and communicate directly with the outdoors. Openings shall have no opening smaller than 3 inches.

7. These requirements shall not necessarily govern when an engineered design approved by the City provides an adequate supply of air for combustion, ventilation and dilution of flue gases.
8. In calculating free area, consideration shall be given to the blocking effect of louvers, grills or screens protecting openings. Screens shall not be smaller than $\frac{1}{4}$ " mesh. Wood louvers shall have 20% - 25% free area and metal louvers and grills shall have 60% - 75% free area. They shall be fixed in the open position or interlocked so that they open automatically during equipment operations.

It cannot be overemphasized that an adequate supply of fresh air is needed by the appliance and vent system. Check to be sure that all provisions for supplying air are proper. Any air duct/ducts must be at least as large as the free opening of louvers that pass the air. Screens with small openings shall not be used in the air duct/ducts because they can become blocked easily by airborne dirt and lint. Screens with less than $\frac{1}{4}$ " openings shall not be used. There shall be no provisions for closure.

Electrical

1. Each above ground portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping shall be considered to be bonded when it is connected to appliances that are connected to the appliance grounding conductor of the circuit supplying that appliance.
2. Gas piping shall not be used as a grounding conductor or electrode.
3. A permanent 120 VAC receptacle outlet and lighting fixture shall be installed near any attic installed appliance. A switch controlling the lighting shall be located at the entrance to the attic passageway.
4. All gas utilization equipment using electrical controls shall have the controls connected into a permanently live electrical circuit, that is, one that is not controlled by a light switch.
5. Central heating equipment shall be provided with a separate electrical circuit.

Equipment Installation

1. Gas utilization equipment shall not be installed so its combustion and ventilation air is obtained from a bedroom or bathroom. Direct make-up air heaters shall not be used to supply any area containing sleeping quarters.

Exception 1 – Where approved by the City, one listed unvented room heater equipped with an oxygen depletion safety shutoff system shall be permitted to be installed in a bathroom provided that the input rating does not exceed 6000 btu/hr and combustion, ventilation and dilution air is adequate.

Exception 2 – Where approved by the City, one listed unvented room heater equipped with an oxygen depletion safety shutoff system shall be permitted to be installed in a bedroom provided that the input rating does not exceed 10,000 btu/hr and combustion, ventilation and dilution air is adequate.

2. Decorative appliances (gas logs) may be installed in vented fireplaces constricted of noncombustible material. They shall have an automatic shut-off device but shall not be thermostatically controlled. **Log lighters used to ignite solid fuels shall not be used.**
3. A fireplace screen shall be installed with a decorative appliance in a vented fireplace.
4. When a furnace is installed to carry circulated air through supply ducts to areas outside the space containing the furnace, the return air shall also be handled by a duct/ducts sealed to the furnace casing and terminating outside the space containing the furnace.
5. Gas appliances, installed in beauty shops, barber shops or other facilities where chemicals which generate corrosive or flammable products, such as aerosol sprays, are routinely used, shall be located in an equipment room separate or partitioned off from these areas with provisions for combustion and dilution air from outdoors.
6. For installation of gas utilization equipment in an attic space, the passageway and servicing area adjacent to the equipment shall be floored. Passageways shall be a minimum of twenty-four (24) inches wide. Thirty (30) inches of clearance in front of the equipment shall be floored.
7. A permanent 120 VAC receptacle outlet and lighting fixture shall be installed near any attic installed appliance. A switch controlling the lighting fixture shall be located at the entrance to the attic passageway.
8. Gas utilization equipment in residential garages shall be installed so that all burners and ignition devices are located not less than eighteen (18) inches above the floor with the exception of devices certified by the manufacturer to be installed at a lower level.
9. Such equipment shall be located or protected so as not to be subjected to physical damage by a moving vehicle.

10. Vent less gas fireplaces or heaters may be installed if three conditions are met:

1. A vent less unit must be equipped with an O.D. S. sensor.
2. A Vent less unit cannot be used as a primary heat source.
3. A vent less unit must be supplied with adequate ventilation, dilution and combustion air

Equipment Venting

The policies described in the following pages were established in order to follow safe practices to guard against the misuse of appliances and to provide for the greatest safety and economy in the operation of appliances.

The matter of ventilation also has a part in the formation of City guidelines. Each cubic foot of gas burned requires about fifty cubic feet of free air for combustion, ventilation and dilution of flue products. 1/100 pint of water vapor is also formed. Therefore, appliances operating in a room without reasonable ventilation could soon consume the oxygen in the air and saturate the air with moisture to the point that the occupants would feel discomfort. Poorly vented equipment could also contribute to the formation of carbon monoxide, a toxic by-product of incomplete combustion. A gas appliance vented into a flue operates as an exhaust system, which will cause fresh air to be drawn into the room

Appliances Requiring Venting

The following appliances must be properly vented before the City representative will establish service:

1. Steam and hot boilers, water heaters, warm air furnaces, floor furnaces, ducted furnaces and recessed heaters.
2. Room heaters installed in sleeping quarters for use of transients as in hotels, motels and auto courts. Heaters used in institutions such as homes for the aged, sanitariums, convalescent homes and orphanages shall be of the sealed combustion type.
3. Automatic water heaters of any type which contain a thermostatic device for regulating the gas to the main burner.
4. Gas fired incinerators.

Proper Venting for Gas Appliances

1. Appliances must be vented to a bon-a-fide chimney flue or vent constructed of lined masonry or Type B dual wall metal. Factory built triple-wall chimneys' certified for natural gas may also be used. (Metal Flues are only effective when they run in the interior of the building)
2. Vents must not open into attics, under porches or similar places.
3. Vents should be constructed or installed in such a way as not to become a fire hazard. Where flues or vent connectors (Type B only) pass through partitions of combustible construction, proper clearances must be maintained.
4. Gas appliance, except gas log sets, shall not be vented to a fireplace flue unless the fireplace and other openings in the flue are permanently sealed.
5. The vent connector shall maintain a continuous rise from the appliance to the flue or vent. A rise of $\frac{1}{4}$ " per foot of horizontal length must be maintained.
6. The horizontal run of the connector should be as short as possible and the appliance located as near the flue or vent as practicable. The maximum length of the vent connector shall not exceed eighteen (180 inches per inch diameter).
7. A damper shall not be placed in any flue or vent connector.
8. The flue or vent connector of a water heater shall not be smaller than the size of the outlet of the draft hood supplied by the manufacturer of a gas-burning appliance.
9. Two or more category one appliances may be vented through a common flue or vent when necessary, provided the size of the common flue or vent is sufficient to accommodate the total volume of flue gases, but not oversized. Fittings where vent connectors join the common vent must be installed vertically so the smaller size vent connector enters the common vent above the larger size vent connector. Vent connectors shall not enter the common vent through the cross of a tee.
10. A draft hood shall be installed in the position for which it was designed with reference to the horizontal and vertical planes and shall be so located that the relief opening is not obstructed by any part of the appliance or adjacent construction.
11. A gas appliance shall not be vented into the same chimney, flue or vent with an appliance burning solid or liquid fuel unless certified by the manufacture for this use.
12. If any gas appliance has an automatic pilot, the operation of the pilot safety must be checked.

13. The City will upon request consult with owners, architects or contractors for special installation requirements. (These specifications shall not apply to the installation of appliances approved under A.G.A. requirements for equipment having a sealed combustion chamber and direct air supply for complete combustion from the outside and direct discharge of all products of combustion to the outside, in which the vent is an integral part of the equipment).
14. No portion of a venting system shall extend in or pass through any circulating air duct or plenum, with the exception of accessible above ceiling spaces, which may be used as a plenum.
15. A Category I vent extending through an exterior wall shall not terminate adjacent to a wall or below eaves or parapets.
16. Minimum clearance for single wall metal pipe to combustible material shall be six (6) inches.
17. Minimum clearance for dual wall (Type B) vents to combustible material shall be one (1) inch.
18. A vent system shall terminate at least three (3) feet above any forced air inlet located within ten (10) feet.
19. Single wall metal pipe shall not be used outdoors or in unconditioned space for venting gas utilization equipment.
20. The effective area of the vent connector on a water heater shall not be less than the area of the draft hood outlet.
21. When two or more appliances are vented through a common vent, the manifold shall be located at the highest level consistent with available headroom and clearance to combustible material.
22. When two or more vent connectors enter a common gas vent, the smaller BTU rated equipment connector shall enter at the highest level. All possible vertical rise should be maintained.
23. A vent connector shall be installed so as to avoid turns or other construction features which create excessive resistance to the flow of vent gasses.
24. A vent connector shall be supported to maintain clearances and prevent physical damage and separation of joints.
25. When the vent connector must be located in or pass through a crawl space, attic or any area where the temperature may be below that normally maintained for comfort, that portion of the vent connector shall be listed dual wall (Type B or Type L) vent material.
26. The entire length of a single wall vent connector shall be in plain sight and readily accessible for inspection.

27. A vent connector shall not pass through any ceiling, floor, firewall or fire partition. A single wall metal pipe connector shall not pass through any interior or exterior wall.
28. Connectors made of type b listed material may pass through outside walls with proper clearance to combustible materials.
29. Vent connectors for medium heat equipment (small boilers) shall not pass through walls or partitions constructed of combustible materials.
30. Vent connectors serving equipment vented by natural draft shall not be connected into any partition of a mechanical draft system operating under positive pressure.
31. Gas utilization equipment located on more than one level may be vented through a common vent provided the equipment is fully enclosed in a furnace or utility room and all air for combustion, ventilation and dilution is obtained from outside the building. The flue must be vertical, and no offsets of any kind are permitted.
32. Before connecting a vent connector to a chimney passageway, it shall be examined to ascertain that it is clear and free of obstructions and shall be cleaned if previously used for venting solid fuel burning appliances or fireplaces.

Venting into Masonry Chimneys

A. Internal Masonry Chimneys

Venting of induced category 1 appliances into a lined, internal masonry chimney is allowed only if it is common vented with at least one natural draft appliance or with a manufacturer approved draft kit assembly or designed with type B double wall vent or suitable flexible liner material. Liner leaks will result in early deterioration of the chimney.

B. External Masonry Chimneys

Venting of fan assisted appliances into external chimneys (i.e. one or more walls exposed to outdoor temperatures), requires the chimney to be lined with type B double wall vent or suitable chimney liner material. This applies in all combinations of common venting as well as for fan assisted appliances vented alone.

Unlined chimneys are not approved for gas appliance venting.

Through Outside Wall Venting

- A.** A venting system shall terminate at least 3 feet above any forced air inlet within 10 feet.
- B.** The venting system of other than a direct vent appliance shall terminate at least 4 feet below, 4 feet horizontally from, or 1 foot above any door, window or gravity air inlet into any building. The bottom of the vent terminal shall be located at least 12 inches above normal snowfall.
- C.** The vent terminal of a direct vent appliance with an input of 50,000 BTUs per hour or less shall be located at least 9 inches from any opening through which flue gasses could enter a building. An appliance with input over 50,000 BTUs per hour shall require a 12-inch vent termination clearance. The bottom of the vent terminal and the air intake shall be located at least 12 inches above normal snowfall.

Visual Indicators of Poor Performance

Many times a visual inspection of the vent system will indicate the cause of a problem or a potential problem. If these indicators are recognized, a potentially dangerous situation may be avoided. Some of the more obvious indicators are listed below:

- Vent connectors smaller than the outlet of the draft hood on water heaters
- The use of more than two (2) 90-degree elbows in a vent connector.
- A vent connector attached to a second vent connector.
- Connection of two (2) appliances to a common vent through the cross of a tee at the bottom of the vertical common vent.

- A lateral or horizontal run of the vent connector in excess of 18" per inch diameter or in excess of 75% of the total flue height.
- Single wall metal pipe is not to be used outdoors in cold climates. Such use may cause condensation and corrosion of the vent system.

The vent for category 1 appliances shall not terminate adjacent to a wall or below eaves or parapets. Wind flow over roof structures often causes localized pressure disturbances. The vent termination must be placed where these effects are minimized.

Capacity of Vent Piping

Vent Size (in.)	Sq. In. Area
3	7.0"
4	12.2"
5	19.6"
6	28.3"
7	38.3"
8	50.3"
9	63.6"
10	78.5"

Maximum Vent Connector Horizontal Length

Diameter (in.)	Horizontal Length (ft.)
3	4 ½
4	6
5	7 ½
6	9
7	10 ½
8	12
9	13 ½
10	15

Inspection and Testing

1. Inspection and testing are required on each installation of service piping, house piping and equipment installation.
2. Inspection and testing of new or revised service piping shall be made before the trench is backfilled or house-line piping is concealed.
3. A request for inspection must be made by 4:00 P.M. Monday through Friday. There will be a service charge for turn on calls and inspections after 4:30 P.M.
4. New piping will be subjected to an air pressure test of not less than 90 psig on service lines and 10 psig on house lines for at least 15 minutes and in some cases a 24 hr. test may be required.
5. Gauges used for tests shall not read more than five times the test pressure.
6. The house line test will be made with manual shut-off valves disconnected and capped off. For pipe sizes larger than two (2) inch, consult the City for testing procedures.
7. Oxygen, acetylene, ether with air or any other flammable gas shall not be used as a substitute for atmospheric air in testing lines.
8. At the time the line or lines are tested and inspected, a record shall be made by a City representative to indicate the conditions existing at the time of the test and inspection.
9. The first inspection at any premises, including both service lines and house lines, shall be without charge. In the case of a leak, error, patent defect or other unsatisfactory conditions resulting in the failure and disapproval of the test by the City, the necessary correction shall be made at the owner's expense. Once corrections are made, the City will re-inspect the line. Each additional inspection required after correction shall be subject to a service charge.
10. Service will be established only when all gas fired equipment is in a finished condition and it has been determined that the City requirements and specifications have been fully complied with.
11. The City shall be notified that the installation has been completed and a request made for a final inspection. The installing agency or their representative shall be present at the time the final inspection is made. The City representative is not authorized to light pilots or put equipment in operation.

Required fees for Gas Service

Call (270)763-4215 for questions concerning fees for gas service.

All fees required for gas service are to be paid at City Hall at 200 West Dixie Ave.
Elizabethtown, KY.

An application for gas must be completed for all residential, commercial and industrial customer services.

Table 1.1

Schedule 40 Metallic Pipe

Gas	Natural
Inlet Pressure	Less than 2 psi
Pressure Drop	0.5 in. w.c.
Specific Gravity	0.6

Pipe Size (in.)														
Nominal	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12
Actual ID	0.622	0.824	1.049	1.38	1.61	2.067	2.469	3.068	4.026	5.047	6.065	7.981	10.02	11.938
Length (ft)	Capacity in Cubic Feet of Gas per Hour													
10	172	360	678	1,390	2,090	4,020	6,400	11,300	23,100	41,800	67,600	139,000	252,000	399,000
20	118	247	466	957	1,430	2,760	4,400	7,780	15,900	28,700	46,500	95,500	173,000	275,000
30	95	199	374	768	1,150	2,220	3,530	6,250	12,700	23,000	37,300	76,700	139,000	220,000
40	81	170	320	657	985	1,900	3,020	5,350	10,900	19,700	31,900	65,600	119,000	189,000
50	72	151	284	583	873	1,680	2,680	4,740	9,660	17,500	28,300	58,200	106,000	167,000
60	65	137	257	528	791	1,520	2,430	4,290	8,760	15,800	25,600	52,700	95,700	152,000
70	60	126	237	486	728	1,400	2,230	3,950	8,050	14,600	23,600	48,500	88,100	139,000
80	56	117	220	452	677	1,300	2,080	3,670	7,490	13,600	22,000	45,100	81,900	130,000
90	52	110	207	424	635	1,220	1,950	3,450	7,030	12,700	20,600	42,300	76,900	122,000
100	50	104	195	400	600	1,160	1,840	3,260	6,640	12,000	19,500	40,000	72,600	115,000
125	44	92	173	355	532	1,020	1,630	2,890	5,890	10,600	17,200	35,400	64,300	102,000
150	40	83	157	322	482	928	1,480	2,610	5,330	9,650	15,600	32,100	58,300	92,300
175	37	77	144	296	443	854	1,360	2,410	4,910	8,880	14,400	29,500	53,600	84,900
200	34	71	134	275	412	794	1,270	2,240	4,560	8,260	13,400	27,500	49,900	79,000
250	30	63	119	244	366	704	1,120	1,980	4,050	7,320	11,900	24,300	44,200	70,000
300	27	57	108	221	331	638	1,020	1,800	3,670	6,630	10,700	22,100	40,100	63,400
350	25	53	99	203	305	587	935	1,650	3,370	6,100	9,880	20,300	36,900	58,400
400	23	49	92	189	283	546	870	1,540	3,140	5,680	9,190	18,900	34,300	54,300
450	22	46	86	177	266	512	816	1,440	2,940	5,330	8,620	17,700	32,200	50,900
500	21	43	82	168	251	484	771	1,360	2,780	5,030	8,150	16,700	30,400	48,100
550	20	41	78	159	239	459	732	1,290	2,640	4,780	7,740	15,900	28,900	45,700
600	19	39	74	152	228	438	699	1,240	2,520	4,560	7,380	15,200	27,500	43,600
650	18	38	71	145	218	420	669	1,180	2,410	4,360	7,070	14,500	26,400	41,800
700	17	36	68	140	209	403	643	1,140	2,320	4,190	6,790	14,000	25,300	40,100
750	17	35	66	135	202	389	619	1,090	2,230	4,040	6,540	13,400	24,400	38,600
800	16	34	63	130	195	375	598	1,060	2,160	3,900	6,320	13,000	23,600	37,300
850	16	33	61	126	189	363	579	1,020	2,090	3,780	6,110	12,600	22,800	36,100
900	15	32	59	122	183	352	561	992	2,020	3,660	5,930	12,200	22,100	35,000
950	15	31	58	118	178	342	545	963	1,960	3,550	5,760	11,800	21,500	34,000
1,000	14	30	56	115	173	333	530	937	1,910	3,460	5,600	11,500	20,900	33,100
1,100	14	28	53	109	164	316	503	890	1,810	3,280	5,320	10,900	19,800	31,400
1,200	13	27	51	104	156	301	480	849	1,730	3,130	5,070	10,400	18,900	30,000
1,300	12	26	49	100	150	289	460	813	1,660	3,000	4,860	9,980	18,100	28,700
1,400	12	25	47	96	144	277	442	781	1,590	2,880	4,670	9,590	17,400	27,600
1,500	11	24	45	93	139	267	426	752	1,530	2,780	4,500	9,240	16,800	26,600
1,600	11	23	44	89	134	258	411	727	1,480	2,680	4,340	8,920	16,200	25,600
1,700	11	22	42	86	130	250	398	703	1,430	2,590	4,200	8,630	15,700	24,800
1,800	10	22	41	84	126	242	386	682	1,390	2,520	4,070	8,370	15,200	24,100
1,900	10	21	40	81	122	235	375	662	1,350	2,440	3,960	8,130	14,800	23,400
2,000	NA	20	39	79	119	229	364	644	1,310	2,380	3,850	7,910	14,400	22,700

Notes:

1. NA means a flow of less than 10cfh

Table 1.2 Corrugated Stainless Steel Tubing

Gas	Natural
Inlet Pressure	Less than 2 psi
Pressure Drop	0.5 in. w.c.
Specific Gravity	0.6

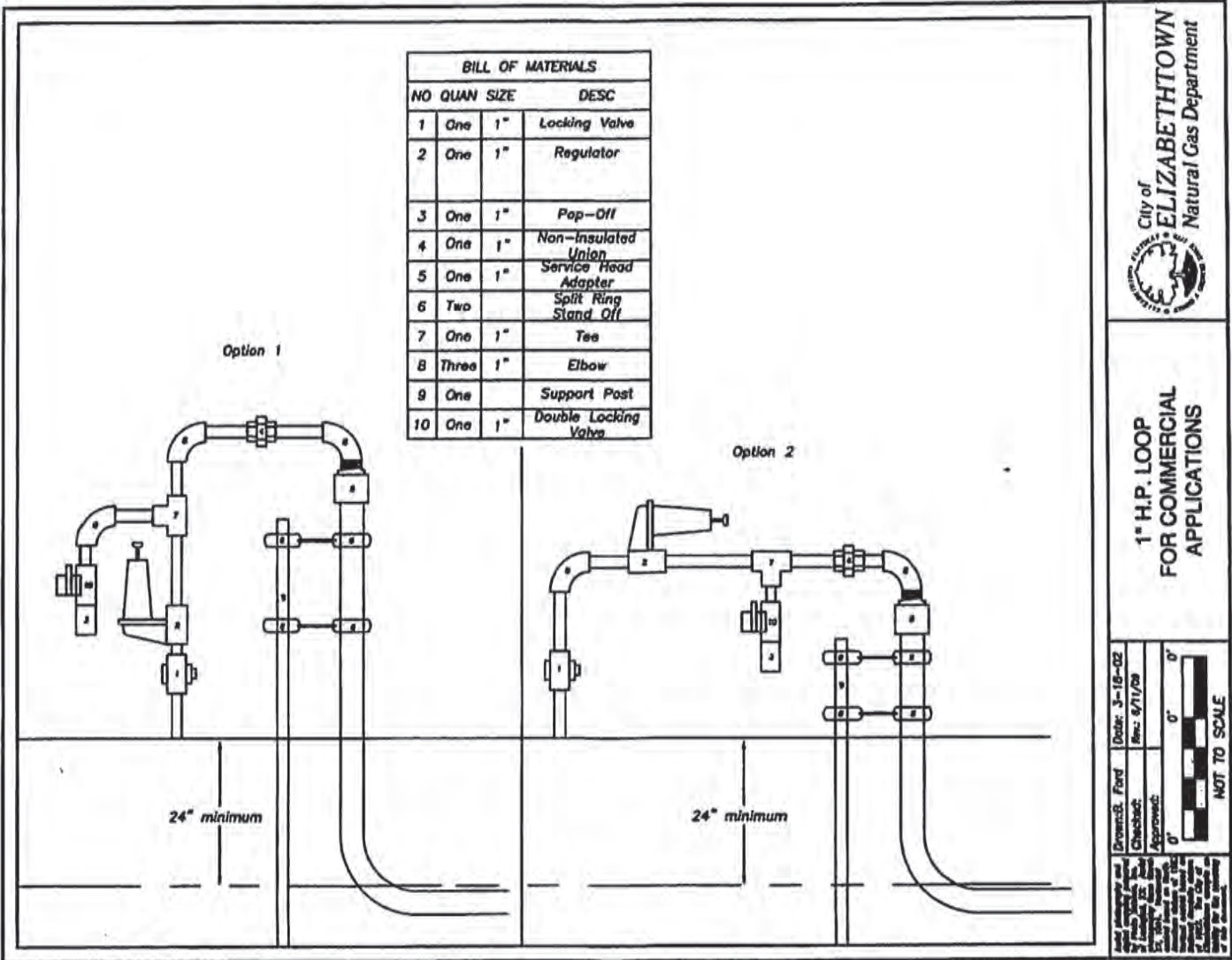
Flow Destination	Tube Size (EHD)												
	13	15	18	19	23	25	30	31	37	46	48	60	62
Length (ft)	Capacity in Cubic Feet of Gas per Hour												
5	46	63	115	134	225	270	471	546	895	1,790	2,070	3,660	4,140
10	32	44	82	95	161	192	330	383	639	1,260	1,470	2,600	2,930
15	25	35	66	77	132	157	267	310	524	1,030	1,200	2,140	2,400
20	22	31	58	67	116	137	231	269	456	888	1,050	1,850	2,080
25	19	27	52	60	104	122	206	240	409	793	936	1,660	1,860
30	18	25	47	55	96	112	188	218	374	723	856	1,520	1,700
40	15	21	41	47	83	97	162	188	325	625	742	1,320	1,470
50	13	19	37	42	75	87	144	168	292	559	665	1,180	1,320
60	12	17	34	38	68	80	131	153	267	509	608	1,080	1,200
70	11	16	31	36	63	74	121	141	248	471	563	1,000	1,110
80	10	15	29	33	60	69	113	132	232	440	527	940	1,040
90	10	14	28	32	57	65	107	125	219	415	498	887	983
100	9	13	26	30	54	62	101	118	208	393	472	843	933
150	7	10	20	23	42	48	78	91	171	320	387	691	762
200	6	9	18	21	38	44	71	82	148	277	336	600	661
250	5	8	16	19	34	39	63	74	133	247	301	538	591
300	5	7	15	17	32	36	57	67	95	226	275	492	540

1. Table includes losses for four 90-degree bends and two end fittings. Tubing runs with larger numbers of bends and/or fittings shall be increased by an equivalent length of tubing to the following equation: $L = 1.3n$ where L is additional length (ft) of tubing and n is the number of additional fittings and/or bends.
2. EHD Equivalent Hydraulic Diameter, which is a measure of the relative hydraulic efficiency between different tubing sizes. The greater the value of EHD, the greater the gas capacity of the tubing.

