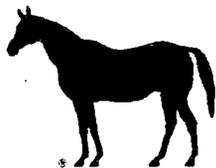


Original Signed Contract Agreement 1 of 2



LEXINGTON

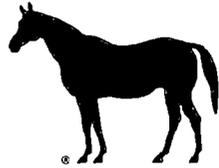
**Lexington-Fayette Urban County Government
Division of Engineering**

**CONTRACT DOCUMENTS
AND
SPECIFICATIONS**

Clays Mill Road Improvements Section 1

LFUCG Bid No.: 17-2020

**Prepared by: CDP Engineers and Lexington Fayette Urban
County Government**



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**Lexington-Fayette Urban County Government
Division of Engineering**

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PART 1

ADVERTISEMENT FOR BIDS

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PART 1

ADVERTISEMENT FOR BIDS

1. INVITATION

Sealed proposals for the Clays Mill Road Improvements Section 1 will be received by the Lexington-Fayette Urban County Government (LFUCG), via Ion Wave until 2:00 p.m., local time, August 13, 2020, for furnishing all labor and/or materials and performing all work as set forth by this advertisement, conditions (general and special), specifications, and/or the drawings prepared by CDP Engineers and Lexington-Fayette Urban County Government, Division of Engineering. Immediately following the scheduled closing time for reception of bids, all proposals which have been submitted in accordance with the above will be opened electronically and tab sheet will be posted on Ion Wave.

Due to the current environment and recommendations for social distancing, LFUCG will only be accepting bids on-line through Ion Wave for this solicitation. Base bid and alternate totals (if included) should be provided on the appropriate line items tab on Ion Wave. Submissions without line item totals may be rejected and deemed non-responsive. All forms normally provided with bid submission should be downloaded from Ion Wave, filled out, notarized if required* and attached with bid submission, including Excel spreadsheet of unit prices. A copy of bid bond must be included with submission. THESE INSTRUCTIONS SUPERCEDE ALL OTHER BID SUBMISSION INSTRUCTIONS PROVIDED IN THIS PACKAGE. PLEASE SUBMIT ALL QUESTIONS VIA THE Q&A MODULE ON ION WAVE.

* Bidders who have a currently active Annual Affidavit on record with the KYTC may waive notarizing the Bidders Affidavits. The list of companies on file can be found at the following link: <https://transportation.ky.gov/Construction/Documents/Affidavits.xls>.

Except as otherwise indicated on the Plans, and in the Contract Documents and Specifications, all items of Work including administration, materials, construction methods, method of measurement and basis of payment shall comply with the current edition of the *Kentucky Department of Highways (KDOH) Standard Specifications for Road and Bridge Construction, 2012 Edition* and all current revisions.

2. DESCRIPTION OF WORK

Clays Mill Road, Section 1 involves the road widening and reconstruction of Clays Mill Road from Neal Drive northward to Harrodsburg Road; approximately 1.9 miles. The project includes new bikeways, sidewalks, turn lanes, traffic control signals, and storm sewers.

Plans are available on Ion Wave only. Bidders and DBE subcontractors must be prequalified with the Kentucky Transportation Cabinet and possess a Certificate of Eligibility at the time of the bid opening. All other subcontractors must be prequalified when accepting subcontracts.

3. OBTAINING PLANS, SPECIFICATIONS, AND BID DOCUMENTS

Plans, Specifications, and Contract Documents shall be obtained from Ion Wave (LFUCG's electronic bidding system). Ion Wave can be accessed at <https://lexingtonky.ionwave.net>

4. METHOD OF RECEIVING BIDS

Bids will be received from Prime Contracting firms that are **KYTC Prequalified in Grade in Drain (A) and/or Asphalt Paving (C1 or C2)** on a **Line Item Unit Price Basis** for the total Project. The Bidder must include a price for all bid items to be considered. **Bids shall be submitted in the manner and subject to the conditions as set forth and described in the Instruction to Bidders and Special Conditions.**

Bids will only be accepted via Ion Wave.

5. METHOD OF AWARD

The Contract, if awarded, will be to the lowest responsive and responsible bidder for the total project whose qualifications indicate the award will be in the best interest of the OWNER and whose bid/proposal complies with all the prescribed requirements. No Notice of Award will be given until the OWNER has concluded such investigation as deemed necessary to establish the responsibility, qualifications and financial ability of Bidders to do the work in accordance with the Contract Documents to the satisfaction of the OWNER within the time prescribed. The OWNER reserves the right to reject the Bid of any Bidder who does not pass such investigation to the OWNER's satisfaction. In analyzing Bids, the OWNER may take into consideration alternate and unit prices, if requested by the Bid forms. The OWNER reserves the right to reject the Bid of any Bidder that is deemed to be unbalanced or front loaded.

6. BID WITHDRAWAL

No bidder may withdraw his bid for a period of one hundred twenty (120) calendar days after the closing date for receipt of bids. Errors and omissions will not be cause for withdrawal of bid without forfeit of bid bond. Bids may be withdrawn in person prior to the closing date of receipt of bids.

7. BID SECURITY

If the bid is \$50,000 or greater, bid shall be accompanied by a certified check or bid bond payable to the Lexington-Fayette Urban County Government in an amount not less than Five Percent (5%) of the base bid. Bid bond shall be executed by a Surety Company authorized to do business in the Commonwealth of Kentucky and countersigned by a licensed Kentucky Resident Agent, representing the Surety Company. Bid Bonds are not required for bids under \$50,000. A cashier's check or irrevocable letter of credit is an acceptable form of bid security.

8. SUBMISSION OF BIDS

CONTRACTORS shall submit their bids via Ion Wave not later than 2:00 p.m. local time, August 13, 2020. Bids will remain sealed until August 13, 2020, 2:00 pm, the official Bid closure time. Bids received after the scheduled closing time for receipt of bids will not be accepted.

9. RIGHT TO REJECT

The Lexington-Fayette Urban County Government reserves the right to reject any and all bids and to waive all informalities and/or technicalities where the best interest of the Lexington-Fayette Urban County Government may be served.

10. NOTIFICATION TO THE LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT FOR AFFIRMATIVE ACTION PLAN AND CURRENT WORKFORCE

The successful bidder must submit the following to the Lexington-Fayette Urban County Government:

1. Affirmative Action Plan for his/her firm.
2. Current Workforce Analysis Form

Failure to submit this as required herein may result in disqualification of the Bidder from the award of the contract.

All submissions should be directed to:

Lexington-Fayette Urban County Government
Division of Purchasing
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507

11. NOTICE CONCERNING DBE GOAL - LFUCG

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) contract participation.

The Lexington-Fayette Urban County Government has set a goal that not less than **ten percent (10%)** of the total value of this contract be subcontracted to Disadvantaged Business Enterprises. The goal for the utilization of Disadvantaged Business Enterprises as subcontractors is a recommended goal. Contractors who fail to meet such goals will be expected to provide written explanations to the Director of the Division of Central Purchasing of efforts they have made to accomplish the recommended goals, and the extent to which they

are successful in accomplishing the recommended goals will be a consideration in the procurement process.

For assistance in locating Disadvantaged Business Enterprises Subcontractors contact:

Sherita Miller, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, 3rd Floor, Room 338
Lexington, Kentucky 40507
(859) 258-3323

12. NOTICE CONCERNING DBE GOAL - KYTC

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunities and Disadvantaged Business Enterprises (DBE) contract participation.

The Kentucky Transportation Cabinet has set a recommended goal of not less than **five percent (5%)** of the total value of this contract be subcontracted to Disadvantaged Business Enterprises. DBE participation must be in compliance with the requirements of 49 CFR 26 and the policies of the Kentucky Transportation Cabinet. Bidders and DBE subcontractors must be prequalified with the Kentucky Transportation Cabinet and possess a Certificate of Eligibility at the time of the bid opening. All other subcontractors must be prequalified when accepting subcontracts.

13. PRE-BID MEETING

Non-mandatory pre-bid meeting is scheduled for July 23, 2020, 10:00 am via teleconference. Join Zoom meeting at <https://zoom.us/j/91956265039?pwd=VHlVWC9iOFNnZEk4bXJlZXh4N1BIQT09>

Meeting ID: 919 5626 5039
Password: 380787

Dial by your location

+1 646 558 8656 US (New York)
+1 301 715 8592 US (Germantown)
+1 312 626 6799 US (Chicago)
+1 669 900 9128 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)

Bidders are encouraged to attend the meeting and send any questions they may have via Ion Wave prior to the meeting. An agenda will also be posted on Ion Wave prior to the meeting.

14. EXCLUDED PARTIES LIST SYSTEM (EPLS/SAM)

Prior to project being awarded, LFUCG will verify that the contractor is not listed on an "Excluded Parties List System" (suspended or debarred), as identified within the "SAM" site at <http://www.sam.gov>.

The EPLS is an electronic, web-based system that identifies those parties excluded from receiving Federal contracts, certain subcontracts and certain types of Federal financial and non-financial assistance and benefits. The EPLS keeps its user community aware of administrative and statutory exclusions across the entire government, and individual barred from entering the United States. The user is able to search, view, and download both current and archived exclusions.

EPLS access is available from any personal computer with Internet connectivity and a minimum web browser of Netscape 4.04 Internet Explorer 4.04 or Internet Explorer 4.0 at <http://www.sam.gov>.

END OF SECTION

PART II
INFORMATION FOR BIDDERS

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2. PREPARATION OF BID
3. SUBCONTRACTS
4. QUALIFICATION OF BIDDER
5. BID SECURITY
6. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT
7. TIME OF COMPLETION AND LIQUIDATED DAMAGES
8. EXAMINATION OF CONTRACT DOCUMENTS AND SITE
9. ADDENDA AND INTERPRETATIONS
10. SECURITY FOR FAITHFUL PERFORMANCE
11. POWER OF ATTORNEY
12. TAXES AND WORKMEN'S COMPENSATION
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16. AFFIRMATIVE ACTION PLAN
17. CONTRACT TIME
18. SUBSTITUTION OR "OR-EQUAL" ITEMS
19. ALTERNATE BIDS
20. SIGNING OF AGREEMENT
21. ASSISTANCE TO BE OFFERED TO DBE CONTRACTORS
22. DBE PARTICIPATION GOALS
23. REQUIRED SUBMITTALS

PART II
INFORMATION FOR BIDDERS

1. RECEIPT AND OPENING OF BIDS

The Lexington-Fayette Urban County Government (herein called the OWNER) invites bids from firms on the project described in the Advertisement for Bids. The OWNER will receive bids via Ion Wave, at the time and in the manner set forth in the Advertisement for Bids. The OWNER may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 120 days after the actual time and date of the bid opening, but OWNER may, in its sole discretion, release any bid and return the Bid Security prior to that date.

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above.

2. PREPARATION OF BID

The bid must be submitted with the entire proposal and include all pages. All blank spaces for the bid prices must be filled in, either in ink or typewritten, for both unit prices and extensions. Totals for each bid item must be added to show the total amount of the bid.

3. SUBCONTRACTS

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the OWNER. All proposed subcontractors must be identified on the Form of Proposal. Prior to the award of Contract, the OWNER or the OWNER'S representative will advise the CONTRACTOR of the acceptance and approval thereof or of any action necessary to be taken. Should any Subcontractor be rejected by the OWNER, the CONTRACTOR shall present a new name and/or firm to the OWNER at no change in the Contract Price.

4. QUALIFICATION OF BIDDER

The OWNER may make such investigations as the OWNER deems necessary to determine the ability of the bidder to perform the Work, and the bidder shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the OWNER that such bidder is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein. Conditional bids will not be accepted.

In evaluating Bids, OWNER shall consider the qualifications of the BIDDERS, whether or not the Bids comply with the prescribed requirements, and alternatives and unit prices, as requested. OWNER may consider maintenance requirements, performance data, and disruption or damage to private property. It is OWNER'S intent to accept alternatives by the bid forms, in the order in which they are listed in the Bid Form but OWNER may accept or decline them in order or combination. The contract, if awarded, will be awarded to the lowest responsive and qualified, responsible BIDDER based upon OWNER'S evaluation which indicates that the award will be in the best interest of OWNER and the general public.

In the event there is any question as to the bidder's qualifications and ability to complete the work, a final determination will be made in accordance with a fair evaluation by the Urban County Government of the above listed elements.

- A. If the OWNER requires filling out a detailed financial statement, the bidder may provide its current certified financial statement(s) for the required time interval.
- B. Corporate firms are required to be registered with the Office of the Secretary of State, Commonwealth of Kentucky.
- C. Documents Required of CONTRACTOR - (1) A sworn statement signed by the President or owner of the Company regarding all current work in progress anywhere; (2) A document showing the percent of completion of each project and the total worth of each project; and (3) Documentation showing the percentage of the DBE employment levels on each project of the Bidder's current work force, and DBE participation levels for Subcontractors.
- D. Optional OWNER Requirements - The OWNER, at its discretion, may require the BIDDER/CONTRACTOR to provide: (1) A current detailed financial statement for a period including up to 3 prior years. (2) Financial security or insurance in amounts and kinds acceptable to the OWNER to meet the financial responsibility requirements for the CONTRACTOR to indemnify the OWNER. (3) Additional information and/or DBE work force data, as well as DBE participation data.

Each bidder agrees to waive any claim it has or may have against the Owner, the Architect/Engineer, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

- E. Bids will only be accepted from plan holders who have accessed plans from Ion Wave. **Bidders must be KYTC Prequalified in Grade in Drain (A) and/or Asphalt Paving (C1 or C2).** DBE subcontractors must be prequalified with KYTC and possess a Certificate of Eligibility at the time of the bid opening. All

other subcontractors must be prequalified when accepting subcontracts.

F. Prequalified DBE list can be found at:

<http://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-and-Prequalified-DBEs.aspx>

5. BID SECURITY

- A. Each bid must be accompanied by a bid bond prepared on a Form of Bid Bond and attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the OWNER, in the amount of 5% of the bid. Such bid bond will be returned to the unsuccessful bidder(s) only upon written request to the Director of Central Purchasing within seven (7) days of opening of bids. Bid bond shall be made payable to the Lexington-Fayette Urban County Government. Bid security is not required for projects under \$50,000.
- B. Bonds shall be placed with an agent licensed in Kentucky with surety authorized to do business within the state. When the premium is paid for such coverage, the full commission payable shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.

6. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful bidder, upon his failure or refusal to execute and deliver the Contract and bonds required within ten (10) days after he has received notice of the acceptance of his bid, shall forfeit to the OWNER, as liquidated damages for such failure or refusal, the security deposited with his bid.

7. TIME OF COMPLETION AND LIQUIDATED DAMAGES

It is mutually agreed by and between the parties hereto that time is of the essence of this Contract, and that there will be sustained by the OWNER damages, monetary and otherwise, in the event of delay in the completion of the Work hereby contracted. The CONTRACTOR will be held responsible to the OWNER for delays in completion of the Work herein contracted beyond the date set for completion. Completion is defined in Section 108.03 of the KDOH Standard Specifications, Current Edition. Such monetary damage shall be deducted from the Contract sum in the amount of THREE THOUSAND TWO HUNDRED FIFTY (\$3,250.00) per calendar day of such delay. If the Work contracted to be done shall not, in good faith, be commenced at the time specified, then the CONTRACTOR together with the Surety or Sureties upon the bond herein provided for, shall be liable for and shall pay to the OWNER all damages sustained by reason of such failure for breach of Contract, and the OWNER may immediately re-let the Work involved.

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" from the OWNER and to fully complete the Project within the time as specified in the Contract. Bidder must agree also to pay liquidated damages, or the sum as specified in the Contract for each consecutive calendar day thereafter as hereinafter provided in the General Conditions.

8. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site(s) to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider Federal, State and Local laws and regulations that may affect cost, progress, performance or furnishing of the work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents.

- B. Bidders should examine the requirements of Section 4 of the General Conditions for information pertaining to subsurface conditions, underground structures, underground facilities, and availability of lands, easements, and rights-of-way. The completeness of data, presented in the Contract Documents, pertaining to subsurface conditions, underground structures, and underground facilities for the purposes of bidding or construction is not assured. The Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface and subsurface) which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents. On request in advance, OWNER will provide access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

- C. The submission of a Bid will constitute an incontrovertible representation by the Bidder that Bidder has complied with every requirement of this paragraph; that without exception the Bid is premised upon furnishing and performing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents; and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

9. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Director of Central Purchasing, who in turn will have an addendum issued under signature of the Engineer for the Lexington-Fayette Urban County Government, and to be given consideration must be received at least seven (7) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be mailed by certified mail with return receipt requested, faxed or emailed to all prospective bidders. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

10. SECURITY FOR FAITHFUL PERFORMANCE

- A. Simultaneously with his delivery of the executed Contracts, the CONTRACTOR shall furnish a surety bond or bonds as security for the faithful performance of this Contract and for payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract, as specified in the General Conditions. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the OWNER and authorized to do business in the Commonwealth of Kentucky.
- B. All bonds required by this Contract and laws of this State shall be placed with agents licensed in the State of Kentucky. When the premium is paid for such coverages, the full commission shall be paid to such local agent who shall not divide such commission with any person other than a duly licensed resident local agent.
- C. **Contractor shall use standard Performance and Payment Bond forms such as documents provided with this contract book or AIA form A312-1984 (or later).**

11. POWER OF ATTORNEY

Attorney-in-fact who signs bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

12. TAXES AND WORKMEN'S COMPENSATION

The CONTRACTOR and subcontractor will be required to accept liability for payment of all payroll taxes, sales and use tax, and all other taxes or deductions required by local, state or federal law. Each shall carry Workmen's Compensation Insurance to the full amounts as required by Statutes and shall include the cost of all foregoing items in the

proposal. The CONTRACTOR will not otherwise be reimbursed or compensated for such tax payments. The CONTRACTOR is urged to ascertain at his own risk his actual tax liability in connection with the execution or performance of his Contract.

13. LAWS AND REGULATIONS

The bidder's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the contract, the same as though herein written out in full.

14. EROSION AND SEDIMENT CONTROL AND PERMITS

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall also comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing and Floodplain Encroachment Permits as described in Part 4 General Conditions Paragraph 5.17.

15. PREVAILING WAGE LAW AND MINIMUM HOURLY RATES

Federal wage rates and regulations, if required for this Project, will be as described in the Special Conditions.

16. AFFIRMATIVE ACTION PLAN

The successful Bidder must submit the entire proposal with their bid, the following items to the Urban County Government:

1. Certification of Bid Proposal/DBE – see Part III
2. KYTC DBE Provisions – see Part III
3. DBE Subcontractor Bidders List – see Part III

A Work Force Analysis Form shall be submitted for each Contract. Failure to submit any of these items as required herein may result in disqualification of the Bidder from award of the Contract.

All submissions should be directed to:

Director, Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, Third Floor
Lexington, KY 40507

17. CONTRACT TIME

The number of calendar days within which the Work is to be substantially completed and ready for final payment (the Contract Time) is set forth in the Form of Proposal and the Agreement.

18. SUBSTITUTE OR "APPROVED EQUAL" ITEMS

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "approved equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "approved equal" item of material or equipment may be furnished or used by the CONTRACTOR if acceptable to the ENGINEER and OWNER, application for such acceptance will not be considered by the ENGINEER and OWNER until after the effective date of the Agreement. The procedure for submission of any such application by the CONTRACTOR and consideration by the ENGINEER and OWNER is set forth in the General Conditions.

19. ALTERNATE BIDS

Bidders shall submit alternate bids/proposals only if and when such alternate bids/proposals have been specifically requested in an Invitation for Bids. If alternate bids/proposals are requested in an Invitation for Bids, the form of submission of such alternate bid and the conditions under which such alternate bids will be considered for award of a contract will be established in the Invitation.

Any Bidder who submits a bid incorporating an alternate proposal when alternate bids/proposals have not been requested in the Invitation for Bids shall have his/her bid rejected as non-responsive.

Any Bidder who submits a bid incorporating two (2) or more prices for an item or groups of items (unless such method of pricing is requested in the Invitation for Bids), or which imposes conditions for acceptance other than those established in the Invitation for Bids, shall have their bid rejected as non-responsive.

20. SIGNING OF AGREEMENT

When OWNER gives a Notice of Award to the successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within ten days thereafter, CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds, Certificate of Insurance, and Power of Attorney. The OWNER will deliver one fully signed counterpart to CONTRACTOR at such time as it has been signed by the Mayor.

21. ASSISTANCE TO BE OFFERED TO DISADVANTAGED BUSINESS ENTERPRISE (DBE) CONTRACTORS

I. Outreach

The Lexington-Fayette Urban County Government (LFUCG) maintains a data base of DBE companies. When a LFUCG construction project is advertised for bidding, notices are sent to the appropriate commodity code via email through LFUCG Ionwave electronic bidding system. The bid notices describe the project, indicate the deadline for submitting bids, and review the bonding assistance which is available. If you wish to be added to the LFUCG Ionwave database please register your company at <https://lexingtonky.ionwave.net>. If you wish to be added to the LFUCG DBE contractor mailing list, please contact:

Sherita Miller
Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, Room 338
Lexington, Kentucky 40507

II. Eligibility for Bid Bond Assistance

In order to be eligible for any bid bonding assistance, a DBE construction company must be owned or controlled at the level of 51% or more, by a member or members of a minority group or females. Prior to receiving assistance, a statement providing evidence of ownership and control of the company by a member or members of a minority group or females must be signed by the OWNER or corporate officer and by an attorney or accountant and submitted to:

Sherita Miller
Division of Central Purchasing
Lexington-Fayette Urban County Government
200 East Main Street, Room 338
Lexington, Kentucky 40507

III. Subcontractors

The LFUCG will, upon request, assist prime contractors in the procurement of eligible DBE subcontractors in an effort to achieve the **ten percent (10%) minimum DBE goal**. The KYTC goal for the project is **five percent (5%)**.

For a list of eligible DBE subcontractors please contact:

Sherita Miller
Division of Central Purchasing

Lexington-Fayette Urban County Government
200 East Main Street, Room 338
Lexington, Kentucky 40507

IV. Questions

If you have questions or wish to have additional information, please contact:

<https://lexingtonky.ionwave.net>

22. DBE PARTICIPATION GOALS

A. GENERAL

- 1) The LFUCG request all potential contractors to make a concerted effort to include Disadvantaged Business Enterprises (DBE) as subcontractors or suppliers in their bids.
- 2) Toward that end, the LFUCG has established **10%** of total procurement costs as a Goal for participation of Disadvantaged Businesses Enterprise (DBE) on this contract.
- 3) DBE Subcontractors must be prequalified and certified with the Kentucky Transportation Cabinet at the time of bid if utilized as a DBE meeting the DBE Goal.
- 4) **It is therefore a request of each Bidder to include in its bid, the same goal of five percent (5%) for DBE participation and other requirements as outlined in this section.**

B. PROCEDURES

- 1) The successful bidder will be required to report to the LFUCG, the dollar amounts of all purchase orders submitted to DBE subcontractors and suppliers for work done or materials purchased for this contract. (See Subcontractor Monthly Payment Report) .
- 2) Replacement of a DBE subcontractor or supplier listed in the original submittal must be requested in writing and must be accompanied by documentation of Good Faith Efforts to replace the subcontractor / supplier with another DBE Firm; this is subject to approval by the LFUCG. (See KYTC DBE Substitution Form)
- 3) For assistance in identifying qualified, certified businesses to solicit for potential contracting opportunities, bidders may contact:
 - a) The Lexington-Fayette Urban County Government, Division of Central Purchasing (859-258-3320)

- 4) The LFUCG will make every effort to notify interested DBE subcontractors and suppliers of each Bid Package, including information on the scope of work, the pre-bid meeting time and location, the bid date, and all other pertinent information regarding the project.

C. DEFINITIONS

- 1) A Disadvantaged Business Enterprise (DBE) is defined as a business which is certified as being at least 51% owned and operated by persons of African American, Hispanic, Asian, Pacific Islander, American Indian or Alaskan Native Heritage or by one or more Females.

D. OBLIGATION OF BIDDER

- 1) **The bidder shall make a Good Faith Effort to achieve the Participation Goal for DBE subcontractors/suppliers. The failure to meet the goal shall not necessarily be cause for disqualification of the bidder; however, bidders not meeting the goal are required to furnish with their bids written documentation of their Good Faith Efforts to do so.**
- 2) Award of Contract shall be conditioned upon satisfaction of the requirements set forth herein.
- 3) Part III The Form of Proposal, includes a section entitled "KENTUCKY TRANSPORTATION CABINET-DISADVANTAGED BUSINESS ENTERPRISE PROVISIONS". The applicable information must be completed and submitted as outlined in that document.
- 4) **Failure to submit this information as requested will be cause for rejection of bid.**

E. DOCUMENTATION REQUIRED

- 1) "KENTUCKY TRANSPORTATION CABINET-DISADVANTAGED BUSINESS ENTERPRISE PROVISIONS", located in Part III provides instruction for contractors who do meet the DBE Goal and for contractors who do not meet the DBE Goal.

23. REQUIRED SUBMITTALS

The entire proposal must be completed and submitted or your bid may be considered non-responsive and rejected.

END OF SECTION

PART III
FORM OF PROPOSAL

INDEX

1. FORM OF PROPOSAL
2. LEGAL STATUS OF BIDDER
3. BIDDERS AFFIDAVIT
4. BID SCHEDULE – SCHEDULE OF VALUES
5. STATEMENT OF BIDDER'S QUALIFICATIONS
6. LIST OF PROPOSED SUBCONTRACTORS
7. LIST OF MATERIALS /SUPPLIERS
8. DBE SUB-CONTRACTOR BIDDERS LIST
9. CERTIFICATION FOR FEDERAL-AID CONTRACTS
10. CERTIFICATION OF PERFORMANCE
11. CERTIFICATION OF ORGANIZATION(S)
12. CERTIFICATION OF BID PROPOSAL/DBE
13. KENTUCKY TRANSPORTATION CABINET-DISADVANTAGED BUSINESS ENTERPRISE PROVISIONS
14. NON-COLLUSION CERTIFICATION
15. STATEMENT OF EXPERIENCE
16. EQUAL OPPORTUNITY AGREEMENT
17. EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION POLICY
18. WORKFORCE ANALYSIS FORM
19. EVIDENCE OF INSURABILITY
20. DEBARRED FIRMS
21. DEBARMENT CERTIFICATION
22. PROVISIONS RELATIVE TO SENATE BILL 258 (1994)
23. EXECUTIVE BRANCH CODE OF ETHICS

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

L-M Asphalt Partners, Ltd. dba ATS Construction

as Principal, hereinafter call the Principal, and

Hartford Fire Insurance Company

A corporation duly organized under laws of the State of Connecticut
As Surety, hereinafter called the Surety, are held and firmly bound unto

Lexington-Fayette Urban County Government

as Obligee, hereinafter called the Obligee, in the sum of

Five Percent of the Amount Bid

**5% of the
Dollars (\$ Amount Bid),**

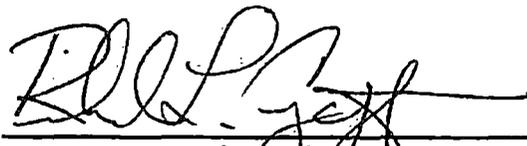
for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents,

WHEREAS, the Principal has Submitted a bid for

Invitation to Bid: #17-2020 Clays Mill Road Improvements Section 1, Lexington, Kentucky

NOW, THEREFORE, if the Obligee shall accept the bid of Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **13th** day of **August, 2020**

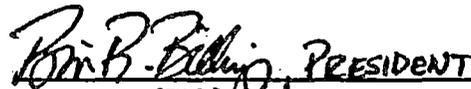


(witness)
Richard L. Craycraft

L-M Asphalt Partners, Ltd. dba ATS Construction

(Principal)

(Seal)



(Title)
Brian R. Billings, President

Brian R. Billings, President

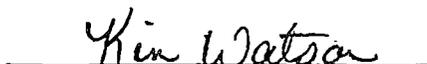
Hartford Fire Insurance Company

(Surety)

(Seal)



(witness)



Kim Watson (Title) Attorney-In-Fact

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD
 BOND, T-12
 One Hartford Plaza
 Hartford, Connecticut 06155
bond.claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: **GCH INSURANCE GROUP**
 Agency Code: **14-732421**

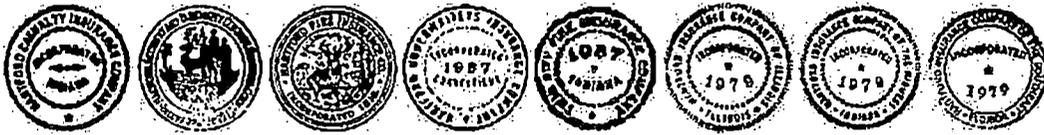
- Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, **up to the amount of unlimited:**

Tina Carpenter, Betty Royalty, Jerry Catlett, Mary Crouch, Russell Griffith, John W. Hampton, David Henry, Kim Watson
 of
 Lexington, KY

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



John Gray

John Gray, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT }
 COUNTY OF HARTFORD } ss. Hartford

On this 5th day of January 2018, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Kathleen T. Maynard

Kathleen T. Maynard
 Notary Public
 My Commission Expires July 31, 2021

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of August 13, 2020.
 Signed and sealed at the City of Hartford.



Kevin Heckman

Kevin Heckman, Assistant Vice President

PART III

Invitation to Bid No. 17-2020
Clays Mill Road Improvements Section 1

1. FORM OF PROPOSAL

Place: Lexington, Kentucky

Date: August 13, 2020

The following Form of Proposal shall be followed exactly in submitting a proposal for this Work.

This Proposal Submitted by L-M Asphalt Partners, Ltd. dba ATS Construction
3009 Atkinson Avenue, Suite 400
Lexington, Kentucky 40509
(Name and Address of Bidding Contractor)

(Hereinafter called "Bidder"), organized and existing under the laws of the State of Kentucky, doing business as a " Partnership "
"a corporation," "a partnership", or an "individual" as applicable.

To: Lexington-Fayette Urban County Government
(Hereinafter called "OWNER")
Office of the Director of Purchasing
200 East Main Street, 3rd Floor
Lexington, KY 40507

Gentlemen:

The Bidder, in compliance with your Invitation for Bids for the **Clays Mill Road Improvements Section 1 Project** having examined the Plans and Specifications with related documents, having examined the site for proposed Work, and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the lump sum and/or unit prices stated hereinafter. These prices are to cover all expenses incurred in performing the Work required under the Contract Documents, of which this proposal is a part.

BIDDER hereby agrees to commence work under this contract as to be specified in the Notice to Proceed and to fully complete the project within **seven hundred thirty (730)**

consecutive calendar days thereafter. BIDDER further agrees to pay liquidated damages, the sum of **\$3,250.00** for each consecutive calendar day thereafter.

The Bidder hereby acknowledges receipt of the following addenda:

Addendum No. 1 Date July 15, 2020
Addendum No. 2 Date July 21, 2020
Addendum No. 3 Date July 22, 2020
Addendum No. 4 Date July 22, 2020
Addendum No. 5 Date August 3, 2020
Addendum No. 6 Date August 3, 2020
Addendum No. 7 Date August 6, 2020
Addendum No. 8 Date August 10, 2020
Addendum No. 9 Date August 11, 2020

Insert above the number and the date of any Addendum issued and received. If none has been issued and received, the word "NONE" should be inserted.

This page superseded



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

3. BIDDERS AFFIDAVIT

ANNUAL AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

Affidavit Effective Date: January 1, 2020
Affidavit Expiration Date: December 31, 2020
Maximum Length One-Year _____

REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

FOR BIDS AND CONTRACTS IN GENERAL:

I. Each bidder or offeror swears and affirms under penalty of perjury, that:

a. In accordance with KRS 45A.110 and KRS 45A.115, neither the bidder or offeror as defined in KRS 45A.070(6), nor the entity which he/she represents, has knowingly violated any provisions of the campaign finance laws of the Commonwealth of Kentucky; and the award of a contract to the bidder or offeror or the entity which he/she represents will not violate any provisions of the campaign finance laws of the Commonwealth.

b. The bidder or offeror swears and affirms under penalty of perjury that, to the extent required by Kentucky law, the entity bidding, and all subcontractors therein, are aware of the requirements and penalties outlined in KRS 45A.485; have properly disclosed all information required by this statute; and will continue to comply with such requirements for the duration of any contract awarded.

c. The bidder or offeror swears and affirms under penalty of perjury that, to the extent required by Kentucky law, the entity bidding, and its affiliates, are duly registered with the Kentucky Department of Revenue to collect and remit the sales and use tax imposed by KRS Chapter 139, and will remain registered for the duration of any contract awarded.

d. The bidder or offeror swears and affirms under penalty of perjury that the entity bidding is not delinquent on any state taxes or fees owed to the Commonwealth of Kentucky and will remain in good standing for the duration of any contract awarded.

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

II. Each contractor further swears and affirms under penalty of perjury, that:

a. In accordance with KRS 121.056, and if this is a non-bid contract, neither the contractor, nor any member of his/her immediate family having an interest of 10% or more in any business entity involved in the performance of any contract awarded, have contributed more than the amount specified in KRS 121.150 to the



campaign of the gubernatorial slate elected in the election last preceding the date of contract award.

b. In accordance with KRS 121.330(1) and (2), and if this is a non-bid contract, neither the contractor, nor officers or employees of the contractor or any entity affiliated with the contractor, nor the spouses of officers or employees of the contractor or any entity affiliated with the contractor, have knowingly contributed more than \$5,000 in aggregate to the campaign of a candidate elected in the election last preceding the date of contract award that has jurisdiction over this contract award.

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

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

Brian R. Billings, PRESIDENT
Signature

Brian R. Billings
Printed Name

President
Title

August 13, 2020
Date

Company Name L-M Asphalt Partners, Ltd. dba ATS Construction
Address 3009 Atkinson Avenue, Suite 400
Lexington, Kentucky 40509

This page superseded



3009 Alkinson Avenue
Suite 400
Lexington, Kentucky 40509

Subscribed and sworn to before me by Brian R. Billings
(Affiant)

President
(Title)

L-M Asphalt Partners, Ltd.
of dba ATS Construction this 13th. day of August, 20 20
(Company Name)

Notary Public - Richard L. Craycraft
[seal of notary] My commission expires: April 22, 2024



ANNUAL AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

Affidavit Effective Date: January 1, 2020
Affidavit Expiration Date: December 31, 2020
Maximum Length One-Year

REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

PAGE 1 OF 2

FOR BIDS AND CONTRACTS IN GENERAL:

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

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

- II. Each contractor further swears and affirms under penalty of perjury, that to the best of their knowledge:
 - a. In accordance with KRS 121.056, and if this is a non-bid contract, neither the contractor, nor any member of his/her immediate family having an interest of 10% or more in any business entity involved in the performance of any contract awarded, have contributed more than the amount specified in KRS 121.150 to the campaign of the gubernatorial slate elected in the election last preceding the date of contract award.

ANNUAL AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

REQUIRED AFFIDAVIT FOR BIDDERS, OFFERORS AND CONTRACTORS

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

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

Brian R. Billings, Pres.
 Signature
 President
 Title

Brian R. Billings
 Printed Name
 January 3, 2020
 Date

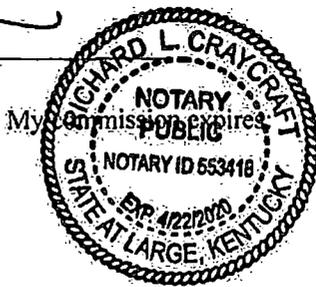
Company Name L-M Asphalt Partners, Ltd. dba ATS Construction
 Address 3009 Atkinson Avenue, Suite 400
Lexington, Kentucky 40509

Commonwealth of Kentucky Vendor Code (if known) _____

Subscribed and sworn to before me by Brian R. Billings President
 (Affiant) (Title)

of L-M Asphalt Partners, Ltd. dba ATS Construction this 3rd. day of January, 2020.
 (Company Name)

Richard L. Craycraft
 Notary Public - Richard L. Craycraft
 [seal of notary]



My commission expires April 22, 2020

BIDDERS AFFIDAVIT (LFUCG)

Comes the Affiant, Brian R. Billings, and after being first duly sworn, states under penalty of perjury as follows:

1. His/her name is Brian R. Billings
and he/she is the individual submitting the bid or is the authorized representative of L-M Asphalt Partners, Ltd. dba ATS Construction, the entity submitting the bid (hereinafter referred to as "Bidder").
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as the "Ethics Act."
6. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Brian R. Billings, PRESIDENT
Signature

Brian R. Billings
Printed Name

President
Title

August 13, 2020
Date

Company Name L-M Asphalt Partners, Ltd. dba ATS Construction



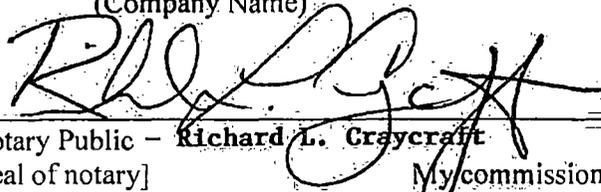
3009 Atkinson Avenue
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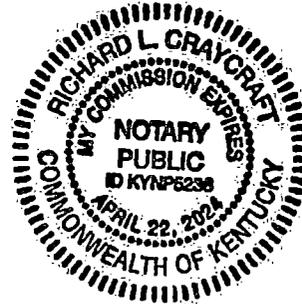
Address 3009 Atkinson Avenue, Suite 400
Lexington, Kentucky 40509

Subscribed and sworn to before me by Brian R. Billings
(Affiant)

President
(Title)

L-M Asphalt Partners, Ltd.
of dba ATS Construction this 13th day of August, 2020.
(Company Name)


Notary Public - Richard L. Graycraft
[seal of notary] My commission expires: April 22, 2024



4. BID SCHEDULE – SCHEDULE OF VALUES

The Bidder agrees to perform all the Work described in the Specifications and shown on the Plans for the following proposed lump sum and/or unit prices, if applicable, which shall include the furnishing of all labor, materials, supplies, equipment and/or vehicle usage, services, all items of cost, overhead, taxes (federal, state, local), and profit for the Contractor and any Subcontractor involved, within the time set forth herein. If unit prices are applicable, Bidder must make the extensions and additions showing the total amount of bid.

If a discrepancy between the unit price and the item total exists, the unit price prevails except:

If the unit price is illegible, omitted, or the same as the item total, item total prevails and the unit price is the quotient of the item total and the quantity.

If the unit price and the item total are illegible or are omitted, the bid may be determined nonresponsive. If a lump sum total price is illegible or is omitted, the bid may be determined nonresponsive.

For a unit price based bid, the sum of the item totals is the bid amount the Division uses for bid comparison.

The LFUCG's decision on the bid amount is final.

The contract, if awarded, will be on the basis of materials and equipment specified in the specifications without consideration of possible substitute or "or equal" items.

The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial Contract price. Determination of the actual quantities and classification of unit price work performed by the Contractor will be made by the Engineer in accordance with the General Conditions.

Payment:

Accepted quantities for Work shall be paid for at their respective Contract "Unit Price" as quoted (which shall be for all Work required under this Section) and paid per "Unit To Bid On" of specified "Description" satisfactorily placed. All labor, materials, equipment, and excavation shall be incidental to the Work.

Digital Bid Submittals:

Bidders shall submit Bid Schedule Excel spreadsheet via Ion Wave. Page P-15 must be fully executed and submitted via IonWave. The excel spreadsheet is available through the LFUCG's Ion Wave website (<https://lexingtonky.ionwave.net>).



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

Bid Schedule

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE
1	B	MAINTAIN AND CONTROL TRAFFIC	1	LS	
2	D,E	QUALITY CONTROL SERVICES - ALLOWANCE	1	LS	\$ 40,000.00
3	1	CONSTRUCTION STAKING	1	LS	
4	2	CLEARING AND GRUBBING	1	LS	
5	2	MAIL BOX RELOCATIONS (Sta 119+00 TO; 130+00)	10	EACH	
6	2	WOOD PLANK FENCE	145	LF	
7	2	REBUILD PIER AND CAP - (LT STA 203+10)	1	EACH	
8	2	REMOVE AND RESET FENCE (SPLIT RAIL)	86	LF	
9	3	EXCAVATION AND PLACEMENT	1	LS	
10	3	STRUCTURE EXCAVATION (STA . 196+43)	1	LS	
11	6	REMOVE STRUCTURE (STA . 196+43)	1	LS	
12	8	DGA BASE	25,123	TON	
13	9	#2 STONE BASE	2,500	TN	
14	9	#57 STONE	2,900	TN	
15	10	STEEL REINFORCEMENT FOR CONCRETE CULVERT (STA 196+43)	31,701	LB	
16	10,11	CONCRETE CLASS A. FOR STEPS	4.4	CY	
17	10,11	CONCRETE CLASS A. FOR RETAINING WALLS	347	CY	
18	11	CONCRETE CLASS A. FOR STORMWATER CULVERT (STA 196+43)	1	LS	
19	12	SIDEWALK 4.5 INCH CONCRETE	10,005	SY	
20	13	ENTRANCE 6" INCH CONCRETE	4,123	SY	
21	14	SIDEWALK RAMPS	420	SY	
22	15	STANDARD CURB AND GUTTER	20,839	LF	
23	16	BITUMINOUS PAVEMENT MILLING AND TEXTURING	5,000	SY	
24	17	CI 2 ASPHALT BASE 0.75D PG64-22	23,297	TON	
25	17	CI 2 ASPHALT BASE 1.00D PG64-22	336	TON	

26	17	CI 3 ASPHALT BASE 1.00D PG64-22	1,510	TON	
27	18	CI 2 ASPHALT SURFACE 0.38B PG64-22	6,220	TON	
28	19	ASPHALT LEVELING AND WEDGING (1-1/2" AVG.)	2,026	TON	
29	20	BITUMINOUS MATERIAL FOR TACK	28	TON	
30	21	8" PVC DRAINAGE STRUCTURE	2	EACH	
31	22	CURB BOX INLET TYPE A - 10'	105	EACH	
32	22	CURB BOX INLET TYPE A (MOD.)	2	EACH	
33	22	CURB BOX INLET TYPE A - 15'	10	EACH	
34	22	CURB BOX INLET TYPE B - 10'	18	EACH	
35	22	CURB BOX INLET TYPE B - 15'	2	EACH	
36	22	CURB BOX INLET TYPE F	1	EACH	
37	22	DROP BOX INLET TYPE B	3	EACH	
38	22	DROP BOX INLET TYPE 11	2	EACH	
39	22	JUNCTION BOX TYPE B - 15 IN	2	EACH	
40	22	JUNCTION BOX TYPE B - 24 IN	1	EACH	
41	22	GRATED SURFACE INLET, LFUCG TYPE B	8	EACH	
42	23	STORM SEWER MANHOLE - 4' DIAM	12	EACH	
43	23	STORM SEWER MANHOLE - 5' DIAM	1	EACH	
44	23	STORM SEWER MANHOLE - 6' DIAM	3	EACH	
45	23	SANITARY SEWER MANHOLE - 4' DIAM	3	EACH	
46	23	ADJUST SANITARY MANHOLE TO GRADE	55	EACH	
47	25	STORM SEWER PIPE - 12 INCH	9	LF	
48	25	STORM SEWER PIPE - 15 INCH	4,711	LF	
49	25	STORM SEWER PIPE - 18 INCH	2,261	LF	
50	25	STORM SEWER PIPE - 24 INCH	2,608	LF	
51	25	STORM SEWER PIPE - 30 INCH	1,905	LF	
52	25	STORM SEWER PIPE - 36 INCH	741	LF	
53	25	STORM DRAIN PIPE - 8 INCH	53	LF	
54	25	STORM DRAIN PIPE - 15 INCH	54	LF	
55	26	DUCTILE IRON PIPE	49	LF	
56	26	PVC PIPE - 10 IN	400	LF	

57	28	INTERNAL INSPECTION OF SEWER PIPE: CCTV	13,764	LF	
58	29	HEADWALL - 15 IN	3	EACH	
59	31	TEMPORARY SEEDING AND PROTECTION	10,000	SQ YD	
60	31	SEEDING AND PROTECTION	20,556	SQ YD	
61	32	SODDING	22,400	SQ YD	
62	33	LANDSCAPING	1	LS	
63	38	WATER QUALITY UNIT (Lt. Sta. 196+00.84)	1	EACH	
64	38	WATER QUALITY UNIT (Rt. Sta. 196+87.50)	1	EACH	
65	38	WATER QUALITY UNIT (Lt. Sta. 196+85.27)	1	EACH	
66	42	SILT FENCE	9,966	LF	
67	42	INSTALL AND MAINTAIN SILT TRAPS	1	LS	
68	42	EROSION CONTROL BLANKET (FOR DITCHES)	3,600	SQ YD	
69	43	EDGE KEY	1,116	LF	
70	49	PROJECT SIGN	2	EACH	
71	51	HANDRAIL - GENERAL	1,556	LF	
72	52	HANDRAIL - PARAPET	1	LS	
73	54	GUARDRAIL - STEEL W BEAM-S FACE	37.5	LF	
74	55	DETECTABLE WARNINGS	360	SQ FT	
75	58	PAVE STRIPING - HOT EXTRUSION APPLIED - 4 IN (WHITE)	24,553	LF	
76	58	PAVE STRIPING - HOT EXTRUSION APPLIED - 4 IN YELLOW)	23,081	LF	
77	58	PAVE STRIPING - HOT EXTRUSION APPLIED - 6 IN YELLOW)	957	LF	
78	58	PAVE STRIPING - THERMO - 12 IN (WHITE)	1,554	LF	
79	58	PAVE STRIPING - THERMO - 12 IN (YELLOW)	168	LF	
80	59	PAVE MARKING - THERMO STOP BAR - 24 INCH	831	LF	
81	59	PAVE MARKING - THERMO CURVE ARROW	130	EACH	
82	59	PAVE MARKING - THERMO COMBO ARROW	9	EACH	
83	60	PAVE MARKERS TYPE IVA - BY TEMP	238	EACH	
84	59	PAVE MARKING - THERMO - BIKE	44	EACH	
85	59	PAVE MARKING - TY 1 TAPE - SCHOOL	3	EACH	
86	61	SBM ALUM SHEET SIGNS 0.125 IN	770	SQ FT	



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

87	61	STEEL POST TYPE 1 (2" POSTS)	1,212	LF	
88	63	CONDUIT 2 IN (RIGID STEEL)	2,154	LF	
89	63	CONDUIT 2 IN (SCH 40 PVC)	19,679	LF	
90	63	ELECTRICAL JUNCTION BOX	66	EACH	
91	63	FIBER OPTIC SPLICE ENCLOSURE(JUNCTION BOX)	28	EACH	
92	63	FIBER OPTIC CABLE	9,683	LF	
93	65	SIGNALS - PASADENA	1	LS	
94	65	SIGNALS - HILL N DALE	1	LS	
95	65	SIGNALS - LANE ALLEN/ROSEMONT GARDEN	1	LS	
96	71	SAFELOADING EXISTING PIPE	97	CY	
97	25	24" STORM PIPE - LT STA 135+99.44	341	LF	
98	72	ADDITIONAL WORK - LT STA 135+99.44	1	LS	
99	25	18" STORM PIPE - RT STA 149+65.08	183	LF	
100	70	MOBILIZATION (MAX 5%)	1	LS	
101	70	DEMOBILIZATION (MIN 1.5%)	1	LS	
102	SC	PAYMENT AND PERFORMANCE BOND	1	LS	

CLAYS MILL ROAD IMPROVEMENTS SECTION 1**BID SCHEDULE - LFUCG 17-2020**

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL BID AMOUNT
1	B	MAINTAIN AND CONTROL TRAFFIC	1	LS	\$ 125,750.00	\$ 125,750.00
2	D,E	QUALITY CONTROL SERVICES - ALLOWANCE	1	LS	\$ 40,000.00	\$ 40,000.00
3	1	CONSTRUCTION STAKING	1	LS	\$ 40,000.00	\$ 40,000.00
4	2	CLEARING AND GRUBBING	1	LS	\$ 100,000.00	\$ 100,000.00
5	2	MAIL BOX RELOCATIONS (Sta 119+00 TO; 130+00)	10	EACH	\$ 150.00	\$ 1,500.00
6	2	WOOD PLANK FENCE	145	LF	\$ 25.00	\$ 3,625.00
7	2	REBUILD PIER AND CAP - (LT STA 203+10)	1	EACH	\$ 7,500.00	\$ 7,500.00
8	2	REMOVE AND RESET FENCE (SPLIT RAIL)	86	LF	\$ 25.00	\$ 2,150.00
9	3	EXCAVATION AND PLACEMENT	1	LS	\$ 400,000.00	\$ 400,000.00
10	3	STRUCTURE EXCAVATION (STA . 196+43)	1	LS	\$ 32,476.00	\$ 32,476.00
11	6	REMOVE STRUCTURE (STA . 196+43)	1	LS	\$ 9,052.61	\$ 9,052.61
12	8	DGA BASE	25,123	TON	\$ 26.00	\$ 653,198.00
13	9	#2 STONE BASE	2,500	TN	\$ 50.00	\$ 125,000.00
14	9	#57 STONE	2,900	TN	\$ 50.00	\$ 145,000.00
15	10	STEEL REINFORCEMENT FOR CONCRETE CULVERT (STA 196+43)	31,701	LB	\$ 1.25	\$ 39,626.25
16	10,11	CONCRETE CLASS A. FOR STEPS	4.4	CY	\$ 891.18	\$ 3,921.19
17	10,11	CONCRETE CLASS A. FOR RETAINING WALLS	347	CY	\$ 495.00	\$ 171,765.00
18	11	CONCRETE CLASS A. FOR STORMWATER CULVERT (STA 196+43)	1	LS	\$ 285,180.00	\$ 285,180.00
19	12	SIDEWALK 4. 5 INCH CONCRETE	10,005	SY	\$ 35.00	\$ 350,175.00

CLAYS MILL ROAD IMPROVEMENTS SECTION 1**BID SCHEDULE - LFUCG 17-2020**

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL BID AMOUNT
20	13	ENTRANCE 6" INCH CONCRETE	4,123	SY	\$ 65.00	\$ 267,995.00
21	14	SIDEWALK RAMPS	420	SY	\$ 55.00	\$ 23,100.00
22	15	STANDARD CURB AND GUTTER	20,839	LF	\$ 16.00	\$ 333,424.00
23	16	BITUMINOUS PAVEMENT MILLING AND TEXTURING	5,000	SY	\$ 3.50	\$ 17,500.00
24	17	CI 2 ASPHALT BASE 0.75D PG64-22	23,297	TON	\$ 76.00	\$ 1,770,572.00
25	17	CI 2 ASPHALT BASE 1.00D PG64-22	336	TON	\$ 76.00	\$ 25,536.00
26	17	CI 3 ASPHALT BASE 1.00D PG64-22	1,510	TON	\$ 76.00	\$ 114,760.00
27	18	CI 2 ASPHALT SURFACE 0.38B PG64-22	6,220	TON	\$ 99.00	\$ 615,780.00
28	19	ASPHALT LEVELING AND WEDGING (1-1/2" AVG.)	2,026	TON	\$ 90.00	\$ 182,340.00
29	20	BITUMINOUS MATERIAL FOR TACK	28	TON	\$ 0.01	\$ 0.28
30	21	8" PVC DRAINAGE STRUCTURE	2	EACH	\$ 2,300.00	\$ 4,600.00
31	22	CURB BOX INLET TYPE A - 10'	105	EACH	\$ 5,600.00	\$ 588,000.00
32	22	CURB BOX INLET TYPE A (MOD.)	2	EACH	\$ 6,500.00	\$ 13,000.00
33	22	CURB BOX INLET TYPE A - 15'	10	EACH	\$ 7,700.00	\$ 77,000.00
34	22	CURB BOX INLET TYPE B - 10'	18	EACH	\$ 6,500.00	\$ 117,000.00
35	22	CURB BOX INLET TYPE B - 15'	2	EACH	\$ 7,600.00	\$ 15,200.00
36	22	CURB BOX INLET TYPE F	1	EACH	\$ 3,400.00	\$ 3,400.00
37	22	DROP BOX INLET TYPE B	3	EACH	\$ 3,000.00	\$ 9,000.00

CLAYS MILL ROAD IMPROVEMENTS SECTION 1**BID SCHEDULE - LFUCG 17-2020**

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL BID AMOUNT
38	22	DROP BOX INLET TYPE 11	2	EACH	\$ 3,000.00	\$ 6,000.00
39	22	JUNCTION BOX TYPE B - 15 IN	2	EACH	\$ 2,800.00	\$ 5,600.00
40	22	JUNCTION BOX TYPE B - 24 IN	1	EACH	\$ 3,500.00	\$ 3,500.00
41	22	GRATED SURFACE INLET, LFUCG TYPE B	8	EACH	\$ 3,000.00	\$ 24,000.00
42	23	STORM SEWER MANHOLE - 4' DIAM	12	EACH	\$ 4,500.00	\$ 54,000.00
43	23	STORM SEWER MANHOLE - 5' DIAM	1	EACH	\$ 5,500.00	\$ 5,500.00
44	23	STORM SEWER MANHOLE - 6' DIAM	3	EACH	\$ 5,750.00	\$ 17,250.00
45	23	SANITARY SEWER MANHOLE - 4' DIAM	3	EACH	\$ 3,000.00	\$ 9,000.00
46	23	ADJUST SANITARY MANHOLE TO GRADE	55	EACH	\$ 650.00	\$ 35,750.00
47	25	STORM SEWER PIPE - 12 INCH	9	LF	\$ 50.00	\$ 450.00
48	25	STORM SEWER PIPE - 15 INCH	4,711	LF	\$ 60.00	\$ 282,660.00
49	25	STORM SEWER PIPE - 18 INCH	2,261	LF	\$ 65.00	\$ 146,965.00
50	25	STORM SEWER PIPE - 24 INCH	2,608	LF	\$ 105.00	\$ 273,840.00
51	25	STORM SEWER PIPE - 30 INCH	1,905	LF	\$ 160.00	\$ 304,800.00
52	25	STORM SEWER PIPE - 36 INCH	741	LF	\$ 180.00	\$ 133,380.00
53	25	STORM DRAIN PIPE - 8 INCH	53	LF	\$ 42.00	\$ 2,226.00
54	25	STORM DRAIN PIPE - 15 INCH	54	LF	\$ 65.00	\$ 3,510.00
55	26	DUCTILE IRON PIPE	49	LF	\$ 250.67	\$ 12,282.83

CLAYS MILL ROAD IMPROVEMENTS SECTION 1**BID SCHEDULE - LFUCG 17-2020**

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL BID AMOUNT
56	26	PVC PIPE - 10 IN	400	LF	\$ 153.00	\$ 61,200.00
57	28	INTERNAL INSPECTION OF SEWER PIPE: CCTV	13,764	LF	\$ 1.50	\$ 20,646.00
58	29	HEADWALL - 15 IN	3	EACH	\$ 1,800.00	\$ 5,400.00
59	31	TEMPORARY SEEDING AND PROTECTION	10,000	SQ YD	\$ 0.60	\$ 6,000.00
60	31	SEEDING AND PROTECTION	20,556	SQ YD	\$ 1.00	\$ 20,556.00
61	32	SODDING	22,400	SQ YD	\$ 6.20	\$ 138,880.00
62	33	LANDSCAPING	1	LS	\$ 145,000.00	\$ 145,000.00
63	38	WATER QUALITY UNIT (Lt. Sta. 196+00.84)	1	EACH	\$ 50,000.00	\$ 50,000.00
64	38	WATER QUALITY UNIT (Rt. Sta. 196+87.50)	1	EACH	\$ 20,000.00	\$ 20,000.00
65	38	WATER QUALITY UNIT (Lt. Sta. 196+85.27)	1	EACH	\$ 50,000.00	\$ 50,000.00
66	42	SILT FENCE	9,966	LF	\$ 3.15	\$ 31,392.90
67	42	INSTALL AND MAINTAIN SILT TRAPS	1	LS	\$ 11,558.99	\$ 11,558.99
68	42	EROSION CONTROL BLANKET (FOR DITCHES)	3,600	SQ YD	\$ 1.53	\$ 5,508.00
69	43	EDGE KEY	1,116	LF	\$ 15.00	\$ 16,740.00
70	49	PROJECT SIGN	2	EACH	\$ 270.30	\$ 540.60
71	51	HANDRAIL - GENERAL	1,556	LF	\$ 102.00	\$ 158,712.00
72	52	HANDRAIL - PARAPET	1	LS	\$ 2,615.00	\$ 2,615.00
73	54	GUARDRAIL - STEEL W BEAM-S FACE	37.5	LF	\$ 200.00	\$ 7,500.00

CLAYS MILL ROAD IMPROVEMENTS SECTION 1**BID SCHEDULE - LFUCG 17-2020**

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL BID AMOUNT
74	55	DETECTABLE WARNINGS	360	SQ FT	\$ 15.17	\$ 5,461.20
75	58	PAVE STRIPING - HOT EXTRUSION APPLIED - 4 IN (WHITE)	24,553	LF	\$ 0.65	\$ 15,959.45
76	58	PAVE STRIPING - HOT EXTRUSION APPLIED- 4 IN (YELLOW)	23,081	LF	\$ 0.65	\$ 15,002.65
77	58	PAVE STRIPING - HOT EXTRUSION APPLIED - 6 IN (YELLOW)	957	LF	\$ 1.50	\$ 1,435.50
78	59	PAVE STRIPING - THERMO - 12 IN (WHITE)	1,554	LF	\$ 10.00	\$ 15,540.00
79	59	PAVE STRIPING - THERMO - 12 IN (YELLOW)	168	LF	\$ 10.00	\$ 1,680.00
80	59	PAVE MARKING - THERMO STOP BAR - 24 INCH	831	LF	\$ 12.00	\$ 9,972.00
81	59	PAVE MARKING - THERMO CURVE ARROW	130	EACH	\$ 160.00	\$ 20,800.00
82	59	PAVE MARKING - THERMO COMBO ARROW	9	EACH	\$ 275.00	\$ 2,475.00
83	60	PAVE MARKERS TYPE 1VA - BY TEMP	238	EACH	\$ 5.00	\$ 1,190.00
84	59	PAVE MARKING - THERMO - BIKE	44	EACH	\$ 225.00	\$ 9,900.00
85	59	PAVE MARKING - TY 1 TAPE - SCHOOL	3	EACH	\$ 1,250.00	\$ 3,750.00
86	61	SBM ALUM SHEET SIGNS 0.125 IN	770	SQ FT	\$ 20.00	\$ 15,400.00
87	61	STEEL POST TYPE 1 (2" POSTS)	1,212	LF	\$ 15.00	\$ 18,180.00
88	63	CONDUIT 2 IN (RIGID STEEL)	2,154	LF	\$ 11.00	\$ 23,694.00
89	63	CONDUIT 2 IN (SCH 40 PVC)	19,679	LF	\$ 8.00	\$ 157,432.00
90	63	ELECTRICAL JUNCTION BOX	66	EACH	\$ 975.00	\$ 64,350.00
91	63	FIBER OPTIC SPLICE ENCLOSURE(JUNCTION BOX)	28	EACH	\$ 1,250.00	\$ 35,000.00

CLAYS MILL ROAD IMPROVEMENTS SECTION 1

BID SCHEDULE - LFUCG 17-2020

ITEM #	SPEC SECTION	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL BID AMOUNT
92	63	FIBER OPTIC CABLE	9,683	LF	\$ 3.00	\$ 29,049.00
93	65	SIGNALS - PASADENA	1	LS	\$ 208,500.00	\$ 208,500.00
94	65	SIGNALS - HILL N DALE	1	LS	\$ 208,500.00	\$ 208,500.00
95	65	SIGNALS - LANE ALLEN/ROSEMONT GARDEN	1	LS	\$ 208,500.00	\$ 208,500.00
96	71	SAFELoADING EXISTING PIPE	97	CY	\$ 300.00	\$ 29,100.00
97	25	24" STORM PIPE - LT STA 135+99.44	341	LF	\$ 185.00	\$ 63,085.00
98	72	ADDITIONAL WORK - LT STA 135+99.44	1	LS	\$ 35,000.00	\$ 35,000.00
99	25	18" STORM PIPE - RT STA 149+65.08	183	LF	\$ 170.00	\$ 31,110.00
100	70	MOBILIZATION (MAX 5%)	1	LS	\$ 460,000.00	\$ 460,000.00
101	70	DEMOBILIZATION (MIN 1.5%)	1	LS	\$ 170,000.00	\$ 170,000.00
102	SC	PAYMENT AND PERFORMANCE BOND	1	LS	\$ 36,497.94	\$ 36,497.94
TOTAL						\$ 10,683,653.39



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

Submitted by:

L-M Asphalt Partners, Ltd. dba ATS Construction
Firm

3009 Atkinson Avenue, Suite 400
Address

Lexington, Kentucky 40509
City, State & Zip

*Bid must be signed:
(original signature)*

Brian R. Billings, PRESIDENT
Signature of Authorized Company Representative - Title

Brian R. Billings, President
Representative/s Name (Typed or Printed)

(859) 223-7001
Area Code - Phone - Fax #

(859) 231-0946
(FAX)

bbillings@atsconstruction.com
E-Mail Address

OFFICIAL ADDRESS:

L-M Asphalt Partners, Ltd. dba ATS Construction

3009 Atkinson Avenue, Suite 400

Lexington, Kentucky 40509

(Seal if Bid is by Corporation)

By signing this form you agree to ALL terms, conditions, and associated forms in this bid package



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

5. STATEMENT OF BIDDER'S QUALIFICATIONS

The following statement of the Bidder's qualifications is required to be filled in, executed, and submitted with the Proposal:

- 1. Name of Bidder: L-M Asphalt Partners, Ltd. dba ATS Construction
- 2. Permanent Place of Business: 3009 Atkinson Avenue, Suite 400
Lexington, Kentucky 40509
- 3. When Organized: April 3, 1992
- 4. Where Incorporated: Kentucky
- 5. Construction Plant and Equipment Available for this Project:

See Attachment " A "

(Attach Separate Sheet If Necessary)

- 6. Financial Condition:

If specifically requested by the OWNER, the apparent low Bidder is required to submit its latest three (3) years audited financial statements to the OWNER'S Division of Central Purchasing within seven (7) calendar days following the bid opening.
- 7. In the event the Contract is awarded to the undersigned, surety bonds will be furnished by:

Hartford Fire Insurance Company (Surety)
Signed: Kim Watson (Representative of Surety)
- 8. The following is a list of similar projects performed by the Bidder: (Attach separate sheet if necessary).



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 Suite 400
 Lexington, Kentucky 40509

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>
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	See Attachment " B "	

9. The Bidder has now under contract and bonded the following projects:

<u>NAME</u>	<u>LOCATION</u>	<u>CONTRACT SUM</u>
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	See Attachment " C "	

10. List Key Bidder Personnel who will work on this Project.

<u>NAME</u>	<u>POSITION DESCRIPTION</u>	<u>NO. OF YEARS WITH BIDDER</u>
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	See Attachment " D "	

11. DBE Participation on current bonded projects under contract:

<u>SUBCONTRACTORS</u> (LIST)	<u>PROJECT</u> (SPECIFIC TYPE)	<u>DBE</u>	<u>% of WORK</u>

(USE ADDITIONAL SHEETS IF NECESSARY)

12. We acknowledge that, if we are the apparent low Bidder, we will submit to the OWNER within 7 calendar days following the Bid Opening, a sworn statement on the OWNER'S form regarding all current work on hand and under contract, and a statement on the OWNER'S form of the experience of our officers, office management and field management personnel. Additionally, if requested by the OWNER, we will within 7 days following the request submit audited financial statements and loss history for insurance claims for the 3 most recent years (or a lesser period stipulated by the OWNER)—all in accordance with the Bid Documents.

Respectfully submitted:

L-M Asphalt Partners, Ltd. dba ATS Construction

(Name of Contracting Firm)

BY: Brian R. Billings, PRESIDENT

TITLE: Brian R. Billings, President

DATE August 13, 2020 ~~XXXX~~



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

6. LIST OF PROPOSED SUBCONTRACTORS

The following list of proposed subcontractors is required by the OWNER to be executed, completed and submitted with the BIDDER'S FORM OF PROPOSAL. All subcontractors are subject to approval of the Lexington-Fayette Urban County Government. Failure to submit this list completely filled out may be cause for rejection of bid.

BRANCH OF WORK-LIST EACH **SUBCONTRACTOR** **DBE** **% of**
MAJOR ITEM Such as: Concrete, **Yes/No** **Work**
bituminous paving, concrete, pavement markings,
construction staking, etc.

1. <u>Pavement Markings</u>	Name: <u>Central Seal Company</u> <u>No</u> <u>1</u> <u>P. O. Box 490</u> Address: <u>Danville, Kentucky 40423</u>
2. <u>Electrical</u>	Name: <u>Arrow Electric Company, Inc.</u> <u>No</u> <u>9</u> <u>P. O. Box 36215</u> Address: <u>Louisville, Kentucky 40233</u>
3. <u>Landscaping</u>	Name: <u>Somethin Bloomn, LLC</u> <u>Yes</u> <u>3</u> <u>1045 Higbee Mill Road</u> Address: <u>Lexington, Kentucky 40503</u>
4. <u>Handrail</u>	Name: <u>Bottom Engineering & Service, Inc.</u> <u>No</u> <u>2</u> <u>955 Chenault Road</u> Address: <u>Frankfort, Kentucky 40601</u>
5. <u>Structure</u>	Name: <u>Walker Construction & Materials, LLC</u> <u>No</u> <u>4</u> <u>200 Apperson Heights, Suite 100</u> Address: <u>Mt. Sterling, Kentucky 40353</u>
6. <u>Pipe Inspection</u>	Name: <u>Pipe Check, LLC</u> <u>No</u> <u>Less Than 1</u> <u>325 R Emmett Avenue</u> Address: <u>Bowling Green, Kentucky 42101</u>
7. _____	Name: _____ _____ _____ Address: _____

(Attach additional sheet(s) if necessary.)

8. DBE SUB-CONTRACTOR BIDDERS LIST

The Department of Transportation Federal Regulations requires that the Kentucky Transportation Cabinet provide a bidders list to be maintained in the Office of Personnel Management, Small Business Development Branch (49CFR 26:11) for each federally funded project awarded.

Project No.

List all quotes/bids received on this project.

DBE (Disadvantaged Business Enterprise) Contractors, Consultants, and Suppliers submitting quotes/bids for this project:

1. **N. H. Stone, Inc.**
2. **Cedar Valley Seeding, Inc.**
3. **Somethin Bloomin, LLC**
4. **Big Meadow Oil Company, Inc.**
- 5.
- 6.
- 7.
- 8.

DBE (Disadvantaged Business Enterprise) Contractors, Consultants, and Suppliers contacted who did NOT submit quotes/bids for this project.

1. **None**
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

Non-DBE (Disadvantaged Business Enterprise) Contractors, Consultants, and Suppliers submitting quotes/bids for this project:

1. **Arrow Electric Company, Inc.**
2. **Davis H. Elliot Company, Inc.**
3. **PipeCheck, LLC**
4. **Central Seal Company**
5. **Central Bridge Company, LLC**
6. **Walker Construction & Materials, LLC**
7. **C & R. Asphalt, LLC**
8. **Bottoms Engineering & Service, Inc.**

If you need additional space, please attach a separate page. If you need assistance regarding this form, please contact Melvin Bynes or Anita Hall at (502)564-3601.

9. CERTIFICATION FOR FEDERAL-AID CONTRACT

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

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agent.

2. If any funds other than the Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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

L-M Asphalt Partners, Ltd. dba ATS Construction

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

Brian R. Billings

(Printed Name of officer signing certification)

President

(Title)


(Signature)

August 13, 2020

(Date)

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF CONSTRUCTION PROCUREMENT
DBE Plan/SUBCONTRACT REQUEST**

TC 14-35
Rev. 06/08/15

Contract ID (ContID)

LFUCG ITB No. 17-2020

Prime

L-M Asphalt Partners,
Ltd.
dba ATS Construction

DBE Firm

Big Meadows Oil
Company, Inc.

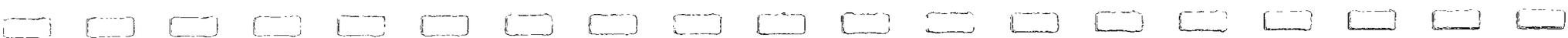
(*) When description is limited by such as "Laying Only" "Erection Only" "Manipulation Only" etc. it should be so indicated and explained.

(**) When the quantity is not the entire amount of (Contract) or (Sub-Contract) estimate, limitations by stations must be shown or definitely designated in some suitable, positive manner.

Unit prices using Contract Unit Price should be for Bid Unit Price for work to be performed by Sub Contractor. DBE Unit price should be for the agreed upon price for item or portion of item of contract work.

DBE Participation Non-Pay Estimates Work Items

Description	Total Contract Quantity	Unit	DBE Unit Price	Dollar Amount based on DBE Price	Comments
1) Liquid Asphalt Supplier (PG64-22)	810	Ton	\$ 425.11	\$ 344,339.10	Only 60% Allowed (\$ 206,603.46)
Page Total					
				\$ 344,339.10	





Big Meadow Oil Company, Inc.
PO Box 3099, 7113 Industrial Dr.
Glasgow, KY 40311
270-651-5212
www.bigmeadowoil.com
Owner: Kati Harper
kharper@bigmeadowoil.com

DMF Certified
WOMAN owned Certified
MSL Certified + WBE/NC Certified

08/18/2020

ATS Construction
Richard Craycraft

Bid No. 17-2020
Ref: Clays Mill Road Improvements Section 1
Location: Lexington, KY
Letting Date: August 18th, 2019

Thank you for asking our company to bid with you on the above project.

LIQUID ASPHALT- \$9.40 per ton over cost, freight and all taxes that apply.

***PG 64-22 Railed (\$415.71/ton) + markup (\$9.40/ton) = \$425.11/ton

***Prices will change as market changes.

***No equipment/tanks will be furnished.

You will find that our prices are very competitive. We have worked with the larger contractors in Kentucky, Tennessee and Indiana for over 35 years.

Please let us know if you need more information. **We also have a wide variety of oils, lubricants, and grease available.**

Thank you

Whitney Bell
Big Meadow Oil Company, Inc.
270-651-5212
whoneycult@bigmeadowoil.com

**KENTUCKY TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIVISION OF CONSTRUCTION PROCUREMENT
DBE Plan/SUBCONTRACT REQUEST**

TC 14-35
Rev. 06/08/15

CONTRACT ID (CONTID): LFUCG ITB No. 17-2020 **Page 1 of 3**
Subcontract # : 2
TO : Sondra J. Stone
Division of Construction Procurement
FROM : L-M Asphalt Partners, Ltd. dba 1st Tier Subcontractor:
ATS Construction (if applicable)
Prime Contractor
SUBJECT : Fayette LFUCG ITB No. 17-2020 - Clays Mill Road Improvements Section 1
County Project Number

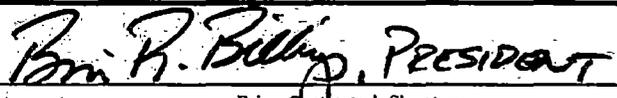
I hereby request to utilize for DBE participation a portion of the subject project to:
Somethin Bloomin, LLS of Lexington, Kentucky

DBE Employer Identification Numbers:	Federal	36-4645342	KY	96115					
The amount to be subcontracted by this request is (original contract) or a subcontract amount of	DBE	\$ 330,393.47	or	3.09%	Contract	\$ 355,393.47	or	3.33%	of the
			\$ 10,683,653.39	Worth		\$ 10,683,653.39			

I have previously requested approval for subcontracts or agreements with other DBE as follows:

Name of DBE firm	DBE Amount	DBE %	Contract "Worth" Amount	Contract %
1) Big Meadow Oil Cimpany, Inc.	\$206,603.46	1.93%	344,339.10	3.22%
Totals based on original contract Amounts	\$ 536,996.93	5.03%	\$ 699,732.57	6.55%

This section applicable if DBE firm is also a Subcontractor of work on Project:
This subcontractor has been furnished a copy of Appendix B of 49 CFR Part 29 and advised to include the Certification in all lower tier covered transactions and in all solicitations for lower tier transactions (Federal Aid Contracts only).

	<u>August 21, 2020</u>
<small>Prime Contractor's Signature</small>	<small>Date</small>
Brian R. Billings, President	
<small>1st Tier Subcontractor's Signature (if applicable)</small>	<small>Date</small>
<small>DBE Participant Signature</small>	<small>Date</small>

Somethin' Bloomin'

Cindy England
1045 Higbee Mill Rd
Lexington, KY 40503

DBE, WBENC, SBE
BS Horticulture
Pre-Qualified by KY DOT

859-536-7568
sbloomin@gmail.com

Clays Mill Improvements

59 Temp seeding and protection .60/SY 10,000 SY = \$6000.00
60 Seeding and protection \$1.00/SY 20,566 SY = \$20,556.00
61 Sod \$6.20/SY, 22400 SY = \$138,880.00
62 Landscaping \$120,000/LS = \$120,000
66 Silt Fence \$3.15/SY, 9966 LF = \$31,392.90
68 Erosion Control Blanket \$1.53/SY, 3600 SY = \$5508.00

Total \$322,336.90

Bond \$8056.57

\$330,393.47

Cindy England
Cindy England
9/20/2000



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

14. NON-COLLUSION CERTIFICATION

COMMONWEALTH OF KENTUCKY

COUNTY: FAYETTE

FED PROJECT NO: 17-2020, Clays Mill Road Improvements Section 1

I, Brian R. Billings, President
(Name of officer or Authorized Agent) (Title)

under penalty of perjury under the laws of the United States, do hereby certify that

L-M Asphalt Partners, Ltd. dba ATS Construction
(Name of Individual, Co-Partnership, or Corporation submitting bid)

Its agent, officers or employees have not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding in connection with this proposal.

Brian R. Billings President
(Name of Officer or Authorized Agent) (Title)

Brian R. Billings, PRESIDENT August 13, 2020
(Signature) (Date)

15. STATEMENT OF EXPERIENCE

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____ **See Attachment " D "**

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____ **See Attachment " D "**

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

NAME OF INDIVIDUAL: _____

POSITION/TITLE: _____

STATEMENT OF EXPERIENCE: _____

* Include all officers, office management's, Affirmative Action officials, and field management personnel. (Attach separate sheets if necessary.)

16. EQUAL OPPORTUNITY AGREEMENT

The Law

- * Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- * Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and subcontractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- * Section 503 of the Rehabilitation Act of 1973 States:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

- * Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal Contracts.
- * Section 206 (A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors, and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractor may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped, and aged persons.

Brian R. Billings, President L-M Asphalt Partners, Ltd. dba ATS Construction
Signature Name of Business
Brian R. Billings, President



The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.

The Kentucky equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any count, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*
- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contract will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

KRS 45.610. Hiring minorities – Information required

- (1) *For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.*
- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

KRS 45.620. Action against contractor – Hiring of minority contractor or subcontractor

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 – 45.640.*
- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions quoted above to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

17. **EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION
POLICY**

It is the policy of L-M Asphalt Partners, Ltd. dba ATS Construction to assure that all applicants for employment and all employees are treated on a fair and equitable basis without regard to their race, religion, sex, color, handicap, natural origin or age.

Such action shall include employment, promotion, demotion, recruitment or recruitment advertising, layoff or termination, rates of pay and other forms of compensation, and selection for training, whether apprenticeship and/or on-the-job-training.

Furthermore, this company agrees to make special recruitment efforts to hire the protected class whenever feasible. This company also agrees to adhere to all applicable federal, state, and local laws relating to Equal Employment Opportunity for all individuals.

Colin Faulkner has been appointed Equal Employment Compliance (EEOC) Officer and shall be available for counseling, answering of questions in regards to this company policy, and to hear any complaints of discrimination. The EEOC Officer may be reached by calling (859) 223-7001

Signature: Brian R. Billings, PRESIDENT
(Bidding Contractor)

Title: Brian R. Billings, President

Date: August 13, 2020



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

18. **WORKFORCE ANALYSIS FORM**

Name of Organization: **L-M Asphalt Partners, Ltd.**
dba ATS Construction

Date: **08 / 13 / 2020**

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African-American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Administrators																	
Professionals																	
Superintendents																	
Supervisors																	
Foremen																	
Technicians																	
Protective Service																	
Para-Professionals																	
Office/Clerical																	
Skilled Craft																	
Service/Maintenance																	
Total:																	

***** See P-43A and P-43B - Attached

Prepared By: *Brian R. Billings, PRESIDENT*
Brian R. Billings, President



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

PR Department of Labor EEO-1 Report

Company: 6 ATS CONSTRUCTION

Number of Employees
(Report employees in only one category)

Job Categories	Annual Salary	Race/Ethnicity													Total Col A - N	
		Hispanic or Latino		Not-Hispanic or Latino												
		Male	Female	Male					Female							
				White	Black or African American	Native Hawaiian or Other Pacific Islander	Asian	American Indian or Alaska Native	Two or more races	White	Black or African American	Native Hawaiian or Other Pacific Islander	Asian	American Indian or Alaska Native		Two or more races
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O		
2 1st/Mid-Level Officials & Mgrs	1 \$19,239 and under	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	4 \$30,680-\$38,999	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	6 \$49,920-\$62,919	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4 Technicians	1 \$19,239 and under	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7 Craft Workers	1 \$19,239 and under	0	0	20	0	0	0	0	0	0	1	0	0	0	0	21
	2 \$19,240-\$24,439	2	0	16	0	0	1	0	0	2	0	0	0	0	0	21
	3 \$24,440-\$30,679	0	0	18	0	0	0	0	0	0	0	0	0	0	0	18
	4 \$30,680-\$38,999	0	0	10	1	0	0	0	0	0	0	0	0	0	0	11
	5 \$39,000-\$49,919	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14
8 Operatives	1 \$19,239 and under	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
	2 \$19,240-\$24,439	0	0	11	0	0	0	0	0	0	0	0	0	0	0	11
	3 \$24,440-\$30,679	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10
	4 \$30,680-\$38,999	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
	5 \$39,000-\$49,919	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9
	6 \$49,920-\$62,919	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	7 \$62,920-\$80,079	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
9 Laborers and Helpers	1 \$19,239 and under	1	0	42	1	0	0	0	0	4	0	0	0	0	0	48
	2 \$19,240-\$24,439	1	0	19	0	0	0	0	0	1	0	0	0	0	0	21
	3 \$24,440-\$30,679	1	0	7	0	0	0	0	0	1	0	0	0	0	0	9
	4 \$30,680-\$38,999	1	0	9	0	0	0	0	0	0	0	0	0	0	0	10
	5 \$39,000-\$49,919	0	0	2	0	0	0	0	0	0	0	0	1	0	0	3
Total		6	0	208	2	0	1	0	0	8	1	0	1	0	0	227

Date(s) of payroll period used: 07/26/20-07/26/20 (Omit on the Consolidated Report.)



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

PR Department of Labor EEO-1 Report

Previous Year Total

5	0	314	1	0	1	0	0	19	2	0	1	0	0	343
---	---	-----	---	---	---	---	---	----	---	---	---	---	---	-----

Date(s) of payroll period used: 07/26/20-07/26/20 (Omit on the Consolidated Report.)



19. EVIDENCE OF INSURABILITY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT CONSTRUCTION PROJECT
(Use separate form for each Agency or Brokerage agreeing to provide coverage)

Names Insured: _____ Employee ID: _____
 Address: _____ Phone: _____
 Project to be insured: _____

In lieu of obtaining certificates of insurance at this time, the undersigned agrees to provide the above Named Insured with the minimum coverage listed below. These are outlined in the Insurance and Risk Management of Part V (Special Conditions), including all requirements, and conditions:

Section Items	Coverage	Minimum Limits and Policy Requirements	Limits Provided To Insured	Name of Insurer	A.M. Best's Code	Rating
SC-3, Section 1, Part 1.3 – see provisions	CGL	\$1,000,000 per occ. And \$2,000,000 aggregate	\$			
SC-3, Section 1, Part 1.3 – see provisions	AUTO	\$1,000,000/per occ.	\$	**** See Page 44A – Attached		
SC-3, Section 1, Part 1.3 – see provisions	WC	Statutory w /endorsement as noted	\$			
SC-3, Section 1, Part 1.3 – see provisions	EXC	\$5,000,000 per occ.	\$			

Section 2 includes required provisions, statements regarding insurance requirements, and the undersigned agrees to abide by all provisions for the coverage's checked above unless stated otherwise when submitting.

Agency or Brokerage _____ Name of Authorized Representative _____
 Street Address _____ Title _____
 City _____ State _____ Zip _____ Authorized Signature _____
 Telephone Number _____ Date _____

NOTE: Authorized signatures may be the agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of authorized representative of insurer.



LMASP-2

OP ID: KW

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
08/03/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER GCH Insurance Group 780 Winchester Road Lexington, KY 40505 John Hampton 859-254-1836	CONTACT NAME: John Hampton PHONE (A/C, No, Ext): 859-254-1836 FAX (A/C, No): 859-226-0277 E-MAIL ADDRESS: ADDRESS:														
INSURED LMI Asphalt Partners LTD dba AFS Construction 3009 Atkinson Ave., Ste 400 Lexington, KY 40505	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Charter Oak Fire</td> <td>25615</td> </tr> <tr> <td>INSURER B: Travelers Property Casualty</td> <td>25674</td> </tr> <tr> <td>INSURER C: The Travelers Indemnity Co</td> <td>25658</td> </tr> <tr> <td>INSURER D: The Phoenix Insurance Co</td> <td>25263</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Charter Oak Fire	25615	INSURER B: Travelers Property Casualty	25674	INSURER C: The Travelers Indemnity Co	25658	INSURER D: The Phoenix Insurance Co	25263	INSURER E:		INSURER F:	
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INSURER B: Travelers Property Casualty	25674														
INSURER C: The Travelers Indemnity Co	25658														
INSURER D: The Phoenix Insurance Co	25263														
INSURER E:															
INSURER F:															

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR TR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
D	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	X	DT CO 3E855071	04/01/2020	04/01/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Per occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	810-8M955327	04/01/2020	04/01/2021	COMBINED SINGLE LIMIT (Per accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		X	CUP 0J675466	04/01/2020	04/01/2021	EACH OCCURRENCE \$ 6,000,000 AGGREGATE \$ 6,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N <input type="checkbox"/> N/A If yes, describe under DESCRIPTION OF OPERATIONS below			UB-002N535772	04/01/2020	04/01/2021	<input checked="" type="checkbox"/> PER STATUTE <input checked="" type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Invitation to Bid #17-2020, Clays Mill Road Improvements Section 1, Lexington KY. LFUCG, Engineer and JM Crawford and Associates are additional insureds in regards to General and auto liability the general liability is primary. The policies contain a 30 day cancellation clause. Waiver of subrogation as per written contract and as permitted by law.

CERTIFICATE HOLDER: Lexington-Fayette Urban County Government Division of Central Purchasing 200 E. Main St. Lexington, KY 40507	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
--	--



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

21. DEBARMENT CERTIFICATION

All contractors/subcontractors shall complete the following certification and submit it with the bid proposal.

The contractor/subcontractor certifies in accordance with Executive Order 12549 (Debarment and Suspension 2/18/86) that to the best of its knowledge and belief, that it and its principals:

- 1) Are not presently debarred, suspended, proposed for debarment, declared negligible, or voluntarily excluded from covered transactions or contract by any Federal department or agency for noncompliance with the Federal Labor Standards, Title VI of the Civil Rights Act of 1964 as amended, Executive Order 11246 as amended or any other Federal law;
 - a) 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;
 - b) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(a) of this certification; and
 - c) Have not within a three year period preceding this bid has one or more public (Federal, State or local) transactions or contracts terminated for cause or default.
- 2) Where the contractor is unable to certify to any of the statements in this certification, such prospective contractors shall attach an explanation to this certification form.

Firm Name: L-M Asphalt Partners, Ltd. dba ATS Construction

Project: LFUGG Bid Invitation No. 17-2020 - Clays Mill Road Improvements - Section 1

Printed Name and Title of Authorized Representative: Brian R. Billings, President

Signature: *Brian R. Billings, PRESIDENT*

Date: August 13, 2020



22. PROVISIONS RELATIVE TO SENATE BILL 45A-485

During the performance of the contract, the contractor agrees to comply with the applicable provisions of:

1. KRS 136 Corporation and Utility Tax
2. KRS 139 Sales and Use Taxes
3. KRS 141 Income Taxes
4. KRS 337 Wages and Hours
5. KRS 338 Occupational Safety and Health of Employees
6. KRS 341 Unemployment Compensation
7. KRS 342 Workers Compensation

Any final determinations of a violation by the contractor within the previous (5) years pursuant to the applicable statutes above are revealed as follows:

1) Occupational Safety and Health - Case No. 1145180.015 - July 20, 2016

23. 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 of 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:



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

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

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

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

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

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

Brian R. Billings, PRESIDENT
Signature of Authorized Official

Brian R. Billings, President
Title

August 13, 2020
Date

END OF SECTION

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
01.LT6103	2002 CHEVY PICKUP	1GCGC24U42Z118856
01.LT6106	CHEVY 2500 4X2 FLATBED	1GCGC24U13Z226854
01.LT6127	FORD F150 4X4 EXT CAB- SENT TO STONE CREEK	1FTPX14V77FB26224
01.LT6130	FORD F150 EXT CAB	1FTPX12V47FA33213
01.LT6131	FORD F150 EXT CAB	1FTPX12V17KC88120
01.LT6133	TOYOTA TUNDRA CREW/MAX 4X4 PICKUP	5TFDW5F14DX274182
01.LT6134	2015 FORD F-250 2 WHEEL-DRIVE	1FT7X2A63FEA47169
01.LT6135	2015 FORD F-250 2 WHEEL-DRIVE	1FT7X2A6XFEE47170
01.LT6136	2011 GMC SIERRA C15	1GTN1TEX4BZ246283
01.LT6137	2015 CHEVY SILVERADO	1GCVKPEC9FZ199663
01.LT6138	2015 CHEVROLET 2500 HD 4X2	1GC2CUEGOFZ121158
01.LT6140	2015 CHEVROLET SILVERADO 2500HD 4X2	1GC2CUEG9FZ527889
01.LT6141	2016 CHEVY SILVERADO 2500HD	1GC2KUEG7GZ143601
01.LT6142	2016 CHEVROLET 2500 HD PICKUP	1GC2KUEG3GZ205897
01.LT6143	2016 CHEVY 2500 HD	1GC2KUEG9GZ235373
01.LT6144	2016 CHEVY 2500 HD	1GC2KUEG8GZ236630
01.LT6145	2016 CHEVY 2500 HD	1GC2KUEG6GZ233659
01.LT6146	2016 CHEVY 2500 HD	1GC2KUEGXGZ235401
01.LT6147	2016 CHEVY 2500 HD	1GC2KUEG4GZ236530
01.LT6148	2016 CHEVY SILVERADO 2500HD	1GC2KUEG2GZ225574
01.LT6149	2016 CHEVY SILVERADO 2500HD	1GC2KUEG0GZ208532
01.LT6150	2016 CHEVROLET 2500HD 4X4 W/ LADDER RACK	1GC2KUEG6GZ393282
01.LT6151	FORD F150 PICKUP - GRAY	1FTEW1EFXFFA78508
01.LT6152	2013 CHEVROLET SILVERADO 1500	1GCRKSE78DZ354403
01.LT6154	2013 CHEVROLET CREW CAB	1GC1KVCG3DF197687
01.LT6158	2015 FORD F-150 XL 2-DOOR	1FTFX1EF5FFB21833
01.LT6159	2018 CHEVROLET EXT CAB 1500	1GCVKREC5JZ133471
01.LT6160	2017 CHEVROLET 2500HD	1GC2KUEG1HZ359154
01.LT6162	2018 CHEVROLET 2500	1GC2KUEG0JZ300196
01.LT6163	2018 TOYOTA TACOMA SR5	5TFSZ5AN5JX145114
01.LT6164	2018 FORD F150 LARIAT	1FTEW1EG8JKD65564
01.LT6165	2018 FORD F-150 XL	1FTFX1E59JKD79313
01.LT6166	2018 CHEVROLET 2500HD	1GC2KUEG2JZ303522
01.LT6167	2019 CHEVY SILVERADO 2500HD (SL)	1GC1KUEY0KF126170
01.LT6168	2019 FORD F150	1FTEW1E48KFB63985
01.LT6169	2012 FORD F-250	1FTBF2B62CED20240
01.LT6170	2019 CHEVROLET 1500	1GCPYCEF2KZ349164
01.LT6171	2019 CHEVROLET 1500 LTZ	1GCRYGED5KZ350971
01.LT6172	2019 CHEVROLET 1500 LTZ	1GCRYGED9KZ349693
01.LT6173	2019 CHEVROLET COLORADO	1GCHSBEA3K1297420
01.LT6174	2019 CHEVROLET SILVERADO 1500	1GCRYAEH2KZ369218
01.LT6175	2019 CHEVROLET SILVERADO 1500	1GCRYAEH2KZ369235
01.LT6176	2019 CHEVROLET SILVERADO 1500	1GCRYAEH0KZ369881
01.LT6177	2019 CHEVROLET SILVERADO 1500	1GCRYAEH4KZ371648
01.LT6178	2019 FORD F-250 4 X4	1FT7X2B62KEF57182

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
01.LT6179	2019 FORD F-250	1FT7X2A69KEF57181
01.LT6180	2019 CHEVROLET COLORADO	1GCHSBEAXK1294739
01.LT6181	2019 FORD F150 LARIAT	1FTEW1E55KFC60473
01.LT6207	2013 TOYOTA 4RUNNER	JTEBU5JR7D5125315
01.LT6208	2015 TOYOTA HIGHLANDER	5TDZKRFH8FS094878
01.LT6209	2015 JEEP GRAND CHEROKEE	1C4RJFBG6FC956317
01.LT6210	2020 TOYOTA 4 RUNNER	JTEBU5JR3L5740233
01.LT7102	2010 Ford	1FMEU5BE4AUF04119
01.LT7110	2014 FORD F-250	1FT7W2B68EEB50149
01.LT7111	2015 CHEVY PICKUP	1GC1KUEG0FF185488
01.LT7112	2015 CHEVY PICKUP	1GC2KUEG2FZ140085
01.LT7113	2013 CHEVY SILVERADO	1GCRKSE71DZ283643
01.LT7114	2011 CHEVY	3GCPKSE34BG242991
01.LT7121	2016 FORD F-150	1FTEW1EF1GFC01369
01.LT8117	CHEVY COLORADO	1GCCS149988155326
01.LT8118	CHEVY COLORADO	1GCCS149088135126
01.LT8131	CHEVEROLT SILVERADO EXT	1GC2KVCG8CZ273213
01.LT8132	CHEVROLET 2500 4X4 EXT CAB	1GC2KVCG0CZ527772
01.LT8133	CHEVROLET SILVERADO CREW	1GC1KVCG3BF265290
01.LT8134	2013 TOYOTA TUNDRA CREW MAX 4X4 PICKUP TRUCK	5TFDW5F14DX274019
01.LT8136	2013 TOYOTA TUNDRA CREW MAX 4X4 PICKUP	5TFDW5F13DX286095
01.LT8138	2013 CHEVROLET SURVEY TRUCK	1GC2KVCG2DZ304005
01.LT8139	2013 CHEVROLET CONCRETE CREW TRUCK	1GC2CVCG5DZ295412
01.LT8140	2015 CHEVY SILVERADO	1GC2KUEG3FZ130407
01.LT8142	2015 CHEVROLET SILVERADO 2500HD 4WD	1GC2KUEG9FZ527961
01.LT8150	2015 CHEVROLET 2500 HD	1GC2KUEG0FZ536838
01.LT8151	2015 CHEVROLET 2500 HD	1GC2KUEG4FZ537488
01.LT8152	2015 CHEVROLET 2500 HD	1GC2KUEG9FZ537521
01.LT8153	2017 CHEVY 2500 4X4	1GC1KUEG7HF198662
01.LT8186	CHEVY 2500	1GCHK24D56E208246
01.LT8198	CHEVY 2500 4X4	1GCHC29K57E560328
01.LT8214	2006 FORD E350 PASSENGER VAN SILVER	1FBSS31L06DA77261
01.LT8230	CHEVROLET TAHOE	1GNSKBEOXDR359713
01.LT8232	2015 CHEVY TAHOE (TL)	1GNSKCKC5FR275497
01.LT8233	2018 CHEVY Z71 TAHOE	1GNSKBKC1JR375146
01.LT8234	2019 CHEVY TAHOE	1GNSKBKC3KR352288
01.PV1143	2008 FORD F-350 REGISTERED AS SHAMROCK INTERNATIONAL	1FDWF36528EA71143
01.PV8140	2002 FORD F250 REGISTERED AS SHAMROCK INTERNATIONAL	1FDNF21L72EC58140
01.PV8427	2007 FORD F-350 REGISTERED AS SHAMROCK INTERNATIONAL	1FDWF36587EA58427
01.TK6211	FORD F350 DUMP TRUCK	3FDWF36F8XMA19503
01.TK6213	FORD F550 4X2 FLATBED	1FDAF56P86ED92253
01.TK6214	FORD F450 CREW TRUCK	1FDXX46R28EA56670
01.TK6215	2015 FORD F-550 CREW TRUCK	1FD0X5HT0FEC57187
01.TK6220	2017 FORD F-250 SERVICE TRUCK	1FDBF2A67HEC82279
01.TK6221	2017 FORD F-250 SERVICE TRUCK	1FDBF2A63HEC82280

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
01.TK6222	2018 FORD F450 4X2 FLATBED TRUCK	1FD0X4GT4JEC46701
01.TK6223	2019 FORD F450 4X4 FLATBED CREW TRUCK	1FDUF4HT4KEG58735
01.TK6250	CHEVY C5500 MECHANIC TRUCK	1GBE5E1183F505687
01.TK7214	2008 FORD F550 FLATBED	1FDAF56R78EA76458
01.TK7216	2007 Dodge Ram Pickup	3D6WH46A37G801760
01.TK7217	2013 DODGE RAM PARTS RUNNER	3C7WRMBL2DG520123
01.TK7218	2002 FORD F650	3FDWF65B62MA28080
01.TK7219	2004 FORD F350	1FDWF36LX4EA61663
01.TK7220	1995 GMC TOP KICK	1GDK7H1J9S1519082
01.TK8209	FORD F450 STEAM	1FDXF46FXEB40646
01.TK8210	FORD F550 FLATBED	1FDAF57F02EB50461
01.TK8211	FORD F350 POWDER TRUCK	1FDWF37P03ED89299
01.TK8212	CHEVY 3500 POWDER TRUCK	1GBJK34132E125300
01.TK8213	CHEVROLET SILVERADO 3500 FLATBED	1GCJK33698F146664
01.TK8214	FORD F250 4X2 4 DOOR	1FTSW2A52AEA03225
01.TK8216	2016 FORD F450 EXT CAB W/ UTILITY BED	1FD0X4GT3GEC04996
01.TK8217	2017 CHEVY 3500 UTILITY BED	1GB4KYCY5HF132678
01.TK8218	2017 CHEVY 3500 W/ UTILITY BED	1GB4CYCY9HF132664
01.TK8219	1994 GMC TOPKICK FLATBED	1GDK7H1J5RJ520613
01.TK8220	2018 FORD F-450 UTILITY BED TRUCK	1FD0X4HT3JEC88730
03.TR6806	HURST 10 TON GOOSE NECK TRAILER	1H9T6232XY1057163
03.TR6808	CUSTOM TRAILER	1KX43154XX1003356
03.TR6809	BIG TEX TAMDEN 16X6 BARREL TRAILER	16VNX162972C73900
03.TR6811	BIG TEX TAMDEN 18X7 TRAILER	421HD182975002652
03.TR6812	SMALL WATER TANK TRAILER	TR6812
03.TR6814	2007 BIG TEX 50LA TANDEM TRL- SHOP PRESSURE WASHER	16VNX122072C59874
03.TR6816	GATOR TAMDEN 7X20 TRAILER	421H02029A8012218
03.TR6817	GATOR TAMDEN 7X20 TRAILER	421H02022AS013341
03.TR6818	2015 GATOR MADE TRAILER	421HD2028FS015361
03.TR6819	2015 GATOR MADE TRAILER	421HD2026FS015360
03.TR6820	6 X 12 GATORMADE STEAMER TRAILER w/ MM8198	421UA1228HS036325
03.TR6821	5x10 WALK BEHIND SAW TRAILER	421UA1013FS017639
03.TR6822	GM 16FT UTILITY TANDEM AXLE TRAILER	
03.TR6823	GM 10FT UTILITY SINGLE AXLE TRAILER	
03.TR6824	4' X 7' TRAILER WITH WATER TANK	
03.TR6825	GATORMADE 18+3 EQUIPMENT TRAILER W/ RAMPS	421HD2123LS004679
03.TR6826	GATORMADE 16FT TRAILER	421PB1629LS004576
03.TR6827	GATORMADE 16FT TRAILER	421PB1627LS004575
03.TR6830	2007 UNITED EXPRESSLINE AIR TEST TRAILER	488TE12187A091247
03.TR6840	HOMEMADE SLURRY SEAL BRUSH TRAILER	KYT44236
03.TR7900	WELLS CARGO UTILITY TRAILER	1WC200E2341107267
03.TR7901	GATOR MADE TRAILER	421UA1621DS005003
03.TR7910	CORE MACHINE TRAILER WITH PREDATOR GENERATOR	57A15070081920(GEN.) & 0999440(C.M
03.TR7920	HOMEMADE BARREL TRAILER	KYT44003
03.TR8807	SINGLE AXLE 5 X10 TRAILER	N/A

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
03.TR8809	HOMEMADE TAMDEN 16X6 TRAILER	KYT23010
03.TR8810	TAMDEN 16X6 TRAILER	KYT37865
03.TR8814	HOMEMADE SINGLE 12X5 TRAILER	KYT38488
03.TR8815	HOMEMADE TAMDEN 6X16 TRAILER	KYT38487
03.TR8817	HOMEMADE SMALL WATER TANK TRAILER	0890061
03.TR8818	STIGER GOOSENECK TAMDEN 18X7 TRAILER	159F718234K087167
03.TR8819	STIGER 16' GOOSE NECK TRAILER	159F718294K087190
03.TR8820	STIGER 16' GOOSE NECK TRAILER	159F718214K087197
03.TR8821	STIGER TAMDEN 16X6 PIN TRAILER	159FS16214K087217
03.TR8826	SINGLE 12X6 TRAILER	4YMUL12139G020197
03.TR8828	GATORMADE 16FT UTILITY TRAILER	4Z1UA1628LS003506
03.TR8875	16' UTILITY TRAILER	4ASUS16296S048623
03.TR8876	PIPE TRAILER	
03.TR8877	GATORMADE UTILITY TRAILER 6X16	4Z1UA1625CS021381
03.TR8878	GATORMADE UTILITY TRAILER 6X20 W/RAMP GATE	4Z1UA2021CS021893
03.TR8879	PIPE COIL TRAILER	32N12
03.TR8880	Silver Tool Trailer (Concrete Crew)	
03.TR8881	PACE AMERICAN CARGOSPORT BOX TRAILER	40L UB1420XP055377
03.TR8882	Homemade Tow-Behind Pipe Trailer	N/A
04.TR6801	FONTAINE 55 TON WEDGE LOWBOY TRAILER	13NE5240923514794
04.TR6802	ETNYRE BLACKHAWK 55 TON LOWBOY TRAILER	1E92819043E111006
04.TR6805	Trail King Lowboy	1TKJ0493X3B012912
04.TR6807	TRAILMAX T-12-UT TRAIL	1G9KS21272A065560
04.TR6815	CRONKHITE 4800 6' X 14' TRAILER	473482322V1110715
04.TR6850	2019 LANDOLL TRAILER	1LH455UJ0K1B26411
04.TR6851	FONTAINE TRAILER	57JM05103L35P1869
04.TR7803	DORSEY DUMP TRAILER	HW-12558 33DATR17
04.TR7806	1971 FRUEHAUF TRAILER	EWA374803
04.TR7808	ROGERS 35 TON LOWBOY (PAVING)	1RBH48209MAR21579
04.TR7810	1979 STRICK TRAILER	229147
04.TR7812	TRAFFIC CONTROL TRAILER	46CFB16237M002410
04.TR7813	'89 CHEROKEE FLAT TRAILER	7734
04.TR7814	ECONOLINE 6 TON TAG TRAIL-1997	42ETPBB29V1004348
04.TR7815	45 FT. FRUEHAUF VAN TRAILER	CHS193461
04.TR7816	45 FT. FRUEHAUF VAN TRAILER	HPR482265
04.TR7817	1983 HOBBS TRAILER	1H5P04529DN013204
04.TR7819	2000 FONTAINE TH-55 TRAILER	4LF4S5332Y3509893
04.TR7820	1984 GREAT DANE TRAILER	1GRFA9621ES137602
04.TR7821	1984 FRUEHAUF TRAILER	1H2V0482XEA012622
04.TR7822	1991 TRAILMOBILE TRAILER	1PTF7ATH0M9005262
04.TR7823	2002 LIDDELL M-75 4-AXLE TRAIL	1L9SL634321236164
04.TR7824	1986 GREAT DANE TRAILER	1GRDM9026GM026901
04.TR7825	1962 FRUEHAUF TRAILER	MEB140101
04.TR7826	1988 TRANSCRAFT TRAILER	1TTF45202J1029864
04.TR7828	LANDOLL TRUCK TRAILER	1LH660UH221B12466

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
04.TR7829	1985 GREAT DANE TRAILER	1GRAA962XFB130112
04.TR7830	1987 GREAT DANE TRAILER	1GRDM9020HM010601
04.TR7831	ECONOLINE 7 TON 21' TRAILER	42ETPG2251001159
04.TR7832	GATOR 16' UTILITY TRAILER	4Z1UA1627ES012197
04.TR7833	GATOR 16' TRAILER	4Z1CB1620ES007450
04.TR7834	2000 FONTAINE JEEP, DOLLIES	4LF5N0511Y3509734
04.TR7836	FONTAINE LOWBOY TRAILOR 1994	4LF4S7752R3503651/4LF3N2627R350344
04.TR7837	1988 TRAILKING LOWBOY	TKSA04622JM110152
04.TR7839	2003 LOAD KING 55 TON LOWBOY	5LKL4935931024620
04.TR7840	1995 FONTAINE 60 TON QUAD	4LF4S7345S3503601
04.TR7841	1998 TRAIL KING DROP DECK	1TKA04621WM090018
04.TR7901	1982 TRAILMOBILE ASPHALT TANK	1PTT43EJ7B4000318
04.TR7902	1988 POLAR ASPHALT TANKER	1PMC14229J2009409
04.TR7904	1988 POLAR ASPHALT TANKER	1PMC14227J2009408
04.TR7905	1992 FRUEHAUF ASPHALT TANKER	1H4T0432XNL020407
04.TR7907	1995 ETNYRE ASPHALT TANKER	1E9T44206SE007210
04.TR7908	2015 ETNYRE 7250 GALLON TANKER	1E9T78815FE007171
04.TR7909	1992 ETNYRE TANKER	1E9T44207ME007073
04.TR7910	1977 TRAILMOBILE ASPHALT HAULER	S40057
04.TR7911	1978 TRAILMOBILE	S41577
04.TR7912	1977 TRAILMOBILE ASPHALT HAULER	N41055
04.TR7913	1977 TRAILMOBILE ASPHALT HAULER	UNS507811
04.TR7914	1977 AMCC ASPHALT HAULER	1PMC14220F2007085
04.TR8800	TALBERT LANDOLL TA50 LOWBOY TRAILER	40FG0533991030586
04.TR8805	TRAIL KING 50 TON LOWBOY TRAILER	1TKJ048385B010080
04.TR8806	TRAIL KING 70 TON LOWBOY TRAILER	1TKS005125B019552/19551 (2 NUMBERS)
04.TR8822	BIG TEX 24' GOOSE NECK TRAILER	4K8GY242721680374
07.TK6251	FORD F450 MECHANIC TRUCK	1FDXF46P75ED35268
07.TK6253	FORD F650 EXT CAB MECHANIC TRUCK	3FRWX65F66V323252
07.TK6254	FORD F750 MECHANIC TRUCK	3FRWX75H18V668649
07.TK6255	2015 KENWORTH T270 MECHANICS TRUCK	2NKHHM6X2FM455160
07.TK7254	2006 KENWORTH T300 TRUCK	2NKMHD7X96M159257
07.TK8250	KENWORTH T300 MECHANIC TRUCK	2XKMA78X8TM711160
07.TK8252	FORD F550 MECHANIC TRUCK	1FDAF57P85EA17105
07.TK8257	2009 HINO 338 MECHANICS TRUCK	5PVNV8JM294SS0160
07.TK8258	2009 HINO 338 MECHANICS TRUCK	5PVNV8JM894SS0163
07.TK8259	2010 KENWORTH T270 MECHANICS TRUCK	2NKHHN6XXAM261944
07.TK8260	2006 KENWORTH T300 MECHANICS TRUCK	2NKMHD6X16M139845
07.TK8261	2007 PETERBILT 335 MECHANICS TRUCK	2NPLHD7X57M681407
07.TK8262	2001 PETERBILT MECHANIC TRUCK	2NPNHD7X81M555347
10.CR8010	GROVE RT740B CRANE	71732
12.FK6550	SKYTRAK 6036-48 FORKLIFT	0160008272
12.FK6561	CAT V50 FORKLIFT	AT9003075
12.FK6562	MITSUBISHI FGC30N FORKLIFT (WAREHOUSE)	AF83F30381
12.FK7550	YALE FORKLIFT	N526628

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
12.FK7551	YALE FORKLIFT GP110	C813V02346Z
12.FK7553	IR FORKLIFT RT706H-199	164327
12.FK7554	IR FORKLIFT RT706G-1997	153443
12.FK8560	HYSTER FORKLIFT	H177B44108A
12.FK8562	TOYOTA PROPANE FORK LIFT	14890
12.ML6011	GENIE S80 4 X 4 AERIAL LIFT (MAN LIFT)	2658
12.ML6012	GENIE S60 MAN LIFT	S60XCH-46211
12.ML6013	GENIE S60 MANLIFT	S60XCH-46219
12.ML8010	2000 GENIE SCISSOR LIFT	31887
12.ML8011	GENIE GS2668 RT SCISSOR LIFT	GS6808-51816
13.BR6532	BROCE RJ-350 BROOM	403193
13.BR6534	SUPERIOR BROOM DT80CT	807668
13.BR6535	SUPERIOR DT80J BROOM	813648
13.BR6538	BROCE RCT-350 BROOM	411623
13.BR6539	BROCE RCT-350 BROOM	411624
13.BR6540	BROCE RCT350 BROOM	412032
13.BR6541	BROCE RCT350 BROOM	412033
13.BR6590	TENNANT 8210 SHOP SWEEPER	8210-1482
13.BR7537	BROCE BROOM	404207
13.BR7540	SUPERIOR DT80J BROOM	803057
13.BR8531	WALDON SM 250 SWEEPMASTER ROAD BROOM	28297-011 OR 28397-011
13.BR8534	SUPERIOR 8FT BROOM	808742
13.BR8535	2018 SUPERIOR DT74J BROOM	818847
13.BR8536	2018 SUPERIOR DT74J BROOM	818848
13.BR8537	2017 SUPERIOR DT80K CENTER MOUNTED BROOM	817751
13.TK8381	JOHNSTON 4000C STREET SWEEPER	1JVM4H341C172004
13.TK8382	2000 FREIGHTLINER F70 ELGIN SWEEPER TRUCK BROOM BEAR	1FV6HJBA2YHF15293
14.DZ7011	KOMATSU D39EX-21 DOZER	1118
14.DZ7014	CAT D3GLGP DOZER (AT GREER)	CFF00672
14.DZ7020	CAT D6KXL DOZER W/GPS	FBH02668
14.DZ8011	CAT D9R DOZER	ABK00687
14.DZ8013	CAT D8T DOZER WITH GPS	KPZ00393
14.DZ8020	CAT D5M LGP DOZER	3CR01860
14.DZ8021	CAT D5N LGP DOZER	AKD00295
14.DZ8040	CAT D6R XL DOZER	5LN00604
14.DZ8042	CAT D6N LGP DOZER W/GPS	ALY02602
14.DZ8043	CAT D6N LGP DOZER W/GPS	ALY03079
14.DZ8044	CAT D6N LGP DOZER W/GPS	ALY03168
14.DZ8060	CAT D8R DOZER	6YZ00350
14.DZ8061	CAT D8R II DOZER	6YZ00392
14.DZ8062	CAT D8R II DOZER	6YZ00717
14.DZ8063	CAT D8R II DOZER	6YZ00916
14.DZ8064	CAT D8R II DOZER	6YZ01073
14.DZ8065	CAT D8R II DOZER	6YZ01279
14.DZ8066	CAT D8R II DOZER	6YZ01405

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Equipment	Description	VINNumber
14.DZ8067	CAT D8R II DOZER	6YZ01645
14.DZ8069	CAT D8R II DOZER	6YZ01776
14.DZ8070	CAT D8R II DOZER	6YZ01813
14.DZ8072	CAT D8T DOZER W/GPS	KPZ00824
14.DZ8073	CAT D8T DOZER W/GPS	KPZ00914
14.DZ8074	CAT D8T DOZER W/GPS	J8B00572
14.DZ8075	CAT D8T DOZER W/GPS	KPZ01030
14.DZ8076	CAT D8T DOZER W/GPS	KPZ01243
14.DZ8091	CAT D10R PUSH DOZER	3KR00728
14.DZ8092	CAT D10R PUSH DOZER	3KR75033
14.DZ9050	CAT D6R XL DOZER W/ JERSEY BOX	5LN02103
15.SC8212	CAT 631E SCRAPER	1AB01460
15.SC8213	CAT 631E SCRAPER	1AB01461
15.SC8214	CAT 631E SCRAPER	1AB01462
15.SC8215	CAT 631E SCRAPER	1AB01389
15.SC8216	CAT 631E SCRAPER	1AB01407
15.SC8222	CAT 615C PADDLE PAN SCRAPER	9XG01124
15.SC8224	CAT 631G SCRAPER	CLR00408
15.SC8225	CAT 631G SCRAPER	CLR00409
15.SC8226	CAT 615C PADDLE PAN SCRAPER	9XG01892
15.SC8227	CAT 631E SCRAPER	1AB01505
15.SC8228	CAT 631E SCRAPER	1NB00914
15.SC8229	CAT 631E SCRAPER	1NB00921
15.SC8230	CAT 631E SCRAPER	1NB00923
17.LD8882	CAT 963C TRACK LOADER W/CLEARING FORK & GRAPPLE	2DS02692
17.LD8883	CAT 963C TRACK LOADER	2DS03065
17.LD8884	CAT 963C TRACK LOADER	BBD01542
17.LD8885	CAT 963C TRACK LOADER	BBD01246
17.LD8886	CAT 963C TRACK LOADER	BBD02401
23.LD6601	VOLVO L150E WHEEL LOADER	L150EV8595
23.LD6604	CAT 980H WHEEL LOADER	JMS02230
23.LD6606	CAT 980M WHEEL LOADER	KRS00378
23.LD6607	2015 CAT 972M LOADER	ABP00615
23.LD6608	CAT 972M WHEEL LOADER	LSJ02029
23.LD6609	CAT 972M WHEEL LOADER	LSJ02036
23.LD7601	KOMATSU WA500-3L WHEEL LOADER	A70528
23.LD7602	966G CAT WHEEL LOADER	3SW00449
23.LD7603	966G CAT WHEEL LOADER	3SW00351
23.LD7604	950G CAT WHEEL LOADER	AXX01427
23.LD7605	966G Caterpillar Wheel Loader	3SW00262
23.LD7606	KOMATSU WA450-5L WHEEL LOADER	A36389
23.LD7609	KOMATSU WA500-1LC WHEEL LOADER	A60062
23.LD7610	CAT IT28G TOOL CARRIER	8CR02774
23.LD8802	CAT IT28B WHEEL LOADER	1HF02343
23.LD8804	CAT IT28F WHEEL LOADER	6FN00335

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Equipment	Description	VINNumber
23.LD8806	CAT IT28G WHEEL LOADER	8CR00162
23.LD8807	CAT IT28G WHEEL LOADER	8CR03543
23.LD8808	CAT IT28G WHEEL LOADER	8CR03791
23.LD8821	CAT IT930G WHEEL LOADER	TWR02306
23.LD8822	CAT IT930G WHEEL LOADER	TWR02434
23.LD8823	2015 CAT 926M WHEEL LOADER	LTE00447
23.LD8824	2018 CAT 930M WHEEL LOADER	KTG03841
23.SK6719	CAT 248B SKID STEER RUBBERTIRE HIGH FLOW - MILLING	SCL01778
23.SK6720	2018 CAT 279D XPS SKID STEER	GTL05584
23.SK6721	2018 CAT 259D SKID STEER	FTL14554
23.SK6722	2018 CAT 259D SKID STEER	FTL17049
23.SK7720	CAT 257 SKID STEER	SLK00397
23.SK7725	KOMATSU SK-815-5N SKID STEER	A30007
23.SK8719	CAT 246B SKID STEER RUBBERTIRE	PAT02742
23.SK8726	CAT 279C SKID STEER TRACK	MBT00924
23.SK8727	JCB 260T SKID STEER	GEO260TVCA1745287
24.BH6501	CASE 580SL BACKHOE RUBBERTIRE	JJG0268381
24.BH6502	CASE 580M RUBBERTIRE HOE *** SOLD*** 5/30/18	JJG0310471
24.BH6503	CASE 580SN BACKHOE	NHC743038
24.BH7501	CAT 416C BACKHOE	SYN06632
24.BH7505	KOMATSU WB-140 BACKHOE	A21567
24.BH7508	CATERPILLAR 430E BACKHOE	SWC00493
24.BH8501	CAT 416C IT RUBBER TIRE BACKHOE	1WR08273
24.BH8503	CAT 416C RUBBER TIRE BACKHOE	SYN06635
24.BH8504	CAT 416C RUBBER TIRE BACKHOE W/HAMMER	SYN06907
24.BH8507	CAT 420D RUBBER TIRE BACKHOE	FDP00350
24.BH8510	CAT 420D RUBBER TIRE BACKHOE	FDP12767
24.BH8511	CAT 420D RUBBER TIRE BACKHOE	FDP15126
24.BH8512	CAT 420D RUBBER TIRE BACKHOE	FDP15127
24.BH8513	CAT 420D RUBBER TIRE BACKHOE	FDP15178
24.BH8514	CAT 420D IT RUBBER TIRE BACKHOE	BLN10759
24.BH8515	CAT 420D IT RUBBER TIRE BACKHOE	BLN10681
24.BH8516	2016 CAT 430F2IT BACKHOE	HWG00362
24.BH8518	2018 CAT 420F2IT BACKHOE	HWD02910
24.FM9013	JOHN DEERE 6430 TRACTOR	L06430H662618
26.RT8610	CAT 773F ROCK TRUCK	EED01074
26.RT8611	CAT 773F ROCK TRUCK	EED01075
26.RT8612	CAT 773F ROCK TRUCK	EED01076
27.AT8610	CAT 730 ARTICULATED DUMP TRK	AGF00786
27.AT8611	CAT 730 ARTICULATED DUMP TRK	AGF00787
27.AT8612	CAT 730 ARTICULATED DUMP TRK	AGF00788
27.AT8613	CAT 730 ARTICULATED DUMP TRK	AGF00814
27.AT8614	CAT 730 ARTICULATED DUMP TRK	AGF00815
27.AT8615	CAT 730 ARTICULATED DUMP TRK	AGF00661
27.AT8616	CAT 730 ARTICULATED EJECTOR	B1W00162

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Equipment	Description	VINNumber
27.AT8617	CAT 730 ARTICULATED EJECTOR	B1W00163
27.AT8618	CAT 730 ARTICULATED EJECTOR	B1W00177
27.AT8619	CAT 730 ARTICULATED EJECTOR	B1W00234
27.AT8620	CAT 730 ARTICULATED EJECTOR	B1W00235
27.AT8647	CAT 740 ARTICULATED EJECTOR	B1R00318
27.AT8648	CAT 740 ARTICULATED EJECTOR	B1R00389
27.AT8649	CAT 745-04A ARTICULATED TRUCK	3T600820
27.AT8650	CAT 745-04A ARTICULATED TRUCK	3T600821
27.AT8651	CAT 745-04A ARTICULATED TRUCK	3T600830
27.AT8652	CAT 745-04A ARTICULATED TRUCK	3T600831
29.HR8403	NPK HYD HOE RAM HAMMER	33327
29.HR8405	NPK HYD HOE RAM HAMMER 16X	34447 (REBUILT 2/26/20)
29.HR8407	NPK HYD HOE RAM HAMMER 2X	AXC16152
29.HR8410	NPK E220 HYD HOE RAM HAMMER 8,000 LB.	76117 (REBUILT 1/31/20)
29.HR8411	NPK E220 HYD HOE RAM HAMMER 8,000 LB.	75240 (REBUILT 1/15/20)
29.HR8413	NPK E207 1500LB HYD HAMMER	85699
29.HR8414	2014 NPK GH-18 HAMMER 12,000 LB.	109112 (REBUILT 1/4/19)
29.HR8415	TRX HB750 HYDRAULIC SKID STEER HAMMER	
29.HR8416	PALADIN SFB500 SKIDSTEER HAMMER ATTACHMENT	18D855
30.FL6630	ATHEY 7-12 FORCE FEED LOADER	740-180
30.GR6421	LEEBOY 685 MOTOR GRADER	360
30.GR6422	CAT 12G MOTOR GRADER	61M14998
30.GR6423	CAT 12H MOTOR GRADER W/GPS	AMZ00644
30.GR6424	CAT 12H MOTOR GRADER	AMZ00944
30.GR7420	CAT 12H MOTOR GRADER	AMZ00954
30.GR7421	CAT 12H MOTOR GRADER	4XM01808
30.GR7422	CAT 12H MOTOR GRADER	AMZ00303
30.GR7424	CAT 12G MOTOR GRADER	61M15340
30.GR7425	CAT 12G MOTOR GRADER	61M08946
30.GR8420	CAT 16G MOTOR GRADER	93U03480
30.GR8421	CAT 14H MOTOR GRADER W/SONICMASTER	7WJ00060
30.GR8422	FIAT FG65C MOTOR GRADER	85S05140
30.GR8423	CAT 14H MOTOR GRADER W/SONICMASTER	7WJ00498
30.GR8424	CAT 14H MOTOR GRADER W/SONICMASTER	7WJ01285
30.GR8425	CAT 14H MOTOR GRADER W/GPS	7WJ01968
30.GR8426	CAT 14H MOTOR GRADER W/GPS	ASE01090
30.GR8427	CAT 14H MOTOR GRADER W/GPS	ASE01497
31.EX7521	KOMATSU PC150LC-6K EXCAVATOR	K32346
31.EX7525	CAT 312CL EXCAVATOR	CBA03860
31.EX7526	KOMATSU PC400LC-6LK EXCAVATOR	A85044
31.EX8520	CAT 325BL EXCAVATOR HOE RAM W/HAMMER	2JR01626
31.EX8521	KOMATSU PC290LC-11 EXCAVATOR W/ GPS	A27081
31.EX8525	CAT 345B LME EXCAVATOR	AGS00832
31.EX8526	CAT 325CL EXCAVATOR W/THUMB & HAMMER	BFE00180
31.EX8528	(ON HILL DOWN) CAT 325CL EXCAVATOR W/ THUMB ATTACHMENT	BFE00651

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Equipment	Description	VINNumber
31.EX8529	CAT 325CL EXCAVATOR HOE RAM W/HAMMER	BFE00853
31.EX8530	CAT 325CL EXCAVATOR W/HAMMER	CRB00791
31.EX8531	CAT 345BL ME II EXCAVATOR	AGS02329
31.EX8532	CAT 325CL EXCAVATOR HOE RAM W/HAMMER	CRB00976
31.EX8533	CAT 325CL EXCAVATOR W/ MULCHING ATTACH.	CRB00987
31.EX8534	CAT 325CL EXCAVATOR	BFE01641
31.EX8535	CAT 330CL EXCAVATOR	DKY03554
31.EX8536	CAT 330CL EXCAVATOR	KDD01057
31.EX8537	CAT 312CL EXCAVATOR W/HAMMER	CBA02416
31.EX8538	CAT 330DL EXCAVATOR	MWP01039
31.EX8539	CAT 325DL EXCAVATOR	PAL00335
31.EX8540	CAT 325DL EXCAVATOR	PAL00401
31.EX8541	CAT 345C EXCAVATOR W/ HAMMER	PJW01928
31.EX8542	CAT 325DL EXCAVATOR	0A3R01072
31.EX8543	CAT 325DL EXCAVATOR	0A3R01064
31.EX8544	CAT 312CL EXCAVATOR	CBA04501
31.EX8545	KOMATSU PC800LC-8 EXCAVATOR	55225
31.EX8546	CAT 336EL EXCAVATOR W/ GPS	FJH00262
31.EX8548	2018 KOMATSU PC360LC-11 EXCAVATOR	A36672
31.EX8549	CAT 336J EXCAVATOR W/ GPS	DKS00227
34.AB8813	PRO-TEC 2200-SE ARROW BOARD	256AB03
34.MM7283	MESSAGE BOARD	6489
34.MM7284	ADDCO MESSAGE BOARD	585454
34.MM8283	VER-MAC MESSAGE BOARD	2S9US4125ES132607
34.MM8284	VER-MAC MESSAGE BOARD	2S9US4128ES132617
34.MM8285	VER-MAC MESSAGE BOARD	2SPUS412XES132618
34.MM8286	VER-MAC MESSAGE BOARD	2S9US4121ES132619
34.MM8287	ADDCO DH 1000 MESSAGE BOARD	589286
34.MM8288	ADDCO 1000 ALS MESSAGE BOARD	585610
34.MM8289	ADDCO DH 1000 MESSAGE BOARD	587806
34.MM8290	ADDCO 1000 ALS MESSAGE BOARD	590835
34.MM8291	ADDCO DH 1000 ALS MESSAGE BOARD	585608
34.MM8292	ADDCO DH 1000 MESSAGE BOARD	587897
34.MM8293	MESSAGE BOARD	
34.MM8294	ADDCO DH 1000 ALS MESSAGE BOARD	589285
34.MM8295	ADDCO DH 1000 ALS MESSAGE BOARD	585590
34.MM8296	VER-MAC 3 LINE MESSAGE BOARD	2S9US4123DS132039
34.MM8297	VER-MAC 3 LINE MESSAGE BOARD	2S9US4123DS132040
34.MM8298	VER-MAC 3 LINE MESSAGE BOARD	2S9US4123DS132041
34.MM8299	VER-MAC 3 LINE MESSAGE BOARD	2S9US4123DS132042
34.MM8300	VER-MAC 3 LINE MESSAGE BOARD	2S9US412XJS132631
34.MM8301	ALLMAND ARROW BOARD	9904B416
34.MM8302	ALLMAND ARROW BOARD	256AB03
34.MM8303	ALLMAND ECLIPSE ARROW BOARD	9904B470
34.MM8304	PROTECT O FLASH ARROW BOARD	1093406

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Equipment	Description	VINNumber
34.MM8306	ALLMAND ARROW BOARD	0298AB02
34.MM8307	ALLMAND ARROW BOARD	9007B4119
34.MM8308	PROTECT O FLASH ARROW BOARD	A93-15-001611
34.MM8309	WANCO ARROW BOARD	5F11S1014E1004484
34.MM8310	WANCO ARROW BOARD	5F11S1012E1004485
34.MM8311	WANCO WTSP MESSAGE BOARD	5F11S1011G1006289
34.MM8312	WANCO WTSP MESSAGE BOARD	5F11S101XG1006288
34.MM8313	WANCO ARROW BOARD	5F11S1012H1005556
34.MM8314	WANCO ARROW BOARD	5F11S1014H1005557
34.MM8315	WANCO ARROW BOARD	5F11S1016H1005558
34.MM8316	WANCO ARROW BOARD	5F11S1010H1005555
34.MM8317	ADDCO FLAGGER LIGHTS	1J9PF0815JD405005 / S3004
34.MM8318	ADDCO FLAGGER LIGHTS	1J9PF0817JD405006 / S3005
41.PC7044	MAXIGRIND 460	5091416
41.PC7045	CMI MAXIGRIND 460	2868
41.PC7046	NORDBERG JAW CRUSHER	P3040VF-M-535 1259-R
41.PC8041	EXTEC IMPACT CRUSHER	9983
43.PC7042	PEP PORTABLE SCREENING PLANT	001688
43.PC7043	READ SCREEN-ALL MODEL CV-150-D	00671
43.PC8042	EXTEC S5 SCREEN PLANT	10163
46.ZZ0102	H&B 4,000 LB PLANT 12	
46.ZZ0103	BARBER GREEN 10,000LB PLANT 13	
46.ZZ0104	BARBER GREEN 12,000LB PLANT 14	
46.ZZ0105	BARBER GREEN 10,000LB PLANT 15	
46.ZZ0106	ASTEC DOUBLE BARREL PLANT 16	
46.ZZ0112	HEATEC TAV-25E 25,000 GAL AC TANK	
46.ZZ0113	GEN-TEC 15,000 GA AC TANK	3641
46.ZZ0114	ADM RAP BIN AND FEEDER	
46.ZZ0116	ASTEC RAP CRUSHING/FEEDER SYSTEM	
46.ZZ0119	HEATEC HC-120 HELICAL COIL HEATER	H98-213
46.ZZ0120	GENTEC AGGREGATE FEED SYSTEM	C3A11119
46.ZZ0122	HERMAN GREANT DC-70 DRYER & ACCY	0010445-0096924-IN
46.ZZ0123	ASTEC SILO & DRAG CONVEYOR	89-139
46.ZZ0124	PMI HIS CRUSHER-TYCO SCREEN	3242/50-3775
46.ZZ0125	RELIABLE COLD FEED BINS (5)	1205-12162002
46.ZZ0126	ASTEC SBH-71-17 STATIONARY BAGHOUSE	03JR0029.1
46.ZZ0127	BENSHAW MOTOR CONTROL CENTER	16136-3323
46.ZZ0128	MARKLINE BATCH HOUSE MODEL 1428	31331
46.ZZ0130	GENTEC ACCU-BATCH	21239
46.ZZ0131	GENTEC ACCU-BATCH	21239
46.ZZ0132	GENTEC ACCU-LOAD	21239
46.ZZ0133	BURNER TANK & FUEL PUMP	
46.ZZ0134	OIL-HEATER EXCHANGER	
46.ZZ0135	HAUCK STAR JET 520-E	
46.ZZ0136	ASTEC INNER/OUTER SHELL DRUM	

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Equipment	Description	VINNumber
46.ZZ0138	TURBO RAP GATOR	
46.ZZ0139	GEAR BOX DRUM	
46.ZZ0140	PM2 BLENDING SYSTEM ASTEC	
46.ZZ0145	ASTEC PORTABLE DOUBLE BARREL 07-003 PLANT 17/15	
46.ZZ0146	WINSLOW TRUCK SCALE	84-11070-11
46.ZZ0147	STAR JET BURNER SJ4580F	
46.ZZ0148	STAR JET BURNER SJ4580F	
46.ZZ0149	COLD FEED SYSTEM	
46.ZZ0150	SCREEN DEISTER USM-2414	
46.ZZ0151	ASTEC 200 TON SILO & TRAVERSE	
46.ZZ0152	ASTEC INERTIAL SEPARATOR AND TRANSITIONS	
46.ZZ0160	EXHAUST FAN ASSEMBLY 44"	
50.TK6216	FORD F650 FLAT BED/STEAM TRUCK	3FRWF6FC2BV369128
50.TK6217	2019 FORD F650 FLATBED TRUCK	1FDNF6DE0KDF02687
50.TK6218	2014 FREIGHTLINER M2-106 FLATBED	3ALACWDT2EDFJ3677
50.TK6230	2015 INTERNATIONAL 4300 FLATBED- TRAFFIC CONTROL	3HAMMMML4FL039795
50.TK6231	2015 INTERNATIONAL 4300 FLATBED- TRAFFIC CONTROL	1HTMMML4FH554317
50.TK6353	FORD F700 CREW SUPPLY TRUCK	1FDXK74C6PVA30943
51.TK6361	FORD L8000 SINGLE AXLE DUMP TRUCK	1FTXR82E1TVA03542
51.TK8363	FORD F800 DUMP TRUCK SINGLE AXLE	3FEXF8018XMA07975
51.TK8365	MACK RD688S DUMP TRUCK	1M2P324C3XM045132
52.TK6202	MACK CHN613 LOWBOY	1M1AJ07YX6N004761
52.TK6203	2013 PETERBILT 389 TRACTOR	1XPXD40X4DD182418
52.TK7351	2002 PETERBILT 379	1XP5PBEX52D585722
52.TK7353	1999 WESTERN STAR 4964EX	2WKEDDCJ3XK958209
52.TK7354	2000 PETERBILT 379	1XP5DBOX5YN512790
52.TK7355	2005 RED PETERBILT 379	1XP5DBOX25N862132
52.TK7357	2003 PETERBILT 379- RED	1XP5DB9X93D588465
52.TK7358	2006 PETERBILT 379	1XP5DBOX66N632515
52.TK7370	MACK R688ST (HOOKED TO MAXI GRIND)	1L2N187Y9EA004591
52.TK7371	1989 FORD L-9000	1FTYR90L4KVA18854
52.TK8351	FORD LT9000 FUEL TRUCK	1FDZA90X9JVA27851
52.TK8352	FORD LT9000 TRACTOR	1FDZA90X9SVA72712
52.TK8354	KENWORTH W900L TRACTOR	1XKWPBEX66J160415
52.TK8356	2005 STERLING L8500 W/ NATIONAL 680E 20 TON CRANE	2FZHAWDC35AN93228
52.TK8357	2018 KENWORTH W900	1XKWP4TX1JJ187092
52.TK8358	2013 MACK GU533 ROLLBACK TRUCK	1M2AX33CXDM010102
52.TK8359	2019 PETERBILT 389 LOWBOY TRUCK	1XPXP4EXXKD613891
52.TK8360	2016 PETERBILT 389 TRACTOR	2XPXD49X5GM336328
53.TK6303	MACK CH613 WATER TRUCK	1M2AA12Y0MW011685
53.TK6304	KENWORTH T800 WATER TRUCK	1XKDOB9X6VR752312
53.TK7302	2000 KENWORTH T800 (HOOKED TO MAXIGRIND)	1XKDDU9X0YJ847236
53.TK7313	'90 MACK WATER TRUCK	1M2AY09C3LM005129
53.TK7314	1975 MACK RS6	RS686LST25615
53.TK7315	1994 MACK WATER TRUCK	1M2AY83Y9LM005185

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Equipment	Description	VINNumber
53.TK8305	FORD L9000 WATER TRUCK (4000 GA)	1FTYS95B4SVA30457
53.TK8306	FORD TANDEM AXLE WATER TRUCK	1FDZS86F3WVA12985
53.TK8307	STERLING LT7500 WATER TRUCK	2FZNAJBB1XAF47144
53.TK8308	FREIGHTLINER FL80 WATER TRUCK	1FVHBXAK01HG68929
53.TK8309	INTERNATIONAL 9100 WATER TRUCK	2HSCBAHR5YC071884
54.TK6341	INTERNATIONAL 4700 DISTRIBUTOR TRUCK	1HTSCABN1YH287394
54.TK6342	FORD F750 DISTRIBUTOR TRUCK	3FRXF76P55V163576
54.TK6345	FORD F750 DISTRIBUTOR TRUCK	3FRXF75H37V396899
54.TK7342	2000 ETNYRE S2000 DISTRIBUTOR (INTERNATIONAL)	1HTSCABNXYH311031
54.TK7343	2004 ETNYRE DISTRIBUTOR TRUCK (STERLING)	2FZAASAK04AM42156
54.TK7344	INTERNATIONAL ASPHALT DISTRIBUTOR TRUCK	1HTZZAAN69J085319
54.TK7345	1999 ETNYRE DISTRIBUTOR TRUCK (STERLING)	2FZHLJAA6XAA12200
54.TK7346	2002 FORD F650 DISTRIBUTOR	3FDWF65J82MA12390
54.TK7347	2004 FORD F650 SERVICE TRUCK	3FRWF65G54V610641
54.TK7348	2003 INTERNATIONAL 4300	1HTMMAAL93H554666
55.TK6320	FREIGHTLINER FL70 GREASE/FUEL	1FV6HFAA5PL416328
55.TK6321	****SOLD****FREIGHTLINER FL70 GREASE/FUEL	1FV6HLBA3XHF33358
55.TK6322	INTERNATIONAL 4300 GREASE TRUCK	1HTMMAAL64H617546
55.TK6323	FORD F-750 FUEL/GREASE TRUCK	3FRXF75T15V136728
55.TK6324	2020 KENWORTH T370 GREASE / FUEL TRUCK	2NKHHM7X0LM393610
55.TK6325	2020 KENWORTH T370 GREASE / FUEL TRUCK	2NKHHM7X3LM393617
55.TK6351	****SOLD****MACK SUPPLY TRUCK	VG6BA03B0KB051844
55.TK6354	2012 FREIGHTLINER M2-106 SUPPLY TRUCK	1FVACXDT6CDBM3323
55.TK7320	1999 MACK CL713 FUEL/GREASE TRUCK	1M2AD09C3XW007887
55.TK7321	1991 MACK RD890SX	1M2P274C7MM001114
55.TK7323	1981 MACK DMC886SX	1M2C114C7BA001045
55.TK7326	2000 MACK RD600GK-WATER TRUCK	1M3P114K5YM002187
55.TK7328	2000 MACK MS300P FUEL TRUCK	VG6M118B6YB303757
55.TK8321	FREIGHTLINER FL70 FUEL TRUCK (2000 GA)	1FV6HFAA7PL496554
55.TK8322	FORD L9000 FUEL/GREASE TRUCK	1FDYR90TXRVA16547
55.TK8323	FORD L9000 FUEL TRUCK (2000 GA)	1FDYR90LORVA42400
55.TK8324	FORD F800 FUEL TRUCK	3FEXF8011XMA12919
55.TK8325	FORD F800 GREASE/FUEL TRUCK	3FEXF8018XMA12920
55.TK8326	****SOLD****FREIGHTLINER FL70 FUEL/GREASE TRUCK	1FV6HLBA3YHF33457
60.SB6020	2019 WEILER E2850B SHUTTLE BUGGY	E2850B-1636
60.SB7020	ROADTEC SB2500D SHUTTLE BUGGY	SB2500D-1080
60.SB7021	ROADTEC SB2500B SHUTTLE BUGGY	SB2500BX555
60.SB9020	ROADTEC SB2500 SHUTTLE BUGGY	SB2500BX549
60.SB9021	ROADTEC SB2500C SHUTTLE BUGGY	SB2500BX821
61.RW6430	BLAW KNOX RW100 ROADWIDENER	10013-09
61.RW7200	ETNYRE CHIP SPREADER	K4561
61.RW7430	BLAWKNOX RW100 ROAD WIDENER	RW100-0956-017
61.RW7431	BLAWKNOX RW100 ROAD WIDENER	10019-1
61.RW7432	BLAWKNOX RW195D ROAD WIDENER	RW195D176691
61.RW7433	BLAWKNOX RW100 ROAD WIDENER	10028-14

ATTACHMENT " A "

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Equipment	Description	VINNumber
88.MM8281	EZ DRILL	S2994
88.MM8282	MILLING HEAD SKID STEER ATTACHMENT	RBG 00208
88.MM8283	CAT PC306B MILLING HEAD	PCT01736
88.MM8284	VERMEER V-450 TRENCHER PORTABLE	16647
88.MM8285	VERMEER 1250 WOOD CHIPPER	
88.MM8286	INGERSOLL RAND PLATE COMPACTOR	TG1582
88.MM8288	MULTIQUIP SKID PLATE	Y3235
88.MM8289	MUSTANG PLATE COMPACTOR	T0560016110020790
88.MM8290	MUSTANG PLATE COMPACTOR	T0560016110020818
88.MM8291	MUSTANG PLATE COMPACTOR	T0560016110020802
88.MM8292	MUSTANG PLATE COMPACTOR	T0560016110020860
88.MM8293	WACKER PLATE COMPACTOR	6712483
88.MM8294	MULTIQUIP PLATE COMPACTOR	D-4072
88.MM8295	MULTIQUIP PLATE COMPACTOR	B-1132
88.MM8296	BOMAG BT65 JUMPING JACK (WILSON STOCK # JJS198)	101541315198
88.MM8297	2015 BOMAG BOMAG BT65 JUMPING JACK	101541315197
88.MM8298	WACKER PDT3A "MUD PUMP" WATER PUMP	24523336
88.MM8300	HUSQVARNA FLOOR SAW	001301389002
88.MM8301	HUSQVARNA FLOOR SAW	001300986001
88.MM8302	HUSQVARNA GX4200 SOFF CUT SAW	002010900001
88.MM8313	TOPCON PIPE LASER	VF1096
88.MM8314	TOPCON PIPE LASER	VF1242
88.MM8315	TYPE 150	33866
88.MM8316	LASER LB-10	4900-9592
88.MM8317	SPECTRA TRIMBLE PRECISION	53031
88.MM8318	TRIMBLE SPECTRA PRECISION PIPE LASER	22612
88.MM8319	TRIMBLE PRECISION PIPE LASER	24331
88.MM8320	TRIMBLE DG711 PIPE LASER	26257
88.MM8321	SPECTRA DG711 PIPE LASER	31992
88.MM8322	SPECTRA PRECISION PIPE LASER	32473
88.MM8323	SPECTRA ROTATING LASER	
88.MM8324	SPECTRA ROTATING LASER	
88.MM8325	TOPCON TP-L5 GREEN BEAM PIPE LASER	RW0957
88.MM8326	SPECTRA LL300S ROTATING LASER LEVEL	18201858
88.MM8336	KENCO BARRIER WALL TONGS	SF05051707-A-9
88.MM8337	KENCO BARRIER WALL TONGS	SF19121712A9
88.MM8338	KENCO 32" PIPE TONGS	SF11091917
88.MM8339	KENCO BARRIER WALL TONG	SF59120617
88.MM8340	KENCO BARRIER WALL TONG	SF60121317
88.MM8341	TRIMBLE M5750	
88.MM8342	TRIMBLE M5750	
88.MM8343	GPS M5750 CONTROLLER	
88.MM8344	TRIMBLE SITE TABLET	TR-SPS930152200
88.MM8357	GPS TSC2 CONTROLLER	
88.MM8359	GPS CONTROLLER SSC25A6665 (SS25A17794 SC11.32)	

ATTACHMENT " A "

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Equipment	Description	VINNumber
88.MM8360	TSURUMI 3" SUBMERSIBLE WATER PUMP	47562991118
88.MM8361	YAMAHA EF2600 GENERATOR	7C2-0204232
88.MM8362	STIHL TS420 CONCRETE SAW	42383510501
88.MM8433	TOPCAN BLAWKNOX PAVER ELECTRONICS	
88.MM8434	TOPCON 5500V SYST V2 TRACKER	10320570/13020563
88.MM8435	BERGER TRANSIT LEVEL	300OP-0214
88.MM8464	TRIMBLE SITEVISION	
88.MM8469	CAT PC305B MILLING HEAD	HFP00858
88.MM8470	CAT PC305B MILLING HEAD	HFP00861
88.MM8471	BROOM SKID STEER ATTACHMENT	139257
88.MM8472	BROOM SKID STEER ATTACHMENT	AZN02792
88.MM8473	BROOM SKID STEER ATTACHMENT	DBP00675
88.MM8474	BROOM SKID STEER ATTACHMENT	AZN01627
88.MM8475	BROOM SKID STEER ATTACHMENT	ACE00828
88.MM8481	TRENCHER SKID STEER ATTACHMENT	JAJ 9154
88.MM8482	TRENCHER SKID STEER ATTACHMENT	JAJ 00801
88.MM8483	TRENCHER SKID STEER ATTACHMENT	JAJ 1449
88.MM8484	TRENCHER SKID STEER ATTACHMENT	JAJ02089
88.MM8486	BRUSH SKID STEER ATTACHMENT	PRSS2G000268
88.MM8487	BLADE SKID STEER ATTACHMENT	PRSSDB001400
88.MM8488	ROCK SKID STEER ATTACHMENT	ADP00595
88.MM8489	ROCK LOFTNESS SKID STEER ATTACHMENT	64-5-89
88.MM8490	LODGERING SKID STEER ATTACHMENT	901B
88.MM8491	FORK SKID STEER ATTACHMENT	RCW 19399
88.MM8493	BURCHLAND MATERIAL ROLLER (SKID STEER ATTACHMENT)	0707029
88.MM8495	DAVID WHITE TRANSIT LEVEL	B159747
88.MM8496	DAVID WHITE TRANSIT LEVEL	18656
88.MM8497	DAVID WHITE TRANSIT LEVEL	A 502121
88.MM8498	DAVID WHITE TRANSIT LEVEL	A57863
88.MM8499	DAVID WHITE TRANSIT LEVEL	0804
88.MM8500	DAVID WHITE TRANSIT	816043
88.MM8501	DAVID WHITE LT8-30LP TRANSIT	814017
88.MM8502	SPECTRA AL24M AUTO LEVEL	886782
88.MM8511	CLEMCO ABRASIVE BLAST MACHINE	19480
88.MM8514	IR BALLOON LIGHT	123391-UB62
88.MM8515	IR BALLOON LIGHTS	129213UB62
88.MM8516	IR BALLOON LIGHT	123387
88.MM8517	AIR STAR BALLOON LIGHT	0C808562
88.MM8518	IR BALLOON LIGHT	129197-UB62
88.MM8519	Hydra Power Core Drill Mounted on Home Made Traller	1269760
88.MM8530	IT28 FORKS 72"	CL0605
88.MM8531	IT 28 LOADER FORKS	
88.MM8532	IT 28 LOADER FORKS	C00383
88.MM8533	IT 28 LOADER FORKS	76021-1
88.MM8534	IT 28 LOADER FORKS	77142-01

ATTACHMENT " A "

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Equipment	Description	VINNumber
88.MM8535	IT FORKS	RCW 12391
88.MM8536	IT FORKS	RCW14475
88.MM8546	LANDPRIDE DRAG BOX	1043661
88.MM8547	REYNOLDS LS14 DRAG BOX	35632
88.MM8548	Cut Quick 14" Stihl (Quick Saw)	173773530
88.MM8549	Cut Quick 14" Stihl (Quick Saw)	173773516
88.MM8550	Cut Quick 14" Stihl (Quick Saw)	173773536
88.MM8551	CUTQUIK 14" STIHL SAW TS420	176153539
88.MM8552	STIHL 14" CUTQUIK SAW	177781700
88.MM8553	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H053963
88.MM8554	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H010731
88.MM8555	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H010708
88.MM8556	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H053960
88.MM8557	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H010600
88.MM8558	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H024769
88.MM8559	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H053945
88.MM8560	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H054002
88.MM8561	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H024871
88.MM8562	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H024639
88.MM8563	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H0246736
88.MM8564	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H054003
88.MM8565	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H023996
88.MM8566	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H015842
88.MM8567	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H015840
88.MM8568	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H083356
88.MM8569	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H081251
88.MM8570	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H015849
88.MM8571	MASTER 75K BTU DIESEL FORCED AIR HEATER	14H080723
88.MM8572	MASTER 75K BTU DIESEL FORCED AIR HEATER	160502669
88.MM8573	MASTER 75K BTU DIESEL FORCED AIR HEATER	160701585
88.MM8574	MASTER 75K BTU DIESEL FORCED AIR HEATER	160700198
88.MM8575	MASTER 75K BTU DIESEL FORCED AIR HEATER	160701687
88.MM8576	MASTER 75K BTU DIESEL FORCED AIR HEATER	160701539
88.MM8577	MR. HEATER MH18B PROPANE RADIANT HEATER	EC-74870-16006739
88.MM8578	MR. HEATER MH18B PROPANE RADIANT HEATER	EC-74870-16016333
88.MM8579	MR. HEATER MH18B PROPANE RADIANT HEATER	EC-74815-16004928
88.MM8580	MR. HEATER MH18B PROPANE RADIANT HEATER	EC-74815-16008862
88.MM8581	DEWALT 190,000 BTU DIESEL TORPEDO HEATER	15001075
88.MM8582	DEWALT 190,000 BTU DIESEL TORPEDO HEATER	15003224
88.MM8583	DEWALT 190,000 BTU DIESEL TORPEDO HEATER	15002433
88.MM8584	DEWALT KEROSENE HEATER	17002448
88.MM8585	DEWALT KEROSENE HEATER	17001777
88.MM8586	DEWALT HEATER	15003344
88.MM8587	STIHL 14" QUICKIE CONCRETE SAW	185161026
88.MM8588	WACKER PT2A 2" TRASH WATER PUMP	24443790

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
88.MM8589	WACKER PT3A 3" TRASH PUMP	24441565
88.MM8590	TSURUMI 2" SUBMERSIBLE PUMP W/ FLOAT- ELECTRIC	18593089633
88.MM8591	WACKER 3" WATER PUMP	24441565
88.MM8592	TITAN GAS POWERED POST DRIVER	
88.MM8593	MULTIQUIP MVH128GH REVERSIBLE PLATE COMPACTOR	E1151
88.MM8600	MANHOLE VENTILATOR & RETRACTABLE LIFELINE	LINE/GFP156859---BLOWER/278283
88.MM8601	KENCO BARRIER WALL TONG 30,000LB CAPACITY	SF11041819
88.MM8602	KENCO BARRIER WALL TONG 30,000LB CAPACITY	5188101909
88.MM8610	WATER METER	34047661
88.PB7901	MCPHERSON M40F PIT BURNER-2003	0503430
88.PB8901	PIT BURNER	
88.PL8925	TOPCON TPL4GV	VF0442
88.PL8926	TOPCON TP-L5 GREEN BEAM PIPE LASER	RU0911
88.PL8930	TOPCON PIPE LASER TPL4GV	VF1251
88.PL8931	TOPCON TP-L4GC PIPE LASER	VF1704
88.PL8936	AGTEC GRADE LASER	0532
88.RL8103	RAMMAX P33HMR ROLLER	330887
88.RL8148	WACKER TRENCH ROLLER	5645229
88.SB7901	FINN B260TD STRAW BLOWER-1999	2755RB
88.SB8901	FINN B70 BALE STRAW BLOWER	SD2933
88.SE6001	5300 BTU PRESSURE WASHER	03070177
88.SE6104	DIAMON CORE SAW MOUNTED ON TK	1301248
88.SE6930	TRIMBLE GPS MACHINE	3417J011SM
88.SE6931	TRIMBLE TSC7 GPS	DAD181101018
88.TB8601	KUNDEL 8' X 10' MAN HOLE TRENCH BOX	6528
88.TB8602	KUNDEL 8'X10' MAN HOLE TRENCH BOX	12666
88.TB8603	KUNDEL 8' X 10' TRENCH BOX	15823
88.TB8604	KUNDEL 7' TRENCH SHORING SYSTEM	N/A
88.TB8605	GME 4L88 8' X 8' TRENCH BOX	M01061151-2
88.TB8606	GME 8M824 8' X 24' TRENCH BOX	T0103551-2
88.TB8607	GME 8M824 8' X 24' TRENCH BOX	T0103552-2
88.TB8608	GME 8M824 8' X 24' TRENCH BOX	T0103549-2
88.TB8609	GME 8M824 8' X 24' TRENCH BOX	T0103550-2
88.TB8610	GME 8M824 8' X 24' TRENCH BOX	T0103553-2
88.TB8611	GME 8M824 8' X 24' TRENCH BOX	T0103554-2
88.TB8612	GME 8M824 4' X 24' TRENCH BOX EXTENSION	T0103555-2-1
88.TB8613	GME 8M824 4' X 24' TRENCH BOX EXTENSION	T0103555-2
88.TB8614	6' X 16' TRENCH BOX	N/A
88.TB8615	6' X 16' TRENCH BOX	N/A
88.TB8616	8' X 16' TRENCH BOX	N/A
88.TB8617	8' X 16' TRENCH BOX	21867
88.TB8620	4' X 20' TRENCH BOX	21137
88.TB8621	10' X 12' TRENCH BOX	18697
88.TB8622	10' X 12' TRENCH BOX	21631
88.TB8623	8' X 20' TRENCH BOX	19475

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
88.TR8850	MOBILE OFFICE TRAILER	98-321
88.TR8851	MOBILE OFFICE TRAILER	153711
88.TR8856	STORAGE CONTAINER / OFFICE	GWCU256591
88.TR8861	8 X 10 STORAGE CONTAINER	
88.TR8863	STORAGE CONTAINER	ACLU2118408
88.TR8866	8 X 10 STORAGE CONTAINER	WSDU4013650
88.TR8867	8 X 10 STORAGE CONTAINER	
88.TR8868	STORAGE CONTAINER	PWC1727-1888
88.TR8871	STORAGE CONTAINER (LONDON SHOP)	
88.TR8872	STORAGE CONTAINER (LONDON SHOP)	
88.TR8873	40' STORAGE POD	
88.TR8874	STORAGE CONTAINER	DS10RZS1009
88.TR8875	STORAGE CONTAINER	KKTU-768131
88.TR8876	STORAGE CONTAINER	KKTU-713500
88.TR8877	STORAGE CONTAINER	PW47296
88.TR8878	STORAGE CONTAINER	PWD2041
88.TR8879	STORAGE CONTAINER	PW200470
88.TR8880	STORAGE CONTAINER	PW26215
88.TR8881	STORAGE CONTAINER	MAEU2307821
88.TR8882	8' X 20' STORAGE POD	UGMU8612384
88.TR8883	8' X 20' STORAGE POD	UGMU8590515
88.TR8884	8' X 10' STORAGE CONTAINER	ANYU110213
88.TR8885	8' X 10' STORAGE CONTAINER	ANYU110214
88.TR8886	8' X 10' STORAGE CONTAINER	
88.TR8887	8 X 16 STROAGE POD	UGMU8590515
88.WB8960	CONCRETE FLOOR SAW	
88.WP7919	(ON HILL DOWN) GR 16C2-F4L912 WATER PUMP	1156063
88.WP8919	THOMPSON 6V 880 WATER PUMP 6"	4045D
88.WP8928	GORMAN RUPP 6" WATER PUMP	1424063
88.WT6303	WATER TANK FOR TRUCK	
88.WT6304	WATER TANK FOR TRUCK 4000 GA	
88.WT6305	WATER TANK FOR TK8305	T422
88.WT6306	WATER TANK 3500 GAL	
88.WT6307	WATER TANK 3500 GAL	
88.WT6308	WATER TANK 3500 GAL	
88.WT6309	WATER TANK 3500 GAL	
88.WT8720	WASTE OIL TANK 1000 GAL	
90.FT8700	FUEL TANK OFF ROAD	
90.FT8704	FUEL TANK OFF ROAD DIESEL	
90.FT8705	FUEL TANK OFF ROAD	
90.FT8708	FUEL TANK OFF ROAD DIESEL	
90.FT8709	FUEL TANK ON ROAD DIESEL	
90.FT8710	FUEL TANK GASOLINE	
90.FT8711	PITTSBURG FUEL TANK OFF ROAD DIESEL	TANK# 1 VERTICAL
90.FT8712	JASPER FUEL TANK OFF ROAD DIESEL	12,00 GAL. TANK

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
90.GB1001	PETRO TOWERY GASBOY FUEL SYSTEM	GASBOY
91.BLDG1	OLD FRANKFORT PIKE BLDG - LAB	
91.BLDG2	2051 ENTERPRISE CIRCLE - SHOP	
91.BLDG3	BUILDING IMPROVEMENTS - LAB	
91.BLDG4	2016 SOUTHER SHOP CAPITALIZATION	
91.BLDG5	SOUTHERN SHOP ROOF/CONC SLAB	
91.BLDG6	JASPER BUILDING 1	
91.BLDG7	JASPER BUILDING 2	
91.BLDG8	JASPER BUILDING 3	
91.ZZ0129	MARK LINE MODEL 1265	
91.ZZ0137	NCAT ASPHALT FURNACE	
98.CMP1	COMPUTER SOFTWARE	
98.CMP2	COMPUTER EQUIPMENT	
98.IMP01	LAB IMPROVEMENTS	
98.OE1	OFFICE EQUIPMENT-COMPUTERS	
98.OE10	4 DELL OPTIPLEX 330 COMPUTERS	
98.OE11	COMPUTER	
98.OE12	COMPUTER	
98.OE13	COMPUTER	
98.OE14	COMPUTER	
98.OE15	COPIER- ENGINEERING ROOM	
98.OE17	2017 CANNON COPIER - ENGINEERING ROOM	
98.OE2	HEAVY BID ADVANCED-SOFTWARE	
98.OE3	DELL PRECISION M6300	
98.OE4	LAPTOP COMPUTERS	
98.OE5	COMPUTER	
98.OE6	3D SOFTWARE	
98.OE7	COPIER	
98.OE8	COMPUTERS	
98.OE9	COMPUTER	
98.OF1	CONF. TABLE, SOFA, CHAIRS	
98.OF2	DRAFTING TABLE, CABINET	
98.OF3	OFFICE FURNITURE	
99.ATS	Shop Rebuilds	
99.LT6095	2013 CHEVROLET SILVERADO - SHON HAMPTON	1GCRKTE74DZ186233
99.MM9100	CAT 725KW Generator-Williamsburg Plant	3H3C302567T366581
99.PV1054	HAROLD BARGO TAHOE	
99.PV1124	HAROLD R. LINDON III #4234	PERSONAL VEHICLE
99.PV3575	LARRY T. YOUNG #10518	PERSONAL VEHICLE
99.PV3932	TERRY W. CURTIS #11335	PERSONAL VEHICLE 1C6RD7FP1CS29824
99.PV3977	TERRY L. WEBER #9708	PERSONAL VEHICLE
99.PV4260	KEITH COLLINS #11334	PERSONAL VEHICLE
99.PV5254	JOSEPH MULLINS #13993	PERSONAL VEHICLE
99.PV6161	EDDIE DUNN #3162	PERSONAL VEHICLE
99.PV6265	ADAM LAWSON	PERSONAL VEHICLE