Table 1.3 Polyethylen Plastic Pipe

Gas	Natural
Inlet Pressure	Less than 2 psi.
Pressure Drop	0.5 in. w.c.
Specific Gravity	0.6

Pipe Size (in.)						
Nominal OD:	1/2	3/4	1	1 1/4	1 1/2	2
Designation:	SDR 9.33	SDR 11.0	SDR 11.0	SDR 10.0	SDR 11.0	SDR 11.0
Actual ID:	0.660	0.860	1.077	1.328	1.554	1.943
Length (ft)	Capacity in Cubic Feet of Gas per Hour					
10	201	403	726	1,260	1,900	3,410
20	138	277	499	865	1,310	2,350
30	111	222	401	695	1,050	1,880
40	95	190	343	594	898	1,610
50	84	169	304	527	796	1,430
60	76	153	276	477	721	1,300
70	70	140	254	439	663	1,190
80	65	131	236	409	617	1,110
90	61	123	221	383	579	1,040
100	58	116	209	362	547	983
125	51	103	185	321	485	871
150	46	93	168	291	439	789
175	43	86	154	268	404	726
200	40	80	144	249	376	675
250	35	71	127	221	333	598
300	32	64	115	200	302	542
350	29	59	106	184	278	499
400	27	55	99	171	258	464
450	26	51	93	160	242	435
500	24	48	88	152	229	411

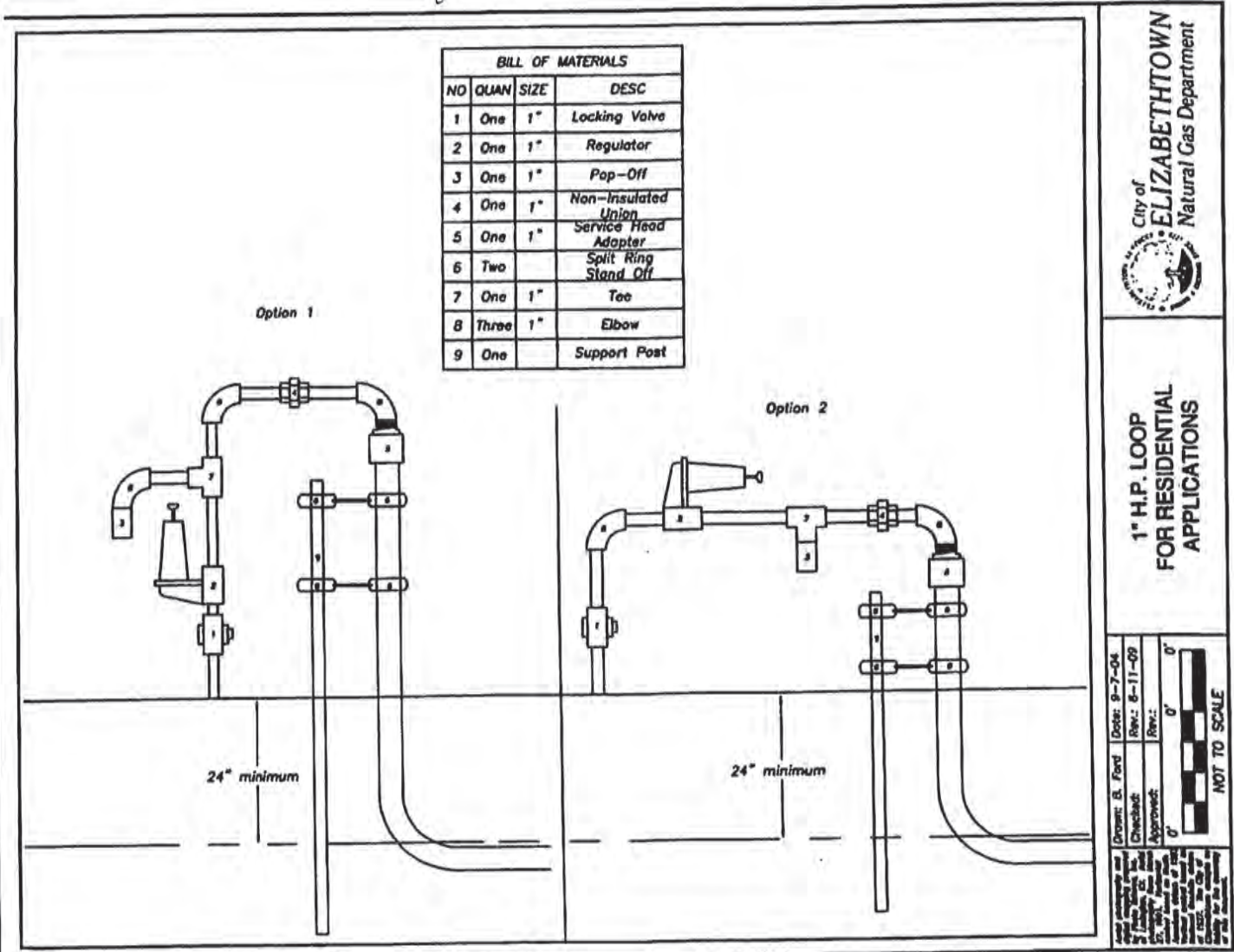


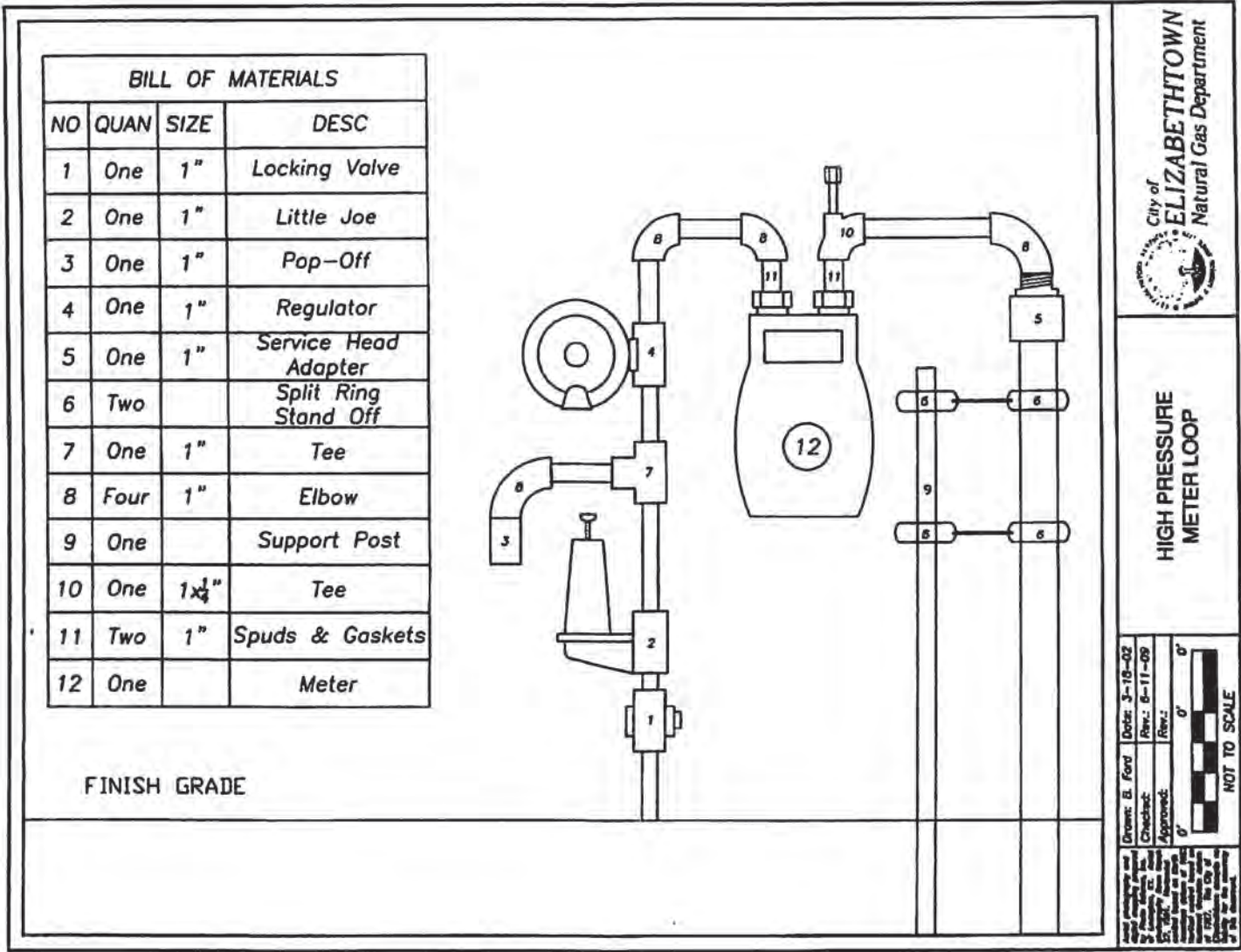
City of
ELIZABETHTOWN
Natural Gas Department

**1" H.P. LOOP
FOR COMMERCIAL
APPLICATIONS**

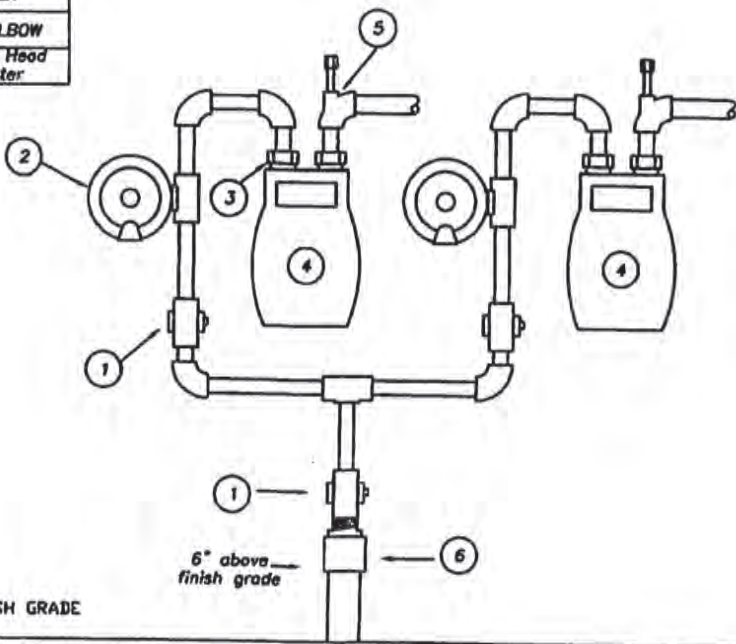
Drawn: J. Ford	Date: 3-16-02
Checked: J. Ford	Rev: 6/11/08
Approved: J. Ford	0"

NOT TO SCALE





BILL OF MATERIALS			
NO	QUAN	SIZE	DESC
1	ONE	1"	VALVE
2	ONE	1"	REGULATOR
3	TWO	1"	SPUDS/RINGS
4	ONE		METER
5	ONE		TEST ELBOW
6	ONE		Service Head Adapter





City of
ELIZABETHTOWN
Natural Gas Department

**MULTIPLE
METER LOOP**

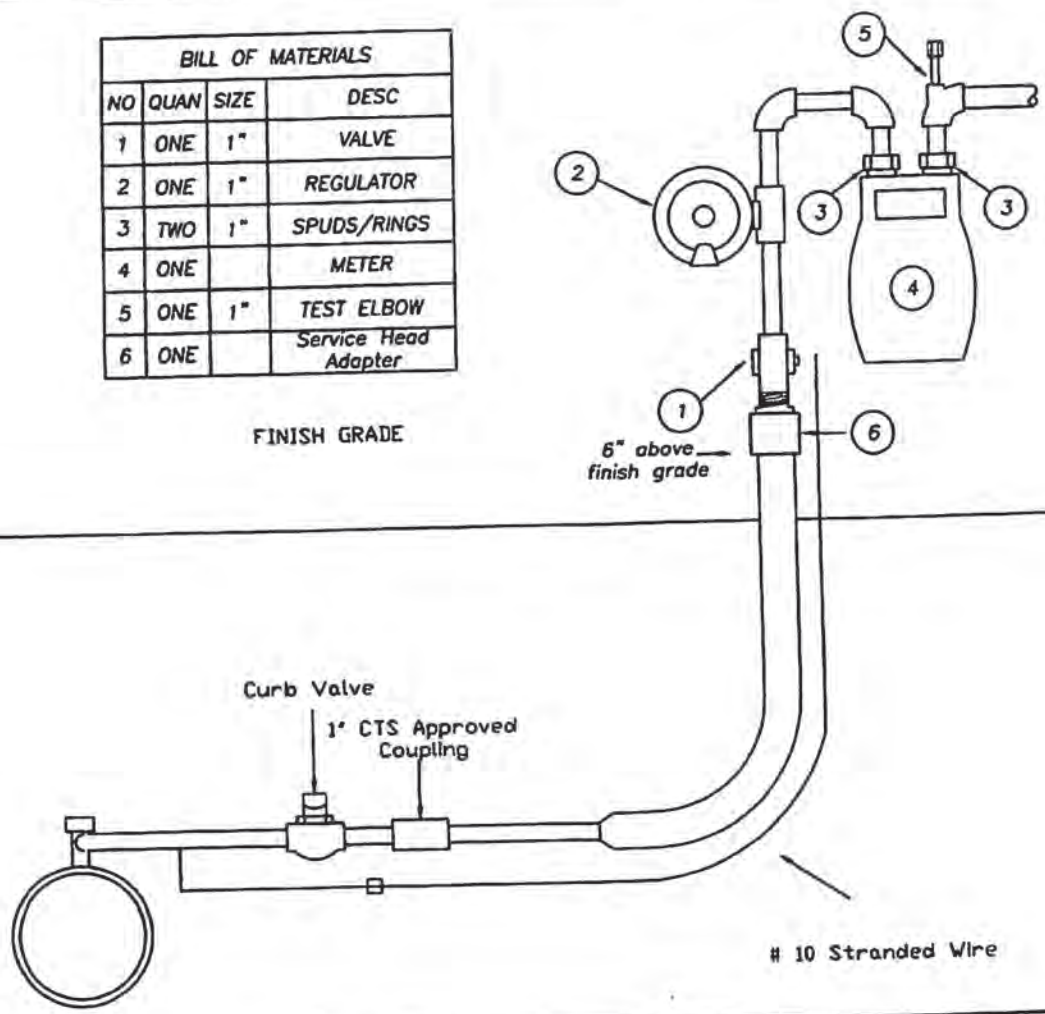
Drawn: B. Ford	Date: 8-12-09
Checked: [blank]	Rev: [blank]
Approved: [blank]	Rev: [blank]



NOT TO SCALE

BILL OF MATERIALS			
NO	QUAN	SIZE	DESC
1	ONE	1"	VALVE
2	ONE	1"	REGULATOR
3	TWO	1"	SPUDS/RINGS
4	ONE		METER
5	ONE	1"	TEST ELBOW
6	ONE		Service Head Adapter

FINISH GRADE





City of
ELIZABETHTOWN
Natural Gas Department

**INTERMEDIATE PRESSURE
METER LOOP**

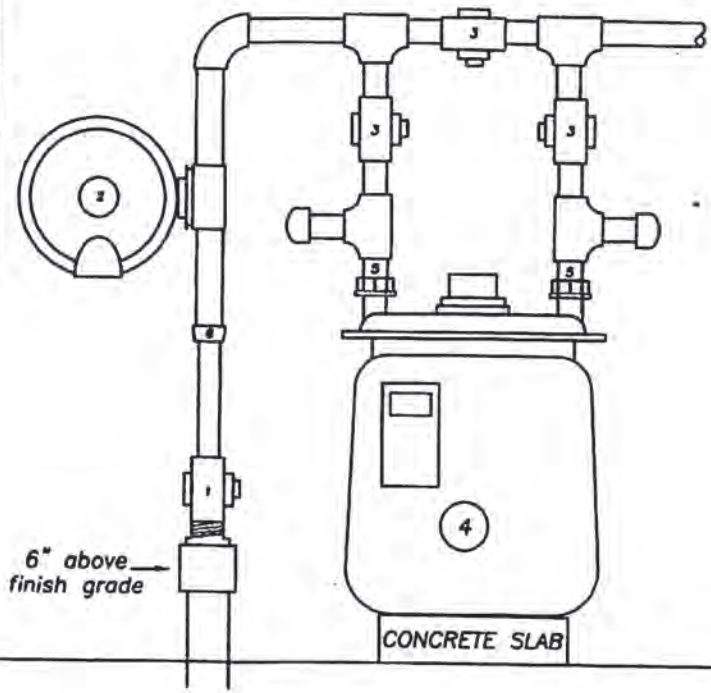
Drawn: B. Ford	Date: 3-18-02
Checked:	Rev.: 6-12-09
Approved:	Rev.: 0"



NOT TO SCALE

This drawing is the property of the City of Elizabethtown and is to be used only for the project and location specified. It is not to be reproduced, copied, or used for any other purpose without the written consent of the City of Elizabethtown. The City of Elizabethtown is not responsible for any errors or omissions in this drawing. The user of this drawing is advised to verify all dimensions and specifications with the latest revision of the drawing.

BILL OF MATERIALS			
NO	QUAN	SIZE	DESC
1	One	1"	Locking Valve
2	One	1½"	Regulator
3	Three	1½"	Locking Valve
4	One		Meter
5	Two	1½"	Spuds/Gaskets





City of
ELIZABETHTOWN
Natural Gas Department

BYPASS LOOP
AL-800 & AL-1000

Drawn: J. Ford

Checked: []

Approved: []

Date: 4-23-09

Rev.: []

Rev.: []

0'

0'

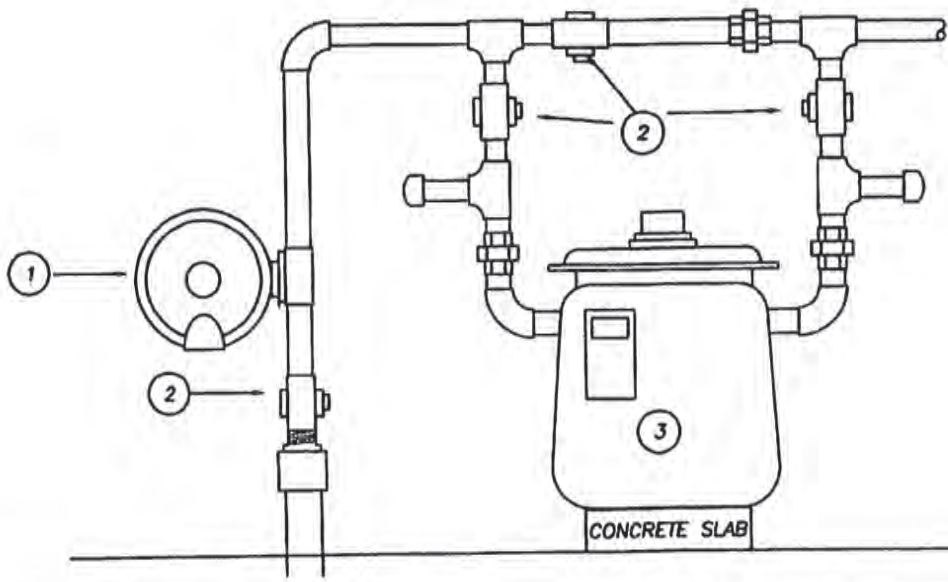
0'

NOT TO SCALE

Notes:
1. All piping shall be 1/2" NPS steel pipe, Schedule 40, unless otherwise noted.
2. All valves shall be 1/2" NPS, full port, ball valves, unless otherwise noted.
3. All fittings shall be 1/2" NPS, Schedule 40, unless otherwise noted.
4. All welding shall be in accordance with ASME B31.1, Section II, Part D, Subpart 1.
5. All work shall be in accordance with the applicable codes and standards.
6. All materials shall be of the highest quality and shall be tested and certified by the manufacturer.
7. All work shall be done in accordance with the applicable codes and standards.
8. All work shall be done in accordance with the applicable codes and standards.
9. All work shall be done in accordance with the applicable codes and standards.
10. All work shall be done in accordance with the applicable codes and standards.

NOTE: THE GAS DEPARTMENT
WILL SUPPLY THE ITEMS
LISTED

BILL OF MATERIALS			
NO	QUAN	SIZE	DESC
1	ONE	2"	REGULATOR
2	TWO	2"	LOCKING VALVE
3	ONE		Meter





City of
ELIZABETHTOWN
Natural Gas Department

BYPASS LOOP
AL-1400, 2300 & 5000

Drawn: J. Ford

Checked: _____

Approved: _____

Date: 4-23-09

Rev.: _____

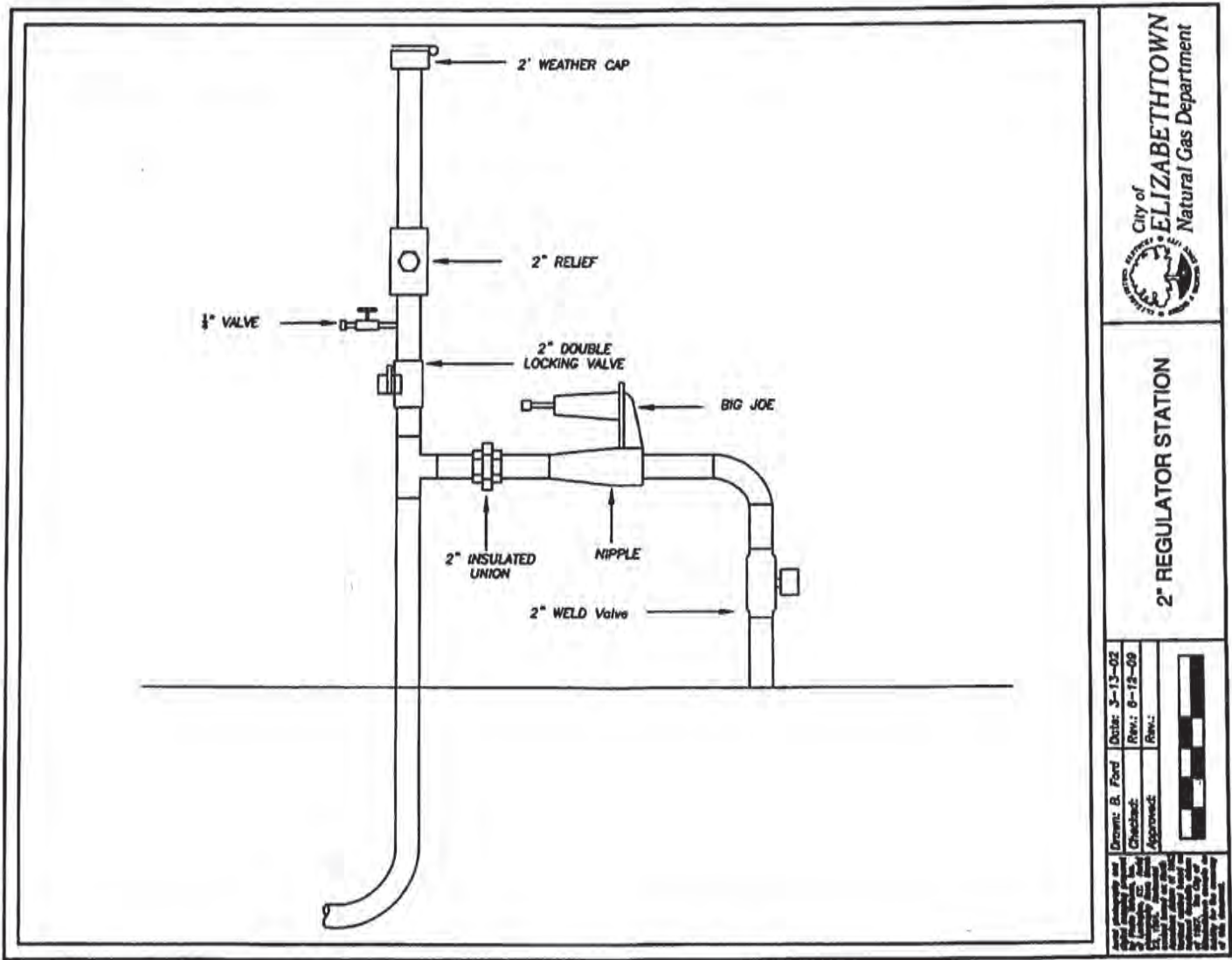
Rev.: _____

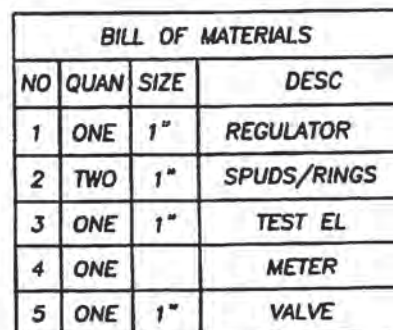
0"

6"

0"

NOT TO SCALE





MOBILE HOME INSTALLATION

DocId: 31550 DocId: 31550

Checked:	Rev:
----------	------

Rev.:	
Approved:	

0. 0.



NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

Standard Sanitary Sewer Bid Item Descriptions

S BYPASS PUMPING This item shall include all labor, equipment, and materials needed to complete a bypass pumping and/or hauling operation for diversion of sewage during sanitary sewer construction. Examples of such operations when bypass pumping and/or hauling may be necessary is during force main tie-ins, manhole invert reconstruction, insertion of new manholes into existing mains, or other similar construction. There may be more than one bypass pumping/hauling operation on a project. This item shall be paid for each separate bypass pumping/hauling operation occurrence as called out on the plans or directed by the engineer and actually performed. There will be no separate bid items defined for length, duration, or volume of sewage pumped or hauled in each occurrence. If a bypass pumping/hauling operation is called out on the plans; but, conditions are such that the bypass pumping/hauling operation is not needed or utilized, no payment will be made under this item. The contractor shall draw his own conclusions as to what labor, equipment, and materials may be needed for each bypass pumping/hauling occurrence. The contractor should be prepared to handle the maximum volume of the sewer being bypassed, even during a storm event. This item shall not be paid separately, but shall be considered incidental, when bypass pumping and/or hauling is needed during cast-in-place-pipe (CIPP) and/or point repair operations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA).

S CIPP LATERAL SERVICE INVESTIGATION This item shall include all equipment, materials, labor and incidentals necessary to enter the sewer in compliance with all safety/confined space requirements and perform the identification, assessment and pre-measurement of all existing and abandoned laterals for the placement of Cured-In-Place-Pipe lining. This item shall be in payment for all lateral service investigation for all sewer segments to be lined as a part of this contract. This bid item shall include bypass pumping when required. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. Payment for this item shall be LUMP SUM (LS).

S CIPP LATERAL REINSTATEMENT This item is to pay for installing a Cured-In-Place-Pipe liner in service laterals and service/mainline connections to stabilize structural defects and construction inadequacies. This bid item shall include all labor, equipment, materials and incidentals necessary to perform the service lateral reinstatement in accordance with the plans and specifications. Work under this item shall include bypass pumping, sewer flow control, pre-installation cleaning, sealing connections to existing sewer main, pre- and post- construction CCTV inspection and final testing of the CIPP system. This item shall also include the "top hat" required by the specifications. All CIPP lateral reinstatements shall be paid under this item regardless of the size or length of reinstatement. No separate bid items of varying sizes or length of CIPP lateral reinstatement will be provided in the contract. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. Payment for this item shall be EACH (EA) for each CIPP lateral reinstatement complete and ready for use.

S CIPP LINER This bid Item is to pay for rehabilitation of existing sanitary sewers using the Cured-In-Place-Pipe method. This bid item description applies to all CIPP sizes included in the contract.

All CIPP Liner items of all varying sizes shall include all labor, materials, customer notification, testing, necessary permits, ingress and egress procedures, bypass pumping, pre-construction video, sediment and root removal, dewatering, traffic control, erosion and sediment control, excavation pits, removal and replacement of manhole frames and covers as necessary to facilitate the lining work, sealing at manholes and service connections, clearing and grubbing, pipeline cleaning, re-cleaning and video inspection as many times as necessary, debris collection and disposal, root removal, pre- and post-construction video inspection, all digital inspection footage, final report preparation and approval, the cost of potable water from the Owner, required compliance tests, site restoration, site cleanup, sealing of liner at manholes, acceptance testing and all other rehabilitation work and incidentals not included under other pay items necessary to complete the rehabilitation per the plans and specifications. There will be no separate payment for acceptance testing of the lined pipe; but shall be considered incidental to this item. Pay under this item shall be by each size bid in the contract. Pay measurement shall be from center of manhole to center of manhole. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S CIPP PROTRUDING LATERAL REMOVAL This item includes all equipment, materials, labor and incidentals necessary to enter the sewer in compliance with all safety/confined space requirements, remove a sufficient amount of the protruding tap to insure a proper and safe Cured-In-Place-Pipe lining insertion and perform pre-installation CCTV. This bid item shall include bypass pumping when required. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. Payment for this item shall be EACH (EA) for each protruding lateral removed.

S CONCRETE PIPE ANCHOR This item shall be constructed on the sewer pipe at the locations shown on the plans in accordance with sanitary sewer specifications and standard drawings. Payment for concrete anchors will be made at the contract unit price each in place complete and ready for use. Each concrete anchor of sewer pipe or force main shall be paid under one bid item per contract regardless of the sizes of carrier pipe being anchored in the contract. No separate bid items will be established for size variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S DIRECTIONAL BORE Payment under this item is made whenever the plans or specifications specifically show directional boring is to be utilized in order to minimize the impact of open cut for the installation of force main or gravity sewer under streets, creeks, and etc. Payment under this item shall include the specified bore pipe, labor, and equipment. No separate payment shall be made for bore pipe installed in the bore whether used as a carrier pipe or an encasement of a separate carrier pipe. This item shall also include pipe anchors at each end of the bore when specified to prevent the creep or contraction of the bore pipe. Carrier pipe installed within a bore pipe shall be paid separately under pipe items. Payment under this item shall not be size specific and no separate bid items will be established for size variations. The bore pipe sizes to be included under this item shall be as shown on the plans and/or in the specifications. Any and all directional bores in each contract shall be paid under one directional bore bid item included in the contract regardless of size. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S ENCASEMENT CONCRETE Includes all labor, equipment, excavation, concrete, reinforcing

steel, backfill, restoration, and etc., to construct the concrete encasement of the sewer or force main as shown on the plans, and in accordance with the specifications and standard drawings. Payment under this item shall be in addition to the carrier pipe as paid under separate bid items. Carrier pipe is not included in this bid item. Any and all concrete encasement shall be paid under one bid item included in the contract regardless of the size of the carrier pipe or the volume of concrete or steel reinforcement as specified in the plans and specifications. No separate bid items will be established for size variations. Measurement of pay quantity shall be from end of concrete to end of concrete. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF) when complete.

S ENCASEMENT STEEL BORED This item shall include the steel encasement pipe size as specified on the plans and in the specifications, casing spacers, end seals, labor, and equipment to bore and install the encasement in accordance with the plans and specifications, complete and ready for use. The size shall be the measured internal diameter of the encasement pipe. The sizes of encasement to be paid under the size ranges specified in the bid items shall be as follows:

- Range 1 = All encasement sizes greater than 2 inches to and including 6 inches
- Range 2 = All encasement sizes greater than 6 inches to and including 10 inches
- Range 3 = All encasement sizes greater than 10 inches to and including 14 inches
- Range 4 = All encasement sizes greater than 14 inches to and including 18 inches
- Range 5 = All encasement sizes greater than 18 inches to and including 24 inches
- Range 6 = All encasement sizes greater than 24 inches

(Encasement sizes of 2 inches internal diameter or less shall not be paid separately; but, shall be considered incidental to the carrier pipe.) Payment under this bid item shall not include the carrier pipe. Carrier pipe shall be paid under a separate bid item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S ENCASEMENT STEEL OPEN CUT This item shall include the steel encasement pipe size as specified on the plans and in the specifications, casing spacers, end seals, labor, and equipment to open cut install the encasement in accordance with the plans and specifications, complete and ready for use. The size shall be the measured internal diameter of the encasement pipe. The size encasement to be paid under the size ranges specified in the bid items shall be as follows:

- Range 1 = All encasement sizes greater than 2 inches to and including 6 inches
- Range 2 = All encasement sizes greater than 6 inches to and including 10 inches
- Range 3 = All encasement sizes greater than 10 inches to and including 14 inches
- Range 4 = All encasement sizes greater than 14 inches to and including 18 inches
- Range 5 = All encasement sizes greater than 18 inches to and including 24 inches
- Range 6 = All encasement sizes greater than 24 inches

(Encasement sizes of 2 inches internal diameter or less shall not be paid separately; but, shall be considered incidental to the carrier pipe.) Payment under this bid item shall not include the carrier pipe. Carrier pipe shall be paid under a separate bid item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S FORCE MAIN This description shall apply to all PVC and ductile iron and polyethylene/plastic pipe bid items of every size and type, except those bid items defined as “Special”. This item includes the pipe specified by the plans and specifications, all fittings (including, but not limited to, bends, tees, reducers, plugs, and caps), tracing wire with test boxes (if required by specification), polyethylene wrap (when specified), labor, equipment, excavation, bedding, restoration, testing, backfill, and etc., required to install the specified new pipe and new fittings at the locations shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. No additional payment will be made for rock excavation. This bid item includes material and placement of flowable fill under existing and proposed pavement, and wherever else specified on the plans or in the specifications. This item shall also include pipe anchors on polyethylene pipe runs as shown on the plans or required by the specifications to prevent the creep or contraction of the pipe. Measurement of quantities under this item shall be through fittings, encasements, and directional bores (only when a separate carrier pipe is specified within the directional bore pipe). No separate payment will be made under pipe items when the directional bore pipe is the carrier pipe. Measurements shall be further defined to be to the center of tie-in where new pipe contacts existing pipe at the center of connecting fittings, to the outside face of vault or structure walls, or to the point of main termination at dead ends. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

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

S FORCE MAIN DIRECTIONAL BORE Payment under this item is made whenever the plans or specifications specifically show directional boring is to be utilized in order to minimize the impact of open cut for the installation of sewer or force main under streets, buildings, creeks, and etc. Payment under this item shall include the specified bore pipe, labor, and equipment. No separate payment shall be made for bore pipe installed in the bore whether used as a carrier pipe or an encasement of a separate carrier pipe. This item shall also include pipe anchors at each end of the bore when specified to prevent the creep or contraction of the bore pipe. Carrier pipe installed within a bore pipe shall be paid separately under pipe items. Payment under this item shall not be size specific and no separate bid items will be established for size variations. The bore pipe sizes to be included under this item shall be as shown on the plans and/or in the specifications. Any and all directional bores in each contract shall be paid under one directional bore bid item included in the contract regardless of size. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S FORCE MAIN POINT RELOCATE This item is intended for payment for horizontal and/or vertical relocation of a short length of an existing main at the locations shown on the plans. This bid item is to be used to relocate an existing force main at point locations such as to clear a conflict at a

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

S FORCE MAIN TAP SLEVE/VALVE RANGE 1 OR 2 This item shall include the specified tapping sleeve, valve, valve box, concrete pad around valve box (when required in specifications or plans), labor, and equipment to install the specified tapping sleeve and valve, complete and ready for use in accordance with the plans and specifications. The size shall be the measured internal diameter of the live pipe to be tapped. The size tapping sleeve and valve to be paid under sizes 1 or 2 shall be as follows:

Range 1 = All live tapped main sizes up to and including 8 inches

Range 2 = All live tapped main sizes greater than 8 inches

Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S FORCE MAIN TIE-IN This bid description shall be used for all force main tie-in bid items of every size except those defined as "Special". This item includes all labor, equipment, excavation, fittings, sleeves, reducers, couplings, blocking, anchoring, restoration, testing and backfill required to make the force main tie-in as shown on the plans and in accordance with the specifications complete and ready for use. This bid item shall include purge and sanitary disposal of any sewage from any abandoned segments of force main. Pipe for tie-ins shall be paid under separate bid items. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S FORCE MAIN VALVE This description shall apply to all force main valves of every size required in the plans and specifications, except those bid items defined as "Special". Payment under this description is to be for gate or butterfly force main valves being installed with new force main. This item includes the valve as specified in the plans and specifications, polyethylene wrap (if required by specification), labor, equipment, excavation, anchoring (if any), valve box and valve stem extensions, backfill, concrete pad around valve box (if required by specification), restoration, testing, and etc., required to install the specified valve at the location shown on the plans in accordance with the specifications and standard drawings complete and ready for use. If required on plans and/or proposed adjoining DIP is restrained, force main valves shall be restrained. Force main valve restraint shall be considered incidental to the force main valve and adjoining pipe. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be

referenced. This item shall be paid EACH (EA) when complete.

S FORCE MAIN VALVE BOX ADJUST Includes all labor, equipment, valve box and valve stem extensions (if required), excavation, backfill, concrete pad around valve box (when specified in specifications or plans), restoration, and etc., to adjust the top of the force main valve box to finished grade complete and ready for use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S LATERAL CLEANOUT This item shall be for payment for installation of a cleanout in a service lateral line. This item shall include furnishing and installation of a tee, vertical pipe of whatever length required, and threaded cap. The cleanout shall extend from the lateral to final grade elevation. The size of the cleanout shall be equivalent to the size of the lateral. The cleanout materials shall meet the same specification as those for the lateral. The cleanout shall be installed at the locations shown on the plans or as directed by the engineer. Only one pay item shall be established for cleanout installation. No separate pay items shall be established for size or height variances. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S LATERAL LOCATE This bid item is to pay for all labor, equipment, and materials needed in locating an existing sanitary sewer service lateral for tie-in of the lateral to new mainline sewers and/or for the relocation of a lateral. This bid item shall be inclusive of any and all methods and efforts required to locate the lateral for tie-in or relocation of the lateral. Locating methods to be included under this items shall include, but are not limited to, those efforts employing the use of video cameras from within an existing sanitary sewer main or lateral, electronic locating beacons and/or tracers inserted into the sanitary sewer main or lateral, careful excavation as a separate operation from mainline sewer or lateral excavation, the use of dyes to trace the flow of a lateral, or any combination of methods required to accurately locate the lateral. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA).

S LATERAL LONG SIDE This bid item description shall apply to all service lateral installations of every size up to and including 6 inch internal diameter, except those lateral bid items defined as "Special". This item includes the specified piping material, main tap, bends, clean outs, labor, equipment, excavation, backfill, testing, and restoration, at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. This bid item is to pay for service lateral installations where the ends of the lateral connection are on opposite sides of the public roadway. The new lateral must cross the centerline of the public roadway to qualify for payment as a long side lateral. The length of the service lateral is not to be specified. Payment under this item shall not be restricted by a minimum or maximum length. The contractor shall draw his own conclusions as to the length of piping that may be needed. Payment under this item shall include boring, jacking, or excavating across the public roadway for placement. Placement of a service lateral across a private residential or commercial entrance alone shall not be reason to make payment under this item. Private or commercial entrances shall not be considered a public roadway in defining payment under this item. No additional payment will be made for rock excavation or for bedding required in rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S LATERAL SHORT SIDE This bid item description shall apply to all service lateral installations of every size up to and including 6 inch, except those lateral bid items defined as “Special”. This item includes the specified piping material, main tap tee, bends, clean outs, labor, equipment, excavation, backfill, testing, and restoration, at the locations shown on the plans or as directed, in accordance with the specifications and standard drawings, complete and ready for use. This bid item is to pay for lateral installations where both ends of the lateral connection are on the same side of the public roadway, or when an existing lateral crossing a public roadway will remain and is being extended, reconnected, or relocated with all work on one side of the public roadway centerline as shown on the plans. The length of the service lateral is not to be specified and shall not be restricted to any minimum or maximum length. Payment shall be made under this item even if the lateral crosses a private residential or commercial entrance; but, not a public roadway. Private or commercial entrances shall not be considered a public roadway in defining payment under this item. The contractor shall draw his own conclusions as to the length of piping that may be needed. No additional payment will be made for rock excavation or for bedding required in rock excavation. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S LINE MARKER This item is for payment for furnishing and installing a sewer utility line marker as specified by the utility owner specifications and plans. A line marker may consist of a post or monument of whatever materials specified and shall include markings and/or signage on same as specified by plans or specifications. This item shall include all labor, equipment, and materials needed for complete installation of the marker. This item shall be paid EACH (EA) when complete.

S MANHOLE Payment under this item is for the installation of new 4 foot interior diameter sanitary sewer manhole. Payment for manholes will be made at the contract unit price each in place complete and ready for use at the locations shown on plans in accordance with specifications and standard drawings. Manholes shall include concrete base, barrel sections, cone section or slab top, steps, excavation, backfilling, air testing, restoration, and cleanup in accordance with the specifications and standard drawings. Payment shall be made under this item regardless of whether the base is to be precast or cast-in-place (doghouse). All materials, except casting, shall be new and unused. An existing casting from an existing abandoned or removed manhole is to be reused and shall be considered incidental to this item. When a new casting is specified, or an existing casting is unavailable, it shall be paid as a separate bid item. Anchoring of casting, new or used, shall be considered incidental to this bid item. No additional compensation will be paid for manhole height variations. No additional payment will be made for rock excavation. Please refer to the Utility Company’s Specifications. If the Company does not have specifications, KYTC’s Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE ABANDON/REMOVE Payment under this item is for the partial removal and/or filling of any sanitary sewer manhole regardless of size or depth that no longer serves any purpose. Payment shall be made regardless of whether the manhole is or is not in conflict with other work. Any manhole requiring partial removal, but not total removal, in order to clear a conflict with other work shall be paid under this item. All manholes partially removed shall be removed to a point at least one foot below final grade, one foot below roadway subgrade, or one foot clear of any other underground infrastructure, whichever is lowest. If partial removal of an abandoned manhole is elected by the contractor, the remaining manhole structure shall be refilled with flowable fill. Payment for disposal of a sanitary sewer manhole will be made under this item only. Please refer to the Utility Company’s

Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE ADJUST TO GRADE Payment under this item is for the adjustment of sanitary sewer casting elevation on all sizes of existing sanitary manholes. This work shall be performed in accordance with the sanitary sewer specifications. Payment shall be made under this bid item regardless of the amount of adjustment necessary to a sanitary sewer manhole casting or diameter of the manhole. Work under this pay item may be as simple as placing a bed of mortar under a casting; but, shall also be inclusive of installation of adjusting rings, and /or addition, removal, or replacement of barrel sections. The existing casting is to be reused unless a new casting is specified on the plans. New casting, when specified, shall be paid as a separate bid item. Anchoring of the casting shall be incidental to this item. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE CASTING STANDARD Payment under this bid items is for furnishing of a new standard traffic baring casting for sanitary manholes meeting the requirements of the sanitary sewer specifications and standard drawings. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when installed.

S MANHOLE CASTING WATERTIGHT Payment under this bid item is for furnishing of a new watertight traffic baring casting for sanitary manholes meeting the requirements of the sanitary sewer specifications and standard drawings. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when installed.

S MANHOLE RECONSTRUCT INVERT This bid item is to pay for all labor, equipment, and material for rework of the manhole bench to redirect or eliminate flow, such as when the flow of a pipe or pipes are being removed or redirected. This work will be as specified in the plans, specifications, or directed by the engineer. This work may consist of, but is not limited to, removal of concrete and/or placement of concrete in elimination or redirect of flow. This item shall also include providing and placement of a rubber seal or boot as required by utility specification, standard drawing or plan. The contractor shall draw his own conclusions as to the effort and scope of work needed to comply with the specifications, standard drawings, and plans. No payment shall be made under this bid when MANHOLE TAP EXISTING, or MANHOLE TAP EXISTING ADD DROP are being paid at the same location, as this type of work is included in those items. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE TAP EXISTING This bid item is to pay for all labor, equipment, and material for coring one opening in an existing manhole base, addition of a rubber seal as specified, and rework of the manhole bench to direct the additional pipe flow. The bid item shall be paid for each core opening added to a single manhole. This bid item shall also include any rework of the existing manhole bench due to the elimination of other existing pipes and flow. This work will be as specified in the plans, specifications, or directed by the engineer. This work may consist of, but is not limited to, removal of concrete and/or placement of concrete in the addition, elimination, or redirect of flow. The contractor shall draw his own conclusions as to the effort and scope of work needed to comply with the

specifications, standard drawings, and plans. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE TAP EXISTING ADD DROP This bid item is to pay for all labor, equipment, and material for coring one opening in an existing manhole base, addition of a rubber seal as specified, addition of a vertical drop pipe to the outside of the manhole, placement of reinforcing steel and concrete to encase vertical pipe, and rework of the manhole bench to direct the additional pipe flow. The bid item shall be paid for each drop added to a single manhole. This bid item shall also include any rework of the existing manhole bench due to the elimination of other existing pipes and flow. This work will be as specified in the plans, specifications, or directed by the engineer. This work may consist of, but is not limited to, removal of concrete and/or placement of concrete in the addition, elimination, or redirect of flow. The contractor shall draw his own conclusions as to the effort and scope of work needed to comply with the specifications, standard drawings, and plans. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE WITH DROP Payment under this item is for the installation of new 4 foot interior diameter sanitary sewer manhole with drop. Payment for drop manholes will be made at the contract unit price each in place complete and ready for use at the locations shown on plans in accordance with specifications and standard drawings. Drop manholes shall include concrete base, barrel sections, drop materials, cone section or slab top, steps, excavation, backfilling, air testing, restoration, and cleanup. Payment shall be made under this item regardless of whether the base is to be precast or cast-in-place (doghouse). All materials, except casting, shall be new and unused. An existing casting from an existing abandoned or removed manhole is to be reused and shall be considered incidental to this item. When a new casting is specified, or an existing casting is unavailable, it shall be paid as a separate bid item. Anchoring of casting, new or used, shall be considered incidental to this bid item. No additional compensation will be paid for manhole height variations. No additional payment will be made for rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE WITH LINING Payment under this item is for the installation of new 4 foot interior diameter sanitary sewer manhole with corrosion resistant lining. Payment for manholes will be made at the contract unit price each in place complete and ready for use at the locations shown on plans in accordance with specifications and standard drawings. Manholes shall include concrete base, barrel sections, cone section or slab top, steps, lining, excavation, backfilling, air testing, restoration, and cleanup in accordance with the standard drawings. Payment shall be made under this item regardless of whether the base is to be precast or cast-in-place (doghouse). All materials, except casting, shall be new and unused. An existing casting from an existing abandoned or removed manhole is to be reused and shall be considered incidental to this item. When a new casting is specified, or an existing casting is unavailable, it shall be paid as a separate bid item. Anchoring of casting, new or used, shall be considered incidental to this bid item. No additional compensation will be paid for manhole height variations. No additional payment will be made for rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S MANHOLE WITH TRAP Payment under this item is for the installation of a new manhole with

trap. Payment for trap manholes will be made at the contract unit price each in place complete and ready for use at the locations shown on plans in accordance with specifications and standard drawings. Trap manholes shall include concrete base, manhole structure and trap materials, cone section or slab top, steps, excavation, backfilling, air testing, restoration, and cleanup. All materials, except casting, shall be new and unused. Payment shall be made under this item regardless of whether the base is to be precast or cast-in-place (doghouse). An existing casting from an existing abandoned or removed manhole is to be reused and shall be considered incidental to this item. When a new casting is specified, or an existing casting is unavailable, it shall be paid as a separate bid item. Anchoring of casting, new or used, shall be considered incidental to this bid item. No additional compensation will be paid for manhole height variations. No additional payment will be made for rock excavation. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S PIPE This description shall apply to all PVC and ductile iron gravity sewer pipe bid items of every size and type 8 inches internal diameter and larger, except those bid items defined as "Special". This item includes the pipe specified by the plans and specifications, all fittings (including, but not limited to, tap tees and couplings for joining to existing similar or dissimilar pipes), polyethylene wrap (if required by specification), labor, equipment, excavation, bedding, restoration, pressure or vacuum testing, temporary testing materials, video inspection, backfill, and etc., required to install the specified new pipe and new fittings at the locations shown on the plans, or as directed, in accordance with the specifications and standard drawings complete and ready for use. This bid item shall include material and placement of flowable fill under existing and proposed pavement, and wherever specified on the plans or in the specifications. No additional payment will be made for rock excavation. Measurement of quantities under this item shall be through fittings and encasements to a point at the outside face of manhole barrels, or to the point of main termination at dead ends or lamp holes. Carrier pipe placed within an encasement shall be paid under this item and shall include casing spacers and end seals. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S PIPE POINT REPAIR This item is to be used to pay for repair of short lengths of existing sanitary sewer pipe that, through prior video inspection or other means, are known to have pre-existing failure. Pipe Point Repair may be needed in preparation for installation of cured-in-place-pipe (CIPP) lining or other instances where failure is known and repair is prudent. The size of pipe shall not be defined in separate bid items. All diameter sizes of point repair shall be paid under this one item. The materials to be used to make the repair shall be as defined on the plans or in the specifications. This bid item shall include all excavation, pipe materials, joining materials to connect old and new pipe, bedding, and backfill to complete the repair at the locations shown on the plans or as directed by the engineer, complete and ready for use. This bid item shall include bypass pumping when required. Measurement shall be from contact point to contact point of old and new pipe. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid LINEAR FEET (LF).

S PUMP STATION This item is for payment for installation of sanitary pump stations including above or below ground structure for housing of the pumps. This item shall include all pumps, piping, fittings, valves, electrical components, building materials, concrete, any other appurtenances, labor, equipment, excavation, and backfill, to complete the pump station installation as required by the plans, standard drawings, and specifications, complete and ready for use. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall

be referenced. This item shall be paid LUMP SUM (LS) for each when complete.

S STRUCTURE ABANDON This item is to be used to pay for abandonment of larger above or below ground sewer structures such as air release/vacuum valve vaults, pump stations, tanks, etc. Payment under this time shall not be limited to size or scope; however structures with connecting pipes of 2 inches or less shall not be paid under this item; but, shall be considered incidental to sewer construction, (i.e., abandonment of standard air release/vacuum valves up to and including 2 inches would not be paid under this item). Payment under this item shall include all labor, equipment, and compacted fill or flowable fill for abandonment of the structure in place and restoration complete. No separate bid items will be established for size or structure variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

S STRUCTURE REMOVAL This item is to be used to pay for removal of larger above or below ground sewer structures such as air release/vacuum valve vaults, pump stations, tanks, and etc. Payment under this time shall not be limited to size or scope; however, structures with connecting pipes of 2 inches or less shall not be paid under this item; but, shall be considered incidental to sewer construction, (i.e., removal of standard air release/vacuum valves and their structure up to and including 2 inches would not be paid under this item). Payment under this item shall include all labor, equipment, and compacted backfill for removal of the structure and restoration complete. No separate bid items will be established for size or structure variations. Please refer to the Utility Company's Specifications. If the Company does not have specifications, KYTC's Specifications shall be referenced. This item shall be paid EACH (EA) when complete.

CITY OF ELIZABETHTOWN



SANITARY SEWER INSTALLATION AND SPECIFICATION MANUAL

SEPTEMBER 2011

OVERVIEW

The purpose of this document is to provide design engineers, contractors and developers a readily accessible source for the proper installation of sanitary sewer systems in the City of Elizabethtown.

The City of Elizabethtown's sanitary sewer system is served by the Valley Creek Wastewater Treatment Plant. This plant serves all of the sanitary sewer needs of the City.

All designs of the sanitary sewer system must be designed by a licensed professional engineer to meet the requirements of the Kentucky Division of Water and the Kentucky Plumbing Code. The Kentucky Division of Water references the use of the Recommended Standards for Wastewater Facilities, normally referred to as the Ten State Standards. These standards should be followed for the installation of the sanitary sewer systems. This manual serves to further enhance these requirements for the City of Elizabethtown.

This document is to serve as a guide for the installation of sanitary sewer systems and is made to compliment the City's Subdivision Regulations, Commercial Design Standards, Zoning Ordinance and any other policy or ordinance that regulates the subdivision and development of property inside the boundaries of the City of Elizabethtown.

All design plans shall be submitted to the City of Elizabethtown Engineering Department for review prior to being submitted to the Kentucky Division of Water for their approval.

TECHNICAL SPECIFICATIONS

All pipe and accessories supplied for the City of Elizabethtown's sanitary sewer system shall be as specified herein. Where referenced specifications (ASTM, AWWA, etc.) are mentioned, these standards are deemed to be the minimum standard of quality of materials or methods for the installation of the materials.

All pipe and fittings installed for the sanitary sewer systems shall be Polyvinyl-Chloride (PVC), Ductile Iron or Concrete Pipe. The pipe installed shall meet the following requirements. Other materials for specific applications must be approved by the City Engineer.

1. MATERIALS

PVC pipe 4 inch through 15 inch diameter shall be type PSM Polyvinyl Chloride (PVC) Sewer Pipe as specified per ASTM D 3034-81. The pipe shall be made of PVC plastic having a cell classification of 12454-B or 12454-C as defined in ASTM D 1784-81 and shall be homogeneous throughout, free of cracks, holes, foreign inclusions or other defects. The pipe shall be uniform in color, wall thickness, density and other physical properties. The maximum laying length for all PVC pipe supplied shall be 13.0± feet. Wall thickness shall be SDR-35 per ASTM D 3034-81 or wall thickness T-1 per ASTM F 679-80. Marking and identification of pipe shall be per ASTM D 3034-81 or ASTM F 679-80 as applicable.

PVC fittings supplied shall meet all physical and quality requirements as hereinbefore specified for PVC pipe. PVC fittings shall be those as manufactured by or supplied by the manufacturer of the pipe. PVC fittings for 4 inch through 15 inch diameter pipe shall meet the dimensional requirements of the tables as shown in ASTM D 3034-81 except that saddle-type wyes or tee branches shall not be allowed for use on new sewer mains. PVC fittings for 15 inch through 27 inch diameter pipe shall conform to the requirements of ASTM F 679-80.

Joints for PVC pipe and fittings for sanitary sewer lines shall be the "Push-On-Type" composed of elastomeric ring gaskets compressed in the annular space between a bell end or socket and spigot end of the pipe. All surfaces of the bell, socket or spigot end of the pipe against which the ring gasket may bear shall be smooth, free of cracks or other imperfections that could adversely affect the sealing capacity of the joint. Lubricant for use in assembling joint shall be supplied with the pipe or be of the specific manufacturer as recommended by the pipe manufacturer for use with the specified pipe supplied. The lubricant shall not cause deterioration of either the elastomeric ring gasket or pipe material. Where PVC pipe and fittings are connected to piping of other materials, the manufacturer's standard adapters or transition pieces shall be used.

Ductile Iron pipe 4 to 54 inches shall comply with all provisions of ANSI/ASTM A 746-77. Maximum design thickness shall be based on depth of cover, trench loadings and other conditions per ANSI/AWWA C150/A21.50-81.

Concrete Pipe 4 to 45 inches shall comply with all provisions of ASTM C 1433. Concrete pipe shall be installed using the standard methods provided by the American Pipe Association.

Pipe joints shall be mechanical joint or rubber ring slip joint. Mechanical joints are to be furnished according to ASNA/AWWA C111/A21.11-80. All pipe joints must be furnished complete with all accessories. Mechanical joint bolts and nuts shall be of an alloy steel cast iron or alloy steel (Corten type such as U.S. Alloy) or equal. Rubber gaskets shall be made of plain first grade rubber, free of imperfections and porosity. Hardness shall be 70 to 75 durometer. Rubber ring slip joints shall be equal to ANSI/AWWA C111/A21.11-80.

Fittings shall be ductile iron mechanical and rubber ring slip and shall conform to ANSI/AWWA C110/A21.10-82 for gray iron and ductile iron fittings. Mechanical joints and rubber slip ring joints shall also conform in all respects to ANSI/AWWA C111/A21.11-80. All fittings shall be manufactured for the size and pressure class of the pipeline in which they are to be used. All fittings shall be furnished complete with all joint accessories.

Manholes shall be precast reinforced concrete risers and tops and shall meet the requirements of the Standard Drawings and ASTM C-478-80. All basic materials specified herein shall be tested and inspected by an approved commercial testing laboratory prior to delivery to the site, and all materials which fail to conform to these specifications shall be rejected. After delivery to the site, all materials that have been damaged in transit, or are otherwise unsuitable for use in the work, shall be rejected and removed from the site. The commercial testing laboratory shall be engaged and paid for by the Contractor. All joints in new manholes shall be constructed using 3/8" thick minimum flexible neoprene boots meeting the requirements of ASTM C443. The boot assembly shall include a properly formed boot of neoprene or equal and shall include internal and external bands of 304 stainless steel per ASTM A167, and an internal bank of anodized aluminum 6061-T6, T-651. Gasket type sealant to fill tongue and groove joints at top of precast manhole bases and between barrel sections shall be preformed, flexible, watertight, designed for specific joint requirements and meet Federal Specifications SS-S-00210 and AASHTO M-198.

Manhole frames and covers shall be made of cast iron construction to the minimum requirements of Federal Specification WW-1-652 or to Class 30, Serial Designation AO48 of the American Society for Testing Materials, for "Gray Iron Castings", unless otherwise directed by the City Engineer. All castings shall be made accurately to the required dimensions and shall be sound, smooth, clean, and free from blisters and other defects. Defective castings, which have been plugged or otherwise treated to remedy defects, shall be rejected. Contact surfaces of frames and covers shall be machined so

that covers rest securely in the frame with no rocking and with covers in contact surfaces. All castings shall be thoroughly cleaned subsequent to machining and, before rusting begins, shall be painted with a bituminous coating so as to present a smooth finish, tough and tenacious when cold but not tacky with any tendency to scale. Each casting shall have its actual weight in pounds stenciled or painted thereon with white paint by the manufacturer, thereof. Manhole castings shall consist of 22 ¾ inch diameter cover, having a weight of 125 pounds or greater for the cover and 180 pounds or greater for the frame. Watertight manhole lids may be required in certain applications as indicated on the Standard Details.

Manhole ladder bars shall be hot dip galvanized in accordance with ASTM A-153, Class B or polypropylene plastic encapsulated steel as manufactured by M.A. Industries or approved equal.

Drop manholes shall be used where the difference in the invert elevation of two or more sewers intersecting in one manhole is 2 feet or more, and shall be constructed in the manner shown on Standard Details. The drop manhole shall be similar in construction to the standard manhole except that a drop connection of pipe and fitting of the proper size and material shall be constructed outside the manhole and supported by 3000 psi concrete as indicated on the Standard Details.

Manhole inverts shall be constructed of 3000 psi concrete to the approximate cross section of the sewer connected thereto. Necessary changes in cross section shall be made gradually from side to side of the manhole. Changes in direction of flow of the sewers shall be made to a true curve of as large a radius as is permitted by the size of the manhole.

2. LIFT STATION AND FORCE MAINS

Lift stations shall only be used by permission from the City Engineer and shall only be used when gravity sanitary sewer systems are unavailable for a development or subdivision.

Pump stations shall be of the wet well type utilizing submersible pumps. They shall operate automatically under normal conditions. Precast concrete or cast-in place concrete wet wells are acceptable. The pump station shall be designed to an elevation at least two feet above the 100-year flood elevation. Wet wells shall be designed for the ultimate peak flow of the lift station. Each pump station shall be accessible by a paved access road with a minimum width of twelve feet and a minimum twelve foot by twenty foot turn around area. Pump stations shall have a NEMA outdoor rated control panel. The electrical service for the pump station shall be provided with an emergency generator plug connection meeting the requirements of the Plant Maintenance Division of the Department of Water and Wastewater.

All gate and check valves shall be installed horizontally in concrete valve vaults next to the wet wells. The arrangement shall provide for easy access to the equipment to facilitate maintenance.

Force mains shall be designed for ultimate peak flow conditions and checked for initial and ultimate peak flow conditions to insure the velocity ranges. Sewage combination air valves shall be provided at all high points in the force main. Thrust restraints and blocks shall be provided at all bends. For slopes of 20 percent and greater, anchors shall be provided at each joint. The force main pipe materials shall be PVC or ductile iron meeting the requirements as set forth in the standard gravity sewer piping materials.

Also see the **LIFT STATION REQUIREMENTS** in this manual.

3. INSTALLATION

Proper procedures shall be used during the **installation** of the sanitary sewer pipes. The Engineering Department shall be contacted prior to the installation of any new sanitary sewer system. The installation shall be as follows:

- a) Before sewer pipe is placed in position in the trench, the bottom and sides of the trench shall be carefully prepared and any necessary bracing and sheeting installed as provided in these specifications.
- b) Water shall not be allowed to run or stand in the trench while pipe is being laid, before the joint has completely set, or before the trench has been backfilled. The Contractor shall not open up at any time more trench than his available pumping facilities are able to dewater.
- c) Trench bottoms shall be ~~found to be unsuitable for foundations after pipe laying operations have started shall be corrected and~~ brought to exact line and grade with compacted crushed stone (K.D.O.T. #9 or other stone as approved) as directed by the Engineer.
- d) Each piece of pipe and special fitting shall be carefully inspected before it is placed, and no defective pipe shall be laid in the trench. Pipe laying shall proceed up grade starting at the lower end of the grade and with the bells up grade.
- e) Wyes and tee branches shall be installed in the sanitary sewer lines so as to properly serve each lot facing or abutting on the street or alley in which the sewer is being laid, and at such other locations as may be designated by the Engineer. Such branches shall be closed with plugs adequately braced to withstand test pressure. All tees and wyes shall be adequately marked so that they may easily found prior to future excavation.
- f) The interior of the pipe in place shall be thoroughly inspected and cleaned prior to installation. Prior to testing, all piping shall be inspected and all earth, trash, rags, and other foreign matter removed from the interior.
- g) ~~Backfilling shall be performed in the manner provided in these specifications.~~ Backfilling around the pipe shall be accomplished using compacted crushed stone (K.D.O.T. #9 or other stone as approved) to a depth of 12" above the top of the pipe. The rest of the trench shall be backfilled using native trench materials. Trenches for all pipes under pavement shall be provided with full depth compacted stone backfill.