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
99.PV6266	STEVE LAWSON	PERSONAL VEHICLE
99.PV6325	PHILLIP CLARK #10751	PERSONAL VEHICLE
99.PV6981	WILLIAM GLOVER #9130	PERSONAL VEHICLE
99.PV7223	JOSHUA A. BOWLDS #8592	PERSONAL VEHICLE
99.PV7746	STEVE LITTLETON #14088	PERSONAL VEHICLE
99.PV7937	SAMMY LEE #11497	PERSONAL VEHICLE
99.PV8657	JAMES FAULKNER #13275	PERSONAL VEHICLE
99.PV8668	BILLY JOEL HAWKINS #15059	PERSONAL VEHICLE
99.PV8842	AARON TY LITTLETON #10425	PERSONAL VEHICLE
99.PV9557	GREGORY SCOTT #14950	PERSONAL VEHICLE
99.PV9558	MICHAEL WISDOM	PERSONAL VEHICLE
99.PV9559	JOHN KELTNER	PERSONAL VEHICLE
99.RENTAL	ATS RENTED EQUIPMENT	
AC.0120001	REBUILT HCR1200-ED AIR COMPRESSOR	
AC.0120002	REBUILT HCR1200-ED AIR COMPRESSOR	
BL.0D8R001	REBUILD- D8R BLADE & ARMS	
BR.014H001	REBUILD- 14H BRAKE L/F	ATS REBUILD
BR.014H002	REBUILD- 14H BRAKE R/F	ATS REBUILD
BR.014H003	REBUILD- 14H BRAKE L/R	ATS REBUILD
BR.014H004	REBUILD- 14H BRAKE R/R	ATS REBUILD
BR.014H005	REBUILD- 14H BRAKE L/R	
BR.0D10R01	REBUILD- D10R BRAKE L/S	
BR.0D10R02	REBUILD- D10R BRAKE R/S	WO# SVC0342059-01 ON PO# 51145
BR.0D10R03	REBUILD- D10R BRAKE L/S	WO# CC18005 PO# 29042.
BR.0D10R04	REBUILD- D10R BRAKE R/S	WO# CC18002 PO# 28971.
BR.0D8R004	REBUILD- D8R BRAKE R/S	ATS REBUILD
BR.0D8R005	REBUILD- D8R BRAKE L/S	
BR.0D8R006	REBUILD- D8R BRAKE R/S	
BR.0D8R007	REBUILD- D8R BRAKE L/S	LX89591 4/29/13
BR.0D8R008	REBUILD- D8R BRAKE R/S	LX89588 4/29/13
BR.0D8R012	REBUILD- D8R BRAKE R/S	ATS WO# 7527
BR.0D8R013	REBUILD- D8R BRAKE L/S	ATS WO# 7527
BR.0D8R022	REBUILT-D8R BRAKE R/S	ATS REBUILD
BR.0D8R023	REBUILD- D8R BRAKE L/S	ATS REBUILD
BR.0D8R029	REBUILD- D8R BRAKE L/S	ATS REBUILD
BR.0D8R030	REBUILT-D8R BRAKE R/S	ATS REBUILD
BR.0D8R031	REBUILT-D8R BRAKE L/S	ATS REBUILD
BR.0D8R032	REBUILT-D8R BRAKE R/S	WO# SVC0369301-03 PO# 54225
BR.0D8R033	REBUILT-D8R BRAKE L/S	WO# SVC0369301-04 PO# 54226
BR.0D8R034	REBUILT-D8R BRAKE R/S	WO# SVC0396746-02 PO# 57218
BR.0D8R035	REBUILT-D8R BRAKE L/S	WO# SVC0396746-03 PO# 57219
BR.0D8R036	REBUILT-D8R BRAKE R/S	ATS REBUILD
BR.0D8R037	REBUILT-D8R BRAKE L/S	ATS REBUILD
BR.0D8T001	REBUILD- D8T BRAKE L/S	
BR.0D8T002	REBUILD- D8R BRAKE R/S	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
BR.0D8T003	REBUILD- D8T BRAKE L/S	
BR.0D8T004	REBUILD- D8R BRAKE R/S	
BR.0D8T009	REBUILD- D8T BRAKE L/S	
BR.0D8T010	REBUILD- D8T BRAKE R/S	
BR.0D8T011	REBUILD- D8T BRAKE L/S	
BR.0D8T012	REBUILD- D8T BRAKE R/S	
BR.0D8T013	REBUILD- D8T BRAKE L/S	
BR.0D8T014	REBUILD- D8T BRAKE R/S	
BR.0D8T018	REBUILD- D8T BRAKE R/S	ATS REBUILD OFF 14.DZ8013
BR.0D8T019	REBUILD- D8T BRAKE L/S	ATS REBUILD OFF 14.DZ8013
BR.0D9N003	REBUILD BRAKE-RIGHT	
BR.0D9N004	REBUILD BRAKE-LEFT	
BR.0D9R001	REBUILD-BRAKE RIGHT	
BR.0D9R002	REBUILD-BRAKE LEFT	
BR.0D9R003	REBUILD-BRAKE LEFT	
DF.012H001	REBUILD-12H DIFFERENTIAL	WO# CC17937 ON PO# 27816
DF.014H001	REBUILD-14H DIFFERENTIAL	
DF.014H002	REBUILD-14H DIFFERENTIAL	
DF.0416001	REBUILD-416 REAR DIFFERENTIAL	
DF.0420D01	REBUILD-420 REAR DIFFERENTIAL	
DF.0420D02	REBUILD-420 REAR DIFFERENTIAL	
DF.0420D03	REBUILD-420 REAR DIFFERENTIAL	
DF.0420D04	REBUILD-420 REAR DIFFERENTIAL	
DF.0420D05	REBUILD-416C / 420D REAR DIFFERENTIAL	
DF.0420D06	REBUILD-416C / 420D REAR DIFFERENTIAL	
DF.0420D07	REBUILD-416C / 420D REAR DIFFERENTIAL	
DF.0420D08	REBUILD-416C / 420D REAR DIFFERENTIAL	
DF.0420D09	REBUILD-416C / 420D REAR DIFFERENTIAL	
DF.0563001	REBUILD-563 DIFFERENTIAL	
DF.0563002	REBUILD-563 DIFFERENTIAL	
DF.0580001	REBUILD-580 REAR DIFFERENTIAL	
DF.0631001	REBUILD-631E DIFFERENTIAL	SVC0100389-02 PO# 38990
DF.0631002	REBUILD-631E DIFFERENTIAL	SVC0009151 PO# 35778
DF.0631003	REBUILD-631E DIFFERENTIAL	WO# LS00027 PO# 24936
DF.0631004	REBUILD-631E DIFFERENTIAL	SCV0104630-02 po# 39333
DF.0631005	REBUILD-631E DIFFERENTIAL	WO# SVC0192490-02
DF.0631006	REBUILD-631E DIFFERENTIAL	
DF.0631007	REBUILD-631G DIFFERENTIAL	WO# SVC0189176-03 PO# 42226.
DF.0631008	REBUILD-631G DIFFERENTIAL	WO# SVC0207558-02 PO# 44843 / 15.SC82
DF.0631009	REBUILD-631E DIFFERENTIAL	WO# SVC0243236-02 PO# 46146 / 15.SC82
DF.0730001	REBUILD-730 DIFFERENTIAL	
DF.0730002	REBUILD-730 DIFFERENTIAL / FRONT	
DF.0730003	REBUILD-730 DIFFERENTIAL / CENTER	
DF.0730004	REBUILD-730 DIFFERENTIAL / FRONT	
DF.0730005	REBUILD-730 DIFFERENTIAL / MIDDLE	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
DF.0740001	REBUILD-740 DIFFERENTIAL / FRONT	
DF.0740002	REBUILD-740 DIFFERENTIAL / MIDDLE	
DF.0740003	REBUILD-740 DIFFERENTIAL / FRONT	
DF.0740004	REBUILD-740 DIFFERENTIAL / REAR	SVC0188913 PO# 44555
DF.0740005	REBUILD-740 DIFFERENTIAL / FRONT	
DF.0773001	REBUILD-773 DIFFERENTIAL	
DF.0930G01	REBUILD-930G DIFFERENTIAL (FRONT)	SVC0231153-05 PO# 45891
DF.0930G02	REBUILD-930G DIFFERENTIAL (REAR)	SVC0231153-06 PO# 45892
DF.0930G03	REBUILD-930G DIFFERENTIAL (FRONT)	
DF.0930G04	REBUILD-930G DIFFERENTIAL (REAR)	
DF.01T2801	REBUILD- FRONT IT28 DIFFERENTIAL	
DF.01T2802	REBUILD- FRONT IT28 DIFFERENTIAL	SVC0060769 PO# 34085
DF.01T2803	REBUILD- FRONT IT28 DIFFERENTIAL	SVC0061508 PO# 34421
DF.01T2804	REBUILD- REAR IT28 DIFFERENTIAL	SVC0087998 PO# 36549 & 36550
DF.01T2805	REBUILD- REAR IT28 DIFFERENTIAL	
DR.0T45001	REBUILD- T45 DRIFTER HAMMER	
DR.0T45002	REBUILD- T45 DRIFTER HAMMER	
DR.0T45003	REBUILD- T45 DRIFTER HAMMER	
EN.014H001	REBUILD 14H ENGINE	
EN.016G003	Repalred 16G Engine	
EN.0201001	REBUILD PM201 ENGINE	SVC0155882
EN.0218101	EXCHANGE PF2181 ENGINE	CUMMINS EXCHANGE
EN.0250001	REBUILT 2500 ENGINE	CENTRAL AUTO PO# 35904
EN.0320001	EXCHANGE 1200 ENGINE	CUMMINS
EN.0325001	REBUILD 325CL ENGINE	C.A. INV. 132571 PO# 25228
EN.0325002	REBUILD 325CL ENGINE	C.A. INV. 136532-1 PO# 26069
EN.0325003	REBUILD 325DL ENGINE	C.A. INV. 140372-1 PO# 26997
EN.0325004	REBUILD 325CL ENGINE	WO# SVC0129119 PO# 39309
EN.0325005	REBUILD 325DL ENGINE	WO# SVC0245019 PO# 46493
EN.0325006	EXCHANGE 325C L ENGINE	WHAYNE ON PO# 52053
EN.0325007	REBUILD 325CL ENGINE	
EN.0325008	EXCHANGE 325C ENGINE	
EN.0330001	EXCHANGE 330C L ENGINE	
EN.0330002	EXCHANGE 330D L ENGINE	
EN.0340601	REBUILD 3406E ENGINE	LX97506 PO# 24208
EN.0420D01	REBUILD 420D ENGINE	
EN.0420D02	EXCHANGE 420D ENGINE	
EN.0534001	REBUILD 534C ENGINE	
EN.0631E01	REPAIRED 631E ENGINE	WHAYNE WO# SVC0234643 ON PO# 4586
EN.0631E02	REBUILT 631E ENGINE	Central Auto inv.# 71588
EN.0631E04	REBUILT 631E ENGINE	WO# SVC0058220 PO# 35284
EN.0631E05	REBUILT 631E ENGINE	WO# SVC0080514 PO# 37133
EN.0631E06	REBUILT 631E ENGINE	WO# SVC0096679 PO# 37936
EN.0631G01	REBUILT 631G ENGINE	3408
EN.0730001	REBUILT 730 ENGINE	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
EN.0740001	REPAIRED 740 ENGINE	
EN.0773F01	REPAIRED 773F ENGINE	ATS INJECTORS
EN.0773F02	REPAIRED 773F ENGINE	ATS INJECTORS
EN.0773F03	REPAIRED 773F ENGINE	ATS INJECTORS
EN.0800001	EXCHANGE ENGINE	531988
EN.0825G01	REBUILT 825G ENGINE	WHAYNE WO# SVC0059408 PO# 36021
EN.0930G01	EXCHANGE 930G PERKINS ENGINE	WHAYNE WO# SVC0215279 PO# 44295
EN.0966G01	REBUILD 966G ENGINE	6NC29529
EN.0966G02	REBUILD 966G ENGINE	SVC0049673 PO# 36039
EN.0C13001	REBUILD C13 CRUSHER ENGINE	
EN.0C15001	REBUILT C15 ENGINE	LX99725 PO# 24626
EN.0D10R01	REBUILD D10R ENGINE	
EN.0D10R03	REBUILD D10R ENGINE	C.A. INVOICE# 143465 PO# 27838
EN.0D12001	EXCHANGE 1200 ENGINE	WARRANTY ON WO# 168885
EN.0D12002	EXCHANGE 1200 ENGINE (LONG BLOCK)	082-92847 PO# 40175
EN.0D6N001	EXCHANGE D6N ENGINE	WHAYNE WO# LX98227 PO# 23512
EN.0D6N002	EXCHANGE D6N ENGINE	WHAYNE WO# LX98380 PO# 23513
EN.0D8R002	REBUILD D8R ENGINE	LX89080
EN.0D8R003	REBUILD D8R ENGINE	
EN.0D8R010	REBUILD D8R ENGINE	WHAYNE WO# CC18156 PO# 29806
EN.0D8R011	REBUILD D8R ENGINE	WHAYNE WO# SVC0057972 PO# 36020
EN.0D8R012	REBUILD D8R ENGINE	WO# SVC0393658-03 PO# 55461
EN.0D8R013	REBUILD D8R ENGINE	WO# SVC0404150 ON PO# 58027
EN.0D8R014	ORIGINAL D8R ENGINE	WO# SVC0450771-01 PO# 61728
EN.0D8T003	REBUILD D8T ENGINE	WO# CC17874 ON PO# 26301
EN.0D8T004	REBUILD D8T ENGINE	WO# SVC175026-01 PO# 41106
EN.0D8T005	REBUILD D8T ENGINE	WO# SVC0207557 PO# 44296
EN.0D8T008	EXCHANGE D8T ENGINE	WO# SVC0366356 PO 55073
EN.0D9R009	EXCHANGE D9R ENGINE	
EN.0DD1101	EXCHANGE DD110 ENGINE	
EN.0DT8001	NEW B3.3 CUMMINS ENGINE	
EN.ML60001	REPAIRED DEUTZ ENGINE	
EN.WA45001	REPAIRED WA450 ENGINE	
FD.0201001	NEW- FINAL DRIVE LEFT FRONT	
FD.0201002	REBUILD-FINAL DRIVE	PO# 44958 10/31/17
FD.0201003	REBUILD-FINAL DRIVE RIGHT FRONT	
FD.0201004	NEW-FINAL DRIVE LEFT REAR	
FD.0201005	REBUILD-FINAL DRIVE	ATS REBUILD 10/26/17
FD.0201006	NEW-FINAL DRIVE RIGHT REAR	WHAYNE (NEW) PO# 35591
FD.0312001	REBUILD-FINAL DRIVE LEFT	
FD.0312002	REBUILD-FINAL DRIVE RIGHT	
FD.0312003	REBUILD-FINAL DRIVE LEFT	
FD.0312004	REBUILD-FINAL DRIVE RIGHT	
FD.0325001	REBUILD-FINAL DRIVE LEFT	
FD.0325002	REBUILD-FINAL DRIVE RIGHT	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
FD.0325003	REBUILD-FINAL DRIVE LEFT	
FD.0325004	REBUILD-FINAL DRIVE RIGHT	
FD.0325005	REBUILD-FINAL DRIVE LEFT	
FD.0325006	REBUILD-FINAL DRIVE RIGHT	
FD.0325007	REBUILD-FINAL DRIVE LEFT	LX95210
FD.0325008	REBUILD-FINAL DRIVE RIGHT	LX95209
FD.0325009	REBUILD-FINAL DRIVE LEFT	LX95422 PO# 20078
FD.0325010	REBUILD-FINAL DRIVE RIGHT	LX95422 PO# 20078
FD.0325011	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0325012	REBUILD-FINAL DRIVE RIGHT	ATS REBUILD
FD.0325015	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0325016	REBUILD-FINAL DRIVE RIGHT	ATS REBUILD
FD.0325017	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0325018	REBUILD-FINAL DRIVE RIGHT	ATS REBUILD
FD.0325019	REBUILD-FINAL DRIVE LEFT	
FD.0325020	REBUILD-FINAL DRIVE RIGHT	
FD.0325021	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0325022	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0330001	REBUILD-FINAL DRIVE LEFT	
FD.0330002	REBUILD-FINAL DRIVE RIGHT	
FD.0330003	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0330004	REBUILD-FINAL DRIVE RIGHT	ATS REBUILD
FD.0330005	REBUILD-FINAL DRIVE LEFT	ATS REBUILD
FD.0330006	REBUILD-FINAL DRIVE RIGHT	ATS REBUILD
FD.0345002	REBUILD-FINAL DRIVE RIGHT	
FD.0730001	REBUILD-730 L/M FINAL DRIVE & BRAKE	
FD.0730002	REBUILD-730 R/M FINAL DRIVE & BRAKE	
FD.0730003	REBUILD-730 R/R FINAL DRIVE & BRAKE	
FD.0730004	REBUILD-730 L/M FINAL DRIVE & BRAKE	WHAYNE REBUILD
FD.0730005	REBUILD-730 R/M FINAL DRIVE & BRAKE	WHAYNE REBUILD
FD.0730006	REBUILD-730 L/R FINAL DRIVE & BRAKE	ATS REBUILD
FD.0730007	REBUILD-730 R/M FINAL DRIVE & BRAKE	REBUILT FROM PICKETT EQUIP.
FD.0730008	REBUILD-730 R/M FINAL DRIVE & BRAKE	
FD.0730009	REBUILD-730 L/M FINAL DRIVE & BRAKE	
FD.0730010	REBUILD-730 R/F FINAL DRIVE & BRAKE	
FD.0730011	REBUILD-730 L/F FINAL DRIVE & BRAKE	
FD.0730012	REBUILD-730 R/M FINAL DRIVE & BRAKE	
FD.0730013	REBUILD-730 L/M FINAL DRIVE & BRAKE	
FD.0740001	REBUILD-740 FINAL DRIVE & BRAKE L/M	ATS REBUILD
FD.0740002	REBUILD-740 FINAL DRIVE & BRAKE	
FD.0740003	REBUILD-740 FINAL DRIVE & BRAKE L/M	
FD.0740004	REBUILD-740 FINAL DRIVE & BRAKE R/M	
FD.0740005	REBUILD-740 FINAL DRIVE & BRAKE R/F	
FD.0740006	REBUILD-740 FINAL DRIVE & BRAKE L/M	
FD.0740007	REBUILD-740 FINAL DRIVE & BRAKE	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
FD.0740008	REBUILD-740 FINAL DRIVE & BRAKE R/F	
FD.0740009	REBUILD-740 FINAL DRIVE & BRAKE R/F	
FD.0740010	REBUILD-740 FINAL DRIVE & BRAKE L/M	
FD.0740011	REBUILD-740 FINAL DRIVE & BRAKE R/F	
FD.0740012	REBUILD-740 FINAL DRIVE & BRAKE R/M	
FD.0740013	REBUILD-740 FINAL DRIVE & BRAKE L/F	
FD.0740014	REBUILD-740 FINAL DRIVE & BRAKE L/F	
FD.0740015	REBUILD-740 FINAL DRIVE & BRAKE L/F	
FD.0740016	REBUILD-740 FINAL DRIVE	REBUILD
FD.0740017	REBUILD-740 FINAL DRIVE & BRAKE L/F	ATS REBUILD 1/15/16
FD.0740018	REBUILD-740 FINAL DRIVE & BRAKE R/M	ATS REBUILD
FD.0740019	REBUILD-740 FINAL DRIVE & BRAKE L/M	WHAYNE WO# SVC0181746-01 PO# 41981
FD.0740020	REBUILD-740 FINAL DRIVE & BRAKE R/M	WHAYNE WO# SVC0181746-02 PO# 41982
FD.0740021	REBUILD-740 FINAL DRIVE & BRAKE L/M	WHAYNE WO# SVC192518-01 PO# 44588
FD.0740022	REBUILD-740 FINAL DRIVE & BRAKE R/F	
FD.0740023	REBUILD-740 FINAL DRIVE & BRAKE L/F	
FD.0773001	REBUILTD 773F FINAL DRIVE & BRAKE L/S	
FD.0773002	REBUILTD 773F FINAL DRIVE & BRAKE R/S	
FD.0773003	REBUILTD 773F FINAL DRIVE & BRAKE L/S	
FD.0773004	REBUILTD 773F FINAL DRIVE & BRAKE R/S	
FD.0773005	REBUILTD 773F FINAL DRIVE & BRAKE L/S	ATS REBUILD
FD.0773006	REBUILTD 773F FINAL DRIVE & BRAKE R/S	
FD.0D10R01	REBUILD-D10R FINAL DRIVE LEFT	WO# CC18023 PO# 26903 BIZZACK
FD.0D10R02	REBUILD-D10R FINAL DRIVE RIGHT	WO# CC18002 PO# 28971.
FD.0D10R15	REBUILD-D10R FINAL DRIVE RIGHT	WHAYNE WO# SVC0037478 PO# 33828
FD.0D8R002	REBUILD- D8R FINAL DRIVE R/S	
FD.0D8R003	REBUILD- D8R FINAL DRIVE L/S	
FD.0D8R004	REBUILD- D8R FINAL DRIVE R/S	LX89588 4/29/13
FD.0D8R005	REBUILD- D8R FINAL DRIVE L/S	LX89591 4/29/13
FD.0D8R006	REBUILD- D8R FINAL DRIVE L/S	
FD.0D8R010	REBUILD- D8R FINAL DRIVE R/S	
FD.0D8R020	REBUILD- D8R FINAL DRIVE R/S	ATS REBUILD
FD.0D8R021	REBUILD- D8R FINAL DRIVE L/S	ATS REBUILD
FD.0D8R024	REBUILD- D8R FINAL DRIVE R/S	ATS REBUILD
FD.0D8R025	REBUILD- D8R FINAL DRIVE L/S	ATS REBUILD
FD.0D8R028	REBUILD- D8R FINAL DRIVE R/S	ATS REBUILD
FD.0D8R029	REBUILD- D8R FINAL DRIVE L/S	ATS REBUILD
FD.0D8R031	REBUILD- D8R FINAL DRIVE R/S	WHAYNE WO# SVC0369301-02 PO# 54850
FD.0D8R032	REBUILD- D8R FINAL DRIVE L/S	WHAYNE WO# SVC0369301-01 PO# 54851
FD.0D8R033	REBUILD- D8R FINAL DRIVE R/S	WHAYNE WO# SVC0386500-01 PO# 55169
FD.0D8R034	REBUILD- D8R FINAL DRIVE L/S	WHAYNE WO# SVC0396746-01 PO# 56712
FD.0D8R035	REBUILT-D8R FINAL DRIVE R/S	ATS REBUILD
FD.0D8R036	REBUILT-D8R FINAL DRIVE L/S	ATS REBUILD
FD.0D8T001	REBUILD-D8T FINAL DRIVE LEFT	
FD.0D8T002	REBUILD-D8T FINAL DRIVE RIGHT	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
FD.0D8T003	REBUILD-D8T FINAL DRIVE LEFT	
FD.0D8T004	REBUILD-D8T FINAL DRIVE RIGHT	
FD.0D8T005	REBUILD-D8T FINAL DRIVE LEFT	
FD.0D8T006	REBUILD-D8T FINAL DRIVE RIGHT	
FD.0D8T012	REBUILD-D8T FINAL DRIVE LEFT	ATS REBUILD
FD.0D8T013	REBUILD-D8T FINAL DRIVE RIGHT	ATS REBUILD
FD.0D8T014	REBUILD-D8T FINAL DRIVE LEFT	ATS REBUILD
FD.0D8T015	REBUILD-D8T FINAL DRIVE RIGHT	ATS REBUILD
FD.0D8T016	REBUILD-D8T FINAL DRIVE RIGHT	ATS REBUILD OFF 14.DZ8013
FD.0D8T017	REBUILD-D8T FINAL DRIVE LEFT	ATS REBUILD OFF 14.DZ8013
FD.0D9R001	REBUILD-FINAL DRIVE RIGHT	
FD.0D9R002	REBUILD-FINAL DRIVE LEFT	
FD.0D9R003	REBUILD-FINAL DRIVE LEFT	
RA.0D8R001	REBUILD- D8R RADIATOR SUPPORT GROUP	
RF.0200001	NEW UNDERCARRIAGE	
RF.0312001	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	
RF.0312002	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	
RF.0325001	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	2019117 LINK ASSEM.
RF.0325002	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	WO# SVC0384377. PO# 54728
RF.0325003	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	2019117 LINK ASSEM.
RF.0325004	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	2368893 LINK ASSEM. PO# 19125
RF.0325005	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	2049117 LINK ASSEM.
RF.0325006	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	LINKS & IDLERS PO# 25802
RF.0325007	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	2368893 LINK ASSEM. PO# 37954
RF.0325008	NEW UNDERCARRIAGE / NEW TRACK GROUPS	WHAYNE PO# 42531
RF.0325009	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	WO# SVC0306658 PO# 49212
RF.0325010	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	NEW UNDERCARRIAGE. REUSE PADS
RF.0330001	NEW UNDERCARRIAGE / NEW TRACK LINKS / REUSE PADS	WO# SVC0377601 PO# 54725
RF.0330002	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	NEW SPROCKETS, REUSE PADS PO# 40551
RF.0330003	NEW UNDERCARRIAGE / NEW TRACK GROUPS	
RF.0345001	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	
RF.0345002	NEW UNDERCARRIAGE / NEW TRACK LINKS	WO# SVC0249003 PO# 47026 / REUSE PAD
RF.0345003	NEW UNDERCARRIAGE / NEW TRACK LINKS	NEW IDLERS & ALL ROLLERS
RF.0800001	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	NEW LINKS / SPROCKETS PO# 32393
RF.0963001	REPAIR UNDERCARRIAGE / NEW TRACK LINKS	SVC0169737 PO# 40095
RF.0D10002	REBUILD- D10R ROLLER FRAMES	
RF.0D10003	REBUILD-D10 ROLLER FRAMES	
RF.0D50001	REBUILD-D5 ROLLER FRAMES	
RF.0D50002	REBUILD-D5 ROLLER FRAMES	
RF.0D60001	REPAIR UNDERCARRIAGE / NEW TRACK GROUPS	
RF.0D80002	REBUILD-D8 ROLLER FRAMES	PULL OFF 14.DZ9069 9/30/19
RF.0D80003	REBUILD-D8 ROLLER FRAMES	
RF.0D80004	REBUILD-D8 ROLLER FRAMES	
RF.0D80005	REBUILD-D8 ROLLER FRAMES	
RF.0D80006	REBUILD-D8 ROLLER FRAMES	

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
RF.0D80009	REBUILD-D8 ROLLER FRAMES	
RF.0D80011	REBUILD-D8 ROLLER FRAMES	NEW G.D. LINKS, REUSE PADS 4/11/19
RF.0D80012	REBUILD-D8R ROLLER FRAMES	PULL OFF 14.DZ8013 12/12/19 FOR REBUILD
RF.0D80013	REBUILD-D8 ROLLER FRAMES	
RF.0D80015	REBUILD-D8T ROLLER FRAMES	TS REBUILD / INS. ON 14.DZ8013 12/18/19
RF.0D80017	REBUILD-D8 ROLLER FRAMES	
RF.0D80018	REBUILD-D8 ROLLER FRAMES	
RF.0D80019	REBUILD-D8T ROLLER FRAMES	REBUILD D8T FRAMES OFF D8R 14.DZ8070
RF.0D80020	REBUILD-D8 ROLLER FRAMES	
RF.0D80023	REBUILD-D8 ROLLER FRAMES	
RF.0D80024	REBUILD-D8 ROLLER FRAMES	
RF.0D80030	REBUILD-D8 ROLLER FRAMES	ATS REBUILD / INS. ON 14.DZ8070 4/17/19
RF.0D80032	REBUILD-D8 ROLLER FRAMES	ATS REBUILD / INS. ON 14.DZ8069.9/30/19
RF.0D90016	REPAIR UNDERCARRIAGE / NEW TRACKS GROUPS	SO00487725 PO# 38149
TB.0740001	USED-740 EJECTOR BED	
TC.0730001	REBUILT 730 TRANSFER CASE	WO# SVC0321865-02 PO# 51132
TC.0740001	REBUILT 740 TRANSFER CASE	
TC.0740002	REBUILT 740 TRANSFER CASE	
TC.0740003	REBUILT 740 TRANSFER CASE	
TC.0740004	REBUILT- 740 TRANSFER CASE	WO# SVC0322018-06 PO# 51164
TC.0825G01	REBUILT 825G TRANSFER CASE	WO# SVC0191633 PO# 42964
TC.0825G02	REBUILD 825G TRANSFER CASE	WO# SVC0333947-02 PO# 51720
TC.0930G01	REBUILT 966G TRANSFER CASE	WO# SVC0231153-02 ON PO# 45888
TC.0966G01	REBUILT 966G TRANSFER CASE	WO# SVC0049673 PO# 36039
TO.0740001	REBUILD-TORQUE	
TO.0740002	REBUILD-TORQUE	WO# SVC0151997-02
TO.0773001	REBUILD-773 TORQUE	WO# LX81669 GLENN CONLEY
TO.0773002	REBUILD-773 TORQUE	WO# LX82041
TO.0773003	REBUILD-773 TORQUE	WO# LX
TO.0825G01	REBUILD 825G TORQUE	WO# SVC0191633 PO# 42965
TO.0825G02	REBUILD 825G TORQUE	WO# SVC0333947-03 PO# 51719
TO.0966G01	REBUILD 966G TORQUE	
TO.0966G02	REBUILD 966G TORQUE	WO# SVC0049673 PO# 36039
TO.0D10R01	REBUILD- D10R TORQUE	
TO.0D10R03	REBUILD- D10R TORQUE	
TO.0D5N001	REBUILD- D6N TORQUE	
TO.0D6N001	REBUILD- D6N TORQUE	WHAYNE WO# LX98227 PO# 23512
TO.0D6N002	REBUILD- D6N TORQUE	WHAYNE WO# LX98380 PO# 23513
TO.0D8R001	REBUILD- D8R TORQUE	WHAYNE WO# SVC0106592-01 PO# 38506
TO.0D8R002	REBUILD- D8R TORQUE	WHAYNE WO# LX97192 PO# 23363
TO.0D8R004	REBUILD- D8R TORQUE	
TO.0D8R005	REBUILD- D8R TORQUE	
TO.0D8R008	REBUILD- D8R TORQUE	
TO.0D8R010	REBUILD- D8R TORQUE	WO# SVC0404150 PO# 57872
TO.0D8R014	REBUILD- D8R TORQUE	WHAYNE WO# SVC0057970 PO# 36023

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
TO.0D8R015	REBUILD- D8R TORQUE	WO# SVC0393658- PO# 55462
TO.0D8R016	REBUILD- D8R TORQUE	WO# SVC0450771-05 PO# 60197
TO.0D8T002	REBUILD- D8T TORQUE	WO# SVC175026-04 PO# 41929
TO.0D8T003	REBUILD- D8T TORQUE	
TO.0D8T004	REBUILD- D8T TORQUE	WO# CC17872 PO# 27336
TO.0D8T005	REBUILD- D8T TORQUE	WHAYNE EXCHANGE PO# 52223
TO.0D8T006	REBUILD- D8T TORQUE	WO# SVC0207643 PO# 44567
TO.0D8T008	REBUILD- D8T TORQUE	
TO.0D8T009	REBUILD- D8T TORQUE	
TO.0D9R006	REBUILD- D9R TORQUE	WHAYNE WO# L503095 PO# 30137
TO.0IT2801	REBUILT- IT28G TORQUE	
TR.012H001	REBUILD-12H TRANSMISSION	WO# CC17937 ON PO# 27816
TR.014H001	REBUILD-14H TRANSMISSION	
TR.014H002	REBUILD-14H TRANSMISSION	
TR.014H003	REBUILD-14H TRANSMISSION	
TR.0420D01	REBUILD-420D TRANSMISSION	
TR.0615001	REBUILD-615C TRANSMISSION	
TR.0631001	REBUILD-631E TRANSMISSION	SVC0100389-01 PO# 38989
TR.0631002	REBUILD-631E TRANSMISSION	WO# SVC0463090 PO# 60624
TR.0631003	REBUILD-631E TRANSMISSION	SVC0104630-01 PO# 39332
TR.0631004	REBUILD-631G TRANSMISSION	SVC0189176-02 PO# 42224
TR.0631005	REBUILD-631E TRANSMISSION	
TR.0631006	REBUILD-631E TRANSMISSION	WO# SVC192518 PO# ?????
TR.0631007	REBUILD-631E TRANSMISSION	
TR.0631008	REBUILD-631G TRANSMISSION	O# SVC0207558-01 PO# 44842 / 15.SC82
TR.0631009	REBUILD-631E TRANSMISSION	O# SVC0243236-01 PO# 46145 / 15.SC82
TR.0730001	REBUILT 730 TRANSMISSION	9SY01182
TR.0730002	REBUILT 730 TRANSMISSION	WO# SVC0321865-01 PO# 51132
TR.0730003	REBUILT 730 TRANSMISSION	SVC0183347 PO# 42277
TR.0730004	REBUILT 730 TRANSMISSION	WHAYNE WO# SVC0199357 PO# 44556
TR.0730005	REBUILT- 730 TRANSMISSION	WHAYNE SVC0456067
TR.0740001	REBUILT 740 TRANSMISSION	
TR.0740002	REBUILT 740 TRANSMISSION	WO# SVC0151997-01
TR.0740003	REBUILT 740 TRANSMISSION	WHAYNE WO# SVC0049585
TR.0740004	REBUILT 740 TRANSMISSION	WO# SVC0322018-05 PO# 51162
TR.0773001	REBUILD-TRANSMISSION	WO# SVC0451383-02 PO# 60623
TR.0773002	REBUILD-TRANSMISSION	WO# LX82041 GLENN CONLEY
TR.0773003	REBUILD-TRANSMISSION	WO# LX82172
TR.0825G01	REBUILT 825G TRANSMISSION	WO# SVC0191633 PO# 42962
TR.0825G02	REBUILT 825G TRANSMISSION	WO# SVC0333947-01 PO# 51721
TR.0930G01	REBUILT 930G TRANSMISSION	WO# SC0231153-01 PO# 45887
TR.0966G01	REBUILT 966G TRANSMISSION	WO# SVC0049673 PO# 36039
TR.0D10R02	REBUILD- D10R TRANSMISSION	WO# CC17973 PO# 30136
TR.0D5N001	REBUILD- D5N TRANSMISSION	
TR.0D8R001	REBUILD- D8R TRANSMISSION	WHAYNE WO# SVC0106592-02 PO# 38507

ATTACHMENT " A "

2020

Equipment	Description	VINNumber
TR.OD8R002	REBUILD- D8R TRANSMISSION	WO# SVC0446137 PO# 59935
TR.OD8R004	REBUILD- D8R TRANSMISSION	WO# LX95731 ON PO# 20201
TR.OD8R005	REBUILD- D8R TRANSMISSION	WO# LX97192 PO# 23363
TR.OD8R007	REBUILD- D8R TRANSMISSION	WO# SVC0396746-04 PO# 56100
TR.OD8R011	REBUILD- D8R TRANSMISSION	WHAYNE WO# SVC0057970 PO# 36022
TR.OD8R014	REBUILD- D8R TRANSMISSION	SCV0393658-01 PO# 55702
TR.OD8R015	REBUILD- D8R TRANSMISSION	WO# SVC0403378-01 PO# 58030
TR.OD8R016	REBUILD- D8R TRANSMISSION	WO# SVC0425821 PO# 60622
TR.OD8T002	REBUILD- D8T TRANSMISSION	WHAYNE EXC. WO# SVC0115770 PO# 3929
TR.OD8T003	REBUILD- D8T TRANSMISSION	
TR.OD8T004	REBUILD- D8T TRANSMISSION	
TR.OD8T005	REBUILD- D8T TRANSMISSION	WO# SVC0467240-03 PO# 61716 12/13/19
TR.OD8T007	REBUILD- D8T TRANSMISSION	WO# CC17871 PO# 27336
TR.OD8T008	REBUILD- D8T TRANSMISSION	
TR.OD9R005	REBUILD- D9R TRANSMISSION	WO# LS03095 PO# 30137
TR.0IT2801	REBUILD- IT28G TRANSMISSION	
TR.0LD1501	EXCHANGE LD150E TRANSMISSION	
TR.WA45001	REBUILD- WA450 TRANSMISSION	



ATTACHMENT " B "

**L-M Asphalt Partners, Ltd.
dba ATS Construction**

- 1) **Ms. Rachel Mills, Director
Kentucky Transportation Cabinet
Division of Construction Procurement
200 Mero Street, Mail Code 3-1
Frankfort, Kentucky 40622
(502) 564-3500**

- 2) **Mr. Robert Allen
Lexington – Fayette Urban County Government
Director of Streets and Roads
1555 Old Frankfort Pike
Lexington, Kentucky 40504
(859) 258-3451**

- 3) **Mr. Mark Day
Lexington – Fayette Urban County Airport Board
Office of Planning and Development
Blue Grass Airport
4000 Terminal Drive, Suite 206
Lexington, Kentucky 40510
(859) 425-3107**

Equal Opportunity Employer

3009 Atkinson Ave. Suite 400 Lexington, KY 40509
Phone 859.223.7001 Fax 859.231.0946



Certificate No.

A - 2020

01947

Certificate of Eligibility

Issued By

Commonwealth of Kentucky

Transportation Cabinet

This certifies that **L-M ASPHALT PARTNERS LTD D/B/A ATS CONSTRUCTION**
3009 ATKINSON AVENUE STE 400
LEXINGTON, KY 40509

is hereby qualified to accept a contract or subcontract on projects of the Department of Highways for such a period as uncompleted work under prime contract at any time does not exceed the aggregate amount of **UNLIMITED**. This certificate which expires **December 31, 2020**

is subject to revision or revocation, and is extended to 120 days from this expiration date. An application for renewal of this certificate must be filed within ninety days after the above date.

Types of Work

- A GRADE AND DRAIN
- B PORTLAND CEMENT CONCRETE PAVING
- C1 ASPHALT PAVING OPTION B
- C2 ASPHALT PAVING OPTION A
- E1 BRIDGES NOT MORE THAN 70 FT. CLEAR SPAN

Date Issued: May 19, 2020

By

State Highway Engineer

FOR Department of Highways

ATTACHMENT "B"



COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET

www.transportation.ky.gov/

Andy Beshear
GOVERNOR

Jim Gray
SECRETARY

May 20, 2020

Dear Contractor:

The Transportation Cabinet has issued the enclosed Certificate of Eligibility which indicates the maximum amount of work permitted to be under contract at anyone time, as a prime contractor. The Construction Prequalification Committee has approved those types of work for which your organization is considered qualified to bid or accept a subcontract on highway projects in Kentucky.

This certificate will expire at the end of your current fiscal year, or calendar year whichever is applicable as provided by Internal Revenue Service Regulations, but will be extended for 120 days to permit sufficient time for filing new data and renewal of eligibility without loss of bidding capacity.

Please examine the certificate carefully and note that it may not grant eligibility for all of the types of work requested in your application. If you should have reasons to request for reconsideration of types of work permitted by the Transportation Cabinet, please see our website for information and instructions on how to request additional work items.

New prequalified contractors will need to purchase or download the latest edition of the Standard Specifications for Road and Bridge Construction and the Supplemental Specification Manual. First time bidders should pay special attention to Section 102, Bidding Requirements and Conditions, and Section 103, Awards and Execution of Contracts. The Standard Specifications for Road and Bridge Construction and Supplemental Specification Manual may be obtained by visiting the Division of Construction website at www.transportation.ky.gov/construction/.

Sincerely,

A handwritten signature in cursive script that reads "Shella J Eagle".

Shella J Eagle, Administrative Branch Manager
Division of Construction Procurement
Prequalification Branch
502-782-4815
shella.eagle@ky.gov

se/rla
Enclosure

PROJECT REFERENCES LIST

Project Description:	
Owner:	
Construction Manager:	Attachment A - CID No. 079041 - Cumberland County
Project Scope:	
Designer:	
Contract Amount:	
Project Completion Date:	
Project Contact & Phone Number:	
Additional Comments:	

Project Description:	
Owner:	
Construction Manager:	Attachment B - CID No. 151226 - Carter County
Project Scope:	
Designer:	
Contract Amount:	
Project Completion Date:	
Project Contact & Phone Number:	
Additional Comments:	

Project Description:	
Owner:	
Construction Manager:	Attachment C - CID No. 163125 - Laurel County
Project Scope:	
Designer:	
Contract Amount:	
Project Completion Date:	
Project Contact & Phone Number:	
Additional Comments:	

Project Description:	
Owner:	
Construction Manager:	Attachment D - CID No. 162106 - Laurel County
Project Scope:	
Designer:	
Contract Amount:	
Project Completion Date:	
Project Contact & Phone Number:	
Additional Comments:	

Project Description:	
Owner:	
Construction Manager:	Attachment E - CID No. 161210 - Rockcastle County
Project Scope:	
Designer:	
Contract Amount:	
Project Completion Date:	
Project Contact & Phone Number:	
Additional Comments:	

Project Description:	
Owner:	
Construction Manager:	Attachment F - CID No. 162267 - Clay County
Project Scope:	
Designer:	
Contract Amount:	
Project Completion Date:	
Project Contact & Phone Number:	
Additional Comments:	

Additional Pages can be attached to this sheet.

Estimate for: 079041 No. 0134

Print Date:02/06/2017

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET

Contract ID **079041** Estimate Number **0134** Estimate Type **FINAL**

District Office **SOMERSET (08320) Taylor, Tracy J.**

Project Manager:
Robertson, Mark E. P.E.

Contractor **L-M ASPHALT D/B/A ATS CONST JV GADDIE-SHAMROCK** ADDR SN I VC Code **VS0000006259**
1332 OLD FRANKFORT PIKE
LEXINGTON, KY, 40578

Pay Period **06/04/2016 TO 02/06/2017**

Date Approved

Contract No. **DB02900900741**

Project No. **FD04 029 0061, FD04 029 0090**

Primary County **CUMBERLAND**

Name of Road **DESIGN BUILD KY90 & KY 61 IMPROVEMENTS**

Description **DB - SPOT IMPROVEMENTS KY 61 & KY 90**

Contract Type **GRADE HEAVY (OVER MILLION.CY)**

Date Let	08/17/2007	Formal Acceptance	05/03/2016
Date Awarded	09/19/2007	Date Work Began	10/02/2007
Date Contract Executed	09/21/2007	Open To Traffic	12/01/2010
Date NTP Issued	09/21/2007	Actual Completion Date	08/02/2015

			Total to Date	Prev to Date	This Estimate
Current Contract Amount	\$68,550,679.28				
Original Amount	\$53,167,078.16	Total Earnings	\$68,550,679.27	\$68,159,217.28	\$391,461.99
Percent Complete	100	Stockpiled Materials	\$0.01	\$0.01	\$0.00
Funds Available	\$0.00	Gross Earnings	\$68,550,679.28	\$68,159,217.29	\$391,461.99
Total Change	\$15,383,601.12	Other	\$0.00	\$0.00	\$0.00
Orders		Adjustments			
		TOTAL	\$68,550,679.28	\$68,159,217.29	\$391,461.99

Estimate for: 151226 No. 0024

Print Date:09/15/2017

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET

Contract ID 151226	Estimate Number 0024	Estimate Type FINAL
District FLEMINGSBURG (09320)		
Office Brickey, Jeremy P.E.		
Project Manager: Brickey, Jeremy P.E.		

Contractor	L-M ASPHALT PARTNERS LTD D/B/A ATS CONSTRUCTION 3009 ATKINSON AVENUE SUITE 400 LEXINGTON, KY, 40509	ADDR SN VC Code VC0000106272
Pay Period	03/01/2017 TO 09/15/2017	

Date Approved

Contract No. DE02200641526 **Federal Oversight Project**

Project No. NHPP IM 0647(053); NHPP IM 0647(053)

Primary County CARTER

Name of Road I-64 (CARTER & ROWAN COUNTIES)

Description I-64 (CARTER & ROWAN COUNTIES)

Contract Type ASPHALT REHAB WITH GRADE & DRAIN

Date Let	06/26/2015	Formal Acceptance	08/26/2016
Date Awarded	06/30/2015	Date Work Began	07/08/2015
Date Contract Executed	07/02/2015	Open To Traffic	06/16/2016
Date NTP Issued	07/02/2015	Actual Completion Date	06/16/2016

		Total to Date	Prev to Date	This Estimate
Current Contract Amount	\$10,766,314.61			
Original Amount	\$10,677,214.61	Total Earnings	\$10,440,158.57	\$10,285,168.16
Percent Complete	96.97	Stockpiled Materials	\$0.00	\$0.00
Funds Available	\$326,156.04	Gross Earnings	\$10,440,158.57	\$10,285,168.16
Total Change Orders	\$89,100.00	Other Adjustments	\$0.00	\$0.00
		TOTAL	\$10,440,158.57	\$10,285,168.16
				\$154,990.41

Estimate for: 162106 No. 0004

Attachment D

Print Date:02/26/2018

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**

Contract ID	162106	Estimate Number	0004	Estimate Type	FINAL
District Office	MANCHESTER (11340) Morgan, Lonnie D.				
Project Manager:	Morgan, Lonnie D.				

Contractor	L-M ASPHALT PARTNERS LTD D/B/A ATS CONSTRUCTION 3009 ATKINSON AVENUE SUITE 400 LEXINGTON, KY, 40509	ADDR SN 0 VC Code VC0000106272
Pay Period	01/30/2018 TO 02/26/2018	
Date Approved		
Contract No.	MP06300801601	
Project No.	FD05 063 0080 004-011	
Primary County	LAUREL	
Name of Road	HAL ROGERS PARKWAY (KY80)	
Description	HAL ROGERS PARKWAY (KY80)	
Contract Type	ASPHALT RESURFACING	

Date Let	05/27/2016	Formal Acceptance	09/13/2016
Date Awarded	06/03/2016	Date Work Began	08/11/2016
Date Contract Executed	06/21/2016	Open To Traffic	09/13/2016
Date NTP Issued	06/21/2016	Actual Completion Date	09/13/2016

Current Contract Amount	\$1,277,334.93	Total to Date	Prev to Date	This Estimate
Original Amount	\$1,277,334.93	Total Earnings	\$1,251,778.94	\$1,247,356.19
Percent Complete	98.00	Stockpiled Materials	\$0.00	\$0.00
Funds Available	\$25,555.99	Gross Earnings	\$1,251,778.94	\$1,247,356.19
Total Change Orders	\$0.00	Other Adjustments	\$0.00	\$0.00
		TOTAL	\$1,251,778.94	\$1,247,356.19
				\$4,422.75

Estimate for: 161210 No. 0009

Print Date:03/02/2017

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET

Contract ID 161210 **Estimate Number** 0009 **Estimate Type** FINAL
District SOMERSET (08340) Lucas, William
Office H. P.E.
Project Manager:
 Chaney, William G.

Contractor L-M ASPHALT PARTNERS LTD D/B/A ATS ADDR SN 0 VC Code
 CONSTRUCTION VC0000106272
 3009 ATKINSON AVENUE SUITE 400
 LEXINGTON, KY, 40509

Pay Period 07/16/2016 TO 03/02/2017

Date Approved

Contract No. DE10200751610 **Federal Oversight Project**

Project No. NHPP (M-0752) (091)

Primary County ROCKCASTLE

Name of Road I-75 (ROCKCASTLE COUNTY)

Description I-75 (ROCKCASTLE COUNTY)

Contract Type ASPHALT REHAB INTERSTATE/PARKWAY

Date Let	02/19/2016	Formal Acceptance	09/08/2016
Date Awarded	02/26/2016	Date Work Began	04/05/2016
Date Contract Executed	03/11/2016	Open To Traffic	04/05/2016
Date NTP Issued	03/11/2016	Actual Completion Date	06/20/2016

		Total to Date	Prev to Date	This Estimate
Current Contract Amount	\$2,043,302.40			
Original Amount	\$2,033,260.46	Total Earnings	\$1,844,882.57	\$1,834,647.50
Percent Complete	90.29	Stockpiled Materials	\$0.00	\$0.00
Funds Available	\$198,419.83	Gross Earnings	\$1,844,882.57	\$1,834,647.50
Total Change Orders	\$10,041.94	Other Adjustments	\$0.00	\$0.00
		TOTAL	\$1,844,882.57	\$1,834,647.50
				\$10,235.07

Estimate for: 162267 No. 0008

Attachment F

Print Date:05/21/2018

**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**

Contract ID 162267 **Estimate Number** 0008 **Estimate Type** FINAL
District Office MANCHESTER (11300)
 Moore, Robbie S. jr.
Project Manager: Moore, Robert S.

Contractor L-M ASPHALT PARTNERS LTD D/B/A ATS ADDR SN 0 VC Code
 CONSTRUCTION VC0000106272
 3009 ATKINSON AVENUE SUITE 400
 LEXINGTON, KY, 40509
Pay Period 04/21/2018 TO 05/21/2018
Date Approved
Contract No. MP026042116R1
Project No. FD05 026 0421 017-021
Primary County CLAY
Name of Road RICHMOND ROAD (US 421)
Description RICHMOND ROAD (US 421)
Contract Type ASPHALT RESURFACING

Date Let	08/26/2016	Formal Acceptance	07/06/2017
Date Awarded	09/01/2016	Date Work Began	03/01/2017
Date Contract Executed	09/19/2016	Open To Traffic	03/01/2017
Date NTP Issued	09/19/2016	Actual Completion Date	07/06/2017

		Total to Date	Prev to Date	This Estimate
Current Contract Amount	\$828,526.85			
Original Amount	\$828,526.85	Total Earnings \$797,041.19	\$794,057.94	\$2,983.25
Percent Complete	96.20	Stockpiled Materials \$0.00	\$0.00	\$0.00
Funds Available	\$31,485.66	Gross Earnings \$797,041.19	\$794,057.94	\$2,983.25
Total Change Orders	\$0.00	Other Adjustments \$0.00	\$0.00	\$0.00
		TOTAL \$797,041.19	\$794,057.94	\$2,983.25

ATTACHMENT " B "

L-M Asphalt Partners, Ltd. dba ATS Construction

<u>Internal Project Number</u>	<u>Type Of Work</u>	<u>Award Date</u>	<u>Owner's Name Prime Contractors Name</u>	<u>Joint, Prime Or Sub</u>	<u>Total Amount Of Contract Or Subcontract</u>	<u>Completion Date</u>
6500	HMA Paving	04/06	Bluegrass Airport Phase IIIA Bluegrass Airport Board	Prime	\$ 13,300,641.53	12/06
6524	HMA Paving	03/06	Keenland Race Track and Parking Areas Central Rock Mineral Company	Sub	\$ 765,727.05	09/06
6525	Agg/HMA	04/06	Sayre Athletic Complex Sayre School - Owner	Prime	\$ 268,785.24	12/06
6526	Agg/HMA	04/06	Blackford Unit 1 Phase 3 Ball Homes - Owner	Prime	\$ 208,808.48	12/06
6527	Agg/HMA	04/06	Still Meadow Property Elza Reclamation and Construction Company	Sub	\$ 110,473.09	12/06
6529	Agg/HMA	05/06	Lowe's of Lexington Gloffre Companies, Inc.	Sub	\$ 386,500.00	12/06
6532	Agg/HMA	05/06	The Reserve at Tates Creek Central Rock Mineral Company - Prime	Sub	\$ 86,072.31	12/06
6533	Agg/HMA	05/06	University of Kentucky Shively Field Parking University of Kentucky	Prime	\$ 103,538.28	07/06
6538	HMA Paving	05/06	US Post Office Parking Lot Rehabilitation Three R Construction Company, Ltd.	Sub	\$ 126,162.18	09/06
6543	Agg/HMA	05/06	Newtown Springs - Citation Boulevard Rosenstein Development - Owner	Prime	\$ 622,129.30	12/06
6545	Agg/HMA	05/06	Newtown Springs Phase 1 Central Rock Mineral Company - Prime	Sub	\$ 215,049.93	12/06
6548	Agg/HMA	07/06	War Admiral Retail Center Madden Development - Owner	Prime	\$ 662,948.71	12/07
6550	HMA Paving	07/06	LFUCG 2006-2007 Resurfacing LFUCG - Owner	Prime	\$ 5,315,576.81	07/07
6556	Agg/HMA	10/06	Sunny Slope - Phase 7 Ball Homes - Owner	Prime	\$ 230,743.40	12/07
6558	Agg/HMA	12/06	Gess Property Phase 2 Central Rock Mineral Company - Prime	Sub	\$ 156,277.19	12/07

ATTACHMENT " B "

L-M Asphalt Partners, Ltd. dba ATS Construction

<u>Internal Project Number</u>	<u>Type Of Work</u>	<u>Award Date</u>	<u>Owner's Name Prime Contractors Name</u>	<u>Joint, Prime Or Sub</u>	<u>Total Amount Of Contract Or Subcontract</u>	<u>Completion Date</u>
6559	HMA Paving	8/06	LFUCG - 2006-2007 County Roads LFUCG - Owner	Prime	\$ 325,659.23	06/07
6560	Agg/HMA	10/06	Polo Club Blvd Expansion The Walker Company of Kentucky	Sub	\$ 430,782.78	10/06
6561	Agg/HMA	06/06	Writt Station Subdivision Anderson Communities - Owner	Prime	\$ 124,882.90	12/06
6562	Agg/HMA	06/06	Newtown Springs Townhomes Central Rock Mineral Company - Prime	Sub	\$ 96,191.42	12/06
6563	HMA Paving	04/06	RJ Corman Farm Roads RJ Corman Railroad Company	Prime	\$ 255,974.41	10/06
6568	HMA Paving	04/06	Vulcan Central Quarry Site Improvement Vulcan Materials	Prime	\$ 124,171.72	10/06
6571	Grade & Drain/Concrete	10/07	KYTC (Eaton Asphalt) Grant Co. I-75 IM NH 75-6 (96) / 07-1151	Sub	\$ 8,975,813.19	-
6573	Grade & Drain/Concrete	10/07	KYTC (Eaton Asphalt) Grant Co. I-75 IM NH 75-6 (95) 146 / 07-1149	Sub	\$ 21,326,077.35	-
6574	Grade & Drain/Concrete HMA/Agg	8/07	KYTC Fayette Co. I-75/I-64 IM 75 -4 (61) / 07-1156	Prime	\$ 24,331,325.22	-
6575	Grade & Drain/Concrete HMA/Agg	7/07	KYTC Fayette Co. Liberty/Todds Rd. DPR 0035 (004) / 07-1127	Prime	\$ 7,498,784.24	-
6576	Grade & Drain/Concrete HMA/Agg	3/07	KYTC Fayette Co. I-75/I-64 IM 75-4(59) / 07-1022	Prime	\$ 14,067,638.49	-
6577	Grade & Drain/Concrete	11/06	KYTC Scott Co. I-75 I 75-6 (93) 138 / 06-1055	Prime/JV	\$ 49,880,219.04	-
6578	Grade & Drain/Concrete	11/06	KYTC (Eaton Asphalt) Grant Co. I-75 IM NH 75-6 (94) 151 / 06-1257	Sub	\$ 3,145,633.95	-
6579	Grade & Drain/Concrete	10/06	Newtown Pike Design Build 06-9002	Prime	\$ 11,025,931.51	-
6580	Grade & Drain/Concrete	7/06	KYTC Fayette Co. I-75/I-64 IM 75 -4(57)110 / 06-1038	Prime	\$ 25,070,242.99	-

ATTACHMENT "B"

L-M Asphalt Partners, Ltd. dba ATS Construction

<u>Internal Project Number</u>	<u>Type Of Work</u>	<u>Award Date</u>	<u>Owner's Name Prime Contractors Name</u>	<u>Joint, Prime Or Sub</u>	<u>Total Amount Of Contract Or Subcontract</u>	<u>Completion Date</u>
6582	Grade & Drain/Concrete	11/05	KYTC Scott Co. US62 STPR 5198 (008) / 05-1237	Prime	\$ 10,886,025.17	-
6583	Grade & Drain/Concrete	9/05	KYTC Kenton Co. Turkeyfoot Rd. PH III STPM 8122(21) / 05-1142	Prime	\$ 14,570,168.48	-
6584	Grade & Drain/Concrete	8/05	KYTC Kenton Co. KY 17 & KY 16 FD04 059 0017 009-016 / 05-1137	Prime	\$ 7,839,839.13	10/08
6585	Grade & Drain/Concrete	6/05	KYTC (Eaton Asphalt) Grant Co. I-75 IM NH 75-7(124) / 05-1127	Sub	\$ 12,259,743.04	-
6707	Agg/HMA	03/07	Fayette County In-Place Maintenance James Mitchell II	Prime	\$ 211,906.17	03/08
6713	Agg/HMA	07/07	Fayette County Public Schools Fayette County Board of Education	Prime	\$ 170,337.67	07/08
6726	HMA Paving	04/07	2007 Spring City Resurfacing LFUCG - L. McMillan	Prime	\$ 12,514,323.15	07/08
6727	Agg/HMA	03/07	LFUCG Sanitary & Storm Sewers Bluegrass Contracting Corporation	Sub	\$ 177,652.88	11/07
6730	HMA Paving	05/07	Clark Properties Unit 1 Phase 2 Woodall Construction Company	Sub	\$ 154,867.24	12/08
6733	HMA Paving	05/07	St. Joseph East Parking Area Lenco Excavation Inc.	Sub	\$ 106,585.56	12/07
6736	HMA Paving	06/07	Woolridge Subdivision Woodall Construction Company	Sub	\$ 807,099.80	12/09
6738	Aggregate	06/07	East Reynolds' & Lansdowne Drive LFUCG - Engineering	Prime	\$ 313,503.29	12/07
6739	Agg/HMA	10/06	Providence Place Parkway Anderson Communities - Owner	Sub	\$ 311,493.16	12/07
6746	Agg/HMA	08/07	Bluegrass Aspendale LFUCG - Housing Authority	Sub	\$ 549,335.00	12/07
6750	HMA Paving	03/07	Gleneagles Unit 1 Phase 2 Ball Homes - Owner	Sub	\$ 109,794.00	12/07
6752	Agg/HMA	03/07	Myers Property Ball Homes - Owner	Prime	\$ 161,178.02	12/07

ATTACHMENT " B "

L-M Asphalt Partners, Ltd. dba ATS Construction

<u>Internal Project Number</u>	<u>Type Of Work</u>	<u>Award Date</u>	<u>Owner's Name Prime Contractors Name</u>	<u>Joint, Prime Or Sub</u>	<u>Total Amount Of Contract Or Subcontract</u>	<u>Completion Date</u>
6753	HMA Paving	07/07	LFUCG 2007-2008 County Roads LFUCG - Streets & Roads	Prime	\$ 452,590.00	07/08
6754	Agg/HMA	10/07	JM Smucker Plant Load Dock Area JM Smucker Company	Prime	\$ 198,760.00	11/07
6757	Agg/HMA	09/07	Cigar Lane - KY Horse Park Bluegrass Contracting Corporation	Sub	\$ 610,730.00	05/08
6759	HMA Paving	09/07	St Joe East Parking Lot Lenco Excavation Inc.	Sub	\$ 153,417.25	12/07
6760	Agg/HMA	10/07	Paul Miller Ford Parking Area Paul Miller Ford	Prime	\$ 133,465.00	12/07
6767	Grade & Drain/Concrete HMA/Agg	11/07	KYTC Fayette Co. NH 268-2 (005) / 07-1178	Prime	\$ 6,134,884.34	-
6769	Agg/HMA	10/07	Meadows/Northland/Arlington LFUCG	Prime	\$ 93,739.03	12/08
6603	Grade & Drain	10/07	Providence Place Parkway Anderson Communities - Owner	Prime	\$ 1,087,534.00	12/08
6595	Grade & Drain, HMA	09/07	Gess Parcel 6 Ball Homes - Owner	Prime	\$ 1,397,626.00	12/08
6592	Grade & Drain, HMA	09/07	Mahan Subdivision Ball Homes - Owner	Prime	\$ 2,519,071.00	12/08
6591	Grade & Drain, HMA	09/07	Mahan Apartments RML LLC	Prime	\$ 765,141.49	12/08
6572	Grade & Drain, HMA	09/07	Starshoot Parkway LFUCG	Prime	\$ 1,862,373.09	12/08
6589	Grade & Drain, HMA	10/07	Louden Avenue LFUCG	Prime	\$ 4,759,990.02	12/08
6782	Grade & Drain, HMA	11/07	Greendale Hills Ball Homes - Owner	Prime	\$ 1,392,261.00	12/08
6781	Grade & Drain, HMA	10/07	Keene Mansion Keeneland	Prime	\$ 372,019.00	12/08
6783	Grade & Drain/Concrete	10/07	KYTC Boone Co. KY 237 STPR 8200 (003) / 07-1161	Prime	\$ 23,021,750.82	-

ATTACHMENT " B "

L-M Asphalt Partners, Ltd. dba ATS Construction

<u>Internal Project Number</u>	<u>Type Of Work</u>	<u>Award Date</u>	<u>Owner's Name Prime Contractors Name</u>	<u>Joint, Prime Or Sub</u>	<u>Total Amount Of Contract Or Subcontract</u>	<u>Completion Date</u>
6799	Grade & Drain/Concrete HMA/Agg	9/07	KYTC Cumberland Co. KY90-KY61 DB 02900900741 / 07-9041	Prime/JV	\$ 53,167,078.16	-
6807	Agg/HMA	03/08	Fayette County In-Place Maintenance James Mitchell II	Prime	\$ 1,024,218.06	03/09
6813	Agg/HMA	07/08	Fayette County Public Schools Fayette County Board of Education	Prime	\$ 294,563.75	07/09
6820	Grade & Drain	01/08	Noland Phase 6 Redevelopment JAH Nicholasville Investments	Prime	\$ 367,488.15	12/08
6822	Grade & Drain	03/08	Paved Trail Unit Price 2008 LFUCG	Prime	\$ 257,484.05	12/08
6846	Grade & Drain, HMA	04/08	Saint Joseph Hospital Temp Parking Area Congleton-Hacker Company	Sub	\$ 292,371.00	12/08
6847	Grade & Drain, HMA	04/08	Glens @ Greendale Phase 1 & 2 Beazor Homes, Inc.	Sub	\$ 135,195.98	12/08
6848	Concrete, Grade, Drain, HMA	06/08	Bluegrass Airport Taxiway D Relocation Bluegrass Airport Board	Prime	\$ 2,513,797.85	12/08
6850	Grade & Drain, HMA	08/08	Hamburg East Polo Club Blvd Silver Oaks Real Estate Investment	Prime	\$ 5,382,472.00	07/09
6851	Grade & Drain, HMA	09/08	Bluegrass Airport Runway 9-27 Phase 1 Bluegrass Airport Board	Prime	\$ 5,341,135.71	08/09
6852	Agg/HMA	09/08	Value Place Hotel RHS General Contractor, LLC	Prime	\$ 143,598.95	06/09
6872	HMA Paving	03/08	Tates Creek Apartments Asphalt Consults, Inc.	Prime	\$ 130,805.09	05/08
6874	Agg/HMA	12/08	LFUCG - Lexington Meadows Northland Arlington MAC Construction & Excavating	Prime	\$ 281,037.93	07/09
6877	HMA Paving	06/08	Sand Lake & Estes Property Elza Reclamation and Construction Company	Prime	\$ 110,630.20	06/08
6880	HMA Paving	03/08	2008 Spring City Resurfacing LFUCG - L. McMillian	Prime	\$ 1,860,950.95	12/08
6882	Agg/HMA	07/08	Saint Joseph East Maternity Ward Lenco Excavation Inc.	Sub	\$ 188,856.95	06/09

ATTACHMENT " B "

L-M Asphalt Partners, Ltd. dba ATS Construction

<u>Internal Project Number</u>	<u>Type Of Work</u>	<u>Award Date</u>	<u>Owner's Name Prime Contractors Name</u>	<u>Joint, Prime Or Sub</u>	<u>Total Amount Of Contract Or Subcontract</u>	<u>Completion Date</u>
6885	Agg/HMA	06/08	Shelbourne Plaza WS Construction	Sub	\$ 404,751.91	06/09
6888	HMA Paving	09/08	Marshall Property Unit 2 Town Homes Anderson Communities -Owner	Prime	\$ 194,483.50	06/09
6889	HMA Paving	07/08	LFUCG 2008-2009 County Roads LFUCG - Streets & Roads	Prime	\$ 1,278,160.00	12/08
6890	HMA Paving	10/08	2008 Fall City Street Resurfacing. LFUCG - S. Williams	Prime	\$ 1,347,174.25	06/09
6891	HMA Paving	08/08	Lexmark International Lexmark International	Prime	\$ 197,450.00	12/08
6895	HMA Paving	03/08	2008/2009 City Street Resurfacing LFUCG - S. Williams	Prime	\$ 5,320,640.10	12/09
2627	Grade & Drain/Concrete	9/06	KYTC Fayette Co. US 60 Westmoreland Ent. FD04 034 0060.000-001 / 06-2231	Prime	\$ 258,515.29	3/07

ATTACHMENT "C"

November 13, 2019

L-M Asphalt Partners, Ltd. dba ATS Construction

Work In Progress

		Contract	Project	Contract Amount	To Date Billings	Work Remaining
Active	KYTC	618000.	I-75 ROCKCASTLE - 102GR18D001-NHPP IM - CID 181001	82,208,968.43	72,097,575.91	10,111,392.52
Active	KYTC	618006.	NEW CIRCLE RD (KY4)-FAYETTE-NHPP 2681 (033) - CID 181213	41,792,394.23	16,965,915.47	24,826,478.76
Active	KYTC	618009.	CUMBERLAND GAP PKWY (US 25E)-KNOX/LAUREL-CID 181219	11,990,703.49	11,562,243.21	428,460.28
Active	KYTC	618502.	MEMORIAL DRIVE (KY-2432) - CLAY - STP 6000 (112) CID 171050	1,867,455.86	1,013,174.58	854,281.28
Active	KYTC	618531.	WILLIAMBURG RD (KY92) - WHITLEY - 121GR18D026-STP CID 181026	2,094,548.00	-	2,094,548.00
Active	KYTC	618534.	KY 92 - WHITLEY CO - FD05 118 0092 011-017 CID 182347	1,053,168.41	-	1,053,168.41
Active	KYTC	619003.	I-75-LAUREL-NHPP IM 0752 (100) - CID 191210	53,548,999.90	11,629,155.42	41,919,844.48
Active	KYTC	619007.	KEAVY-LONDON RD (KY 363) - LAUREL - CID 191038	3,582,173.60	751,095.44	2,831,078.16
Active	KYTC	619011.	I-75 LAUREL - NHPP IM 0752 (059) - CID 191245	67,438,800.84	-	67,438,800.84
Active	KYTC	619183.	CALL 104 FAYETTE I-75 EXIT RAMP CID 191039 AT MAN O WAR	546,850.60	167,441.66	379,408.94
Active	KYTC	619190.	KYTC- IN-PLACE STRIP PATCHING	236,043.52	-	236,043.52
Active	KYTC	619193.	CALL 312- FAYETTE- OLD FRANKFORT PIKE CID 192333	433,694.24	-	433,694.24
Active	KYTC	619204.	CALL 309- NICHOLASVILLE RD	904,177.50	-	904,177.50
Active	KYTC	619205.	CALL 310 BRYAN STATION ROAD (K	469,606.25	-	469,606.25
Active	KYTC	619206.	CALL 404- VARIOUS ROUTES- FAYE	598,288.53	-	598,288.53
Active	KYTC	619220.	CALL 317- NEW CIRCLE RD CID 192315	2,199,917.31	-	2,199,917.31
Active	KYTC	619522.	121GR19D106-STP BRZ - CLAY - IRVINE CONTR - CID 195106	28,003.50	-	28,003.50
Active	KYTC	619524.	VARIOUS WHITLEY - 118GR19R039-CB06 CID 193136	1,060,322.00	965,979.32	94,342.68
Active	KYTC	619531.	BRIGHT SHADE RD (KY 2467) FD05 026 2467 002-004 CID 192272	163,754.94	-	163,754.94

ATTACHMENT "C"

November 13, 2019

L-M Asphalt Partners, Ltd. dba ATS Construction

Work In Progress

	Contract	Project	Contract Amount	To Date Billings	Work Remaining
Active	KYTC	619532. MASTER ST (KY 312) - KNOX - FD05 061 0312 000-001 CID 192250	241,090.00	-	241,090.00
Active	KYTC	619534. KNOX/WHITLEY APPROACH PAVING - CID 195062 - JAVE,LLC	101,539.07	-	101,539.07
Active	KYTC	619535. KY 11 - HSIP 5286 (015) - CLAY - CID 194124	1,413,155.27	1,893.96	1,411,261.31
Active	KYTC	619536. VARIOUS ROUTES - CLAY - 026GR19R075-CB06 CID 193169	891,721.88	213,737.36	677,984.52
Active	KYTC	619538. KY 638 APPROACH PAVEMENT - JAVE, LLC - LAUREL - CID 195112	37,403.44	-	37,403.44
Active	KYTC	619541. KYTC IN PLACE - 8W191- ROCKCASTLE DO 625 2000007849	61,309.92	-	61,309.92
Active	KYTC	619542. IN PLACE - WHITLEY CO - RT & MP VARIOUS DO 625 2000009549	302,300.00	-	302,300.00
Active	KYTC	619543. WEST LAUREL RD (KY 192) -LAUREL- HSIP 9010 (408) CID 194130	381,203.08	-	381,203.08
Active	KYTC	619544. FOGERTOWN RD (KY 472)-CLAY-FD 05 0472 003-006 CID 192382	182,511.92	-	182,511.92
Active	KYTC	619545. GREENMOUNT BOND RD (KY 3630) - LAUREL- CID 192380	187,411.43	-	187,411.43
Active	KYTC	619546. CUMBERLAND GAP PARKWAY (US25E)-KNOX-CID192371	1,543,989.05	-	1,543,989.05
<u>Total KYTC Projects</u>			\$ 277,561,506.21	\$ 115,368,212.33	\$ 162,193,293.88

ATTACHMENT "C"

November 13, 2019

L-M Asphalt Partners, Ltd. dba ATS Construction

Work In Progress

		Contract	Project	Contract Amount	To Date Billings	Work Remaining
Active	Private	617727.	LAUREL COUNTY CORRECTIONAL CENTER	256,106.25	137,555.75	118,550.50
Active	Private	617738.	CARRERA PLACE ROADWAY	185,925.00	154,724.89	31,200.11
Active	Private	617747.	VISONE ACCESS ROAD	91,613.24	74,719.11	16,894.13
Active	Private	618102.	ELZA- MIDWAY STATION	160,405.00	58,791.38	101,613.62
Active	Private	618175.	CENTREPOINT- VINE STREET- DW WILBURN	52,485.00	18,500.00	33,985.00
Active	Private	618183.	BGAP ARFF PHASE IV PAVING- WALKER COMPANY	24,340.00	2,165.00	22,175.00
Active	Private	618201.	1803 GEORGETOWN RD- R & B HOLD	166,051.00	153,187.16	12,863.84
Active	Private	618204.	ELZA- MARY FAY PLACE	28,405.00	23,025.70	5,379.30
Active	Private	618207.	ELZA- ANDERSON OFFICES	69,940.00	33,964.70	35,975.30
Active	Private	618217.	LANGLEY- S. BROADWAY PARKING LOT	123,910.00	-	123,910.00
Active	Private	618220.	ELZA- ROSE RIDGE	59,495.00	42,609.68	16,885.32
Active	Private	618715.	BARBOURVILLE BUSINESS PARK	192,414.20	150,231.45	42,182.75
Active	Private	619006.	LFUCG - POLO CLUB BOULEVARD PUBLIC IMPROVEMENT	2,890,352.40	-	2,890,352.40
Active	Private	619102.	WALKER- BGAP TAXIWAY A SOUTH	239,229.00	-	239,229.00
Active	Private	619114.	W. ROGERS- ACCESS ROAD AND PUMP STATION	121,820.00	-	121,820.00
Active	Private	619127.	LFUCG - COUNTY ROAD STREET RESURFACING	811,074.13	261,295.68	549,778.45
Active	Private	619141.	LFUCG PARKS-JACOBSON BALL COUR	83,460.19	-	83,460.19
Active	Private	619155.	NEWTOWN DEVELOPMENT- STUART MC	85,175.00	-	85,175.00
Active	Private	619171.	WOODALL-UPPER STREET PATCH	7,000.00	-	7,000.00

ATTACHMENT "C"

November 13, 2019

L-M Asphalt Partners, Ltd. dba ATS Construction

Work In Progress

		Contract	Project	Contract Amount	To Date Billings	Work Remaining
Active	Private	619178.	COLUMBIA GAS- DOWNTOWN LEXINGT	110,862.50	-	110,862.50
Active	Private	619185.	DAVID PUGH- PUBLIC SAFETY OPERATION CENTER	12,022.00	-	12,022.00
Active	Private	619186.	WOODALL-NEW MARKET FINAL PHAS	145,250.00	116,732.61	28,517.39
Active	Private	619189.	LFUCG PARKS-JACOBSON EXPANSION	84,997.32	-	84,997.32
Active	Private	619192.	ADVANTAGE LINEN- B&R	102,582.50	-	102,582.50
Active	Private	619199.	BGAP- TERMINAL DRIVE RELOCATION	582,377.20	-	582,377.20
Active	Private	619203.	POLICE-CANINE PAVING- FUEL BAND	43,427.60	-	43,427.60
Active	Private	619213.	WOODALL- BEAUMONT CENTRE BAPTIST HEALTH	72,730.00	42,766.08	29,963.92
Active	Private	619709.	HUNTER HILLS ELEMENTARY	459,760.00	358,575.00	101,185.00
Active	Private	619714.	NEXCORE CHI HEALTH LONDON PART	366,165.00	133,823.77	232,341.23
<u>Total Private Projects</u>				\$ 7,629,374.53	\$ 1,762,667.96	\$ 5,866,706.57
<u>Total KYTC and Private Projects</u>				\$ 285,190,880.74	\$ 117,130,880.29	\$ 168,060,000.45



Attachment " D "

L-M Asphalt Partners, Ltd. dba ATS Construction

Principal Officers, Managers and Superintendents of the Organization

	<u>Name</u>	<u>Position</u>	<u>Years of Experience</u>	<u>Magnitude and Type of Work</u>	<u>Capacity</u>
1)	Steve Lawson	President	20+	Highway Grading, Asphalt Paving and Utility Construction	Overall Company Administration
2)	Brian R. Billings	Vice President	15+	Highway Grading, and Asphalts Paving Construction	Engineering
3)	Harry L. Burchett	Vice President	30+	Highway Grading, and Utility Construction	Engineering
4)	Richard L. Craycraft	Assistant Vice President	30+	Highway Grading, Asphalt Paving and Utility Construction	Engineering and Contract Administration
5)	Paul Corum III	Secretary	10+	Highway Grading, Asphalt Paving and Utility Construction	Administration
6)	Rodney Martin	CFO	15+	Highway Grading, Asphalt Paving and Utility Construction	Administration
7)	Kieth Vance	Superintendent	30+	Asphalt Paving	Field Superintendent

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END OF SECTION

PART IV
GENERAL CONDITIONS

1. DEFINITIONS

Wherever used in these General Conditions or the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

1.1 Addenda

Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bid Documents or the Contract Documents.

1.2 Agreement

The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3 Application for Payment

The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

1.4 Bid

The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.5 Bidder

An individual, partnership, or corporation, who submit a Bid for a prime contract with the OWNER, for the Work described in the proposed Contract Documents.

1.6 Bonds

Bid, performance and payment bonds and other instruments of security.

1.7 Calendar Day

A calendar day of twenty-four hours measured from midnight to the next midnight shall constitute a day.

1.8 Change Order

A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Agreement.

1.9 Contract Documents

The Advertisement for Bidders, Information for Bidders, Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR'S Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Special Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all amendments, modifications and supplements.

1.10 Contract Unit Price

The monies payable by OWNER to CONTRACTOR under the Contract Documents as stated in the Agreement. Unit Prices are to be firm for the term of this Contract.

1.11 Contract Time

The number of consecutive calendar days between the date of issuance of the Notice to Proceed and the contract completion date.

1.12 CONTRACTOR

The person, firm or corporation with whom OWNER has entered into the Agreement.

1.13 Defective

An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER'S recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER).

1.13 Drawings

The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

1.15 Effective Date of the Agreement

The date indicated in the Agreement on which it becomes effective.

1.16 ENGINEER

The authorized representative of the responsible division within the Lexington-Fayette Urban County Government.

1.17 Field Order

A documented order issued by ENGINEER which orders minor changes in the Work, but which does not involve a change in the Contract Price or the Contract Time.

1.18 Giving Notice

Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

1.19 Laws and Regulations

Laws, rules, regulations, ordinances, codes and/or orders.

1.20 Notice of Award

The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.21 Notice to Proceed

A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR'S obligations under the Contract Documents.

1.22 OWNER

The Lexington-Fayette Urban County Government.

1.23 Partial Utilization

Placing a portion of the Work in service for the purpose for which it is intended (or related purpose) before reaching Completion for all the Work.

1.24 Project

The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.25 Inspector

The authorized representative of the ENGINEER who is assigned to the site or any part thereof.

1.26 Shop Drawings

All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a Supplier and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.

- 1.27 Specifications**
Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.
- 1.28 Standard Specifications**
The "Standard Specifications for Road and Bridge Construction", Transportation Cabinet, Department of Highways, Commonwealth of Kentucky, current edition. MUTCD shall refer to the "Manual of Uniform Traffic Control Devices".
- 1.29 Subcontractor**
An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.
- 1.30 Special Conditions**
The part of the Contract Documents which amends or supplements these General Conditions.
- 1.31 Supplier**
A manufacturer, fabricator, supplier, distributor, materialman or vendor.
- 1.32 Underground Facilities**
All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.
- 1.33 Unit Price Work**
Work to be paid for on the basis of unit prices.
- 1.34 Work**
The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.
- 1.35 Time Period**
When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by

the law of the applicable jurisdiction, such day will be omitted from the computation.