- h) Where sewers mains cross water mains and have less than 18 inches of separation, the sewer pipe for a distance of ten feet (10') each side of the crossing shall have a watertight carrier pipe or full pipe concrete encasement.
- i) Sewer service connections shall be marked with a 2" PVC pipe from the top of the service connection cap to two feet above finished grade. PVC pipe above grade shall be painted green.
- j) Sewer pipes, which when completed have less than 30 inches of cover, shall be provided with concrete protection as required by the Ten State Standards.

The following procedures shall be used when **connecting to existing sanitary sewer** systems. Connections shall be made by removing a section of the sewer from the existing line and inserting in the space, a wye branch of proper size, or by construction of a manhole. If a sewer is 8 inches or larger, the connection to an existing sewer pipe shall be made with a standard "doghouse" style manhole. Connections to existing manholes, or inlets, shall be made by core drilling a hole in the wall of existing structure and installing a kor-n-seal boot into the hole in accordance with manufacturer's recommendation. The bottom of all existing manholes shall be shaped or reshaped as necessary to fit the invert of the new and existing sewer pipes.

4. TESTING SANITARY SEWER AND MANHOLES

All sanitary sewer pipes and manholes shall be tested in the presence of the City Engineering Department. Manholes shall be tested in accordance with ASTM C 1244-93 – Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test. PVC sewer ~~sewer~~ pipes shall be tested in accordance with ASTM F 1417-92 0 Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air. Concrete sewer pipes shall be low-pressure air tested in accordance with ASTM C 924. The Contractor will furnish all equipment and facilities and all personnel for conducting the tests.

An **air test** and a deflection test will be made after all service tee wyes have been installed and backfilling has been completed and compacted. The backfilling must be completed for a minimum of thirty (30) days prior to the deflection test being conducted. All taps and end of sewer services shall be plugged with flexible joint plugs or caps securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily suitable for making a flexible jointed connections or extension. Prior to air testing, the pipe shall be checked to see that it is clean. If not, it shall be cleaned by passing through the pipe a full gauge squeegee. It shall be the Contractor's responsibility to have the pipe clean. Immediately following this check or cleaning, the pipe installation shall be tested with low-pressure air. If the pipe installation fails to meet these requirements, the Contractor shall determine, at their expense, the source or sources of leakage, and they shall repair or replace all defective materials or workmanship. The complete pipe installation shall meet the requirements of this test before being considered acceptable.

Plugs used to close the sewer pipe for the air test must be securely braced to prevent the unintentional release of a plug, which can become a high velocity projectile. Gages, air piping manifolds, and valves shall be located at the top of the ground. No one shall be permitted to enter a manhole where a plugged pipe is under pressure. Four pounds (gauge) air pressure develops a force against the plug in a 12-inch diameter pipe of approximately 450 pounds. A safety release device set to release at 10 pounds per square inch is to be provided between the air supply and the sewer under test. Regardless of outcome of any tests, any noticeable leak shall be repaired.

A **deflection test** shall be performed on all flexible pipes. The test shall be conducted after the final backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5%. If the test is run using a rigid ball or mandrel, it shall have a diameter equal to 95% of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices.

City of Elizabethtown Sanitary Sewer Backwater Valve Policy

- I. Backwater valves are required by City ordinance where the elevation of the building sewer is lower than the closest upstream manhole and where there are openings to the building sewer within the served structure which have proven to or might be subject to overflow due to high water levels within the mainline sewer.
- II. When the City has identified conditions which have or are likely to produce property damage or health and safety issues, a backwater valve shall be installed by the property owner. The City will make available to property owner's of existing residential structures, funds (not to exceed \$2,500.00) for a City approved installation of the device by a licensed plumber, one half of the cost to be repaid to the City by the property owner through monthly payments on the sewer bill over a two year period of time.
- III. The property owner shall be responsible for contracting for all work, and shall sign an agreement that the City is in no way responsible for the work or the adequacy or operation of the valve. The agreement shall also provide that the property owner or any subsequent owner shall repay one half of the cost to the City and that said agreement shall be recorded at the County Clerk's Office.
- IV. If sanitary sewer cleanouts have been installed under the City Cleanout Policy and a backwater valve is installed, the City shall be responsible for the sewer from the cleanout to the sewer main only. The property owner shall be responsible for hiring a plumber to unclog the yard line from the cleanout toward the structure, and for any maintenance of the yard line cleanout.

PRIVATE DEVELOPMENT UTILITY MAINTENANCE POLICY

1. The City will not maintain any lines within private development except where dedicated as public lines or potential public extensions. Twenty (20') foot wide easements will be required for all public lines and potential extensions.

WATER AND/OR SEWER REBATE POLICY

1. The Developer shall complete and sign a Subdivision Development Contract (see attached) and return it to the Engineering Department along with copies of all invoices and/or cancelled checks of the water/sewer installation costs.
2. A copy of the Subdivision As-Builts must be on file in the Engineering Department.
3. The Subdivision must be accepted into the City's maintenance system.
4. All of the requirements listed in the Contract must be completed and meet the approval of the City Engineer.
5. The Contract will be forwarded to the Mayor for signature.
6. The City Engineer will provide written approval, the signed Contract, and a copy of installation costs to the Water & Gas Office for rebates to be paid. A copy will be provided to the Developer for their records.
7. Rebates will be made for all service connections made to taps that are installed by the developer and recorded on the as-builts.
8. The total amount rebated cannot exceed the amount of the construction cost.
9. Rebates are paid once a year from the Water & Gas Office.
10. Please allow 45 days to process any pay requests.

ELIZABETHTOWN DEPARTMENT OF WATER AND WASTEWATER
ATTN: PRETREATMENT CHIEF
2501 GAITHER STATION ROAD
ELIZABETHTOWN, KENTUCKY 42702 - (270) 737-7733

GREASE TRAP APPLICATION

NAME OF COMPANY _____

CONTACT NAME _____ PHONE (____) _____

ADDRESS OF FACILITY _____

SIGNATURE OF APPLICANT _____ TITLE _____

THIS _____ DAY OF _____ 20____

FIXTURE	QUANTITY	FIXTURE COUNT	TOTAL
3 Compartment Sink	_____ X	_____ =	_____
2 Compartment Sink	_____ X	_____ =	_____
Dishwasher	_____ X	_____ =	_____
Garbage Grinder	_____ X	_____ =	_____
Wok Stove	_____ X	_____ =	_____
Floor Drains (2", 3", 4")	_____ X	_____ =	_____
Floor (mop) Sinks (3", 4")	_____ X	_____ =	_____
TOTAL FIXTURE COUNT = _____			
Total Fixture Count <input type="text"/> x 20 x 3 = <input type="text"/> (Grease Trap Size -- Gallons)			

GREASE TRAP APPLICATION APPROVAL
(FOR OFFICE USE ONLY)

APPROVED _____ YES _____ NO

REMARKS _____

SIGNED BY _____ TITLE _____

THIS _____ DAY OF _____ 20____

CITY OF ELIZABETHTOWN
COMMERCIAL/INDUSTRIAL USER SEWER DISCHARGE
PERMIT APPLICATION

Please refer to the Commercial/Industrial User Sewer Discharge Permit Application Instructions in answering the following questions.

Note to Signing Official: In accordance with Title 40 of the Code of Federal Regulations Part 403, Section 403.14; information and data provided in this application which identifies the nature and frequency of discharge shall be available to the public without restriction. Requests for confidential treatment of information shall be governed by procedures specified in 40 CFR Part 2. A copy of 40 CFR Part 2 is on file at the Wastewater Treatment Plant, for your review.

Upon completion of the permit application; return it to:

Tom Sanders
Pretreatment Coordinator
Elizabethtown Wastewater Treatment Plant
2501 Gaither Station Rd.
Elizabethtown, Ky. 42701 (270) 737-7733

New Permit _____ Expected Date For Start Of Sewer Discharge ____/____/____
Revised Permit _____ Permit Renewal _____

SECTION A - GENERAL INFORMATION

- A.1 Company Name _____
- A.2 Standard Industrial Classification (SIC) Code (s) _____
(see instructions)
SIC Code Name _____
- A.3 Mailing Address
Street/P.O. Box _____
City _____ ST _____ Zip _____
- A.4 Facility Address (if different) _____
City _____ ST _____ Zip _____
- A.5 Contact Official
Name _____
Title _____
(____) _____
Area Code - Telephone - Extension

A.6 Signing Official

Name _____

Title _____

Street/P.O. Box _____

City _____ ST _____ Zip _____

(____) _____

Area Code - Telephone - Extension

This information contained in this questionnaire is familiar to me and to the best of my knowledge and belief; such information is true, complete and accurate.

Signature of Official

Date

SECTION B - WASTE STREAM CHARACTERIZATION

B.1 Check those items that best apply to your business

INDUSTRIAL

- ☐ Chemicals
- ☐ Formulating
- ☐ Blending
- ☐ Fabrication
- ☐ Plastics
- ☐ Metal
- ☐ Fabrics
- ☐ Concrete
- ☐ Wood
- ☐ Food Processing for Wholesale/Retail Distribution
- ☐ Grocery
- ☐ Photo Lab
- ☐ Warehousing
- ☐ Repackaging for Wholesale/Retail Distribution
- ☐ Printing Operations
- ☐ Automotive/Machine Repair
- ☐ Overnight Lodging
- ☐ Restaurant
- ☐ Petroleum Fuel Product Storage
- ☐ Fertilizer, Herbicide, Fungicide, Insecticide & Rodenticide Storage and/or Application
- ☐ Office space only
- ☐ Institutional
- ☐ Laundry/Dry Cleaning
- ☐ Car Wash
- ☐ Other (Describe)

B.2 Does your facility have any garbage grinders for food wastes? If Yes, how many and rated horsepower?
() Yes, Quantity
HP _____; HP _____; HP _____;
HP _____; HP _____; HP _____;
() No

SECTION C - SEWER USE

C.1 Do you own or operate a facility which generates
() Process liquid waste
() Cooling wastewater
() Air pollution control liquid waste
() Storm water runoff
() Sanitary waste only
() Sanitary waste plus other - Describe other _____

C.2 Is your liquid waste discharged to
() Sewer; which type from C.1
() Ditch, stream, or other water body; which type from C.1
Permitting Authority _____
Permit No. _____
() Removed by waste haulers (complete Section H); which type from C.1
() Septic Tank
() Other, explain _____

SECTION D - FACILITY OPERATIONS

D.1 Provide a **detailed** description of manufacturing processes, facilities or service activities provided on the premises, **specifically those processes which involve process wastewater or hazardous materials**. Use additional sheets if necessary.

D.2 Principle Raw Materials

<u>Type</u>	<u>Quantity</u>
_____	_____
_____	_____
_____	_____
_____	_____
() Supplemental sheets attached	
() Prepared list enclosed	

ENCLOSE MSDS'S FOR ALL MATERIALS LISTED.

D.3 Principle Products

<u>Type</u>	<u>Quantity</u>
_____	_____
_____	_____
_____	_____
_____	_____
() Supplemental sheets attached	
() Prepared list enclosed	

D.4 Facility production process is

() Batch
() Continuous
() Both _____% Batch _____% Continuous

D.5 If batch, average number per:

24-hour day _____
7 -day week _____
30-day month _____

D.6 Number of days of operation per calendar year _____

D.7 Are your processes subject to seasonal variations?

() Yes
Seasonal maximum waste flow _____gal/day
_____months per year
() No

D.8 Hours of operation are from _____a.m. to _____p.m.

D.9 Average number of employees per shift are

_____1st; _____2nd; _____3rd

D.10 Shift Hours

Start _____ 1st; _____ 2nd; _____ 3rd
End _____ 1st; _____ 2nd; _____ 3rd

D.11 Shifts normally worked each day (check each shift applicable)

	Sun	Mon	Tues	Wed	Thur	Fri	Sat
1st	_____	_____	_____	_____	_____	_____	_____
2nd	_____	_____	_____	_____	_____	_____	_____
3rd	_____	_____	_____	_____	_____	_____	_____

Indicate asterisk (*) for abnormal production shifts above, i.e., clean up, wash down, etc., for which there may be a discharge - describe briefly.

D.12 Are any changes or expansions planned during the next two (2) years that would alter wastewater volumes or characteristics? Consider production process, as well as air or water pollution processes.

() yes () no (skip to question D.14)

D.13 Briefly describe these changes in, expansions to, and their estimated effect on the wastewater volume and characteristics.

() additional sheets attached

D.14 Are there any material or water reduction or recycling systems in use or planned?

() yes () no (skip question D.15)

D.15 Briefly describe waste reduction or recycling systems.

() additional sheets attached

D.16 Briefly describe operational variables and frequency of occurrence that may result in an unusual discharge volume or composition.

() additional sheets attached

D.17 Are there any potentially hazardous, toxic, malodorous, or noxious materials stored, processed or discharged from your facility? (See list in question F-7).

() yes, complete question F-7 () no

D.18 Do you have a Hazardous Material/Spill Prevention Control and Countermeasure Plan?
() yes, submit the plan with this form.
() no

SECTION E - WATER USE

E.1 Water is obtained from (check as many as applicable)
() City system _____ gallons per day
() Estimated () Measured, method _____
City water account no.(s) _____
() Well system _____ gallons per day
() Estimated () Measured, method _____
() Other _____ gallons per day
Describe, method _____

E.2 Water is used for
() Process _____ gallons per day
() Estimated () Measured, method _____
() Discharged to sewer _____ gallons per day

() Cooling _____ gallons per day
() Estimated () Measured, method _____

() Sanitary _____ gallons per day
_____ employees per day
() Estimated () Measured, method _____

() Other _____ gallons per day
Describe _____
() Discharged to sewer _____ gallons per day

E.3 Is your water use subject to seasonal variation?
() yes
Maximum _____ gallons per day _____ months
Minimum _____ gallons per day _____ months
() Estimated () Measured, method _____
() no

SECTION F - WASTEWATER CHARACTERISTICS

F.1 Total volume discharged to, or removed by:

Sewer	Number of	_____	days/year	E_____	M_____
	Maximum	_____	gal/day	E_____	M_____
	Minimum	_____	gal/day	E_____	M_____
	Average	_____	gal/day	E_____	M_____
	Total	_____	gal/yr	E_____	M_____

Ditch/stream	Number of	_____	days/year	E _____	M _____
	Maximum	_____	gal/day	E _____	M _____
	Minimum	_____	gal/day	E _____	M _____
	Average	_____	gal/day	E _____	M _____
	Total	_____	gal/yr	E _____	M _____
Waste Hauler	Number of	_____	days/year	E _____	M _____
	Maximum	_____	gal/day	E _____	M _____
	Minimum	_____	gal/day	E _____	M _____
	Average	_____	gal/day	E _____	M _____
	Total	_____	gal/yr	E _____	M _____
Other (describe below)	Number of	_____	days/year	E _____	M _____
	Maximum	_____	gal/day	E _____	M _____
	Minimum	_____	gal/day	E _____	M _____
	Average	_____	gal/day	E _____	M _____
	Total	_____	gal/yr	E _____	M _____

Describe other methods of disposal if checked:

*Note: Indicate if values are measured or estimated by checking the blank next to the appropriate letter
 E = estimate M = measured

- F.2 Describe operations that result in a periodic and/or random discharge (e.g. Tank cleans, waste batches, etc.). Include the waste characteristics, volumes, and frequency of occurrence
- F.3 If your processes are batch, indicate the average wastewater volume discharged per batch _____ gallons per day.
- F.4 What is the temperature of your discharge?
Range _____ F to _____ F or _____ C to _____ C
Annual average value _____ F or _____ C
- F.5 What is the pH of your discharge?
Range _____ to _____ pH units
Annual median pH is _____

F.6 Discharge characteristics (check as appropriate) Give the concentration and date of analysis for any previous sampling of your effluent during the past year. Average concentration may be given if the data exists for the previous year.

	<u>Parameter</u>	<u>Concentration</u>	<u>Units</u>	<u>Date(s) of Analysis</u>
1.	() Acidity as CaCo3	_____	mg/l	_____
2.	() Alkalinity as CaCo3	_____	mg/l	_____
3.	() Alpha Counting Error	_____	picocurie/l.	_____
4.	() Alpha Radiation - Total	_____	picocurie/l	_____
5.	() Ammonia as N	_____	mg/l	_____
6.	() Barium - Total	_____	mg/l	_____
7.	() Beta Counting Error	_____	picocurie/l	_____
8.	() Beta Radiation Total	_____	picocurie/l	_____
9.	() BOD5	_____	mg/l	_____
10.	() Boron - Total	_____	mg/l	_____
11.	() Bromide	_____	mg/l	_____
12.	() Cadmium - Total	_____	mg/l	_____
13.	() Calcium - Total	_____	mg/l	_____
14.	() Chloride	_____	mg/l	_____
15.	() Chlorine Demand	_____	mg/l	_____
16.	() Chlorine -Total Residual	_____	mg/l	_____
17.	() Chromium - Hexavalent	_____	mg/l	_____
18.	() Chromium - Total	_____	mg/l	_____
19.	() Cobalt - Total	_____	mg/l	_____
20.	() COD	_____	mg/l	_____
21.	() Color, ADMI	_____	Pt-Co ADMI units	_____
22.	() Conductivity at 25°C	_____	u ohms/cm	_____
23.	() Copper - Total	_____	mg/l	_____
24.	() Cyanide	_____	mg/l	_____
25.	() Fluoride	_____	mg/l	_____
26.	() Iron - Total	_____	mg/l	_____
27.	() Lead - Total	_____	mg/l	_____
28.	() Magnesium - Total	_____	mg/l	_____
29.	() Manganese - Total	_____	mg/l	_____
30.	() Mercury - Total	_____	ug/l	_____
31.	() Molybdenum - Total	_____	mg/l	_____
32.	() Nickel - Total	_____	mg/l	_____
33.	() Nitrate as N	_____	mg/l	_____
34.	() Nitrite as N	_____	mg/l	_____
35.	() Oil & Grease (Hexane Solubles)	_____	mg/l	_____
36.	() Oil & Grease (Mineral petroleum or unknown)	_____	mg/l	_____
37.	() Organic Nitrogen as N	_____	mg/l	_____
38.	() Ortho Phosphate	_____	mg/l	_____

39.	() Phenols	_____	mg/l	_____
40.	() Potassium - Total	_____	mg/l	_____
41.	() Saline (TDS-5000 mg/l)	_____	mg/l	_____
42.	() Saponifiable Oil & Grease (Animal or vegetable)	_____	mg/l	_____
43.	() Settleable Solids	_____	mg/l	_____
44.	() Silica	_____	mg/l	_____
45.	() Silver - Total	_____	mg/l	_____
46.	() Sodium - Total	_____	mg/l	_____
47.	() Sulfate as SO ₄	_____	mg/l	_____
48.	() Sulfide as S	_____	mg/l	_____
49.	() Sulfite as SO ₃	_____	mg/l	_____
50.	() Surfactants	_____	mg/l	_____
51.	() Tin - Total	_____	mg/l	_____
52.	() Titanium - Total	_____	mg/l	_____
53.	() Total Dissolved Solids	_____	mg/l	_____
54.	() Total Hardness as CaCO ₃	_____	mg/l	_____
55.	() Total Kjeldahl as N	_____	mg/l	_____
56.	() Total Organic Carbon	_____	mg/l	_____
57.	() Total Phosphorous as P	_____	mg/l	_____
58.	() Total Solids	_____	mg/l	_____
59.	() Total Suspended Solids	_____	mg/l	_____
60.	() Total Volatile Solids	_____	mg/l	_____
61.	() TTO, List Organics Found & Concentration	_____	mg/l	_____
62.	() Turbidity	_____	JTU's	_____
63.	() Zinc - Total	_____	mg/l	_____
64.	() Other, specify	_____		_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____
	() additional sheets attached			

REMARKS

F.7 PRIORITY POLLUTANT INFORMATION

Please indicate by placing an “X” in the appropriate box by each listed chemical whether it is suspected to be Absent, Suspected to be Present, or Known to be Present in your manufacturing or service activity or generated as a bi-product.

ITEM No.	Chemical Compound	Suspected Absent	Known Absent	Suspected Present	Known Present
1.	Acenaphthene				
2.	Acenaphthylene				
3.	Acrolein				
4.	Acrylonitrile				
5.	Aldrin				
6.	(A) Alfa-endosulfin				
7.	Ametryn				
8.	Aminocarb				
9.	Anthracene				
10.	Antimony (Total)				
11.	Arsenic (Total)				
12.	Asbestos (Fibrous)				
13.	Atraton				
14.	Atrazine				
15.	Barban				
16.	Barium (Total)				
17.	Benzene				
18.	Benzidine				
19.	1,2-Benzo(a) anthracene				
20.	3,4-Benzo(b) fluoranthene				
21.	Benzo(e) pyrene				
22.	1,12-Benzo(g,h,i) perlyene				
23.	11,12-Benzo(k) fluoranthene				
24.	Benzyl butyl phthalate				
25.	Benzyl chloride				
26.	Beryllium (Total)				
27.	(B) Beta-endosulfan				
28.	b-BHC (beta)				
29.	e-BHC (alpha)				
30.	g-BHC (gamma)				
31.	r-BHC (delta)				
32.	Bis(2-chloroethoxy)-methane				
33.	Bis(2-chloroethyl)-ether				
34.	Bis(2-chloroisopropyl)-ether				
35.	Bis(2-chloromethyl)-ether				
36.	Bis(2-ethylhexyl)-phthalate				

37.	Bromodichloromethane				
38.	Bromoform				
39.	Bromomethane				
40.	4-Bromophenylphenylether				
41.	Butyl/benzyl phthalate				
42.	Cadmium (Total)				
43.	Captan				
44.	Carbaryl				
45.	Carbon Tetrachloride				
46.	Carbonphenothion				
47.	Chlordane				
48.	Chlorobenzene				
49.	Chloroethane				
50.	2-Chloroethyl vinyl ether				
51.	Chloroform				
52.	Chloromethane				
53.	4-Chloro-3-methylphenol				
54.	2-Chloronaphthalene				
55.	2-Chlorophenol				
56.	4-Chlorophenyl/phenylether				
57.	Chloropropham				
58.	Chromium (Total)				
59.	Chrysene				
60.	Copper (Total)				
61.	Cyanide (Total)				
62.	2,4-D				
63.	4,4'-DDD				
64.	4,4'-DDE				
65.	4,4'-DDT				
66.	Dementon-S				
67.	Dementon-O				
68.	Diazinon				
69.	Dibenzo (a,h) anthracene				
70.	Dibromochloromethane				
71.	Dicamba				
72.	Dichlofenthion				
73.	Dichloran				
74.	1,2-Dichlorobenzene				
75.	1,3-Dichlorobenzene				
76.	1,4-Dichlorobenzene				
77.	3,3-Dichlorobenzidine				
78.	Dichlorodifluoromethane				
79.	1,1-Dichloroethane				
80.	1,2-Dichloroethane				
81.	trans-1,2-Dichloroethane				

82.	1,1-Dichloroethylene				
83.	2,4-Dichloropenol				
84.	1,2-Dichloropropane				
85.	cis 1,3-Dichloropropene				
86.	Trans-1,3-Dichloropropene				
87.	1,2-Dichloropropylene				
88.	Dieldrin				
89.	Diethylphthalate				
90.	2,4-Dimethylphenol				
91.	Dimethyl pthalate				
92.	Di-n-Butyl phthalate				
93.	Di-n-Octyl phthalate				
94.	2,4-Dinitroluene				
95.	4,6-Dinitro-2-methylphenol				
96.	2,4-Dinitrophenol				
97.	2,6-Dinitroluene				
98.	Dioxathion				
99.	1,2-Diphenyl/hydrazine				
100.	Disulfoton				
101.	Diyron				
102.	Endosulfan I				
103.	Endosulfan II				
104.	Endosulfan Sulfate				
105.	Endrin				
106.	Endrin aldehyde				
107.	Epichlorohydrin				
108.	Ethion				
109.	Ethylbenzene				
110.	Fenuron				
111.	Fenuron-TCA				
112.	Fluoranthene				
113.	Fluorene				
114.	Hapthalene				
115.	Heptachlor				
116.	Heptachlor Epoxide				
117.	Hexachlorobenzene				
118.	Hexachlorobutadiene				
119.	Hexachlorocyclopentadiene				
120.	Hexachloroethane				
121.	Indeno (1,2,3-cd)-pyrene				
122.	Isodrin				
123.	Isophorone				
124.	Lead (Total)				
125.	Linuron				
126.	Malathion				

127.	Mercury (Total)				
128.	Methiocarb				
129.	Methoxychlor				
130.	Methylene Chloride				
131.	2-Methyl-r,6-dinitrophenol				
132.	Mexacarbate				
133.	Mirex				
134.	Monuron				
135.	Monuron-TCA				
136.	Napthalene				
137.	Nickel (Total)				
138.	Nitrobenzene				
139.	2-Nitrophenol				
140.	4-Nitrophenol				
141.	n-Nitrosodimethylamine				
142.	n-Nitrosodi-N-propylamine				
143.	n-Nitrosodiphenylamine				
144.	2,2-Oxybix(1-chloropropane)				
145.	Parachlormeta-cresol				
146.	Parathion ethyl				
147.	Parathion methyl				
148.	PCB-1016				
149.	PCB-1221				
150.	PCB-1232				
151.	PCB-1242				
152.	PCB-1248				
153.	PCB-1254				
154.	PCB-1260				
155.	PCNB				
156.	Pentachlorophenol				
157.	Perthane				
158.	Phenanthane				
159.	Penanthrene				
160.	Phenol				
161.	Prometron				
162.	Prometryn				
163.	Propazine				
164.	Propham				
165.	Propoxur				
166.	Pyrene				
167.	Radium (Total)				
168.	Secbumeton				
169.	Selenium (Total)				
170.	Siduron				
171.	Silver (Total)				

172.	Simazine				
173.	Strobane				
174.	SWEP				
175.	2,4,5-T				
176.	Terbutylazine				
177.	2,3,7,8-Tetrachlorodibenzo- p-dioxin				
178.	1,1,2,2-Tetrachloroethane				
179.	Tetrachloroethene				
180.	Tetrachloroethylene				
181.	Thallium (Total)				
182.	Toluene				
183.	Toxaphene				
184.	2,4,5-TP				
185.	1,2,4-Trichlorobenzene				
186.	1,1-Trichloroethane				
187.	1,1,1-Trichloroethane				
188.	1,1,2-Trichloroethane				
189.	Trichloroethene				
190.	Trichloroethylene				
191.	Trichlorofluoromethane				
192.	2,4,6-Trichlorophenol				
193.	Trifluralin				
194.	Vinyl Chloride				
195.	Zinc (Total)				
196.	Other				

For chemical compounds noted above which are indicated to be “Known Present,” please list and provide the following data for each previously measured: (attach additional sheets if needed)

ITEM NO.	CHEMICAL COMPOUND	ANNUAL USAGE (QUANTITY)	DISCHARGE CONCENTRATION

For materials marked “Known Present,” submit MSDS’s unless already submitted for questions D.2 and G.3.

- F.8 Indicate who collected and analyzed the samples for the data given in questions F-6 and 7.

Samples collected by:

Name

Address

ST ZIP City

() Ext

() Additional sheets provided

Samples analyzed by:

Name

Address

ST ZIP City

() Ext

- F.9 Number of discharge points from your facility _____
- F.10 Do you have a control manhole or monitoring point in which flow monitoring and proportional sampling is being or can be used.
() Yes () No
- F.11 Site Plan - Draw schematic of your facility including process areas, pretreatment system, floor drains, discharge lines, discharge points, size of lines, accessible manholes and/or control monitoring points. Code each point as indicated in instruction (attach schematic with this application). Copies of the blueprints for your facility may be submitted instead of new drawings.