2. PRELIMINARY MATTERS

2.1 Delivery of Bonds

When the CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER, such Bonds, Insurance Certificate, and Power of Attorney as CONTRACTOR may be required to furnish.

2.2 Copies of Documents

Owner shall furnish to CONTRACTOR up to three copies (unless otherwise specified in the Special Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

2.3 Commencement of Contract Time; Notice to Proceed

The Contract Time will commence to run on the day specified in the Notice to Proceed.

2.4 Starting the Project

CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

2.5 Before Starting Construction

Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

2.6 Submittal of Schedules

Within ten days after the effective date of the Agreement (unless otherwise specified) CONTRACTOR shall submit to ENGINEER for review:

2.6.1 an estimated progress schedule indicating the starting and completion dates of the various stages of the Work;

2.6.2 a preliminary schedule of Shop Drawing submissions; and

2.6.3 a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission.

2.7 Preconstruction Conference

Before CONTRACTOR starts the Work at the proposed site, a conference attended by CONTRACTOR, ENGINEER, and other appropriate parties will be held to discuss the following issues: (1) The scheduling of the Work to be completed; (2) The procedures for handling shop drawings and other submittals; (3) The processing of applications for payment; (4) The establishment of an understanding among the involved parties in regard to the proposed project; and (5) The establishment of procedures for effectively implementing the DBE participation.

2.8 Finalizing Schedules

At least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 2.6. The finalized progress schedule will be acceptable to ENGINEER as providing orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on ENGINEER responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility thereof. The finalized schedule of Shop Drawing submissions will be acceptable to ENGINEER as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to ENGINEER as to form and substance.

3. CONTRACT DOCUMENTS: INTENT, CONFLICTS, AMENDING AND REUSE

3.1 General

The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2 Intent

It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as

being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any of ENGINEER'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 8.4.

3.3 Conflicts

If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification from ENGINEER; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error or discrepancy in the Contract Documents unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof.

In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order:

1. Agreement
2. Field and Change Orders
3. Addenda
4. Special Conditions
5. Instruction to Bidders
6. General Conditions
7. Specifications and Drawings

Figure dimension on drawings shall govern over scale dimensions and detailed Drawings shall govern over general Drawings.

3.4 Amending and Supplementing Contract Documents

The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof by means of a Change Order or a Field Order. Contract Price and Contract Time may only be changed by a Change Order.

3.5 Reuse of Documents

Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

4. AVAILABILITY OF LANDS; PHYSICAL CONDITIONS, REFERENCE POINTS

4.1 Availability of Lands

OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER'S furnishing these lands, rights-of-way or easements entitles CONTRACTOR to an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11. ENGINEER shall determine if the claim is legitimate or not. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.2 Physical Conditions

4.2.1 Explorations and Reports

Reference is made to the Special Conditions for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.

4.2.2 Existing Structures

Reference is made to the Special Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities referred to in paragraph 4.3 which are at or contiguous to the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, but not for the completeness thereof for CONTRACTOR'S purposes. Except as indicated in the immediately preceding sentence and in paragraph 4.2.6, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

4.2.3 Report of Differing Conditions

If CONTRACTOR believes that:

4.2.3.1 any technical data on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is inaccurate, or

4.2.3.2 any physical conditions uncovered or revealed at the site differ materially from that indicated, reflected or referred to in the Contract Documents,

CONTRACTOR shall, promptly after becoming aware thereof and before performing and WORK in connection therewith (except in an emergency) notify OWNER and ENGINEER in writing about the inaccuracy or difference.

4.2.4 ENGINEER'S Review

Engineer will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise CONTRACTOR of ENGINEER'S findings and conclusions.

4.2.5 Possible Document Change

If ENGINEER concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Change Order will be issued as provided in Article 10 to reflect and document the consequences of the inaccuracy or difference.

4.2.6 Possible Price and Time Adjustments

In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such inaccuracy or difference.

4.3 Physical Conditions-Underground Facilities

4.3.1 Shown or Indicated

The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or ENGINEER by the owners of such underground facilities or by others. Unless it is otherwise expressly provided in the Special Conditions:

4.3.1.1 OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and,

4.2.1.2 CONTRACTOR shall have full responsibility for reviewing and checking all such information and data; for locating all underground facilities shown or indicated in the Contract Documents; for coordination of the Work with the owners of such underground facilities during construction; and for the safety and protection thereof and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

4.3.2 Not Shown or Indicated

If an underground facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency), identify the owner of such Underground Facility and give written notice thereof to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the underground facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such underground facility. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any underground facility that was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of.

4.4 Reference Points

OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER'S judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER

whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by a Registered Land Surveyor.

5. CONTRACTOR'S RESPONSIBILITIES

5.1 Supervision

CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall assure that all CONTRACTOR personnel (including subcontractors, etc.) conduct themselves in a courteous and respectful manner toward the ENGINEER and the general public. Failure to comply with this condition of the Contract will result in immediate suspension of the Work. Following a review by the Commissioner of Public Works, the Contract may be terminated (see GC section 14). CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in and required by the Contract Documents. CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

5.2 Superintendence

CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR'S representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

5.3 Labor

CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER'S written consent given after prior written notice to ENGINEER.

5.4 Start-Up and Completion of Work

Unless otherwise specified, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction

equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

5.5 Materials and Equipment

All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to ENGINEER, or any of ENGINEER'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

5.5.1 Not Clearly Specified or Indicated

In all instances where materials specified are obtainable in different sizes, weights, trade grades, qualities or finishes, etc., whose weights, trade grades, qualities or finishes, etc., are not clearly specified or indicated on the Drawings, the CONTRACTOR shall notify the ENGINEER of all such instances at least five (5) days in advance of receiving the proposals. The Engineer will then determine which size, weight, trade grade, quality, finish, etc., is required.

5.5.2 Coordination of Work

The CONTRACTOR shall see that for his own Work and for the work of each subcontractor, proper templates and patterns necessary for the coordination of the various parts of the Work are prepared. The CONTRACTOR shall furnish or require the Subcontractor to furnish such duplicates as will enable the Subcontractors to fit together and execute fully their respective portions of the Work.

5.6 Adjusting Progress Schedule

CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.8) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the Contract Documents applicable thereto.

5.7 Substitutes or “Or-Equal” Items

5.7.1 General

Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other Suppliers may be accepted by OWNER/ENGINEER if sufficient information is submitted by CONTRACTOR to allow OWNER/ENGINEER to determine that the material or equipment proposed is equivalent or equal to that named. The procedure for review by OWNER/ENGINEER will include the following. Requests for review of substitute items of material and equipment will not be accepted by OWNER/ENGINEER from anyone, other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to OWNER/ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR’S achievement of completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by OWNER/ENGINEER in evaluating the proposed substitute. OWNER/ENGINEER may require CONTRACTOR to furnish at CONTRACTOR’S expense additional data about the proposed substitute.

5.7.2 Substitutes

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to OWNER/ENGINEER, if CONTRACTOR submits sufficient information to allow OWNER/ENGINEER to determine that the substitute proposed is

equivalent to that indicated or required by the Contract Documents. The procedure for review by OWNER/ENGINEER will be similar to that provided in paragraph 5.7.1 as applied by OWNER/ENGINEER.

5.7.3 OWNER/ENGINEER'S Approval

OWNER/ENGINEER will be allowed a reasonable time within which to evaluate each proposed substitute. OWNER/ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without OWNER/ENGINEER'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute. OWNER/ENGINEER will record time required by OWNER/ENGINEER and OWNER/ENGINEER'S consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not OWNER/ENGINEER accepts a proposed substitute, CONTRACTOR shall reimburse OWNER for the charges of OWNER/ENGINEER and OWNER/ENGINEER'S consultants for evaluating each proposed substitute.

5.8 Subcontractors, Suppliers, and Others

5.8.1 Acceptable to ENGINEER

CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 5.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

5.8.2 Objection After Due Investigation

If the Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER and if CONTRACTOR has submitted a list thereof, OWNER'S or ENGINEER'S acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute. No acceptance by OWNER or

ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

5.8.3 Contractor Responsible for Acts of Subcontractors

The CONTRACTOR shall perform on the site, and with its own organization, work equivalent to at least fifty (50) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the Urban County Engineer determines that the reduction would be to the advantage of the Urban County Government.

The CONTRACTOR shall, at the time he submits his proposal for the Contract, notify the OWNER in writing of the names of Subcontractors proposed for the Work. He shall not employ any Subcontractor without the prior written approval of the OWNER.

CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR'S own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

5.8.4 Division of Specifications

The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

5.8.5 Agreement Between Contractor and Subcontractors

All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER.

5.8.6 Statements and Comments by CONTRACTOR

Neither the CONTRACTOR, his employees, nor his subcontractors shall at any time make any statement or comment as to the project scope, nature, intention, design, or construction method to any third party or parties without the explicit written consent of the OWNER.

Any third party requesting such information shall be referred to the OWNER or his representative.

Should there be any change from the original intent of the project as a result of any statement or comment by the contractor, his employees or subcontractors, contractor shall be held liable for any change in the scope, nature, design, or construction method and shall bear the full cost for the previously mentioned changes.

5.9 Patent Fees and Royalties

CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others.

5.10 Permits

Unless otherwise provided in the Special conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

5.11 Laws and Regulations

5.11.1 CONTRACTOR to Comply

CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR'S compliance with any Laws and Regulations.

5.11.2 Specifications and Drawings at Variance

If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 3.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such Laws, or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom; however, it shall not be CONTRACTOR'S primary responsibility to make certain that the Specifications and Drawings are in accordance with such Laws and Regulations.

Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

5.12 **Taxes**

CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work. Any party, firm or individual submitting a proposal pursuant to invitation must have paid all taxes owed to the Lexington-Fayette Urban County Government at the time the proposal is submitted, and must maintain a "current" status in regard to those taxes throughout the Contract. If applicable, business must be licensed in Fayette County.

5.13 **Use of Premises**

5.13.1 Project Site

CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the staging areas or work site areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against OWNER or ENGINEER by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER and ENGINEER harmless from and against all claims, damages,

losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against OWNER or ENGINEER to the extent based on a claim arising out of CONTRACTOR'S performance of the Work.

5.13.2 Clean UP

During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

5.13.1 Loading of Structures

CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

5.14 Record Drawings

CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Change Orders, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, samples and Shop Drawings will be delivered to ENGINEER for OWNER.

5.15 Shop Drawings and Samples

5.15.1 Shop Drawing Submittals

After checking and verifying all field measurements and after complying with applicable procedures specified, CONTRACTOR shall submit to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 2.8), or for other appropriate action if so indicated in the Special Conditions, five copies (unless otherwise specified) of all Shop Drawings, which will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as

ENGINEER may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable ENGINEER to review the information as required.

5.15.2 Sample Submittals

CONTRACTOR shall also submit to ENGINEER for review and approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

5.15.3 Review by CONTRACTOR

Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

5.15.4 Notice of Variation

At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and approval of each such variation.

5.15.5 ENGINEER'S Approval

ENGINEER will review and approve with reasonable promptness Shop Drawings and samples, but ENGINEER'S review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER, and shall return the required number of corrected copies of Shop Drawings and submit, as required, new samples for review and approval. CONTRACTOR shall direct specific attention in writing to

revisions other than the corrections called for by ENGINEER on previous submittals.

5.15.6 Responsibility for Errors and Omissions

ENGINEER'S review and approval of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER'S attention to each such variation at the time of submission as required by paragraph 5.15.4 and ENGINEER has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 5.15.3.

5.15.7 Cost of Related Work

Where a Shop or sample is required by the Specifications, any related Work performed prior to ENGINEER'S review and approval of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

5.16 Continuing the Work

CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolutions of any disputes or disagreements, except as permitted by paragraph 14.5 or as CONTRACTOR and OWNER may otherwise agree in writing.

5.17 Erosion and Sediment Control

5.17.1 General Environmental Requirements

The CONTRACTOR and Subcontractors performing work on projects on behalf of the OWNER shall comply with all applicable federal, state, and local environmental regulations and all requirements and conditions set forth in "special" permits including but not limited to Corp of Engineers 404 permits, 401 Water Quality Certifications, Stream Crossing and Floodplain Encroachment Permits.

Any fines or penalties resulting from the failure to comply with the terms of the federal, state or local permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

5.17.2 Stormwater Pollution Prevention

A. The CONTRACTOR shall exercise due care to prevent or minimize any damage to any stream or wetland from pollution by debris, sediment

or other material. The operation of equipment and/or materials in a jurisdictional wetland is expressly prohibited. Water that has been used for washing or processing, or that contains oils, sediments or other pollutants shall not be discharged from the job site. Such waters shall be collected and properly disposed of by the CONTRACTOR in accordance with applicable local, state and federal law.

B. The CONTRACTOR is solely responsible for securing all required state and local permits associated with stormwater discharges from the project including, but not necessarily limited to the KY Notice of Intent to Disturb (NOI) for Coverage of Storm Water Discharges Associated with Construction Activities under the KPDES Storm Water General Permit KYR100000 and the LFUCG, Land Disturbance Permit. Permit application preparation and all required documentation are the responsibility of the CONTRACTOR. The CONTRACTOR is solely responsible for maintaining compliance with the stormwater pollution prevention plan or erosion and sediment control plan and ensuring the following:

- a. That the Stormwater Pollution Prevention Plan (SWPPP) or erosion control plan is current and available for review on site;
- b. That any and all stormwater inspection reports required by the permit are conducted by qualified personnel and are available for review onsite; and
- c. That all best management practices (BMPs) are adequately maintained and effective at controlling erosion and preventing sediment from leaving the site.

C. The CONTRACTOR shall provide the necessary equipment and personnel to perform any and all emergency measures that may be required to contain any spillage or leakage and to remove materials, soils or liquids that become contaminated. The collected spill material shall be properly disposed at the CONTRACTOR's expense.

D. Upon completion of the work and with the concurrence of the OWNER, the CONTRACTOR must file a Notice of Termination (NOT) of Coverage Under the KPDES General Permit for Storm Water Discharges Associated with Construction Activity with the appropriate local and state authorities.

E. Any fines or penalties resulting from the failure to comply with the terms of the state or local stormwater permits or perform necessary corrective action are solely the obligation of the CONTRACTOR.

6. OTHER WORK

6.1 Related Work at Site

OWNER may perform other work related to the Project at the site by OWNER'S own forces, have other work performed by utility owners or let other direct contracts therefor which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work; and, if such performance will involve additional expense to CONTRACTOR or requires additional time, a Change Order to the Contract will be negotiated.

6.2 Other Contractors or Utility Owners

CONTRACTOR shall afford each utility owner and other contractor who is a party to such a direct contract (or OWNER, if OWNER is performing the additional work with OWNER'S employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

6.3 Delays Caused by Others

If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such other contractor or utility owner (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR'S failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S Work except for latent or non-apparent defects and deficiencies in the other work.

6.4 Coordination

If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Special Conditions, and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided, in the Special Conditions.

7. OWNER'S RESPONSIBILITIES

7.1 Communications

OWNER shall issue all communications to CONTRACTOR through ENGINEER.

7.2 Data and Payments

OWNER shall furnish the data required of OWNER under the Contract Documents promptly after they are due.

7.3 Lands, Easements, and Surveys

OWNER'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER'S identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by ENGINEER in preparing the Drawings and Specifications.

7.4 Change Orders

OWNER is obligated to execute Change Orders as indicated in paragraph 9.4.

7.5 Inspections, Tests and Approvals

OWNER'S responsibility in respect to certain inspections, tests and approvals is set forth in paragraph 13.3.

7.6 Stop or Suspend Work

In connection with OWNER'S right to stop Work or suspend Work, see paragraph 12.4 and 14.1 Paragraph 14.2 deals with OWNER'S rights to terminate services of CONTRACTOR under certain circumstances.

8. ENGINEER'S STATUS DURING CONSTRUCTION

8.1 OWNER'S Representative

ENGINEER will be OWNER'S representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER'S representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

8.2 Visits to Site

ENGINEER will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or

continuous on-site inspections to check the quality or quantity of the Work. ENGINEER'S efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defects and deficiencies in the Work.

8.3 Project Representation

ENGINEER will provide an Inspector to assist ENGINEER in observing the performance of the Work. If OWNER designates another agent to represent OWNER at the site who is not ENGINEER'S agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in the Special Conditions.

8.4 Clarifications and Interpretations

ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

8.5 Authorized Variations in Work

ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order.

8.6 Rejecting Defective Work

ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 12.3, whether or not the Work is fabricated, installed or completed.

8.7 Shop Drawings

In connection with ENGINEER'S responsibility for Shop Drawings and samples, see paragraphs 5.15.1 through 5.16 inclusive.

8.8 Change Orders

In connection with ENGINEER'S responsibilities as to Change Orders, see Articles 10, 11 and 12.

8.9 Payments

In connection with ENGINEER'S responsibilities with respect to Applications for Payment, etc., see Article 13.

8.10 Determinations for Unit Prices

ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR.

ENGINEER will review with CONTRACTOR ENGINEER'S preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

8.11 Decision on Disputes

ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims under Articles 10 and 11 in respect of changes in the Contract Price or Contract Time will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter will be delivered to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER within sixty days after such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim.

8.12 Limitations on Engineer's Responsibilities

8.12.1 CONTRACTOR, Supplier, or Surety

Neither ENGINEER'S authority to act under this Article 8 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

8.12.2 To Evaluate the Work

Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives or like "effect" or "import" are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating

otherwise). The use of any such term or adjective shall not be effective to assign ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 8.12.3 or 8.12.4.

8.12.3 CONTRACTOR'S Means, Methods, Etc.

ENGINEER will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR'S failure to perform or furnish the Work in accordance with the Contract Documents.

8.12.4 Acts of Omissions of CONTRACTOR

ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9. CHANGES IN THE WORK

9.1 OWNER May Order Change

Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Change Order. Upon receipt of such notice, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

9.2 Claims

Claims for an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Change Order will be settled as provided for in Article 10 or Article 11.

9.3 Work Not in Contract Documents

CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraph 3.4, except in the case of an emergency and except in the case of uncovering Work as provided in paragraph 12.3.4.

9.4 Change Orders

OWNER and CONTRACTOR shall execute appropriate Change Orders covering:

9.4.1 changes in the Work which are ordered by OWNER pursuant to paragraph 9.1, are required because of acceptance of defective Work under

paragraph 12.7 or corrective defective Work under paragraph 12.8, or are agreed to by the parties;

9.4.2 changes in the Contract Price or Contract Time which are agreed to by the parties; and

9.4.3 changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 8.11; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and REGULATIONS, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 5.16.

9.5 Notice of Change

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10. CHANGE OF CONTRACT PRICE

10.1 Total Compensation

The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

10.2 Claim for Increase or Decrease in Price

The Contract Price may only be changed by a Change Order. Any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by CONTRACTOR'S written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of the occurrence of said event.

10.3 Value of Work

The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

10.3.1 Unit Prices

Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraphs 10.9.1. through 10.9.3, inclusive).

10.3.2 Lump Sum

By mutual acceptance of a lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 10.6.2.1).

10.3.3 Cost Plus Fee

On the basis of the Cost of the Work (determined as provided in paragraphs 10.4 and 10.5) plus a CONTRACTOR'S fee for overhead and profit (determined as provided in paragraphs 10.6 and 10.7).

10.4 Cost of the Work

The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project; shall include only the following items; and shall not include any of the costs itemized in paragraph 10.5:

10.4.1 Payroll Costs

Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

10.4.2 Materials and Equipment Costs

Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

10.4.3 Subcontractor Costs

Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR'S Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

10.4.4 Special Consultant Costs

Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

10.4.5 Supplemental Costs

10.4.5.1 The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR'S employees incurred in discharge of duties connected with the Work.

10.4.5.2 Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

10.4.5.3 Rentals of all construction equipment and machinery and the parts thereof whether rented from

CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal shall be in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

10.4.5.4 Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

10.4.5.5 Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

10.4.5.6 Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR'S fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid a fee proportionate to that stated in paragraph 10.6.2 for services.

10.4.5.7 The cost of utilities, fuel and sanitary facilities at the site.

10.4.5.8 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

10.4.5.9 Cost of premiums for additional Bonds and insurance required because of changes in the Work and premiums for property insurance coverage within the limits of the deductible amounts established by OWNER.

10.5 Not to Be Included in Cost of the Work

The term Cost of the Work shall not include any of the following:

10.5.1 Costs of Officers and Executives

Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR'S principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 10.4.1 or specifically covered by paragraph 10.4.4 - all of which are to be considered administrative costs covered by the CONTRACTOR'S fee.

10.5.2 Principal Office

Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site.

10.5.3 Capital Expense

Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.

10.5.4 Bonds and Insurance

Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 10.4.5.9 above).

10.5.5 Costs Due to Negligence

Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

10.5.6 Other Costs

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 10.4.

10.6 Contractor's Fee

The CONTRACTOR'S Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

10.6.1 a mutually acceptable fixed fee; or if none can be agreed upon,

10.6.2 a fee based on the following percentages of the various portions of the Cost of the Work:

10.6.2.1 for costs incurred under paragraphs 10.4.1 and 10.4.2, the CONTRACTOR'S fee shall be fifteen percent;

10.6.2.2 for costs incurred under paragraph 10.4.3, the CONTRACTOR'S fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a fee, the maximum allowable to CONTRACTOR on account of overhead and profit of all Subcontractors shall be fifteen percent;

10.6.2.3 no fee shall be payable on the basis of costs itemized under paragraphs 10.4.4, 10.4.5 and 10.5;

10.6.2.4 the amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR'S Fee by an amount equal to ten percent of the net decrease; and

10.6.2.5 when both additions and credits are involved in any one change, the adjustment in CONTRACTOR'S fee shall be computed on the basis of the net change in accordance with paragraphs 10.6.2.1 through 10.6.2.4, inclusive.

10.7 Itemized Cost Breakdown

Whenever the cost of any Work is to be determined pursuant to paragraph 10.4 or 10.5, CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

10.8 Cash Allowances

It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within

the limit of the allowances as may be acceptable to ENGINEER, CONTRACTOR agrees that:

10.8.1 Materials and Equipment

The allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

10.8.2 Other Costs

CONTRACTOR'S costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

10.8.3 Change Order

Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

10.9 Unit Price Work

10.9.1 General

Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with Paragraph 8.10.

10.9.2 Overhead and Profit

Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR'S overhead and profit for each separately identified item.

10.9.3 Claim for Increase in Unit Price

Where the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement and there is no corresponding adjustment with respect to any other item of Work and if

CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof, CONTRACTOR may make a claim for an increase in the Contract Price in accordance with Article 10.

11. CHANGE OF CONTRACT TIME

11.1 Change Order

The Contract Time may only be changed by a Change Order. Any claim for an extension or shortening of the Contract Time shall be based on written notice delivered to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by ENGINEER in accordance with paragraph 8.11. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this paragraph 11.1.

11.2 Justification for Time Extensions

The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefore as provided in paragraph 11.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional work as contemplated by Article 6, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

11.3 Time Limits

All time limits stated in the Contract Documents are of the essence of the Agreement. The provisions of this Article 11 shall not exclude recovery for damages (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) for delay by either party.

12. WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

12.1 Warranty and Guarantee

CONTRACTOR warrants and guarantees to OWNER and ENGINEER that all Work will be in accordance with the Contract Documents and will not be defective. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 12.

12.2 Access to Work

ENGINEER and ENGINEER'S representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

12.3 Tests and Inspections

12.3.1 Timely Notice

CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

12.3.2 Requirements and Responsibilities

The ENGINEER may require such inspection and testing during the course of the Work as he/she deems necessary to ascertain and assure the integrity and acceptable quality of the materials incorporated and the work performed. Inspection presence may be either full-time or intermittent, and neither the presence nor absence at any time of the ENGINEER or the INSPECTOR shall relieve the CONTRACTOR of sole responsibility for the acceptability and integrity of the Work or any part thereof.

The costs of sampling, testing, and inspection on-site to ascertain acceptability of the Work and materials will be borne by the OWNER except as otherwise provided. The OWNER will select a testing laboratory to perform such sampling and testing. Sampling and/or testing required by the CONTRACTOR or necessitated by failure of Work or materials to meet the above acceptability test shall be at the expense of the CONTRACTOR.

Inspection services may be performed by the employees of the OWNER or by others selected or designated by the OWNER or the ENGINEER.

Sampling and/or testing required for manufacturing quality and/or process control, for certification that raw mineral materials or manufactured products are the quality specified in the contract, or to assure the acceptability for incorporation into the Work shall be borne by the CONTRACTOR or the material supplier.

Cost for inspection, sampling, testing, and approvals required by the laws or regulations of any public body having competent jurisdiction shall be borne by the CONTRACTOR or the material supplier.

Sampling and testing will be in accord with pertinent codes and regulations and with appropriate standards of the American Society of Testing Materials or other specified standards.

12.3.3 On-Site Construction Test and Other Testing

All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR (or by ENGINEER if so specified).

12.3.4 Covered Work

If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR'S intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

12.3.5 CONTRACTOR'S Obligation

Neither observations by ENGINEER nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR'S obligations to perform the Work in accordance with the Contract Documents.

12.4 OWNER May Stop the Work

If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

12.5 Correction or Removal of Defective Work

If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

12.6 One Year Correction Period

If within one year after the date of Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER'S written instructions, either correct such defective Work, or, if it has been rejected by

OWNER, remove it from the site and replace it with non-defective Work. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Change Order.

12.7 Acceptance of Defective Work

If, instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to OWNER'S evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals).

12.8 OWNER May Correct Defective Work

If CONTRACTOR fails within a reasonable time after written notice of ENGINEER to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 12.5, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR'S services related thereto, take possession of CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER'S representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by ENGINEER, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair

and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR'S defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER'S rights and remedies hereunder.

13. PAYMENTS TO CONTRACTOR AND COMPLETION

13.1 Schedule of Values

The schedule of values established as provided in paragraph 2.8 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

13.2 Application for Progress Payment

At least ten days before each progress payment is scheduled (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER'S interest therein, all of which will be satisfactory to OWNER. OWNER shall, within thirty (30) calendar days of presentation to him of an approved Application for Payment, pay CONTRACTOR the amount approved by ENGINEER.

13.3 CONTRACTOR'S Warranty of Title

CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

13.4 Review of Applications for Progress Payment

13.4.1 Submission of Application for Payment

ENGINEER will, after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER'S reasons for refusing to recommend

payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

13.4.2 ENGINEER'S Recommendation

ENGINEER may refuse to recommend the whole or any part of any payment, if, in ENGINEER'S opinion, it would be incorrect to make such representations to OWNER. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER'S opinion to protect OWNER from loss because:

13.4.2.1 the Work is defective, or completed Work has been damaged requiring correction or replacement;

13.4.2.2 the Contract Price has been reduced by Written Amendment or Change Order;

13.4.2.3 OWNER has been required to correct defective Work or complete Work in accordance with paragraph 12.8; or

13.4.2.4 of ENGINEER'S actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.2.1 through 14.2.9 inclusive.

13.5 Partial Utilization

OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and has been completed. If CONTRACTOR agrees, CONTRACTOR will certify to OWNER that said part of the Work is complete and request that a Certificate of Completion be issued for that part of the Work.

13.6 Final Inspection

Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

13.7 Final Application for Payment

After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 5.14) and other documents - all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject

to the provisions of paragraph 13.10), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER'S property might in any way be responsible, have been paid or otherwise satisfied; and consent of the surety, if any, to final payment. If any Subcontractor or Supplier fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

13.8 Final Payment and Acceptance

13.8.1 ENGINEER'S Approval

If, on the basis of ENGINEER'S observation of the Work during construction and final inspection, and ENGINEER'S review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR'S other obligations under the Contract Documents have been fulfilled, ENGINEER will, after receipt of the final Application for Payment, indicate in writing ENGINEER'S recommendation of payment and present the Application to OWNER for payment. Thereupon ENGINEER will give written notice to OWNER and CONTRACTOR that the Work is acceptable, subject to the provisions of paragraph 13.10. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

13.8.2 Delay in Completion of Work

If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, OWNER shall, upon receipt of CONTRACTOR'S final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 10 of Part II, Information for Bidders, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment.

Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

13.8.3 Retainage

Retainage is not applicable to this project.

13.9 CONTRACTOR'S Continuing Obligation

CONTRACTOR'S obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor any correction of defective Work by OWNER will constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents (except as provided in paragraph 13.10).

13.10 Waiver of Claims

The making and acceptance of final payment will constitute:

13.10.1 a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR'S continuing obligations under the Contract Documents; and

13.10.2 a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

14. SUSPENSION OF WORK AND TERMINATION

14.1 OWNER May Suspend Work

OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 10 and 11.

14.2 OWNER May Terminate

The OWNER may terminate the Work upon the occurrence of any one or more of the following events:

14.2.1 if CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;

14.2.2 if a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

14.2.3 if CONTRACTOR makes a general assignment for the benefit of creditors;

14.2.4 if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR'S creditors;

14.2.5 if CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

14.2.6 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.8 as revised from time to time);

14.2.7 if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

14.2.8 if CONTRACTOR disregards the authority of ENGINEER, or

14.2.9 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety) seven days' written notice and to the extent permitted by Laws and Regulations,

terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) such excess will be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such costs incurred by OWNER will be approved as to reasonableness by ENGINEER and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

14.2.10 If safety violations are observed and brought to the Contractors attention and Contractor fails to take immediate corrective measures or for any repeat of similar safety violations, Owner will order an immediate termination of contract. Note: it is the Contractor's responsibility to know proper safety measures as they pertain to construction and OSHA.

14.2.11 This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.

14.2.12 This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.

14.3 CONTRACTOR'S Services Terminated

Where CONTRACTOR'S services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

14.4 Payment After Termination

Upon seven days' written notice to CONTRACTOR, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work

executed and any expense sustained plus reasonable termination expenses, which will include, but not be limited to, direct, indirect and consequential costs (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs).

14.5 CONTRACTOR May Stop Work or Terminate

If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within sixty days after it is submitted, or OWNER fails for sixty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven days' written notice to OWNER and ENGINEER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 5.16 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

15. MISCELLANEOUS

15.1 Claims for Injury or Damage

Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 15.1 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

15.2 Non-Discrimination in Employment

The CONTRACTOR shall comply with the following requirements prohibiting discrimination:

15.2.1 That no person (as defined in **KRS 344.010**) shall bid on Lexington-Fayette Urban County Government construction projects, or bid to furnish materials or supplies to the Lexington-Fayette Urban County Government, if, within six months prior to the time of opening of bids, said person shall have been found, by declamatory judgment action in Fayette Circuit Court, to be presently engaging in an unlawful practice, as hereinafter defined.

Such declamatory judgment action may be brought by an aggrieved individual or upon an allegation that an effort at conciliation pursuant to KRS 344.200 has been attempted and failed, by the Lexington-Fayette County Human Rights Commission.

15.2.2 That it is an unlawful practice for an employer:

15.2.2.1 to fail or refuse to hire, or to discharge any individual or otherwise to discriminate against an individual, with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, age, or national origin; or

15.2.2.2 to 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 sex, race, color, religion, age, or national origin.

15.2.3 That it is an unlawful practice for an employer, labor organization, or joint-labor management committee controlling apprenticeship or other training or retraining, including on-the-job training programs to discriminate against an individual because of his race, color, religion, sex, age, or national origin in admission to, or employment in, any program established to provide apprenticeship or other training.

15.2.4 That a copy of this Ordinance shall be furnished all suppliers and made a part of all bid specifications.

15.2.5 This Ordinance shall take effect after it is signed, published and recorded, as required by law.

15.3 Temporary Street Closing or Blockage

The CONTRACTOR will notify the ENGINEER at least 72 hours prior to making any temporary street closing or blockage. This will permit orderly notification to all concerned public agencies. Specific details and restrictions on street closure or blockage are contained in the Special Conditions.

15.4 Percentage of Work Performed by prime CONTRACTOR

The CONTRACTOR shall perform on site, and with its own organization, Work equivalent to at least fifty (50%) percent of the total amount of Work to be performed under the Contract. This percentage may be reduced by a supplemental agreement to this Contract if, during performing the Work, the CONTRACTOR requests a reduction and the ENGINEER determines that the reduction would be to the advantage of the OWNER.

15.5 Clean-up

Cleanup shall progress, to the greatest degree practicable, throughout the course of the Work. The Work will not be considered as completed, and final payment will not be made, until the right-of-way and all ground occupied or affected by the Contractor in connection with the Work has been cleared of all rubbish, equipment, excess materials, temporary structures, and weeds. Rubbish and all waste materials of whatever nature shall be disposed of, off of the project site, in an acceptable manner. All property, both public and private, which has been damaged in the prosecution of the Work, shall be restored in an acceptable manner. All areas shall be draining, and all drainage ways shall be left unobstructed, and in such a condition that drift will not collect or scour be induced.

15.6 General

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 12.1, 12.3.5, 13.3, and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of the Agreement.

15.7 Debris Disposal

For all LFUCG projects any trash, construction demolition debris, yard waste, dirt or debris of any kind that is removed from the project site must be disposed of in accordance with local, state, and federal regulations. The disposal site or facility must be approved in advance by the LFUCG and disposal documentation is required. The Contractor will be responsible for payment of any fines associated with improper disposal of material removed from the project site.

END OF SECTION

PART V
SPECIAL CONDITIONS

INDEX

1. REQUIRED RISK MANAGEMENT PROVISIONS
2. BLASTING
3. LABOR/EQUAL EMPLOYMENT OPPORTUNITY
4. FAILURE TO COMPLETE WORK ON TIME
5. KYTC PRE-QUALIFICATION REQUIRED AT TIME OF BID OPENING
6. KY DIVISION OF WATER/EPA PERMITS
7. PAYMENT FOR COST OF PERFORMANCE AND PAYMENT BONDS
8. SPECIAL UTILITY NOTES
9. STANDARD SPECIAL PROVISION (Payment of Predetermined Minimum Wage, Statements and Payrolls)
10. WEATHER RELATED DELAYS
11. FEDERAL WAGES RATES

1.

**RISK MANAGEMENT PROVISIONS
INSURANCE AND INDEMNIFICATION**

1.1 INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) Notwithstanding, the foregoing, with respect to any professional services performed by CONTRACTOR hereunder (and to the fullest extent permitted by law), CONTRACTOR shall indemnify, save, hold harmless and defend LFUCG from and against any and all liability, damages and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees, for any damage due to death or injury to any person or injury to any property (including the loss of use resulting therefrom) to the extent arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of CONTRACTOR in the performance of this agreement.
- (4) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.

- (5) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- (6) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

1.2 FINANCIAL RESPONSIBILITY

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

1.3 INSURANCE REQUIREMENTS

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

<u>Coverage</u>	<u>Limits</u>
General Liability	\$1 million per occurrence, \$2 million aggregate
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	\$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$100,000.00

Excess/Umbrella Liability

\$5 million per occurrence

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability endorsement unless deemed not to apply by LFUCG.
- d. The General Liability Policy shall include an Explosion-Collapse Underground (XCU) endorsement
- e. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- f. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

Deductibles and Self-Insured Programs

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and

self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

Additional Insured Endorsement

CONTRACTOR shall purchase and maintain liability insurance, as described above, specially naming as additional insureds OWNER, ENGINEER, and **JM Crawford and Associates** as well as other individuals or entities identified, using Additional Insurance Endorsement Form CG 20 26 07 04, CG 81 11 05 06, CG 20 10 07 04, or equivalent form. General liability policies shall also be endorsed with Form CG 20 37 07 04 to include the "products-completed operations hazard." Endorsements or General Liability policy shall not exclude supervisory or inspection services. CONTRACTOR shall also provide an Additional Insured Endorsement for the automobile policy.

CONTRACTOR shall, prior to the start of any work on the project by a subcontractor receive: (1) certificate of insurance from each subcontractor naming OWNER, ENGINEER, and **JM Crawford and Associates** as well as other individuals or entities so identified as an additional insured, under each subcontractor's general liability for policy; and (2) the Additional Insured Endorsement language as required by paragraph 1 for subcontractor's operations. Certificate shall be Acord 25-S or equivalent.

That failure of CONTRACTOR or subcontractor to comply with the above requirements with respect to the Additional Insured Endorsement and/or Certificate of Insurance, shall not be construed as waiver of those provisions by OWNER, ENGINEER, and **JM Crawford and Associates** as well as other individuals and entities so identified.

1.4 DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

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2. BLASTING

Blasting is NOT allowed on this project.

3. LABOR/EQUAL EMPLOYMENT OPPORTUNITY INFORMATION PACKAGE

**SPECIAL CONDITIONS
LABOR/EQUAL EMPLOYMENT OPPORTUNITY
INFORMATION PACKAGE
FOR
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT**

Linda Gorton, MAYOR

LABOR/EEO CONDITIONS INDEX

PROJECT NAME: _____

BID NO. _____

ITEM DESCRIPTION

REQUIRED CONTRACT PROVISIONS FORM FHWA-1273
COMPLIANCE WITH EXECUTIVE ORDER 11246
NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
OPPORTUNITY (EXECUTIVE ORDER 11246)
REPORTING REQUIREMENTS
PATENT RIGHT REQUIREMENTS
COPYRIGHT REQUIREMENTS
ACCESS TO RECORDS REQUIREMENTS AND RECORD RETENTION
REQUIREMENTS
CONTRACT AWARD RESTRICTIONS TO FOREIGN COUNTRIES
KENTUCKY EQUAL EMPLOYMENT OPPORTUNITY ACT
OTHER FEDERAL REQUIREMENTS
PUBLIC LAW 88-352: TITLE VI OF THE CIVIL RIGHTS ACT OF 1964
COMPLIANCE WITH CLEAN AIR AND WATER ACTS
ENERGY EFFICIENCY REQUIREMENTS
LEAD-BASED PAINT CONSIDERATIONS
POTENTIAL DBE CONTRACTOR'S LIST CONTACT
EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION
DEBARMENT CERTIFICATION (TO BE COMPLETED AND/OR SIGNED)
FEDERAL WAGE SCALE

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways

functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules,

regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade

and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and

women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its

obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment

activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking

lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or

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

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

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the

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

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

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

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

d. If the contractor does not make payments to a trustee or other third person, the

contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or

cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an

investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

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

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

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

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any

apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

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

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

b. Trainees (programs of the USDOL).

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

The ratio of trainees to journeymen on the job site shall not be greater than permitted under

the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

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

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

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

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in

connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

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

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

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

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

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

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

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a

territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

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

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

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect

property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an

erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general 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 grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered

transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in

covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated

may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general 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 grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower

tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered

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 Opportunity Construction Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

<u>Timetables</u>	Goals for minority	Goals for female
Current	participation for each trade 10.8%	participation in each trade 6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area, whether or not it is federally assisted.

The Contractor's compliance with the Executive Order and the regulations in 41 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 established for the geographical area where the contract resulting from this solicitation is to be performed. 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 to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the State of Kentucky, County of Fayette, City of Lexington.

REPORTING REQUIREMENTS

Notice of awarding agency requirements and regulations pertaining to reporting.

A. **Preconstruction Conference**

Before Contractor starts the work at the proposed site, a conference attended by the Contractor, Engineer/Architect, Contract Compliance Officer, and other appropriate parties will be held to discuss the following issues: (1) The scheduling of the work to be completed; (2) The procedures for handling shop drawings and other submittals; (3) The processing of applications for payment; (4) The establishment of an understanding among the involved parties in regard to the proposed project; and (5) The establishment of procedures for effectively implementing the minimum DBE goals.

B. **Documents Required of Contractor**

Documentation showing the percentage of the DBE employment levels on each project of the Bidder's current work force, and DBE participation levels for Subcontractors.

C. **Optional Owner Requirements**

The Owner, at its discretion, may require the Contractor to provide: (1) financial security in amounts and kind deemed necessary by the Owner or require other financial security to meet the financial responsibility requirements of the Contractor to indemnify the Owner; (2) Additional information and/or DBE work data, as well as DBE participation data.

PATENT RIGHT REQUIREMENTS

Notice of awarding agency requirements and regulations pertaining to patent rights with respect to any discovery or invention which arises or is developed in the course of or under such contract.

§ 401.14 STANDARD PATENT RIGHTS CLAUSES

The following is the standard patent rights clause to be used as specified in §401.3(a).

Patent Rights (Small Business Firms and Nonprofit Organizations)

A. Definitions

1. "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).
2. "Subject invention" means any invention of the **contractor** conceived or first actually reduced to practice in the performance of work under this **contract**, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d) must also occur during the period of **contract** performance.
3. "Practical Application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.
4. "Made" when used in relation to any invention means the conception or first actual reduction to practice such invention.
5. "Small Business Firm" means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.
6. "Nonprofit Organization" means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C 501 (a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

B. Allocation of Principal Rights

1. The **Contractor** may retain the entire right, title, and interest throughout the world to each subject invention, subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the **Contractor** retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

C. Invention Disclosure, Election of Title and Filing of Patent Application by **Contractor**.

1. The **Contractor** will disclose each subject invention to the Federal Agency within two months after the inventor discloses it in writing to **contractor** personnel responsible for patent matters. The disclosure to the agency shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the agency the Contractor will promptly notify the agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the contractor.
2. The Contractor will elect in writing whether or not to retain title to any such invention by notifying the Federal agency within two years of disclosure to the Federal agency. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.
3. The Contractor will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.
4. Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the agency, be granted.

D. Conditions When the Government May Obtain Title

The Contractor will convey to the Federal agency, upon written request, title to any subject invention--

1. If the contractor fails to disclose or elect title to the subject invention within the times specified in (C), above, or elects not to retain title; provided that the agency may only request title within 60 days after learning of the failure of the contractor to disclose or elect within the specified times.
2. In those countries in which the contractor fails to file patent applications within the times specified in (C) above; provided, however, that if the contractor has filed a patent application in a country after the times specified in (C) above, but prior to its receipt of the written request of the Federal agency, the contractor shall continue to retain title in that country.
3. In any country in which the contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

E. Minimum Rights to Contractor and Protection of the Contractor Right to File

1. The contractor will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the contractor fails to disclose the invention within the times specified in (C), above. The contractor's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the contractor is a party and includes the right to grant sublicenses of the same scope to the extent the contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the Federal agency except when transferred to the successor of that party of the contractor's business to which the invention pertains.
2. The contractor's domestic license may be revoked or modified by the funding Federal agency to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404 and agency licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the funding Federal agency to the extent the contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

3. Before revocation or modification of the license, the funding Federal agency will furnish the contractor a written notice of its intention to revoke or modify the license, and the contractor will be allowed thirty days (or such other time as may be authorized by the funding Federal agency for good cause shown by the contractor) after the notice to show cause why the license should not be revoked or modified. The contractor has the right to appeal, in accordance with applicable regulations in 37 CFR Part 404 and agency regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

F. Contractor Action to Protect the Government's Interest

1. The contractor agrees to execute or to have executed and promptly deliver to the Federal agency all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the contractor elects to retain title, and (ii) convey title to the Federal agency when requested under paragraph (D) above and to enable the government to obtain patent protection throughout the world in that subject invention.
2. The contractor agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the contractor each subject invention made under contract in order that the contractor can comply with the disclosure provisions of paragraph (C), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (C)(1), above. The contractor shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
3. The contractor will notify the Federal agency of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.
4. The contractor agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with government support under (identify the contract) awarded by (identify the Federal agency). The government has certain rights in the invention."

G. Subcontracts

1. The contractor will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier for experimental, developmental or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the contractor in this clause, and the contractor will not, as part of the consideration for awarding the subcontractor, obtain rights in the subcontractor's subject inventions.
2. The contractor will include in all other subcontracts, regardless of tier, for experimental developmental or research work the patent rights clause required by (cite section of agency implementing regulations or FAR).
3. In the case of subcontracts, at any tier, when the prime award with the Federal agency was a contract (but not a grant or cooperative agreement), the agency, subcontractor, and the contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Federal agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (J) of this clause.

H. Reporting Utilization of Subject Inventions

1. The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the contractor, and such other data and information as the agency may reasonably specify. The contractor also agrees to provide additional reports as may be requested by the agency in connection with any march-in proceeding undertaken by the agency in accordance with paragraph (J) of this clause. As required by 35 U.S.C. 202 (C)(5), the agency agrees it will not disclose such information to persons outside the government without permission of the contractor.

I. Preference for United States Industry

Notwithstanding any other provision of this clause, the contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the Federal agency upon a showing by the contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

J. March-in Rights

The contractor agrees that with respect to any subject invention in which it has acquired title, the Federal agency has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency to require the contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the contractor, assignee, or exclusive licensee refuses such a request the Federal agency has the right to grant such a license itself if the Federal agency determines that:

1. Such action is necessary because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.
2. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee or their licensees:
3. Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee or licensees; or
4. Such action is necessary because the agreement required by paragraph (I) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

K. Special Provisions for Contracts with Nonprofit Organizations

If the Contractor is a nonprofit organization, it agrees that:

1. Rights to a subject invention in the United States may not be assigned without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the contractor.
2. The contractor will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;
3. The balance of any royalties or income earned by the contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific research or education; and

4. It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the contractor. However, the contractor agrees that the Secretary may review the contractor's licensing program and decisions regarding small business applicants, and the contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary when the Secretary's review discloses that the contractor could take reasonable steps to implement more effectively the requires of this paragraph (K)(4).

1. Communication

(Complete According to Instruction at 401.5(b))

(b) When the Department of Energy (DOE) determines to use alternative provisions under § 401.3(a)(4), the standard clause at § 401.14(a), above, shall be used with the following modifications unless a substitute clause is drafted by DOE:

- (1) The title of the clause shall be changed to read as follows: Patent Rights to Nonprofit DOE Facility Operators

- (2) Add an "(A)" after "(1)" in paragraph (c)(1) and add subparagraphs (B) and (C) to paragraph (c)(1) as follows:

- (B) If the subject invention occurred under activities funded by the naval nuclear propulsion or weapons related programs of DOE, then the provisions of this subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). In such cases the contractor agrees to assign the government the entire right, title, and interest thereto throughout the world in and to the subject invention except to the extent that rights are retained by the contractor through a greater rights determination or under paragraph (e), below. The contractor, or an employee-inventor, with authorization of the contractor, may submit a request for greater rights at the time the invention is disclosed or within a reasonable time thereafter. DOE will process such a request in accordance with procedures at 37 CFR 401.15. Each determination of greater rights will be subject to paragraphs (h)-(k) of this clause and such additional conditions, if any, deemed to be appropriate by the Department of Energy.

- (C) At the time an invention is disclosed in accordance with (c)(1)(A) above, or within 90 days thereafter, the contractor will submit a written statement as to whether or not the invention occurred under a naval nuclear propulsion or weapons-related program of the Department of Energy. If this statement is not filed within this time, subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). The contractor statement will be deemed conclusive unless, within 60 days thereafter, the Contracting Officer disagrees in writing, in which case the determination of the Contracting Officer will be deemed conclusive unless the contractor files a claim under the Contract Disputes Act within 60 days after the Contracting Officer's determination. Pending resolution of the matter, the invention will be subject to subparagraph (c)(1)(B).
3. Paragraph (k)(3) of the clause will be modified as prescribed at § 401.5(g).

§ 401.15 Deferred Determinations

- (a) This section applies to requests for greater rights in subject inventions made by contractors when deferred determination provisions were included in the funding agreement because one of the exceptions at § 401.3(a) was applied, except that the Department of Energy is authorized to process deferred determinations either in accordance with its waiver regulations or this section. A contractor requesting greater rights should include with its request information on its plans and intentions to bring the invention to practical application. Within 90 days after receiving a request and supporting information, or sooner if a statutory bar to patenting is imminent, the agency should seek to make a determination. In any event, if a bar to patenting is imminent, unless the agency plans to file on its own, it shall authorize the contractor to file a patent application pending a determination by the agency. Such a filing shall normally be at the contractor's own risk and expense. However, if the agency subsequently refuses to allow the contractor to retain title and elects to proceed with the patent application under government ownership, it shall reimburse the contractor for the cost of preparing and filing the patent application.
- (b) If the circumstances of concerns which originally led the agency to invoke an exception under § 401.3(a) are not applicable to the actual subject invention or are no longer valid because of subsequent events, the agency should allow the contractor to retain title to the invention on the same conditions as would have applied if the standard clause at § 401.14(a) had been used originally, unless it has been licensed.

- (c) If paragraph (b) is not applicable, the agency shall make its determination based on an assessment whether its own plans regarding the invention will better promote the policies and objectives of 35 U.S.C. 200 than will contractor ownership of the invention. Moreover, if the agency is concerned only about specific uses or applications of the invention, it shall consider leaving title in the contractor with additional conditions imposed upon the contractor's use of the invention for such applications or with expanded government license rights in such applications.
- (d) A determination not to allow the contractor to retain title to a subject invention or to restrict or condition its title with conditions differing from those in the clause at § 401.14(a), unless made by the head of the agency, shall be appealable by the contractor to an agency official at a level above the person who made the determination. This appeal shall be subject to the procedures applicable to appeals under § 401.11 of this part.

§ 401.16 Submissions and Inquiries

All submissions or inquiries should be directed to Federal Technology Management Policy Division, telephone number 202-377-0659, Room H4837, U.S. Department of Commerce, Washington, DC 20230
(FR Doc. 87-5618 Filed 3-17-87: 8:45 am)

COPYRIGHT REQUIREMENTS

Awarding agency requirements and regulations pertaining to copyrights and rights in data.

COPYRIGHTS

Federally supported grant research projects frequently result in the production of books, brochures, manuals, articles, films, or other written materials. In most instances they are technical reports which serve to disseminate the results of a project to the public and to the scientific community or other researchers. Often, however, these documents are publishable and occasionally they have significant commercial value. Who controls the rights to these materials? What rights does the Government retain? What are the grantee's responsibilities in handling the materials?

There is a widely held notion that written materials produced with the support of public money are automatically in the public domain. That view is erroneous, and in fact no member of the public has an inherent right to use grant-produced materials merely because they were prepared under Government assistance. Because of the confusion, however, it is important for grantees to note a few features of the copyright law which relate to the subject of the grants.

In general, researchers have exclusive rights in any original works of their authorship. Under the most recent amendment to the copyright law, statutory copyright protection extends to both published and unpublished works of the author. Researchers are cautioned to observe the publication policies of their institutions or organizations in this regard, and unless there is an express agreement to the contrary, their employing institution may be considered the author of any materials prepared in the course of their employment, under the "works for hire" doctrine.

Under the most recent amendments to the copyright law, it is clear that grant reports are not considered works of the Government which are in the public domain. The legislative history of the law shows that Congress expressly left it to the discretion of the individual grant-making agencies to determine whether written materials produced by their grantees should be placed in the public domain, and it expected the questions to be resolved by the terms and conditions of grants. The House Report No. 94-1476, September 3, 1976, stated on page 59:

A more difficult and far-reaching problem is whether the definition should be broadened to prohibit copyright in works prepared under U.S. Government contract or grant. As the bill is written, the Government agency concerned could determine in each case whether to allow an independent contractor or grantee to secure copyright in works prepared in whole or in part with the use of Government funds. The argument that has been made against allowing copyright in this situation is that the public should not be required to pay a "double subsidy," and that it is inconsistent to prohibit copyright in works by Government employees while permitting private copyrights in a growing body of works created by persons who are paid with Government funds. Those arguing in favor of potential copyright protection have stressed the importance of copyright as an incentive to creation and dissemination in this situation, and the basically different policy considerations, applicable to works

written by Government employees and those applicable to works prepared by private organizations with the use of Federal funds.

The bill deliberately avoids making any sort of outright, unqualified prohibition against copyright in works prepared under Government contract or grant. There may be cases where it would be in the public interest to deny copyright in the writings generated by Government research contracts and the like; it can be assumed that, where a Government agency commissions a work for its own use merely as an alternative to having one of its own employees prepare the work, the right to secure a private copyright would be withheld. However, there are almost certainly many other cases where the denial of copyright protection would be unfair or would hamper the production and publication of important works. Where, under the particular circumstances, Congress or the agency involved finds the need to have a work freely available outweighs the need of the private author to secure copyright, the problem can be dealt with by specific legislation, agency regulations, or contractual restrictions.

Agency Policy

Government-wide policies contained in Office of Management and Budget Circulars A-102 and A-110 speak to the issue of copyrightable materials through their respective Attachments N. Circular A-110 states:

8b. Copyrights. - Except as otherwise provided in the terms and conditions of the agreement, the author or the recipient organization is free to copyright any books, publications, or other copyrightable materials developed in the course of or under a Federal agreement, but the Federal sponsoring agency shall reserve a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use, the work for Government purposes.

Except for minor, nonsubstantive differences, the provisions of A-102 are identical. Each permits the grantee to copyright published materials, subject to a license for the U.S. Government to use the materials for Government purposes. Each also gives the grantor agency discretion in altering that condition, by establishing different terms and conditions in its grants.

Suggested steps for grantees

A grantee whose grant-financed activity may involve the need for potential need for copyrighting of materials should:

- Check the terms and conditions of the grant to determine whether a copyright can be asserted in unpublished as well as published materials. This may vary from grantor agency to grantor agency and from grant to grant.

- It is the grantee's obligation to take the necessary steps to preserve the Government's license when conveying rights to publishers. If the publisher provides a release form that does not contain a reference to Government use of the materials, appropriate language should be inserted that preserves the Government's rights. If necessary, the granting agency should be consulted to assure compliance with the terms of the grant.
- Under most Federal grants, proper acknowledgment of the source of funds used to write a published work will be required. For example, the National Science Foundation **Grant General Conditions** require the following acknowledgment of support and disclaimer statement in any publication of material, whether copyrighted or not: "This material is based upon work supported by the National Science Foundation under Grant No._____." Except for scientific articles and papers appearing in scientific journals, all materials must also contain the following disclaimer:

Any opinions, findings and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

- When negotiating a publication agreement, the grantee must include in the publishing contract the reservation of Government license and the acknowledgment and disclaimer statements.
- Grants often are made with the stipulation that any substantive technical reports will be made available to the public through the U.S. Department of Commerce, National Technical Information Service (NTIS). Again, the grantee is well advised to check the terms and conditions of its grant agreement to see if such requirements exist and, if so, to account for them in dealing with potential publishers.
- Provide copies of copyrighted work to the granting agency.
- Some agencies may require prior approval of any proposed commercial publication, including approval of the selection process by which a publisher is obtained. The National Science Foundation, for example, requires documentation showing that a reasonable number of qualified publishers were given an opportunity to compete for the materials. Also, the selection criteria are subject to examination, as well as the final publishing contract.

With respect to any discovery or invention which arises or is developed in the course of or under this contract, Lexington-Fayette Urban County Government and/or Owner shall have the right to require the contractor, an assignee or exclusive licensee of a subject invention to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to Lexington-Fayette Urban County Government and/or Owner.

With respect to any copyrights and rights in data, Lexington-Fayette Urban County Government

ACCESS TO RECORDS REQUIREMENTS

Access by the grantee, the subgrantee, the Federal grantor agency, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions.

ACCESS TO RECORDS

The Contractor agrees that the Lexington-Fayette Urban County Government, the Owner, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any and all books, documents, papers, and records of the Contractor which are directly pertinent to this specific project for the purposes of making an audit, examination, excerpts, and transcriptions.

RECORDS RETENTION REQUIREMENTS

Retention of all required records for three years after contractors or subcontractors make final payments and all other pending matters are closed.

CONTRACT AWARD RESTRICTION TO FOREIGN COUNTRIES

Contractor agrees to fully comply with applicable terms and conditions in Section 109 of Pub. L. 100-102 as set forth below:

RESTRICTIONS ON PUBLIC BUILDINGS AND PUBLIC WORKS PROJECTS

(A) Definitions. "Component" as used in this clause means those articles, materials, and supplies incorporated directly into the product.

"Contractor or subcontractor of a foreign country," as used in this clause, means any Contractor or Subcontractor that is a citizen or national of a foreign country or is controlled directly or indirectly by citizens or nationals of a foreign country. A contractor or subcontractor shall be considered to be a citizen or national of a foreign country or controlled directly or indirectly by citizens or nationals of a foreign country.

- (1) If 50 percent or more of the Contractor or Subcontractor is owned by a citizen or a national of the foreign country;
- (2) If the title of to 50 percent or more of the stock of the Contractor or Subcontractor is held subject to trust or fiduciary obligation in favor of citizens or nationals of the foreign country;
- (3) If 50 percent or more of the voting power in the Contractor-Subcontractor is vested in or exercisable on behalf of a citizen or national of the foreign country;
- (4) In the case of a partnership, if any general partner is a citizen of the foreign country;
- (5) In the case of a corporation, if its president or other chief executive officer or the chairman of its board of directors is a citizen of the foreign country or the majority of any number of its directors necessary to constitute a quorum are citizens of the foreign country or the corporation is organized under the laws of the foreign country or any subdivision, territory, or possession thereof; or
- (6) In the case of a Contractor or Subcontractor who is a joint venture, if any participant firm is a citizen or national of a foreign country or meets any of the criteria in subparagraphs (a)(1) through (5) of this clause.

"Product", as used in this clause, means construction materials-i.e., articles, materials, and supplies brought to the construction site for incorporation into the public works project, including permanently affixed equipment, instruments, utilities, electronic or other devices, but not including vehicles or construction equipment. In determining the origin of a product Lexington-Fayette Urban County Government and/or Owner will consider a product as produced in a foreign country if it has been assembled or manufactured in the foreign country, or if the cost of the components mined, produced, or manufactured in the foreign country exceed 50 percent of the cost of all its components.

- (b) Restrictions. The Contractor shall not (1) knowingly enter into any subcontract under this contract with a Subcontractor of a foreign country on the list of countries that discriminate against U.S. firms published by the United States Trade Representative (see paragraph (c) of this clause, or (2) supply any product under this contract of a country included on the list of foreign countries that discriminate against U.S. firms published by the USTR.
- (c) USTR list. The USTR published an initial list in the Federal Register on December 30, 1987 (53 FR 49244), which identified one country - Japan. The USTR can add other countries to the list or remove countries from it in accordance with Section 109 (c) of Pub. L 100-202.
- (d) Certification. The Contractor may rely upon the certification of a prospective Subcontractor that it is not a Subcontractor of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR and that products supplied by such Subcontractor for use on the Federal public works project under this contract are not products of a foreign country included on the list of foreign countries that discriminate against U.S. firms published by the USTR, unless such Contractor has knowledge that the certification is erroneous.
- (e) Subcontracts. The Contractor shall incorporate this clause, modified only for the purpose of properly identifying the parties in all subcontracts. This paragraph (e) shall also be incorporated in all subcontracts.

(End of Contract Clause)

Bids/proposals from such firms/suppliers shall be deemed nonresponsible and rejected.

Questions related to this issue should be directed to Division of Community Development, Lexington-Fayette Urban County Government, 200 E. Main Street 6th Floor, Lexington, Kentucky 40507.

KENTUCKY EQUAL EMPLOYMENT OPPORTUNITY ACT

The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.570-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, or national origin;
2. The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractor that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, or national origin;
3. The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the nondiscrimination clauses required by this section; and
4. The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or worker's representative of the contractor's commitments under the nondiscrimination clauses.

The Act further provides:

KRS 45.610. Hiring Minorities - Information Required

1. For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetables.
2. Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to KRS 45.640 and such rules, regulations and orders issued pursuant thereto.

KRS 45.620. Action Against Contractor -- Hiring of Minority Contractor or Subcontractor

1. If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certifications shall be binding upon the contracting agency unless it is reversed in the course of judicial review.
2. If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.
3. The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority subcontractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.

KRS 45.630. Termination of existing employee not required, when:

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee, upon proof that the employee was employed prior to the date of the contract.

KRS 45.640. Minimum Skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

OTHER FEDERAL REQUIREMENTS

INTEREST OF CERTAIN FEDERAL OFFICIALS

No member of or Delegate to the Congress of the United States and no Resident Commission, shall be admitted to any share or part of this Agreement or to any benefit to arise from the same.

INTEREST OF MEMBERS, OFFICERS, OR EMPLOYEES OF PUBLIC BODY, MEMBER OF LOCAL GOVERNING BODY, OR OTHER PUBLIC OFFICIALS

No member, officer, or employee of the Public Body, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or sub-contract, or the proceeds thereof, for work to be performed in connection with the program assisted under this Agreement.

PROHIBITION AGAINST PAYMENTS OF BONUS OR COMMISSION

The assistance provided under this Agreement shall not be used in the payment of any bonus or commission for the purpose of obtaining Federal approval of the application for such assistance, or approval of applications for additional assistance, or any other approval of concurrence required under this Agreement with respect thereto; provided, however, that reasonable fees or bonafide technical, consultant, managerial or other such services, other than actual solicitation, are not hereby prohibited if otherwise eligible as program costs.

PUBLIC LAW 88-352: TITLE VI OF THE CIVIL RIGHTS
ACT OF 1964

The Developer agrees to insure that no person shall on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program in the multi-family rental housing facility developed through this contract.

PUBLIC LAW 90-284: TITLE VIII OF THE CIVIL RIGHTS ACT
OF 1968 AND EXECUTIVE ORDER 11063

The Developer warrants and assures that they and their agents will not discriminate in the rental or leasing of housing units constructed under this contract and will in no way make unavailable or deny a dwelling to any person, because of race, color, religion, sex or national origin.

SECTION 109

The Developer will not on the ground of race, color, national origin, sex, age, or handicap:

1. Deny any facilities, services, financial aid or other benefits provided under the program or activity.
2. Provide any facilities, services, financial aid or other benefits which are different, or are provided in a different form from that provided to others under the program or activity.
3. Subject to segregated or separate treatment in any facility in, or in any matter of process related to receipt of any service or benefit under the program or activity.
4. Restrict in any way access to, or in the enjoyment of any advantage or privilege enjoyed by others in connection with facilities, services, financial aid or other benefits under the program or activity.
5. Treat any individual differently from others in determining whether the individual satisfies any admission, enrollment, eligibility, membership, or other requirement or condition which individual must meet in order to be provided any facilities, services or other benefit provided under the program or activity.
6. Deny an opportunity to participate in a program or activity as an employee.

COMPLIANCE WITH THE CLEAN AIR AND WATER ACTS

Compliance with all applicable standards, orders, or requirements issued under section 206 of the Clean Air Act (42 U.S.C. 1857)(h), Section 506 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000).

COMPLIANCE WITH AIR AND WATER ACTS

This Agreement is subject to the requirements of the Clean Air Act, as amended, 42 USC 1857 et. seq., the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended from time to time.

The Contractor and any of its subcontractors for work funded under this Agreement, in excess of \$100,000 agree to the following requirements:

1. A stipulation by the Contractor or subcontractors that any facility to be utilized in the performance of any non-exempt contract or subcontract is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
2. Agreement by the Contractor to comply with all requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued there under.
3. A stipulation that as a condition for the award of the Contract prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA indicating that a facility utilized or to be utilized for the Contract is under consideration to be listed on the EPA list of Violating Facilities.
4. Agreement by the Contractor that he/she will include or cause to be included the criteria and requirements in paragraph (1) through (4) of this section in every nonexempt subcontract and requiring that the Contractor will take such action as the Government may direct as a means of enforcing such provision.

In no event shall any amount of assistance provided under this Agreement be utilized with respect to a facility which has given rise to a conviction under Section 113(c)(1) of the Clean Air Act or Section 309(c) of the Federal Water Pollution Control Act.

ENERGY EFFICIENCY REQUIREMENTS

Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163).

LEAD BASED PAINT

- A. All paint to be lead free.
- B. Existing lead paint to be removed or concealed with an acceptable covering (paint, siding, etc.)
- C. Warning
 1. Use of lead-base paint materials on any surface, interior or exterior, is prohibited.
 2. Lead-base paint removal is a dangerous task and safety precautions should be strictly enforced when workers are engaged in hazard abatement.

POTENTIAL DBE CONTRACTOR'S LIST CONTACT

For a listing of DBE (Disadvantaged Business Enterprise) contractors/subcontractors, please contact:

Sherita Miller/Todd Slatin
Division of Central Purchasing
200 E. Main Street, 3rd Floor
Lexington, KY 40507
(859) 258-3326
TDD [hearing impaired only] (859) 258-3606

All Contractors and Subcontractors must be qualified for roadway construction by the Kentucky Department of Transportation.

KYTC Prequalified DBE list can be found at:

<http://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-and-Prequalified-DBEs.aspx>

EQUAL EMPLOYMENT OPPORTUNITY AFFIRMATIVE ACTION POLICY

It is the policy of _____
to assure that all applicants for employment and all employees are treated on a fair and equitable basis without regard to their race, religion, sex, color, handicap, natural origin or age.

Such action shall include employment, promotion, demotion, recruitment or recruitment advertising, layoff or termination, rates of pay and other forms of compensation, and selection for training, whether apprenticeship and/or on-the-job-training.

Furthermore, this company agrees to make special recruitment efforts to hire the protected class whenever feasible. This company also agrees to adhere to all applicable federal, state, and local laws relating to Equal Employment Opportunity for all individuals.

_____ has been appointed Equal Employment Compliance (EEOC) Officer and shall be available for counseling, answering of questions in regards to this company policy, and to hear any complaints of discrimination. The EEOC Office may be reached by calling _____.

Signature: _____
(Bidding Contractor)

Title: _____

Date: _____

4. FAILURE TO COMPLETE WORK ON TIME

Should the Contractor fail or refuse to complete the work within the time specified in his Proposal and/or Contract (or extension of time granted by the OWNER), the Contractor shall pay liquidated damages in an amount set out in said Proposal and/or Contract. The amount of liquidated damages shall in no event be considered as a penalty, nor other than an amount agreed upon by the Contractor and the OWNER for damages, losses, additional engineering, additional resident representation and other costs that will be sustained by the OWNER, if the Contractor fails to complete the work within the specified time. Liquidated damages will be applied on a rate per day for each and every calendar day (Sundays and holidays included) beyond the Contract expiration date stipulated in the Contract Documents, considering all time extensions granted.

5. KYTC PRE-QUALIFICATION REQUIRED AT TIME OF BID OPENING

Bidders and DBE subcontractors must be prequalified with the Kentucky Transportation Cabinet and possess a Certificate of Eligibility at the time of the bid opening. All other subcontractors must be prequalified when accepting subcontracts.

6. KY DIVISION OF WATER / EPA PERMTS

Contractor shall prepare and maintain the BMP (Best Management Practices) and SWPP (Storm Water Pollution Prevention) Plans.

7. PAYMENT FOR COST OF PERFORMANCE AND PAYMENT BONDS

Contrary to Article 10.5.4 of the General Conditions, direct payment for the Contractor's cost of Performance and Payment Bonds will be permitted.

Direct cost of required Performance and Payment Bonds has been included as a line item in the Form of Proposal, to allow payment for this cost prior to completion of the project if the contractor so chooses. If no figure is supplied for this line item, no specific payment for bonding costs will be made. The total amount of bid is to include the cost of bonding, whether this cost is specifically shown by the bidder on the line item in the Form of Proposal, or whether it is indirectly included elsewhere within the bidder's unit prices.

When the applicable amount is listed in the Form of Proposal, payment for the costs of Performance and Payment Bonds may generally be requested after the work is 20% complete. The contractor will furnish from his bonding agent a receipt verifying the cost of the bonds and a letter stating that the bonds are in effect and in good standing. Payment will be made for the actual cost of the bonds or the amount stated in the Form of Proposal, whichever is less.

For projects with less than 90 day contract time or a total bid price less than \$100,000, no early or separate repayment of bonding costs will be considered. In those cases, if bonding costs are listed as a bid item, bond payment will be combined with final release of all retainage. **(NO RETAINAGE ON THIS CONTRACT).**

8. SPECIAL UTILITY NOTES

IMPACT ON CONSTRUCTION

GENERAL PROJECT NOTE ON UTILITY PROTECTION

Utility coordination efforts determined that minor utility relocation work is required to complete the project. Any work pertaining to these utility facilities is defined in the bid package and is to be carried out as instructed by the LFUCG. The CONTRACTOR will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.)

UTILITY NOTES

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

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

Utility Notes continued on following pages

**UTILITY NOTES TO BE INCLUDED IN THE PROPOSAL
IMPACT ON CONSTRUCTION**

FAYETTE COUNTY

Clays Mill Road Improvements Section 1

Utility coordination efforts determined that major utility relocation will be necessary for this project. Any information pertaining to utility facilities are defined in the bid package and are to be carried out as instructed by the LFUCG. The CONTRACTOR will be responsible for any coordination or adjustments that are discussed or quantified in the proposal.

Utility relocation work is being performed in two phases. For all intents and purposes, the first phase, from Sta. 116+19 to 169+00 (Waco Road to Stratford Drive) has been completed. The second phase, from Sta. 169+00 to 215+95 (Stratford Drive to Harrodsburg Road) utility relocation will occur as described below as reported by each utility known to be within the project limits.

Until all Phase 2 utility relocation work is complete, the CONTRACTOR may only work within the Phase 1 area, unless written arrangements have been made with the Engineer to permit specific work in Phase 2. 366 days following Notice to Proceed, the CONTRACTOR can anticipate full access to the Phase 2 area. However, as utility relocation work will be ongoing at the time of contract award, there may be exceptions.

To facilitate coordination between the CONTRACTOR and the utility companies, meetings will be held monthly or as needed, via teleconference, to track the progress of relocation work and the CONTRACTOR'S progress. The goal of the meetings will be to ensure the CONTRACTOR will not be hindered from proceeding with work in the Phase 2 area.

If the CONTRACTOR is delayed by a utility company failing to relocate facilities in a timely manner, as demonstrated by a conflict with the CONTRACTOR'S schedule, the CONTRACTOR will not be subject to liquidated damages for those days, provided they are documented in writing. However, no claims will be accepted by the OWNER for such delays.

Utility Information Note – Phase 2 (Stratford Drive to Harrodsburg Road)

Kentucky Utilities Distribution has overhead and underground facilities and street lighting in the project limits. Relocation will be completed by the end of October 2020.

Windstream Communications has underground conduit along the south side of Rosemont Garden crossing Clays Mill Road. Relocation will be completed by the end of December 2020.

Spectrum Cable has overhead facilities in the project limits. Spectrum Cable will relocate overhead utilities as required. Relocation completion date has not been determined. CONTRACTOR shall adjust junction boxes to grade as required.

Metronet has overhead facilities in the project limits, most of which have been relocated to new poles. The remaining relocations will be completed by the end of August 2020.

Kentucky American Water Company has water lines within the project limits that they intend to replace and relocate. Relocation will be completed by October 2021. The CONTRACTOR shall coordinate with KAWC to relocate and/or reset any hydrants, valves and service meters and service lines that conflict with the construction of this project.

Columbia Gas of Kentucky, Inc. has gas lines within the project limits that they intend to replace and relocate. Relocation will be completed by December 2021. The CONTRACTOR shall coordinate with Columbia Gas to relocate and/or reset any valves or service lines that conflict with the construction of this project.

SPECIAL CAUTION NOTE – PROTECTION OF UTILITIES

The CONTRACTOR will be responsible for contacting all utility facility owners on the subject project to coordinate his activities. The CONTRACTOR will coordinate his activities to minimize and, where possible, avoid conflicts with utility facilities. Due to the nature of the work proposed, minor utility relocations are anticipated. Where conflicts with utility facilities are unavoidable, the CONTRACTOR will coordinate any necessary relocation work with the facility owner and Engineer. The Lexington-Fayette Urban County Government maintains the right to remove or alter portions of this contract if a utility conflict occurs.

The Lexington-Fayette Urban County Government makes no guarantees regarding: the existence of utilities, the location of utilities, the utility companies in the project scope, or the potential for conflicts encountered during construction. Any location of utilities provided herein has been furnished by the facility owners, field inspection, and/or reviewing record drawings. The accuracy of the information provided is undetermined. It will be the CONTRACTOR's responsibility to locate utilities before excavating. If necessary, the roadway CONTRACTOR shall determine the exact location and elevation of utilities by hand digging or hydroexcavation to expose utilities before excavating in the area of a utility.

The CONTRACTOR is advised to contact KY 811 one-call system; however, the CONTRACTOR should be aware that owners of underground facilities are not required to be members of the KY 811 one-call system. It may be necessary for the CONTRACTOR to contact the County Court Clerk to determine what utility companies have facilities in the project area. Note: See attached sheet for Project Area Utility Contacts.

UTILITY CONTACT LIST FOR PROJECT AREA

It has not been confirmed what specific utility is located within the project bounds beyond field inspection. Therefore, we have provided a contact list as a precautionary measure to aid the awarded CONTRACTOR in contacting any utility necessary.

Kentucky Utilities Company
500 Stone Road
Lexington, KY 40503

Contact: Kevin Long
(859) 367-4219
Kevin.Long@lge-ku.com

Spectrum
2544 Palumbo Drive
Lexington, KY 40509

Contact: John Kelly Oram
(859) 519-3434
John.Oram@charter.com

Windstream Communications
130 West New Circle Road, Suite 170
Lexington, KY 40505

Contact: Steve Johnson
(859) 357-6216
steve.johnson@windstream.com

Metronet Inc.
601 Bizzell Drive
Lexington, KY 40510

Contact: Wesley Maynard
(859) 785-1673
Wesley.Maynard@metronetinc.com

Kentucky American Water
2300 Richmond Road
Lexington, KY 40502

Contact: Cole Mitcham
(859) 537-0748
Cole.mitcham@amwater.com

Contact: Richard Hawthorne
(859) 537-0755
Richard.Hawthorne@amwater.com

Columbia Gas of Kentucky, Inc.
2001 Mercer Road
P.O. Box 14241
Lexington, KY 40512

Contact: Bryan Slone
(859) 288-0249
bkslone@nisource.com

Lexington-Fayette Urban County Government
Division of Water Quality
301 Lisle Industrial Avenue
Lexington, KY 40511

Contact: Rodney Chervus, P.E.
(859) 425-2400
rchervus@lexingtonky.gov

Lexington-Fayette Urban County Government
Traffic Engineering
101 E. Vine Street, Suite 300
Lexington, KY 40507

Contact: Jeffery Neal
(859) 258-3830
jneal@lexingtonky.gov

9. STANDARD SPECIAL PROVISION

REQUIRED CONTRACT PROVISIONS FEDERAL - AID CONSTRUCTION CONTRACTS

- IV. Payment of Predetermined Minimum Wage
- V. Statements and Payrolls

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

- a. All mechanics and laborers 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 (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 paragraphs 4 and 5 of this Section IV.

- b. 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.
- c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. **Classification:**

- a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.
- b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:
 - 1. the work to be performed by the additional classification requested is not performed by a classification in the wage determination;
 - 2. the additional classification is utilized in the area by the construction industry;
 - 3. the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - 4. with respect to helpers, when such a classification prevails in the area in which the work is performed.
- c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour 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.
- d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said 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

- e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

- a. 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 or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.
- b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a 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.

4. Apprentices and Trainees (Programs of U.S. DOL) and Helpers:

a. Apprentices:

- 1. 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 DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/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 Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.
- 2. The allowable ratio of apprentices to journeyman-level employees 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 employee 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 listed in 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 or subcontractor 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-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

3. 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 journeyman-level 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
 4. In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.
- b. Trainees:
1. 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 DOL, Employment and Training Administration.
 2. The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. 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.

3. Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level 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-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.
4. In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor 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. **Helpers:**

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. **Apprentices and Trainees:**

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

6. **Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor 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, as 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 SHA contracting officer 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.

7. **Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. **Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her 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, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. **Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies 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 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
- b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof 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. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - 1. that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
 - 2. that such 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 the Regulations, 29 CFR 3;
 - 3. that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- e. 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 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.
- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, 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 SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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.

10. WEATHER RELATED DELAYS

A. The Project Completion date shall be established with the understanding that no extension of time will be granted for weather related delays that are within the average temperature or number of rain or snow days within a particular month. The average weather conditions shall be established by referencing the records of the National Oceanic and Atmospheric Administration (NOAA) and as defined herein.

B. Extensions of inclement weather shall be granted only when the work affected must be on schedule at the time of delay. No time will be granted for work which is behind schedule in excess of the actual delay caused by the weather, assuming the work had been on schedule.

C. Time granted for weather delays shall be requested on a monthly basis.

D. The weather experienced at the project site during the contract period must be found to be unusually severe, that is more severe than the adverse weather anticipated for the project location during any given month. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the contractor.

E. The anticipated adverse weather delays shall be based on the National Oceanic and Atmospheric Administration (NOAA) climatology ten year average for the Lexington Bluegrass Airport KY US location. The Mean Number of Days of daily precipitation using ≥ 0.10 will determine the base line for monthly anticipated adverse weather evaluations. The contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the contractor will record the occurrence of actual adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical path activities for 50 percent or more of the contractor's scheduled work date. The number of actual adverse weather delay days shall be calculated chronologically from the first to the last day of each month, and be recorded as full days. The number of actual adverse weather days greater than the number of anticipated adverse weather days, listed above, shall be the number of unusually severe weather days for the purposes of any contract extensions (actual adverse weather days - anticipated adverse weather days = unusually severe weather days.)

F. Definitions:

1. "Unusually severe weather" - weather that is more severe than the adverse weather anticipated for the season or location involved.
2. "Adverse weather" - atmospheric conditions at a definite time and place that are unfavorable to construction activities.

END OF SECTION

11. WAGE RATES

"General Decision Number: KY20200038 01/03/2020

Superseded General Decision Number: KY20190038

State: Kentucky

Construction Type: Highway

Counties: Anderson, Bath, Bourbon, Boyd, Boyle, Bracken, Breckinridge, Bullitt, Carroll, Carter, Clark, Elliott, Fayette, Fleming, Franklin, Gallatin, Grant, Grayson, Greenup, Hardin, Harrison, Henry, Jefferson, Jessamine, Larue, Lewis, Madison, Marion, Mason, Meade, Mercer, Montgomery, Nelson, Nicholas, Oldham, Owen, Robertson, Rowan, Scott, Shelby, Spencer, Trimble, Washington and Woodford Counties in Kentucky. HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015.

If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number Publication Date

0 01/03/2020

BRIN0004-003 06/01/2017

BRECKENRIDGE COUNTY

Rates Fringes
BRICKLAYER.....\$ 26.80 12.38

BRKY0001-005 06/01/2017
BULLITT, CARROLL, GRAYSON, HARDIN, HENRY, JEFFERSON, LARUE,
MARION, MEADE, NELSON, OLDHAM, SHELBY, SPENCER, & TRIMBLE
COUNTIES:

Rates Fringes
BRICKLAYER.....\$ 26.80 12.38

BRKY0002-006 06/01/2017
BRACKEN, GALLATIN, GRANT, MASON & ROBERTSON COUNTIES:

Rates Fringes
BRICKLAYER.....\$ 27.81 13.01

BRKY0007-004 06/01/2017
BOYD, CARTER, ELLIOT, FLEMING, GREENUP, LEWIS & ROWAN COUNTIES:

Rates Fringes
BRICKLAYER.....\$ 32.98 19.02

BRKY0017-004 06/01/2017
ANDERSON, BATH, BOURBON, BOYLE, CLARK, FAYETTE, FRANKLIN,
HARRISON, JESSAMINE, MADISON, MERCER, MONTGOMERY, NICHOLAS,
OWEN, SCOTT, WASHINGTON & WOODFORD COUNTIES:

5/28/2020 beta.SAM.gov
https://beta.sam.gov/wage-determination/KY20200038/0?index=wd&is_active=true&date_filter_index=0&date_rad_s election=date&wdType=dbra&stat... 2/9

Rates Fringes
BRICKLAYER.....\$ 26.47 12.76

CARP0064-001 05/01/2015
Rates Fringes
CARPENTER.....\$ 27.50 16.06
Diver.....\$ 41.63 16.06
PILEDRIVERMAN.....\$ 27.75 16.06

* ELEC0212-008 06/03/2019
BRACKEN, GALLATIN and GRANT COUNTIES
Rates Fringes
ELECTRICIAN.....\$ 30.18 18.89

ELEC0212-014 11/26/2018
BRACKEN, GALLATIN & GRANT COUNTIES:
Rates Fringes

Sound & Communication
Technician.....\$ 24.35 10.99

ELEC0317-012 06/01/2019
BOYD, CARTER, ELLIOT & ROWAN COUNTIES:
Rates Fringes
ELECTRICIAN (Wiremen)
Electrician.....\$ 34.35 25.70

ELEC0369-007 05/28/2019
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.....\$ 32.44 17.22

* ELEC0575-002 05/27/2019
FLEMING, GREENUP, LEWIS & MASON COUNTIES:
Rates Fringes
ELECTRICIAN.....\$ 33.75 17.19

ENGI0181-018 07/01/2019
Rates Fringes
POWER EQUIPMENT OPERATOR
GROUP 1.....\$ 33.30 16.50
GROUP 2.....\$ 30.44 16.50
GROUP 3.....\$ 30.89 16.50
GROUP 4.....\$ 30.12 16.50
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 06/01/2019

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, Pecksrige, 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.....\$ 28.00 21.20

Structural.....\$ 29.47 21.20

IRON0070-006 06/01/2019

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, Stamping Ground & Woodlake);

Rates Fringes

IRONWORKER.....\$ 29.68 22.75

IRON0769-007 06/01/2019

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.....\$ 32.00 25.95

ZONE 2.....\$ 32.40 25.95

ZONE 3.....\$ 34.00 25.95

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

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

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

 LABO0189-003 07/01/2018

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

Rates Fringes

Laborers:

GROUP 1.....\$ 23.07 14.21

GROUP 2.....\$ 23.32 14.21

GROUP 3.....\$ 23.37 14.21

GROUP 4.....\$ 23.97 14.21

LABORERS CLASSIFICATIONS

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

Wrecking of Concrete Forms; General Cleanup
 GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
 Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
 Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
 Saw Operator; Deckhand Scow Man; Dry Cement Handler;
 Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
 - Level C; Forklift Operator for Masonary; Form Setter;
 Green Concrete Cutting; Hand Operated Grouter & Grinder
 Machine Operator; Jackhammer; Pavement Breaker; Paving
 Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
 Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
 Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
 Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
 Vibrator Operator; Wagon Driller
 GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;
 Gunnite Operator & Mixer; Grout Pump Operator; Side Rail
 Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free
 Air); Water Blaster
 GROUP 4 - Caisson Worker (Free Air); Cement Finisher;
 Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
 - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;
 & Tunnel Mucker (Free Air); Directional & Horizontal
 Boring; Air Track Drillers (All Types); Powdermen &
 Blasters; Troxler & Concrete Tester if Laborer is Utilized

 LABO0189-008 07/01/2018

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

Rates Fringes

Laborers:

GROUP 1.....\$ 23.07 14.21
 GROUP 2.....\$ 23.32 14.21
 GROUP 3.....\$ 23.37 14.21
 GROUP 4.....\$ 23.97 14.21

LABORERS CLASSIFICATIONS

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

Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper;
 Wrecking of Concrete Forms; General Cleanup
 GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
 Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
 Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
 Saw Operator; Deckhand Scow Man; Dry Cement Handler;
 Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
 - Level C; Forklift Operator for Masonary; Form Setter;
 Green Concrete Cutting; Hand Operated Grouter & Grinder
 Machine Operator; Jackhammer; Pavement Breaker; Paving
 Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
 Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
 Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
 Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
 Vibrator Operator; Wagon Driller
 GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;
 Gunnite Operator & Mixer; Grout Pump Operator; Side Rail
 Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free
 Air); Water Blaster
 GROUP 4 - Caisson Worker (Free Air); Cement Finisher;
 Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
 - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;
 & Tunnel Mucker (Free Air); Directional & Horizontal
 Boring; Air Track Drillers (All Types); Powdermen &
 Blasters; Troxler & Concrete Tester if Laborer is Utilized

 LABO0189-009 07/01/2018
 BRECKINRIDGE & GRAYSON COUNTIES
 Rates Fringes

Laborers:
 GROUP 1.....\$ 23.07 14.21
 GROUP 2.....\$ 23.32 14.21
 GROUP 3.....\$ 23.37 14.21
 GROUP 4.....\$ 23.97 14.21

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

Wrecking of Concrete Forms; General Cleanup
 GROUP 2 - Batter Board Man (Sanitary & Storm Sewer);
 Brickmason Tender; Mortar Mixer Operator; Scaffold Builder;
 Burner & Welder; Bushhammer; Chain Saw Operator; Concrete
 Saw Operator; Deckhand Scow Man; Dry Cement Handler;
 Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
 - Level C; Forklift Operator for Masonary; Form Setter;
 Green Concrete Cutting; Hand Operated Grouter & Grinder
 Machine Operator; Jackhammer; Pavement Breaker; Paving
 Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven
 Georgia Buggy & Wheel Barrow; Power Post Hole Digger;
 Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind
 Trencher; Sand Blaster; Concrete Chipper; Surface Grinder;
 Vibrator Operator; Wagon Driller
 GROUP 3 - Asphalt Luteman & Raker; Gunnite Nozzleman;
 Gunnite Operator & Mixer; Grout Pump Operator; Side Rail
 Setter; Rail Paved Ditches; Screw Operator; Tunnel (Free
 Air); Water Blaster
 GROUP 4 - Caisson Worker (Free Air); Cement Finisher;
 Environmental - Nuclear, Radiation, Toxic & Hazardous Waste
 - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster;
 & Tunnel Mucker (Free Air); Directional & Horizontal
 Boring; Air Track Drillers (All Types); Powdermen &
 Blasters; Troxler & Concrete Tester if Laborer is Utilized

 PAIN0012-005 06/11/2005

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

Rates Fringes

PAINTER

Bridge/Equipment Tender
 and/or Containment Builder..\$ 18.90 5.90

Brush & Roller.....\$ 21.30 5.90

Elevated Tanks;

Steeplejack Work; Bridge &
 Lead Abatement.....\$ 22.30 5.90

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

Spray.....\$ 21.80 5.90

 PAIN0012-017 05/01/2015

BRACKEN, GALLATIN, GRANT, MASON & OWEN COUNTIES:

Rates Fringes

PAINTER (Heavy & Highway

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

PAIN0118-004 06/01/2018

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

Rates Fringes

PAINTER

Brush & Roller.....\$ 22.00 12.52

Spray, Sandblast, Power

Tools, Waterblast & Steam

Cleaning.....\$ 23.00 12.52

PAIN1072-003 12/01/2018

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

Rates Fringes

Painters:

Bridges; Locks; Dams;

Tension Towers & Energized

Substations.....\$ 33.33 18.50

Power Generating Facilities.\$ 30.09 18.50

PLUM0248-003 06/01/2018

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

Rates Fringes

Plumber and Steamfitter.....\$ 36.00 20.23

PLUM0392-007 06/01/2018

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

Rates Fringes

Plumbers and Pipefitters.....\$ 32.01 19.67

PLUM0502-003 08/01/2019

BRECKINRIDGE, BULLITT, CARROLL (Western Half), FRANKLIN

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

Rates Fringes

PLUMBER.....\$ 35.77 20.78

SUKY2010-160 10/08/2001

Rates Fringes

Truck drivers:

GROUP 1.....\$ 16.57 7.34

GROUP 2.....\$ 16.68 7.34

GROUP 3.....\$ 16.86 7.34

GROUP 4.....\$ 16.96 7.34

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Mobile Batch Truck Tender

GROUP 2 - Greaser; Tire Changer; & Mechanic Tender

GROUP 3 - Single Axle Dump; Flatbed; Semi-trailer or Pole
Trailer when used to pull building materials and equipment;

Tandem Axle Dump; Distributor; Mixer; & Truck Mechanic

GROUP 4 - Euclid & Other Heavy Earthmoving Equipment &

Lowboy; Articulator Cat; 5-Axle Vehicle; Winch & A-Frame

when used in transporting materials; Ross Carrier; Forklift

when used to transport building materials; & Pavement

Breaker

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

=====
Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

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

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

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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

PART VI
CONTRACT AGREEMENT
INDEX

1. SCOPE OF WORK
2. TIME OF COMPLETION
3. ISSUANCE OF WORK ORDERS
4. THE CONTRACT SUM
5. LIQUIDATED DAMAGES
6. PROGRESS PAYMENTS
7. ACCEPTANCE AND FINAL PAYMENT
8. THE CONTRACT DOCUMENTS
9. EXTRA WORK
10. ENUMERATION OF BID PROPOSAL AND DRAWINGS

PART VI

CONTRACT AGREEMENT

THIS AGREEMENT, made on the 8th day of October, 2020, by and between **Lexington-Fayette Urban County Government**, acting herein called "OWNER" and **L-M Asphalt Partners Ltd dba ATS Construction**, doing business as a partnership located in the City of Lexington, County of Fayette, and State of Kentucky, hereinafter called "CONTRACTOR."

WITNESSETH: That the CONTRACTOR and the OWNER in consideration of ten million six hundred eighty-three thousand six hundred fifty-three Dollars and thirty-nine Cents (\$10,683,653.39) quoted in the proposal by the CONTRACTOR, dated August 13, 2020, hereby agree to commence and complete the construction described as follows:

1. SCOPE OF WORK

The CONTRACTOR shall furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, and the Special Conditions of the Contract, the Specifications and Contract Documents therefore as prepared by CDP Engineers and Lexington-Fayette County Government for the Clays Mill Road Section 1 Project.

2. TIME OF COMPLETION

The time period estimated and authorized by the OWNER for the proper execution of the Work by the Contract, in full, is hereby fixed as **seven hundred thirty (730)** calendar days. The time shall begin ten (10) days after the CONTRACTOR is given the Notice to Proceed with the Work.

3. ISSUANCE OF WORK ORDERS

Notice to begin Work will be given in whole or for part of the Work as determined by the OWNER pending the availability of funds. The order of construction will be as determined by the Engineer after consultation with the CONTRACTOR and the OWNER.

4. THE CONTRACT SUM

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the Contract, as quoted in the proposal, subject to any additions and deductions, as provided therein.

5. LIQUIDATED DAMAGES

It is mutually agreed by and between the parties hereto that time is of the essence of this Contract, and that there will be sustained by the OWNER damages, monetary and otherwise, in the event of delay in the completion of the Work hereby contracted. The CONTRACTOR will be held responsible to the OWNER for delays in completion of the Work herein contracted beyond the date set for

completion. Such monetary damage shall be deducted from the Contract sum in the amount of **THREE THOUSAND TWO HUNDRED FIFTY (\$3,250.00)** per calendar day of such delay. If the Work contracted to be done shall not, in good faith, be commenced at the time specified, then the CONTRACTOR together with the Surety or Sureties upon the bond herein provided for, shall be liable for and shall pay to the OWNER all damages sustained by reason of such failure for breach of Contract, and the OWNER may immediately re-let the Work involved.

6. PROGRESS PAYMENTS

The OWNER shall make payments on account of the Contract, as provided in accordance with the General Conditions, as estimated by the Engineer, less the aggregate of previous payments.

7. ACCEPTANCE AND FINAL PAYMENT

Final payment shall be due within ninety (90) days after completion of the Work, provided the Work be then fully completed and the Contract fully accepted.

Before issuance of final certificate, the CONTRACTOR shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with the Work has been paid.

If, after the Work has been substantially completed, full completion thereof is materially delayed through no fault of the CONTRACTOR, and the ENGINEER so certifies, the OWNER shall upon certificate of the ENGINEER, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

8. THE CONTRACT DOCUMENTS

The Advertisement for Bids, Information for Bidders, the General Conditions, Performance and Payment Bonds, Contract Agreement, Special Conditions, General Provisions, any and all Addenda, and Bid Proposal, and Plan Drawings form the Contract, and they are fully a part of the Contract as if hereto attached or herein repeated.

9. EXTRA WORK

The OWNER, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the Work, the Contract Sum being adjusted accordingly. All such Work shall be executed and paid for in accordance with the General Conditions, which is a part of this Contract.

10. THE FOLLOWING IS AN ENUMERATION OF THE BID PROPOSAL AND DRAWINGS (CONTRACT DOCUMENTS):

CONTRACT DOCUMENTS

PART NO.	TITLE
I	Advertisement for Bids
II	Information for Bidders
III	Form of Proposal
IV	General Conditions
V	Special Conditions
VI	Contract Agreement
VII	Performance and Payment Bonds
VIII	Addendum
IX	Technical Specifications
APPENDIX A	Local Public Agencies – Special Provisions for LPA Administered Projects
APPENDIX B	Standard Drawings
APPENDIX C	Highway Encroachment Permit
Excel Bid Schedule	

PLAN DRAWINGS

IN WITNESSETH WHEREOF, the parties hereto have executed this Contract as of the date and year above written.

(Seal)

Lexington-Fayette Urban County Government.
Lexington, Kentucky
(Owner)

ATTEST:

Mackenzie Sommers
Clerk of the Urban County Council

BY: Linda Gorton
MAYOR

Michelle L. Nelson
(Witness)

Mayor Linda Gorton
(Title)

(Seal)

(Contractor)

Paul E. Corum III
(Secretary)*

BY: Brian R. Billings, PRESIDENT

Paul E. Corum III

Richard L. Graycraft
(Witness)

Brian R. Billings, President
(Title)

Richard L. Graycraft

L-M Asphalt Partners, Ltd. dba ATS Construction
3009 Atkinson Avenue, Suite 400
Lexington, Kentucky 40509

(Address and Zip Code)

IMPORTANT: *Strike out any non-applicable terms.

Secretary of the Owner should attest. If the CONTRACTOR is corporation,
Secretary should attest. Give proper title of each person-executing Contract.

END OF SECTION

PART VII

PERFORMANCE AND PAYMENT BONDS

1. PERFORMANCE BOND
2. PAYMENT BOND

Performance Bond

CONTRACTOR (Name and Address):

L-M Asphalt Partners, Ltd
dba ATS Construction
3009 Atkinson Ave., Ste 400
Lexington, KY 40509

SURETY (Name and Principal Place of Business):

Hartford Fire Insurance Company
One Hartford Plaza, T-4-47
Hartford, CT 06155

OWNER (Name and Address):

Lexington-Fayette Urban County Government
Division of Central Purchasing
200 East Main Street
Lexington, KY 40507

CONSTRUCTION CONTRACT

Date: September 1, 2020

Amount: Ten Million Six Hundred Eighty Three Thousand Six Hundred Fifty Three Dollars and Thirty Nine Cents

Description (Name and Location): Invitation to Bid #17-2020, (\$10,683,653.39)
Clays Mill Road Improvements Section 1
Lexington, Kentucky

BOND

Date (Not earlier than Construction Contract Date): September 1, 2020

Amount: Ten Million Six Hundred Eight Three Thousand Six Hundred Fifty Three Dollars and Thirty Nine Cents (\$10,683,653.39)

Modifications to this Bond:

None

See Page 3

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)
L-M Asphalt Partners, Ltd dba ATS Construction

Signature: Brian R. Billings, PRESIDENT
Name and Title: Brian R. Billings
President

SURETY

Company: (Corporate Seal)
Hartford Fire Insurance Company

Signature: Kim Watson
Name and Title: Kim Watson
Attorney-In-Fact

(Any additional signatures appear on page 3)

(FOR INFORMATION ONLY - Name, Address and Telephone)

AGENT or BROKER:
GCH Insurance Group
780 Winchester Road
Lexington, KY 40505

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3 If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4 When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be

prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds, executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5 If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and

resulting from the actions or failure to act of the Surety under Paragraph 4; and

6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

8 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

11 When this Bond has been furnished to comply with

a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12 DEFINITIONS

12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL
Company: _____ (Corporate Seal)

SURETY
Company: _____ (Corporate Seal)

Signature: _____
Name and Title:
Address:

Signature: _____
Name and Title:
Address:

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-12

One Hartford Plaza

Hartford, Connecticut 06155

bond.claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name:

GCH INSURANCE GROUP

Agency Code:

14-732421

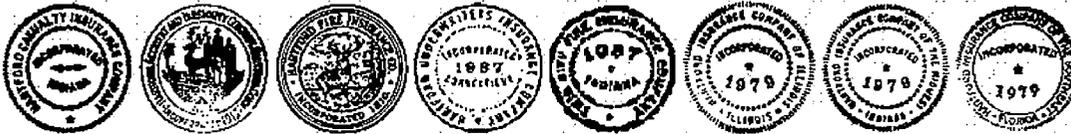
- Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut.
- Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited:

Tina Carpenter, Betty Royalty, Jerry Catlett, Mary Crouch, Russell Griffith, John W. Hampton, David Henry, Kim Watson
of
Lexington, KY

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof; on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



John Gray

John Gray, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

On this 5th day of January 2018, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Kathleen T. Maynard

Kathleen T. Maynard
Notary Public

My Commission Expires July 31, 2021

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of September 1, 2020.

Signed and sealed at the City of Hartford.



Kevin Heckman

Kevin Heckman, Assistant Vice President

Payment Bond

CONTRACTOR (Name and Address):

L-M Asphalt Partners, Ltd
dba ATS Construction
3009 Atkinson Ave., Ste 400
Lexington, KY 40509

SURETY (Name and Principal Place of Business):

Hartford Fire Insurance Company
One Hartford Plaza, T-4-47
Hartford, CT 06155

OWNER (Name and Address):

Lexington-Fayette Urban County Government
Division of Central Purchasing
200 East Main Street
Lexington, KY 40507

CONSTRUCTION CONTRACT

Date: September 1, 2020

Amount: Ten Million Six Hundred Eighty Three Thousand Six Hundred Fifty Three Dollars and Thirty Nine Cents (\$10,683,653.39)

Description (Name and Location): Invitation to Bid #17-2020
Clays Mill Road Improvements Section 1
Lexington, Kentucky

BOND

Date (Not earlier than Construction Contract Date): September 1, 2020

Amount: Ten Million Six Hundred Eighty Three Thousand Six Hundred Fifty Three Dollars and Thirty Nine Cents

Modifications to this Bond: None (\$10,683,653.39) See Page 6

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)
L-M Asphalt Partners, Ltd dba ATS Construction

SURETY

Company: (Corporate Seal)
Hartford Fire Insurance Company

Signature: Brian R. Billings, PRESIDENT

Name and Title: Brian R. Billings
President

Signature: Kim Watson

Name and Title: Kim Watson
Attorney-In-Fact

(Any additional signatures appear on page 6)

(FOR INFORMATION ONLY - Name, Address and Telephone)

AGENT or BROKER:

GCH Insurance Group
780 Winchester Road
Lexington, KY 40505

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

2 With respect to the Owner, this obligation shall be null and void if the Contractor:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and Surety, and provided there is no Owner Default.

3 With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4 The Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with the Contractor:

.1 Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

.2 Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the

Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and

.3 Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5 If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6 When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2 Pay or arrange for payment of any undisputed amounts.

7 The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

9 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract

or to related subcontracts, purchase orders and other obligations.

11 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a

statutory bond and not as a common law bond.

14 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15 DEFINITIONS

15.1 Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL
Company: _____ (Corporate Seal)

SURETY
Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Signature: _____
Name and Title: _____
Address: _____

POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD
BOND, T-12
One Hartford Plaza
Hartford, Connecticut 06155
bond.claims@thehartford.com

call: 888-266-3488 or fax: 860-757-5835

KNOW ALL PERSONS BY THESE PRESENTS THAT:

Agency Name: GCH INSURANCE GROUP
Agency Code: 14-732421

- Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited:

Tina Carpenter, Betty Royalty, Jerry Catlett, Mary Crouch, Russell Griffith, John W. Hampton, David Henry, Kim Watson
of
Lexington, KY

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by , and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on May 6, 2015 the Companies have caused these presents to be signed by its Senior Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



John Gray, Assistant Secretary

M. Ross Fisher, Senior Vice President

STATE OF CONNECTICUT }
COUNTY OF HARTFORD } ss. Hartford

On this 5th day of January 2018, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Senior Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



Kathleen T. Maynard
Kathleen T. Maynard
Notary Public
My Commission Expires July 31, 2021

CERTIFICATE

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of September 1, 2020.

Signed and sealed at the City of Hartford.



Kevin Heckman, Assistant Vice President

PART VIII

ADDENDA

All addenda issued during the bidding of the Project will be reproduced in the signed Contract Documents, on the pages following this heading sheet.

<u>Addendum Number</u>	<u>Title</u>	<u>Date</u>
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

PART VIII

ADDENDA

All addenda issued during the bidding of the Project have been acknowledged by the successful bidder, L-M Asphalt Partners, Ltd. Dba ATS Construction, and are reproduced in the signed Contract Documents, on the pages following this heading sheet. Questions and answers during the bidding phase are also incorporated into these Contract Documents.

Addendum Number	Date
1	7/15/20
2	7/20/20
3	7/22/20
4	7/22/20
5	8/3/20
6	8/3/20
7	8/6/20
8	8/10/20
9	8/11/20

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

1. There are several notes on plan sheets that refer to removal of existing structures (retaining walls, fencing, pipe, etc.). Will there be pay items added to an addendum or will these be considered incidental to clearing and grubbing? Will LFUCG allow broken concrete from removed structures to be placed in embankment inside right of way or will these materials be required to be taken to a land fill?

Answer: Per Technical Specification Section 2.1 "...structures within the construction limits not otherwise removed by the excavation and grading operations or included in the summary items" shall be incidental to Clearing and Grubbing. This includes retaining walls, fencing, pipe, etc., not specifically addressed in Section 2.2 (and addressed as a pay item in 2.3).

The intent of Section 2, *Clearing and Grubbing*, is to include removal of all items not specifically covered elsewhere in the specifications and reflected as a bid item.

Broken concrete may be incorporated into embankment provided it complies with the KDOH Section 206.03.02, namely concrete rubble without protruding reinforcement will be allowed in embankment, provided that no fragment is larger than one foot in any dimension or is placed within 2 feet of the subgrade.

2. Sheet R11 has a note to remove and reinstall a residential lamp post. Are there any specifications that are required for this scope of work? Will this be a separate pay item added by addendum or incidental to clearing and grubbing?

Answer: Per Technical Specification Section 2.2.5, the "CONTRACTOR shall remove and reinstall residential lamp post once construction is complete as shown on the plans. If the lamp post is damaged during construction, the CONTRACTOR shall replace the lamp post with a unit matching the style of the existing post of equal or greater value." This work shall be inclusive to Clearing and Grubbing. A specification has not been provided, and "equal" will be determined at that time. If a replacement is necessary, the CONTRACTOR will be liable for up to \$1,000 of the material cost, and all of the labor cost

3. The specifications reference that all temporary striping is incidental to Maintain and Control traffic. Will LFUCG accept temp paint instead of thermo for stop bars, turn arrows, cat tracks, etc. What method of pavement marking removal will be required / accepted (grinding or water blasting) and how will payment be made for removal of conflicting pavement markings?

Answer:

Temporary paint is acceptable in lieu of thermoplastic for all roadway markings, provided temporary markings are periodically refreshed to ensure they are visible at night throughout the construction phase until final markings are placed.

Both water blasting and grinding are acceptable methods for removal of existing markings.

Where the CONTRACTOR deems existing conflicting pavement markings exist, the CONTRACTOR shall bring them to the attention of the OWNER. If the OWNER concurs, the CONTRACTOR shall remove them, and the cost shall be incidental to Maintenance of Traffic.

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

4. How will undercut be paid since the excavation item is lump sum? Should the excavation be included in the unit price of #2 stone and or #57 stone?

Answer:

Undercut and disposal of material shall be incidental to bid item #9, Roadway Excavation and Placement. It is the bidder's decision to include the cost of unforeseen undercut in the unit price of #2 stone and or #57 stone.

5. Specification states that the testing will be paid "up to the testing allowance". Is the contractor responsible for the payment of testing services over and above the allowance?

Answer:

If the allowance limit is exceeded and the conditions of Sections D and E of the Technical Specification are met, a change order will be approved for additional costs.

6. RE: Tech Spec 42 – Geotextile Construction. In areas of subgrade and embankment foundation stabilization, since this is incidental, is this price to be included in the cost of the #2 stone and or #57 stone bid item?

Answer:

It is the bidder's decision to include the cost of geotextile in the unit price of #2 stone and or #57 stone.

7. Addendum 1 page SC-58 under the Utility notes states in the last paragraph that the CONTRACTOR is responsible for adjusting all SPECTRUM owned junction boxes to final grade. In most instances, utility companies have contracts with their own contractors that restrict any kind of utility work to only them doing the work. It is also unclear as to what conflicts will arise with Spectrum utilities with the given information therefore the bidder is not given enough information to accurately bid this work. Can LFUCG confirm who is responsible for adjustment of these boxes? If the bidding Contractor is responsible, can a Bid Item be added given that enough information is not given?

Answer:

Spectrum is responsible for adjusting all of their facilities. This was a typing oversight. The Utility Note in Part V of the contract documents, on Page SC-58 has been corrected and is attached to this addendum. The wording has been revised to the following:

Spectrum Cable has overhead facilities in the project limits. Spectrum Cable will relocate overhead utilities as required. Relocation completion date has not been determined. CONTRACTOR shall coordinate with Spectrum to adjust junction boxes to grade as required.

8. The current bid schedule clearly states the Storm Sewer Pipe items to be "RCP." Given that Addendums have clarified other materials can be used, can the Bid Schedule be changed to reflect this?

Answer:

Yes. A revised bid schedule is issued with the addendum. Bid items #47 through #54 has been revised to reflect this change.

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

9. Can any CADD files be provided for bidding preparation purposes?

Answer: AutoCad drawings are not available to bidders. They will be furnished to the successful bidder if requested.

10. Is safeloading of existing pipes incidental to excavation or will a pay item be added by addendum?

Answer:

The contract documents have been revised to include Pay Item # 96 – Safeloading Existing Pipe. Section 71 – *Safeloading Existing Pipe*, has been added to the technical specifications and references to safeloading have been removed from Section 2 - *Clearing and Grubbing*.

Note: Pipes designated for safeloading are labeled as such where it is thought excavation will cause problems with construction, construction project quality or with existing facilities in the project area. During construction, it may be determined that certain pipes designated for removal should be left in place and be safeloaded. Therefore, the quantity shown on the bid schedule includes an allowance for safeloading pipes labeled TBR.

11. In some instances, there is existing storm pipe that is called out on the plans to be removed with no other work happening on that particular alignment. For example, approx STA 136+00 has an existing 15" pipe slated "REMOVE" going under the existing roadway. Is the removal of this pipe incidental to excavation? Can LFUCG also clarify how these trenches are to be backfilled?

Answer:

Removal of abandoned pipes shall be incidental to Excavation and Placement. Under paved areas, the trenches shall be backfilled per the zones and concrete cap as shown on LFUCG Standard Drawing 201-1. Zone 1 can be either No. 9 or No. 57 stone. Payment for DGA and stone shall be per their respective specification sections. Payment for concrete caps shall be paid for at the unit cost of Concrete Entrance Pavement.

12. The Legend on sheet R-2C gives clarification on the acronyms TBR and DND when discussing Trees, however the acronyms TBR, DND, TBA are used throughout the plans on several different items. Is the bidding contractor to assume TBR and DND mean the same as they do for the trees? It is assumed that TBA stands for To Be Abandoned. If correct, can LFUCG confirm what work, if any, is required by the bidding contractor for TBA items? Are all of these items incidental to Excavation, or will bid items be added by addendum?

Answer:

The following acronyms are: TBR – To be removed; DND – Do not disturb; and TBA – To be abandoned.

Removal of trees is incidental to Clearing and Grubbing are incidental to excavation.

Note: Since the preparation of these plans, several trees designated as TBR have been removed for relocation of utilities. A list identifying these trees is attached to this addendum.

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

13. If no work is called out for existing storm that is in conflict with proposed storm, can LFUCG clarify if the whole line of pipe is to be removed, safeloaded, or capped and abandoned?

Answer: The entire pipe section shall be removed or safeloaded as determined in the field. Removal shall be incidental to excavation.

14. Asphalt Base and Surface require weight tickets furnished at the time of delivery, per Technical Specifications. Under current COVID-19 policy, this is a safety hazard. Will it be the Contractor's responsibility to provide E-ticketing to produce these tickets to LFUCG?

Answer: Verifying deliveries shall be consistent with one of the methods described in memorandum No. 01-2020 issued by KYTC, and attached to this addendum.

15. Sheet R-25 Approx Sta 187+00 gives conflicting information in regards to the existing pipe crossing the road. Is the contractor to Safeload this pipe or completely remove it? Can LFUCG give clarification to the ending of this pipe?

Answer: This pipe section shall be safeloaded. Disregard the TBR designation.

16. The maximum density of a base stone is influenced primarily by specific gravity, moisture content, particle shape, and gradation. Given the same compactive effort, the maximum dry density is different for every source and every gradation that falls within the DGA gradation band. The 144 PCF density level restricts the various densities for the range of acceptable gradations. Common practice is to establish target densities through control strips (current KYTC practice) or laboratory density tests such as Standard Proctor Density (ASTM D698). Each of these methods determine a unique target density for a given DGA gradation from a specific source. Will LFUCG allow target density and optimum moisture content be set using standard Proctor laboratory testing (ASTM D698) that reflects unique densities for acceptable DGA gradations?

Answer:

Section 8 – Dense Graded Aggregate, of the Technical Specifications describing the exceptions to control strips has been a successful practice by the Division of Engineering, and will apply to this project.

17. Sheet R-45 shows the removal of existing 18" RCP and installation of new 24" RCP. Only a 10' easement is allowed which then reduces to a 6' easement. These easements allowed do not allow adequate room to work. This includes, but not limited to, Spoil placement per OSHA standards, trucking, access, etc. The six foot easement hardly allows for a piece of equipment to sit on it. Will LFUCG provide additional easements in this area, or will it be left to the contractor? Same question for the storm listed on sheet R-47?

Answer:

If the contractor needs additional working room they will need to obtain permission from the affected property owner(s). Work may need to proceed with a mini-excavator and hand-digging.

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

18. Regarding Sheet R-45 drainage, can LFUCG confirm that the contractor is to tie new 24" Storm sewer into an existing 18" outlet pipe?

Answer:
This is correct.

19. Regarding Sheet R-45 Drainage, will all work required to install this storm sewer pipe be incidental to the pipe? Fence removal/replacement, A/C replacement, etc.)

Answer:
Because this work will entail special considerations, separate bid items have been added for the pipe installation (Bid Item 97), and for restoration through the private property (Bid Item 98). Technical Specification Section 72 has been added to clarify the scope of the additional work.

20. Regarding Sheet R-45 Drainage, it appears there's an existing 18" pipe going under the home on P31. Is it the contractors responsibility to remove this pipe? If so, what stipulations are there with the home itself?

Answer:
The existing pipe shall be safeloaded.

21. It appears a large amount of work in in conflict with existing utilities. Per addendum some of these utilities have already been relocated. Can any utility relocation plans be provided?

Answer:
The utility relocation plans reflecting relocation design and as-built information provided by the utility companies are attached to the addendum.

22. Addendum 4 Section 9.1 paragraph 5 states No. 57 stone shall be used for pipe bedding and trench backfill. Can LFUCG confirm No. 9 Stone is not to be used in a pipe trench? Can LFUCG also clarify if LFUCG or KYTC spec should be followed for pipe backfill under existing pavement.

Answer:
Pipe bedding shall be No. 9 stone. Specification Technical Specification, Section 9.1 Paragraphs 5 and 6 shall now read:

"No. 57 stone meeting the requirements of KDOH Section 805 should be used for trench backfill (zone 2) consistent with LFUCG Standard Details 200 and 201-1, subbase in areas of sidewalk and entrance undercut, and as base for the culvert at Sta 196+43. Placement of these materials shall be as directed by the ENGINEER."

"No. 9 stone meeting the requirements of KDOH Section 805 should be used for pipe bedding (zone 1) and trench backfill (zone 2) consistent with LFUCG Standard Details 200 and 201-1, subgrade stabilization under retaining walls. Placement of these materials shall be as directed by the ENGINEER."

23. Sheet R-63 mentions a detail for the temporary pavement widening on the same sheet, however there is no shown. Could you provide this temporary pavement detail?

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

Answer:

The temporary pavement design is shown on Sheet R-2A.

24. Is the area for the curb ramps included in the sidewalk area pay item? If so what is to be included with the curb ramp pay item?

Answer:

Curb ramps shall be a separate pay item, and will be paid per cubic yard installed. LFUCG will furnish the detectable warning tile, which the Contactor shall install. The Technical Specifications 14.2 and the Bid Schedule item 19 and 21 have been revised to reflect this. Disregard the first sentence in Note 5 on Sheet R-2B.

25. Is there a Geotech available for the roadway?

Answer:

No geotechnical investigation was performed for this design.

26. Is flowable fill backfill required for the proposed storm pipes that crosses the existing pavement that is to remain in place?

Answer:

No. However, backfilling shall conform to LFUCG Standard Detail Drawings 201-1 and 201-2, which requires a concrete cap

27. Bid item #20 calls for 6" thick concrete entrances. Note 17 on plan sheet R-2C calls for them to be 8" thick. Please clarify.

Answer:

All concrete entrances shall be 6" thick, confirming to LFUCG Standard Detail Drawings 307-1 and 307-2. Disregard Note 17 on Sheet R2-C.

28. Is bid items 55 and 57 duplicated? If not, where is bid item #57 located?

Answer:

Bid Item No. 55 Sanitary Sewer Pipe – 10 inch PVC is a redundant item and has been removed from the bid schedule.

29. Is the bidding contractor responsible for relocating fire hydrants within the project limits?

Answer:

No. As discussed in the pre-bid meeting and as noted in the Utility Impact Notes, the Contractor shall coordinate with KAWC to relocate and/or reset any hydrants, valves and service meters and service lines that conflict with the construction of this project.

30. The temporary pavement as shown on the diversion plan appears to be in the same location as the proposed new full depth asphalt. Reading the plans the temporary pavement is to be incidental to the MOT bid item. Is it acceptable to install the permanent full depth asphalt (using

Clays Mill Road Section 1, Bid 17-2020 – Responses to Questions Received 07/30 through 08/04

the unit price items from bid schedule) and leave the 1.5" surface off in the temporary pavement areas rather than installing the temporary pavement then excavating the temporary pavement and installing full depth asphalt? The 1.5" pavement could be installed at unit price after construction is complete. It seems excessive to excavate and install pavement twice in these areas.

Answer:

Full depth construction would leave the base courses more discontinuous than preferred. Only the surface course would be continuous across the half width, leading to potential uneven pavement. Constructing the full-depth asphalt for the temporary sections is not acceptable.

31. Sheet R-2B item 115 calls for concrete entrance pavement to be 8" thick, however the bid schedule calls for the entrance pavement to be 6" thick in item #20. Could you please clarify which thickness the contractor is to use for the entrance pavement?

Answer:

See Discussion Item 27 above.

32. Many of the proposed residential entrances are requiring both concrete and asphalt in the entrance. The concrete in these entrances will be able to be placed in one day, however it will not be as feasible to get the asphalt complete on these entrances until a lot of entrances accumulate to make it worthwhile for the asphalt sub to mobilize and install the asphalt. In an effort to get the entire entrance complete for these residents, would it be worthwhile to make the entire entrance concrete using a 24 hr concrete mix so the residents are not as impacted by the construction to their entrance? Or should the contractor plan on the asphalt/ concrete entrance combination and account for a larger amount of Asphalt mobilizations?

Answer:

To avoid conflicts of betterment, driveways must be replaced in-kind. It is not uncommon for a disturbed section of asphalt driveway to be temporarily repaired with crushed stone. Section 9 of the Technical Specifications has been revised to allow for the use of No. 57 stone, and the quantity in Bid Item 14 has been increased to provide an allowance for this purpose.

Attachments

<u>Discussion Item No.</u>	<u>Description</u>
7	Revised Utility Impact Notes
12	List of trees that have been removed
14	KYTC Memorandum No. 01-2020
21	Utility Relocation As-Built Plans
8,10,19,24,32	Revised Bid Schedule
10,19,22,24,32	Revised Technical Specifications



3009 Atkinson Avenue
Suite 400
Lexington, Kentucky, 40509

MAYOR LINDA GORTON



LEXINGTON

TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #8

Bid Number: #17-2020

Date: Aug 10, 2020

Subject: Clays Mill Road Improvements Section 1

Address inquiries to:
Sondra Stone
lexingtonky.ionwave.net

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced bid:

1. Bid opening is extended to Aug 17, 2020, 2:00 pm.
2. Bid Items 75 thru 79 for pavement striping have been renamed to clarify that the item is a spray applied thermoplastic and is not paint, per the referenced Technical Specification #58.
3. See attached revised Page P-13.
4. See attached revised Excel Bid Schedule.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME: L-M Asphalt Partners, Ltd. dba ATS Construction

ADDRESS: 3009 Atkinson Avenue, Suite 400, Lexington, Kentucky 40509

SIGNATURE OF BIDDER: Brian R. Billings, PRESIDENT
Brian R. Billings, President



MAYOR LINDA GORTON



LEXINGTON

TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #9

Bid Number: #17-2020

Date: Aug 11, 2020

Subject: Clays Mill Road Improvements Section 1

Address inquiries to:
Sondra Stone
lexingtonky.ionwave.net

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced bid:

1. Bid opening is extended to Aug 18, 2020, 2:00 pm.
2. Question:
There seems to be a conflict in a couple of the pavement striping items between the plan notes and bid items. Bid Items #76, #77 and #78 describe Paint for the permanent lane line markings while Note A on all striping plan sheets (R81-R86) specifically call for those markings to be thermoplastic. Also, Item #79 similarly describes 12" White for crosswalk markings, but TS-117 in the Contract Documents specify that all markings shall be of preformed thermoplastic.

All quantities for these respective items appear to be estimated accurately, but would Purchasing be able to clarify these conflicting descriptions?

Response:

The following clarification is provided for the permanent roadway markings: Bid items 75 -77 shall be per Specification Section 58. The product is a hot extrusion applied (aka, spray thermo), marking. All other permanent markings, including Bid items 78 and 79, shall be pre-formed heat-applied thermoplastic. The Bid Schedule and Form of Proposal have been revised accordingly.

3. Question:
Please clarify if the 9" depth of DGA stone under the curb will be paid for under the DGA Base pay item or if it is incidental to the Standard Curb and Gutter pay item?





3009 Atkinson Avenue
Suite 400
Lexington, Kentucky 40509

2

Response:

DGA under the standard curb and gutter for this contract will be paid for under the DGA Pay Item #12. Reference to DGA being incidental to curbing only applies to the DGA placed behind a header curb, which is not pertinent to this contract.

4. See attached revised Page P-13.
5. See attached revised Excel Bid Schedule.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the RFP and specifications are unchanged. This letter should be signed, attached to and become a part of your submittal.

COMPANY NAME: L-M Asphalt Partners, Ltd. dba ATS Construction

ADDRESS: 3009 Atkinson Avenue, Suite 400, Lexington, Kentucky 40509

SIGNATURE OF BIDDER: Brian R. Billings, PRESIDENT
Brian R. Billings, President



Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
1	Century Products	Will root barrier be required on this project?	No root barrier required.
2	Advanced Drainage Systems, Inc	With both Dual Wall Corrugated HDPE and Polypropylene Storm pipe being LFUCG/KYTC approved Storm Pipe materials, Can either of these materials be bid on this project where RCP is called out on bid schedule?	See Addendum #3
3	Arrow Electric Company	for the lighting portion Will bore and jack be incidental to 2" rigid steel conduit ?	See Addendum #2.
4	Arrow Electric Company	for the lighting portion of the project will trench and backfill be incidental to 2" PVC SCH 40 Conduit?	Yes. Any trenching and backfilling required under bid items covered in Section 63, Lighting and Communications, of the technical specifications, is incidental to that work.
5	Arrow Electric Company	For the traffic signal portion of the project....Several items are listed as "install items" such as Mast arms, signal controllers and radar detection equipment. Will those items be provided by LFUCG/KYTC or will the contractor be responsible for providing that material?	Items on the Signal Plans listed as "install" shall also be furnished by the CONTRACTOR as part of the lump sum Bid Items 94, 95 and 96. Technical Specification Section 65 identifies the major material components under the lump sum cost and notes that any materials not specifically listed that are necessary to complete the work shall be incidental to these lump sum bid items.
6	Advanced Drainage Systems, Inc	1-General Comment: The reqts for use of HDPE and PP are unnecessarily stringent, especially in relation to what is stipulated for RCP. It is our understanding that this project is SLX funded, where projects should follow KYTC stds & specs & also allow for open competition. The Clays Mill specs & stds as written exceed KYTC/LFUCG for HDPE & PP & are far more lax on RCP per KYTC. The prior phases of the Clays Mill project utilized HDPE pipe with no known issues that would preclude the use of HDPE or PP again on this phase. We request a revision to the installation & inspection specs of this project – beyond Addendum 4, which we appreciate the clarifications, to simply reference compliance with current KYTC/LFUCG specs & stds. The clear bias to RCP in the installation & inspection sections of the bid docs should be modified to be more consistent with KYTC/LFUCG to provide for more competitive bidding & save the LFUCG infrastructure dollars. Specifics in next posts.	While LFUCG often refers to KYTC standard specifications and drawings, on LFUCG is permitted to prepare their own specifications where they feel it is appropriate for projects with FHWA funds. Technical Specification Section 25 has been revised to provide comparable detail for both RCP and HDPE/PP - Addendum 5.

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
7	Advanced Drainage Systems, Inc	<p>2-Regarding the Section 9.3 (now 25.3) specifications (summary comments separate): Why is a contractor required to be certified to install plastic pipe and not RCP, which has just as many potential issues? The bid docs state contractors are to be KYTC pre-qualified – that should suffice.</p> <p>-9.3.2 – Groundwater hinders the installation and compaction of RCP as well when considering subsoil stability, non-aggregate backfill (proctor density critical). Should be in 9.1</p> <p>-Ice and optimum moisture of the backfill is of little consequence with plastic pipe considering that the allowable backfill is an aggregate. This section should be moved to section 9.1 Same goes for the content of section 9.3.5</p> <p>3-Regarding Section 9.1 (now 25.1) specifications (summary comments separate):</p> <p>-There are no specs on installation– bedding, backfill, compaction? Still applies in new Section 25.1</p> <p>-9.1.2 calls out watertight connection – ASTM C443 is the min std for RCP and it is tested to a 1/2" max joint g</p>	<p>Acceptance of HDPE and PP storm pipe by LFUCG is relatively recent. This requirement ensures that contractors who may also be new to the product review its handling and installation recommendations with a manufacturer’s representative. This requirement is not a new to this LFUCG specification.</p> <p>The revised technical specification addresses the remaining concerns.</p>

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
8	Advanced Drainage Systems, Inc	<p>4-In response to Addendum 3 –</p> <ul style="list-style-type: none"> •Section 9.3 already defines in great detail the requirements for HDPE & PP usage, why not simply refer to those specifications? They are already more stringent than current KYTC/LFUCG specifications, & by far much more stringent than what is specified for RCP. The addendum goes even further beyond the overly stringent specs – for instance full time inspection of all aspects of installation, 100% post installation inspection, laser profiling only (although it also references the CCTV section 28?), verbiage like ‘exacting trench width and bedding’. Please consider revising to at most meeting Section 9.3 with additional considerations as described in parts 2, 3, and 5 of these responses but preferably to simply meet KYTC/LFUCG specs and stds for all materials. A level playing field for selection, installation, and inspection is all that is being asked. 	See Addendum #5
9	ATS Construction	RE: Retaining Wall. Summary sheet (R-2B) shows the retaining wall to be Class B concrete. Bid Items says Class A. Please clarify.	Per the bid schedule and Section 11 of the Technical Specifications, concrete retaining walls shall be Class A concrete.
10	ATS Construction	Is there a cut off date for questions?	Aug 3, 12:00 pm
11	ATS Construction	Please disregard cut off date for questions.	No reply

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
12	ATS Construction	<p>There are several notes on plan sheets that refer to removal of existing structures (retaining walls, fencing, pipe, etc.). Will there be pay items added to an addendum or will these be considered incidental to clearing and grubbing? Will LFUCG allow broken concrete from removed structures to be placed in embankment inside right of way or will these materials be required to be taken to a land fill?</p>	<p>Per Technical Specification Section 2.1 "...structures within the construction limits not otherwise removed by the excavation and grading operations or included in the summary items" shall be incidental to Clearing and Grubbing. This includes retaining walls, fencing, pipe, etc., not specifically addressed in Section 2.2 (and addressed as a pay item in 2.3).</p> <p>The intent of Section 2, Clearing and Grubbing, is to include removal of all items not specifically covered elsewhere in the specifications and reflected as a bid item.</p> <p>Broken concrete may be incorporated into embankment provided it complies with the KDOH Section 206.03.02, namely concrete rubble without protruding reinforcement will be allowed in embankment, provided that no fragment is larger than one foot in any dimension or is placed within 2 feet of the subgrade.</p>
13	ATS Construction	<p>Sheet R11 has a note to remove and reinstall a residential lamp post. Are there any specifications that are required for this scope of work? Will this be a separate pay item added by addendum or incidental to clearing and grubbing?</p>	<p>Per Technical Specification Section 2.2.5, the "CONTRACTOR shall remove and reinstall residential lamp post once construction is complete as shown on the plans. If the lamp post is damaged during construction, the CONTRACTOR shall replace the lamp post with a unit matching the style of the existing post of equal or greater value." This work shall be inclusive to Clearing and Grubbing. A specification has not been provided, and "equal" will be determined at that time. If a replacement is necessary, the CONTRACTOR will be liable for up to \$1,000 of the material cost, and all of the labor cost</p>

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
14	ATS Construction	The specifications reference that all temporary striping is incidental to Maintain and Control traffic. Will LFUCG accept temp paint instead of thermo for stop bars, turn arrows, cat tracks, etc. What method of pavement marking removal will be required / accepted (grinding or water blasting) and how will payment be made for removal of conflicting pavement markings?	<p>Temporary paint is acceptable in lieu of thermoplastic for all roadway markings, provided temporary markings are periodically refreshed to ensure they are visible at night throughout the construction phase until final markings are placed.</p> <p>Both water blasting and grinding are acceptable methods for removal of existing markings.</p> <p>Where the CONTRACTOR deems existing conflicting pavement markings exist, the CONTRACTOR shall bring them to the attention of the OWNER. If the OWNER concurs, the CONTRACTOR shall remove them, and the cost shall be incidental to Maintenance of Traffic.</p>
15	ATS Construction	How will undercut be paid since the excavation item is lump sum? Should the excavation be included in the unit price of #2 stone and or #57 stone?	Undercut and disposal of material shall be incidental to bid item #9, Roadway Excavation and Placement. It is the bidder's decision to include the cost of unforeseen undercut in the unit price of #2 stone and or #57 stone.
16	ATS Construction	Specification states that the testing will be paid "up to the testing allowance". Is the contractor responsible for the payment of testing services over and above the allowance?	If the allowance limit is exceeded and the conditions of Sections D and E of the Technical Specification are met, a change order will be approved for additional costs.
17	ATS Construction	RE: Tech Spec 42 – Geotextile Construction. In areas of subgrade and embankment foundation stabilization, since this is incidental, is this price to be included in the cost of the #2 stone and or #57 stone bid item?	It is the bidder's decision to include the cost of geotextile in the unit price of #2 stone and or #57 stone.

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
18	ATS Construction	1. Addendum 1 page SC-58 under the Utility notes states in the last paragraph that the CONTRACTOR is responsible for adjusting all SPECTRUM owned junction boxes to final grade. In most instances, utility companies have contracts with their own contractors that restrict any kind of utility work to only them doing the work. It is also unclear as to what conflicts will arise with Spectrum utilities with the given information therefore the bidder is not given enough information to accurately bid this work. Can LFUCG confirm who is responsible for adjustment of these boxes? If the bidding Contractor is responsible, can a Bid Item be added given that enough information is not given?	See Addendum #7
19	ATS Construction	The current bid schedule clearly states the Storm Sewer Pipe items to be "RCP." Given that Addendums have clarified other materials can be used, can the Bid Schedule be changed to reflect this?	See Addendum #7
20	ATS Construction	Can any CADD files be provided for bidding preparation purposes?	AutoCad drawings are not available to bidders. They will be furnished to the successful bidder if requested.
21	ATS Construction	Is safeloading of existing pipes incidental to excavation or will a pay item be added by addendum?	See Addendum #7
22	ATS Construction	In some instances, there is existing storm pipe that is called out on the plans to be removed with no other work happening on that particular alignment. For example, approx STA 136+00 has an existing 15" pipe slated "REMOVE" going under the existing roadway. Is the removal of this pipe incidental to excavation? Can LFUCG also clarify how these trenches are to be backfilled?	Removal of abandoned pipes shall be incidental to Excavation and Placement. Under paved areas, the trenches shall be backfilled per the zones and concrete cap as shown on LFUCG Standard Drawing 201-1. Zone 1 can be either No. 9 or No. 57 stone. Payment for DGA and stone shall be per their respective specification sections. Payment for concrete caps shall be paid for at the unit cost of Concrete Entrance Pavement.

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
23	ATS Construction	The Legend on sheet R-2C gives clarification on the acronyms TBR and DND when discussing Trees, however the acronyms TBR, DND, TBA are used throughout the plans on several different items. Is the bidding contractor to assume TBR and DND mean the same as they do for the trees? It is assumed that TBA stands for To Be Abandoned. If correct, can LFUCG confirm what work, if any, is required by the bidding contractor for TBA items? Are all of these items incidental to Excavation, or will bid items be added by addendum?	See Addendum #7
24	ATS Construction	If no work is called out for existing storm that is in conflict with proposed storm, can LFUCG clarify if the whole line of pipe is to be removed, safeloaded, or capped and abandoned?	The entire pipe section shall be removed or safeloaded as determined in the field. Removal shall be incidental to excavation.
25	ATS Construction	Asphalt Base and Surface require weight tickets furnished at the time of delivery, per Technical Specifications. Under current COVID-19 policy, this is a safety hazard. Will it be the Contractor's responsibility to provide E-ticketing to produce these tickets to LFUCG?	See Addendum #7
26	ATS Construction	Sheet R-25 Approx Sta 187+00 gives conflicting information in regards to the existing pipe crossing the road. Is the contractor to Safeload this pipe or completely remove it? Can LFUCG give clarification to the ending of this pipe?	This pipe section shall be safeloaded. Disregard the TBR designation.

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

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27	ATS Construction	The maximum density of a base stone is influenced primarily by specific gravity, moisture content, particle shape, and gradation. Given the same compactive effort, the maximum dry density is different for every source and every gradation that falls within the DGA gradation band. The 144 PCF density level restricts the various densities for the range of acceptable gradations. Common practice is to establish target densities through control strips (current KYTC practice) or laboratory density tests such as Standard Proctor Density (ASTM D698). Each of these methods determine a unique target density for a given DGA gradation from a specific source. Will LFUCG allow target density and optimum moisture content be set using standard Proctor laboratory testing (ASTM D698) that reflects unique densities for acceptable DGA gradations?	Section 8 – Dense Graded Aggregate, of the Technical Specifications describing the exceptions to control strips has been a successful practice by the Division of Engineering, and will apply to this project.
28	ATS Construction	Sheet R-45 shows the removal of existing 18" RCP and installation of new 24" RCP. Only a 10' easement is allowed which then reduces to a 6' easement. These easements allowed do not allow adequate room to work. This includes, but not limited to, Spoil placement per OSHA standards, trucking, access, etc. The six foot easement hardly allows for a piece of equipment to sit on it. Will LFUCG provide additional easements in this area, or will it be left to the contractor? Same question for the storm listed on sheet R-47?	If the contractor needs additional working room they will need to obtain permission from the affected property owner(s). Work may need to proceed with a mini-excavator and hand-digging.
29	ATS Construction	Regarding Sheet R-45 drainage, can LFUCG confirm that the contractor is to tie new 24" Storm sewer into an existing 18" outlet pipe?	This is correct.
30	ATS Construction	Regarding Sheet R-45 Drainage, will all work required to install this storm sewer pipe be incidental to the pipe? Fence removal/replacement, A/C replacement, etc.)	See Addendum #7
31	ATS Construction	Regarding Sheet R-45 Drainage, it appears there's an existing 18" pipe going under the home on P31. Is it the contractors responsibility to remove this pipe? If so, what stipulations are there with the home itself?	The existing pipe shall be safeloaded.

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
32	ATS Construction	It appears a large amount of work in in conflict with existing utilities. Per addendum some of these utilities have already been relocated. Can any utility relocation plans be provided?	See Addendum #7
33	ATS Construction	Addendum 4 Section 9.1 paragraph 5 states No. 57 stone shall be used for pipe bedding and trench backfill. Can LFUCG confirm No. 9 Stone is not to be used in a pipe trench? Can LFUCG also clarify if LFUCG or KYTC spec should be followed for pipe backfill under existing pavement.	<p>Pipe bedding shall be No. 9 stone. Specification Technical Specification, Section 9.1 Paragraphs 5 and 6 shall now read:</p> <p>“No. 57 stone meeting the requirements of KDOH Section 805 should be used for trench backfill (zone 2) consistent with LFUCG Standard Details 200 and 201-1, subbase in areas of sidewalk and entrance undercut, and as base for the culvert at Sta 196+43. Placement of these materials shall be as directed by the ENGINEER.”</p> <p>“No. 9 stone meeting the requirements of KDOH Section 805 should be used for pipe bedding (zone 1) and trench backfill (zone 2) consistent with LFUCG Standard Details 200 and 201-1, subgrade stabilization under retaining walls. Placement of these materials shall be as directed by the ENGINEER.”</p>
34	Pace Contracting, LLC	Sheet R-63 mentions a detail for the temporary pavement widening on the same sheet, however there is no shown. Could you provide this temporary pavement detail?	The temporary pavement design is shown on Sheet R-2A.
35	Pace Contracting, LLC	Could the cut off date for questions be extended to Wednesday 8/5/2020?	The cut off date for questions is extended to Aug 4, 5:00 pm.
36	MAC Construction & Excavating, Inc.	Is the area for the curb ramps included in the sidewalk area pay item? If so what is to be included with the curb ramp pay item?	See Addendum #7
37	MAC Construction & Excavating, Inc.	Is there a Geotech available for the roadway?	No geotechnical investigation was performed for this design.
38	MAC Construction & Excavating, Inc.	Is flowable fill backfill required for the proposed storm pipes that crosses the existing pavement that is to remain in place?	No. However, backfilling shall conform to LFUCG Standard Detail Drawings 201-1 and 201-2, which requires a concrete cap
39	MAC Construction & Excavating, Inc.	Bid item #20 calls for 6" thick concrete entrances. Note 17 on plan sheet R-2C calls for them to be 8" thick. Please clarify.	All concrete entrances shall be 6" thick, confirming to LFUCG Standard Detail Drawings 307-1 and 307-2. Disregard Note 17 on Sheet R2-C.
40	MAC Construction & Excavating, Inc.	Is bid items 55 and 57 duplicated? If not, where is bid item #57 located?	See Addendum #7

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
41	ATS Construction	Is the bidding contractor responsible for relocating fire hydrants within the project limits?	No. As discussed in the pre-bid meeting and as noted in the Utility Impact Notes, the Contractor shall coordinate with KAWC to relocate and/or reset any hydrants, valves and service meters and service lines that conflict with the construction of this project.
42	Pace Contracting, LLC	The temporary pavement as shown on the diversion plan appears to be in the same location as the proposed new full depth asphalt. Reading the plans the temporary pavement is to be incidental to the MOT bid item. Is it acceptable to install the permanent full depth asphalt (using the unit price items from bid schedule) and leave the 1.5" surface off in the temporary pavement areas rather than installing the temporary pavement then excavating the temporary pavement and installing full depth asphalt? The 1.5" pavement could be installed at unit price after construction is complete. It seems excessive to excavate and install pavement twice in these areas.	Full depth construction would leave the base courses more discontinuous than preferred. Only the surface course would be continuous across the half width, leading to potential uneven pavement. Constructing the full-depth asphalt for the temporary sections is not acceptable.
43	Pace Contracting, LLC	Sheet R-2B item 115 calls for concrete entrance pavement to be 8" thick, however the bid schedule calls for the entrance pavement to be 6" thick in item #20. Could you please clarify which thickness the contractor is to use for the entrance pavement?	All concrete entrances shall be 6" thick, confirming to LFUCG Standard Detail Drawings 307-1 and 307-2. Disregard Note 17 on Sheet R2-C.
44	Pace Contracting, LLC	Many of the proposed residential entrances are requiring both concrete and asphalt in the entrance. The concrete in these entrances will be able to be placed in one day, however it will not be as feasible to get the asphalt complete on these entrances until a lot of entrances accumulate to make it worthwhile for the asphalt sub to mobilize and install the asphalt. In an effort to get the entire entrance complete for these residents, would it be worthwhile to make the entire entrance concrete using a 24 hr concrete mix so the residents are not as impacted by the construction to their entrance? Or should the contractor plan on the asphalt/ concrete entrance combination and account for a larger amount of Asphalt mobilizations?	See Addendum #7

Questions Received During Bidding Period - Bid 17-2020 Clays Mill Road Improvements Section 1

	Author Vendor Name	Question	Answer
45		<p>Bio Clean SciClone and DSBB are approved with LFUCG, NJDEP and NJCAT. I am requesting that BioClean water quality units are added to the I specification per addendum. I met with Josh Dezarn back in December to confirm this approval status and BioClean is confirmed as qualified products list for LFUCG.</p>	<p>Water Quality Units that have been approved by the New Jersey DEP are acceptable for this project. However, the units provided must match the type shown in the plans (one is in-line, and two are off-line), and the capacity of the units specified on Sheet R-29. Furthermore, they must generally fit within the footprint of the units called out on the plans, so as not to require additional right-of-way or easements, or require additional installation costs.</p>

PART IX

TECHNICAL SPECIFICATIONS

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TECHNICAL SPECIFICATIONS

SECTION A - GENERAL PROVISIONS

A.1 KENTUCKY DEPARTMENT OF HIGHWAYS - SPECIFICATIONS

Except as otherwise indicated on the Plans, and in the Contract Documents and Specifications, all items of Work including materials, construction methods, method of measurement and basis of payment shall comply with the current edition of the *Kentucky Department of Highways (KDOH) Standard Specifications for Road and Bridge Construction* and all current revisions.

With regard to the incorporation *Standard Specifications of KDOH* into these Technical Specifications, the following should be noted:

- Unless either the content implicitly or the Plans and Contract Documents and Specifications explicitly indicate otherwise, all KDOH references to "the Department" should be construed as being references to the Lexington-Fayette Urban County Government (LFUCG).
- Any discrepancy between the *Standard Specifications of KDOH* and the express intentions of Lexington-Fayette Urban County Government (i.e., Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government Standard Drawings) shall be resolved in favor of the latter. (An example of one of the more common types of discrepancy is that which sometimes occurs with regard to the measurement of and payment for Work items.)

A.2 ABBREVIATIONS

Abbreviations of standards, codes, and publications used within these Specifications are as follows:

ASTM	American Society of Testing and Materials
ANSI	American National Standard Institute
KDOH	Kentucky Department of Highways, "Standard Specifications for Road and Bridge Construction", Current Edition

A.3 SCOPE

It is the intent that the CONTRACTOR, in accordance with the Plans, Contract Documents and Specifications, and other mutually acknowledged informational materials shall perform everything required to be performed and to furnish a complete, fully operating Work, and shall provide and furnish all labor, materials, necessary tools, expendable and non-expendable equipment and all transportation services required for the entire, proper completion of the Work, the cost of all of which shall be included in his bid.

The CONTRACTOR shall make all requisite excavations and foundation preparation for constructing sidewalks, incidental drainage structures, and retaining walls. The CONTRACTOR

shall, where required, excavate and prepare subgrade for pavement widening and replacement. The CONTRACTOR shall provide all signs, lighting, barricades, flagmen and watchmen, and make provisions necessary to protect and maintain buildings, fences, trees, shrubs, poles, existing utility fixtures, watercourses, surface drains, or other structures in, on, across, or adjacent to the Work and repair all damage done to them where and as required. The CONTRACTOR shall perform all backfilling, restore walks, grass plots, flowers, shrubs, trees, paved surfaces, etc., damaged or disturbed and clear away all rubbish and surplus materials. The CONTRACTOR shall put in complete and acceptable working order the items covered by the Contract.

This Specification sets forth several items of Work or conditions, which are required as integral parts of the successful completion of the Project. All items discussed herein under General Provisions are considered incidental to the overall accomplishment of the Project and no separate payment shall be made therefore unless otherwise noted elsewhere in these specifications.

A.4 CONTRACTOR'S FACILITIES

A.4.1 Sanitary Facilities: The CONTRACTOR shall provide and maintain all necessary sanitary facilities at the site, in accordance with all applicable regulations, and shall properly remove same at completion of the Project.

A.4.2 Utilities: The obtaining of all utilities, which may be required for construction shall be the responsibility of the CONTRACTOR.

A.5 CONTRACTOR'S FIELD OFFICE

A CONTRACTOR'S Field Office is not required.

A.6 UTILITIES

The CONTRACTOR is to notify all utility companies prior to beginning construction operations. See additional information regarding utility company relocation work in the Part V-Special Conditions, Section 8.

It shall be the CONTRACTOR'S responsibility to locate all utilities, make appropriate arrangements regarding relocation, maintain utility service throughout the construction period, and make final relocations at the completion of the Work. The CONTRACTOR shall be responsible for any injury or damage to the existing utilities due to his operations whether shown or not shown in the plans. Where utilities are shown or indicated on the plans, the information given is in accordance with the best information in possession of the OWNER but is approximate only. The data is not warranted to be either complete or correct, and the CONTRACTOR shall assume all risks resulting from the conditions arising from the approximations shown.

The CONTRACTOR shall confer with the utility companies to inform them of the proposed construction schedule, verify the location and elevation of existing utilities and arrange for the relocation and adjustment of any facilities to avoid interference with the proposed construction. All such activities are to be performed under the direction of and with the approval of the ENGINEER.

When the various utility owners find it necessary to make adjustments to their lines where the CONTRACTOR is presently working, the CONTRACTOR is to move his operations to another area of Work so as not to interfere in any way with the utility company's Work.

Any utilities covered up or lost by the construction operations of the CONTRACTOR shall be uncovered and found by the CONTRACTOR and the new construction repaired and/or replaced as directed by the ENGINEER. No additional compensation will be allowed for such Work nor shall any additional payment be allowed for the relocation and adjusting of any utility but shall be considered incidental to other Work.

The CONTRACTOR shall make a concerted effort to prevent any disruption of utility services, and if an unintended disruption occurs, the CONTRACTOR shall immediately and safely restore service. If disruption of any of the utility services covered in this section is unavoidable, it will be the responsibility of the CONTRACTOR to notify affected property owners. The CONTRACTOR shall also make every effort to restore said services before quitting Work for the day. In the event this cannot be done, the CONTRACTOR shall provide temporary service to the property owners until permanent service can be restored.

A.7 TESTING

From time to time during the progress of the Work, the ENGINEER may require that testing be performed to determine the materials provided meet the specified requirements. The Lexington-Fayette Urban County Government will select a testing laboratory to perform the testing services. The cost of such services shall be paid through an allowance as described in Section D of these Specification. If testing reveals defective materials or Work, the cost of said testing will become the responsibility of the CONTRACTOR.

A.7.1 Codes and Standards: Testing, when required, will be in accordance with all pertinent codes and regulations and with selected standards of the American Society for Testing and Materials.

A.7.2 Cooperation with the Testing Laboratory: Representatives of the testing laboratory shall have ready access to the Work at all times. The CONTRACTOR shall provide facilities for such access in order that the laboratory may properly perform its functions.

A.8 INSTALLATION REQUIREMENTS

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as suggested by the respective manufacturers, unless otherwise specified herein or directed by the ENGINEER.

A.9 PROOF OF COMPLIANCE

Whenever the Contract Documents require that a product be in accordance with Federal Specifications, ASTM Designations, ANSI Specifications, or other associations' standards, the

CONTRACTOR shall present a certification from the manufacturer that the product complies therewith. When requested or specified, the CONTRACTOR shall submit supporting test data to substantiate compliance.

A.10 DUST CONTROL

The CONTRACTOR shall be responsible for minimizing the generation of dust resulting from his operations at all times. The CONTRACTOR shall be required to maintain all excavations, embankments, stockpiles, roads, permanent access roads, plant sites, waste areas, and all other Work areas within or without the project boundaries free from dust, which would cause a hazard or nuisance to others. Approved temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment, or similar methods will be permitted to control dust. Dust control shall be performed as the Work proceeds, and whenever a dust nuisance or hazard occurs.

No direct payment for Dust Control shall be made. Payment for Dust Control shall be incidental to Earthwork.

A.11 REPAIR OF DAMAGE

Any damage done to structures, fills, roadways, or other areas shall be repaired at the CONTRACTOR'S expense before final payment is made.

A.12 PROJECT EXTENT

The CONTRACTOR shall be responsible for satisfying himself as to the construction limits for the Project. The CONTRACTOR shall not establish Work, storage, or staging area outside the Project limits, unless otherwise directed or approved by the ENGINEER.

A.13 WORKING HOURS

Work on these Projects shall generally be restricted to daylight hours, but may be further restricted by the ENGINEER if required; except emergency Work, such as any necessary pumping, which may require 24-hour operation. If the CONTRACTOR elects to Work beyond the normal work week, he shall notify the ENGINEER of his intent as far in advance as possible. Lane closures for all streets with a functional classification above local shall occur only between the hours of 9:00 a.m. and 3:00 p.m., except as approved by the ENGINEER.

A.14 GUARANTEE

The CONTRACTOR shall assume responsibility for all workmanship and materials for a period of one year from final payment. Any Work found to be defective due to failure to comply with the provision and intent of the Contract Documents, Specifications, and Plans shall be replaced at the CONTRACTOR'S expense.

A.15 PROPERTY CONSIDERATION

Materials having a salvage value shall remain the property of the OWNER. Salvageable material rejected by the OWNER shall become the responsibility of the CONTRACTOR to dispose of in a proper manner subject to the approval of the ENGINEER.

A.16 BLASTING

Blasting is addressed in the Special Conditions.

A.17 HAZARDOUS MATERIAL - GAS LINES

The CONTRACTOR is advised to exercise caution in his operations on this project, regardless of whether the plans indicate or do not indicate the presence of any gas or hazardous materials carrying lines.

A.18 DIVERSION OF STORM WATER

Appropriate measures must be taken to sandbag the necessary manholes and to divert drainage around the area under construction, including the use of pumps if necessary. The CONTRACTOR is responsible for developing a plan to divert storm drainage around the construction area with the approval from the ENGINEER. Materials, labor, and all incidentals necessary to accomplish this diversion of storm drainage will be considered incidental to the contract unless noted otherwise in Section 41 of these Specifications.

A.19 SEWER SERVICE MAINTENANCE

This Work shall consist of maintaining existing sanitary sewer service to residents in the area during construction. Sewage is to be maintained by whatever means necessary, with the exception of unavoidable short-term disconnections during sewer replacement. No surcharge of manholes causing a sewer back-up into a property will be allowed.

With the exception of approved sewer by-pass pumping as noted in Section 41 of these Specifications, no separate payment will be made for Sewer Service Maintenance. Sewer Service Maintenance shall include all materials, equipment and labor necessary to maintain sewer service to residents during construction.

A.20 EROSION AND SEDIMENT CONTROL

This work as described in Section 5.17 of the General Conditions shall involve preparation of a Stormwater Pollution Prevention Plan,(SWPP) a Notice of Intent (NOI-SWCA), a Notice of Termination (NOT), and a Land Disturbance Permit (LDP). Preparation of these documents shall be the responsibility of the Contractor.

No direct payment will be made for preparation of the SWPP, the NOI and the LDP. Payment for these tasks shall be incidental to Mobilization.

No direct payment will be made for preparation of the SWPP inspection reports and the NOT. Payment for these tasks shall be incidental to Demobilization.

Other related permits, such as a Stream Encroachment Permit, Water Quality Certification, and/or USACE permits, shall be obtained by the LFUCG as needed.

TECHNICAL SPECIFICATIONS

SECTION B - MAINTENANCE OF TRAFFIC

B.1 SCOPE

The CONTRACTOR shall maintain all local vehicular and pedestrian traffic along the project during construction utilizing detours as necessary and as shown in the Maintenance of Traffic Plan. The CONTRACTOR shall comply with the Maintenance of Traffic Plan and shall furnish, erect and/or maintain barricades, warning signs, delineators, flaggers and other traffic control devices, subject to the approval of the Lexington-Fayette Urban County Government Traffic Engineer. All necessary off-site warning, detour and road closure signage shall be provided by the CONTRACTOR. All bus routes shall remain in operation during scheduled bus operating hours, or accommodations shall be made with LexTran when this is not feasible. Loading zone space shall be made available as necessary during normal business hours. At least one lane of traffic shall be maintained on all cross streets.

B.2 MATERIALS

The CONTRACTOR shall furnish bridging plates, build temporary ramps, or provide other means of maintaining safe access for pedestrians and traffic to all businesses during normal working hours. Adequate personnel shall be available during daylight hours to assure maintenance of traffic. Metal trench covers, granular backfill, bituminous pavement cuttings, bituminous base, or other suitable materials and methods shall be utilized to maintain vehicular traffic through areas disturbed by construction operations. All needed temporary lane markings, cones, signs, drums, warning devices, flashers, emergency and construction lighting, and similar equipment shall be provided, placed, and maintained in good working order by the CONTRACTOR and shall be removed when they no longer are needed for the Work.

B.3 SIGNING

The CONTRACTOR shall furnish and erect suitable barricades, signs and other necessary devices to control, guide and safeguard traffic passing through or around the construction project. All such devices shall conform in all respects to the requirements of the Manual on Uniform Traffic Control Devices for Highway Construction and Maintenance Projects. The CONTRACTOR, before erecting any barricades or changing the location of one already placed, shall notify the ENGINEER at least three days prior to such contemplated erection or change, except in case of an emergency. In case of an emergency, the ENGINEER may direct the CONTRACTOR to immediately provide safety and warning devices to safeguard traffic. All night-time control devices requiring illumination shall be lighted every night during the entire period from sunset to sunrise. The CONTRACTOR will be held responsible for all damage to Work due to failure to provide barricades, signs, lights, and watchmen to protect it; and whenever evidence of such damage is found prior to acceptance, the ENGINEER may order the damaged portion removed and replaced by the CONTRACTOR at the CONTRACTOR'S expense. The responsibility remains the CONTRACTOR'S until the project is accepted.

Roadway closure for the culvert at Sta. 196+43 shall be restricted to the summer. The CONTRACTOR shall apply for a road closure permit no less than 14 days prior to the closure, to ensure adequate time for public notification.

B.4 APPLICABLE KENTUCKY DEPARTMENT OF HIGHWAYS (KDOH) STANDARD SPECIFICATIONS

To the extent that it does not conflict with the content of the Plans, Contract Documents, and Specifications, Subsection 112 of KDOH Standard Specifications, current edition, is incorporated into this Technical Specification.

B.5 MEASUREMENT AND PAYMENT

Payment will be at the lump sum bid price for Maintain and Control Traffic, made in partial payments proportional to the percent of total work completed, which shall be payment for all material, labor (including flag persons), equipment, and costs necessary or incidental to maintaining and controlling traffic through and adjacent to the Work described in the Contract Documents. All grading and necessary drainage for the temporary roadway and removal thereof when it is no longer needed shall be incidental to Maintain and Control Traffic and no separate payment will be made for such work. Any signal head adjustments necessary for phase construction shall be incidental to Maintain and Control Traffic and no separate payment will be made for such work. Temporary project signs, barricades, portable changeable message signs, temporary pavement striping and markers, plates and temporary lighting shall be incidental to Maintain and Control Traffic and no separate payment will be made for them.

Payment for temporary roadway items will be paid per their respective Contract Unit Price as quoted per the following Specification Sections: DGA base, Section 8; Bituminous Base, Section 17; Bituminous Surface, Section 18; Leveling and Wedging, Section 19.

TECHNICAL SPECIFICATIONS

SECTION C - FINAL CLEANUP

C.1 SCOPE

The Work will not be considered as complete, and final payment will not be made, until the right-of-way and all ground occupied by the CONTRACTOR in connection with the Work has been cleared of all rubbish, equipment, excess materials, temporary structures, and weeds. Rubbish and all waste materials of whatever nature shall be disposed of in waste areas provided by the CONTRACTOR. All property, both public and private, which has been damaged in the execution of the Work, shall be repaired or replaced in an acceptable manner. All ditches in the area of the Work shall be drained and areas affected by the Work shall be left unobstructed and in such condition as acceptable to the ENGINEER.

C.2 PAYMENT

No direct payment will be made for final cleanup. Demobilization costs will not be released until ENGINEER approves final cleanup.

TECHNICAL SPECIFICATIONS

SECTION D -- ALLOWANCES

a. SCOPE OF WORK

This Section includes administrative and procedural requirements governing allowances. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.

The following allowances shall be included in the Contractor's BASE BID CONTRACT PRICE:

Quality Control Services Allowance – Include a \$40,000 allowance which shall cover the costs of Quality Control Services including testing and inspection in accordance with Technical Specification Section E.

b. RELATED DOCUMENTS

Drawings and general provisions of the Contract and other Technical Specification Sections, apply to this Section.

c. SELECTION AND PURCHASE

At the earliest practical date after award of the Contract, advise Owner of the date when final selection and purchase of services described by an allowance must be completed to avoid delaying the Work.

At Owner's request, obtain proposals for use in making final selection of testing contractor and include recommendations that are relevant to performing the Work.

Procure testing services selected by the Owner from the designated supplier.

d. SUBMITTALS

Submit proposals for purchase of testing services included in allowance, in the form specified for Change Orders.

Coordinate and process submittals for allowance in same manner as for other portions of the Work.

e. EXAMINATION

Examine test results covered by the allowance promptly on delivery for deficiencies.

D.6 BASIS OF PAYMENT

An Allowance has been set up for Payment. Contactor will pay for testing as required by Section E and will be reimbursed up to the Testing Allowance. Payment will be based off invoices from the Quality Control Services Subcontractor. The Contractor's Fee for overhead, profit, and any other cost associated with Section D and E of these specifications shall be 5%.

TECHNICAL SPECIFICATIONS

SECTION E – QUALITY CONTROL SERVICES

D.1 DESCRIPTION OF REQUIREMENTS

Required inspection and testing services are intended to assist in the determination of probable compliance of the Work with requirements specified or indicated. These required services do not relieve the Contractor of responsibility for compliance with these requirements or for compliance with requirements of the Contract Documents.

Tests, inspections and certifications of materials, equipment, subcontractors or completed Work, as required by the various sections of the Specifications shall be obtained by the Contractor and all costs shall be included in the Contract Price as an allowance.

The Contractor shall submit to the Engineer the name of any testing laboratory to be used for approval.

Certifications by independent testing laboratories shall give scientific procedures and results of tests.

Inspections, tests and related actions specified in this section and elsewhere in the Contract Documents are not intended to limit the Contractor's own quality control procedures which facilitate overall compliance with requirements of the Contract Documents.