SECTION G - PRETREATMENT

- G.1 Is any pretreatment provided for all or portions of your waste discharged to the sanitary sewer system?
() yes () no, (go to question F.8)
- G.2 Treatment system (check as many as appropriate and indicate for which source if not treated as combined waste)
1. () Sump
 2. () Septic Tank
 3. () Grease Trap
 4. () Grease or oil separation, type
 5. () Screen
 6. () Grit removal
 7. () Sedimentation
 8. () Flow Equalization
 9. () Filtration

- 10. () Neutralization, pH correction
- 11. () Chemical precipitation
- 12. () Reverse osmosis
- 13. () Ion exchange
- 14. () Ozone
- 15. () Chlorination
- 16. () Solvent Separation
- 17. () Spill protection
- 18. () Air flotation
- 19. () Centrifuge
- 20. () Cyclone
- 21. () Export or hauling
- 22. () Other chemical treatment (describe below)
- 23. () Other physical (describe below)
- 24. () Biological treatment
- 25. () Other: _____

- G.3 Briefly describe your pretreatment process. Include process equipment, by-product, by-product disposal method, concentrations, waste and by-product volumes, design and operating conditions, etc. Include MSDS's for all materials added to waste streams for the purposes of pretreatment.
() additional sheets attached
- G.4 Briefly describe operational characteristics and any persistent or normal operational problems that may alter discharge characteristics and/or affect the operation of your pretreatment system.
() additional sheets attached
- G.5 Describe any additional pretreatment facilities and/or processes under consideration. Include a specific time schedule for completion:

SECTION H - WASTE HAULING

- H.1 Do you have solid or liquid waste hauled away from your site?

() Yes	() No
() By you	() By Other (complete H-2)
() Solid	() Liquid

- H.2 Give name and address of waste hauler

Name _____

Address _____

City _____ State _____

Zip Code _____ Area Code - Telephone _____

H.3 How frequently is the waste removed?

() Daily () Weekly () Monthly

() Other, describe _____

H.4 Off site facility receiving waste

Name of facility _____

Location: Street _____

City _____ State _____ Zip _____

H.5 On site storage for greater than 90 days

() Yes () No, skip remaining questions

H.6 Storage method

() Drum () Roll-off container

() Tank () Lagoon

() Other _____

H.7 Typical length of time waste stored _____

H.8 Typical volume of waste stored _____

H.9 Is storage site diked?

() Yes () No

H.10 Do you have a RCRA number?

() Yes, RCRA Number _____

() No

H.11 Provide copies of EPA form DEP 7072-91 used for RCRA reporting requirements in 1997. An annual summarization of hazardous materials, quantities shipped and total number of shipment for each material may be substituted for copies of EPA Form DEP 7072-91.

LIFT STATION REQUIREMENTS

The following standards shall be used for all lift stations installed in the City of Elizabethtown:

- Electrical service shall be 480 volt – 3 phase or 240 volt – 3 phase
- All pumps shall be submersible, non-grinder type capable of passing 3” solids
- Controls shall be manufactured by Square D or Cutler Hammer
- Pumps shall be manufactured by Flygt, or Barnes with ~~Reliance Motors, or Zoeller~~
- Redundant pumps shall be used at each station
- A paved road shall be installed to the lift station and shall include a minimum 12’x20’ turn around area
- Screening can be provided for lift stations, but shall be installed at the outside edge of the easement area for the lift station
- Pump station shall include a by-pass pumping connection
- Pump station electrical service shall include an electrical ~~generator plug~~ manual transfer switch w/camlock connection meeting the requirements of the City Department of Water and Wastewater

Adopted December 2001

SEWER LIFT STATION REIMBURSEMENT POLICY

1. The City will reimburse private developers for the cost of sewer lift stations when the station originally installed for the developer's subdivision is utilized by another development approved by the City.
2. The reimbursement shall be based upon a 20 year life and the total cost of the lift station (including force main) versus the years of useful life after connection by another development.

Example:	Cost of lift station:	\$25,000
Wetwell	\$7,000	
Pump Station	\$15,000	
Force Main	\$2,000	
Other	\$1,000	
Total	\$25,000	

Depreciation: 20 years

Lift station originally in service

April 1992

Connection by other development

September 2003

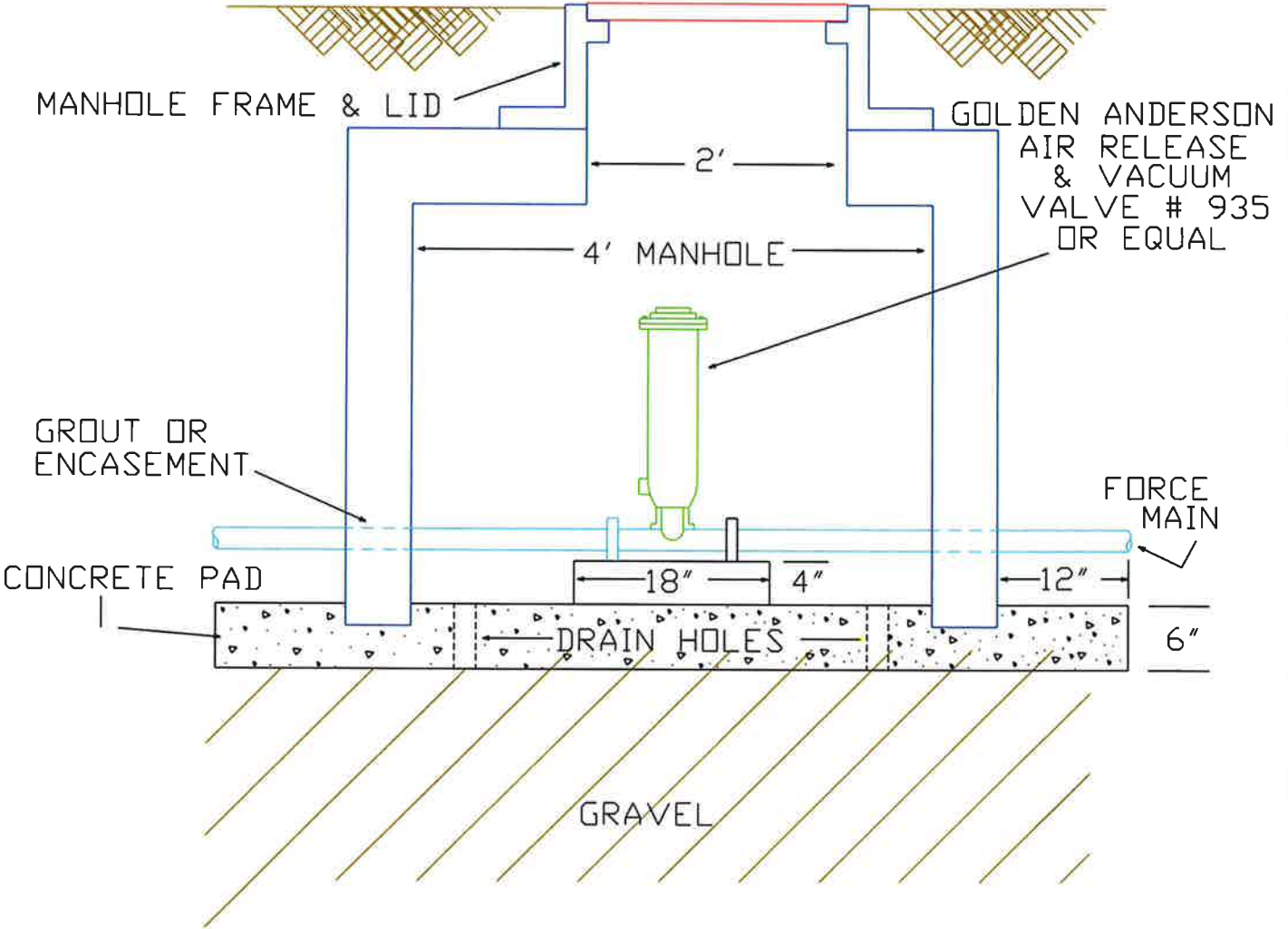
10.5 years

Total reimbursement would be for 9.5 years

Annual depreciation is \$25,000 divided by 20 which is \$1,250 per year

\$1,250 X 9.5 years is \$11,875 reimbursement

3. Payment will be made in full within 6 months of other connection or request for reimbursement by original developer who paid for station – whichever occurs latest.
4. Reimbursement is contingent upon development having met all subdivision regulations and requirements.



Aerial photography and
digital mapping prepared
by Photo Science, Inc. of
Lexington, KY. Aerial
photography from April
13, 2001. Horizontal
control based on North
American datum of 1983.
Vertical control based on
North American Vertical
datum of 1988. The City
of Elizabethtown accepts
no liability for the
accuracy of this
document.

Drawn: MSR	Date: 3/16/95
Checked: MSR	Rev.: 01/01/10
Approved: MSR	Rev.:

Scale: NONE

AIR AND VACUUM RELIEF
VALVE DETAIL



City of
ELIZABETHTOWN
Engineering Department

NO ROCK ALLOWED
OUTSIDE PAVED AREAS

NOTE: SEE BACKFILL
REQUIREMENTS
BELOW

8" OF #9 STONE
(6" THRU 15" PIPE)
12" OF #9 STONE
(18" PIPE AND UP)

4" MIN. BELOW
BARREL & BELL

STONE BEDDING
& BACKFILL-SHALL BE
#9 CRUSHED STONE

BACKFILL REQUIREMENTS:

- 1) EARTH BACKFILL WITH NO ROCK
COMPACTED TO 95% IN GRASS AREAS
- 2) FULL-DEPTH DENSE GRADE AGGREGATE (DGA)
FULLY COMPACTED UNDER ALL PARKING LOTS
AND DRIVING SURFACES (ASPHALT, CONCRETE, ETC)

Aerial photography and
digital mapping prepared by
Photo Sciences, Inc. of
Lexington, KY. Aerial
photography from March
13, 2007. Horizontal
control based on North
American datum of 1983.
Vertical control based on
North American Vertical
datum of 1988. The City of
Elizabethtown accepts no
liability for the accuracy of
this document.

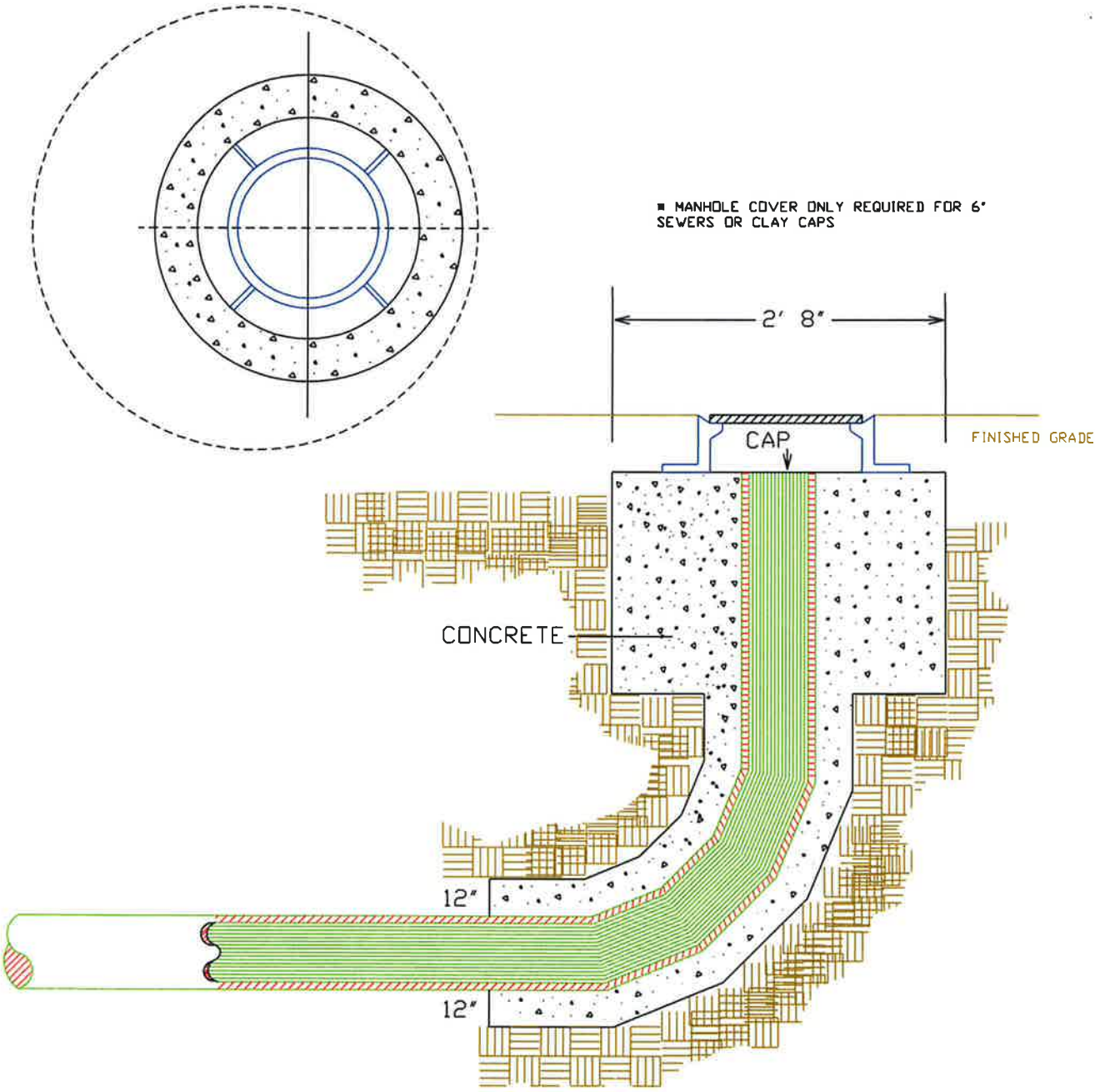
Drawn: A. CRUSE Date: 3/16/95
Checked: MSR Rev.: 7/30/10
Approved: Rev.:

Scale: NONE

TYPICAL PIPE BEDDING ON EARTH



City of
ELIZABETHTOWN
Engineering Department



Aerial photography and digital mapping prepared by Photo Sciences, Inc. of Lexington, KY. Aerial photography from April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.

Drawn: MSR
Checked: MSR
Approved: MSR

Date: 3/16/95
Rev.: 01/01/10

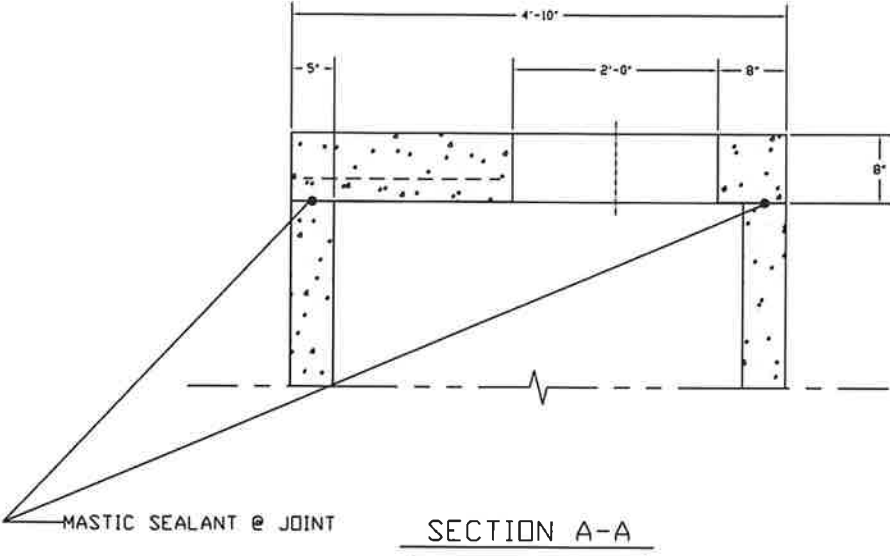
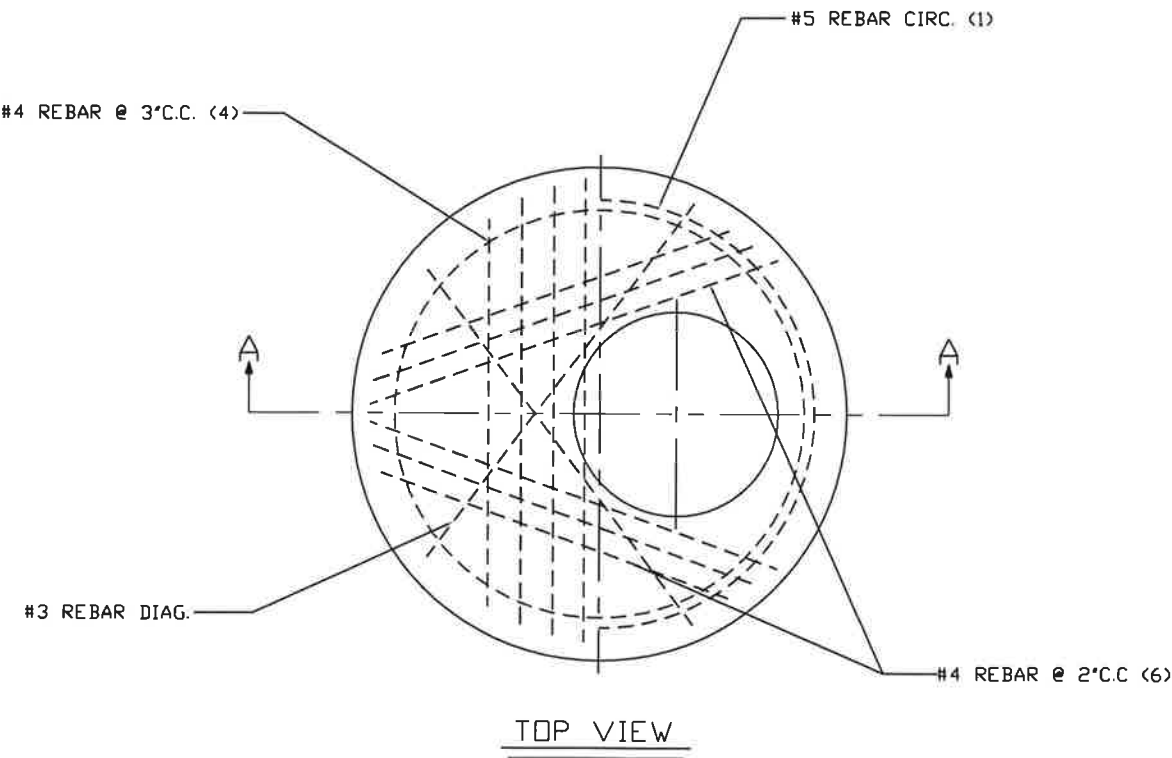
Rev.:

Scale: NONE

SEWER CLEANOUT WITH
FRAME DETAIL

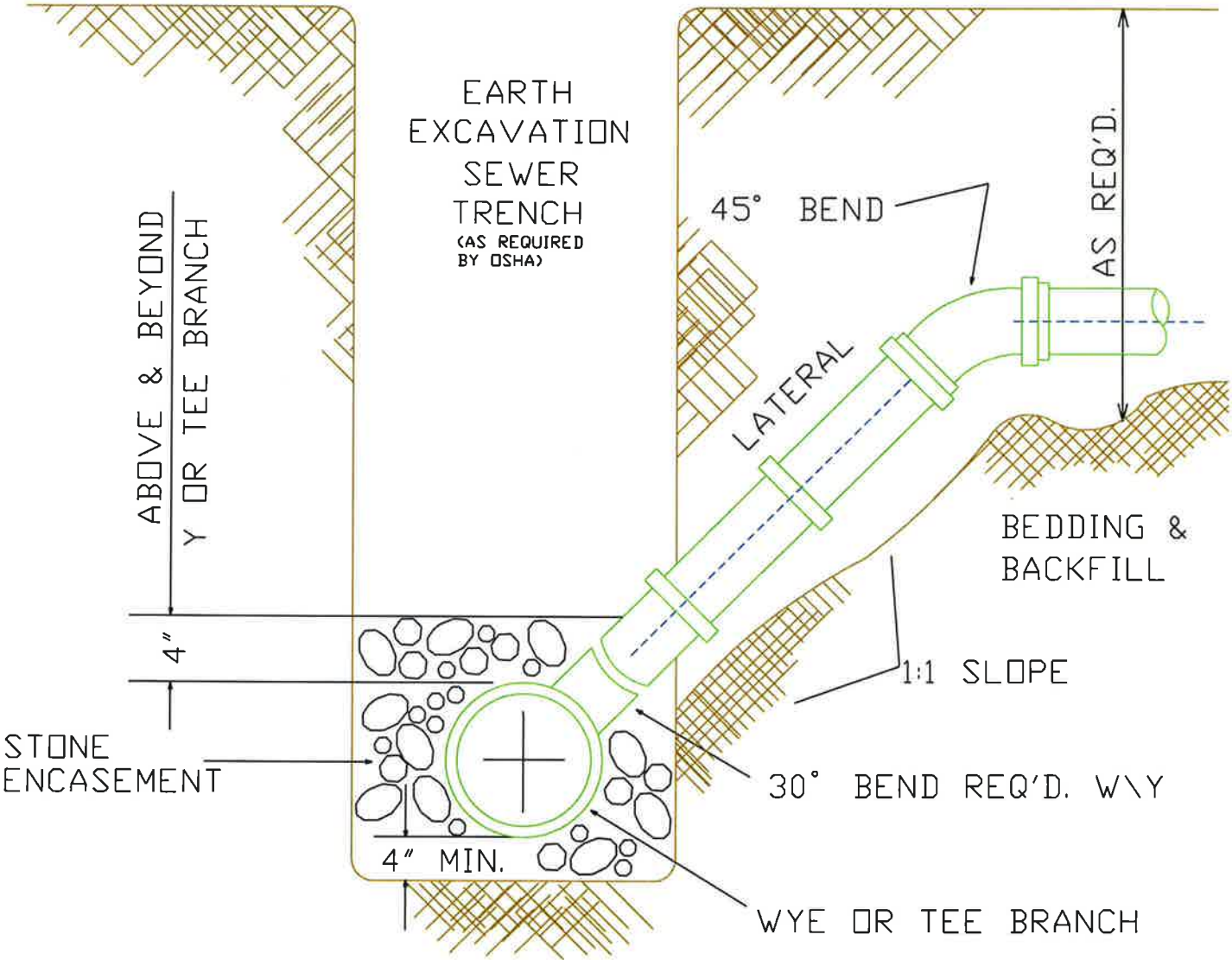


City of
ELIZABETHTOWN
Engineering Department



<small>Aerial photography and digital mapping prepared by Photo Science, Inc. of Lexington, KY. Aerial photography from April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.</small>	Drawn: MSR	Date: 10/3/97	<div><div>FLAT MANHOLE LID DETAIL</div><div><div><div><div>ELIZABETHTOWN KENTUCKY</div><div>EST. 1870</div><div>STRONG & GROWING SINCE 1776</div></div><div><div>City of</div><div>ELIZABETHTOWN</div><div>Engineering Department</div></div></div></div></div>
	Checked: MSR	Rev.: 01/01/10	
	Approved: MSR	Rev.:	
	Scale: NONE		

NOTE: STONE FOR BEDDING & BACKFILL, 6" THRU 16"
PIPE SHALL BE #9 CRUSHED STONE UNLESS
OTHERWISE DIRECTED BY THE ENGINEER



Aerial photography and
digital mapping prepared
by Photo Science, Inc. of
Lexington, KY. Aerial
photography taken April 13,
2001. Horizontal control
based on North American
datum of 1983. Vertical
control based on North
American Vertical datum
of 1988. The City of
Elizabethtown accepts no
liability for the accuracy
of this document.

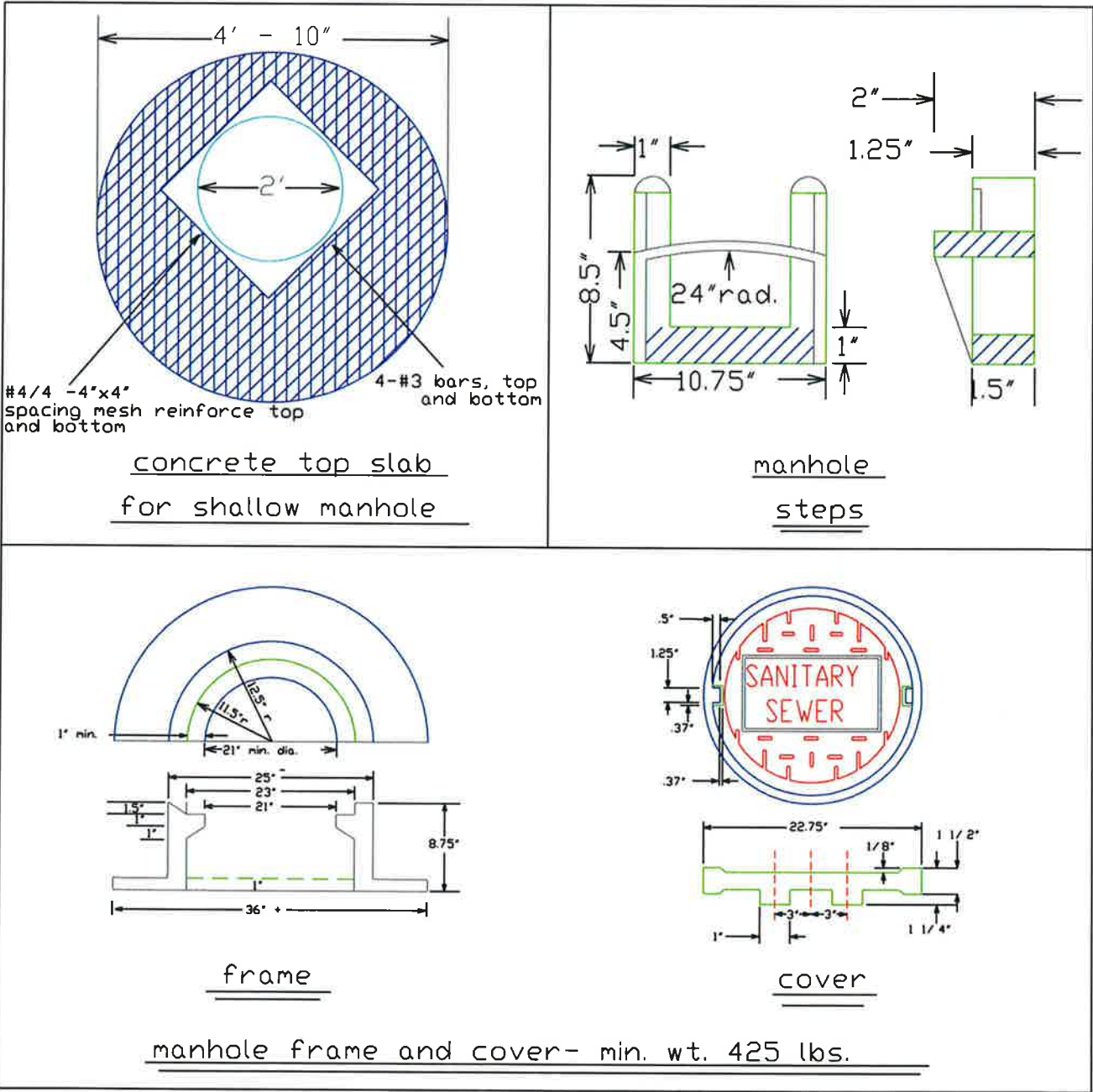
Drawn: MSR	Date: 3/16/95
Checked: MSR	Rev.: 01/01/10
Approved: MSR	Rev.:

Scale: NONE

TYPICAL DETAIL SEWER
LATERALS IN DEEP TRENCHES




City of
ELIZABETHTOWN
Engineering Department



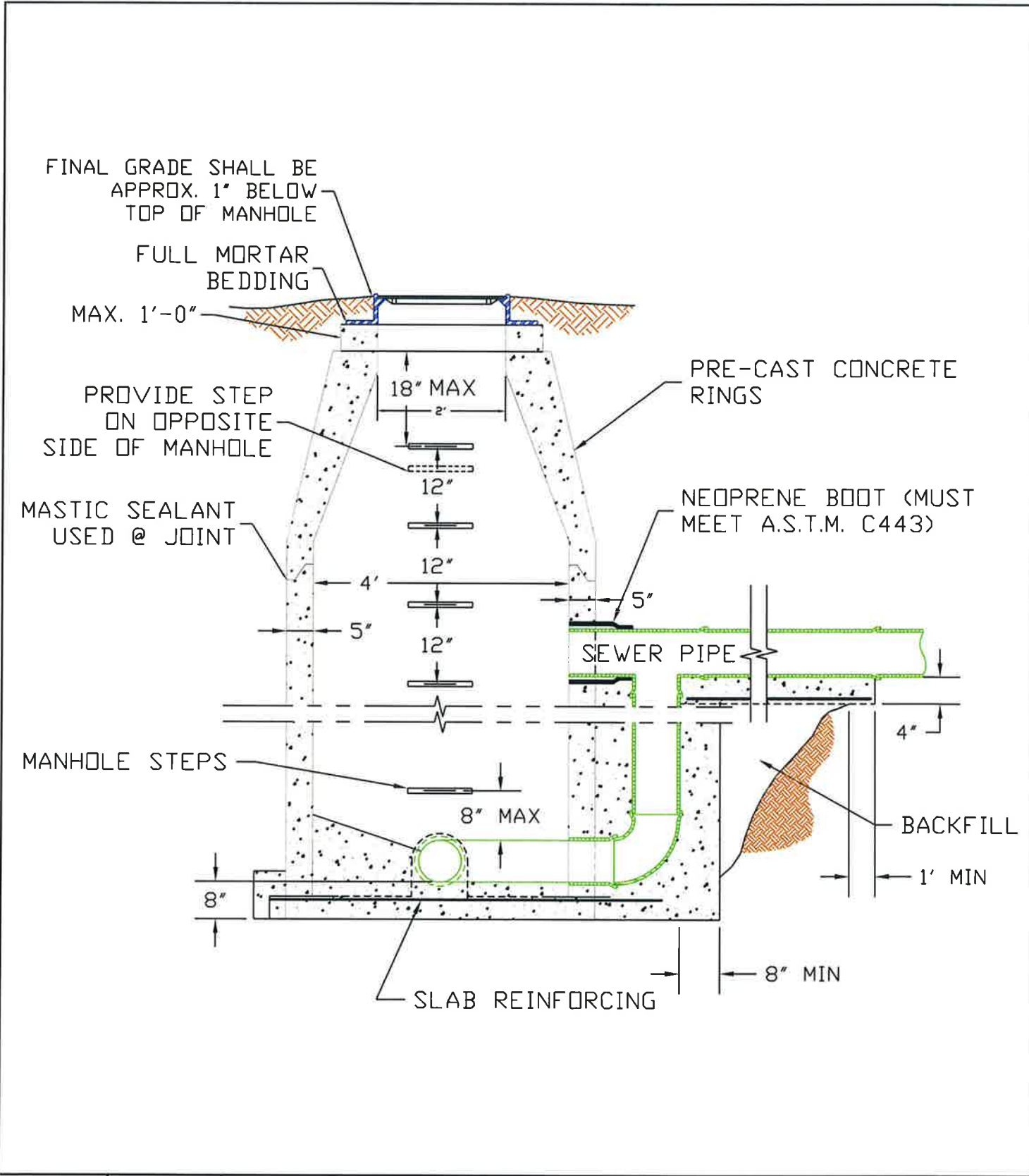
Aerial photography and digital mapping prepared by Photo Science, Inc. of Lexington, KY. Aerial photography from April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.