D.2 RELATED DOCUMENTS

Drawings and general provisions of Contract, and other Technical Specifications sections, apply to Work of this Section.

D.3 SUBMITTALS

Submit a certified written report of each inspection, test or similar service, directly to the Owner.

Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to the following:

1. Name of testing agency or test laboratory.
2. Dates and locations of samples and tests or inspections.
3. Names of individuals making the inspection or test.
4. Designation of the work and test method.
5. Complete inspection or test data.
6. Test results.
7. Interpretations of test results.
8. Notation of significant ambient conditions at the time of sample-taking and testing.
9. Comments or professional opinion as to whether inspected or tested work complies with requirements of the Contract Documents.

10. Recommendations on retesting, if applicable.

D.4 RESPONSIBILITIES

Contractor Responsibilities: Except where they are specifically indicated as being the Owner's responsibility, or where they are to be provided by another identified entity, inspections, tests and similar quality control services are the Contractor's responsibility; these services also include those specified to be performed by an independent agency and not directly by the Contractor. Costs for these services shall be included as an allowance. The Contractor shall employ and pay an independent agency, testing laboratory or other qualified firm to perform quality control services specified.

Retest Responsibility: Where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance of related Work with the requirements of the Contract Documents, then retests are the responsibility of the Contractor, regardless of whether the original test was the Contractor's responsibility. Retesting of work revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original Work.

Responsibility for Associated Services: The Contractor is required to cooperate with the independent performing required inspections, tests and similar services. Provide such auxiliary services as are reasonably requested. Notify the testing agency sufficiently in advance of operations to permit assignment of personnel. These auxiliary services include but are not necessarily limited to the following:

1. Providing access to the work.
2. Taking samples or assistance with taking samples.
3. Delivery of Samples to test laboratories.
4. Delivery and protection of samples and test equipment at the project site.

Coordination: The Contractor and each independent agency engaged to perform inspections, tests and similar services for the project shall coordinate the sequence of their activities so as to accommodate required services with a minimum of delay in the progress of the Work. In addition, the Contractor and each independent testing agency shall coordinate their Work so as to avoid the necessity of removing and replacing Work to accommodate inspections and tests. The Contractor is responsible for scheduling times for inspections, tests, taking of samples and similar activities.

D.5 REPAIR AND PROTECTION

Upon completion of inspection, testing, sample taking and similar services performed on the Work, repair damaged work and restore to eliminate deficiencies, including deficiencies in the visual qualities of exposed finishes. Protect Work exposed by or for quality control service activities, and protect repaired work. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

D.6 STRUCTURAL CONCRETE

Structural concrete used in retaining walls and footings shall be tested in accordance with the KYTC Standard Specifications, Kentucky Methods and KYTC Materials Field Sampling and Testing Manual.

Air Content Test, Slump Test, Temperature, and Compressive Strength (Cylinders - set of 2 for 6x12's or set of 3 for 4x8's) shall be conducted at the following frequency:

- 1 Test the first production unit daily for each class (usually a truck load) and any one of the next four (4) for slump, air content, and temperature.
- 2 After satisfactory control is established, one each for each 100 CY or fraction thereof per class daily.
- 3 When the randomly selected production unit falls outside specification limits, the above listed start up frequency will be resumed until the required number of production units meet the specifications.
- 4 Slump and air tests shall be performed on all batches from which concrete cylinders are cast.

D.7 OTHER

Inspections and/or testing of other work items as directed by the Owner shall be coordinated by the contractor.

TECHNICAL SPECIFICATIONS

SECTION 1 - CONSTRUCTION STAKING

1.1 SCOPE

The CONTRACTOR shall furnish and be responsible for all staking (including initial staking), necessary to control and complete the Work per the specifications and in accordance with the lines and grades shown on the plans.

The CONTRACTOR shall establish a survey baseline, or if one has been previously established, the CONTRACTOR may elect to field-verify and adopt the existing baseline. Should, prior to beginning Work on the project, all or part of the baseline be destroyed, it will be the CONTRACTOR'S responsibility to re-establish this baseline from the reference points shown on the plans. It will be the CONTRACTOR'S responsibility to establish all offset projection centerlines shown on the plans. Should, during the course of construction of this project, any construction stakes be destroyed by others, it will be the CONTRACTOR'S responsibility to reset the stakes at no additional cost to the OWNER.

The CONTRACTOR'S staking party shall be under the general supervision of a Licensed Professional Land Surveyor. It shall be definitely understood that supervision of the resetting of construction staking is solely the responsibility of the CONTRACTOR and any errors or inaccuracies resulting from the operations of the construction staking party shall be corrected at no cost to the OWNER.

It will be the OWNER'S responsibility to make all measurements for determining final quantities to be used for basis of final payment on items of Work.

To the extent that it does not conflict with the content of the Plans and Contract Documents and Specifications, Section 201 of KDOH Standard Specifications, current edition, is incorporated into this technical specification.

1.2 PAYMENT

Construction Staking will be paid for at the Contract Unit Price per lump sum, on a percent-completed basis, as quoted and this shall be full compensation for all Work required under this Section. All labor, materials and equipment necessary to complete the work shall be incidental to Construction Staking.

TECHNICAL SPECIFICATIONS

SECTION 2 - CLEARING AND GRUBBING

2.1 SCOPE

This item includes the clearing and grubbing of any trees, stumps, brush, bushes, cement concrete and/or stone masonry, steps, walls, pipe, fencing not otherwise identified these Specifications, street lighting and structures within the construction limits not otherwise removed by the excavation and grading operations or included in the summary items. Clearing and grubbing shall also include trimming of trees overhanging the right-of-way that impedes work. Also, included is the proper removal and disposal of such materials in a manner acceptable to the ENGINEER and in a manner not detrimental to the inhabitants of the area. The CONTRACTOR will be responsible for determining and complying with laws and local ordinances regarding disposal and/or burning of such materials. Trees, shrubbery, fences, retaining walls, and other such items not specifically noted on the plans to be removed or saved in place, or not shown on the plans, but suspected of being within the project construction limits shall not be disturbed until so directed by the ENGINEER. Clearing and grubbing shall not commence without approval of the ENGINEER.

Work shall not be performed outside the right-of way limits and existing vegetation outside the limits shall not be disturbed unless authorized by the ENGINEER.

Also included in this item will be the careful removal and stockpiling for pickup by the OWNER of all street and traffic signs, inlet grates, manhole frames and covers and other such salvageable and reusable items not intended to be reset on the job.

Vegetated areas on which excavation or fill operations are to be performed shall be stripped of all vegetation, topsoil, and other organic material as directed by the ENGINEER.

When it is practical, stripped topsoil material shall be utilized or disposed of in the general area from which it came in a manner directed by the ENGINEER. Stockpiling of topsoil-type material will not be required, unless otherwise specifically designated on the Drawings or in the Specifications.

Where existing shrubs, fences, planter boxes, residential lamp post, etc. are to be removed from the public right-of way for new construction under this Contract, and the property owner at this site wishes to replace or re-use same on his private property, the CONTRACTOR shall carefully remove and store on this property owner's property for his use after construction is completed, or CONTRACTOR shall relocate and reinstall designated items on the Owner's property as shown and/or noted in the plans.

To the extent that it does not conflict with the content of the Plans and Contract Documents and Specifications, Section 202 of KDOH Standard Specifications, current edition, is incorporated into this Technical Specification.

2.2 SITE SPECIFIC ISSUES

2.2.1 MAILBOX RELOCATIONS

Prior to removing mailboxes from the disturbed area, the CONTRACTOR shall ensure that an alternate mail delivery has been established with the U.S. Postal Service. The alternate delivery system shall be coordinated twenty (20) working days prior to any roadway construction in the areas where mailboxes are located at the existing edges of pavement. CONTRACTOR shall notify the affected property owner, and find a suitable locations for a temporary mailbox. Upon completion of work in the affected roadway area, CONTRACTOR shall install a new permanent mailbox of equal or greater value than the one removed.

2.2.2 WOOD PLANK FENCE

Where fence needs to be removed for the construction of the project, the CONTRACTOR shall remove such designated fence and shall reset once construction is complete, if so noted on the plans. If the fence is damaged during construction, the CONTRACTOR shall replace the fence in accordance with the requirements of KDOH Section 722. The Engineer or Owner must approve quantities of replacement fence prior to installation.

The Contractor is responsible for installing temporary fencing as noted on the plans, and as necessary to maintain the existing fence purpose (contain pets, delineate property, boundary, etc.) during construction and remove when no longer needed. Any variance from this provision must be with the approval of the landowner and the Engineer.

2.2.3 REBUILD PIER AND CAP (LT STA. 203+10)

CONTRACTOR shall rebuild the stone wall pier and cap, matching the existing natural limestone block shape, sizes and color, and matching the existing mortar color with the goal to provide as seamless an appearance between the existing wall and the reconstructed pier. The structure shall be set on a compacted subgrade, the base elevation matching existing. Work shall be performed by a mason experience in mortared rock wall construction.

Mortar shall be composed of 1 part Portland cement, complying with ASTM C 150, Type 1; 1 part hydrated lime, complying with ASTM C207, Type S; and 6 parts sand (complying with ASTM C 207, Type S. Addition of calcium chloride shall not be permitted. No mortar work shall be done when the temperature is below 40 deg F.

2.2.4 REMOVE AND RESET FENCE (SPLIT RAIL)

CONTRACTOR shall remove and reset split rail fence once construction is complete as shown on the plans. If the fence is damaged during construction, the CONTRACTOR shall replace the fence in accordance with the requirements of KDOH Section 722. The Engineer or Owner must approve quantities of replacement fence prior to installation.

2.2.5 REMOVE AND REINSTALL LAMP POST

CONTRACTOR shall remove and reinstall residential lamp post once construction is complete as shown on the plans. If the lamp post is damaged during construction, the CONTRACTOR shall replace the lamp post with a unit matching the style of the existing post of equal or greater value.

2.3 MEASUREMENT AND PAYMENT

Clearing and Grubbing will be paid for at the Contract Unit Price per lump sum, on a percent-completed basis, as quoted and this shall be full compensation for all Work required under this Section. All labor, materials, equipment, excavation, and material disposal, etc. shall be included in this work. Removal and reinstallation of the lamp post shall be incidental to Clearing and Grubbing. No separate payment shall be made for removal and relocation of improvements onto private property with the following exceptions:

Mail Box Relocations will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per completed mailbox relocation. All labor, materials and equipment necessary to complete the work shall be incidental to Mail Box Relocations. Coordination with the U.S. Postal Service Postmaster General, and coordination with property owners shall be incidental to Mail Box Relocations.

Wood Plank Fence Remove and reset fence, will be based on acceptable quantities and paid for at the Contract Unit Price per linear foot as quoted and this shall be full compensation for all Work required under this Section. All labor, materials, equipment, and excavation, incidentals, etc. shall be included in this Work. Temporary fence required by the project shall be incidental to Clearing and Grubbing.

Rebuild Pier and Cap (Lt Sta 203+10) will be paid for at the Contract Unit Price per lump sum, on a percent-completed basis, as quoted and this shall be full compensation for all Work required under this Section. All labor, materials and equipment necessary to complete the work shall be incidental to Rebuild Pier and Cap (Lt Sta 203+10).

Remove and Reset Fence (Split Rail), will be based on acceptable quantities and paid for at the Contract Unit Price per linear foot as quoted and this shall be full compensation for all Work required under this Section. All labor, materials, equipment, and excavation, incidentals, etc. shall be included in this Work.

TECHNICAL SPECIFICATIONS

SECTION 3 – EXCAVATION AND PLACEMENT

3.1 SCOPE

The work shall consist of the required removal and proper utilization or disposal of all excavated materials, forming embankments, the shaping and finishing to the required lines and grades as shown on the Plans, and performing routine dust control as described in the General Provisions.

3.2 MATERIALS

All material removal shall be unclassified. This includes removal of all pavements, curbs, gutters, concrete and bituminous driveway entrances, concrete sidewalks, and pipe and related structures. It shall be distinctly understood that any reference to rock, earth, concrete, or any other material on the plans or cross-sections whether in numbers, words, letters, or lines is solely for the OWNER'S information and is not to be taken as an indication of classified excavation or the quantity of any material involved. The Bidder must draw his own conclusions as to the conditions to be encountered. The OWNER does not give any guarantee as to the accuracy of the data and no claim will be considered of additional payment if the materials are not in accord with classification shown.

For embankment, only acceptable materials from sources approved by the ENGINEER shall be used. No frozen material or perishable materials of any kind will be allowed in the embankment. No stone or masonry fragment greater than four inches in any dimension will be allowed in the top 12 inches of the finished elevation.

3.3 GENERAL

Excavation and grading shall be done in a neat and workmanlike manner to form smooth and uniform subgrades and surfaces for all subsequent operations and once the surfaces have been shaped to the proper template and compacted to the satisfaction of the ENGINEER and in accordance with current edition of the Kentucky Department of Highways Standard Specifications, it shall be maintained in such condition until covered by subsequent construction operations.

Material removed shall include excavation to the designated depths, transporting of removed materials from points to final use, disposal of surplus materials, and the shaping and finishing of all areas to the required lines and grades as shown on the Drawings.

Surplus material will become the responsibility to the CONTRACTOR to dispose of off the project limits at a site acquired by the CONTRACTOR at no expense to the OWNER and approved by the ENGINEER.

Material removal carried below the indicated depths, except when directed by the ENGINEER, shall be replaced with material satisfactory to the ENGINEER. Additional payment will not be

necessitated thereby. All areas of fill shall be constructed to the lines and grades indicated on the Drawings, unless otherwise directed by the ENGINEER.

3.4 PREPARATION OF SUBGRADE

Preparation of subgrade for pavements, bases, curbs, gutters, sidewalks, and retaining walls shall conform to the required grades and the specified depth below the designated surface of the particular item for which it is intended. All soft and spongy places in the subgrade shall be excavated and backfilled with No. 2 coarse aggregate below the base course level, then brought to grade with dense graded aggregate. Once the subgrade has been shaped to the proper template and compacted to the satisfaction of the ENGINEER and in accordance with the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, current edition, it shall be maintained in such condition until covered by subsequent construction operations. Any portion of the subgrade which, cannot be shaped and compacted by the use of machinery shall be prepared by the use of hand tools.

3.5 EMBANKMENT

The Work shall consist of forming embankments with materials from sources indicated on the Plans or from other approved sources in accordance with these Specifications, to conform to the lines, grades, and cross-sections specified. The Work shall be performed in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Constructions, Current Edition, Section 206.

Embankment shall include obtaining suitable approved material either through on-site excavation or from offsite, placement of soil in specified lifts, adding moisture as needed and uniformly incorporating it into the soil through disking or other mechanical means, and compacting with mechanical compaction equipment that will satisfy the density requirements of at least 95 percent.

3.6 STRUCTURE EXCAVATION

This work shall consist of excavating and disposal, and backfilling material necessary to construct the Culvert Substructure. All work shall be conducted in accordance with Section 603 Foundation preparation and Backfill of the current KDOH Standard Specifications.

3.7 UTILIZATION OF REMOVED MATERIALS

All suitable material removed shall be used, insofar as it is practicable, in constructing the fill and embankments shown on the Drawings provided that the ENGINEER approves. The contractor shall dispose of any material in excess or unsatisfactory for such use.

3.8 CONSTRUCTION TOLERANCES

The CONTRACTOR shall make every reasonable effort to construct the project uniformly. Tolerances which will be allowed will be according to the KDOH Standard Specifications for Road and Bridge Construction, current edition.

No payment will be made for any earthwork performed outside the limits shown on the Drawings or those approved by the ENGINEER. No extra material shall be removed or placed outside of these limits without permission.

3.9 STANDARD SPECIFICATIONS

To the extent that they do not conflict with the content of the Plans and Contract Documents and Specifications, Sections 109, 203, 204, 205, 206, 207, 212, and 213 of KDOH Standard Specifications, current edition, are incorporated into this Technical Specifications.

3.10 MEASUREMENT AND PAYMENT FOR EXCAVATION AND PLACEMENT

Payment for Excavation and Placement shall be lump sum on a percent completed basis, and shall include excavation to the designated depths, transporting of removed materials from points of removal to points of final use, disposal of surplus or rejected materials, delivery of off-site material (if necessary), and the shaping and finishing of all areas to the required lines and grades as shown on the Drawings. Material used for Embankment may be from approved on-site sources and/or approved off-site sources. Removal and transport of material shall be incidental to the cost of Excavation and Placement.

The cost of soil testing, if required, shall be per Section A7 of the General Provisions.

Actual quantities may vary from those indicated by the plans, and no adjustment in price shall be made for variances. Payment for Excavation and Placement shall be full compensation for all labor, equipment, and incidentals necessary to complete the Work, in place, ready for use.

3.11 MEASUREMENT AND PAYMENT FOR STRUCTURE EXCAVATION (STA. 196+43)

Payment for Structure Excavation (Sta. 196+43) shall be paid for at the Contract Unit Price per lump sum, as quoted and shall be full compensation for all Work required under this Section. All labor, materials, equipment, excavation, and material disposal, etc. shall be included in this work.

No separate payment shall be made for any pump-around flow diversion (including sand bags), construction dewatering, temporary shoring, soil erosion control measures, etc., that is deemed necessary throughout construction of the Stormwater Culvert (Sta 196+43). This work shall be incidental to Structure Excavation (Sta. 196+43).

TECHNICAL SPECIFICATIONS

SECTION 4 - SAWCUTTING WALK, CURB, PAVEMENT, ETC.

4.1 SCOPE

When sawcutting of sidewalks, curb/curb and gutter, pavement, etc. is called for in these Specifications it shall require the use of an approved saw in order to obtain a smooth, straight line. Any existing facility, which is not marked for removal by the ENGINEER, but is nevertheless removed, shall be replaced at the CONTRACTOR'S expense.

4.2 BASIS OF PAYMENT

Sawcutting will be incidental to any construction activity in which it is encountered (excavation, sidewalk, edge key, etc.). No separate payment for Sawcutting will be made.

TECHNICAL SPECIFICATIONS

SECTION 5 - ROCK EXCAVATION (MECHANICAL)

5.1 SCOPE

Work under this Section shall be accomplished by accepted methods of either drilling, jack hammering, hoe ramming, rock trenching, single-tooth ripping, or using other high-impact equipment to remove rock in areas where blasting is not acceptable as determined by the ENGINEER. Work under this Section shall include all labor, materials, equipment, removal and disposal of loose rock, and incidentals necessary to complete the Work. Any property damage caused by operations under this section is the responsibility of the CONTRACTOR. All Work under this Section is to be completed as defined in the Kentucky Department of Highways Standard Specifications.

5.2 BASIS OF PAYMENT

Excavation on this project is unclassified. Rock excavation will be incidental to any construction activity in which it is encountered. No separate payment for rock excavation will be made.

TECHNICAL SPECIFICATIONS

SECTION 6 – REMOVE STRUCTURE (STA. 196+43)

6.1 SCOPE

Removal of the existing culvert at Sta 196+43 shall be such to facilitate the construction of the proposed culvert at the same location. Work for this Section shall be as shown on the plans and conform to all applicable sections of the Kentucky Department of Highways Standard Specifications, current edition and shall include all labor, materials, equipment, and incidentals necessary to complete the Work.

6.2 BASIS OF PAYMENT

Payment for Remove Structure (Sta. 196+43) shall be paid for at the Contract Unit Price per lump sum, as quoted and shall be full compensation for all Work required under this Section. All labor, materials, excavation, transportation, disposal, associated fees, and all other incidentals shall be incidental to Remove Structure (Sta. 196+43).

TECHNICAL SPECIFICATIONS

SECTION 7 - REMOVAL OF TREES AND STUMPS

7.1 SCOPE

Tree removal consists of removing trees marked for removal. Work for this Section shall include all labor, materials, equipment, and incidentals necessary to complete the Work.

Grinding and removal of stumps and roots is required unless substituted for grubbing with approval of the ENGINEER. When grinding is utilized, wood residue will be totally removed and replaced with approved, compacted topsoil. All stumps shall be ground to a depth that severs the roots from the main root mass or to a minimum depth of ten inches from finished or original grade (whichever is deeper). All holes resulting from the removal of stumps shall be backfilled by the end of the daily work period.

7.2 BASIS OF PAYMENT

Payment for Removal of Trees and Stumps will be incidental to Clearing and Grubbing. No separate payment will be made for work described under this Section. All labor, materials, disposal (hauling and tipping fees) and equipment shall be incidental to Tree Removal.

TECHNICAL SPECIFICATIONS

SECTION 8 - DENSE GRADED AGGREGATE

8.1 SCOPE

This Work consists of the construction of Dense Graded Aggregate base in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawings, current edition. Work in this section shall also conform to Sections 109, 207 and 302 of the Kentucky Department of Highways (KDOH) Standard Specifications, current edition, but only to the extent that these KDOH sections do not conflict with the content of the Plans, Contract Documents and Specifications, and LFUCG Standard Drawings. The requirements of KDOH Standard Specifications, Section 302, apply with the following changes:

- (1) Control strips will not be required or utilized for compaction control.
- (2) Test sections and target density, as prescribed in paragraph 302.03.04 will not be established.
- (3) Density measurements will be made at locations designated by the ENGINEER or representative.
- (4) Initial testing will be provided by the OWNER; any necessary re-testing requested by the CONTRACTOR will be at the CONTRACTOR'S expense.
- (5) The average of dry density measurements in a lift shall be equal to or better than 144 pounds per cubic foot (pcf). No individual measurement shall be less than 140 pcf.
- (6) In the event the dry density measurements are not met, laydown operations will be stopped in the substandard area identified by the ENGINEER or representative. The CONTRACTOR will either continue compaction effort or rework the designated section until the requirements for dry density are satisfied.

Work for this section shall include all labor, materials, equipment, excavation, and incidentals necessary to complete the Work.

8.2 PAYMENT

Accepted quantities for Dense Graded Aggregate Base will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of Dense Graded Aggregate. No direct measurement shall be made. Payment shall be based on weight tickets for Dense Graded Aggregate delivered and accepted for the work. All labor, materials, delivery, equipment, proof testing and excavation shall be incidental to the placement Dense Graded Aggregate Base.

TECHNICAL SPECIFICATIONS

SECTION 9 - CRUSHED STONE

9.1 SCOPE

All Work for this Section shall consist of furnishing and placing commercially available Crushed Stone aggregate in sizes and locations as determined by the ENGINEER and shall include all labor, materials, equipment, excavation, compaction, and incidentals necessary to complete the Work in place, ready for use and constructed in conformance with KDOH Standard Specifications.

No. 2 stone meeting the requirements of KDOH Section 805 should be used for locations as determined by the Engineer and shall include all labor, materials, equipment, excavation, and incidentals necessary to complete the Work in place, ready for use and constructed in conformance with KDOH Standard Specifications. No. 2 Stone meeting the requirements of KDOH Section 805 can be used for stabilizing sub-grade and pavement base etc.

Where soft, undesirable soil material is encountered at or below desired sub-grade elevation, undesirable material will be removed and/or bridged to develop a sufficient platform to support compaction of DGA. The depth and extent of this work shall be determined based on conditions observed and performance of compaction equipment on the sub-grade. Work shall be directed by the Engineer.

Stone will be dumped or pushed into place and walked in until support is developed for heavy equipment. The ultimate test will be the ability to provide an adequate compaction platform for the DGA base.

No. 57 stone meeting the requirements of KDOH Section 805 should be used for temporary driveway surface, trench backfill (zone 2) consistent with LFUCG Standard Details 200 and 201-1, subbase in areas of sidewalk and entrance undercut, and as base for the culvert at Sta 196+43. Placement of these materials shall be as directed by the ENGINEER.

No. 9 stone meeting the requirements of KDOH Section 805 should be used for pipe bedding (zone 1) and trench backfill (zone 2) consistent with LFUCG Standard Details 200 and 201-1, subgrade stabilization under retaining walls. Placement of these materials shall be as directed by the ENGINEER.

9.2 PAYMENT

Accepted quantities for No. 2 stone will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of stone. No direct measurement shall be made. Payment shall be based on weight tickets for stone delivered and accepted for the work. All labor, materials, equipment, proof testing, excavation and disposal of excavated material shall be incidental to the placement of No. 2 Stone.

Accepted quantities for No. 57 stone used as subbase in areas of temporary driveway surface, sidewalk and entrance undercut, and as base for the culvert at Sta 196+43 will be paid for at the

respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of stone. No direct measurement shall be made. Payment shall be based on weight tickets for stone delivered and accepted for the work. All labor, materials, equipment, proof testing, excavation and disposal of excavated material shall be incidental to the placement of No. 57 Stone.

No. 9 stone and No. 57 stone utilized for the construction of retaining walls, and as bedding and trench backfill for pipe installation, shall be incidental to that work. No separate payment shall be made for No 9's and No. 57's for the construction of retaining walls, and pipe installation.

TECHNICAL SPECIFICATIONS

SECTION 10 - STEEL REINFORCEMENT FOR CONCRETE

10.1 SCOPE

Steel Reinforcement for Concrete utilized for the construction of gravity retaining walls and stormwater culvert shall conform to the Kentucky Department of Highways Standard Specifications, Section 602, current edition and shall include all labor, materials, equipment, and incidentals necessary to complete Work.

Welded steel wire reinforcement (WWR) utilized for the construction of concrete stairs shall conform to the Kentucky Department of Highways Standard Specifications, Section 811, current edition and shall include all labor, materials, equipment, and incidentals necessary to complete Work.

10.2 BASIS OF PAYMENT

Payment for steel reinforcement for concrete steps and concrete retaining walls, will be incidental to construction of those structures. No separate payment will be made for work described under this Section for those structures.

Payment for Steel Reinforcement for Concrete for Stormwater Culvert (Sta 196+43) shall be paid shall be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per pound of steel placed. All labor, materials, and equipment shall be incidental to the placement of Steel Reinforcement for Concrete.

TECHNICAL SPECIFICATIONS

SECTION 11 - FORMED CLASS A CONCRETE AND UNFINISHED CONCRETE

11.1 SCOPE

Formed Class A Concrete and Unfinished Concrete for encasement, capping trenches, gravity retaining walls, culverts, fill for cavities or voids and mass footings shall conform to the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, Sections 601, 610 and 613 Current Edition, and shall include all labor, materials, equipment and incidentals necessary to complete the Work.

Gravity retaining walls with any portion of the exposed face greater than 18" in height shall be cast with a rock pattern form liner.

In lieu of stone veneer masonry as shown on the drawings for the Stormwater Culvert (Sta 196+43), a rock pattern form liner shall be used.

11.2 EXCEPTION TO KDOH SPECIFICATION

Provisions in the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction for early removal of falsework and forms, per Section 601.03.14, and for early opening to traffic, per Section 601.03.15, will not be permitted for the stormwater culvert at Sta. 196+43.

11.3 BASIS OF PAYMENT

Accepted quantities of Concrete Class A for Steps and Concrete Class A for Retaining Walls will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per cubic yard of concrete placed. All labor, materials (including reinforcing steel, and welded wire fabric), equipment and earthwork shall be incidental to Concrete Class A for Steps and Concrete Class A for Retaining Walls. Form liners, if applicable, shall be incidental to Concrete Class A for Retaining Walls.

Payment for Concrete Class A for Stormwater Culvert (Sta. 196+43) shall be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per cubic yard of concrete placed. All labor, materials, and equipment shall be incidental to the placement Concrete Class A for Stormwater Culvert (Sta. 196+43). Form liners, where required, shall be incidental to Concrete Class A for Retaining Walls.

TECHNICAL SPECIFICATIONS

SECTION 12 - CONCRETE SIDEWALK

12.1 SCOPE

This Work consists of the construction of sidewalks (dimensions as specified by the Purchase Order) on a thoroughly compacted subgrade in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawings 302 and 303, current edition. Work in this section shall also conform to Sections 206, 207, 505, 601, 801, 802, 803, 804, 805, and 823 of the Kentucky Department of Highways (KDOH) Standard Specifications, current edition, but only to the extent that these KDOH sections do not conflict with the content of the Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

Sidewalk within the neat lines of an entrance shall be considered part of the entrance with regard to construction requirements and also measurement and payment. The entire entrance from inside curb edge through the transition to original driveway shall be completed in continuous pour unless approved otherwise by the ENGINEER.

Subgrade shall be thoroughly compacted. Soft or unsuitable subgrade shall be excavated and replaced with compacted No. 57 stone. At the discretion of the Engineer, Contractor shall place a 4" thick subbase of No. 57 stone on top of compacted subgrade and shall strike and mechanically compact the stone to produce a uniform flat surface.

Expansion joints shall be placed at 32-foot intervals. Expansion joint material shall be of approved quality and of one-half (1/2) inch thickness. Expansion joints shall extend entirely and continuously through the concrete, and all excess expansion joint material shall be trimmed to conform to the surface of the concrete.

Concrete shall be sufficiently vibrated to assure removal of air voids. Concrete sidewalks shall be struck off by use of a screed, and they shall be floated and brushed. Edges and division marks shall be finished in a neat and workmanlike manner through use of the proper concrete finishing tools. Division joints in sidewalks shall be three-fourths (3/4) inch in depth, at four foot intervals, or as indicated on the Plans.

When it is necessary to replace portions of existing concrete sidewalks and entrance pavements, such existing features will be removed to the nearest transverse joint or division mark beyond the matching point indicated on the Plans. The existing concrete shall be sawed by an approved concrete saw. In the absence of a transverse joint or division mark, the sawing shall be performed as directed by the ENGINEER. It will not be permissible to place new concrete against the ragged edges of concrete caused by removal devices such as hand tools and air hammers.

All concrete used shall be Class A concrete on which Type 2 (white pigmented) curing compound is used (clear curing compound will be required in Historic Districts). Any placing of concrete must be immediately preceded by inspection and approval of the ENGINEER.

Work for this section shall include all labor, materials, equipment, excavation, and incidentals necessary to complete the Work.

12.2 PAYMENT

Accepted quantities for Sidewalk 4 ½ inch Concrete shall be paid for at the Contract Unit Prices as quoted (which shall be full compensation for all Work required under this Section) and paid per square yard of specified Concrete Sidewalk satisfactorily placed. All labor, materials, equipment, sawcutting, subgrade compaction, excavation and backfill shall be incidental to the placement of 4 ½ inch Concrete Sidewalks.

Accepted quantities for No. 57's will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of Crushed Stone satisfactorily placed, leveled and compacted. Payment shall be based on weight tickets for stone delivered and accepted for work. All labor, materials (other than the Crushed Stone), equipment, and excavation shall be incidental to the placement of Crushed Stone.

TECHNICAL SPECIFICATIONS

SECTION 13 - CONCRETE ENTRANCE PAVEMENT

13.1 SCOPE

This Work consists of constructing Concrete Entrances at the locations shown on the Plans, according to Lexington-Fayette Urban County Government Standard Drawings numbers 307-1 and 307-2 current edition. Work in this section shall also conform to Sections 206, 207, 601, 801, 802, 803, 804, 805, and 823 of the KDOH Standard Specifications, current edition.

Any placing of concrete must be immediately preceded by inspection and approval of the ENGINEER.

Sidewalk within the neat lines of an entrance shall be considered part of the entrance with regard to construction requirements and also measurement and payment. The entire entrance from inside curb edge through the transition to original driveway shall be completed in continuous pour unless approved otherwise by the ENGINEER.

Subgrade shall be thoroughly compacted. Soft or unsuitable subgrade shall be excavated and replaced with compacted No. 57 stone. At the discretion of the Engineer, Contractor shall place a 4" thick subbase of No. 57 stone on top of compacted subgrade and shall strike and mechanically compact the stone to produce a uniform flat surface.

Work for this section shall include all labor, materials, equipment, excavation, and incidentals necessary to complete the Work.

13.2 PAYMENT

Accepted quantities for Entrance 6" Concrete shall be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per square yard of Concrete Entrance satisfactorily placed. Measurement for entrance pavement will extend to back edge of curb. All labor, materials, equipment, sawcutting, subgrade compaction, excavation and backfill shall be incidental to the placement of Concrete Entrances.

Accepted quantities for No. 57's will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of Crushed Stone satisfactorily placed, leveled and compacted. Payment shall be based on weight tickets for stone delivered and accepted for work. All labor, materials (other than the Crushed Stone), equipment, and excavation shall be incidental to the placement of Crushed Stone.

TECHNICAL SPECIFICATIONS

SECTION 14 - SIDEWALK RAMPS

14.1 SCOPE

This Work consists of the construction of Sidewalk Ramps on a thoroughly compacted subgrade in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawings number 304 current edition. Work in this section shall also conform to Sections 206, 207, 601, 801, 802, 803, 804, 805, and 823 of the Kentucky Department of Highways (KDOH) Standard Specifications, current edition, but only to the extent that these KDOH sections do not conflict with the content of the Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

Expansion joint material shall be of approved quality and of one-half (1/2) inch thickness. Expansion joints shall extend entirely and continuously through the concrete, and all excess expansion joint material shall be trimmed to conform to the surface of the concrete.

Concrete shall be sufficiently vibrated to assure removal of air voids. Concrete shall be struck off by use of a screed, floated and brushed. Edges and division marks shall be finished in a neat and workmanlike manner through use of the proper concrete finishing tools. Division joints in sidewalks shall be three-fourths (3/4) inch in depth, at four foot intervals. All concrete used shall be Class A concrete on which Type 2 (white pigmented) curing compound is used. Any pouring of concrete must be immediately preceded by inspection and approval of ENGINEER.

When it is necessary to replace portions of existing concrete sidewalks and entrance pavements, such existing features will be removed to the nearest transverse joint or division mark beyond the matching point indicated on the Plans. The existing concrete shall be sawed by an approved concrete saw. In the absence of a transverse joint or division mark, the sawing shall be performed as directed by the ENGINEER. It will not be permissible to place new concrete against the ragged edges of concrete caused by removal devices such as hand tools and air hammers or caused by breaks.

Work for this section shall include all labor, materials, equipment, excavation, and incidentals necessary to complete the Work.

LFUCG will provide the tactile warning tile for fresh concrete placement and the CONTRACTOR will install per unit price for Detectable Warning Tile Installed. Per Section 55 of these Specifications.

14.2 PAYMENT

Accepted quantities for Sidewalk Ramps will be paid for at the Contract Unit Price as quoted for (which shall be full compensation for all Work required under this Section) and paid per cubic yard satisfactorily placed. All labor, materials, equipment, sawcutting, subgrade compaction, excavation and backfill shall be incidental to the placement of Sidewalk Ramps. Incidental labor shall include placement of the tactile warning tile furnished by LFUCG.

TECHNICAL SPECIFICATIONS

SECTION 15 – HEADER CURB AND CURB AND GUTTER

15.1 SCOPE

This Work consists of the construction of Header Curb and/or Curb and Gutter on a thoroughly prepared subgrade in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government Standard Drawing, number 301, current edition. Work in this section shall also conform to Sections 206, 207, 601, 801, 802, 803, 804, 805 and 823 of the Kentucky Department of Highways (KDOH) Standard Specifications, current edition, but only to the extent that these KDOH sections do not conflict with the content of the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government Standard Drawings.

Any placing of concrete must be immediately preceded by inspection and approval of the ENGINEER.

Work for this section shall include all labor, materials, equipment, excavation, and incidentals necessary to complete the Work.

15.2 PAYMENT

Accepted quantities for Header Curb and/or Curb and Gutter Type 1 or Type 4 will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per linear foot, satisfactorily placed. Header Curb and/or Curb and Gutter, Type 1 or Type 4, will be paid at the Unit Price across all entrances. All labor, materials (including DGA, equipment, subgrade compaction, excavation, sawcutting, and backfill shall be incidental to the placement of concrete Header Curb and/or Curb and Gutter, Type 1 or Type 4.

TECHNICAL SPECIFICATIONS

SECTION 16 - BITUMINOUS PAVEMENT MILLING AND TEXTURING

16.1 SCOPE

Work for this Section shall conform to the Kentucky Department of Highways Standard Specifications, Section 408, current edition and shall include all labor, materials, equipment, incidentals necessary to complete Work, including disposal of all resultant cuttings.

Milling and Texturing may be required at transitions between new construction and existing roadways where an edge key may not suffice. Milling and texturing will be as directed by the Engineer.

16.2 BASIS OF PAYMENT

Accepted quantities for Bituminous Pavement Milling and Texturing will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of Bituminous Pavement Milling and Texturing satisfactorily completed. All labor, materials, and equipment, hauling and disposal shall be incidental to the Milling and Texturing of Bituminous Pavement.

Unless otherwise agreed upon, tonnage shall be based on the measured volume [(SY) of the milled surface times the depth (in)] times 110 lbs/S. Y./in of depth. (Density is per Exhibit 1000-02 of the *Kentucky Highway Design Manual*, Jan 2006).

TECHNICAL SPECIFICATIONS

SECTION 17 - BITUMINOUS BASE

19.1 SCOPE

This Work consists of the construction of a bituminous base in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawings, current edition. Work in this section shall also conform to the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, Sections 401, 402 and 403 of the Current Edition and associated cross references, but only to the extent that these KDOH sections do not conflict with the content of these Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

19.2 MEASUREMENT AND PAYMENT

Accepted quantities for Bituminous Base will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per ton of Bituminous Base satisfactorily placed. No direct measurement shall be made. Payment shall be based on weight tickets for bituminous base delivered and accepted for work. All labor, miscellaneous materials, equipment, and compaction shall be incidental to the placement of Bituminous Base.

No payment for bituminous base shall be made without weight tickets, furnished at the time of delivery and verified by the project inspector.

TECHNICAL SPECIFICATIONS

SECTION 18 - CLASS 2 BITUMINOUS SURFACE

18.1 SCOPE

This Work consists of the construction of a bituminous concrete surface in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawings, current edition. Work in this section shall also conform to Sections 401, 401 and 403 of the KDOH Standard Specifications, current edition and associated cross references, but only to the extent that these KDOH sections do not conflict with the content of these Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

Generally, the new bituminous surface shall be KDOH Class 2 0.38D PG64-22. All areas to be paved shall be cleaned before paving operations commence. Any small areas to be repaired and paved shall be sawcut a minimum of two (2") inches deep (unless otherwise specified by the ENGINEER) and to a width as specified by the ENGINEER before placement of the new adjacent bituminous pavement.

A bituminous tack coat shall be applied to all old or trafficked pavement, sawcut edges, any concrete base course, and to other bituminous or concrete pavements or surfaces, horizontal or vertical, where any new bituminous pavement material will be placed. A joint sealant, Flexmaster Pourable Crack Sealant 1109 or approved equal will be used at all joints between any new pavement and any existing pavements.

The minimum depth of the new bituminous surface course for street paving shall be (1½") inches and for driveway overlays two (2") inches.

18.2 PAYMENT

Accepted quantities of Bituminous Concrete Surface will be paid for at the Contract Unit Price per Ton as quoted in the Bid Schedule and shall be full compensation for all Work required under this section. No direct measurement shall be made. Payment will be based on weight tickets for Bituminous Concrete Surface delivered and accepted for the Work. Any water used to ensure that the pavement surface is draining is incidental to Bituminous Concrete Surface. All labor, materials, equipment, excavation, joint sealant, placement and compaction of the bituminous mix, incidentals and any other items necessary to complete the Work of this Section shall be incidental to the placement of the Bituminous Concrete Surface.

No payment for bituminous concrete surface shall be made without weight tickets, furnished at the time of delivery and verified by the project inspector.

Payment for application of tack coat will be paid per Section 20 of these Specifications.

TECHNICAL SPECIFICATIONS

SECTION 19 – LEVELING AND WEDGING

19.1 SCOPE

This Work consists of the construction of Leveling and Wedging in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawings, current edition. Work in this section shall also conform to the of the KDOH Standard Specifications, current edition and associated cross references, but only to the extent that these KDOH sections do not conflict with the content of these Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

Generally, Leveling and Wedging shall be KDOH Class 12 0.38D PG64-22. All areas where Leveling and Wedging is to be placed shall be sawcut and milled to a minimum depth of 1.5 inches (unless otherwise specified by the ENGINEER) and to a width as specified by the ENGINEER before placement. All areas where Leveling and Wedging is to be placed shall be cleaned before paving operations commence.

A bituminous tack coat shall be applied to all old or trafficked pavement, sawcut edges, any concrete base course, and to other bituminous or concrete pavements or surfaces, horizontal or vertical, where any new bituminous pavement material will be placed. A joint sealant, Flexmaster Pourable Crack Sealant 1109 or approved equal will be used at all joints between any new pavement and any existing pavements.

19.2 PAYMENT

Accepted quantities of Leveling and Wedging will be paid for at the Contract Unit Price per Ton as quoted in the Bid Schedule and shall be full compensation for all Work required under this section. No direct measurement shall be made. Payment will be based on weight tickets for Leveling and Wedging delivered and accepted for the Work. Any water used to ensure that the pavement surface is draining is incidental to Bituminous Concrete Surface. All labor, materials, equipment, excavation, joint sealant, tack coat, sawcutting, milling, compaction, and any other items necessary to complete the Work of this Section shall be incidental to the placement of the Leveling and Wedging.

No payment for leveling and wedging shall be made without weight tickets, furnished at the time of delivery and verified by the project inspector.

TECHNICAL SPECIFICATIONS

SECTION 20 – BITUMINOUS MATERIAL FOR TACK

20.1 SCOPE

This Work shall consist of the use of bituminous material for tack in accordance with the Plans, Contract Documents and Specifications. Work in this section shall also conform to the Kentucky Department of Highways (KDOH) Standard Specifications, Section 406, of the current edition and associated cross references, but only to the extent that these KDOH sections do not conflict with the content of these Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

Application of bituminous tack coat will be applied to old material surfaces, curb contact, cold base surfaces and as otherwise directed by the Engineer.

If tack coat will be subject to traffic, a sand blotter shall be used in accordance with KDOH Standard Specifications for Road and Bridge Construction, Section 406 current edition.

20.2 BASIS OF PAYMENT

Payment for the accepted quantity of Bituminous Material for Tack will be made at the unit bid price per ton, which payment shall be full compensation for all Work required by this section. Payment will be based on weight tickets for Bituminous Material for Tack delivered and accepted for the Work.

No payment for bituminous material for tack shall be made without weight tickets, furnished at the time of delivery and verified by the project inspector.

TECHNICAL SPECIFICATIONS

SECTION 21 – PVC DRAINAGE STRUCTURES

21.1 SCOPE

Work for this Section shall include all labor, excavation, materials, equipment, and incidentals necessary to construct PVC drainage structures as specified in the Plans.

PVC drainage structures shall be installed according to manufactures recommendations and using accepted plastic pipe backfill materials and practices as referenced in ASTM D2321. The bedding and backfill shall be crushed stone or other granular material. Bedding and backfill materials shall be well placed and compacted uniformly in accordance with ASTM D2321.

21.2 MATERIALS

The raw material used to manufacture the drainage structures shall conform to ASTM D1784 cell class 12454. The joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The drainage structures shall be equivalent to those manufactured by HARCO or ADS Nyoplast. Structures shall be rated for heavy duty.

21.3 BASIS OF PAYMENT

Accepted quantities for PVC Drainage Structures will be paid for at the Contract Unit Price as quoted for each type (which shall be full compensation for all Work under this Section) and paid per specified structure satisfactorily placed. All labor, materials, equipment, backfill, bedding, excavation, and disposal shall be incidental to the placement of PVC Drainage Structures.

TECHNICAL SPECIFICATIONS

SECTION 22 – CURB, DROP AND SURFACE BOX INLETS AND JUNCTION BOX

22.1 SCOPE

Work for this Section shall include all labor, excavation, materials, equipment, and incidentals to construct LFUCG Type "A", "B", "C", and "D" Curb Box Inlets; KDOH type "A" & Type "B" Curb Box Inlets; Type "13", "14 & 15" and "16" Drop Box Inlets; LFUCG Type "A" & Type "B" Surface Box Inlets, in accordance with the Lexington-Fayette Urban County Government Standard Drawings Numbers 122-125, KDOH Standard Drawings RDB 013-06 through RDB 020-04 (8 dwgs total) and RDB 030-03 through RDB 035-03 (6 dwgs total), RDB 270-08 through RDB 282-03 (7 dwgs total), RDX-005-03 and shall conform to Kentucky Department of Highway Standard Specifications, Section 601, 602 and 710.

Work for this Section may also include constructing in-place a curb or drop box inlet cover. Such work shall comply with the above-referenced standard drawings to the extent field conditions allow.

22.2 BASIS OF PAYMENT

Accepted quantities for precast Curb Box Inlet, Drop Box Inlet or Junction Box will be paid for at the Contract Unit Price as quoted for each type (which shall be full compensation for all Work under this Section) and paid per specified Curb Box Inlet, Drop Box Inlet and Junction Box satisfactorily placed. All labor, materials, equipment, and excavation shall be incidental to the placement of Curb Box Inlet, Drop Box Inlet and Junction Box.

TECHNICAL SPECIFICATIONS

SECTION 23 - MANHOLES

23.1 SCOPE

Work for this Section shall consist of stormwater and sanitary manholes: new manholes and adjusting existing manholes to match the finished grade.

At the option of the CONTRACTOR, manholes shall be constructed of precast concrete manhole rings. Manholes shall be constructed to conform to Lexington-Fayette Urban County Government Standard Drawings 100-105 (storm) and 210-217, 220 and 222 (sanitary), unless otherwise noted or directed by the ENGINEER. Bases for manholes shall be poured in place using Class "A" concrete and shall have a minimum thickness of eight inches (8"). Field poured bases (doghouse manholes) shall only be allowed with prior approval of LFUCG. If no special instructions are given on the plans and precast manholes are used, the 6" overhang in the base section shown on the drawings shall not be required. This section also

23.2 MATERIALS

23.2.1 Precast Concrete Rings: Precast concrete rings for manholes shall conform to ASTM Standard Specifications C-76, Class II, Wall B, with a minimum concrete strength of 4,000 psi, except that rings for manholes over twelve (12) feet deep shall be Class III. Rings shall be of the tongue and groove type. New or replacement manholes shall be sized such that a 6" ring is installed to permit future height adjustment in either direction. Brick leveling courses shall not be used under any circumstances.

23.2.2 Precast Concrete Cones: Precast concrete cones shall be of the size and shape shown on the plans and shall conform to the ASTM Standard Specification C-76 for the reinforced concrete sewer pipe, Class II and as specified above for Precast Concrete Rings.

23.2.3. Sealant for Concrete Rings: Conseal or its equal shall be used as sealant. Cementitious mortar shall not be used.

23.2.4 Manhole Steps: Manhole steps shall be asphalt coated cast iron or polypropylene plastic coated steel rod or of a type and size approved by the ENGINEER.

23.2.5 Manhole Frames and Covers: The Standard Manhole casting shall consist of 7" cast iron frames and 22-3/4 inch diameter covers weighing not less than 320 pounds for frame and cover, dimensioned as shown on the plans unless otherwise noted. When used the manhole adjustable frames shall be set at their lowest adjusted level. CONTRACTOR shall not use adjusters to match grade. Manhole covers must set neatly in the rings with contact edges machined for even bearings and tops set neatly in the rings with contact edges machined for even bearings and tops flush with ring edge. They shall have sufficient corrugations to prevent slipperiness and be marked in large letters, "SANITARY" or "STORM SEWER, LEXINGTON, KENTUCKY". The lids shall have two pick holes about 1-1/2 inches wide and 1/2-inch deep with 3/8-inch undercut all around. They shall

be equivalent to those manufactured for the Lexington-Fayette Urban County Government by J.R. Hoe and Sons, Middlesboro, Kentucky, and shall be of cast iron conforming to ASTM A-48, Class 35, Gray Iron Castings. The contact surfaces of covers and corresponding rings in the rims shall be machined to provide full perimeter contact.

23.2.6 Manhole Waterproofing Admixture (Sanitary Manholes Only): All Sanitary Sewer manhole mix designs shall include a non-soluble crystalline waterproofing admixture added to the concrete mix at the time of batching. The additive shall cause the concrete to become sealed against the penetration of liquids from any direction, and shall protect the concrete from deterioration due to harsh environmental conditions. The admixture shall include a pigment to clearly identify concrete treated with the admix. Dosage shall be per the manufacturer. Acceptable products are Xypex C-1000 Red, manufactured by Xypex Chemical Corporation; KIM K-301, manufactured by Kryton International Inc; and Crystal-X Admix-, manufactured by ConShield Technologies.

23.2.7 Manhole Microbial Induced Corrosion (MIC) Inhibitor Additive (Sanitary Manholes Only): All Sanitary Sewer manholes receiving a force main discharge and those within 2,000 feet downstream of that manhole, shall have a liquid additive added to the concrete mix at the time of batching. The additive shall prevent microbiologically induced corrosion (MIC). Dosage shall be per the manufacturer. Acceptable products are ConShield, manufactured by ConShield Technologies, or approved equal.

23.3 CONSTRUCTION METHODS

23.3.1 Width and Depth of Excavation of Structure:

23.3.1.1 Earth Excavation: In excavating for concrete structures, the required width shall be such as to permit forms to be constructed in the proper manner and to permit proper backfilling on completion of the structures. Depth of excavation for base shall be as shown on the Standard Drawings and/or as directed by the ENGINEER to obtain sufficient bearing.

23.3.1.2 Rock Excavation: Rock excavation for structures will be measured between the vertical planes passing eighteen (18) inches beyond the outside of the base and from the surfaces of the rock to the neat lines of the bottoms of the structures or the actual bottom on the rock ledge.

23.3.2 Laying Concrete Rings: Mortar joints shall not be more than 3/8 inch thick horizontally and not less than 3/8 inch wide vertically at the inside face of the manhole.

Precast concrete manhole rings shall be set level and plumb. Joints between sections shall not be less than 3/8 inch thick and the entire joint space between sections shall be completely filled with mastic designed for this purpose or other material approved by ENGINEER.

In sewer manholes, masonry shall be carefully and neatly constructed around the inlet and outlet pipes so that there will be no leakage around the outer surface.

The ENGINEER shall approve materials and techniques used to insure water and/or vacuum tightness.

23.3.3 Manhole Inverts: Manhole inverts shall be formed from Class "A" concrete as shown on the plans. Curved inverts shall be constructed of concrete and shall form a smooth, even, half-pipe section. The inverts shall be constructed when the manhole is being built using prefabricated forms. Changes in direction of flow through the invert shall be made to a true curve with as large a radius as the size of manhole or inlet will permit. Invert slabs which are situated at depths in excess of 12 feet shall be reinforced per Lexington-Fayette Urban County Government Standard Drawings.

23.3.4. Bases: The excavation shall be kept free of water while the manhole is being constructed. After the foundation has been prepared and has been approved by the ENGINEER, the bottom shall be constructed to the required line and grade. After the bottom has been allowed to set for a period of not less than twenty four (24) hours, the manhole and inlet shall be constructed thereon.

23.3.5. Casting: The cast iron steps shall be included in the wall of the manhole at the proper locations and elevations as the work progresses and shall be securely embedded (per Lexington-Fayette Urban County Government Standard Drawings). The cast iron frame for the manhole cover shall be set at the required elevation and properly anchored. Where manholes are constructed in paved areas, the top surface of the frame and cover shall be tilted to conform to the exact slope, crown and grade of the existing adjacent pavement. Frames shall be in full cement mortar beds or other approved material.

23.3.6 Backfilling: Masonry Work shall be allowed to set for a period of not less than twenty four (24) hours. Outside voids shall be backfilled and compacted in the same manner as provided for backfilling of pipeline trenches. All loose or waste material shall be removed from the interior of the manhole or inlet. The manhole cover or inlet grating then shall be placed and the surface in the vicinity of the Work cleaned off and left in a neat and orderly condition. No back-filling shall be performed until the manhole has been inspected and approved for backfilling by the ENGINEER.

23.3.7 Vacuum Testing for Sanitary Sewer Manholes: All sanitary sewer manholes must pass the application of a vacuum test (ASTM C1244) by the Division of Sanitary Sewers prior to acceptance by the Lexington-Fayette Urban County Government.

23.3.8 Adjusting Existing Sanitary Sewer Manholes to Grade: All existing sanitary sewer manhole lids that are more than one-quarter inch over or under the finished grade after work is complete, shall be adjusted. This includes manholes currently not visible due to pavement overlays.

23.4 BASIS OF PAYMENT FOR STORM SEWER MANHOLES

Accepted quantities for Storm Sewer Manholes will be paid at the Contract Unit Price as quoted for their respective sizes (which shall be full compensation for all Work required under this Section) and paid per specified Storm Sewer Manhole satisfactorily placed. All labor, excavation, materials (including steps, adjusting rings, mastic, frame and cover), and equipment shall be incidental to the construction of Storm Sewer Manholes.

23.5 BASIS OF PAYMENT FOR SANITARY SEWER MANHOLES

Accepted quantities for Sanitary Sewer Manholes will be paid at the Contract Unit Price as quoted for their respective sizes (which shall be full compensation for all Work required under this Section) and paid per specified Sanitary Manhole satisfactorily placed. All labor, excavation, materials (including steps, adjusting rings, mastic, frame and cover, required admixtures and/or additives), and equipment shall be incidental to the construction of Sanitary Sewer Manholes.

23.6 BASIS OF PAYMENT FOR ADJUST SANITARY MANHOLE TO GRADE

Accepted quantities for Adjust Sanitary Manhole to Grade shall be paid for at the Contract Unit Price per each as quoted as in the Bid Schedule and shall be full compensation for all Work under this Section. All labor, materials, equipment, and excavation shall be incidental to the adjustment of the manhole to match finished grade elevation.

TECHNICAL SPECIFICATIONS

SECTION 24 - MANHOLE OR CURB BOX INLET TIE-IN

24.1 SCOPE

Work for this Section shall include all labor, excavation, materials, equipment, and incidentals to make connections to existing manholes or curb box inlets where required. The existing manhole and/or curb box inlet shall be drilled and/or sawed in a neat manner to allow for the smoothest connection possible. Once the connection is made, the annulus between the pipe and the structure shall be filled with non-shrink grout and the entire area around the connection shall be filled with cement concrete. No fill shall be placed on the concrete before hardening has occurred.

24.2 BASIS OF PAYMENT

Manhole or Curb Box Inlet Tie-Ins will be incidental to any construction activity in which it is encountered (pipe installation, etc.). No separate payment for Manhole or Curb Box Inlet Tie-In will be made.

TECHNICAL SPECIFICATIONS

SECTION 25 - STORM SEWER PIPE: RCP, HDPE AND PP

25.1 SCOPE FOR RCP (REINFORCED CONCRETE PIPE) STORM SEWER

Work under this Section shall include all labor, excavation, materials, equipment, bedding, backfilling and legal disposal of unneeded and unsatisfactory material at site obtained by CONTRACTOR in accordance to Lexington-Fayette Urban County Government Standard Drawings 100, 102, 103, 104 and 105, and the LFUCG Stormwater Manual, and all incidentals necessary to construct RCP Storm Sewer to the sizes indicated as shown on the plans. Where the Standard Drawing requires a concrete cap, it shall be constructed according to KDOH Section 501 for consolidated, unfinished concrete.

All pipe delivered to the site shall be certified by the PROVIDER to meet the material specification as noted in these specifications.

All pipe installation work shall be performed in accordance with the manufacturer's recommendations, with attention to the following details.

Storm pipe with burial depths less than 24" from the crown to the finished surface elevation shall be RCP.

25.1.1 Installation

Pipe is to be installed at the required line and grade as indicated on the plans. Once the trench is excavated on line, the pipe bedding should be placed to proper thickness. The top of the bedding should be adjusted to allow for the difference between the plan invert and pipe profile.

25.1.2 Dewatering

Excessive groundwater hinders proper placement and compaction of bedding and backfill. Therefore, it is imperative that a dewatered trench be provided. It may be necessary to provide sumps pumps, underdrains or a diversion ditch to insure a trench free of standing water.

25.1.3 Joints and Joint Assembly

All joints shall be soil tight and shall be installed as per manufacturer's specifications. For RCP, gaskets may be natural rubber, isoprene or neoprene conforming to ASTM C1619, and shall be furnished by the manufacturer, suitable for the pipe delivered.

25.1.4 Embedment Material

In accordance with manufacturer's recommendations and LFUCG Standard Drawings embedment materials are those used for bedding, haunching and initial backfill and shall consist of AASHTO M43 #9 coarse aggregate. All embedment materials shall be free of frozen soil or ice when placed. Additionally, embedment materials shall be placed and compacted at maximum bulk density. Embedment materials shall be specified with consideration given to design loads and the classification and suitability of native soils.

25.1.5 Foundation

A stable foundation must be provided to insure proper line and grade is maintained. Unsuitable foundations must be stabilized at the Engineer's judgment. Unsuitable or unstable foundations may be undercut and replaced with a suitable bedding material, placed in 6" lifts.

25.1.6 Bedding

Bedding shall be per LFUCG Standard detail drawings. A stable and uniform bedding shall be provided for the pipe and any protruding features of its joints and/or fittings. The middle of the bedding equal to 1/3 of the pipe diameter OD should be loosely placed, with the remainder compacted to a minimum of 90% standard proctor density.

25.1.7 Haunching

Proper haunching provides a major portion of the pipe's strength and stability. Care must be exercised to insure placement and compaction of the embedment material in the haunches. For larger diameter pipes (>30"), embedment materials should be worked under the haunches by hand. Haunching materials must be placed and compacted in 8 inch maximum lifts, compacted to 90% standard proctor density.

25.1.8 Initial Backfill

Initial backfill materials are required in accordance with LFUCG Standard Drawings.

25.1.9 Final Backfill

The final backfill shall be the same material as the proposed embankment. Generally, the excavated material may be used as final backfill. Placement shall be as specified for the embankment. In lieu of a specification, the final backfill shall be placed in 12 inch maximum lifts and compacted to a minimum 85% standard proctor density to prevent excessive settlement at the surface. Compaction shall be performed at optimum moisture content. Backfill beneath paved area shall be as per LFUCG Standard Drawing 201-1.

25.1.10 Manhole Connections

Consideration should be given to the project performance specified when selecting manhole connections. When connecting to concrete manholes or inlets grouting the pipe to the manhole or inlet using non-shrink grout provides a soil tight installation.

25.1.11 Specifications

All RCP storm sewer pipe shall be Class III or greater, meeting AASHTO M 170, current edition.

25.1.12 Inspection Requirements

All RCP pipe shall undergo inspection during and after installation to ensure proper performance. Installation of bedding and backfill materials, as well as their placement and compaction, shall be determined to meet the requirements of this section. The LFUCG inspector reserves the right to require the CONTRACTOR expose work for

inspection if not provided sufficient opportunity to inspect the foundation preparation, bedding, haunching or backfilling activities.

All RCP pipe shall be inspected in accordance with Section 28 Internal Inspection of Sewer Pipe: CCTV as directed by the Engineer.

The CONTRACTOR is responsible to inspect any delivered RCP prior to installation and to reject any product deemed insufficient, or damaged.

For installed RCP, as a minimum, any of the following significant observances or defects shall be evaluated by the ENGINEER and the OWNER to determine if any repairs, remediation, or removal and replacement are required:

- Any joint gap in excess of the conduit manufacturer's recommendation.
- Any chip-outs along the bell, spigot, tongue, or grove of the RCP.
- Any cracks greater than 0.05-inch.
- Any cracks demonstrating faulting across the crack.
- Exposed reinforcing steel due poor workmanship, raveling, or spalling.
- Rust stains or effervescence.
- Any lateral connections.

25.2 BASIS OF PAYMENT FOR (RCP) STORM SEWER PIPE

Accepted quantities for (RCP) Storm Sewer Pipe will be paid for at the Contract Unit Price as quoted per size. Accepted quantities will be paid per linear foot of satisfactorily placed conduit. Unless otherwise approved by the ENGINEER and OWNER, payment will be paid upon a satisfactorily inspection of the conduit as noted in Section 25.1.12 and in Section 28 Internal Inspection of Sewer Pipe CCTV.

Payment includes any removal of existing pavement, sidewalk, and rock, if encountered. Surface restoration (seeding, sod, pavement, etc.) will be paid separately under the appropriate Bid Items and the pay limits for surface restoration shall be in accordance with the appropriate Standard Drawings. Limits of surface restoration will be those limits as shown on the plans.

All labor, materials, equipment, excavation, backfill, bedding, flowable fill, concrete capping, disposal and backfilling shall be incidental to the placement of RCP Storm Sewer.

25.3 SCOPE FOR HDPE (HIGH DENSITY POLYETHYLENE) OR PP (POLYPROPYLENE) STORM SEWER

Work under this Section shall include all labor, excavation, materials, equipment, bedding, backfilling and legal disposal of unneeded and unsatisfactory material at site obtained by CONTRACTOR in accordance to Lexington-Fayette Urban County Government Standard Drawings 100, 102, 103, 104 and 105, and the LFUCG Stormwater Manual, and all incidentals

necessary to construct HDPE (high density polyethylene), or PP (polypropylene) Storm Sewer to the sizes indicated as shown on the plans. Where the Standard Drawing requires a concrete cap, it shall be constructed according to KDOH Section 501 for consolidated, unfinished concrete.

The CONTRACTOR shall be certified by the pipe manufacturer as qualified to install HDPE and Polypropylene pipe and provide proof thereof. All pipe delivered to the site shall be certified by the PROVIDER to meet the material specification as noted in these specifications. Split-couplers and other third-party coupler used to connect/extend pipe shall be approved by the pipe manufacturer prior to installation.

All pipe installation work and handling shall be performed in accordance with LFUCG standards and specifications as listed above, plus utilize the manufacturer's recommendations, with attention to the following details.

25.3.1 Installation

Pipe is to be installed at the required line and grade as indicated on the plans. Once the trench is excavated on line, the pipe bedding should be placed to proper thickness. The top of the bedding should be adjusted to allow for the difference between the plan invert and pipe profile.

25.3.2 Dewatering

Excessive groundwater hinders proper placement and compaction of bedding and backfill. Plastic pipe is more susceptible to floating and shifting in standing water, therefore, it is imperative that a dewatered trench be provided. It may be necessary to provide sumps pumps, underdrains or a diversion ditch to insure a trench free of standing water.

25.3.3 Joints and Joint Assembly

All joints shall be soil tight and shall be installed as per manufacturer's specifications. For HDPE and PP pipe, gaskets shall comply with ASTM F477, and shall be furnished by the manufacturer, suitable for the pipe delivered.

25.3.4 Embedment Material

In accordance with manufacturer's recommendations and LFUCG Standard Drawings embedment materials are those used for bedding, haunching and initial backfill and shall consist of AASHTO M43 #9 coarse aggregate. All embedment materials shall be free of frozen soil or ice when placed. Additionally, embedment materials shall be placed and compacted at maximum bulk density. Embedment materials shall be specified with consideration given to design loads and the classification and suitability of native soils.

25.3.5 Foundation

A stable foundation must be provided to insure proper line and grade is maintained. Unsuitable foundations must be stabilized at the Engineer's judgment. Unsuitable or unstable foundations may be undercut and replaced with a suitable bedding material, placed in 6" lifts.

25.3.6 Bedding

Bedding shall be per LFUCG Standard detail drawings. A stable and uniform bedding shall be provided for the pipe and any protruding features of its joints and/or fittings. The middle of the bedding equal to 1/3 of the pipe diameter OD should be loosely placed, with the remainder compacted to a minimum of 90% standard proctor density.

25.3.7 Haunching

Proper haunching provides a major portion of the pipe's strength and stability. Care must be exercised to insure placement and compaction of the embedment material in the haunches. For larger diameter pipes (>30"), embedment materials should be worked under the haunches by hand. Haunching materials must be placed and compacted in 8 inch maximum lifts, compacted to 90% standard proctor density.

25.3.8 Initial Backfill

Initial backfill materials are required in accordance with LFUCG Standard Drawings.

25.3.9 Final Backfill

The final backfill shall be the same material as the proposed embankment. Generally, the excavated material may be used as final backfill. Placement shall be as specified for the embankment. In lieu of a specification, the final backfill shall be placed in 12 inch maximum lifts and compacted to a minimum 85% standard proctor density to prevent excessive settlement at the surface. Compaction shall be performed at optimum moisture content. Backfill beneath paved area shall be as per LFUCG Standard Drawing 201-1.

25.3.10 Manhole Connections

Consideration should be given to the project performance specified when selecting manhole connections. When connecting to concrete manholes or inlets grouting the pipe to the manhole or inlet using non-shrink grout provides a soil tight installation.

25.3.11 Specifications

The following list is a common material, design and performance specifications for HPDE (high density polyethylene) corrugated pipe. Corrugated plastic pipe shall have a smooth interior, and annular exterior corrugations.

Pipe manufacturing standard: AASHTO M-294, Type S and Type V

Pipe installation guidance: ASTM D- 2321

The following list is a common material, design and performance specifications for PP (polypropylene) corrugated pipe. Corrugated plastic pipe shall have a smooth interior, and annular exterior corrugations.

Pipe manufacturing standard: AASHTO M-330, Type S and Type V

Pipe installation guidance: ASTM D-2321

25.3.12 Inspection Requirements

All HDPE and PP pipe shall undergo inspection during and after installation to ensure proper performance. Installation of bedding and backfill materials, as well as their placement and compaction, shall be determined to meet the requirements of this section. The LFUCG inspector reserves the right to require the CONTACTOR expose work for

inspection if not provided sufficient opportunity to inspect the foundation preparation, bedding, haunching or backfilling activities.

All HDPE and PP pipe shall be inspected in accordance with Section 28 Internal Inspection of Sewer Pipe: CCTV as directed by the Engineer.

The CONTRACTOR is responsible to inspect any delivered HDPE and PP pipe prior to installation and to reject any product deemed insufficient, or damaged.

For installed HDPE and PP pipe, as a minimum, any of the following significant observances or defects shall be evaluated by the ENGINEER and the OWNER to determine if any repairs, remediation, or removal and replacement are required:

- Any joint gap in excess of the conduit manufacturer's recommendation.
- Any cuts, punctures or tears along the pipe including the bell and spigot.
- Any cracks greater than 0.05-inch, or demonstrating faulting across the crack.
- Any deflections greater than 5-percent of AASHTO nominal inside diameter.
- Any sags or significant ponding of water within the storm sewer.
- Any delamination or excessive concaving of the inner liner.
- Any lateral connections.

25.3.13 Deflection Testing

HDPE and PP pipe shall be evaluated to determine whether the internal diameter of the barrel has been reduced more than 5 percent when measured not less than 30 days following completion of installation.

HDPE and PP pipes shall be checked for deflection using a 9-fin mandrel, remote deflection device (per ASTM F-3080), or any other laser pipe profiling device approved by the Engineer that can physically verify the dimensions of the pipe and is not limited by poor lighting, water flow, pipe length, or other limiting conditions of the installed environment. Deflection testing shall be performed on all pipe segments installed in lengths of 20 feet or greater.

For locations where pipe deflections exceed 5.0 percent and less than 7.6-percent, the conduit will need to be reviewed by the OWNER. For locations where pipe deflection equals or exceeds 7.6 percent of the inside diameter, remediation or replacement of the pipe shall be required.

25.3.14 Inspection

All HDPE and PP pipe shall be inspected in accordance with Section 28 Internal Inspection of Sewer Pipe: CCTV as directed by the Engineer.

25.4 BASIS OF PAYMENT FOR (HDPE OR PP) STORM SEWER PIPE

Accepted quantities for (HDPE and PP) Storm Sewer Pipe will be paid for at the Contract Unit Price as quoted per size. Accepted quantities will be paid per linear foot of satisfactorily placed conduit. Unless otherwise approved by the ENGINEER and OWNER, payment will be paid upon passing deflection testing and satisfactorily inspection of the conduit as noted in Section 28 Internal Inspection of Sewer Pipe CCTV.

Payment includes any removal of existing pavement, sidewalk, and rock, if encountered. Surface restoration (seeding, sod, pavement, etc.) will be paid separately under the appropriate Bid Items and the pay limits for surface restoration shall be in accordance with the appropriate Standard Drawings. Limits of surface restoration will be those limits as shown on the plans.

All labor, materials, equipment, excavation, backfill, bedding, flowable fill, concrete capping, disposal and backfilling, and deflection testing shall be incidental to the placement of HDPE and PP Storm Sewer.

25.5 BASIS OF PAYMENT FOR 24" STORM SEWER PIPE – LT STA 135+99.44

Accepted quantities for Storm Sewer Pipe – LT Sta 153+99.44, will be paid for at the Contract Unit Price as quoted per linear foot per linear foot of satisfactorily placed conduit from LT Sta 135+14.18 to LT Sta 136+00.49 Unless otherwise approved by the ENGINEER and OWNER, payment will be paid upon a satisfactorily inspection of the conduit as noted in Section 25.1.12 and in Section 28 Internal Inspection of Sewer Pipe CCTV.

Payment includes any removal of existing pavement, sidewalk, and rock, if encountered. Surface restoration (seeding, sod, pavement, etc.) will be paid separately under the appropriate Bid Items and the pay limits for surface restoration shall be in accordance with the appropriate Standard Drawings. Limits of surface restoration will be those limits as shown on the plans.

Restoration of paving, fencing, A/C unit replacement, and any other restoration of private property affected by the work will be paid separately under the appropriate lump sum bid item.

All labor, materials, equipment, excavation, bedding, concrete capping, disposal and backfilling, and deflection testing (if applicable), and acquisition of an additional construction easement or Consent and Release shall be incidental to the placement of 24" Storm Sewer Pipe – LT Sta 135+99.44.

TECHNICAL SPECIFICATIONS

SECTION 26 - SANITARY SEWER

26.1 SCOPE

Work under this Section shall be of the size indicated and shall include all service, labor, materials, and equipment involved in performing the various tasks necessary to construct the Gravity Sanitary Sewers described in the plans and specifications in accordance with Lexington-Fayette Urban County Government Standard Drawings 200, 201-1, 201-2 and 204. Such tasks include, but are not limited to, furnishing pipe, excavating trenches (including rock excavating), bedding, laying, jointing, testing, backfilling, connecting to the new manholes, removing existing pipe, connecting existing services, and plugging. Any other necessary incidental tasks shall also be included in Work under this Section.

26.2 PVC (POLYVINYL CHLORIDE PIPE)

PVC Sewer Pipe shall conform to ASTM D-2152, D-2444 and D-3033, or D-3034 and shall have a maximum SDR of 35 (SDR rating shall be per LFUCG Std Dwg. 204). The manufacturers shall submit five (5) copies of certification of tests for each lot of material represented by shipment to the job site.

All pipe shall be marked with the manufacturer's name, production lot number, ASTM Designation, PVC and the nominal diameter.

26.3 JOINTS FOR PVC PIPE

All joints shall be of the elastomeric gasket type and installed per the manufacturer's recommendations. Solvent cement joints shall not be used.

Pipe that has been field cut must be beveled for insertion into gasketed joints. Bevels can be made with hand or power tool. In either case, the finished bevel should be the same as the factory bevel.

26.4 DUCTILE IRON PIPE

Work under this Section shall be performed in accordance with applicable ASTM specifications which include but are not limited to the following:

Ductile iron pipe shall conform to the current requirements of AWWA, C151, Pressure Class 250, with push-on joints unless otherwise noted on drawings.

The interior of the pipe shall be cement-mortar lined with asphalt seal coat in accordance with the current requirements of AWWA C104. Thickness of the lining shall be set forth in Section 4.10.1 of the aforementioned specification unless otherwise directed by the ENGINEER. The exterior of all pipe, unless otherwise specified, shall receive either coal or tar or asphalt base coating a minimum of 1 mil thick.

Each piece of pipe shall bear the manufacturer's name or trademark, the year in which it was produced and the letters "DI" or the word "DUCTILE". Pipe manufacturer shall furnish notarized certificate of compliance to the above AWWA or ANSI specifications.

All ductile iron pipe shall be polyethylene encased. All materials and installation shall be in accordance with AWWA C105. The polyethylene film shall be a minimum of 8 mils for low-density polyethylene film and 4 mils for high-density cross-laminated polyethylene film.

26.5 INTERNAL PIPE DIAMETER

All sewer provided shall have a minimum actual internal diameter which is equal to or greater than diameters indicated on the Contract Drawings.

26.6 RESERVED

26.7 EXCAVATION FOR PIPELINE TRENCHES

Unless otherwise directed by the ENGINEER, trenches in which pipes are to be laid shall be excavated in open cut to the depths required by field conditions or as specified by the ENGINEER. In general this shall be interpreted to mean that machine excavation in earth shall not extend below an elevation permitting the pipe to be properly bedded. Excavation shall be in accordance with Lexington-Fayette Urban County Government Standard Drawings and ASTM D-2321.

Excavation shall be undercut to a depth below the required invert elevation that will permit laying the pipe in a bed of granular material to provide continuous support for the bottom quadrant of the pipe. The bedding shall be as set out in the following section.

Trenches shall be constructed according to LFUCG Standard Drawings 200, 201-1 and 201-2. Trenches shall be of sufficient width to provide free working space on each side of the pipe and to permit proper backfilling around the pipe, but unless specifically authorized by the ENGINEER, trenches shall in no case be excavated or permitted to become wider than 2'0" plus the nominal diameter of the pipe at the level of or below the top of the pipe plus 12".

All excavated materials shall be placed a minimum of two feet (2') back from the edge of the trench.

Before laying the pipe, the trench shall be opened far enough ahead to reveal obstructions that may necessitate changing the line or grade of the pipeline.

The trench shall be straight and uniform so as to permit laying pipe to lines and grades given by the ENGINEER. It shall be kept free of water during the laying of the pipe and until the pipeline has been backfilled. Removal of trench water shall be at the CONTRACTOR'S expense. Dry conditions shall be maintained in the excavations until the backfill has been

placed. During the excavation, the grade shall be maintained so that it will freely drain and prevent surface water from entering the excavation at all times.

When directed by OWNER, temporary drainage ditches shall be installed to intercept or direct surface water which may affect work. All water shall be pumped or drained from the excavation and disposed of in a suitable manner without damage to adjacent property or to other work.

Minimum cover of 30" shall be provided for all pipeline.

26.8 PIPE BEDDING

All pipe shall be supported in a bed of well compacted #9 crushed stone. Bedding material shall be free from rock, foreign material, frozen earth, and be acceptable to the ENGINEER. In no case shall pipe be supported directly on rock. When rock is encountered in the trench bottom, bedding shall consist of fine gravel or Size #9 crushed stone only. Thickness of crushed stone bedding shall be a minimum 6" below pipe barrel. Pipe bedding is not a separate pay item.

In wet, yielding mucky locations where pipe is in danger of sinking below grade or floating out of line or grade, or where backfill materials are fluid such as flowable fill, movements of the pipe might take place during the placing of the backfill. The pipe must be weighted or secured permanently in place as such means as will provide effective. When ordered by the ENGINEER, yielding and mucky materials subgrades shall be removed below ordinary trench depth in order to prepare a proper bed for the pipe. Crushed stone or other such granular material, if necessary, as determined by the ENGINEER to replace subgrade material, shall be a separate pay item and classified as "Special Pipe Bedding". Removal of poor material is not a separate pay item.

Installation shall be in accordance with Lexington-Fayette Urban County Government (LFUCG) Standard Drawings and ASTM D-2321.

26.9 LAYING PIPE

The laying of pipe in finished trenches shall be commenced at the lowest point so the spigot ends point in the direction of flow.

All pipes shall be laid with ends snugly seated and true to line and grade. Supporting of pipes shall be as set out hereinbefore under Pipe Bedding and in no case shall the supporting of pipes on blocks be permitted.

Before each piece of pipe is lowered into the trench, it shall be thoroughly inspected to ensure it is clean. Each piece of pipe shall be lowered separately unless special permission is given otherwise by the ENGINEER. No piece of pipe or fitting which is known to be defective shall be laid or placed in the lines. If any defective pipe or fitting shall be discovered after the pipe is laid, they shall be removed and replaced with satisfactory pipe or fitting without additional charge. In case a length of pipe is cut to fit in a line it shall be so cut as to leave a smooth end

at right angles to the longitudinal axis of the pipe. Throughout the pipe laying process, special attention shall be given to keeping the inside of the pipe free of dirt or rock.

Pipe shall not be laid on solid rock. A pad of granular material as specified in Pipe Bedding shall be used as a pipe bedding. Pipe bedding is not a separate pay item. Irregularities in subgrade in an earth trench shall be corrected by use of granular material.

When ordered by the ENGINEER, unsuitable materials in subgrades shall be removed below ordinary trench depth in order to prepare a proper bed for the pipe.

When laying of pipe is stopped for any reason, the exposed end of such pipe shall be closed with a plywood plug fitting into the pipe bell, so as to exclude earth or other material, and precautions taken to prevent flotation of pipe by runoff or seepage into trench.

No backfilling (except for securing pipe in place) over pipe will be allowed until the ENGINEER has an opportunity to make an inspection of the joints, alignment, and grade in the section laid.

A concrete collar shall be provided where two dissimilar materials meet if a seal can not be made between the existing sanitary sewer and the new Pipe. It shall extend above and below the pipe joint 6" and be 18" in length, minimum.

26.10 BACKFILLING PIPELINE TRENCHES

Backfilling or pipeline trenches shall be accomplished in accordance with Lexington-Fayette Urban County Government Standard Drawings. All backfill shall be placed in a manner approved by the ENGINEER, and those materials requiring compaction shall be carefully compacted to avoid displacement of the pipe. Compaction shall be accomplished by hand-tamping or by approved mechanical methods.

Before final acceptance, the CONTRACTOR will be required to level off all trenches or to bring the trench up to grade. The CONTRACTOR shall also remove from roadways, rights-of-way and/or private property all excess earth or other materials resulting from construction.

In the event that pavement is not placed immediately following trench backfilling in paved areas, the CONTRACTOR shall be responsible for maintaining the trench surface in a level condition at proper pavement grade at all times.

26.11 SETTLEMENT OF TRENCHES

Whenever lines are in, or cross, driveways and streets, the CONTRACTOR shall be responsible for any trench settlement which occurs within these rights-of-way within one year from the time of final acceptance of the work. If paving shall require replacement because of trench settlement within this time, it shall be replaced by the CONTRACTOR at no extra cost to the OWNER. Repair of settlement damage shall meet the approval of the OWNER and/or the Kentucky Department of Highways.

26.12 RESERVED

26.13 RESERVED

26.14 RESERVED

26.15 TESTING OF GRAVITY SANITARY SEWERS

On all projects involving installation of sanitary sewer lines, the finished work shall comply with provisions listed below or similar requirements which will ensure equal or better results:

1. After the collecting and/or outfall lines or system have been brought to completion, prior to final inspection, the CONTRACTOR shall rod out the entire system by pushing through each individual line in the system, from manhole to manhole, appropriate tools for removal from the lines of any and all dirt, debris and trash.
2. During the final inspection, the ENGINEER will inspect each individual line, from manhole to manhole, either by use of lights or other means at his disposal to determine whether the completed lines are true to line and grade as laid out or as shown on the plans.
3. The ENGINEER will require that the CONTRACTOR pass through the system under momentum a wooden ball of a diameter of one-inch less than the nominal diameter of the pipe, except that no ball larger than eight (8) inches in diameter shall be used.
4. Deflection tests shall be performed on a flexible pipe. The test shall be conducted after final backfill has been in place at least 30 days to permit stabilization of the system. No pipe shall exceed a deflection of 5 percent. If deflection exceeds 5 percent, pipe shall be replaced or corrected. The rigid ball cylinder or mandrel used for deflection test shall have a diameter not less than 95 percent of the base inside diameter or average inside diameter of the pipe depending on which is specified in the ASTM Specification, including the appendix, to which the pipe is manufactured. The pipe shall be measured in compliance with ASTM D-2122 Standard Test Method of Determining Dimensions of Thermoplastic Pipe and Fittings. The test shall be performed without mechanical pull devices.
5. All lines or sections of lines that are found to be laid improperly with respect to line or grade, that are found to contain broken or leading sections of pipe, or are obstructed in such a manner that they cannot be satisfactorily corrected otherwise, shall be removed and replaced at the CONTRACTOR'S expense.
6. The CONTRACTOR shall lay sewer lines, including house connections, so that the access of ground water or loss of water from the sewer system or other gravity flow piping which does not normally flow full will be limited to 10 gallons per inch diameter per mile per day. This limitation is inclusive of manholes, sewers, house connections, and appurtenances. This requirement may be applied to a portion of the

contract work, such as the sewers in a separate drainage area or to a single section of the line between two manholes.

7. To test for leaks, the ENGINEER will require that all completed piping as specified herein after backfilling be tested by low-pressure air test, exfiltration, or infiltration test. Low pressure air test will be restricted to sewer up through 24-inch diameter. Sewer larger than 24-inch diameter shall receive an exfiltration test if above ground water, or infiltration test if below ground water. Should the low pressure air test results be inconclusive, or at the request of the ENGINEER, an exfiltration or infiltration test will be required on the low pressure air tested segments. Services, labor, equipment, and supplies required for all tests shall be furnished by the CONTRACTOR. These tests shall not be required on "lives" sewers.
8. Smoke testing may be used only to locate leaks and in no case shall be considered conclusive. In all cases the smoke test shall be accomplished by an air test, exfiltration test or infiltration test. Smoke testing may only be performed where ground water is low and smoke is blown into a conduit that is properly sealed. All such leaks or breaks discovered by the smoke test shall be repaired and/or corrected by the CONTRACTOR at his own expense. Equipment and supplies required for smoke tests shall be furnished by the CONTRACTOR. The CONTRACTOR may also be required to smoke test the first section (manhole-to-manhole) of each size of pipe and type of joint on each construction contract prior to backfilling to establish and check laying and jointing procedures. Other supplementary smoke tests prior to backfilling may be performed by the CONTRACTOR at his option; however, any such test shall not supplant the final tests of the completed work unless such final tests are waived by the ENGINEER.
9. The low pressure air test shall consist of meeting a required holding time during measured pressure drop. The maximum test pressure shall be 4.0 psi (minimum pressure shall be 3.5 psi), with the allowable pressure loss being 1.0 psi during calculated holding time. Holding time shall be calculated from the equation:

$$0.472 \times \text{pipe diameter (inches)} = \text{holding time (minutes)}$$

This formula shall apply for all sizes of pipe and lengths of line tested. Failure to maintain calculated holding time during pressure drop from 3.5 psi to 2.5 psi for each section shall be deemed test failure.

10. In order to test for infiltration the ENGINEER may also require exfiltration tests on section of pipe between manholes after it has been laid but prior to backfilling. Exfiltration tests shall be conducted by plugging the lower end of the section of sewer to be tested and filling the sewer with water to a point approximately five feet above the invert at the lower end and at least one foot above the pipe at the upper end, observing leakage at all joints and measuring the amount of leakage for a given interval count. Exfiltration shall not exceed 110 percent times the infiltration limits set out hereinabove. All observed leaks shall be corrected even though exfiltration is within the limits.

11. To test for infiltration, the ENGINEER may also require that the CONTRACTOR plug the ends of all lines at the manhole so that measurements may be made at each section of sewer line. Infiltration tests shall consist of weir measurements to determine quantity if any infiltration. Measurements shall be taken at line locations directed by the ENGINEER. This infiltration test will not be made until the sewer line is completed, and the CONTRACTOR will be required to correct all conditions that are conducive to excessive infiltration that may be required to relay such sections of the line that may not be corrected even though infiltration is within allowable limits.
12. A closed circuit television(CCTV) survey is required for all newly installed sewer pipe, and/or any designated existing pipe. The television survey shall be performed according to Section 26 of these Specifications.

26.16 HOUSE CONNECTIONS

In those instances where 4-inch or 6-inch sanitary sewer pipe is used to connect a house to a sewer main, installation must be done by a Licensed Master Plumber. All House Laterals shall be connected per LFUCG Standard Drawings 230, 231, and 232. Lateral Cleanout shall be provided and installed as per the Two-Way Cleanout Drawing included in the Standard Drawing Section of these Specifications.

26.17 CLEAN UP

Upon completion of installation of the piping and appurtenances, the CONTRACTOR shall remove any surplus construction materials resulting from the Work. The CONTRACTOR shall grade the ground on each side of pipe trenches in a uniform and neat manner leaving the construction area in a shape as close as possible to the original ground line.

26.18 BY-PASS PUMPING

By-pass pumping shall be used to divert flow around an existing sanitary sewer most typically when a segment of sewer is being replaced. At least 24 hours prior to commencing by-pass pumping, the Contractor shall notify all affected residents, e.g; residents with lateral connections feeding the sewer segment to be replaced.

Contractor shall furnish and maintain all equipment necessary for by-pass pumping, including fully automatic self-priming trailer mounted pump, plugs, valves, pipe, hose, fuel and all incidental materials.

Pumping conditions will be site-specific. LFUCG will provide Contractor with suction lift, static head, distance and flow requirements. Pump shall be capable of passing a 3" solids at 500 gpm @ 100 ft TDH with up to 20 ft of suction lift.

26.19 BASIS OF PAYMENT

Accepted quantities of gravity sanitary sewer line shall be paid for at the Contract Unit Price per linear foot and shall be full compensation for all Work under this Section.

All labor, ancillary materials, equipment, excavation, bedding, backfilling, testing (except CCTV) and incidental items necessary to the Work shall be included in the payment for PVC Sanitary Sewer or Ductile Iron Sanitary Sewer. Items such as rock excavation, removal of existing pipe, concrete collars and removal of pavement and sidewalk are paid under other UPC bid items.

A closed circuit television (CCTV) survey will be paid for at the Contract Unit Price as described in Section 26 of these Specifications.

Bypass pumping, when required to perform the work specified, shall be incidental to the construction activity in which it is encountered. No separate payment for bypass pumping will be made.

TECHNICAL SPECIFICATIONS

SECTION 28 - INTERNAL INSPECTION OF SEWER PIPE: CCTV

28.1 SCOPE:

A CLOSED CIRCUIT TELEVISION (CCTV) survey is required for all newly installed sanitary and storm sewer pipe, whether PVC, DIP, RCP, HDPE and/or any designated existing pipe. The television survey shall be performed by an experienced CCTV Contractor approved by the LFUCG Division of Engineering.

The CCTV inspections should be performed by the approved contractor a minimum of thirty (30) days after any new pipe has been backfilled at or near final cover fill height, unless otherwise approved by the ENGINEER.

28.2 GENERAL:

All conduit designated and/or designed by the ENGINEER shall be internally inspected. The typical dimensions of pipe and other conduits designated to be inspected via CCTV have inside dimensions of 12- to 48-inches. Conduit of other sizes, smaller or larger, may be inspected by CCTV as designated by the ENGINEER. The purpose of the inspection is to verify the structural and hydraulic integrity of the conduit.

28.3 EQUIPMENT:

The CCTV system shall be one specifically designed and manufactured for such inspection. The inspection system shall be:

- Able to perform pan/tilt or pan/rotate operations.
- Able to emit ample lighting for the visual inspection and recording.
- Able to be suitable to allow a clear picture for the entire periphery of the pipe.
- Equipped with a low barrel distortion camera.
- Able to operate in 100 percent humidity and partially submerged conditions.
- Capable of a color image with a minimum standard resolution of 720x480 pixels.
- Capable of measuring cracks with laser emitters to a precision of 0.02-inch \pm 0.01-inch, and joint gaps in the range of 0.5-inch and greater.
- Capable of recording, and superimposing on the video, the station or referenced distance along the pipe.

Picture quality and definition shall be to the satisfaction of the ENGINEER and if unsatisfactory, equipment shall be removed from service and no payment made for unsatisfactory inspection.

28.4 RECOMMENDED METHOD FOR INTERNAL INSPECTION:

Ensure all conduits to be inspected have been thoroughly cleaned prior to inspection. At no cost to the OWNER, subsequent cleaning may be required under the direction of the ENGINEER if the conduit is not properly cleaned upon inspection. The camera may inspect the conduit in either direction, upstream or downstream, as long as the direction is noted on the video recording. The

maximum travel rate of the inspection equipment is 30 ft./min., stopping when necessary to insure proper documentation of the sewer's condition. Manual winches, power winches, TV cable and power rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions may be used to move the camera through the sewer line.

If during the inspection operation, the television camera will not pass through the entire manhole section, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole. If the camera again fails to pass through the entire manhole section, the Contractor shall notify the ENGINEER of the situation.

For larger sized conduit, generally 48-inch diameter and larger, manual inspections may be implemented in lieu of CCTV inspections, if approved by the ENGINEER and the OWNER.

28.5 INSPECTION LOGS, CD/DVDS, and RECORDINGS:

All logs, CD/DVDS, and recordings shall be labeled with the Contractors Name, Contract number, DVD number (logs must match that number) and with each Contractor the logs and recordings must start at number 1 and progress upward till the end of this contract.

A log approved by the ENGINEER shall be provided for all conduit inspections listing the watershed, segment ID, segment location, upstream manhole depth, downstream manhole depth, lateral connection distance and position, pipe diameter, pipe material, defects, defect ratings, and other notable comments. Printed and digital records shall be kept by the Contractor. DVDs and recordings shall be considered property of the OWNER and the Contractor shall possess backup copy of all recordings until completion of the Contract. All CCTV work done must be recorded on DVD's using the software Visual Pipes, or other approved software and recording format. The Contractor shall supply the LFUCG a licensed (if applicable) copy of said software to view these recordings. The digital records must be in a Microsoft Database format (.mdb file extension) or other format approved by the Engineer. A key to all observations used shall be included on each log sheet.

Minimal points of significance to be noted are: locations of service connections, joints, roots, cracks, punctures, presence of scale and corrosion, sags, changes in grade/alignment, and other discernable features. As accurately as possible within industry standards, the locations of all the points of significance will be noted by the distance along the conduit as measured from the last manhole/structure as part of the inspected/recorded segment.

28.6 FINAL ACCEPTANCE:

Acceptance of this section of work will be based upon the delivery and complete review of the logs, DVD and recordings submitted to the LFUCG. If the DVDs and recordings are of such poor quality and/or the sewer line needs additional cleaning, this portion of the work will be deemed incomplete. Additional cleaning and inspections may be required to complete this task at no additional cost to the OWNER. Also, no payment under this section shall be made for portions of lines not televised or portions where manholes cannot be negotiated with the television camera.

28.7 BASIS OF PAYMENT:

Accepted quantities for Internal Inspection of Sewer Pipe: CCTV will be paid for at the Contract Unit Price as quoted per linear foot (which shall be full compensation for all Work required under this Section) and paid per foot satisfactorily inspected. All labor, cleaning, materials, equipment, and excavation shall be incidental to the Internal Inspection of Storm Sewer Pipe: CCTV.

TECHNICAL SPECIFICATIONS

SECTION 29 - HEADWALLS

29.1 SCOPE

Work for this Section shall conform to Kentucky Department of Highways Standard Specifications for Road and Bridge Construction Section 610 and 710, Current Edition and the Lexington-Fayette Urban County Government Standard Drawings 150, 153, 154-1, 154-2 and 154-3, and shall include all labor, excavation, materials, equipment and necessary incidentals. Drawings for Straight Headwalls 30" and greater will be provided by the ENGINEER.

29.2 BASIS OF PAYMENT

Accepted quantities for Headwalls will be paid for at the Contract Unit Price as quoted for various sizes (which shall be full compensation for all Work required under this Section) and paid per specified Headwall satisfactorily placed. All labor, materials, grates (if required), equipment, and excavation shall be incidental to the placement of Headwalls.

TECHNICAL SPECIFICATIONS

SECTION 30 – STORMWATER CULVERT – STA 196+43

30.1 SCOPE

This Work consists of the construction of the stormwater culvert at station 196+43 on a thoroughly compacted subgrade in accordance with the Plans, Contract Documents and Specifications. Work in this section shall also conform to Sections 206, 207, 601, 602, 603, 610, 801, 802, 803, 804, 805, and 823 of the Kentucky Department of Highways (KDOH) Standard Specifications, current edition, but only to the extent that these KDOH sections do not conflict with the content of the Plans, Contract Documents and Specifications, and LFUCG Standard Drawings.

30.2 RELATED SECTIONS

Section 3: Excavation and Placement

Section 6: Remove Structure

Section 9: Crushed Stone

Section 10: Steel Reinforcement for Concrete

Section 11: Formed Class A Concrete and Unfinished Concrete

Section 52: Handrail - Parapet

30.2 MEASUREMENT AND PAYMENT

No separate payment shall be made for Stormwater Culvert - Sta 196+43. Payment shall be as quoted per the related section noted above and shall be full compensation for all Work required under that Section for the Stormwater Culvert – Sta. 196+43.

All miscellaneous materials, labor and equipment not addressed in the related sections shall be incidental to Structure Excavation (Sta. 196+43).

TECHNICAL SPECIFICATIONS

SECTION 31 - SEEDING AND PROTECTION

31.1 SCOPE

Work under this Section shall be in conformance to Kentucky Department of Highways Standard Specifications Section 212, current edition and shall include all labor, materials, equipment, and incidentals necessary to complete the Work. Fertilizer (10-10-10) and agricultural lime will be incorporated into a 3" deep bed and applied at 28 lbs./1,000 sq. ft. and 150 lbs./1,000 sq. ft., respectively. Seeding shall be done with Kentucky Bluegrass only unless specified otherwise in the Purchase Order. Mulching material shall consist of straw or hay in an air-dry condition, and shall be substantially free of noxious weed seeds and objectionable foreign matter. Mulching material shall applied to a loose depth of 1 to 1½ inches.

Finelawn or other turf type fescue, 3 lb/1,000 sq. ft.; add ½ lb of Poa Trivialis for very heavy shade or otherwise customize as directed by ENGINEER. The desires of the owner should be considered. Species currently present should also be considered.

31.2 BASIS OF PAYMENT

Accepted quantities for Temporary Seeding and Protection will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work under this Section) and paid per square yard of Seeding and Protection satisfactorily placed. All labor, fertilizer, lime, straw, materials, and equipment shall be incidental to the application of Seeding and Protection.

Accepted quantities for Seeding and Protection will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work under this Section) and paid per square yard of Seeding and Protection satisfactorily placed. All labor, fertilizer, lime, straw, materials, and equipment shall be incidental to the application of Seeding and Protection.

TECHNICAL SPECIFICATIONS

SECTION 32 - SODDING

32.1 SCOPE

Work under this Section shall be in conformance to Kentucky Department of Highways Standard Specifications Section 212 and shall include all labor, materials, equipment, and incidentals necessary to complete the Work. Fertilizer (10-10-10) and agricultural lime will be incorporated into a 3" deep sod bed and applied at a rate of 28 lbs./1,000 sq. ft. and 100 lbs./1,000 sq. ft., respectively. Sodding shall be done with Kentucky Bluegrass, Fescue, or other species approved by the ENGINEER and available at the time of placement. Sod shall be kept moist for a minimum of two weeks. The desires of the owner and the species currently being used should be considered.

32.2 BASIS OF PAYMENT

Accepted quantities for Sodding will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work under this Section) and paid per square yard of Sodding satisfactorily placed. All labor, materials, (other than the sod), fertilizer, lime, materials and equipment shall be incidental to Sodding.

TECHNICAL SPECIFICATIONS

SECTION 33 – LANDSCAPE PLANTING

PART I - GENERAL

33.1 SCOPE

Work under this Section shall be for furnishing and planting trees, shrubs, ornamental grasses flowering plants and groundcovers: type and location as shown on the drawings.

33.2 SUBMITTALS

- A. Product Data: For each type of product indicated, including soils.
 - 1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
- B. Samples for Verification: For each of the following:
 - 46 Trees and Shrubs: One sample of each variety and size delivered to the site for review. Maintain approved samples on-site as a standard for comparison.
 - 2. Organic Mulch: 1-pint volume of each organic mulch required; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of color, texture, and organic makeup.
- C. Warranty: Sample of special warranty.

33.3 QUALITY ASSURANCE

- 1. Plant Material Observation: ENGINEER shall observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. ENGINEER retains right to observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.

33.4 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.
- B. Bulk Materials:
 - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.

3. Accompany each delivery of bulk fertilizers, lime, and soil amendments with appropriate certificates.
- C. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
- D. Handle planting stock by root ball.
- E. Store bulbs, corms, and tubers in a dry place at 60 to 65 deg F until planting.
- F. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.
 1. Heel-in bare-root stock. Soak roots that are in dry condition in water for two hours. Reject dried-out plants.
 2. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
 3. Do not remove container-grown stock from containers before time of planting.
 4. Water root systems of plants stored on-site deeply and thoroughly with a finemist spray. Water as often as necessary to maintain root systems in a moist, but not overly-wet condition.

33.5 PROJECT CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods unless otherwise authorized by Owner/Landscape Architect. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
 1. Spring Planting: March 1st to May 15th.
 2. Fall Planting: October 15th to December 1st.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.
- C. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

33.6 WARRANTY

- A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 1. Failures include, but are not limited to, the following:
 - a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner, or incidents that are beyond Contractor's control.

- b. Structural failures including plantings falling or blowing over.
 - c. Faulty performance of tree stabilization.
 - d. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
2. Warranty Periods from Date of Planting Completion:
 - a. Trees, Shrubs, Vines, and Ornamental Grasses: 24 months.
 - b. Ground Covers, Biennials, Perennials, and Other Plants: 24 months.
 - c. Annuals: Three months.
 3. Include the following remedial actions as a minimum:
 - a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
 - b. Replace plants that are more than 10-15% percent dead or in an unhealthy condition at end of warranty period.
 - c. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
 - d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

PART II - PRODUCTS

33.7 PLANT MATERIAL

- A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant Schedule or Plant Legend shown on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
 1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch in diameter; or with stem girdling roots will be rejected.
 2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.
 3. All plant material shall be grown in zone 5 or zone 6.
- B. Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of plants required. Plants of a larger size may be used if acceptable to ENGINEER, with a proportionate increase in size of roots or balls.
- C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which shall begin at root flare according to ANSI Z60.1. Root flare shall be visible before planting.
- D. Labeling: Label each plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant as shown on Drawings.

- E. If formal arrangements or consecutive order of plants is shown on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.

33.8 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
 - 1. Class: T, with a minimum of 99 percent passing through No. 8 sieve and a minimum of 75 percent passing through No. 60 sieve.
 - 2. Class: O, with a minimum of 95 percent passing through No. 8 sieve and a minimum of 55 percent passing through No. 60 sieve.
 - 3. Provide lime in form of ground dolomitic limestone.
- B. Sulfur: Granular, biodegradable, and containing a minimum of 90 percent sulfur, with a minimum of 99 percent passing through No. 6 sieve and a maximum of 10 percent passing through No. 40 sieve.
- C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- D. Aluminum Sulfate: Commercial grade, unadulterated.
- E. Perlite: Horticultural perlite, soil amendment grade.
- F. Agricultural Gypsum: Minimum 90 percent calcium sulfate, finely ground with 90 percent passing through No. 50 sieve.
- G. Sand: Clean, washed, natural or manufactured, and free of toxic materials.
- H. Diatomaceous Earth: Calcined, 90 percent silica, with approximately 140 percent water absorption capacity by weight.
- I. Zeolites: Mineral clinoptilolite with at least 60 percent water absorption by weight.

33.9 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 3/4-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
 - 1. Organic Matter Content: 50 to 60 percent of dry weight.
 - 2. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
- B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or granular texture, with a pH range of 3.4 to 4.8.
- C. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, debris, and material harmful to plant growth.

33.10 FERTILIZERS

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 1 percent nitrogen and 10 percent phosphoric acid.
- B. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
 - 1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
 - 2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

33.11 PLANTING SOILS

- A. Planting Soil: Imported topsoil complying with ASTM D5268, a pH range of 5.5 to 7, a minimum of 4 percent organic content and from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from agricultural land, bogs, or marshes.
 - 1. Additional Properties of Imported Topsoil: Screened and free of stones 1 inch or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; free of obnoxious weeds and invasive plants including quackgrass, Johnsongrass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and brome grass; not infested with nematodes; grubs; or other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration. Continuous, air-filled pore space content on a volume/volume basis shall be at least 15 percent when moisture is present at field capacity. Soil shall have a field capacity of at least 15 percent on a dry weight basis.
 - 2. Stones may comprise no more than 10 percent of the total soil volume
 - 3. Mix imported topsoil with the following soil amendments (and fertilizers) in the following quantities to produce planting soil:

33.12 MULCHES

- A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
 - 1. Type: Shredded hardwood bark.
 - 2. Size Range: 2 inches maximum, 1/2 inch minimum.
 - 3. Color: Natural.

33.13 PESTICIDES

- A. General: Pesticide registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and

as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

- B. Pre-Emergent Herbicide (Selective and Non-Selective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly the mulch layer.
- C. Post-Emergent Herbicide (Selective and Non-Selective): Effective for weed growth that has already germinated.

33.14 TREE STABILIZATION MATERIALS

A. Stakes and Guys:

- 1. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal by length indicated, pointed at one end.
- 2. Flexible Ties: Wide rubber or elastic bands or straps of length required to reach stakes or turnbuckles.
- 3. Tree-Tie Webbing: UV-resistant polypropylene.
- 4. Retain first subparagraph below for tall and large-caliper trees.
- 5. Proprietary Staking-and-Guying Devices: Proprietary stake and adjustable tie systems to secure each new planting by plant stem; sized as indicated and per manufacturer's written recommendations.
 - a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Arborbrace; ArborBrace Tree Guying System.
 - 2) Decorations for Generations, Inc.; Reddy Stake or Mega Stake System.
 - 3) Or approved equal.

PART III - EXECUTION

33.15 EXAMINATION

- A. Examine areas to receive plants for compliance with requirements and conditions affecting installation and performance.
 - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
 - 2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
 - 3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
 - 4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

33.16 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways in accordance with all applicable provisions of the LFUCG engineering manual.
- C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Architect's acceptance of layout before excavating or planting. Make minor adjustments as required.
- D. Apply anti-desiccant to trees and shrubs using power spray to provide a film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.
 - 1. If deciduous trees or shrubs are moved in full leaf, spray with anti-desiccant at nursery before moving and again two weeks after planting.
- E. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

33.17 PLANTING AREA ESTABLISHMENT

- A. Loosen sub-grade of planting areas to a minimum depth of 6 inches. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
 - 1. Spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.
 - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
 - b. Mix lime with dry soil before mixing fertilizer.
 - 2. Spread planting soil to a depth of 12 inches but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
 - a. Spread approximately one-half the thickness of planting soil over loosened subgrade. Mix thoroughly into top 2 inches of subgrade. Spread remainder of planting soil.
- B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to finish grades.
- C. Before planting, obtain Landscape Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

33.18 EXCAVATION FOR TREES AND SHRUBS

- A. Planting Pits and Trenches: Excavate circular planting pits with sides sloping inward at a 30-45 degree angle. Excavations with vertical sides are not acceptable. Trim perimeter

of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.

1. Excavate approximately three times as wide as ball diameter for balled and burlapped, balled and potted or container-grown stock.
 2. Excavate at least 12 inches wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
 3. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
 4. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
 5. Maintain required angles of repose of adjacent materials as shown on the Drawings. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
 6. Maintain supervision and protection of excavations at all times during the project.
 7. Keep excavations covered or otherwise protected when unattended by Installer's personnel.
 8. If drain tile is shown on Drawings or required under planting areas, excavate to top of porous backfill over tile.
- B. Subject to the acceptance of the Landscape Architect or Owner, subsoil and topsoil removed from excavations may be used as planting soil.
- C. Obstructions: Notify Landscape Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.
1. Hardpan Layer: Drill 6-inch- diameter holes, 24 inches apart, into free-draining strata or to a depth of 10 feet, whichever is less, and backfill with free-draining material.
- D. Fill excavations with water and allow to percolate away before positioning trees and shrubs.
- E. Drainage: Notify Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.

33.19 TREE, SHRUB, AND VINE PLANTING

- A. Before planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.
- B. Remove stem girdling roots and kinked roots on bare rooted plant material. Remove injured roots by cutting cleanly; do not break.
- C. Set balled and burlapped stock plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.
1. Use planting soil for backfill.
 2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do use planting stock if root ball is cracked or broken before or during planting operation.

3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
 4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts specified in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
 5. Continue backfilling process. Water again after placing and tamping final layer of soil.
- D. Set balled and potted or container-grown stock plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.
1. Use planting soil for backfill.
 2. Carefully remove root ball from container without damaging root ball or plant.
 3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
 4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
 5. Continue backfilling process. Water again after placing and tamping final layer of soil.
- E. Set fabric bag-grown stock plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.
1. Use planting soil for backfill.
 2. Carefully remove root ball from fabric bag without damaging root ball or plant. Do not use planting stock if root ball is cracked or broken before or during planting operation.
 3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
 4. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.
 5. Continue backfilling process. Water again after placing and tamping final layer of soil.
- F. Set and support bare-root stock in center of planting pit or trench with root flare 1 inch above adjacent finish grade.
1. Use planting soil for backfill.
 2. Spread roots without tangling or turning toward surface, and carefully work backfill around roots by hand. Puddle with water until backfill layers are completely saturated. Plumb before backfilling, and maintain plumb while working backfill around roots and placing layers above roots.
 3. Place planting tablets in each planting pit when pit is approximately one-half filled; in amounts recommended in soil reports from soil-testing laboratory. Place tablets beside soil-covered roots about 1 inch from root tips; do not place tablets in bottom of the hole or touching the roots.

4. Continue backfilling process. Water again after placing and tamping final layer of soil.
- G. When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

33.20 MECHANIZED TREE SPADE PLANTING

- A. Trees may be planted with an approved mechanized tree spade at the designated locations. Do not use tree spade to move trees larger than the allowed for a similar field-grown, balled-and-burlapped root-ball diameter according to ANSI Z60.1, or larger than the manufacturer's maximum size recommendation for the tree spade being used, whichever is smaller.
- B. When extracting the tree, center the trunk within the tree spade and move tree with a solid ball of earth.
- C. Cut exposed roots cleanly during transplanting operations.
- D. Use the same tree spade to excavate the planting hole as was used to extract and transport the tree.
- E. Plant trees as shown on Drawings, following procedures in "Tree, Shrub, and Vine Planting" Article.
- F. Where possible, orient the tree in the same direction as in its original location.

33.21 TREE AND SHRUB PRUNING

- A. Remove only dead, dying, or broken branches. Do not prune for shape.
- B. Prune, thin, and shape trees, shrubs, and vines as directed by Landscape Architect.
- C. Prune, thin, and shape trees, shrubs, and vines according to professional horticultural and arboricultural practices. Unless otherwise indicated by Landscape Architect, not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.
- D. Do not apply pruning paint to wounds unless authorized by Owner/Landscape Architect.

33.22 TREE STABILIZATION

- A. Install trunk stabilization as follows unless otherwise indicated:
 1. Upright Staking and Tying: Stake trees of 2- through 5-inch caliper. Stake trees of less than 2-inch caliper only as required to prevent wind tip out. Use a minimum of two stakes of length required to penetrate at least 18 inches below bottom of backfilled excavation and to extend to the dimension shown on Drawings above grade. Set stakes and space to avoid penetrating root balls or root masses.
 2. Use two stakes for trees up to 12 feet high and 2-1/2 inches or less in caliper; three stakes for trees less than 14 feet high and up to 4 inches in caliper. Space stakes equally around trees.
 3. Support trees with bands of flexible ties at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.

- B. Staking and Guying: Stake and guy trees more than 14 feet in height and more than 3 inches in caliper unless otherwise indicated. Securely attach no fewer than three guys to stakes 30 inches long, driven to grade.
 - 1. Site-Fabricated Staking-and-Guying Method:
 - a. For trees more than 6 inches in caliper, anchor guys to wood deadmen buried at least 36 inches below grade. Provide turnbuckle or compression spring for each guy wire and tighten securely.
 - b. Support trees with bands of flexible ties at contact points with tree trunk and reaching to turnbuckle or compression spring. Allow enough slack to avoid rigid restraint of tree.
 - c. Support trees with strands of cable or multiple strands of tie wire, connected to the brass grommets of tree-tie webbing at contact points with tree trunk and reaching to turnbuckle or compression spring. Allow enough slack to avoid rigid restraint of tree.
 - d. Attach flags to each guy wire, 30 inches above finish grade.
 - e. Paint turnbuckles or compression springs with luminescent white paint.
 - 2. Proprietary Staking and Guying Device: Install staking and guying system sized and positioned as recommended by manufacturer unless otherwise indicated and according to manufacturer's written instructions.

33.23 PLANTING AREA MULCHING

- A. Mulch backfilled surfaces of planting areas and other areas indicated.
 - 1. Trees in Turf Areas: Apply organic mulch ring of 2-inch average thickness, with 12-inch radius around trunks or stems. Do not place mulch within 3 inches of trunks or stems.

33.24 PLANT MAINTENANCE

- A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
- B. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.
- C. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.
- D. Remove tree stabilization devices after 1 year from date of installation.
- E. Water trees as required to provide 1" of water per week on average.

33.25 CHEMICAL APPLICATION

- A. Apply pesticides and other chemical products and biological control agents in with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.
- B. Pre-Emergent Herbicides (Selective and Non-Selective): Apply to tree, shrub, and ground-cover areas in accordance with manufacturer's written recommendations. Do not apply to seeded areas.
- C. Post-Emergent Herbicides (Selective and Non-Selective): Apply only as necessary to treat already-germinated weeds and in accordance with manufacturer's written recommendations.

33.26 CLEANUP AND PROTECTION

- A. During planting, keep adjacent paving and construction clean and work area in an orderly condition.
- B. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.
- C. After installation and before the final inspection for completion, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.

33.27 DISPOSAL

- A. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.

33.28 MEASUREMENT AND PAYMENT

Payment for Landscaping shall be paid for at the Contract Unit Price per lump sum, as quoted and shall be full compensation for all Work required under this Section, including all ornamental trees, shade trees, soil amendments, fertilizers, tree stabilization materials, pesticides and water. All labor, miscellaneous materials, equipment, and excavation shall be incidental to these items.

TECHNICAL SPECIFICATIONS

SECTION 38 – WATER QUALITY UNITS

38.1 SCOPE FOR WATER QUALITY UNITS (WQU)

Work under this Section shall include all labor, excavation, materials, equipment, bedding, backfilling, embankment, and proper disposal of excavated material as part of this section. In addition to a MANUFACTURER's handling instructions, the CONTRACTOR shall perform the work in accordance to Lexington-Fayette Urban County Government Standard Drawings 100, 102, 103, 104 and 105, and all incidentals necessary to install the WQU and construct adjoining storm conduit.

Approved Stormwater Quality Units shall be selected from the following choices:

- Hydro-International Downstream Defender
- Hydro-International First Defense
- Aqua Shield, Inc. - Aqua Swirl
- Oldcastle – Kristar - Dual Vortex Unit
- Contech CDS Unit
- Contech Vortechincs Unit

38.2 INSTALLATION

WQUs shall be installed following all appropriate trenching and excavation safety standards per OSHA and the WQU manufacturer. Prior to installation, the contractor shall submit shop drawings of the WQU for review and approval. Upon installation, the WQU shall be installed per plan and the shop drawings.

38.3 INSPECTION and POST QA/QC

Unless directed by the ENGINEER, each WQU that is not tested for as water-tight prior to shipment will be field tested once installed.

38.4 BASIS OF PAYMENT FOR STORMWATER QUALITY UNITS

Payment for Water Quality Units shall be paid for at the Contract Unit Price per lump each unit, as quoted and shall be full compensation for all Work required under this Section. All labor, miscellaneous materials, equipment, and excavation shall be incidental to these items. All labor, materials, equipment, excavation, bedding, disposal and backfilling shall be incidental to the placement of WQU. Pay Quantity is EACH.

TECHNICAL SPECIFICATIONS

SECTION 41 – EROSION AND SEDIMENT CONTROL

41.1 SCOPE

This section describes requirements for the planning and implementation of non-structural and structural best management practices (BMPs) to be used for erosion and sediment control during construction activities in Fayette County, Kentucky. Erosion control refers to efforts to maintain soil on a construction site. Sediment control refers to keeping the material that erodes from leaving the site.

The preparation of an erosion and sediment control plan integrating the non-structural and structural practices and procedures is a requirement for all construction projects that disturb one acre or more. The plan shall be submitted to the LFUCG Division of Engineering before beginning construction. Once the erosion and sediment control practices have been constructed, a grading permit can be obtained. For more information on permits, see Chapter 2 of the Storm Water Manual.

Work for this Section shall be in accordance to the Lexington-Fayette Urban County Government Standard Drawings and Chapter 11 of the Storm Water Manual and shall include all labor, excavation, materials, equipment, and incidentals necessary to complete the work.

Structural Sediment Control BMPs

Check Dam

A check dam is a small temporary dam constructed across a swale or drainage ditch. Check dams shall be installed in newly-constructed, vegetated, open channels, which drain 10 acres or less. Check dams shall be constructed prior to the establishment of vegetation.

Stone check dams shall be constructed of KYTC Class II channel lining.

In lieu of stone, for low flow applications, the Engineer may approve the use of 9" diameter coir wattles, installed per the manufacturer's recommendations.

Regular inspections shall be made to ensure that the measure is in good working order and the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam shall be corrected immediately, and the dam shall be extended beyond the repaired area. Check dams shall be checked for sediment accumulation after each rainfall. Sediment shall be removed when it reaches one-half of the original height or before. Check dams shall remain in place and operational until the drainage area and channel are completely stabilized or up to 30 days after the permanent site stabilization is achieved.

Sediment Trap

A sediment trap is formed by an excavation of an area in a suitable location to retain sediment and other waterborne debris. Sediment traps shall be used where physical site conditions or

other restrictions prevent other erosion control measures from adequately controlling erosion and sedimentation. Sediment traps may be used down slope from construction operations that expose areas to erosion. Sediment traps shall be removed after the exposed areas are adequately protected against erosion by vegetative or mechanical means. Sediment traps shall be installed below all disturbed areas of less than 5 acres that do not drain to a sediment pond

The area to be excavated shall be cleared of all trees, stumps, roots, brush, boulders, sod, and debris. All channel banks and sharp breaks shall be sloped to no steeper than 1:1. All topsoil containing excessive amounts of organic matter shall be removed. Seeding, fertilizing, and mulching of the material taken from the excavation shall comply with the applicable seeding sections of these specifications. Any material excavated from the trap shall be placed in one of the following ways so that it will not be washed back into the pond by rainfall:

- uniformly spread to a depth not exceeding 3 feet and graded to a continuous slope away from the trap
- uniformly placed or shaped reasonably well with side slopes assuming the natural angle of repose for the excavated material behind a berm width not less than 12 feet

Sediment shall be removed from the trap when the capacity is reduced to 50 percent of the design volume. Plans for the sediment trap shall indicate the methods for disposing of sediment removed from the trap.

Sediment Pond

A sediment pond is formed by a barrier or dam constructed across a drainage way or other suitable location to retain sediment and other waterborne debris.

Sediment ponds are appropriate where physical site conditions or other restrictions prevent other erosion control measures from adequately controlling erosion and sedimentation. Sediment ponds may be used down slope from construction operations that expose areas to erosion. Sediment ponds shall be removed after the exposed areas are adequately protected against erosion by vegetative or mechanical means. A sediment pond shall be installed at the outlet of a disturbed area of 5 acres or more. The maximum drainage area for a single pond is 100 acres. The pond shall be designed to reduce peak discharges during construction to pre-development levels for 10-year and 100-year storms.

Design and construction shall comply with all federal, state, and local laws, ordinances, rules, and regulations regarding dams.

Sediment shall be removed from the pond when the capacity is reduced to 50 percent of the design volume. Plans for the sediment pond shall indicate the methods for disposing of sediment removed from the pond.

Silt Fence

Silt fence is a temporary barrier to trap sediment that consists of a filter fabric stretched between supporting posts, with the bottom entrenched in the soil and with a wire support fence. Silt fence shall be installed down-slope of areas to be disturbed prior to clearing and grading. Silt fence must be situated such that the total area draining to the fence is not greater than one-fourth

acre per 100 feet of fence. Silt fence shall be used for storm drain drop inlet protection and around soil stockpiles.

Silt fences are appropriate where the size of the drainage area is no more than one-fourth acre per 100 feet of silt fence length; the maximum slope length behind the barrier is 100 feet; and the maximum gradient behind the barrier is 50 percent (2H:1V). Silt fences can be used at the toe of stockpiles where the slope exceeds 2H:1V, but in that case, the slope length should not exceed 20 feet.

Silt fences can be used in minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres. Under no circumstances shall silt fences be constructed in streams or in swales or ditch lines where flows are likely to exceed 1 cubic foot per second (cfs).

Synthetic filter fabric shall be a pervious sheet of propylene, nylon, and polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

Physical Property Requirements

- Filtering Efficiency 75% (minimum)
- Tensile Strength at 20% 50 lbs./linear inch (minimum)
- Flow Rate 0.3 gal./ sq. ft/ min. (minimum)
- Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0°F to 120°F.
- Posts for synthetic fabric silt fences shall be either 2-inch by 2-inch wood or 1.33 pounds per linear foot steel with a minimum length of 5 feet. Steel posts shall have projections for fastening wire to them. Wire fence reinforcement for silt fences shall be a minimum of 36 inches in height, a minimum of 14 gauge and shall have a mesh spacing of no greater than 6 inches.

Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately. Knocked down fences shall be repaired at the end of each day. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed after each storm event or when deposits reach approximately one-half the height of the barrier. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared, and seeded. Silt fences shall be replaced every 6 months.

Storm Drain Inlet Protection

A sediment filter installed around a storm drain drop inlet or curb inlet is referred to as storm drain inlet protection. Curb inlet protection is not required if other soil stabilization and sediment control measures are in place to prevent sediment from entering the street. Storm drain inlet protection shall only be used around drop inlets when the up-slope area draining to the inlet has no other sediment control.

The drainage area shall be no greater than 1 acre.

The inlet protection device shall be constructed in a manner that will facilitate cleanout and disposal of trapped sediment and minimize interference with construction activities. Inlet protection devices shall be constructed in such a manner that any resultant ponding of storm water will not cause excessive inconvenience or damage to adjacent areas or structures.

The structure shall be inspected after each rain, and repairs made as needed. Sediment shall be removed and the device restored to its original dimensions when the sediment has accumulated to one-half the design depth of the filter. If a stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the blocks, cleaned, and replaced. Structures shall be removed after the drainage area has been properly stabilized.

Filter Strips

A filter strip is a strip of vegetation for removing sediment and related pollutants from runoff. Filter strips are also called vegetative filters. Filter strips shall be used on each side of permanent constructed channels. The buffer strips described in the Storm Water Manual satisfy the filter strip requirement for streams and wetlands.

Filter strips shall only be used to remove sediment from overland flow.

Existing grass or grass/legume mixtures used as filter strips shall be dense and well established, with no bare spots. When establishing new seeding, consideration shall be given to wildlife needs and soil conditions on the site. See Storm Water Manual for seeding mixture

When planting filter strips, prepare seedbed, incorporate fertilizer, and apply mulch consistent with the seeding sections of this manual. Filter strips using areas of existing vegetation shall be over seeded, as necessary, with the above mixtures to obtain an equivalent density of vegetation. The over seeding shall be accomplished prior to the land disturbing activity.

Filter strips shall be inspected regularly to ensure that a healthy vegetative growth is maintained. Sediment shall be removed when it becomes visible in the filter. Construction traffic shall not be permitted to drive upon filter strips.

Erosion Control Blanket

An erosion control blanket is a fabric mesh laid on the ground to prevent erosion on bare slopes. Blankets shall be constructed of a natural biodegradable material, such as coconut coir or jute. Selection of a blanket shall be per the manufacturer's recommendations, based on site slope conditions.

Site preparation, placement and anchoring of erosion control blankets shall be per the manufacturer's recommendations.

Stream Crossing

A stream crossing is a temporary structural span installed across a flowing water course for use by construction traffic. Structures may include bridges, round pipes, or pipe arches. The purpose of a temporary stream crossing is to provide a means for construction traffic to cross flowing streams without damaging the channel or banks and to keep sediment generated by construction traffic out of the stream. Stream crossings shall be used in cases where construction traffic, permanent traffic, or utilities must cross existing post development floodplains. If the drainage area exceeds 1 square mile and a structure is necessary, the structure must be designed by a professional engineer licensed in Kentucky. If applicable, U.S. Army Corps of Engineers and the Kentucky Division of Water permits, as indicated in the Storm Water Manual, may be required.

Temporary stream crossings are applicable to flowing streams with drainage areas less than one square mile. Structures that must handle flow from larger drainage areas shall be designed as permanent structures by a professional engineer.

When using a culvert crossing, the top of a compacted earth fill shall be covered with six inches of KTC No. 57 stone. No. 57 stone shall also be used for the stone pads forming the crossing approaches.

Clearing and excavation of the streambed and banks shall be kept to a minimum. The structure shall be removed as soon as it is no longer necessary for project construction. The approaches to the structure shall consist of stone pads with a minimum thickness of 6 inches, a minimum width equal to the width of the structure, and a minimum approach length of 25 feet on each side.

The structure shall be inspected after every rainfall and at least once a week and all damages repaired immediately.

Pump-Around Flow Diversion

Pump-around flow diversions must be used to divert flow during excavation operations in streams. Pump-around flow diversions provide dry working conditions during construction in streams. A pump-around flow diversion shall be used to divert flow around construction activities occurring in a stream when those activities are reasonably expected to cause the erosion or deposition of sediment in the stream. Bid quotes for pump around assume a 4 inch pump.

Sandbags shall be woven polypropylene bags with approximate dimensions of 18-1/2 inches by 28 inches. Tie the ends of filled bags closed using either draw strings or wire ties.

Schedule operations such that diversion installation, in-stream excavation, in-stream construction, stream restoration, and diversion removal are completed as quickly as possible.

This control provides short-term diversion of stream flow (typically 1 day to 3 days). Additional sandbags or pumps may be required to maintain 1-foot freeboard on the sandbag checks if flow conditions change. Add sandbags as required to seal leaks in checks.

Construction Dewatering

Dewatering is the pumping of storm water or groundwater from excavation pits or trenches. The sediment-laden water must be pumped to a dewatering structure before it is discharged offsite.

The dewatering structure should be inspected frequently to ensure it is functioning properly and not overtopping. Accumulated sediment should be spread out on site and stabilized, or disposed of offsite.

41.2 BASIS OF PAYMENT

Accepted quantities for Erosion and Sediment Control will be paid for at the Contract Unit Price or lump sum as quoted which shall be full compensation for all Work required under this Section: The LFUCG will make payment for the completed and accepted quantities under the following: All labor, materials (except as noted), equipment, fuel and excavation shall be incidental to the placement and removal of Erosion and Sediment Control. Maintenance of erosion and sediment control is incidental to installation. No separate payment shall be made for inspection, maintenance and cleaning of these controls. No separate payment shall be made for the replacement of these controls should they become damaged or ineffective. Payment shall be per the schedule below for each item successfully placed and maintained.

Silt Fence	Linear Foot
Install and Maintain Silt Traps	Lump Sum
Erosion Control Blanket	Square Yards
Pump-Around Flow Diversion (including sand bags)	Incidental to the work for which it is being performed.
Construction Dewatering	Incidental to the work for which it is being performed.

Payment for a Stormwater Pollution Prevention Plan,(SWPP) a Notice of Intent (NOI-SWCA), a Notice of Termination (NOT), and a Land Disturbance Permit (LDP), will be paid in accordance with Section A.20 of these Technical Specifications.

TECHNICAL SPECIFICATIONS

SECTION 42 - GEOTEXTILE CONSTRUCTION

42.1 SCOPE

Work for this Section shall be in accordance to Kentucky Department of Highways Standard Specifications Sections 214 and 843 (Type I for slope protection and channel lining, Type II for underdrains, Type III for subgrade or embankment foundation stabilization, and Type IV for drainage blankets and pavement edge drains), current edition and shall include all labor, grading, materials, equipment, and incidentals necessary to complete the work.

42.2 BASIS OF PAYMENT

Geotextile Construction will be incidental to any construction activity in which it is encountered. No separate payment for Geotextile Construction will be made.

TECHNICAL SPECIFICATIONS

SECTION 43 - EDGE KEY

43.1 SCOPE

This Work shall consist of the construction of edge keys in accordance with the Plans, Contract Documents and Specifications, and Lexington-Fayette Urban County Government (LFUCG) Standard Drawing 318 and 319, current edition.

In performing this Work, the CONTRACTOR shall furnish a neat edge along the pavement, obtained by using an approved saw to cut a smooth and straight line (approximately two (2) inches deep) in the existing pavement surface prior to breaking away the adjacent pavement. Any existing facility, which is not marked for removal by the ENGINEER, but is nevertheless removed, shall be replaced at the CONTRACTOR'S expense.

43.2 BASIS OF PAYMENT

Payment for the accepted quantity will be made at the unit bid price per linear foot, which payment shall be full compensation for all Work required by this section.

TECHNICAL SPECIFICATIONS

SECTION 49 – PROJECT SIGN

49.1 SCOPE

The Work covered by this specification consists of furnishing all materials, equipment, and labor for erecting the Project Sign as indicated in the LFUCG Standard Drawing 323. All statements included with the drawing are pertinent with the exception of Line 1. Payment for the Project Sign will be as indicated below.

49.2 BASIS OF PAYMENT

Accepted quantities for Project Sign will be paid for at the Contract Unit Price as quoted per each (which shall be full compensation for all Work under this Section) and paid per specified Project Sign satisfactorily placed. All labor, materials, equipment, and excavation shall be incidental to the placement of Project Sign.

TECHNICAL SPECIFICATIONS

SECTION 51 – HANDRAIL- GENERAL

51.0 SCOPE

Work shall consist of constructing handrails on top of retaining walls and steep slopes and in accordance with the Plans, Contract Documents and Specifications.

51.1 MATERIAL

Handrails shall be constructed of DN 40 Schedule 40 aluminum pipe in accordance with ASTM-B221 or B210 alloy 6061-T6.

Square bars for posts, rails and pickets shall be DN 40, schedule 40 aluminum in accordance with ASTM-B221 or B210 alloy 6061-T6.

Handrails shall have welded connections. Welds shall be full, ground and polished or power brushed to form smooth continuous surfaces along joints. They shall be free of soot, bubbles, pinholes, cracks, rough spots, gaps, sharp edges or any other visible flaws.

All metal shall be powder coated black in accordance with AAMA 2605.

51.2 CONSTRUCTION METHOD

Posts shall be set a minimum of 6" deep in preformed holes in the parapet wall, retaining wall or steps. Fill around posts with non-shrink grout as per the drawings. Non-shrink grout shall conform with KDOH, Standard 601.03.04. Posts set in the ground shall be anchored per the manufacturer's recommendations.

Where aluminum is in contact with cementitious material (e.g, concrete or grout) the, contacting surface shall be thoroughly coated with a bitumastic paint to completely insulate the aluminum from the cement. Posts may not be set until the Engineer verifies that bitumastic has been correctly applied.

51.3 MEASUREMENT AND PAYMENT

Accepted quantities for Handrail-General will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per linear foot of handrail installed. Grouting, bitumastic painting, and all other labor, materials, and equipment, shall be incidental to Handrail- General.

TECHNICAL SPECIFICATIONS

SECTION 52 –HANDRAIL-PARAPET

52.0 SCOPE

Work shall consist of constructing handrails on top of the parapet for Stormwater Culvert – Sta. 196+43 in accordance with the Plans, Contract Documents and Specifications.

52.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design railings, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance: Railings shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails and Top Rails of Guards:
 - a. Uniform load of 50 lbf/ ft. applied in any direction.
 - b. Concentrated load of 200 lbf applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
 - 2. Infill of Guards:
 - a. Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft..
 - b. Infill load and other loads need not be assumed to act concurrently.
- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

52.2 SUBMITTALS

- A. Product Data: For the following:
 - 1. Manufacturer's product lines of mechanically connected railings.
 - 2. Railing brackets.
 - 3. Grout, anchoring cement, and paint products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each type of exposed finish required.

- D. Delegated-Design Submittal: For installed products indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.

52.3 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Architectural Iron Designs, Inc.
 - b. Artezzi.
 - c. Bavarian Iron Works Co.; TT Triebenbacher.
 - d. Blum, Julius & Co., Inc.
 - e. Braun, J. G., Company; a division of the Wagner Companies.
 - f. Indital USA; a division of Ind.i.a. SPA.
 - g. Lawler Foundry Corporation.
 - h. Livers Bronze Co.
 - i. Olin Wrought Iron.
 - j. Regency Railings.
 - k. Wagner, R & B, Inc.; a division of the Wagner Companies.
 - l. Wiemann Ironworks.
 - m. Or approved equals

52.4 METALS, GENERAL

- A. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

52.5 STEEL AND IRON

- A. Recycled Content of Steel Products: Provide products with average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent.
- B. Tubing: ASTM A 500 (cold formed) or ASTM A 513.
- C. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
- D. Plates, Shapes, and Bars: ASTM A 36/A 36M.

52.6 MISCELLANEOUS MATERIALS

- A. Fasteners: Provide the following:
 - 1. Ungalvanized-Steel Railings:Plated steel fasteners complying with ASTM B 633 or ASTM F 1941 (ASTM F 1941M), Class Fe/Zn 5 for zinc coating.
- B. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- D. Shop Primers: Provide primers that comply with Division 9 painting Sections.
- E. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.
- F. Epoxy Zinc-Rich Primer: Complying with MPI#20 and compatible with topcoat.
- G. Epoxy Intermediate Coat: Complying with MPI #77 and compatible with primer and topcoat.
- H. Polyurethane Topcoat: Complying with MPI #72 and compatible with undercoat.
- I. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- J. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

52.7 FABRICATION

- A. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- B. Form work true to line and level with accurate angles and surfaces.
- C. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove flux immediately.

4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- D. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
- E. Form changes in direction by bending.
- F. Bend members in jigs to produce uniform curvature without buckling or otherwise deforming exposed surfaces.
- G. Close exposed ends of railing members with prefabricated end fittings.
- H. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated.
- I. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.
1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers to transfer loads through wall finishes.

52.8 STEEL AND IRON FINISHES

- A. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
- B. Primer Application: Apply shop primer to prepared surfaces of railings unless otherwise indicated. Comply with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.
- C. High-Performance Coating: Apply epoxy intermediate and polyurethane topcoats to prime-coated surfaces. Comply with coating manufacturer's written instructions and with requirements in SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting. Apply at spreading rates recommended by coating manufacturer.
1. Color: As selected by Engineers / Landscape Architect from manufacturer's full range.

52.9 INSTALLATION

- A. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
- B. Anchor posts in concrete by inserting into formed or core-drilled holes and grouting annular space.
 - C. Anchor posts to metal surfaces with oval flanges.
 - D. Anchor railing ends at walls with round flanges anchored to wall construction.
 - E. Anchor railing ends to metal surfaces with flanges bolted to metal surfaces.

52.10 ADJUSTING AND CLEANING

- A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

52.11 MEASUREMENT AND PAYMENT

Payment for Handrail will be made at the unit bid price per linear foot. Grouting, bitumastic painting, and all other labor, materials, and equipment, shall be incidental to Handrail.

Accepted quantities for Handrail-Parapet will be paid for at the respective Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid lump sum. Grouting, anchoring, painting, and all other labor, materials, and equipment, shall be incidental to Handrail- Parapet.

TECHNICAL SPECIFICATIONS

SECTION 55 - STEEL W BEAM GUARDRAIL & END TREATMENTS

55.1 SCOPE

Work for this Section shall include all labor, materials, excavations, equipment, and incidentals necessary to construct Steel W Beam Guardrail in accordance with Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, Section 719 and 814 requirements and Kentucky Department of Highways Standard Drawings, latest edition.

55.2 BASIS OF PAYMENT

Accepted quantities for Guardrail - Steel W Beam S-Face will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per linear foot of guardrail satisfactorily placed. Unless noted otherwise in the drawings, all Guardrail - Steel W Beam S-Face shall include two (2) Type 2 Terminal Sections. All other end treatments for guardrail shall be bid separately. All labor, materials, equipment, and excavation shall be incidental to the placement of Guardrail - Steel W Beam S-Face.

TECHNICAL SPECIFICATIONS

SECTION 55 – DETECTABLE WARNING SURFACE TILE

55.1 SCOPE OF WORK

This Section specifies furnishing and installing Detectable Warning Surface Tiles Overlay or Imbedded where indicated concurrent with the installation of concrete sidewalk ramps per Section 14.1 of these Specifications.

55.2 SHOP DRAWINGS

- Product Data: Submit manufacturer's literature describing products, installation procedures.
- Samples for Verification Purposes: Submit two (2) tile samples minimum 6"x8" of the kind proposed for use.
- Shop drawings are required for products specified showing fabrication details; composite structural system; plans of tile placement including joints, and material to be used as well as outlining installation materials and procedure.
- Material Test Reports: Submit test reports from qualified independent testing laboratory indicating that materials proposed for use are in compliance with requirements and meet the properties indicated. All test reports shall be conducted on a Surface Applied tactile tile system as certified by a qualified independent testing laboratory.
- Maintenance Instructions: Submit copies of manufacturer's specified maintenance practices for each type of tactile tile and accessory as required.

55.3 OVERLAY MODULES

A. QUALITY ASSURANCE

- Provide Surface Applied tactile tiles and accessories as produced by a single manufacturer.
- Installer's Qualifications: Engage an experienced Installer certified in writing by tactile manufacturer as qualified for installation, who has successfully completed tile installations similar in material, design, and extent to that indicated for Project.
- Americans with Disabilities Act (ADA): Provide tactile warning surfaces which comply with the detectable warnings on walking surfaces section of the Americans with Disabilities Act (Title 49 CFR TRANSPORTATION, Part 37.9 STANDARDS FOR ACCESSIBLE TRANSPORTATION FACILITIES, Appendix A, Section 4.29.2 DETECTABLE WARNINGS ON WALKING SURFACES).
- Vitriified Polymer Composite (VPC) Surface Applied tiles shall be an epoxy polymer composition with an ultra violet stabilized coating employing aluminum oxide particles in the truncated domes. The tile shall incorporate an in-line dome pattern of truncated domes 0.2" in height, 0.9" diameter at the base, and 0.4" diameter at top of dome spaced 2.35" nominal as measured on a diagonal and 1.70" nominal as measured side by side. For wheelchair safety the field area shall consist of a non-slip surface with a minimum

of 40 - 90° raised points 0.045" high, per square inch; "Armor-Tile" as manufactured by Engineered Plastics Inc., Tel: 800-682-2525, or approved equal.

1. Dimensions: Tiles shall be held within the following dimensions and tolerances:

			Nominal	Tile Size			
Length and Width:	12" x 12"	24" x 24"	24" x 36"	24" x 48"	24" x 60"	36" x 48"	36" x 60"
Depth	0.1875" ± 5% max.						
Face Thickness	0.1875 ± 5% max.						
Warpage of Edge	± 0.5% max.						

2. Water Absorption of Tile when tested by ASTM-D 570 not to exceed 0.35%.
 3. Slip Resistance of Tile when tested by ASTM-C 1028 the combined wet/dry static co-efficient of friction not to be less than 0.80 on top of domes and field area.
 4. Compressive Strength of tile when tested by ASTM-D 695-91 not to be less than 18,000 psi.
 5. Tensile Strength of Tile when tested by ASTM-D 638-91 not to be less than 10,000 psi.
 6. Flexural Strength of Tile when tested by ASTM - C293-94 not to be less than 24,000 psi.
 7. Chemical Stain Resistance of Tile when tested by ASTM-D 543-87 to withstand without discoloration or staining - 1% hydrochloric acid, urine, calcium chloride, stamp pad ink, gum and red aerosol paint.
 8. Abrasive Wear of Tile when tested by BYK - Gardner Tester ASTM-D 2486* with reciprocating linear motion of 37± cycles per minute over a 10" travel. The abrasive medium, a 40 grit Norton Metallite sand paper, to be fixed and leveled to a holder. The combined mass of the sled, weight and wood block to be 3.2 lb. Average wear depth shall not exceed 0.030 after 1000 abrasion cycles measured on the top surface of the dome representing the average of three measurement locations per sample.
 9. Fire Resistance: When tested to ASTM E84 flame spread be less than 25.
 10. Gardner Impact to geometry "GE" of the standard when tested by ASTM-D 5420-93 to have a mean failure energy expressed as a function of specimen thickness of not less than 450 in. lbf/in. A failure is noted if a hairline fracture is visible in the specimen.
 11. Accelerated Weathering of Tile when tested by ASTM-G26-95 for 2000 hours shall exhibit the following result - no deterioration, fading or chalking of surface of tile.
- Vitrified Polymer Composite (VPC) Surface Applied tiles embedded in concrete shall meet or exceed the following test criteria:
 1. Accelerated Aging and Freeze Thaw Test of Tile when tested to ASTM-D 1037 shall show no evidence of cracking, delamination, warpage, checking, blistering, color change, loosening of tiles or other defects.

2. Salt and Spray Performance of Tile and Adhesive System when tested to ASTM-B 117 not to show any deterioration or other defects after 100 hours of exposure.

B. DELIVERY, STORAGE AND HANDLING

Tiles shall be suitably packaged or crated to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy wrappings and tile type shall be identified by part number. Tiles shall be delivered to location at building site for storage prior to installation.

C. SITE CONDITIONS

Environmental Conditions and Protection: Maintain minimum temperature of 40°F in spaces to receive tactile tiles for at least 48 hours prior to installations, during installation, and for not less than 48 hours after installation. Store tactile tile material in spaces where they will be installed for at least 48 hours before beginning installation. Subsequently, maintain minimum temperature of 40°F in areas where work is completed. The use of water for work, cleaning or dust control, etc. shall be contained and controlled and shall not be allowed to come into contact with the passengers or public. Provide barricades or screens to protect passengers or public. Disposal of any liquids or other materials of possible contamination shall be made in accordance with federal state and local laws and ordinances. Cleaning materials shall have code acceptable low VOC solvent content and low flammability if used on the site.

D. EXTRA STOCK

Deliver extra stock to storage area designated by engineer. Furnish new materials from same manufactured lot as materials installed and enclose in protective packaging with appropriate identification for Surface Applied tactile tiles. Furnish not less than two (2) % of the supplied materials for each type, color and pattern installed.

E. PRODUCTS: MANUFACTURERS

- Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
- The Vitrified Polymer Composite (VPC) Surface Applied Tactile Tile specified is based on Armor- Tile manufactured by Engineered Plastics Inc. (800-682-2525). Existing engineered and field tested products which are subject to compliance with requirements, may be incorporated in the work and shall meet or exceed the specified test criteria and characteristics.
- Color: Yellow conforming to Federal Color No. 33538. Color shall be homogeneous throughout the tile.

F. MATERIALS

- Fasteners: Color matched, corrosion resistant, flat head drive anchor: ¼" diameter x 1 ¾" long. Armor-Drive by Engineered Plastics or equal.
- Adhesive: Armor-Bond as supplied by Engineered Plastics Inc.
- Sealants: Armor-Seal as supplied by Engineered Plastics Inc.

G. INSTALLATION – OVERLAY TILES

- During all surface preparation and tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.
- The application of all tile, adhesives, mechanical fasteners, and caulking shall be in strict accordance with the guidelines set by their respective manufacturers.
- Work with the Contractor or Engineer to ensure that the surfaces being prepared and fabricated to receive the tiles are constructed correctly and adequately for tile installation. Review design drawings with the Contractor prior to the construction and refer any and all discrepancies to the Engineer.
- Set the tile true and square to the curb ramp area as detailed in the design drawings, so that its location can be marked on the concrete surface. A thin permanent marker works well. Remove tile when done marking its location.
- The surface to receive the detectable warning surface tile (not recommended for asphalt) is to be mechanically cleaned with a diamond cup grinder or shot blaster to remove any dirt or foreign material. This cleaning and roughening of the concrete surface should include at least 4 inches around the perimeter of the area to receive the tile, and also along the cross pattern established by the corresponding areas on the backside of the tile. Those same areas should then be cleaned with a rag soaked in Acetone.
- Immediately prior to installing the detectable warning surface tile, the concrete surfaces must be inspected to ensure that they are clean, dry, free of voids, curing compounds, projections, loose material, dust, oil, grease, sealers and determined to be structurally sound and cured for a minimum of 30 days.
- Using Acetone, wipe the backside of the tile around the perimeter and along the internal cross pattern, to remove any dirt or dust particles from the area to receive the adhesive.
- Apply the adhesive on the backside of the tile, following the perimeter and internal cross pattern established by the tile manufacturer. Sufficient adhesive must be placed on the prescribed areas to have full coverage across the 2" width of the adhesive locator. A 3 x 4 foot tile will typically require an entire tube of adhesive.
- Set the tile true and square to the curb ramp area as detailed in the design drawings.
- Standing with both feet applying pressure around the molded recess provided in the tile, drill a hole true and straight to a depth of 3½" using the recommended diameter bit. Drill through the tile without hammer option until the tile has been successfully penetrated, and then with hammer option to drill into the concrete.

- Immediately after drilling each hole, and while still applying foot pressure, vacuum, brush or blow away dust and set the mechanical fastener as described below, before moving on to the next hole.
- Mechanically fasten tiles to the concrete substrate using a hammer to set the fasteners. Ensure the fastener has been placed to full depth in the dome, straight, and flush to the top of dome. Drive the pin of the fastener with the hammer, taking care to avoid any inadvertent blows to the truncated dome or tile surface. A plastic deadblow or leather hammer is recommended.
- Working in a sequence which will prevent buckles in the tile, proceed to drill and install all fasteners in the tile's molded recesses.
- Following the installation of the tiles, the perimeter caulking sealant should be applied. Follow the perimeter caulking sealant manufacturer's recommendations when applying. Tape all perimeter edges of the tile and also tape the adjacent concrete back 1/2" from the tile's perimeter edge. Tool the perimeter caulking with a plastic applicator or spatula to create a straight edge in a cove profile between the tile and adjacent concrete. Remove tape immediately after tooling perimeter caulking sealant.
- Do not allow foot traffic on installed tiles until the perimeter caulking sealant has cured sufficiently to avoid tracking.

If installing adjacent tiles, note the orientation of each tile. Careful attention will reveal that one of the long edges of the tile is different than the other, in regard to the tiny dotted texture. You may also note a larger perimeter margin before the tiny dotted texture pattern begins. Consistent orientation of each Armor-Tile is required in order that the truncated domes on adjacent tiles line up with each other.

In order to maintain proper spacing between truncated domes on adjacent tiles, the tapered edge should be trimmed off using a continuous rim diamond blade in a circular saw or mini-grinder. The use of a straightedge to guide the cut is advisable. All cuts should be made prior to installation of the tiles.

If installing adjacent tiles, care should be taken to leave a 1/8 inch gap between each.

If tiles are custom cut to size, and if pre-molded recesses (to receive fasteners) are removed by the cut, then any truncated dome can be center-drilled with a 1/4 inch through hole, and counter sunk with a suitable bit, to receive mechanical fasteners. New holes should be created no closer to the edge of the tile than any of the other perimeter fastener pre-molded recesses. Care should be taken to not countersink too deeply. Fasteners should be flush with the top of the truncated dome when countersunk properly.

Adhesive or caulking on the surface of the Armor-Tile can be removed with Acetone.

H. CLEANING AND PROTECTING

- Protect tiles against damage during construction period to comply with tactile tile manufacturer's specification.

- Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood.
- Clean tactile tiles not more than four days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean tactile tile by method specified by tactile tile manufacturer.

55.4 IMBEDDED MODULES

A. SHOP DRAWINGS

- Product Data: Submit manufacturer's literature describing products and installation procedures.
- Samples for Verification Purposes: Submit two (2) 12"x12" tile samples of the kind proposed for use.
- Shop drawings are required for products specified showing fabrication details; material to be used as well as outlining installation materials and procedure.
- Material Test Reports: Submit test reports from qualified independent testing laboratory indicating that materials proposed for use are in compliance with requirements and meet the properties indicated. All test reports shall be conducted on a Detectable Warning Surface Tile system as certified by a qualified independent testing laboratory.

B. QUALITY ASSURANCE

- Provide Detectable Warning Surface tiles and accessories as produced by a single manufacturer.
- Installer's Qualifications: Engage an experienced installer who has successfully completed tile installations similar in material, design, and extent to that indicated for Project.
- Americans with Disabilities Act (ADA): Provide tactile warning surfaces which comply with the detectable warnings on walking surfaces section of the Americans with Disabilities Act (Title 49 CFR TRANSPORTATION, Part 37.9 STANDARDS FOR ACCESSIBLE TRANSPORTATION FACILITIES, Appendix A, Section 4.29.2 DETECTABLE WARNINGS ON WALKING SURFACES.
- Detectable Warning Surface Tile shall be "Access Tile", same manufacture as Amor-Tile manufactured by Engineered Plastics, Inc., Tel: 800-682-2525, **or approved equal.**
 1. Water Absorption when tested by ASTM-D 570 not to exceed 0.2%.
 2. Slip Resistance when tested by ASTM-C 1028 the combined wet/dry static coefficient of friction not to be less than 0.80 on top of domes.
 3. Compressive Strength when tested by ASTM C 109 not to be less than 10,000 psi.
 4. Tensile Strength when tested by ASTM-C 307 not to be less than 1,800 psi.
 5. Flexural Strength when tested by ASTM – C384 not to be less than 3,000 psi.
 6. Fire Resistance when tested to ASTM E84 flame spread to be less than 50.

C. DELIVERY, STORAGE AND HANDLING

Tiles shall be suitably packaged or crated to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy wrappings and tile type shall be identified by part number. Tiles shall be delivered to location at building site for storage prior to installation. All materials furnished shall be from same manufactured lot and shall be enclosed in protective packaging with appropriate identification.

D. SITE CONDITIONS

Environmental Conditions and Protection: Maintain minimum temperature of 40°F in spaces to receive tactile tiles for at least 48 hours prior to installations, during installation, and for not less than 48 hours after installation. Tiles shall be within +/- 10% of ambient temperature when placed. Subsequently, maintain minimum temperature of 40°F in areas where work is completed. The use of water for work, cleaning or dust control, etc. shall be contained and controlled and shall not be allowed to come into contact with nearby structures, fixtures, motor vehicles, pedestrians, etc. Provide barricades or screens to protect passengers or public. Disposal of any potentially hazardous liquids or other materials shall be made in accordance with federal state and local laws and ordinances. Cleaning materials shall have code acceptable low VOC solvent content and low flammability if used on the site.

F. PRODUCTS: MANUFACTURERS

- Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
- The Detectable Warning Surface Tile specified is based on ADA Solutions and Access Tile as manufactured by Engineered Plastics Inc. (800-682-2525). Other engineered and field tested products compliant with these requirements may be incorporated in the work provided they meet or exceed the specified test criteria and characteristics. Alternates shall be approved by the Engineer prior to installation.
- Color: Yellow conforming to Federal Color No. 33538. Color shall be homogeneous throughout the tile.

F. INSTALLATION – IMBEDDED TILES

- During all surface preparation and tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.
- The installation of the structural embedment flange system and related materials shall be in strict accordance with the contract documents and the guidelines set by their respective manufacturers.
- The physical characteristics of the concrete shall be consistent with the contract specifications while maintaining a slump range of 4 - 7 to permit solid placement of the imbedded tiles.. An overly wet mix will cause the tile to float and will be rejected.

- The concrete pouring and finishing operations require typical mason's tools, however, a 4' long level with electronic slope readout, 25 lb. weights, and a large non-marring rubber mallet are specific to the installation of the Imbedded tiles. A vibrating mechanism such as that manufactured by Vibco or equal can be employed, if desired. The vibrating unit should be fixed to a soft base such as wood, at least 1 foot square.
- The factory-installed plastic sheeting must remain in place during the entire installation process to prevent the splashing of concrete onto the finished surface of the tile.
- When preparing to set the tile, it is important that no concrete be removed in the area to accept the tile. It is imperative that the installation technique eliminates any air voids under the tile. Holes in the tile perimeter allow air to escape during the installation process. Concrete will flow through the large holes in each embedment flange on the underside of the tile. This will lock the tile solidly into the cured concrete.
- The concrete shall be poured and finished true and smooth to the required dimensions and slope prior to the tile placement. Immediately after finishing concrete, the electronic level should be used to check that the required slope is achieved. The tile shall be placed true and square to the curb edge in accordance with the contract drawings. The Cast In Place Detectable/Tactile Warning Surface Tiles shall be tamped (or vibrated) into the fresh concrete to ensure that the field level of the tile is flush to the adjacent concrete surface. The embedment process should not be accomplished by stepping on the tile as this may cause uneven setting which can result in air voids under the tile surface. The contract drawings indicate that the tile field level (base of truncated dome) is flush to adjacent surfaces to permit proper water drainage and eliminate tripping hazards between adjacent finishes.
- In cold weather climates it is recommended that the imbedded tiles be set deeper such that the top of domes are level to the adjacent concrete on the top and sides of ramp and that the base of domes to allow water drainage. This installation will reduce the possibility of damage due to snow clearing operations.
- Immediately after placement, the tile elevation is to be checked to adjacent concrete. The elevation and slope should be set consistent with contract drawings to permit water drainage to curb as the design dictates. Ensure that the field surface of the tile is flush with the surrounding concrete and back of curb so that no ponding is possible on the tile at the back side of curb.
- While concrete is workable, a 3/8" radius edging tool shall be used to create a finished edge of concrete, then a steel trowel shall be used to finish the concrete around the tile's perimeter, flush to the field level of the tile.
- During and after the tile installation and the concrete curing stage, it is imperative that there is no walking, leaning or external forces placed on the tile that may rock the tile causing a void between the underside of tile and concrete.
- Following tile placement, review installation tolerances to contract drawings and adjust tile before the concrete sets. Two suitable weights of 25 lb each may be required to be placed on each tile as necessary to ensure solid contact of the underside of tile to concrete.

- Following the concrete curing stage, protective plastic wrap is to be removed from the tile surface by cutting the plastic with a sharp knife, tight to the concrete/tile interface. If concrete bled under the plastic, a soft brass wire brush will clean the residue without damage to the tile surface.
- If desired, individual tiles can be bolted together using ¼ inch or equivalent hardware. This can help to ensure that adjacent tiles are flush to each other during the installation process. Tape or caulking can be placed on the underside of the bolted butt joint to ensure that concrete does not rise up between the tiles during installation. Any protective plastic wrap which was peeled back to facilitate bolting or cutting, should be replaced and taped to ensure that the tile surface remains free of concrete during the installation process.
- Tiles can be cut to custom sizes, or to make a radius, using a continuous rim diamond blade in a circular saw or mini-grinder. Use of a straightedge to guide the cut is advisable where appropriate.
- Any sound-amplifying plates on the underside of the tile, which are dislodged during handling or cutting, should be replaced and secured with construction adhesive. The air gap created between these plates and the bottom of the tile is important in preserving the sound on cane audible properties of the Armor-Tile system as required in various jurisdictions.

G. CLEANING AND PROTECTING

- Protect tiles against damage during construction period to comply with tactile tile manufacturer's specification.
- Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood.

55.5 BASIS OF PAYMENT:

Detectable Warning Surface Tile-Overlay: Accepted quantities under this section shall be paid for at the Contract Unit Price per square foot for the appropriate size and type of Detectable Warning Surface Tile installed. Payment shall be considered full compensation for labor only. Any fastening hardware, adhesive, tape or caulking the Contractor chooses to use shall be incidental to the cost of installation. The LFUCG will provide the Overlay Detectable Warning Surface Tile and CONTRACTOR is required to install the tile described in this Section.

Detectable Warning Surface Tile-Imbedded: Accepted quantities under this section shall be paid for at the Contract Unit Price per square foot for the appropriate size and type of Detectable Warning Surface Tile installed. Payment shall be considered full compensation for labor only. Any fastening hardware, tape or caulking the Contractor chooses to use shall be incidental to the cost of installation. The LFUCG will provide the Cast in Place Detectable Warning Surface Tile and CONTRACTOR is required to install the tile described in this Section.

Should LFUCG be unable to furnish either tile, the CONTRACTOR shall furnish the tiles on a cost plus basis, with a 15% overhead and profit allowance.

TECHNICAL SPECIFICATIONS

SECTION 57 - PAVEMENT STRIPING

57.1 SCOPE

Work for this section shall conform to Lexington-Fayette Urban County Government, Traffic Engineering drawings, 2 sheets, drawn March 1997 and the Kentucky Department of Highways Standard Specifications for Road and Bridge construction, Section 831, 841, current edition, and shall include all labor, materials, equipment and incidentals to complete the Work.

Pavement striping in this section applies to temporary striping only.

57.2 DESCRIPTION

Contrary to Section 841 this Special Note will apply for the following types of quick-drying pavement striping paint and their field testing evaluation by the SASHTO Regional Test Facility using the data obtained from their Asphalt Pavement Test Deck only.

TYPE A *White, water borne quick-dry traffic paint for use with drop on beads-maximum allowable VOC Content 150 grams per liter.*

TYPE B *Yellow, lead free water borne quick-dry traffic paint for use with drop on beads-maximum allowable VOC Content 150 grams per liter.*

57.3 GENERAL REQUIREMENTS

- Viscosity. The consistency of the pigmented binder shall not exceed 110 KU at 25 °C, when tested in the laboratory in accordance with ASTM D 562.
- Package Stability. The paint shall not cake, liver, thicken, curdle, settle badly or show any objectionable properties after periods of storage of at least 12 months.
 - The paint, when tested in accordance with ASTM D 1309 and evaluated in accordance with ASTM D 869, shall no fall below a rating of 5 on paint condition.
- Colors. The diffuse daylight color of yellow paint after heat application and drying shall conform as shown in the Federal Highway administration color chart and referred to as Highway yellow (PR Color #1)
- Quality. The composition and quality of the paint shall be such as to be suitable binder for the glass spheres and produce a satisfactory lane maker.
- Freeze – Thaw Stability. The paint shall not show pronounced separation, lumpiness, or coagulation after completion of 5 freeze-thaw cycles, performed in accordance with ASTM D 2243. The consistency of the sample after completion of the 5 freeze thaw cycles shall not exceed 110 KU when tested in accordance with ASTM D 562. Each manufacturer invited to submit a bid shall also supply a one liter sample to the Kentucky Department of

Highways, Division of Materials, Wilkinson Boulevard, Frankfort, Kentucky 40602, for freeze-thaw stability testing. A sample for each paint listed on the bid shall be submitted labeled with the appropriate SASHTO Sample Number.

- Drying Characteristics. Both types of paint, A and B, upon actual application to pavement surfaces, shall dry to no-tracking condition within 60 seconds. The no-track test shall be conducted on beaded and unbeaded lines. A passenger vehicle shall be driven over the test lines 60 seconds after placement at a speed of approximately 16 km/h. A line showing no visual deposition of the paint to the pavement surface when viewed from a distance of 15 meters shall be considered as non-tracking.
- Variation of Composition. Both types of paint, A and B, shall be subject to the following physical and chemical tolerances on compositional variance from the bid sample when submitted for project acceptance.