Drawn: MSR	Date: 3/16/95
Checked: MSR	Rev.: 1/01/10
Approved: MSR	Rev.:
Scale: NONE	

TYPICAL MANHOLE FRAME AND COVER DETAIL



City of
ELIZABETHTOWN
Engineering Department



Aerial photography and digital mapping prepared by Photo Science, Inc. of Lexington, KY. Aerial photography from April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.

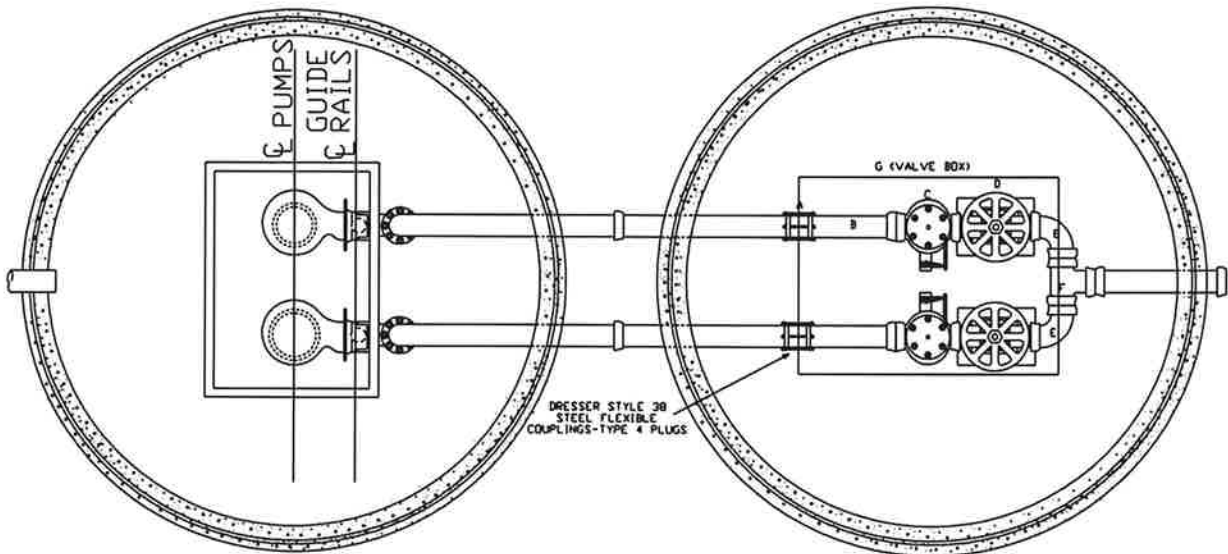
Drawn: MSR	Date: 10/2/97
Checked: MSR	Rev.: 01/01/10
Approved: MSR	Rev.:

Scale: NONE

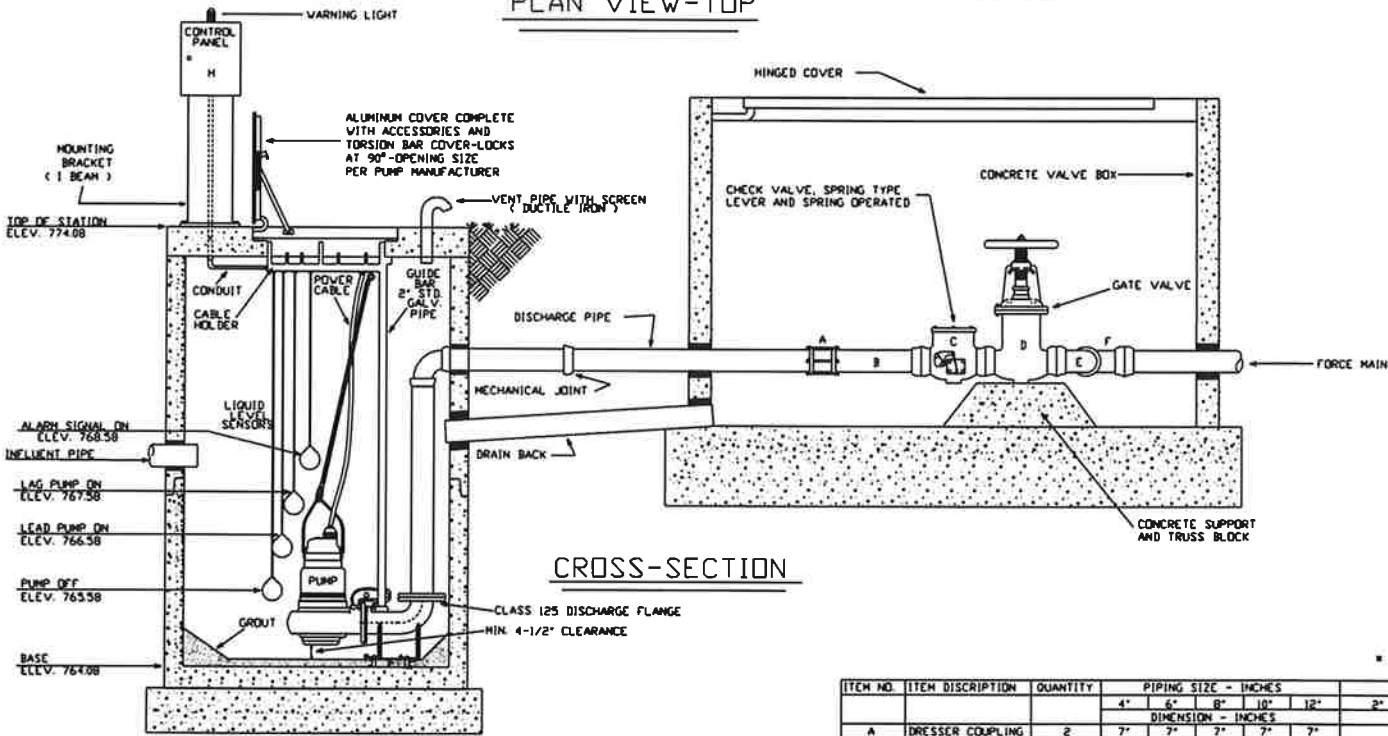
TYPICAL DROP MANHOLE

City of
ELIZABETHTOWN
Engineering Department

TYPICAL PUMP STATION DETAILS



PLAN VIEW-TOP



CROSS-SECTION

PUMP SPECS.

MODEL	4" CP 3122
GPM	80
TDM	68.9
HP	10
IMPELLER	484

ITEM NO.	ITEM DESCRIPTION	QUANTITY	PIPING SIZE - INCHES				
			4"	6"	8"	10"	12"
A	DRESSER COUPLING	2	7"	7"	7"	7"	7"
B	FLANGED NIPPLES	2	10"	10"	10"	10"	10"
C	CHECK VALVE	2	13"	16"	18"	22"	26"
D	GATE VALVE	2	9"	10 1/2"	11 1/2"	13"	14"
E	90° ELBOWS	2	13"	16"	18"	22"	24"
F	FLANGED TEES	1	13"	16"	18"	22"	24"
G	VALVE BOX	1	5" DIA.	6" DIA.			
H	CONTROL PANEL	1	VOLTAGE				
			230				
			PHASE				
			3				
			NO. OF WIRES				
			7				

Aerial photography and digital mapping prepared by Photo Science, Inc. of Lexington, KY. Aerial photography flown April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.

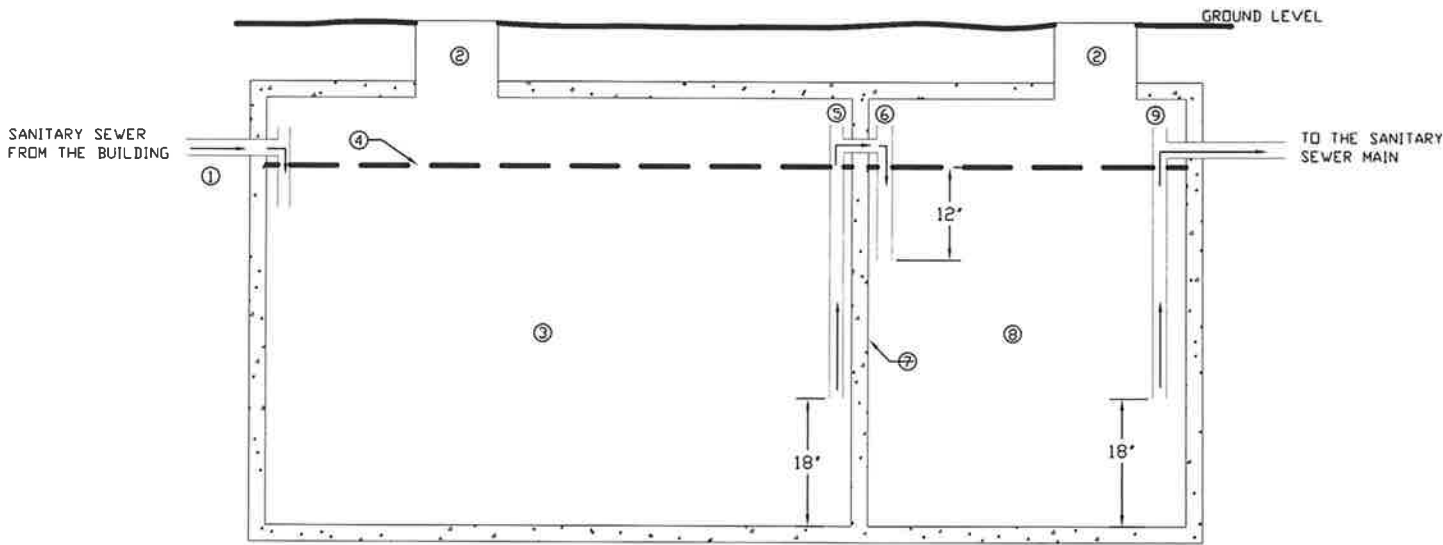
Drawn: MSR Date: 3/16/95
Checked: MSR Rev.: 01/01/10
Approved: MSR Rev.:

Scale: NONE

TYPICAL PUMP STATION
DETAILS



City of
ELIZABETHTOWN
Engineering Department



- 1. INLET (INFLUENT LINE)
- 2. MINIMUM 24" OPENINGS INTO THE TANK
- 3. PRIMARY TANK CHAMBER
- 4. WATER LEVEL
- 5. PRIMARY CHAMBER OUTLET PIPE (18" FROM BOTTOM OF TANK)
- 6. SECONDARY CHAMBER INLET PIPING (12" BELOW OPERATING LEVEL)
- 7. BAFFLE - INSTALLED 2/3 OF THE LENGTH OF THE TANK FROM THE INLET PIPE. BAFFLE MUST BE SEALED WATER TIGHT
- 8. SECONDARY CHAMBER
- 9. SECONDARY CHAMBER OUTLET PIPE (18" FROM BOTTOM OF TANK)

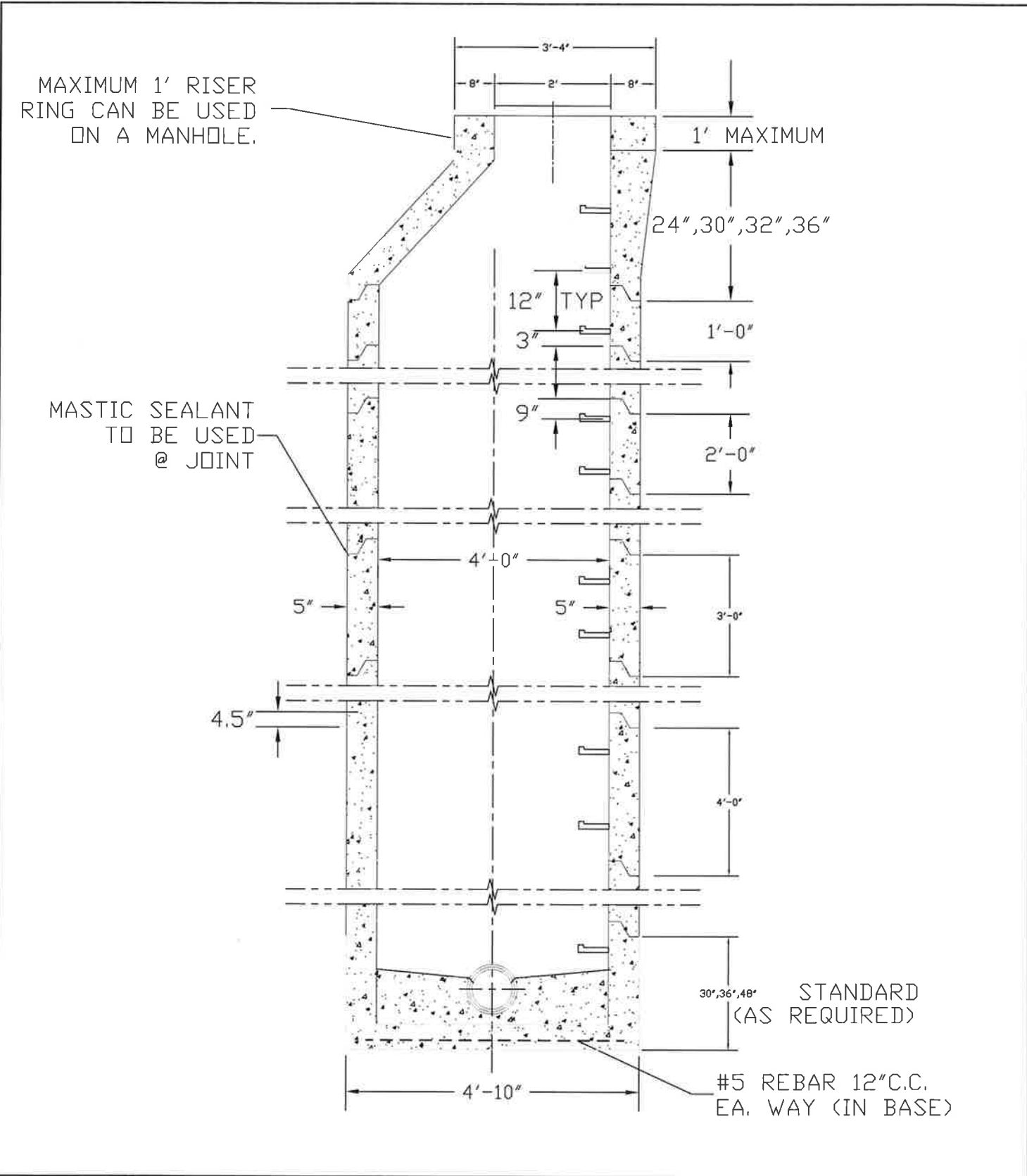
NOTE: THE LENGTH TO WIDTH MINIMUM RATION SHALL BE 2:1 MAXIMUM RATION SHALL BE 4:1
BAFFLE SHOULD BE MONOLITHIC TO THE TANK, I.E. THE WALLS SHALL BE CAST WITH THE TANK BODY AND TIED IN WITH REBAR

Aerial photography and digital mapping prepared by Photo Science, Inc. of Lexington, KY. Aerial photography flown April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.

Drawn: MSR	Date: 10/30/07
Checked: MSR	Rev.:
Approved:	Rev.:
Scale: NONE	

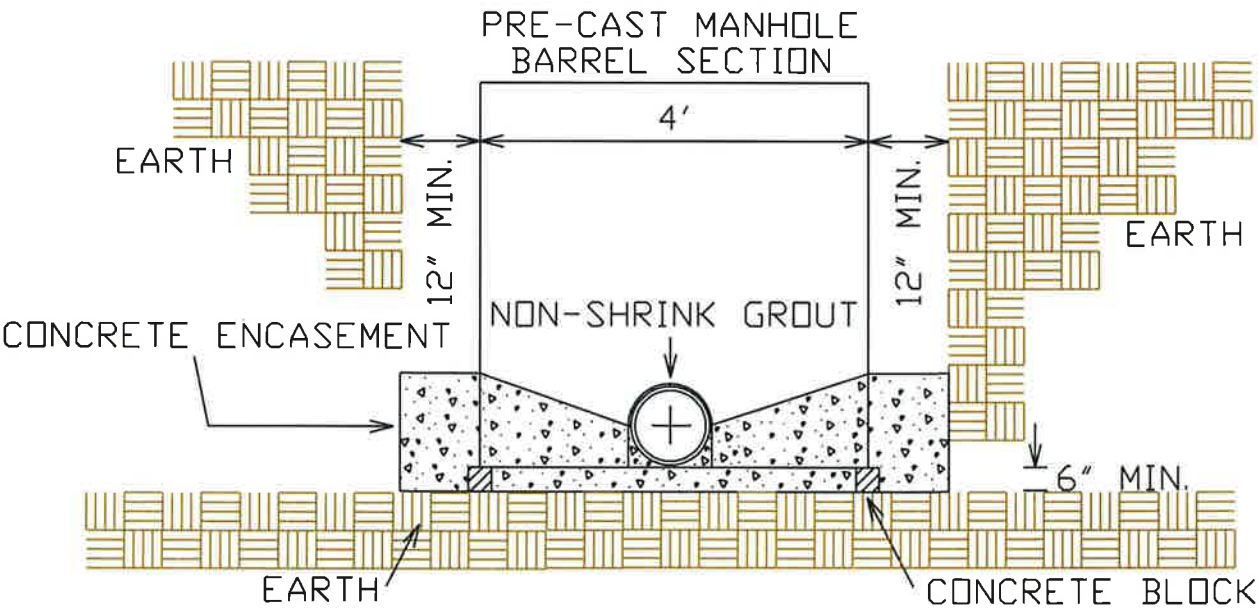
TYPICAL GREASE TRAP





<small>Aerial photography and digital mapping prepared by Photo Science, Inc. of Lexington, KY. Aerial photography from April 13, 2001. Horizontal control based on North American datum of 1983. Vertical control based on North American Vertical datum of 1988. The City of Elizabethtown accepts no liability for the accuracy of this document.</small>	Drawn: MSR	Date: 10/3/97	<div>TYPICAL MANHOLE</div>	<div><div>City of ELIZABETHTOWN Engineering Department</div></div>
	Checked: MSR	Rev.: 01/01/10		
	Approved: MSR	Rev.: 09/19/11		
	Scale: NONE			

NOTE:
PLACE "TAR MASTIC" ON
INSIDE LIP OF PRECAST
BARRELL SECTION AND
A WATERSTOP GASKET
AROUND OUTSIDE OF PIPE
WHERE IT PENETRATES
THE MANHOLE.



KyTC BMP Plan for Project CID ## - #####



Kentucky Transportation Cabinet

Highway District 4

And

_____ (2), Construction

Kentucky Pollutant Discharge Elimination System

Permit KYR10

Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

**IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND
MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS
RD) FROM US-31W BYPASS TO KY-3005 (RING ROAD).**

Project: CID ## - #####

KyTC BMP Plan for Project CID ## -

Project information

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

1. Owner – Kentucky Transportation Cabinet, District 4
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 1357 – St. John Road
6. Latitude/Longitude (project mid-point) dd/mm/ss, dd/mm/ss
37.695556
-85.885833
7. County (project mid-point)
Hardin
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)

This project will make improvements to St. John Rd (KY 1357) between Ring Rd (KY 3005) and US 31W in Elizabethtown, KY. The roadway will be improved from a rural two lane road to an urban, curb and gutter two driving lanes with a center two way left turn lane.

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

3. Projected volume of material to be moved
80,875 cubic yards

4. Estimate of total project area (acres)
23 Acres

5. Estimate of area to be disturbed (acres)
23 Acres

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

7. Data describing existing soil condition (2)

Soil Type	Approx. % of Project Area
Bedford Silt Loam	13.1%
Crider Silt Loam	57.1%
Cumberland Silt Loam	0.1%
Cumberland Silty Clay Loam	0.4%
Elk Silt Loam	5.7%
Lindside Silt Loam	1.9%
Newark Silt Loam	3.8%
Nolin Silt Loam	8.1%
Vertrees Silt Loam	9.9%

8. Data describing existing discharge water quality (if any)
No project specific water quality data exist, discharge consists of stormwater runoff.

9. Receiving water name
Billy Creek and Shaw Creek

KyTC BMP Plan for Project CID ## -

10. TMDLs and Pollutants of Concern in Receiving Waters:

None known

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

12. Potential sources of pollutants:

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

B. Sediment and Erosion Control Measures:

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

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

2. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to

KyTC BMP Plan for Project CID ## -

be designated as “Do Not Disturb” until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMP’s shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA’s as the work progresses. All DDA’s will have adequate BMP’s in place before being disturbed.

3. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:
 - Construction Access – This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
 - At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
 - Clearing and Grubbing – The following BMP’s will be considered and used where appropriate.
 - Leaving areas undisturbed when possible.
 - Silt basins to provide silt volume for large areas.
 - Silt Traps Type A for small areas.
 - Silt Traps Type C in front of existing and drop inlets which are to be saved
 - Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
 - Brush and/or other barriers to slow and/or divert runoff.
 - Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
 - Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
 - Non-standard or innovative methods.
 - Cut & Fill and placement of drainage structures - The BMP Plan will be modified to show additional BMP’s such as:
 - Silt Traps Type B in ditches and/or drainways as they are completed
 - Silt Traps Type C in front of pipes after they are placed
 - Channel Lining
 - Erosion Control Blanket
 - Temporary mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.

KyTC BMP Plan for Project CID ## -

- Non-standard or innovative methods
- Profile and X-Section in place – The BMP Plan will be modified to show elimination of BMP's which had to be removed and the addition of new BMP's as the roadway was shaped. Probably changes include:
 - Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
 - Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.
 - Additional Channel Lining and/or Erosion Control Blanket.
 - Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
 - Special BMP's such as Karst Policy
- Finish Work (Paving, Seeding, Protect, etc.) – A final BMP Plan will result from modifications during this phase of construction. Probably changes include:
 - Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMP's which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
 - Permanent Seeding and Protection
 - Placing Sod
 - Planting trees and/or shrubs where they are included in the project
- BMP's including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMP's to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are : No permanent BMPs are being proposed.

C. Other Control Measures

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

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

KyTC BMP Plan for Project CID ## -

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:**

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

KyTC BMP Plan for Project CID ## -

- Original labels and material safety data sheets (MSDS) will be reviewed and retained
- Contractor will follow procedures recommended by the manufacturer when handling hazardous materials
- If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed

The following product-specific practices will be followed onsite:

➤ **Petroleum Products:**

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

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

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

➤ **Fertilizers:**

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

➤ **Paints:**

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

➤ **Concrete Truck Washout:**

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

KyTC BMP Plan for Project CID ## -

approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

➤ **Spill Control Practices**

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

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

D. Other State and Local Plans

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

KyTC BMP Plan for Project CID ## -

E. Maintenance

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

F. Inspections

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

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

KyTC BMP Plan for Project CID ## -

- 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).
- 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:

KyTC BMP Plan for Project CID ## - #####

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

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

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

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

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

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

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

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

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

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

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.
- (d) Implementation schedule – all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s).

KyTC BMP Plan for Project CID ## -

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.)

KyTC BMP Plan for Project CID ## -

Contractor and Resident Engineer Plan certification

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

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

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

Resident Engineer and Contractor Certification:

(2) Resident Engineer signature

Signed _____ title _____, _____
Typed or printed name² signature

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

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

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

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 name¹signature

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

SPECIAL NOTE

Filing of eNOI for KPDES Construction Stormwater Permit

County: Hardin

Route:

KY 1357

Item No.: 4-8801 CID-


KDOW Submittal ID:

**d5321721-f6de-4b68-8721-
8d3ef700c300**

Project Description: IMPROVE SAFETY, GEOMETRICS, DRAINAGE AND MAINTENANCE ISSUES ALONG KY-1357 (ST. JOHNS RD) FROM US-31W BYPASS TO KY-3005

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

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

	<h2>KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)</h2> <p>Notice of Intent (NOI) for coverage of Storm Water Discharge Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000</p> <p>Click here for Instructions (Controls/KPDES_FormKYR10_Instructions.htm)</p> <p>Click here to obtain information and a copy of the KPDES General Permit: (http://dep.ky.gov/formslibrary/Documents/KYR10PermitPage.pdf)</p> <p>(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field</p>		
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>			
ELIGIBILITY: Stormwater discharges associated with construction activities disturbing individually one (1) acre or more, including, in the case of a common plan of development, contiguous construction activities that cumulatively equal one (1) acre or more of disturbance.			
EXCLUSIONS: The following are excluded from coverage under this general permit: 1) Are conducted at or on properties that have obtained an individual KPDES permit for the discharge of other wastewaters which requires the development and implementation of a Best Management Practices (BMP) plan; 2) Any operation that the DOW determines an individual permit would better address the discharges from that operation; 3) Any project that discharges to an Impaired Water listed in the most recent Integrated Report, §305(b) as impaired for sediment and for which an approved TMDL has been developed.			
SECTION I -- FACILITY OPERATOR INFORMATION (PERMITTEE)			
Company Name: (✓) <div>KYTC District 4</div>	First Name: (✓) <div>Brad</div>	M.I.: <div>MI</div>	Last Name: (✓) <div>Bottoms</div>
Mailing Address: (*) <div>634 East Dixie Ave</div>	City: (*) <div>Elizabethtown</div>	State: (*) <div>Kentucky</div>	Zip: (*) <div>42701</div>

eMail Address:(*) bradley.bottoms@ky.gov		Business Phone:(*) 2707665066		Alternate Phone: Phone	
SECTION II -- GENERAL SITE LOCATION INFORMATION					
Project Name:(*) CID - 22-XXXX - KY 1357 Improvments		Status of Owner/Operator(*) State Government		SIC Code(*) 1611 Highway and Street Constr	
Company Name:(✓) KYTC District 4		First Name:(✓) Bradley		M.I.: MI	
Last Name:(✓) Bottoms					
Site Physical Address:(*) KY 1357 - St. John Rd					
City:(*) Elizabethtown		State:(*) Kentucky		Zip:(*) 42701	
County:(*) Hardin		Latitude(decimal degrees)(*) (https://www.fcc.gov/media/radio/dms-decimal) 37.69556		Longitude(decimal degrees)(*) -85.885833	
SECTION III -- SPECIFIC SITE ACTIVITY INFORMATION					
Project Description:(*) This project will make improvements to St. John Rd (KY 1357) between Ring Rd (KY 3005) and US 31W in Elizabethtown, KY. The roadway will be improved from a rural two-lane road to a two-lane divided highway.					
a. For single projects provide the following information					
Total Number of Acres in Project:(✓) 24		Total Number of Acres Disturbed:(✓) 24			
Anticipated Start Date:(✓)		Anticipated Completion Date:(✓)			
b. For common plans of development provide the following information					
Total Number of Acres in Project:(✓) # Acre(s)		Total Number of Acres Disturbed:(✓) # Acre(s)			

Number of individual lots in development, if applicable:(✓)

lot(s)

Number of lots in development:(✓)

lot(s)

Total acreage of lots intended to be developed:(✓)

Project Acres

Number of acres intended to be disturbed at any one time:(✓)

Disturbed Acres

Anticipated Start Date:(✓)

Anticipated Completion Date:(✓)

List Building Contractor(s) at the time of Application:(*)

Company Name

+

SECTION IV -- IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED

Discharge Point(s):

9	Yes	37.695524	-85.885354	Billy Creek	Delete
10	Yes	37.695524	-85.894585	Billy Creek	Delete
11	Yes	37.696061	-85.892436	Billy Creek	Delete
12	Yes	37.696533	-85.891402	Billy Creek	Delete
13	Yes	37.698365	-85.886168	Shaw Creek	Delete
14	Yes	37.698522	-85.885653	Shaw Creek	Delete
15	Yes	37.698680	-85885134	Shaw Creek	Delete
16	Yes	37.698999	-85.884511	Shaw Creek	Delete
17	Yes	37.699349	-85.883703	Shaw Creek	Delete
18	No	37.699630	-85.883152	Shaw Creek	Delete
+					

SECTION V -- IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED

Name of MS4:

Hardin County Fiscal Court-HARDIN COUNTY FISCAL COURT

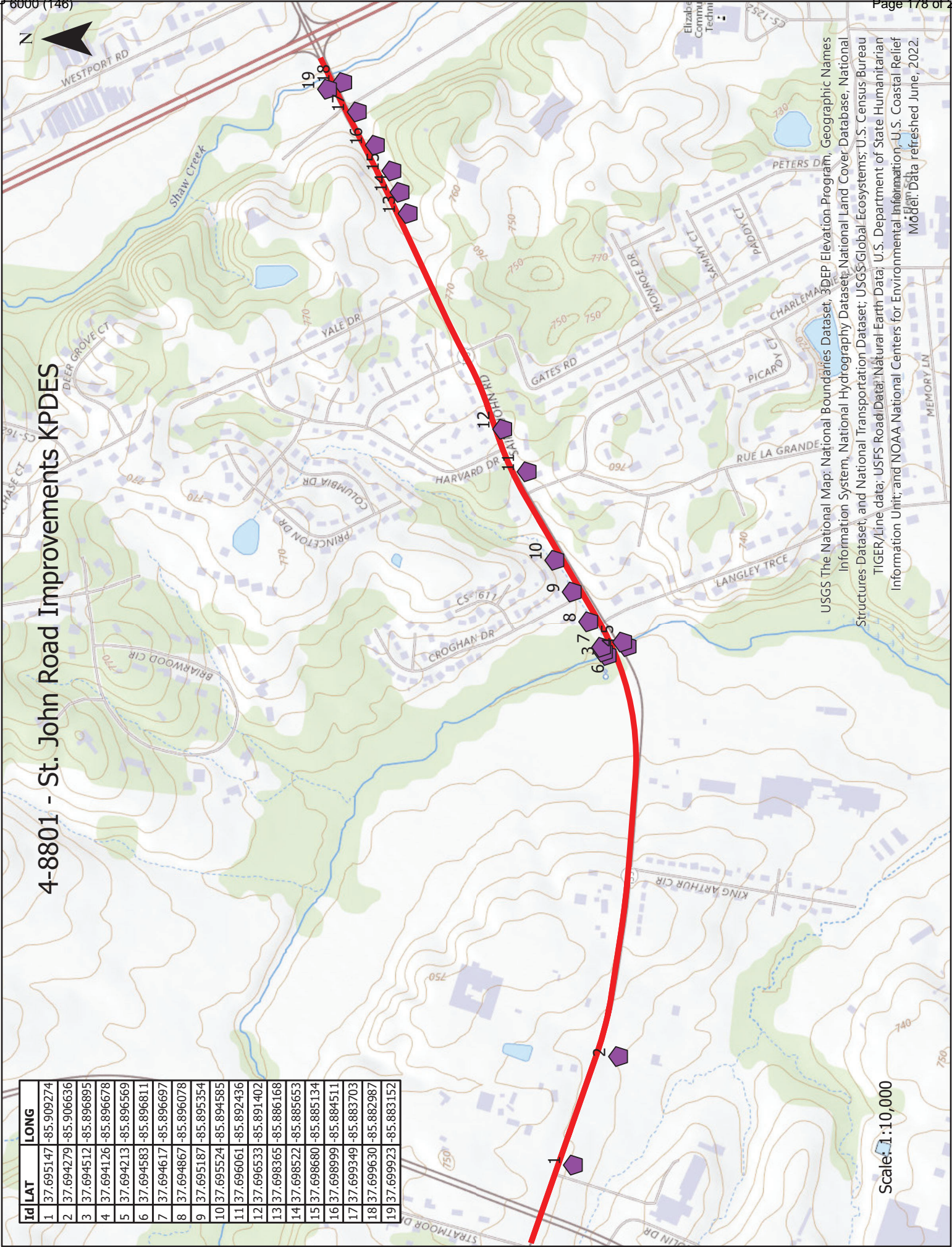
Date of application/notification to the MS4 for construction site permit coverage:

Discharge Point(s):(*)

<div>Date</div>			
SECTION VI -- WILL THE PROJECT REQUIRE CONSTRUCTION ACTIVITIES IN A WATER BODY OR THE RIPARIAN ZONE?			
Will the project require construction activities in a water body or the riparian zone?:(*)		<div>Yes</div>	
If Yes, describe scope of activity: (✓)		<div>Construct a bridge, realign stream channel, construct culverts</div>	
Is a Clean Water Act 404 permit required?:(*)		<div>Yes</div>	
Is a Clean Water Act 401 Water Quality Certification required?:(*)		<div>Yes</div>	
SECTION VII -- NOI PREPARER INFORMATION			
First Name:(*) <div>Joseph</div>		M.I.: <div>MI</div>	Last Name:(*) <div>Ferguson</div>
Mailing Address:(*) <div>634 East Dixie Ave</div>		City:(*) <div>Elizabethtown</div>	State:(*) <div>Kentucky</div>
eMail Address:(*) <div>joseph.ferguson@ky.gov</div>		Business Phone:(*) <div>2707665066</div>	Zip:(*) <div>42701</div>
		Alternate Phone: <div>Phone</div>	
SECTION VIII -- ATTACHMENTS			
Facility Location Map:(*)		<div>Upload file</div>	
Supplemental Information:		<div>Upload file</div>	
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: (*) <div>Signature</div>		Title: (*) <div>Title</div>	
First Name: (*) <div>First Name</div>	Last Name: (*) <div>Last Name</div>		
	M.I.: <div>MI</div>		
eMail Address: (*) <div>eMail Address</div>	Business Phone: (*) <div>Phone</div>		Alternate Phone: <div>Phone</div>
	Signature Date: (*) <div>Date</div>		
<div><div>Click to Save Values for Future Retrieval</div><div>Click to Submit to EEC</div></div>			



Id	LAT	LONG
1	37.695147	-85.909274
2	37.694279	-85.906636
3	37.694512	-85.896895
4	37.694126	-85.896678
5	37.694213	-85.896569
6	37.694583	-85.896811
7	37.694617	-85.896697
8	37.694867	-85.896078
9	37.695187	-85.895354
10	37.695524	-85.894585
11	37.696061	-85.892436
12	37.696533	-85.891402
13	37.698365	-85.886168
14	37.698522	-85.885653
15	37.698680	-85.885134
16	37.698999	-85.884511
17	37.699349	-85.883703
18	37.699630	-85.882987
19	37.699923	-85.883152

KENTUCKY TRANSPORTATION CABINET
COMMUNICATING ALL PROMISES (CAP)

Item No. 4 - 8801

County: Hardin

Route: 1,357

Project Manager: BRADLEY BOTTOMS

5/13/23

CAP #	Date of Promise	Promise made to:	Location of Promise:	CAP Description
1	7/10/19	Antonieta Avenido	Parcel 16	Contractor shall contact property owner by phone (270-317-8922) and owner's daughter by email (aileengarris@gmail.com) at least 30 calendar days prior to construction activities so that property owner can remove fencing and gate. If owner fails to remove these items within 30 days the contractor will be responsible for removing and disposing of the items at no cost to the Cabinet.
2	7/11/19	Central Kentucky Community Foundation	Parcel 65	Contractor shall contact property owner (270-737-8393) at least 30 calendar days prior to construction activities to remove sign within acquired Right of Way in the vicinity of STA 81+50. If owner fails to remove the sign within 30 days the contractor will be responsible for removing and disposing of the sign at no cost to the Cabinet, incidental to earthwork.
3	9/24/19	Larry & Judith Kessinger	P60	Contractor is to remove the existing chain link fence between the corner posts located at approximate stations 73+30 and 74+30 LT. Owners have granted consent release to remove fence outside of the easement areas shown on the plans. Contractor shall contact owners 30 days prior to fence removal at 270-234-0196 or 270-307-7828.
4	11/25/19	East KY Power Cooperative	Parcel 25	Contractor shall maintain access to the electrical substation on this parcel at all times throughout construction.
5	1/15/20	Hardin County Library	Parcel 66	Contractor shall contact the Hardin County Library Director (270-769-0437) 30 days prior to removal of the sign at approximately 81+60 right. The library is responsible for having the electric service removed from the sign by end of the 30 days. The contractor will be responsible for removing the sign, incidental to earthwork.
6	4/4/18	City of Elizabethtown	Parcel 28	As part of mitigation agreed to with the City of Elizabethtown due to project impacts to the Elizabethtown Sports Park: Upon project completion the City may apply by permit to install additional landscaping on right of way within the abandoned roadbed
7	4/4/18	City of Elizabethtown	44+00 to 51+00	As part of mitigation agreed to with the City of Elizabethtown due to project impacts to the Elizabethtown Sports Park: In order to match the aesthetic of West Park Road, approach guardrail on KY1357 for the Billy Creek Bridge shall be Weathering Steel Guardrail. End Treatments, transitions, or other items not available in weathering steel shall be painted to match.
8	4/4/18	City of Elizabethtown	47+62 Bridge	As part of mitigation agreed to with the City of Elizabethtown due to project impacts to the Elizabethtown Sports Park: Concrete form liners shall be used to create a decorative pattern on the Billy Creek Bridge
9	4/4/18	City of Elizabethtown	47+30 Trail	As part of mitigation agreed to with the City of Elizabethtown due to project impacts to the Elizabethtown Sports Park: Any portions of the Billy Creek Greenspace Trail that are disturbed shall be replaced with concrete and connected to the Elizabethtown Sports Park Trail.

KENTUCKY TRANSPORTATION CABINET
COMMUNICATING ALL PROMISES (CAP)

Item No. 4 - 8801

County: Hardin

Route: 1,357

Project Manager: BRADLEY BOTTOMS

5/13/23

CAP #	Date of Promise	Promise made to:	Location of Promise:	CAP Description
10	5/5/20	Kiro John Yun	Parcel 70	The contractor shall attempt to remove the concrete mailbox intact and deliver it to the property owner. The Contractor is NOT responsible for resetting the mailbox on the property. Contact the property owner, Dr. Yun, when this work will begin at 270-300-4582.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR PL
LOUISVILLE, KY 40202

February 14, 2023

Regulatory Division
South Branch (RDS)
ID No. LRL-2022-445-ncc

Mr. Adam Michels
Kentucky Transportation Cabinet (KYTC)
Division of Environmental Analysis
200 Mero Street
Frankfort, Kentucky 40622

Dear Mr. Michels,

This is in response to your request for a Department of the Army (DA) permit to widen and improve a 1.75-mile segment of St. John Road (KY 1357) that would require the crossings of streams and wetlands adjacent to the roadway, including the replacement of Billy Creek bridge, the repairs of two additional bridges and the construction of a sidewalk and a shared pedestrian/bicycle path, and the construction of a temporary crossing (KYTC Item No. 4-8801). The proposed project is located in Elizabethtown, Hardin County, Kentucky (Latitude: 37.695796 N/Longitude: -85.896205 W). We have reviewed your application and have made the following determinations: The work is minor in nature, will not have a significant impact on the environment, and should encounter no opposition.

Based on these determinations, your proposed work satisfies the Transportation Letter of Permission (LOP) criteria, as specified in our regulations. Therefore, you are authorized, in accordance with 33 USC 1344, to place fill material into approximately 201 linear feet (0.09 acre) of Billy Creek, a perennial stream, 886 linear feet (0.08 acre) of unnamed intermittent tributaries, 868 linear feet (0.092 acre) of ephemeral tributaries of Billy Creek and 0.15 acre of scrub shrub wetland. The project would also include the construction of a temporary stream crossing that would impact approximately 50 linear feet (0.008 acre) of Billy Creek. This permission is granted with the following Special Conditions:

- a. All work authorized by this permit shall be performed in strict compliance with the attached plans, dated April 14, 2021, for KYTC Item No. 4-8801.00, which are a part of this permit. Any modification to these plans affecting the authorized work shall be approved by the U.S. Army Corps of Engineers prior to implementation.
- b. The Permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, drawings and attachments shall be available at the project site during the construction phase of this project. A description of the authorized work, as provided in

the DA permit on ENG FORM 4336, shall be displayed at the project site during construction.

- c. The Permittee shall comply with all conditions of the Section 401 Water Quality Certification (WQC) No. WQCLOP2022-054-7, dated June 9, 2022, issued by the Kentucky Division of Water (KDOW), which are incorporated herein by reference.
- d. The Permittee shall provide receipt of payment from the Kentucky Department of Fish and Wildlife Resources (KDFWR) In-Lieu Fee (FILO) program for the purchase of 1,425 stream adjusted mitigation unit (AMU) credits. AMU credits must be purchased prior to the discharge of fill material into waters of the United States. Please note that the cost per credit is determined by KDFWR, in accordance with the requirements set forth in 33 CFR 332.8, and may increase or decrease. Inquiries regarding credit purchase may be made directly to KDFWR by calling Mr. Clifford Scott at (502) 564-5101, by email at: clifford.scott@ky.gov, or in writing at: Kentucky Department of Fish and Wildlife Resources, Division of Fisheries, #1 Sportsman's Lane, Frankfort, Kentucky, 40601.
- e. Prior to initiating the authorized work, the Permittee shall provide written verification to the U.S. Army Corps of Engineers that 0.3 wetland AMUs have been purchased from the CreekBankers-McNary Mitigation Bank (LRL-2017-00496). The required verification shall reference this project's permit number (LRL-2022-00445-ncc).
- f. To compensate for the removal of 4.31 acres of suitable forested Indiana bat and northern long-eared bat (NLEB) habitat, the permittee shall comply with the processes identified in the 2020 KYTC-Federal Highway Administration (FHWA) Programmatic Bat Program for Foraging Habitat, and Summer/Temporary Roosting in the Commonwealth of Kentucky between the FHWA, KYTC, and the U.S. Fish and Wildlife Service (USFWS) Kentucky Field Office, and shall provide receipt of a \$17,240.00 contribution to the Imperiled Bat Conservation Fund (IBCF). The Permittee shall provide the Corps with a receipt of payment prior to any tree removal. If additional forested areas not previously considered in the DA permit application are to be cleared, the Permittee shall notify the Corps and the USFWS in advance of any additional tree clearing to determine if re-initiation of Endangered Species Act (ESA) consultation is required.
- g. Clearing of trees 5"+ diameter at breast height (DBH) shall not occur from June 1 to July 31 to minimize adverse effects to the federally listed NLEB and the Indiana bat.
- h. If the NLEB is listed as endangered under the ESA, and tree clearing activities have not been completed prior to the listing, the permittee is required to reinitiate federal coordination with the USFWS.
- i. The permittee shall implement minimization measures, including utilizing best management practices (BMPs) and sediment and erosion control measures, to minimize impacts to the Indiana bat and NLEB.
- j. The Permittee shall implement all necessary precautions and measures so that any

activity will not kill, injure, capture, harass, or otherwise harm any protected federally listed species. If the Permittee discovers or observes an injured/dead listed endangered or threatened species while accomplishing the authorized work, the Permittee shall immediately notify the Corps to initiate the required federal coordination.

- k. Unless otherwise requested in the application and depicted on the approved work plans, culverts greater than 48 inches in diameter shall be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter and less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic organism passage during drought or low flow conditions and maintain the existing channel slope. Culverts shall be constructed in a manner that ensures channel stability.
- l. Within 30 days from the date of completing the authorized work, the Permittee shall restore approximately 50 linear feet of temporary stream impacts (Billy Creek) to pre-existing contours and elevations. The affected areas shall be re-vegetated, as appropriate to minimize erosion and ensure site stability.
- m. The Permittee shall comply with the enclosed Transportation LOP General Conditions.
- n. The time limit for completing the work authorized ends on February 14, 2028. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
- o. Upon completion of construction, the permittee shall notify the District Engineer. The enclosed Completion Report (see below) must be completed and returned to this office.

If you have any questions, please contact this office by writing to the above address, ATTN: CELRL-RDS, or by calling Mrs. Norma C. Condra at (502) 315-6680. All correspondence pertaining to this matter should refer to our ID No. LRL-2022-00445-ncc.

FOR THE DISTRICT ENGINEER:

Sincerely,

Eric G. Reusch
Chief, Regulatory Division

Enclosures:

1. Transportation LOP General Conditions
2. WQC Conditions
3. Project Vicinity Map, Alignment Map, and Impact Stations Map
4. Erosion Control Measures/BMPs

Copies Furnished:

U.S. Environmental Protection Agency
fitzgerald.austin@epa.gov

U.S. Fish & Wildlife Service
kentuckyES@fws.gov

Kentucky Energy & Environment Cabinet
Division of Water
401wqc@ky.gov

State Historic Preservation Officer
Kentucky Heritage Council
khc.section106@ky.gov

Compliance Certification:

Permit Number: **LRL-2022-00445-ncc**

Name of Permittee: **Kentucky Transportation Cabinet (KYTC)**

Date of Issuance: **February 14, 2023**

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification, and return it to the following address:

U.S. Army Corps of Engineers
CELRL-RDS
P.O. Box 59
Louisville, Kentucky 40201

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

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.

11

- 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

11N

SPECIAL NOTE FOR LONGITUDINAL PAVEMENT JOINT ADHESIVE

1. **DESCRIPTION.** This specification covers the requirements and practices for applying an asphalt adhesive material to the longitudinal joint of the surface course of an asphalt pavement. Apply the adhesive to the face of longitudinal joint between driving lanes for the first lane paved. Then, place and compact the adjacent lane against the treated face to produce a strong, durable, waterproof longitudinal joint.
2. **MATERIALS, EQUIPMENT, AND PERSONNEL.**

2.1 Joint Adhesive. Provide material conforming to Subsection 2.1.1.

2.1.1 Provide an adhesive conforming to the following requirements:

Property	Specification	Test Procedure
Viscosity, 400 ° F (Pa·s)	4.0 – 10.0	ASTM D 4402
Cone Penetration, 77 ° F	60 – 100	ASTM D 5329
Flow, 140 ° F (mm)	5.0 max.	ASTM D 5329
Resilience, 77 ° F (%)	30 min.	ASTM D 5329
Ductility, 77 ° F (cm)	30.0 min.	ASTM D 113
Ductility, 39 ° F (cm)	30.0 min.	ASTM D 113
Tensile Adhesion, 77 ° F (%)	500 min.	ASTM D 5329, Type II
Softening Point, ° F	171 min.	AASHTO T 53
Asphalt Compatibility	Pass	ASTM D 5329

Ensure the temperature of the pavement joint adhesive is between 380 and 410 °F when the material is extruded in a 0.125-inch-thick band over the entire face of the longitudinal joint.

2.2. Equipment.

2.2.1 Melter Kettle. Provide an oil-jacketed, double-boiler, melter kettle equipped with any needed agitation and recirculating systems.

2.2.2 Applicator System. Provide a pressure-feed-wand applicator system with an applicator shoe attached.

2.3 Personnel. Ensure a technical representative from the manufacturer of the pavement joint adhesive is present during the initial construction activities and available upon the request of the Engineer.

3. **CONSTRUCTION.**

3.1 Surface Preparation. Prior to the application of the pavement joint adhesive, ensure the face of the longitudinal joint is thoroughly dry and free from dust or any other debris that would inhibit adhesion. Clean the joint face by the use of compressed air.

11N

Ensure this preparation process occurs shortly before application to prevent the return of debris on the joint face.

3.2 Pavement Joint Adhesive Application. Ensure the ambient temperature is a minimum of 40 ° F during the application of the pavement joint adhesive. Prior to applying the adhesive, demonstrate competence in applying the adhesive according to this note to the satisfaction of the Engineer. Heat the adhesive in the melter kettle to the specified temperature range. Pump the adhesive from the melter kettle through the wand onto the vertical face of the cold joint. Apply the adhesive in a continuous band over the entire face of the longitudinal joint. Do not use excessive material in either thickness or location. Ensure the edge of the extruded adhesive material is flush with the surface of the pavement. Then, place and compact the adjacent lane against the joint face. Remove any excessive material extruded from the joint after compaction (a small line of material may remain).

3.3 Pavement Joint Adhesive Certification. Furnish the joint adhesive's certification to the Engineer stating the material conforms to all requirements herein prior to use.

3.4 Sampling and Testing. The Department will require a random sample of pavement joint adhesive from each manufacturer's lot of material. Extrude two 5 lb. samples of the heated material and forward the sample to the Division of Materials for testing. Reynolds oven bags, turkey size, placed inside small cardboard boxes or cement cylinder molds have been found suitable. Ensure the product temperature is 400°F or below at the time of sampling.

4. MEASUREMENT. The Department will measure the quantity of Pavement Joint Adhesive in linear feet. The Department will not measure for payment any extra materials, labor, methods, equipment, or construction techniques used to satisfy the requirements of this note. The Department will not measure for payment any trial applications of Pavement Joint Adhesive, the cleaning of the joint face, or furnishing and placing the adhesive. The Department will consider all such items incidental to the Pavement Joint Adhesive.
5. PAYMENT. The Department will pay for the Pavement Joint Adhesive at the Contract unit bid price and apply an adjustment for each manufacturer's lot of material based on the degree of compliance as defined in the following schedule. When a sample fails on two or more tests, the Department may add the deductions, but the total deduction will not exceed 100 percent.

11N

Pavement Joint Adhesive Price Adjustment Schedule						
Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
Joint Adhesive Referenced in Subsection 2.1.1						
Viscosity, 400 ° F (Pa•s)			3.0-3.4	2.5-2.9	2.0-2.4	≤1.9
ASTM D 3236	4.0-10.0	3.5-10.5	10.6-11.0	11.1-11.5	11.6-12.0	≥ 12.1
Cone Penetration, 77 ° F			54-56	51-53	48-50	≤ 47
ASTM D 5329	60-100	57-103	104-106	107-109	110-112	≥ 113
Flow, 140 ° F (mm) ASTM D 5329	≤ 5.0	≤ 5.5	5.6-6.0	6.1-6.5	6.6-7.0	≥ 7.1
Resilience, 77 ° F (%) ASTM D 5329	≥ 30	≥ 28	26-27	24-25	22-23	≤ 21
Tensile Adhesion, 77 ° F (%) ASTM D 5329	≥ 500	≥ 490	480-489	470-479	460-469	≤ 459
Softening Point, ° F AASHTO T 53	≥ 171	≥ 169	166-168	163-165	160-162	≤ 159
Ductility, 77 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9
Ductility, 39 ° F (cm) ASTM D 113	≥ 30.0	≥ 29.0	28.0-28.9	27.0-27.9	26.0-26.9	≤ 25.9

Code
20071EC

Pay Item
Joint Adhesive

Pay Unit
Linear Foot

May 7, 2014

PART III

EMPLOYMENT, WAGE AND RECORD REQUIREMENTS

FHWA-1273 -- Revised July 5, 2022

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- 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. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

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

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

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

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

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

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 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 journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract 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 (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 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. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum 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. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) 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.

The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

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 200.326.

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 200.326.

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.

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 contractor). "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.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) 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;

(b) 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

(c) 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)

2. 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.

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

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

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

KRS 11A.040 (9) states:

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

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

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

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

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

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 1025 Capital Center Drive, Suite 104, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: May 23, 2022

"General Decision Number: KY20230038 02/24/2023

Superseded General Decision Number: KY20220038

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: 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)(2)-(60).

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">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$16.20 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 2023.
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">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$12.15 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 2023.

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	01/06/2023
1	02/10/2023
2	02/24/2023

BRIN0004-003 06/01/2022

BRECKENRIDGE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 33.00	19.46

BRKY0001-005 06/01/2022

BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 31.87	16.39

BRKY0002-006 06/01/2022

BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 31.87	16.39

BRKY0007-004 06/01/2022

BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 32.94	20.28

BRKY0017-004 06/01/2022

ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN, HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS, OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

	Rates	Fringes
BRICKLAYER.....	\$ 31.87	16.39

CARP0064-001 04/01/2022

	Rates	Fringes
CARPENTER.....	\$ 30.84	22.19
Diver.....	\$ 46.64	22.19
PILEDRIVERMAN.....	\$ 31.09	22.19

ELEC0212-008 06/07/2022

BRACKEN, GALLATIN and GRANT COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 33.29	20.05

ELEC0212-014 11/28/2022

BRACKEN, GALLATIN & GRANT COUNTIES:

	Rates	Fringes
Sound & Communication Technician.....	\$ 26.70	13.41

ELEC0317-012 05/30/2022

BOYD, CARTER, ELLIOT & ROWAN COUNTIES:

	Rates	Fringes
ELECTRICIAN (Wiremen).....	\$ 35.85	28.25

ELEC0369-007 06/01/2022

ANDERSON, BATH, BOURBON, BOYLE, BRECKINRIDGE, BULLITT, CARROLL,
CLARK, FAYETTE, FRAONKLIN, GRAYSON, HARDIN, HARRISON, HENRY,
JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER,
MONTGOMERY, NELSON, NICHOLAS, OLDHAM, OWEN, ROBERTSON, SCOTT,
SHELBY, SPENCER, TRIMBLE, WASHINGTON, & WOODFORD COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 34.60	19.57

ELEC0575-002 11/21/2022

FLEMING, GREENUP, LEWIS & MASON COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 36.00	21.14

ENGI0181-018 07/01/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 34.80	17.85
GROUP 2.....	\$ 31.94	17.85
GROUP 3.....	\$ 32.39	17.85
GROUP 4.....	\$ 31.62	17.85

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - A-Frame Winch Truck; Auto Patrol; Backfiller;
Batcher Plant; Bituminous Paver; Bituminous Transfer
Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-All
Scoop; Carry Deck Crane; Central Compressor Plant; Cherry
Picker; Clamshell; Concrete Mixer (21 cu. ft. or Over);
Concrete Paver; Truck-Mounted Concrete Pump; Core Drill;

Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Overhead Crane; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Rough Terrain Crane; Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment

GROUP 2 - Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (When used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 H.P. or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler

GROUP 3 - All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment

GROUP 4 - Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steerman; Tamping Machine; Tractor (Under 50 H.P.); & Vibrator

CRANES - with booms 150 ft. & Over (Including JIB), and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate

EMPLOYEES ASSIGNED TO WORK BELOW GROUND LEVEL ARE TO BE PAID 10% ABOVE BASIC WAGE RATE. THIS DOES NOT APPLY TO OPEN CUT WORK.

IRON0044-009 06/01/2022

BRACKEN, GALLATIN, GRANT, HARRISON, ROBERTSON,
BOURBON (Northern third, including Townships of Jackson, Millersburg, Ruddel Mills & Shawhan);
CARROLL (Eastern third, including the Township of Ghent);
FLEMING (Western part, excluding Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);

MASON (Western two-thirds, including Townships of Dover, Lewisburg, Mays Lick, Maysville, Minerva, Moranburg, Murphysville, Ripley, Sardis, Shannon, South Ripley & Washington);
NICHOLAS (Townships of Barefoot, Barterville, Carlisle, Ellisville, Headquarters, Henryville, Morningglory, Myers & Oakland Mills);
OWEN (Townships of Beechwood, Bromley, Fairbanks, Holbrook, Jonesville, Long Ridge, Lusby's Mill, New, New Columbus, New Liberty, Owenton, Poplar Grove, Rockdale, Sanders, Teresita & Wheatley);
SCOTT (Northern two-thirds, including Townships of Biddle, Davis, Delaplain, Elmville, Longlick, Muddy Ford, Oxford, Rogers Gap, Sadieville, Skinnersburg & Stonewall)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 30.28	22.30
Structural.....	\$ 31.87	22.30

IRON0070-006 06/01/2022		

ANDERSON, BOYLE, BRECKINRIDGE, BULLITT, FAYETTE, FRANKLIN, GRAYSON, HARDIN, HENRY, JEFFERSON, JESSAMINE, LARUE, MADISON, MARION, MEADE, MERCER, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE, WASHINGTON & WOODFORD
BOURBON (Southern two-thirds, including Townships of Austerlity, Centerville, Clintonville, Elizabeth, Hutchison, Littlerock, North Middletown & Paris);
CARROLL (Western two-thirds, including Townships of Carrollton, Easterday, English, Locust, Louis, Prestonville & Worthville);
CLARK (Western two-thirds, including Townships of Becknerville, Flanagan, Ford, Pine Grove, Winchester & Wyandotte);
OWEN (Eastern eighth, including Townships of Glenmary, Gratz, Monterey, Perry Park & Tacketts Mill);
SCOTT (Southern third, including Townships of Georgetown, Great Crossing, Newtown, Stampling Ground & Woodlake);

	Rates	Fringes
IRONWORKER.....	\$ 31.79	24.30

IRON0769-007 06/01/2022		

BATH, BOYD, CARTER, ELLIOTT, GREENUP, LEWIS, MONTGOMERY & ROWAN
CLARK (Eastern third, including townships of Bloomingdale, Hunt, Indian Fields, Kiddville, Loglick, Rightangele & Thomson);
FLEMING (Townships of Beechburg, Colfax, Elizaville, Flemingsburg, Flemingsburg Junction, Foxport, Grange City, Hillsboro, Hilltop, Mount Carmel, Muses Mills, Nepton, Pecksridge, Plummers Landing, Plummers Mill, Poplar Plains, Ringos Mills, Tilton & Wallingford);
MASON (Eastern third, including Townships of Helena, Marshall, Orangeburg, Plumville & Springdale);
NICHOLAS (Eastern eighth, including the Township of Moorefield Sprout)

	Rates	Fringes
IRONWORKER		
ZONE 1.....	\$ 33.71	27.69

ZONE 2.....	\$ 34.11	27.69
ZONE 3.....	\$ 35.71	27.69

ZONE 1 - (no base rate increase) Up to 10 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 2 - (add \$0.40 per hour to base rate) 10 to 50 mile radius of Union Hall, 1643 Greenup Ave, Ashland, KY.

ZONE 3 - (add \$2.00 per hour to base rate) 50 mile radius & over of Union Hall, 1643 Greenup Ave, Ashland, KY.

LAB00189-003 07/01/2022

BATH, BOURBON, BOYD, BOYLE, BRACKEN, CARTER, CLARK, ELLIOTT, FAYETTE, FLEMING, FRANKLIN, GALLATIN, GRANT, GREENUP, HARRISON, JESSAMINE, LEWIS, MADISON, MASON, MERCER, MONTGOMERY, NICHOLAS, OWEN, ROBERTSON, ROWAN, SCOTT, & WOOLFORD COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;

& Tunnel Mucker (Free Air); Directional & Horizontal
Boring; Air Track Drillers (All Types); Powdermen &
Blasters; Troxler & Concrete Tester if Laborer is Utilized

LAB00189-008 07/01/2022

ANDERSON, BULLITT, CARROLL, HARDIN, HENRY, JEFFERSON, LARUE,
MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE &
WASHINGTON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORERS CLASSIFICATIONS

GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement
Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter
Tender; Cement Mason Tender; Cleaning of Machines;
Concrete; Demolition; Dredging; Environmental - Nuclear,
Radiation, Toxic & Hazardous Waste - Level D; Flagperson;
Grade Checker; Hand Digging & Hand Back Filling; Highway
Marker Placer; Landscaping, Mesh Handler & Placer; Puddler;
Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail
& Fence Installer; Signal Person; Sound Barrier Installer;
Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
Wrecking of Concrete Forms; General Cleanup

GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
Saw Operator; Deckhand Scow Man; Dry Cement Handler;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Level C; Forklift Operator for Masonary; Form Setter;
Green Concrete Cutting; Hand Operated Grouter & Grinder
Machine Operator; Jackhammer; Pavement Breaker; Paving
Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
Vibrator Operator; Wagon Driller

GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;
Gunnite Operator & Mixer; Grout Pump Operator; Side Rail
Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free
Air); Water Blaster

GROUP 4 - Caisson Worker (Free Air); Cement Finisher;
Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
- Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;
& Tunnel Mucker (Free Air); Directional & Horizontal
Boring; Air Track Drillers (All Types); Powdermen &
Blasters; Troxler & Concrete Tester if Laborer is Utilized

LAB00189-009 07/01/2022

BRECKINRIDGE & GRAYSON COUNTIES

	Rates	Fringes
Laborers:		
GROUP 1.....	\$ 23.76	17.12
GROUP 2.....	\$ 24.01	17.12
GROUP 3.....	\$ 24.06	17.12
GROUP 4.....	\$ 24.66	17.12

LABORERS CLASSIFICATIONS

- GROUP 1 - Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; Wrecking of Concrete Forms; General Cleanup
- GROUP 2 - Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonary; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; Wagon Driller
- GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free Air); Water Blaster
- GROUP 4 - Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized

PAIN0012-005 06/11/2005

BATH, BOURBON, BOYLE, CLARK, FAYETTE, FLEMING, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
ROBERTSON, SCOTT & WOODFORD COUNTIES:

	Rates	Fringes
PAINTER		
Bridge/Equipment Tender and/or Containment Builder..	\$ 18.90	5.90
Brush & Roller.....	\$ 21.30	5.90
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 22.30	5.90

Sandblasting & Waterblasting.....	\$ 22.05	5.90
Spray.....	\$ 21.80	5.90

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

	Rates	Fringes
PAINTER (Heavy & Highway Bridges - Guardrails - Lightpoles - Striping)		
Bridge Equipment Tender and Containment Builder.....	\$ 20.73	9.06
Brush & Roller.....	\$ 23.39	9.06
Elevated Tanks; Steeplejack Work; Bridge & Lead Abatement.....	\$ 24.39	9.06
Sandblasting & Water Blasting.....	\$ 24.14	9.06
Spray.....	\$ 23.89	9.06

ANDERSON, BRECKINRIDGE, BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE & WASHINGTON COUNTIES:

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 22.00	12.52
Spray, Sandblast, Power Tools, Waterblast & Steam Cleaning.....	\$ 23.00	12.52

* PAIN1072-003 12/01/2022

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS and ROWAN COUNTIES

	Rates	Fringes
Painters:		
Bridges; Locks; Dams; Tension Towers & Energized Substations.....	\$ 35.06	23.35
Power Generating Facilities.....	\$ 31.82	23.35

BOYD, CARTER, ELLIOTT, GREENUP, LEWIS & ROWAN COUNTIES:

	Rates	Fringes
Plumber and Steamfitter.....	\$ 38.50	22.40

BRACKEN, CARROLL (Eastern Half), GALLATIN, GRANT, MASON, OWEN & ROBERTSON COUNTIES:

	Rates	Fringes
--	-------	---------

Plumbers and Pipefitters.....\$ 36.8127.35

PLUM0502-003 08/01/2021

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN
(Western three-fourths), GRAYSON, HARDIN, HENRY, JEFFERSON,
LARUE, MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, TRIMBLE &
WASHINGTON COUNTIES

RatesFringes

PLUMBER.....\$ 38.0720.78

SUKY2010-160 10/08/2001

RatesFringes

Truck drivers:

GROUP 1.....\$ 16.577.34

GROUP 2.....\$ 16.687.34

GROUP 3.....\$ 16.867.34

GROUP 4.....\$ 16.967.34

TRUCK DRIVER CLASSIFICATIONS

- GROUP 1 - Mobile Batch Truck Tender
- GROUP 2 - Greaser; Tire Changer; & Mechanic Tender
- GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole
Trailer when used to pull building materials and equipment;
Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic
- GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &
Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame
when used in transporting materials; Ross Carrier; Forklift
when used to transport building materials; & Pavement
Breaker

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the

classifications was union data. EXAMPLE: UAVG-OH-0010
08/29/2014. UAVG indicates that the rate is a weighted union
average rate. OH indicates the state. The next number, 0010 in
the example, is an internal number used in producing the wage
determination. 08/29/2014 indicates the survey completion date
for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of
each year, to reflect a weighted average of the current
negotiated/CBA rate of the union locals from which the rate is
based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can
be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on
a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests
for summaries of surveys, should be with the Wage and Hour
National Office because National Office has responsibility for
the Davis-Bacon survey program. If the response from this
initial contact is not satisfactory, then the process described
in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal
process described here, initial contact should be with the
Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an
interested party (those affected by the action) can request
review and reconsideration from the Wage and Hour Administrator
(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the
interested party's position and by any information (wage
payment data, project description, area practice material,
etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an
interested party may appeal directly to the Administrative
Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISIO"

Fringe benefit amounts are applicable for all hours worked except when otherwise noted.

No laborer, workman or mechanic shall be paid at a rate less than that of a Journeyman except those classified as bona fide apprentices.

Apprentices or trainees shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request from any interested person.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U. S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the contractor shall submit evidence of approval and registration by the U. S. Bureau of Apprenticeship and Training.

The contractor shall submit to the Contracting Officer, written evidence of the established apprenticeship-journeyman ratios and wage rates in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

TO: EMPLOYERS/EMPLOYEES

PREVAILING WAGE SCHEDULE:

The wages indicated on this wage schedule are the least permitted to be paid for the occupations indicated. When an employee works in more than one classification, the employer must record the number of hours worked in each classification at the prescribed hourly base rate.

OVERTIME:

Overtime is to be paid to an employee at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek. Wage violations or questions should be directed to the designated Engineer or the undersigned.

Director
Division of Construction Procurement
Frankfort, Kentucky 40622
502-564-3500

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY
(Executive Order 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
9.6%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally-assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4, 3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Notification of Construction Contract Award Portal (NCAP) is OFCCP's preferred method for receiving construction contract award notifications. The NCAP can be found on OFCCP's website at <https://www.dol.gov/agencies/ofccp/ncap>. Users who prefer not to use the portal maintain the option to send their notifications via mail, email and facsimile to the OFCCP Regional office in which the work will be performed. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification must include: Prime Contract Number (issued by the federal agency or applicant); Name of Awarding Federal Agency, Applicant or Contractor; Contracting Officer, Applicant Representative or Contractor Representative Submitting Notification with name, phone number, email address; Contractor Awarded Contract or Subcontract with name, address, phone number, email address, EIN, dollar amount of the contract, estimated start date of the contract, estimated completion date of the contract, geographical area in which the contract is to be performed (state, county's city (if applicable)).

The notification shall be mailed to:

**Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75
Atlanta, Georgia 30303-8931
Main Number: 404-893-4545 Fax: 404-893-4546
Regional Director Contact: OFCCP-SE@dol.gov
Construction Award Email: OFCCP-SE-ConstructionAward@dol.gov**

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is Hardin County.

PART IV

INSURANCE

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

PART V

BID ITEMS

Report Date 5/24/23

Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00001		DGA BASE	18,912.80	TON		\$	
0020	00018		DRAINAGE BLANKET-TYPE II-ASPH	9,088.60	TON		\$	
0030	00020		TRAFFIC BOUND BASE	719.70	TON		\$	
0040	00100		ASPHALT SEAL AGGREGATE	20.30	TON		\$	
0050	00103		ASPHALT SEAL COAT	2.40	TON		\$	
0060	00214		CL3 ASPH BASE 1.00D PG64-22	17,593.00	TON		\$	
0070	00358		ASPHALT CURING SEAL	46.80	TON		\$	
0080	00388		CL3 ASPH SURF 0.38B PG64-22	4,040.20	TON		\$	
0090	02084		JPC PAVEMENT-8 IN	1,173.00	SQYD		\$	
0100	02101		CEM CONC ENT PAVEMENT-8 IN	2,538.00	SQYD		\$	
0110	02676		MOBILIZATION FOR MILL & TEXT	1.00	LS		\$	
0120	02677		ASPHALT PAVE MILLING & TEXTURING	23.70	TON		\$	
0130	02702		SAND FOR BLOTTER	115.90	TON		\$	
0140	20071EC		JOINT ADHESIVE	18,500.00	LF		\$	
0150	24891EC		PAVE MOUNT INFRARED TEMP EQUIPMENT	997,146.00	SF		\$	
0160	24970EC		ASPHALT MATERIAL FOR TACK NON-TRACKING	47.60	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0170	00078		CRUSHED AGGREGATE SIZE NO 2	2,045.00	TON		\$	
0180	01000		PERFORATED PIPE-4 IN	12,093.00	LF		\$	
0190	01010		NON-PERFORATED PIPE-4 IN	372.00	LF		\$	
0200	01740		CORED HOLE DRAINAGE BOX CON-4 IN	6.00	EACH		\$	
0210	01810		STANDARD CURB AND GUTTER	15,193.60	LF		\$	
0220	01830		STANDARD INTEGRAL CURB	86.00	LF		\$	
0230	01937		MOUNTABLE MEDIAN TYPE 2	5.80	SQYD		\$	
0240	02091		REMOVE PAVEMENT	281.00	SQYD		\$	
0250	02157		PAVED DITCH TYPE 1	948.00	SQYD		\$	
0260	02159		TEMP DITCH	4,246.00	LF		\$	
0270	02160		CLEAN TEMP DITCH	2,123.00	LF		\$	
0280	02230		EMBANKMENT IN PLACE	57,180.00	CUYD		\$	
0290	02242		WATER	3,000.00	MGAL		\$	
0300	02351		GUARDRAIL-STEEL W BEAM-S FACE	850.00	LF		\$	
0310	02367		GUARDRAIL END TREATMENT TYPE 1	7.00	EACH		\$	
0320	02369		GUARDRAIL END TREATMENT TYPE 2A	1.00	EACH		\$	
0330	02390		TIMBER GUARD POST	160.00	EACH		\$	
0340	02404		SEPTIC TANK TREATMENT	1.00	EACH		\$	
0350	02429		RIGHT-OF-WAY MONUMENT TYPE 1	57.00	EACH		\$	
0360	02430		RIGHT-OF-WAY MONUMENT TYPE 1A	3.00	EACH		\$	
0370	02432		WITNESS POST	60.00	EACH		\$	
0380	02469		CLEAN SINKHOLE	1.00	EACH		\$	
0390	02483		CHANNEL LINING CLASS II	1,180.00	TON		\$	
0400	02484		CHANNEL LINING CLASS III	3,299.00	TON		\$	

Report Date 5/24/23

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	02545		CLEARING AND GRUBBING (23 ACRES)	1.00	LS		\$	
0420	02562		TEMPORARY SIGNS	900.00	SQFT		\$	
0430	02585		EDGE KEY	629.80	LF		\$	
0440	02603		FABRIC-GEOTEXTILE CLASS 2	210.00	SQYD		\$	
0450	02604		FABRIC-GEOTEXTILE CLASS 1A	7,000.00	SQYD		\$	
0460	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0470	02651		DIVERSIONS (BY-PASS DETOURS) NO. 1	1.00	LS		\$	
0480	02651		DIVERSIONS (BY-PASS DETOURS) NO. 2	1.00	LS		\$	
0490	02651		DIVERSIONS (BY-PASS DETOURS) NO. 3	1.00	LS		\$	
0500	02651		DIVERSIONS (BY-PASS DETOURS) NO. 4	1.00	LS		\$	
0510	02671		PORTABLE CHANGEABLE MESSAGE SIGN	4.00	EACH		\$	
0520	02690		SAFELOADING	24.10	CUYD		\$	
0530	02701		TEMP SILT FENCE	4,246.00	LF		\$	
0540	02703		SILT TRAP TYPE A	29.00	EACH		\$	
0550	02704		SILT TRAP TYPE B	29.00	EACH		\$	
0560	02705		SILT TRAP TYPE C	29.00	EACH		\$	
0570	02706		CLEAN SILT TRAP TYPE A	29.00	EACH		\$	
0580	02707		CLEAN SILT TRAP TYPE B	29.00	EACH		\$	
0590	02708		CLEAN SILT TRAP TYPE C	29.00	EACH		\$	
0600	02720		SIDEWALK-4 IN CONCRETE	5,020.30	SQYD		\$	
0610	02726		STAKING	1.00	LS		\$	
0620	02731		REMOVE STRUCTURE BRIDGE NO. 047B00082N - OVER BILLY CREEK	1.00	LS		\$	
0630	02775		ARROW PANEL	4.00	EACH		\$	
0640	04953		TEMP RELOCATION OF SIGNAL HEAD	2.00	EACH		\$	
0650	05950		EROSION CONTROL BLANKET	3,400.00	SQYD		\$	
0660	05952		TEMP MULCH	90,766.00	SQYD		\$	
0670	05953		TEMP SEEDING AND PROTECTION	68,075.00	SQYD		\$	
0680	05963		INITIAL FERTILIZER	3.00	TON		\$	
0690	05964		MAINTENANCE FERTILIZER	2.00	TON		\$	
0700	05985		SEEDING AND PROTECTION	62,768.00	SQYD		\$	
0710	05990		SODDING	15,267.00	SQYD		\$	
0720	05992		AGRICULTURAL LIMESTONE	39.00	TON		\$	
0730	06510		PAVE STRIPING-TEMP PAINT-4 IN	68,680.00	LF		\$	
0740	06514		PAVE STRIPING-PERM PAINT-4 IN	42,834.00	LF		\$	
0750	06547		PAVE STRIPING-THERMO-12 IN Y	420.00	LF		\$	
0760	06565		PAVE MARKING-THERMO X-WALK-6 IN	1,807.00	LF		\$	
0770	06568		PAVE MARKING-THERMO STOP BAR-24IN	369.00	LF		\$	
0780	06573		PAVE MARKING-THERMO STR ARROW	2.00	EACH		\$	
0790	06574		PAVE MARKING-THERMO CURV ARROW	69.00	EACH		\$	
0800	06575		PAVE MARKING-THERMO COMB ARROW	2.00	EACH		\$	
0810	06588		PAVEMENT MARKER TY IVA-BY TEMP	859.00	EACH		\$	
0820	06610		INLAID PAVEMENT MARKER-MW	61.00	EACH		\$	
0830	06612		INLAID PAVEMENT MARKER-BY	331.00	EACH		\$	
0840	10020NS		FUEL ADJUSTMENT	28,015.00	DOLL	\$1.00	\$	\$28,015.00

Report Date 5/24/23

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0850	10030NS		ASPHALT ADJUSTMENT	38,940.00	DOLL	\$1.00	\$	\$38,940.00
0860	20550ND		SAWCUT PAVEMENT	50.00	LF		\$	
0870	21802EN		G/R STEEL W BEAM-S FACE (7 FT POST)	275.00	LF		\$	
0880	22664EN		WATER BLASTING EXISTING STRIPE	19,570.00	LF		\$	
0890	23158ES505		DETECTABLE WARNINGS	580.00	SQFT		\$	
0900	23625EC		PAVE MARK THERMO-6 IN W CAT TRAXX	85.00	LF		\$	
0910	24814EC		PIPELINE INSPECTION	5,406.00	LF		\$	
0920	25078ED		THRIE BEAM GUARDRAIL TRANSITION TL-3	4.00	EACH		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0930	00440		ENTRANCE PIPE-15 IN	93.00	LF		\$	
0940	00441		ENTRANCE PIPE-18 IN	121.00	LF		\$	
0950	00452		ENTRANCE PIPE-24 IN EQUIV	70.00	LF		\$	
0960	00454		ENTRANCE PIPE-30 IN EQUIV	38.00	LF		\$	
0970	00461		CULVERT PIPE-15 IN	204.00	LF		\$	
0980	00462		CULVERT PIPE-18 IN	74.00	LF		\$	
0990	00468		CULVERT PIPE-36 IN	67.00	LF		\$	
1000	00521		STORM SEWER PIPE-15 IN	4,589.00	LF		\$	
1010	00522		STORM SEWER PIPE-18 IN	3,176.00	LF		\$	
1020	00524		STORM SEWER PIPE-24 IN	1,113.00	LF		\$	
1030	00526		STORM SEWER PIPE-30 IN	755.00	LF		\$	
1040	00528		STORM SEWER PIPE-36 IN	811.00	LF		\$	
1050	00980		SLOTTED DRAIN PIPE-12 IN	45.00	LF		\$	
1060	01202		PIPE CULVERT HEADWALL-15 IN	5.00	EACH		\$	
1070	01209		PIPE CULVERT HEADWALL-24 IN EQUIV	4.00	EACH		\$	
1080	01211		PIPE CULVERT HEADWALL-30 IN EQUIV	2.00	EACH		\$	
1090	01212		PIPE CULVERT HEADWALL-36 IN	1.00	EACH		\$	
1100	01432		SLOPED BOX OUTLET TYPE 1-15 IN	5.00	EACH		\$	
1110	01433		SLOPED BOX OUTLET TYPE 1-18 IN	1.00	EACH		\$	
1120	01434		SLOPED BOX OUTLET TYPE 1-24 IN	1.00	EACH		\$	
1130	01450		S & F BOX INLET-OUTLET-18 IN	4.00	EACH		\$	
1140	01451		S & F BOX INLET-OUTLET-24 IN	2.00	EACH		\$	
1150	01452		S & F BOX INLET-OUTLET-30 IN	1.00	EACH		\$	
1160	01453		S & F BOX INLET-OUTLET-36 IN	3.00	EACH		\$	
1170	01456		CURB BOX INLET TYPE A	88.00	EACH		\$	
1180	01493		DROP BOX INLET TYPE 2	1.00	EACH		\$	
1190	01496		DROP BOX INLET TYPE 3	4.00	EACH		\$	
1200	01568		DROP BOX INLET TYPE 13S	6.00	EACH		\$	
1210	01577		DROP BOX INLET TYPE 14	21.00	EACH		\$	
1220	01587		DROP BOX INLET TYPE 16S	2.00	EACH		\$	
1230	01642		JUNCTION BOX-18 IN	2.00	EACH		\$	
1240	01756		MANHOLE TYPE A	5.00	EACH		\$	
1250	01767		MANHOLE TYPE C	5.00	EACH		\$	
1260	02607		FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	19,293.00	SQYD	\$2.00	\$	\$38,586.00
1270	03016		PRECAST CONC BOX SECT 8 X 4	52.00	LF		\$	
1280	08003		FOUNDATION PREPARATION ENTRANCE LT. KY 1357 STA. 53+48.9	1.00	LS		\$	

Report Date 5/24/23

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1290	08003		FOUNDATION PREPARATION ENTRANCE LT. KY 1357 STA. 56+52.2	1.00	LS		\$	
1300	24695ED		BOX CULVERT HEADWALL	4.00	EACH		\$	

Section: 0004 - BRIDGE - 28369 - STA 9+32.5 CROGHAN DRIVE 8' X 4' RCBC

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1310	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1320	08100		CONCRETE-CLASS A	88.00	CUYD		\$	
1330	08150		STEEL REINFORCEMENT	8,836.00	LB		\$	

Section: 0005 - BRIDGE - 28368 - STA 47+62.28 KY 1357 OVER BILLY CREEK

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1340	03299		ARMORED EDGE FOR CONCRETE	115.30	LF		\$	
1350	08002		STRUCTURE EXCAV-SOLID ROCK	226.00	CUYD		\$	
1360	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1370	08100		CONCRETE-CLASS A	462.30	CUYD		\$	
1380	08104		CONCRETE-CLASS AA	121.20	CUYD		\$	
1390	08150		STEEL REINFORCEMENT	45,615.00	LB		\$	
1400	08151		STEEL REINFORCEMENT-EPOXY COATED	15,724.00	LB		\$	
1410	08664		PRECAST PC BOX BEAM CB27-48	1,005.00	LF		\$	
1420	21118ED		ANTI-GRAFFITI CLEAR SEALANT	595.00	SQYD		\$	
1430	21119ED		CONCRETE FORM LINER	337.00	SQYD		\$	
1440	23378EC		CONCRETE SEALING	3,942.00	SQFT		\$	

Section: 0006 - UTILITY - GAS - CITY OF ELIZABETHTOWN

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1450	16068		G MAIN ABANDON -	1.00	LS		\$	
1460	16500		G DIRECTIONAL BORE INST	299.00	LF		\$	
1470	16515		G PIPE POLYETHYLENE/PLASTIC 02 INCH INST	260.00	LF		\$	
1480	16523		G PIPE STEEL 02 INCH INST	483.00	LF		\$	
1490	16525		G PIPE STEEL 04 INCH INST	837.00	LF		\$	
1500	16526		G PIPE STEEL 06 INCH INST	1,780.00	LF		\$	
1510	16530		G REGULATOR STATION INST	2.00	EACH		\$	
1520	16531		G SERVICE LONG SIDE 1 OR 1-1/4 INCH INST	3.00	EACH		\$	
1530	16536		G SERVICE SHORT SIDE 1 OR 1-1/4 INCH INST	5.00	EACH		\$	
1540	16541		G TIE-IN POLYETHYLENE/PLASTIC 02 IN INST	1.00	EACH		\$	
1550	16557		G VALVE STEEL 02 INCH INST	2.00	EACH		\$	
1560	16560		G VALVE STEEL 06 INCH INST	1.00	EACH		\$	
1570	16568		G METER AND REGULATOR 1 INCH INST	2.00	EACH		\$	
1580	16576		G TIE-IN STEEL 02 INCH INST	3.00	EACH		\$	

Report Date 5/24/23

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1590	16578		G TIE-IN STEEL 04 INCH INST	2.00	EACH		\$	
1600	16579		G TIE-IN STEEL 06 INCH INST	4.00	EACH		\$	
1610	20550ND		SAWCUT PAVEMENT (ASPHALT)	186.00	LF		\$	
1620	20550ND		SAWCUT PAVEMENT (CONCRETE)	30.00	LF		\$	

Section: 0007 - SEWER - CITY OF ELIZABETHTOWN

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1630	15000		S BYPASS PUMPING	2.00	EACH		\$	
1640	15012		S ENCASEMENT CONCRETE	20.00	LF		\$	
1650	15013		S ENCASEMENT SPECIAL	100.00	LF		\$	
1660	15017		S ENCASEMENT STEEL BORED RANGE 4	102.00	LF		\$	
1670	15023		S ENCASEMENT STEEL OPEN CUT RANGE 4	40.00	LF		\$	
1680	15089		S LATERAL SHORT SIDE 04 INCH	10.00	EACH		\$	
1690	15092		S MANHOLE	6.00	EACH		\$	
1700	15093		S MANHOLE ABANDON/REMOVE	5.00	EACH		\$	
1710	15094		S MANHOLE ADJUST TO GRADE	2.00	EACH		\$	
1720	15095		S MANHOLE CASTING STANDARD	1.00	EACH		\$	
1730	15099		S MANHOLE TAP EXISTING	3.00	EACH		\$	
1740	15112		S PIPE PVC 08 INCH	1,417.00	LF		\$	
1750	15136		S LATERAL LOCATE	8.00	EACH		\$	
1760	20550ND		SAWCUT PAVEMENT (ASPHALT)	60.00	LF		\$	
1770	20550ND		SAWCUT PAVEMENT (CONCRETE)	30.00	LF		\$	

Section: 0008 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1780	04845		CABLE-NO. 14/7C	1,700.00	LF		\$	
1790	04885		MESSENGER-10800 LB	475.00	LF		\$	
1800	04932		INSTALL STEEL STRAIN POLE	4.00	EACH		\$	
1810	20093NS835		INSTALL PEDESTRIAN HEAD-LED	2.00	EACH		\$	
1820	20188NS835		INSTALL LED SIGNAL-3 SECTION	10.00	EACH		\$	
1830	20266ES835		INSTALL LED SIGNAL- 4 SECTION	2.00	EACH		\$	
1840	20390NS835		INSTALL COORDINATING UNIT	1.00	EACH		\$	
1850	21743NN		INSTALL PEDESTRIAN DETECTOR	2.00	EACH		\$	
1860	23157EN		TRAFFIC SIGNAL POLE BASE	17.00	CUYD		\$	
1870	24902EC		PVC CONDUIT-3 IN-SCHEDULE 80	80.00	LF		\$	
1880	24908EC		INSTALL SIGNAL CONTROLLER-TY ATC	1.00	EACH		\$	
1890	24955ED		REMOVE SIGNAL EQUIPMENT	1.00	EACH		\$	
1900	26119EC		INSTALL RADAR PRESENCE DETECTOR TYPE A	4.00	EACH		\$	

Section: 0009 - DEMOBILIZATION &/OR MOBILIZATION

Report Date 5/24/23

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1910	02568		MOBILIZATION	1.00	LS		\$	
1920	02569		DEMOBILIZATION	1.00	LS		\$	