A.	Percent Non Volatile	±2.0%	ASTM D 3723
B.	Percent Pigment	±2.0%	ASTM D 3723
C.	Viscosity	±10.0 KU	ASTM D 562
D.	Weight Per Liter	±30.0 g.	ASTM D 1475

CHEMICAL COMPOSITION OF:

- E. Pigment Essentially Identical by X-ray Fluorescence/and Infrared Spectroscopy
- F. Non Volatile Vehicle Essentially Identical by Infrared Spectroscopy
- G. Volatile Organic Compounds Essentially Identical by Gas Chromatograph

- Glass Beads: KY Type 1 glass beads shall comply with the Kentucky Department of Highways Standard Specifications for Road and Bridge construction, Section 841, current edition. Application shall be per the manufacturer's recommendation.

57.4 ACCEPTANCE

Paint furnished under the contract shall be identical with the sample submitted for field testing and approved by the Department and shall comply with the requirements of this special note. The Department reserves the right to make or have made analyses of both test samples and samples from shipments made under contract to determine whether such are in fact identical.

In the event that the traffic paint does not comply with this special note or it is not identical with the sample submitted, the vendor will be required to replace all such paint at his own expense, including all handling and transportation charges, with paint that does comply.

57.5 MEASUREMENT AND PAYMENT

Payment for temporary markings is included in payment for Maintenance of Traffic. Collecting survey information is included in payment for Surveying and Staking.

TECHNICAL SPECIFICATIONS

SECTION 58 – THERMOPLASTIC PAVEMENT STRIPING – WHITE OR YELLOW

58.1 SCOPE

This specification covers a reflectorized pavement striping material of the type that is applied to a road surface in a molten state with premixed glass beads by spray or extrusion means, with a supplemental surface application of glass spheres. When applied properly and at the designated thickness and width the stripe shall, upon cooling, be reflectorized and be able to resist deformation by traffic. The applied material shall be impervious to degradation by motor oil, diesel fuel, grease deposits and ice-preventative chemicals.

58.2 MATERIAL REQUIREMENTS

The thermoplastic pavement marking materials used in this contract shall meet the following specifications. This specification covers reflectorized oil and grease impervious thermoplastic road marking materials which are (1) hot extrusion applied with a surface application of glass spheres and (2) heat fused applied. The properly applied markings shall be reflectorized and able to durably resist degradation and deformation by traffic.

The thermoplastic materials shall be homogenously composed of pigment, filler, resins, and glass reflectorizing spheres, and shall be available in both yellow and white.

Composition: The pigment, beads and filler shall be uniformly dispersed in the resin. The materials shall be free from all skins, dirt, and foreign objects and shall comply with requirements according to Table 1. Only new materials shall be acceptable for use on this project.

TABLE 1

COMPONENT	WHITE	YELLOW
Binder (see note A)	18.0% min	18.0% min
Glass Beads (AAASHTO M247 Type D)	30.0 – 40.0%	30.0 – 40.0%
Titanium Dioxide	10.0% min	--
Yellow Pigments (see note B)	--	2.0% min
Calcium Carbonate	42.0% max	50.0% max

Note A: The alkyd binder shall consist of a mixture of synthetic resins (at least one of which is solid at room temperature) and a high boiling point plasticizer. At least one third of binder

composition shall be solid maleic modified glycerol ester resin and shall be no less than 8% of the entire material formulation. The alkyd binder shall not contain petroleum based hydrocarbon resins.

Note B: The percentage of yellow pigment can be reduced if lead pigments are eliminated from the formulation.

Temperature - The molten material temperature shall be between 400 and 440 F unless otherwise recommended by the manufacturer, and approved by the Engineer.

Primer - A primer shall be used if thermoplastic is applied to Portland cement concrete. Any primer used shall be compatible with the thermoplastic material.

Thickness - The pavement markings shall yield a solid thickness range of 80 to 95 mils above the roadway surface across the middle two-thirds of the line width.

Glass Beads - Glass beads shall be uniformly applied to the surface of the molten thermoplastic at the minimum rate of 7 to 9 lb/ 100 ft².

Color - The color of the dry markings shall match Federal Standard 595 (13538 – yellow or 17886– white). The Contractor shall supply the specified color chips for the Engineer's use to visually determine that the thermoplastic material matches the specified color.

Retro reflectance - The millicandel/lux/square meter values taken anytime within the first 30 days shall conform to the following:

RETROREFLECTANCE

COLOR	RETROREFLECTIVITY	CORRECTIVE ACTION
White	equal to or greater than 250	None
Yellow	equal to or greater than 150	
White	less than 250	Necessary corrective actions, including grinding if necessary, and re-tracing.
Yellow	less than 150	

The “Drop-On” glass beads shall conform to AASHTO specifications M-247-81 except as follows: The glass beads shall have the following gradation:

US Sieve Number	Percent Passing
20	100
30	75-95
50	15-35
80	0-5
100	0

The “Drop-On” glass beads shall be smooth, clear and free from air inclusions. The beads shall have a minimum refractive index of 1.50 and shall be a minimum of 80% true spheres overall, and minimum 70% true spheres on each sieve. The beads shall be moisture proof coated and shall meet the requirements of AASHTO M-247-81 Section 4.4.2 to insure optimum embedment of 60-65 percent (60-65%) in various thermoplastic traffic marking systems. The material shall set to bear traffic in not more than 2 minutes when the air temperature is 50 degrees F and not more than 10 minutes when the air temperature is 90 degrees F.

Bond Strength – After heating the thermoplastic material for four hours at 425 degrees F the bond strength to Portland Cement Concrete shall exceed 180 psi (1.24 Mpa Method ASTM D4796-88)

Cracking Resistance – For at least 90 days after application the materials shall show no cracks other than with substrate cracking.

Smear and Softening Resistance – During the life of the materials, the applied markings shall not smear or soften apart from substrate movement.

58.4 QUALITY ASSURANCE

Methods of Sampling and Testing: The LFUCG reserves the right to require the contractor

to perform any quality assurance testing necessary to determine compliance with these specifications. Testing required shall be by industry standard and shall be the responsibility of the contractor and performed at no cost to the LFUCG.

The Contractor shall obtain and provide to the Engineer, as part of the material submittal package, a written material specification compliance certification from the thermoplastic manufacturer, stating that the material being used on this contract meets the materials specifications in the Contract.

○ **APPLICATION REQUIREMENTS**

The molten applied thermoplastic material shall readily screed/extrude at temperatures between 400 degrees F and 440 degrees F from the approved equipment to produce a line which shall be continuous and uniform in shape having sharp dimensions.

The application of additional glass beads by drop-on methods shall be at a minimum rate of 8 lbs. per 100 sq ft of marking. Ambient and surface temperatures shall be at least 50 degrees F and rising at the time of application.

Method of Application:

The Contractor shall furnish and install machine-applied extruded and/or sprayed hot thermoplastic with glass spheres (pre mixed and drop-on) in the proper ratio to immediately produce a highly reflective marking as described elsewhere in these specifications, in accordance with the details in this contract and the following provisions.

Surface Preparation:

In order to insure maximum possible adhesion, the pavement surface upon which the pavement markings are to be placed shall be properly cleaned from grease, oil, mud, dust, dirt, grass, loose gravel, and other deleterious material prior to the application of the Thermoplastic pavement markings, and/or primer/sealer. Cleaning is required on all surfaces which are to receive new pavement markings, and shall be considered incidental to the application of the markings.

Primer-Sealer:

It shall be the responsibility of the contractor to recommend to the Engineer and obtain the Engineer's concurrence as to whether primer-sealer is required on a given pavement in order to meet the material manufacturer's warranty conditions. Generally, on all Portland Cement concrete pavement surfaces and aged asphalt-concrete pavements having less than eighty percent (80%) bituminous concrete, primer-sealer shall be applied to the area where the thermoplastic pavement markings are to be placed. Also, the Engineer reserves the right to direct the Contractor to apply primer/sealer for any given markings.

The primer/sealer shall be that recommended by the manufacturer of the thermoplastic material, and approved by the Engineer. The material shall form a continuous film which shall dry rapidly and adhere to the pavement. The material shall not discolor nor cause any noticeable change in the appearance of the pavement outside the of the finished pavement markings. All solvents shall have evaporated from the primer/sealer prior to the application of the molten thermoplastic materials. A sample of the primer/sealer and the recommended

method of application must be submitted to the Engineer, and shall have been approved by the Engineer and the manufacturer of the material before application.

The Engineer has the authority to require the Contractor to apply the primer/sealer using a separate vehicle which may require additional traffic control.

Payment for application of primer/sealer and any additional traffic control will be incidental to the marking item.

○ **REMOVAL OF EXISTING PLASTIC MARKINGS**

When called for in the contract or otherwise as directed by the Engineer, removal of existing plastic pavement markings shall be accomplished by the Contractor using equipment and methods specifically approved by the Engineer. Marking removal shall not be by the "painting out" with black paint method nor shall it result in excessive scarring of the pavement. No more than 1/8 inch depth of scarred pavement will be allowed. At least 90 percent of all markings shall be removed.

As directed by the Engineer, the Contractor shall be responsible for sweeping or otherwise adequately cleaning up debris after completion of markings required to be removed by the Engineer because they are improperly located or otherwise incorrect or improper. Unless permitted otherwise by the Engineer, where old markings are removed, the new markings must be applied the same day as the old markings are removed. Whenever grinding, scraping, sandblasting, or other operations are performed, the work shall be conducted in such manner that the finished pavement surface is not damaged or left in a pattern that will mislead or misdirect motorists. When these operations are completed, the pavement markings shall be cleaned to remove residue and debris resulting from the cleaning work.

Where cleaning and/or removal of pavement objectionable material is being performed within ten(10) feet of a lane occupied by traffic, the residue removal shall be by method(s) approved by the Engineer.

Any damage to the pavement or pavement joint materials caused by pavement marking removal shall be repaired by the Contractor at no cost to the LFUCG by methods acceptable to the Engineer.

The removal of pavement markings will be measured and paid for at the contract price as shown in the Bid Documents.

No direct payment will be made for the removal of existing pavement markings which have not been authorized by the Engineer.

○ **PRE-MARKING OF LINES**

When a line is required to be placed in the same location as an existing painted line, and existing painted markings not required to be removed are visible, they shall be retraced (i.e. new markings installed in exactly the same locations, patterns, and dimensions as the old markings). However, if the existing markings are to be removed or are not visible, or if new roadway surface has been placed before markings installation occurs, or if the contract

requires a line to be installed where none currently exists, the Contractor will be required to pre-mark as directed by the Engineer and subsequently shall install the required markings in accordance with the requirement of other sections of the specifications.

The actual placement of the pavement markings at any such site shall not be performed until the pre-marking has been inspected and approved by the Engineer. Pre-marking is incidental to the pavement marking installation work and there will be no separate payment for pre-marking.

○ **WARRANTIES**

The thermoplastic pavement marking materials and glass beads furnished under this contract shall assume the manufacturer's warranty for these materials and shall be guaranteed by the supplier against failure due to traffic oil degradation.

The contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work, and agrees to indemnify and hold harmless the LFUCG and its duly authorized representatives from all suits at law or action of every nature for, or on account of the use of any patented materials equipment, devices or processes. Further, the material shall meet the requirements of this specification for a period of one year.

58.9 BASIS OF PAYMENT

Accepted quantities for Thermoplastic Pavement Striping will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per linear foot, satisfactorily installed. All labor, materials, equipment, and excavation shall be incidental to Thermoplastic Pavement Striping. Payment for pre-marking, removal of existing plastic markings, furnishing and applying primer/sealer and any additional traffic control shall also be incidental to Thermoplastic Pavement Striping.

TECHNICAL SPECIFICATIONS

SECTION 59 – THERMOPLASTIC PAVEMENT MARKINGS

59.1 SCOPE

This specification covers a reflectorized pavement markings of the type that are preformed and heat-applied to a road surface. When applied properly the markings shall, upon cooling, be reflectorized and be able to resist deformation by traffic. The applied material shall be impervious to degradation by motor oil, diesel fuel, grease deposits and ice-preventative chemicals.

CONTRACTOR shall install thermoplastic markings as soon as Work is sufficiently complete to allow installation of permanent markings. Until the permanent installation is completed, the contractor shall maintain temporary markings consistent with needs and in accordance with the Manual on Uniform Traffic Control Devices. For field dispensed lane markings and for preformed markings to the extent that there is no conflict with provisions herein, the work will conform to KDOH Sections 749, 847, and 848.

59.2 MATERIALS AND WORKMANSHIP

All markings shall be of thermoplastic.

Lane direction arrows, crosswalk markings, and stop bars shall be of the preformed thermoplastic type, composed of hydrocarbon resin, pigments, binders, and glass beads, which have been factory produced as a finished product to meet the requirements of the Manual on Uniform Traffic Control Devices . The thermoplastic shall conform to AASHTO designation M249-79 (86) with the exception of the relevant differences due to material being supplied in a preformed condition. Turn arrows shall be FHWA Standard No. 33024 I and straight arrows shall be No. 330240; combination turn/thru arrows shall be No. 330142. The arrows, crosswalk markings, and stop bars should equal or exceed the specifications defined by Flint Trading, Inc.

The following are general requirements for the various markings:

Graded Glass Beads - The material must contain a minimum of 30 percent grades glass beads by weight. The beads shall be clear and transparent with no more than 20 percent consisting of irregular or fused spheroids and silica. The index of refraction shall not be less than 1.50.

Pigment - All markings for this contract except edge markings are white. A sufficient amount of titanium dioxide must be used to ensure a color similar to Federal Highway White, Color No. 17886, as per Federal Standard 595. The yellow edge markings shall contain sufficient yellow pigment to ensure a color similar to Federal Highway Yellow, Color No. 13655.

Skid Resistance - The surface must provide a minimum skid resistance value of 50 BPN when tested by ASTM E303.

Thickness - Preformed material must be supplied at a minimum thickness of 120 mils.

Environmental Resistance - The material must be resistant to deterioration due to exposure to sunlight, water, oil, gasoline, salt, or adverse weather conditions.

Application to Asphalt - Preformed material shall be applied using a propane torch per recommendations of the manufacturer. The material must be able to be applied at air and road temperatures of 32 degrees F. without any preheating of the pavement. The pavement must be clean, dry, and free of debris at the time of application. The instructions with each package shall be followed to assure proper application. While the material is still hot and receptive, the surface shall be flooded with a surplus of glass beads.

Application to Portland Cement Concrete - Requirements are the same as for asphalt except that a primer/sealer must be used prior to application to assure proper adhesion. This step shall conform to pertinent manufacturer's recommendations.

Packaging - The material shall be packaged in plastic film and with cardboard stiffeners as necessary to prevent damage by handling and transporting.

59.3 REMOVAL OF PERMANENT PAVEMENT MARKINGS

See Section 58 of these specifications.

59.4 MEASUREMENT AND PAYMENT

Accepted quantities for Pavement Markings shall be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per the schedule below for item satisfactorily placed. All labor, materials, equipment, and excavation shall be incidental to the placement of Pavement Markings.

The Work shall include all labor, materials, plant, and costs necessary or incidental to supplying and installing markings in a workmanlike manner. Payment will be at the bid price for Permanent Pavement Striping and/or Symbols. Payment for temporary markings is included in payment for Maintenance of Traffic. Collecting survey information and layout are included in payment for Surveying and Staking.

Thermo Stop Bar – 24 inch	Linear Foot
Thermo Curve Arrow	Each
Thermo Combo Arrow	Each
Thermo – Bike	Each
Ty 1 Tape – School	Each

TECHNICAL SPECIFICATIONS

SECTION 60 – INLAID PAVEMENT REFLECTORS

60.1 SCOPE

This specification covers bi-directional inlaid pavement reflectors installed in recessed grooves cut into the final course. When applied properly the reflectors will be unaffected by a snow plow. Reflectors shall conform to the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, Section 840, Current Edition.

Work shall and shall include all labor, equipment, materials, equipment and incidentals necessary to complete the Work. All grooving shall be considered incidental.

60.2 MATERIALS AND WORKMANSHIP

Markers shall meeting the following specifications.

Material: Polycarbonate Plastic
Weight: Housing 2.00 oz.
 Reflector 2.00oz.
Housing Size: 5.00" x 3.00" x 0.70" high

Specific Intensity of Reflectivity at 0.2° Observation Angle

White: 3.0 at 0°entrance angle
 1.2 at 20°entrance angle
Yellow: 60% of white values
Red: 25% of white values

Adhesives. Use adhesives that conform to the manufacturer's recommendations.

59.2 INSTALLATION

Installation. Install inlaid pavement markers in recessed grooves cut into the final course of pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent damaging the pavement. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, equipment, and construction

procedures that ensure proper adhesion of the markers to the pavement surface according to the manufacturer's recommendations. Remove all excess adhesive from in front of the reflective faces. If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker at no additional cost to the Department.

Place inlaid markers as much in line with existing pavement striping as possible. Place markers installed along an edge line or channelizing line so that the near edge of the plastic housing is no more than one inch from the near edge of the line. Place markers installed along a lane line between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from their correct alignment, and then only after obtaining the Engineer's prior approval of the location.

60.3 BASIS OF PAYMENT

Accepted quantities for Inlaid Pavement Reflector will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per inlaid pavement reflector satisfactorily installed. All labor, materials (including asphalt surface preparation, adhesive, etc.), and equipment shall be incidental to the installation of Inlaid Pavement Reflectors.

TECHNICAL SPECIFICATIONS

SECTION 61- ALUMINUM SHEETING SIGNS AND POSTS

61.1 SCOPE

Work shall consist of constructing Aluminum Sheeting Signs in accordance with the Drawings, and shall conform to the Kentucky Department of Highways Standard Specifications, current edition, and the Manual on Uniform Traffic Control Devices (current edition).

61.2 SUBMITTALS

Submit product data including sizes, shapes, configuration, color and other details.

61.3 MATERIAL

Sign base material shall consist of aluminum that conforms to Kentucky Department of Highways Standard Specifications, current edition, Section 833.01.02.

All hardware for the erection of sheeting signs shall be cadmium plated steel in accordance with ASTM B-776 and ASTM A-307.

Steel Posts, Type I shall meet the requirements of Kentucky Department of Highways Standard Specifications, current edition, Section 832.

61.4 MEASUREMENT AND PAYMENT

Payment for SBM Aluminum Sheet Signs, 0.125 in, will be made at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per square foot satisfactorily installed. All labor, materials, equipment and mounting hardware shall be incidental to SBM Aluminum Sheet Signs, 0.125 in.

Payment for Steel Post Type 1 (2" Posts) will be made at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per lineal foot satisfactorily installed. All labor, materials, equipment, and excavation shall be incidental to Steel Post Type 1 (2" Posts).

TECHNICAL SPECIFICATIONS

SECTION 63 – LIGHTING AND COMMUNICATIONS

63.1 SCOPE

Work under this Section shall consist of furnishing and installing rigid steel and PVC conduit, and electrical junction boxes as shown on the Lighting Plans. Rigid steel and PVC conduit and electrical junction boxes shall be listed for underground applications and shall conform to the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, Section 834, Current Edition. Work shall and shall include all labor, materials, equipment and incidentals (including fittings) necessary to complete the Work. All trenching, backfilling, boring, pipe laying and fitting, and aggregate shall be considered incidental.

The Contractor shall provide all conduit with a pull string for underground feed lighting applications. The ditch shall be a minimum of 18 inches deep.

Junction box installation shall include installation of ground rods.

The Contractor shall not be responsible for furnishing and installing the light bases and poles. They will be furnished and installed by Kentucky Utilities. The Contractor shall coordinate the timing of lighting activities with the LFUCG Division of Traffic Engineering and Kentucky Utilities.

63.2 BASIS OF PAYMENT – CONDUIT

Accepted quantities for Conduit 2" (Rigid Steel) and Conduit 2" (Schedule 40 PVC) conduit will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per linear foot satisfactorily installed. All labor, materials (including bushings, end plugs, warning tape, fittings, etc.), equipment, excavation, backfilling, and boring/jacking shall be incidental to the installation of Conduit 2" (Rigid Steel) and Conduit 2" (Schedule 40 PVC).

63.3 BASIS OF PAYMENT – JUNCTION BOXES

Accepted quantities for Electrical Junction Box and Fiber Optic Splice Enclosure (junction box) will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid junction box satisfactorily installed. All labor, materials (including ground rods, stone, fittings, etc.), and equipment, excavation, backfilling, and boring shall be incidental to the installation of Electrical Junction Box and Fiber Optic Splice Enclosure (junction box).

63.2 BASIS OF PAYMENT – FIBER OPTIC CABLE

Accepted quantities for Fiber Optic Cable will be paid for at the Contract Unit Price as quoted (which shall be full compensation for all Work required under this Section) and paid per linear foot satisfactorily installed. All labor, materials equipment, excavation and backfilling, shall be incidental to the installation of Fiber Optic Cable.

TECHNICAL SPECIFICATIONS

SECTION 65 – PEDESTRIAN AND TRAFFIC SIGNAL AND APPURTENANCES

65.1 SCOPE

Work under this Section shall consist of removing existing signal equipment; removing light pole bases; constructing pedestal bases for pedestrian signal poles and signal pedestal post; furnishing and installing ped posts, heads, detectors, signs; furnishing and installing traffic signal mast arm poles, signals, and radar detection; removing and reinstalling illuminated street signs and traffic camera; furnishing and installing control cabinets, signal controllers, junction boxes, related conduit, wiring, fiber optic, grounding and all other appurtenances for a complete installation as shown on the plans and in these specifications.

For the concrete construction, refer to Specification Section 11, *Formed Class A Concrete and Unfinished Concrete*.

Traffic Signal Installation and Component shall follow the current Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, 723, 834 and 835, latest edition. Contractor is responsible for coordinating and picking up provided equipment from KYTC facility in Frankfort, KY. Contractor shall provide shop drawings for review and approval prior ordering mast arm signals and other items.

The Work will not be considered as complete, and final payment will not be made, until the LFUCG and KYTC have inspected and approved the Signal Installation. All property, both public and private, which has been damaged in the execution of the Work, shall be replaced or restored in an acceptable manner.

65.2 BASIS OF PAYMENT

Accepted quantities for Signals-Pasadena, Signals-Hill N Dale, and Signals-Lane Allen/Rosemont Garden, will be paid for at the Contract Unit Price per lump sum for each noted intersection (which shall be full compensation for all Work required under this Section) and paid per listed item satisfactorily installed, tested and put into operation. Materials not specifically listed in the bid schedule that are necessary to complete the work shall be incidental, and no additional cost shall be made for them. Work shall include all labor, materials, equipment and incidentals necessary to complete the Work.

TECHNICAL SPECIFICATIONS

SECTION 70 - MOBILIZATION AND DEMOBILIZATION

70.1 SCOPE

Work for this Section shall include all labor, excavation, materials, equipment, and incidentals necessary to mobilize and demobilize all personnel, equipment, supplies, and incidentals to the project site; to establish offices, buildings, and other facilities, that are necessary for performing the work; to accomplish all other work or operations that must be performed, including costs that must be incurred, to begin work on the project in accordance with the Kentucky Department of Highway Standard Specifications, Section 110.

70.2 MOBILIZATION

The Contractor shall not bid an amount for Mobilization that exceeds 5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives, if applicable. The LFUCG will automatically adjust any bids in excess of this amount for bid comparisons. The LFUCG will base the award on the maximum allowable bid of 5 percent. If any errors in unit bid prices for other Contract items in a Contractor's Bid Proposal are discovered after bid opening and such errors reduce the total amount bid for all other items, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives, so that the percent bid for mobilization is larger than 5 percent, the LFUCG will adjust the amount bid for mobilization to 5 percent of the sum of the corrected total bid amounts

70.3 DEMOBILIZATION

The Contractor shall not bid an amount for Demobilization that is less than 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding Mobilization, Demobilization, and contingent amounts established for adjustments and incentives, if applicable. The LFUCG will automatically adjust any bids that are less than this amount up to 1.5 percent to compare Bid Proposals and award the Contract. The LFUCG will award a Contract for the actual amount bid when the amount bid for demobilization exceeds 1.5 percent, or the LFUCG will award the Contract for the adjusted bid amount when the amount bid for demobilization is less than 1.5 percent.

70.4 PAYMENT

Mobilization is included in the Bid Proposal as a separate bid item and the LFUCG will make partial payment for Mobilization in two equal or approximately equal payments. The LFUCG will make the first payment on the first pay estimate on which the Contractor's total earned value on Contract items, other than Mobilization, exceeds \$10,000. The LFUCG will make the second payment on the first pay estimate on which the Contractor has earned 5 percent or more of the total Contract amount for Contract items, other than Mobilization. The LFUCG will make both payments simultaneously when these requirements are met at the same time.

TECHNICAL SPECIFICATIONS

SECTION 71 – SAFELoading EXISTING PIPE

71.1 SCOPE

Work for this Section consists of safeloading existing storm sewer lines which are to be abandoned once the corresponding new lines have been put into operation. Such work shall be performed where labeled “SAFELoAD” on the Drawings. Pipes labeled “TBR” may also require safeloading, as directed by LFUCG, based on observed field conditions. Work shall conform to standard practices acceptable to the Lexington-Fayette Urban County Government, Division of Engineering, and in accordance with subsection 601.02 and 601.03 of KDOH Standard Specifications, current edition.

71.2 BASIS OF PAYMENT

Safeloading Existing Pipe will be paid for at the Contract Unit Price per cubic yard of flowable fill successfully placed, as quoted and this shall be full compensation for all Work required under this Section. All labor, materials, equipment, excavation, and material disposal, etc. shall be included in this work.

TECHNICAL SPECIFICATIONS

SECTION 72 – ADDITIONAL WORK – LT STA 135+99.44

72.1 SCOPE

Work for this Section consists of removal and replacement of paving, fencing, hardscaping, landscaping and any other restoration of private property affected by the replacement and installation of storm pipe and related structures from LT Sta 135+14.18 to LT Sta 136+00.49, that is not covered under a separate bid item. Replacement materials shall be equivalent to what is removed.

Work shall include removal and replacement of the AC unit, with a comparable make and model, and cooling capacity. Work shall be performed by a heating and cooling service company by a licensed HVAC technician.

72.2 BASIS OF PAYMENT FOR ADDITIONAL WORK – LT STA 135+99.44

Accepted quantities for Additional Work - LT Sta 153+99.44, will be paid for at the Contract Unit Price as quoted per lump sum.

All labor, materials, equipment, excavation, backfilling, shall be incidental to Additional Work - LT Sta 153+99.44.



Office of Local Programs Special
Provisions for LPA Administered Projects

- All contractors and subcontractors must be prequalified by the Kentucky Transportation Cabinet <http://transportation.ky.gov/Professional-Services/Pages/Prequalification-Application-andInstructions.aspx>
- The Local Public Agency (LPA) will operate in compliance with the Federal Procurement Code, including but not limited to, 23 CFR 635.112 (<https://www.fhwa.dot.gov/legsregs/directives/cfr23toc.htm>)

- This project will follow the Kentucky Standard Specifications for Road and Bridge Construction, 2012 Edition
<http://transportation.ky.gov/construction/pages/kentucky-standard-specifications.aspx>

- Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title IV provides that “no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any program or activity receiving Federal financial assistance” (42 U.S.C. Section 2000d). The Civil Rights Act of 1964 shall be followed in the administration of this project.

- Patented or proprietary materials are discouraged but if they are specified then 23 CFR 635.11 (<http://www.fhwa.dot.gov/legregs/directives/cfr23toc.htm>) must be followed.

- All Change Orders must be pre-approved by the KYTC. Change order requests must be submitted to the District LPA Coordinator and the OLP Project manager at the same time. All change order requests must be submitted on the LPA-chord (07/02/2010) form

- Failure by a bidder to comply with all applicable sections of the current Kentucky Standards 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 an award:
 - 102.10 Delivery of Proposals ○
 - 102.08 Irregular Proposals ○ 102.14
 - Disqualification of Bidders ○ 102.09
 - Proposal Guaranty

The following laws, statutes, and regulations must be followed: Federal

- Equal Employment Opportunity Act of 1964
- Rehabilitation Act of 1973
- Age Discrimination Act of 1975
- Americans with Disabilities Act of 1987
- Civil Rights Restoration Act of 1987
- 23 USC 140 (Nondiscrimination)

- 49 CFR 21 (Civil Rights)
- 49 CFR 26 (Disadvantage Business Enterprises)
- 23 CFR 230 (External Programs)
- 23 CFR 633 (Required Contract provisions)
- 23 CFR 635 (Construction and Maintenance)
- Executive Order 11246 (Nondiscrimination)
- 23 USC 106 (Project approval and oversight)
- 23 USC 112 (Letting of contracts)
- 23 USC 113 (Prevailing rate of wage)
- 40 USC 276(a) Davis Bacon Act
- 29 CFR 1 Wage rate determinations
- 29 CFR 3 Weekly statements of payrolls
- 29 CFR 5 Wages • 29 CFR 6 Wages
- 29 CFR 7 Wages

State

KRS 45 A Model procurement code

KRS 176 Department of Highways Procurement

KRS 136 Corporation and utility taxes

KRS 139 Sales and use taxes

KRS 141 Income taxes

KRS 337 Wage and hours (must have payment bond for wages if less than 5 years in Kentucky)

KRS 338 OSHA

KRS 341 Unemployment Compensation

KRS 342 Workers compensation (must be on file with the Dept. of Workers Claims) KAR

603 Prequalification of contractors

Revised 10/01/10

NOTICE TO ALL BIDDERS

TO REPORT BID RIGGING, BIDDER COLLUSION OR OTHER FRAUDULENT ACTIVITIES

BID RIGGING, BIDDER COLLUSION OR OTHER FRAUDULENT ACTIVITIES

The U.S. Department of Transportation (USDOT) maintains a Hotline Complaint Center and operates a tollfree "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, DBE fraud or other fraudulent activities should use the following hotline number or address to report such activities:

Hotline Number:

(202) 755-1855 or 800-424-9071

Hotline Address:

Office of Inspector General
P. O. Box 23178 L'Enfant Plaza Station
Washington, D.C. 20024-0178

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

Revised 10/01/10

**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 (between forty and seventy); 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 (between forty and seventy). 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, disability or age (between forty and seventy), except that such notice or advertisement may indicate a preference, limitation, or specification based on religion, or national origin when religion, or national origin 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 (between forty and seventy), 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: 12-3-92

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE 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
EACH TRADE**

10.8%

6.9%

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

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from the solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed. The notification shall be mailed to:

**Evelyn Teague, Regional Director
Office of Federal Contract Compliance Programs
61 Forsyth Street, SW, Suite 7B75 Atlanta,
Georgia 30303-8609**

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

DISTRICT/LOCALITY/MINORITY PERCENTAGE REQUIRED BY COUNTY

DISTRICT	LOCALITY	%	DISTRICT	LOCALITY	%	DISTRICT	LOCALITY	%
8	ADAIR	(2) 7.0%	6	GRANT	(3) 9.2%	9	MASON	(3) 9.2%
3	ALLEN	(1) 12.0%	4	GRAYSON	(3) 9.6%	4	MEADE	(3) 9.6%
7	ANDERSON	(3) 7.0%	1	GRAVES	(1) 5.2%	10	MENIFEE	(2) 7.0%
1	BALLARD	(1) 5.2%	4	GREEN	(2) 7.0%	7	MERCER	(3) 7.0%
9	BATH	(3) 7.0%	9	GREENUP	(3) 2.9%	3	METCALFE	(2) 12.0%
3	BARREN	(2) 12.0%	2	HANCOCK	(1) 3.5%	3	MONROE	(2) 12.0%
11	BELL	(2) 4.5%	4	HARDIN	(3) 9.6%	7	MONTCOMERY	(3) 7.0%
6	BOONE	(4) 11.0%	11	HARLAN	(2) 4.5%	2	MUELENBERG	(1) 3.5%
7	BOURBON	(3) 10.8%	6	HARRISON	(3) 7.0%	10	MORGAN	(2) 7.0%
9	BOYD	(3) 2.9%	4	HART	(2) 9.6%	4	NELSON	(3) 9.6%
7	BOYLE	(3) 7.0%	2	HENDERSON	(1) 4.8%	9	NICHOLAS	(3) 7.0%
6	BRACKEN	(3) 9.2%	5	HENRY	(3) 9.6%	2	OHIO	(1) 3.5%
10	BREATHITT	(2) 7.0%	1	HICKMAN	(1) 5.2%	5	OLDHAM	(3) 11.2%
4	BRECKINRIDGE	(3) 9.6%	2	HOPKINS	(1) 3.5%	6	OWEN	(3) 9.2%
5	BULLITT	(3) 11.2%	11	JACKSON	(2) 7.0%	10	OWSLEY	(2) 7.0%
3	BUTLER	(1) 12.0%	5	JEFFERSON	(3) 11.2%	6	PENDLTON	(4) 9.2%
2	CALDWELL	(1) 5.2%	7	JESSAMINE	(3) 10.8%	10	PERRY	(2) 7.0%
1	CALLOWAY	(1) 5.2%	12	JOHNSON	(2) 2.5%	12	PIKE	(2) 2.5%
6	CAMPBELL	(4) 11.0%	6	KENTON	(4) 11.0%	10	POWELL	(2) 7.0%
1	CARLISLE	(1) 5.2%	12	KNOX	(2) 7.0%	8	PULASKI	(2) 7.0%
6	CARROLL	(3) 9.2%	11	KNOX	(2) 4.5%	6	ROBERTSON	(3) 9.2%
9	CARTER	(3) 2.5%	4	LARUE	(3) 9.6%	8	ROCKCASTLE	(2) 7.0%
8	CASEY	(2) 7.0%	11	LAUREL	(2) 4.5%	9	ROWAN	(3) 2.5%
2	CHRISTIAN	(1) 18.2%	12	LAWRENCE	(2) 2.5%	8	RUSSELL	(2) 7.0%
7	CLARK	(3) 10.8%	10	LEE	(2) 7.0%	7	SCOTT	(3) 10.8%
11	CLAY	(2) 7.0%	11	LESLIE	(2) 7.0%	5	SHELBY	(3) 9.6%
8	CLINTON	(2) 12.0%	12	LETCHER	(2) 7.0%	3	SIMPSON	(1) 12.0%
1	CRITTENDEN	(1) 5.2%	9	LEWIS	(3) 9.2%	5	SPENCER	(3) 9.6%
8	CUMBERLAND	(2) 12.0%	8	LINCOLN	(2) 7.0%	4	TAYLOR	(2) 7.0%
2	DAVLESS	(1) 4.7%	1	LIVINGSTON	(1) 5.2%	3	TODD	(1) 12.0%
3	EDMONSON	(1) 12.0%	3	LOGAN	(1) 12.0%	1	TRIGG	(1) 12.0%
9	ELLIOTT	(3) 2.5%	1	LYON	(1) 5.2%	5	TRIMBLE	(3) 9.6%
10	ESTILL	(2) 7.0%	1	McCRACKEN	(1) 5.2%	2	UNION	(1) 3.5%
7	FAYETTE	(3) 10.8%	8	McCREARY	(2) 4.5%	3	WARREN	(1) 12.0%
9	FLEMING	(3) 9.2%	2	McLEAN	(1) 3.5%	4	WASHINGTON	(3) 9.6%
12	FLOYD	(2) 2.5%	7	MADISON	(3) 7.0%	8	WAYNE	(2) 4.5%
5	FRANKLIN	(3) 7.0%	10	MAGOFFIN	(2) 7.0%	2	WEBSTER	(1) 3.5%
1	FULTON	(1) 5.2%	4	MARION	(3) 9.6%	11	WHITLEY	(2) 4.5%
6	GALLATIN	(3) 9.2%	1	MARSHALL	(1) 5.2%	10	WOLFE	(2) 7.0%
7	GARRARD	(2) 7.0%	12	MARTIN	(2) 2.5%	7	WOODFORD	(3) 10.8%

LOCALITY I (Federal)	LOCALITY II (Federal)	LOCALITY III (Federal)	LOCALITY IV (Federal)
Kentucky Determination No. CR 85-I-HWY dated 8/15/85 and Federal Decision No. KY 85-1007 dated 10/4/85.	Kentucky Determination No. CR 85-II-HWY dated 8/15/85 and Federal Decision No. KY 85-1008 dated 10/4/85.	Kentucky Determination No. CR 85-III-HWY dated 8/15/85 and Federal Decision No. KY 85-1009 dated 10/4/85.	Kentucky Determination No. CR 85-IV-HWY dated 8/15/85 and Federal Decision No. KY 85-101 dated 10/4/85.
(State)	(State)	(State)	(State)
Kentucky Determination No. CR 85-I-HWY dated 8/15/85.	Kentucky Determination No. CR 85-II-HWY dated 8/15/85.	Kentucky Determination No. CR 85-III-HWY dated 8/15/85.	Kentucky Determination No. CR 85-IV-HWY dated 8/15/85.

US Department of Labor Final Rule on Federal Executive Order 11246

Discrimination:

Discrimination (because of race, religion, color, national origin, sex, sexual orientation, gender identity, age, or disability) is prohibited. This section applies only to contracts utilizing federal funds, in whole or in part. During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, national origin, sex, sexual orientation, gender identity, or age. The contractor further agrees to comply with the provisions of the Americans with Disabilities Act (ADA), Public Law 101-336, and applicable federal regulations relating thereto prohibiting discrimination against otherwise qualified disabled individuals under any program or activity. The contractor agrees to provide, upon request, needed reasonable accommodations. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, national origin, sex, sexual orientation, gender identity, age or disability. Such action shall include, but not be limited to the following; employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor; state that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age or disability.
3. 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 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 noncompliance.
4. The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965 as amended, and of the rules, regulations and relevant orders of the Secretary of Labor.
5. The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended, and by the rules, regulations and orders of the Secretary of

Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further government contracts or federally-assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in or as otherwise provided by law.
7. The contractor will include the provisions of paragraphs (1) through (7) of section 202 of Executive Order 11246 in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor, issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, as amended, so that such provisions will be binding upon each subcontractor or vendor. 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 noncompliance; provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.



Commonwealth of Kentucky
FINANCE AND ADMINISTRATION CABINET
Office of the Controller
Office of Procurement Services
Room 096 Capitol Annex
Frankfort, Kentucky 40601
(502) 564-4510
(502) 564-1434 Facsimile

STEVEN L. BESHEAR
Governor

Lori H. Flanery
Secretary

Ed Ross
Executive Director

Don Speer
Executive Director

TO: All Agency Purchasing Contacts

FROM: Donald R. Speer, Executive Director *DRS by JF*
Office of Procurement Services

DATE: April 7, 2015

SUBJECT: US Department of Labor Final Rule on Federal Executive Order 11246

On April 8, 2015, a new federal rule takes effect amending federal Executive Order 11246. This Executive Order, originally signed in 1965, concerns the prohibition of discrimination by contractors and subcontractors where the contract utilizes federal funds. In July, 2014, a new Executive Order was issued to amend EO 11246 by adding sexual orientation and gender identity to the existing categories protected from discrimination in hiring and employment.

For all solicitations issued by a state agency and for all contracts executed or amended on or after April 8, 2015, that utilize federal funds, the following standard boilerplate provisions with new language shall be included:

Discrimination:

Discrimination (because of race, religion, color, national origin, sex, sexual orientation, gender identity, age, or disability) is prohibited. This section applies only to contracts utilizing federal funds, in whole or in part. During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, national origin, sex, sexual orientation, gender identity, or age. The contractor further agrees to comply with the provisions of the Americans with Disabilities Act (ADA), Public Law 101-336, and applicable federal regulations relating thereto prohibiting discrimination against otherwise qualified disabled individuals under any program or activity. The contractor agrees to provide, upon request, needed reasonable accommodations. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, national origin, sex, sexual

orientation, gender identity, age or disability. Such action shall include, but not be limited to the following; employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age or disability.

3. 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 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 noncompliance.

4. The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965 as amended, and of the rules, regulations and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further government contracts or federally-assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in or as otherwise provided by law.

7. The contractor will include the provisions of paragraphs (1) through (7) of section 202 of Executive Order 11246 in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor, issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, as amended, so that such

April 7, 2015
Page 3 of 3

provisions will be binding upon each subcontractor or vendor. 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 noncompliance; provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Please contact the Office of Procurement Services at 564-4510, if you have any questions.

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 Nondiscrimination 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 nondiscrimination 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.*).

635.410 Buy America requirements.

(a) The provisions of this section shall prevail and be given precedence over any requirements of this subpart which are contrary to this section. However, nothing in this section shall be construed to be contrary to the requirements of §635.409(a) of this subpart.

(b) No Federal-aid highway construction project is to be authorized for advertisement or otherwise authorized to proceed unless at least one of the following requirements is met:

(1) The project either: (i) Includes no permanently incorporated steel or iron materials, or

(ii) if steel or iron materials are to be used, all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

(2) The State has standard contract provisions that require the use of domestic materials and products, including steel and iron materials, to the same or greater extent as the provisions set forth in this section.

(3) The State elects to include alternate bid provisions for foreign and domestic steel and iron materials which comply with the following requirements. Any procedure for obtaining alternate bids based on furnishing foreign steel and iron materials which is acceptable to the Division Administrator may be used. The contract provisions must (i) require all bidders to submit a bid based on furnishing domestic steel and iron materials, and (ii) clearly state that the contract will be awarded to the bidder who submits the lowest total bid based on furnishing domestic steel and iron materials unless such total bid exceeds the lowest total bid based on furnishing foreign steel and iron materials by more than 25 percent.

(4) When steel and iron materials are used in a project, the requirements of this section do not prevent a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the project. (c) (1) A State may request a waiver of the provisions of this section if;

(i) The application of those provisions would be inconsistent with the public interest; or

(ii) Steel and iron materials/products are not produced in the United States in sufficient and reasonably available quantities which are of a satisfactory quality.

(2) A request for waiver, accompanied by supporting information, must be submitted in writing to the Regional Federal Highway Administrator (RFHWA) through the FHWA Division Administrator. A request must be submitted sufficiently in advance of the need for the waiver in order to allow time for proper review and action on the request. The RFHWA will have approval authority on the request.

(3) Requests for waivers may be made for specific projects, or for certain materials or products in specific geographic areas, or for combinations of both, depending on the circumstances.

(4) The denial of the request by the RFHWA may be appealed by the State to the Federal Highway Administrator (Administrator), whose action on the request shall be considered administratively final.

(5) A request for a waiver which involves nationwide public interest or availability issues or more than one FHWA region may be submitted by the RFHWA to the Administrator for action.

(6) A request for waiver and an appeal from a denial of a request must include facts and justification to support the granting of the waiver. The FHWA response to a request or appeal will be in writing and made available to the public upon request. Any request for a nationwide waiver and FHWA's action on such a request may be published in the

Federal Register for public comment.

(7) In determining whether the waivers described in paragraph (c)(1) of this section will be granted, the FHWA will consider all appropriate factors including, but not limited to, cost, administrative burden, and delay that would be imposed if the provision were not waived.

(d) Standard State and Federal-aid contract procedures may be used to assure compliance with the requirements of this section.

[48 FR 53104, Nov. 25, 1983, as amended at 49 FR 18821, May 3, 1984; 58 FR 3

§ 635.109 Standardized changed condition clauses.

(a) Except as provided in paragraph (b) of this section, the following changed conditions contract clauses shall be made part of, and incorporated in, each highway construction project approved under 23 U.S.C. 106:

(1) *Differing site conditions.* (i) During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.

(ii) Upon written notification, the engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

(iv) No contract adjustment will be allowed under this clause for any effects caused on unchanged work. (This provision may be omitted by the STD's at their option.)

(2) *Suspensions of work ordered by the engineer.* (i) If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

(ii) Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the engineer's determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.

(iv) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

(3) *Significant changes in the character of work.* (i) The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

(ii) If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.

(iii) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.

(iv) The term "significant change" shall be construed to apply only to the following circumstances:

(A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

(B) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed. (b) The provisions of this section shall be governed by the following:

(1) Where State statute does not permit one or more of the contract clauses included in paragraph (a) of this section, the State statute shall prevail and such clause or clauses need not be made applicable to Federal-aid highway contracts.

(2) Where the State transportation department has developed and implemented one or more of the contract clauses included in paragraph (a) of this section, such clause or clauses, as developed by the State transportation department may be included in Federal-aid highway contracts in lieu of the corresponding clause or clauses in paragraph (a) of this section. The State's action must be pursuant to a specific State statute requiring differing contract conditions clauses. Such State developed clause or clauses, however, must be in conformance with 23 U.S.C., 23 CFR and other applicable Federal statutes and regulations as appropriate and shall be subject to the Division Administrator's approval as part of the PS&E. (c) In the case of a design-build project, STDs are strongly encouraged to use "suspensions of work ordered by the engineer" clauses, and may consider "differing site condition" clauses and "significant changes in the character of work" clauses which are appropriate for the risk and responsibilities that are shared with the design-builder.

Office of Local Programs

07/2010

LPA CHANGE ORDER

Page

If approved by Transportation Cabinet, the undersigned contractor agrees to do the work outlined herein and to accept as payment in full the basis of payment as set forth herein.

Contract ID Project Sponsor
Change
Order No
County
Contractor

Project Number

Contractor

Project Name

Project Engineer DATE

District LPA Coordinator DATE

Commissioner of Rural & Municipal Aid DATE

LPA Signature Authority DATE

Address

Proposed Changes in Connection with Contract Items:

Item No.	Description	Quantity	Unit	Unit Price	Amount
<i>Total for this Page</i>					
<i>Total for Continuation Page(s)</i>					
<i>Total Contract Items</i>					

Proposed Items of Supplemental Agreement:

Ref. No.	Description	Quantity	Unit	Unit Price	Amount
<i>Total for this Page</i>					
<i>Total for Continuation Page(s)</i>					
<i>Total Supplemental Agreement</i>					
Total Amount					

Time Extension/Explanation:

Total for this Page
Total for Continuation Page(s)
Total Supplemental Agreement

Reasons for Proposed Changes and Cost Analysis:

Requested

Recommended

Recommended

Approved

Contractor

By: _____

Title

DATE

Date

Approved

Secretary



of Transportation Cabinet

DATE

Kentucky Transportation Cabinet

TC 20-33

Office of Local Programs

07/2010

LPA CHANGE ORDER

Page

Contract ID

Project Sponsor



Kentucky Transportation Cabinet

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Page

Contract ID
Change Order No
Contractor
Contractor
Address

Project Sponsor
County
Project Number
Project Name

Reasons for Proposed Changes and Cost Analysis:

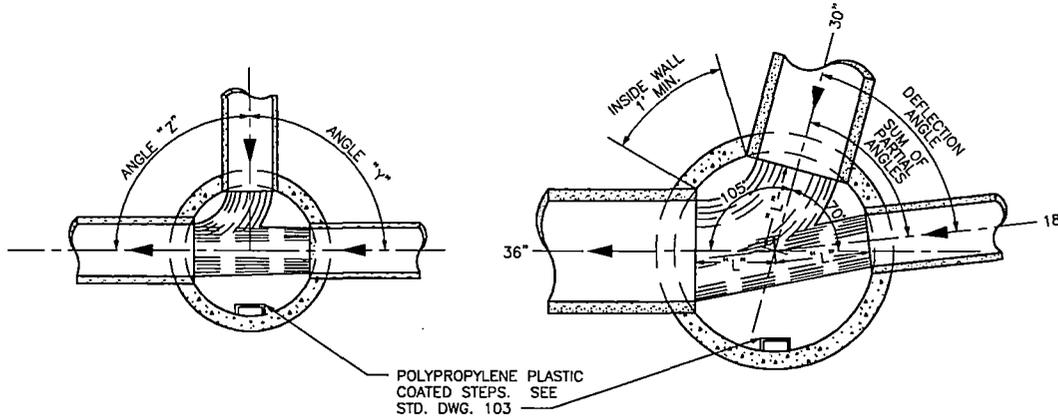
APPENDIX B
STANDARD DRAWINGS

TABLE I
OF
MINIMUM PARTIAL ANGLE

PIPE SIZE	MANHOLE SIZE									
	4'-0"		5'-0"		6'-0"		7'-0"		8'-0"	
	P. ANGLE	L. DIST.	P. ANGLE	L. DIST.	P. ANGLE	L. DIST.	P. ANGLE	L. DIST.	P. ANGLE	L. DIST.
15"	38°	1'-10"	30°	2'-4"	25°	2'-11"	22°	3'-5"	19°	3'-11"
18"	43°	1'-9"	34°	2'-4"	28°	2'-10"	24°	3'-4"	21°	3'-11"
24"	53°	1'-7"	41°	2'-2"	34°	2'-9"	29°	3'-3"	25°	3'-10"
27"	—	—	45°	2'-1"	37°	2'-8"	32°	3'-3"	28°	3'-9"
30"	—	—	49°	2'-0"	40°	2'-7"	34°	3'-2"	30°	3'-8"
33"	—	—	54°	1'-10"	44°	2'-6"	37°	3'-1"	37°	3'-8"
36"	—	—	—	—	47°	2'-4"	40°	3'-0"	34°	3'-7"
42"	—	—	—	—	55°	2'-1"	46°	2'-9"	39°	3'-5"
48"	—	—	—	—	63°	1'-9"	52°	2'-6"	44°	3'-2"
54"	—	—	—	—	—	—	59°	2'-3"	50°	2'-11"
60"	—	—	—	—	—	—	67°	1'-10"	56°	2'-8"

GENERAL NOTES:

1. ALL DIMENSIONS ARE BASED ON SIZE OF LARGEST PIPE IN MANHOLE.
2. MANHOLES FOR PIPE LARGER THAN 60" SHALL BE SPECIALLY DESIGNED.
3. IN CASES WHERE DEFLECTION ANGLES EXCEED MAXIMUM SHOWN IN TABLES, MANHOLE SHALL BE INCREASED IN SIZE OR SPECIALLY DESIGNED.
4. BOTTOM SLAB OF MANHOLES SHALL BE SPECIALLY DESIGNED WITH REGARD TO AREA, THICKNESS, AND REINFORCING IN SITUATIONS WHERE HIGH WATER TABLE OR UNSTABLE SOIL CONDITIONS EXIST.
5. MANHOLE BENCH SHALL SLOPE AT LEAST 1" PER FT. FROM WALLS TO CHANNELS AND SHALL HAVE SMOOTH FLOAT AND BRUSH FINISH.
6. ELEVATIONS OF PIPES IN MANHOLES SHALL BE SUCH THAT THE TOP OF ALL INFLUENT PIPES WILL BE AT AN ELEVATION EQUAL TO OR GREATER THAN THE TOP OF THE EFFLUENT PIPE.
7. INFLUENT PIPES MAY ENTER MANHOLES AT AN ELEVATION ABOVE THE CHANNELS AS REQUIRED TO AVOID CONFLICT WITH LARGER PIPES IN THE MANHOLE.



TYPE "A" MANHOLE - CIRCULAR WALLS
CAST-IN-PLACE OR PRECAST CONCRETE

NOTES:

1. PRECAST CONCRETE MANHOLE BARREL SHALL BE ASTM C-478, CLASS II PIPE TO 12" DEPTH AND C-76 CLASS III GREATER THAN 12" DEPTH.
2. BASE SECTION OF CIRCULAR MANHOLES MAY BE CAST-IN-PLACE CONCRETE, OR CUSTOM PRECAST CONCRETE WITH OPENINGS FOR PIPE.
3. BASE SECTIONS MAY BE SIMILAR TO SANITARY SEWER MANHOLE.
4. PROVIDE STEPS WITHIN 18" OF BENCH.

CIRCULAR MANHOLE NOTES:

1. THE ANGLE BETWEEN ANY TWO PIPES (e.g. ANGLE "Y" OR "Z") MUST BE GREATER THAN THE SUM OF THE PARTIAL ANGLES FROM TABLE I FOR THE MANHOLE SIZE SELECTED. FOR SMALLER ANGLES BETWEEN PIPES, LARGE MANHOLES MUST BE SELECTED. (SEE EXAMPLE BELOW)
2. THE MAXIMUM DEFLECTION ANGLE BETWEEN ANY INCOMING PIPE AND THE DISCHARGE PIPE SHALL BE NO MORE THAN 90° FOR PIPES UP TO 24" IN DIAMETER. THE MAXIMUM DEFLECTION ANGLE FOR 27" TO 42" PIPES SHALL BE 75° AND FOR PIPES LARGER THAN 42" THE MAXIMUM DEFLECTION ANGLE SHALL BE 60°.

EXAMPLE FOR MANHOLE SIZE SELECTION:

FOR MANHOLE SHOWN ABOVE, THE ANGLE BETWEEN 18" AND 30" PIPE IS 70° AND THE ANGLE BETWEEN 30" AND 36" PIPE IS 110°. THE TABLE INDICATES THAT FOR A 6'-0" DIAMETER MANHOLE THE MINIMUM PARTIAL ANGLE FOR AN 18" PIPE IS 28° AND FOR A 30" PIPE IS 40°. THE SUM OF THE PARTIAL ANGLES IS 68° THIS SUM IS LESS THAN THE 70°. THEREFORE, A 6'-0" MANHOLE DIAMETER IS ACCEPTABLE.



LEXINGTON

DIVISION OF ENGINEERING

STORM SEWER
MANHOLE TYPE "A"-
CIRCULAR WALLS

STANDARD DRAWING NO. 100

APPROVAL:  9/22/17

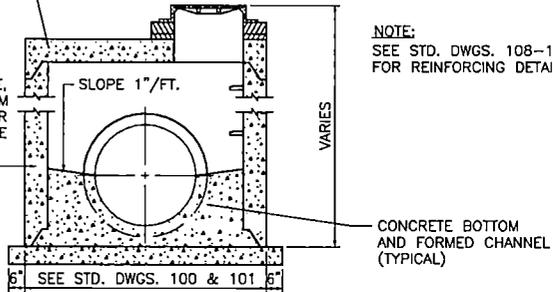
URBAN COUNTY ENGINEER DATE

COMMISSIONER  9/22/17

DATE

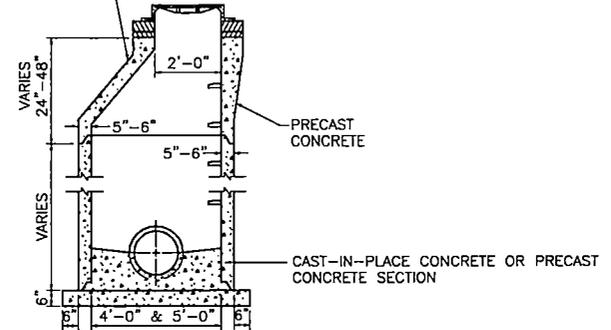
CONCRETE SLAB (FOR DETAILS, SEE STD. DWGS. 104, 108, 110, & 113)

FOR CIRCULAR MANHOLE, WALLS SHALL MEET ASTM C-478 OR C-76. (FOR NON-CIRCULAR MANHOLE SEE STD. DWGS. 108, 110 & 113)



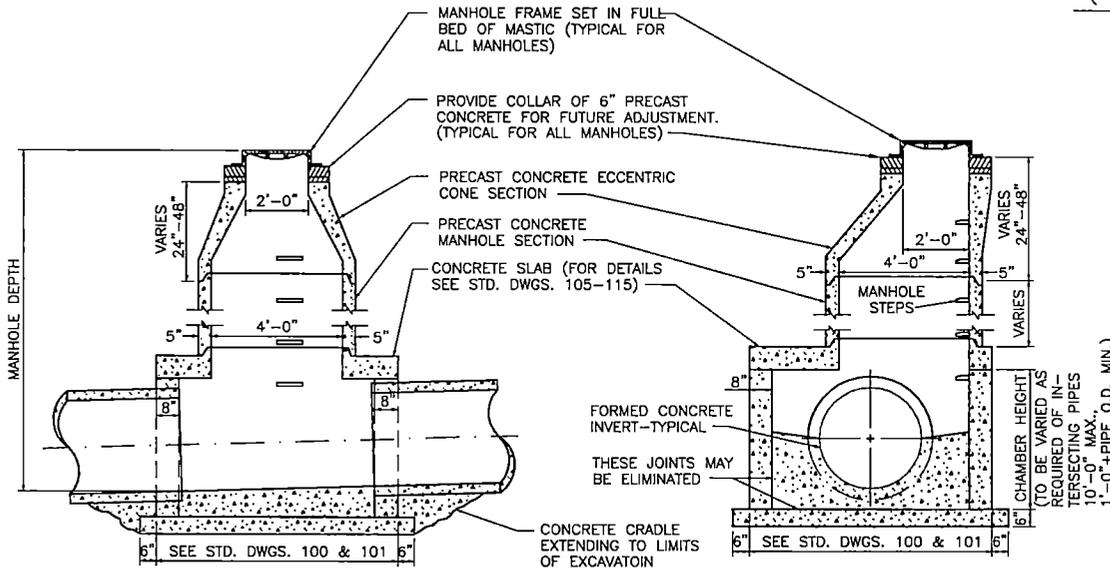
NOTE:
SEE STD. DWGS. 108-115 FOR REINFORCING DETAILS

NOTE:
VERTICAL WALLS AND FLAT SLAB MAY BE SUBSTITUTED FOR CONE SECTION OF MANHOLE.



CIRCULAR AND NON-CIRCULAR WALLS
(TYPE "A" & TYPE "B")

STANDARD 4'-0" DIA. & 5'-0"
CIRCULAR WALLS
(TYPE "A")



NOTES:

1. BASE SECTION OF CIRCULAR MANHOLES MAY BE CAST-IN-PLACE CONCRETE OR CUSTOM PRECAST CONCRETE WITH OPENINGS FOR PIPE.
2. 6" OVERHANG IN BOTTOM SLAB IS NOT REQUIRED IF PRECAST MANHOLES ARE USED.
3. FLAT SLABS IN PAVED AREAS SHALL BE USED ONLY AS APPROVED BY ENGINEER.

TYPICAL LONGITUDINAL SECTION

TYPICAL TRANSVERSE SECTION

STANDARD CIRCULAR MANHOLE - 6'-0" DIAMETER & LARGER TYPE "A"
AND NON-CIRCULAR WALL MANHOLE - ALL SIZES TYPE "B"

NO.	DATE	REVISION DESCRIPTION	BY
01	04/13/18	UPDATE MANHOLE FRAME NOTE	TAL

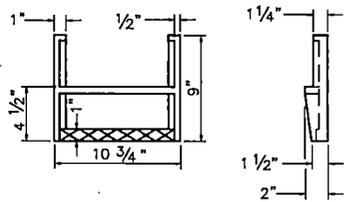


LEXINGTON

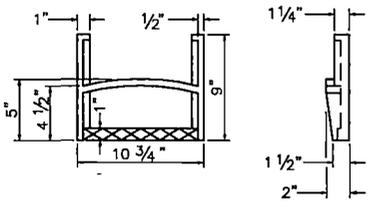
DIVISION OF ENGINEERING

STORM SEWER
MANHOLE DETAILS

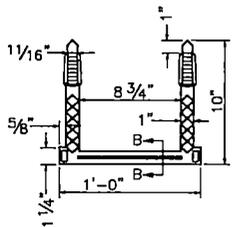
STANDARD DRAWING NO.	102
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE



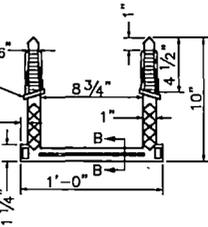
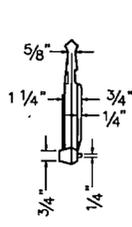
STEP TYPE NO. 1



STEP TYPE NO. 2

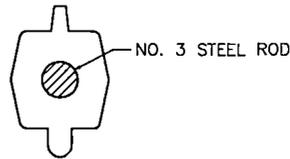


STEP TYPE NO. 3

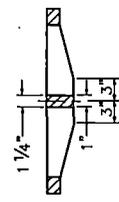


STEP TYPE NO. 4

MANHOLE STEPS



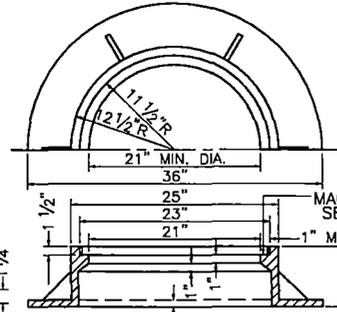
SECTION B-B



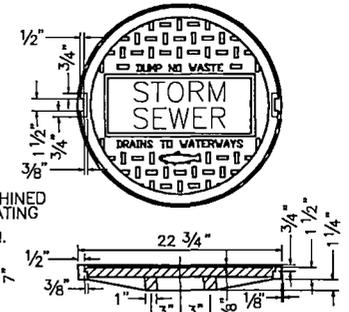
SECTION



GRATING COVER



FRAME



SOLID COVER

MANHOLE FRAME AND COVERS

NOTES:

1. MINIMUM WEIGHT FOR THE 7" FRAME SHALL BE 185 LBS.
2. MINIMUM WEIGHT FOR THE SOLID COVER SHALL BE 120 LBS.
3. CASTINGS TO MEET ASTM A-48 CLASS 35.

NOTES:

1. STEPS SHALL BE POLYPROPYLENE PLASTIC COATED STEEL ROD OR OF A TYPE AND SIZE APPROVED BY THE ENGINEER.
2. STEPS SHALL BE SPACED 12" TO 16" O.C. VERTICALLY SO AS TO FORM A CONTINUOUS LADDER.
3. STEPS SHALL BE REQUIRED IN MANHOLES WHEN THE STRUCTURE IS 4 FEET AND GREATER IN DEPTH. (MEASURE FROM FLOWLINE OF LOWEST PIPE TO TOP OF STRUCTURE.)
4. THE TREADS OF ALL STEPS SHALL HAVE ANTI-SKID PROPERTIES FOR HAND AND FOOT GRIPS.
5. MANHOLE STEPS SHALL BE INSTALLED IN A VERTICAL LINE AND SHALL COMPLY WITH OSHA STANDARDS IN ALL RESPECTS.
6. FOR CAST-IN-PLACE OR PRECAST CIRCULAR AND NON-CIRCULAR MANHOLES.
7. FIRST STEP SHALL BE 12" - 18" FROM TOP OF PRECAST CONE SECTION, AND SHALL BE VERTICALLY LOCATED TO MAXIMIZE THE DISTANCE OF ANY STEP FROM THE JOINT OF A MANHOLE SECTION.

NO.	DATE	REVISION DESCRIPTION	BY
01	04/13/18	UPDATE NOTE 2	TAL

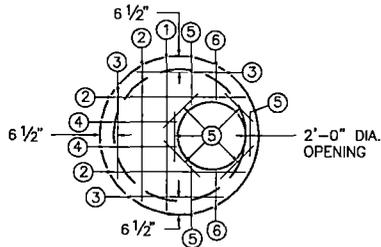


LEXINGTON

DIVISION OF ENGINEERING

MANHOLE FRAMES,
COVERS, & STEPS

STANDARD DRAWING NO.	103
APPROVAL:	DATE: 9/22/17
URBAN COUNTY ENGINEER	DATE: 9/22/17
COMMISSIONER	DATE:

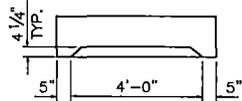


4'-0" DIA.
SHALLOW MANHOLES

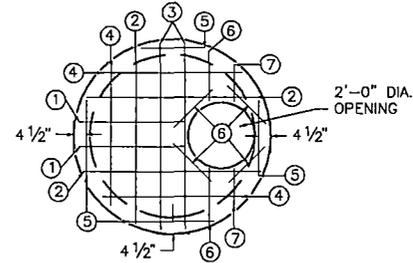
MARK	NO.	SIZE	LENGTH	TYPE
1	1	4	4'-5"	STR.
2	3	"	4'-0"	"
3	3	"	2'-8"	"
4	2	"	2'-0"	"
5	8	"	1'-6"	"
6	2	"	1'-0"	"

NOTES:

- FOR PIPE SIZES 15" TO 24".
- 9" O.C. SPACING EACH WAY.
- 8" THICK SLAB.
- 4'-10" O.D.
- 2" MIN. STEEL REINFORCEMENT COVER ALL FACES.
- CIRCULAR REBAR MAY BE USED, OR MARK 5 BARS AS SHOWN.



SIDE VIEW

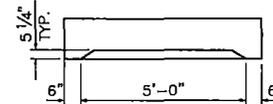


5'-0" DIA.
SHALLOW MANHOLES

MARK	NO.	SIZE	LENGTH	TYPE
1	2	4	3'-2"	STR.
2	3	"	5'-3"	"
3	2	"	5'-8"	"
4	3	"	4'-2"	"
5	4	"	2'-2"	"
6	6	"	1'-6"	"
7	2	"	1'-0"	"

NOTES:

- FOR PIPE SIZES 21" TO 33".
- 9" O.C. SPACING EACH WAY.
- 8" THICK SLAB.
- 6'-0" O.D.
- 2" MIN. STEEL REINFORCEMENT COVER ALL FACES.
- CIRCULAR REBAR MAY BE USED, OR MARK 6 BARS AS SHOWN.

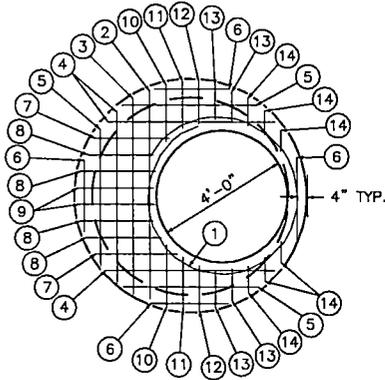


SIDE VIEW

NOTE:

SLAB OUTER DIAMETER TO VARY WITH MANHOLE WALL THICKNESS, TO COMPLETELY COVER MANHOLE WALLS.

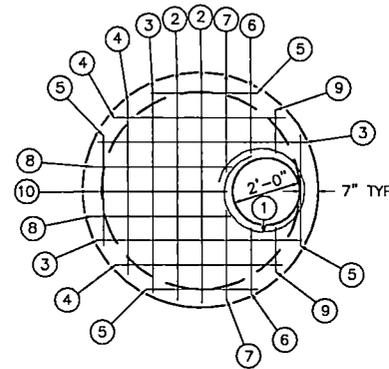
 LEXINGTON	
DIVISION OF ENGINEERING	
STORM SEWER MANHOLE CIRCULAR SLABS 4'-0" & 5'-0" DIAMETER	
STANDARD DRAWING NO.	104
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	9/22/17
	DATE



MARK	NO.	SIZE	LENGTH	TYPE
1	1	6	15'-10"	A
2	1	6	6'-6"	STR.
3	1	"	5'-11"	"
4	3	"	5'-3"	"
5	3	"	4'-3"	"
6	4	"	2'-6"	"
7	2	"	2'-7"	"
8	4	"	2'-3"	"
9	2	"	2'-2"	"
10	2	"	1'-10"	"
11	2	"	1'-6"	"
12	2	"	1'-3"	"
13	4	"	1'-0"	"
14	6	"	0'-10"	"

6'-0" DIA.

STANDARD MANHOLES



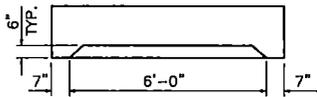
MARK	NO.	SIZE	LENGTH	TYPE
1	1	6	9'-6"	A ₁
2	2	5	6'-9"	STR.
3	3	"	6'-3"	"
4	3	"	5'-3"	"
5	4	"	3'-3"	"
6	2	"	1'-10"	"
7	2	"	2'-9"	"
8	2	"	4'-4"	"
9	2	"	1'-5"	"
10	1	"	4'-3"	"

6'-0" DIA.

SHALLOW MANHOLES

NOTES:

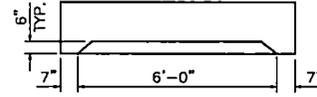
- FOR PIPE SIZES 15" TO 48".
- 6" O.C. SPACING EACH WAY.
- 12" THICK SLAB.
- 7'-2" O.D.
- 2" MIN. STEEL REINFORCEMENT COVER ALL FACES.



SIDE VIEW

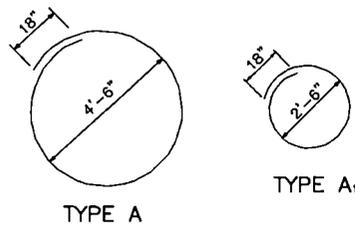
NOTES:

- FOR PIPE SIZES 15" TO 36".
- 9" O.C. SPACING EACH WAY.
- 8" THICK SLAB.
- 7'-2" O.D.
- 2" MIN. STEEL REINFORCEMENT COVER ALL FACES.



SIDE VIEW

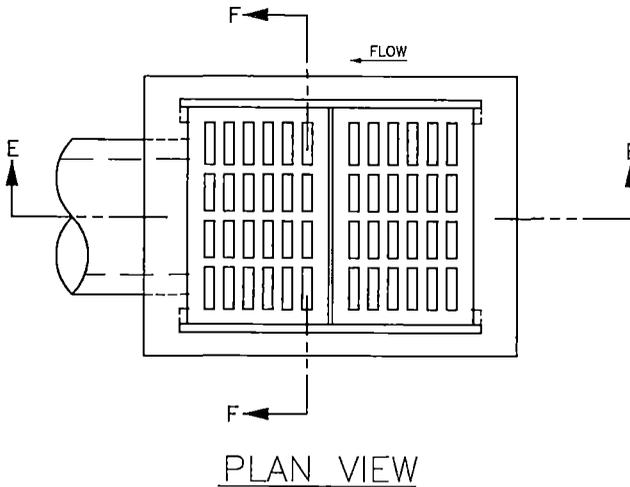
SPECIAL BAR BENDS



NOTE:

SLAB OUTER DIAMETER TO VARY WITH MANHOLE WALL THICKNESS, TO COMPLETELY COVER MANHOLE WALLS.

 LEXINGTON	
DIVISION OF ENGINEERING	
STORM SEWER MANHOLE CIRCULAR SLABS 6'-0" DIAMETER	
STANDARD DRAWING NO.	105
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	9/22/17
	DATE

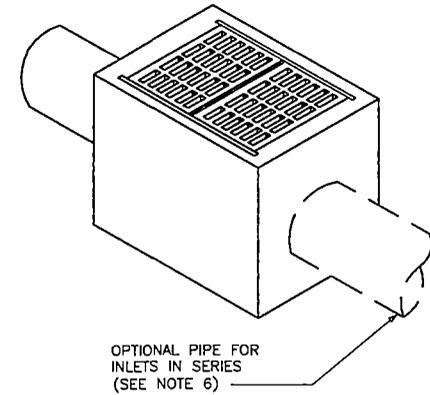


PLAN VIEW

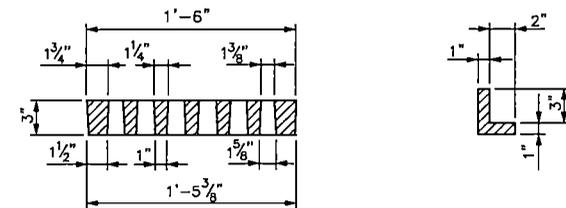
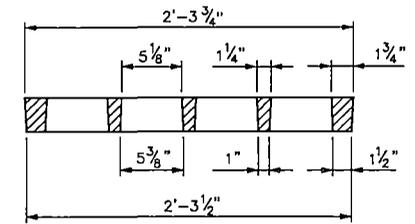
NOTES:

1. NO. 5 STEEL SHALL BE USED THROUGHOUT ON 12" CENTERS.
2. ALL STEEL SHALL HAVE A 2" MINIMUM CLEARANCE TO ANY CONCRETE FACE.
3. NO STEEL IS REQUIRED IN THE BOTTOM SLAB.
4. ALL VERTICAL STEEL SHALL EXTEND 4" INTO BOTTOM SLAB.
5. FOR USE IN PAVED AREAS ONLY.
6. PROVIDE MINIMUM 0.1' SLOPE THROUGH STRUCTURE FOR PIPES IN SERIES. CARRY TROUGH THROUGH. ONLY STRAIGHT THROUGH CONNECTIONS ARE ALLOWED.

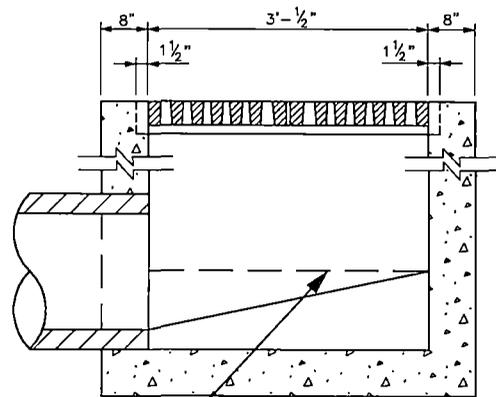
ISOMETRIC VIEW



OPTIONAL PIPE FOR INLETS IN SERIES (SEE NOTE 6)

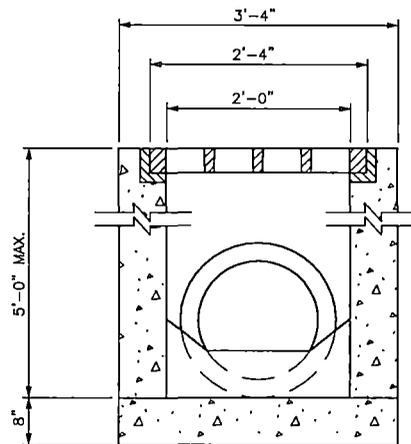


GRATE DETAILS



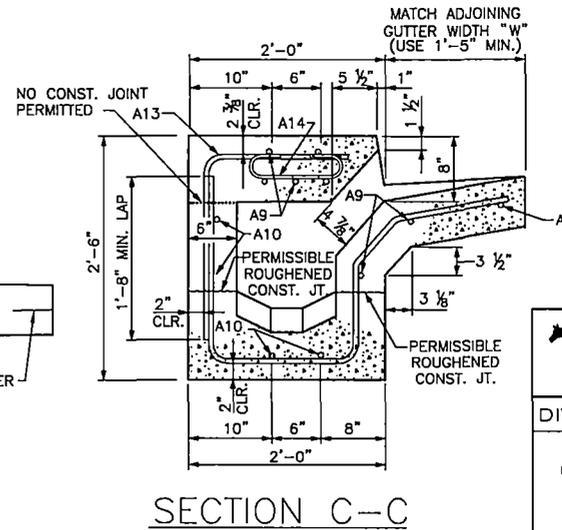
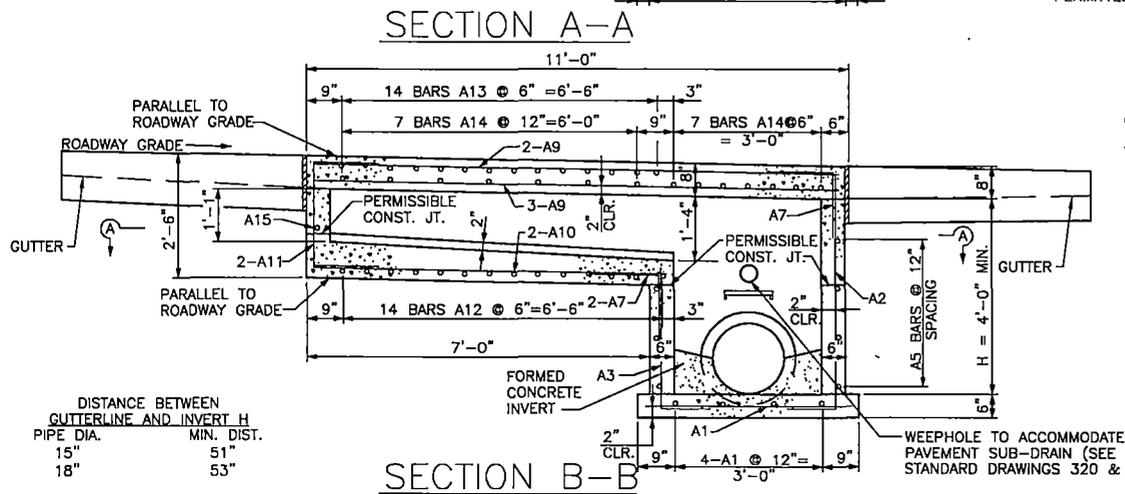
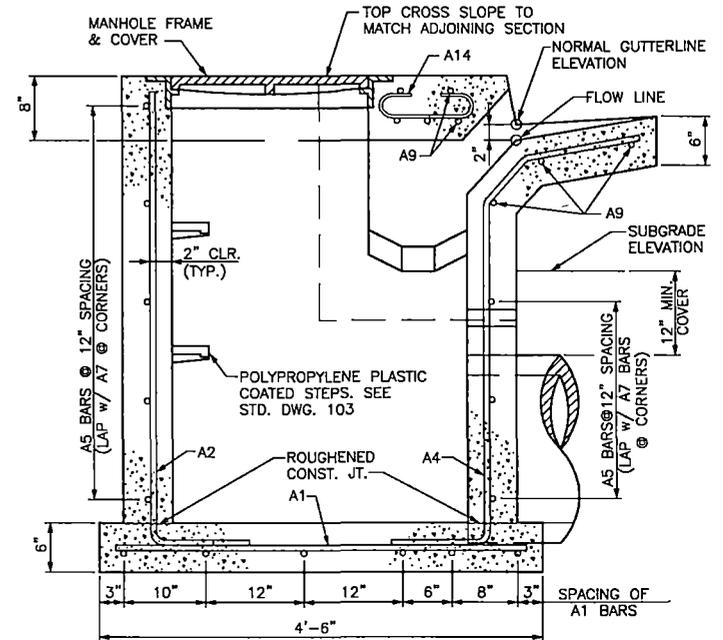
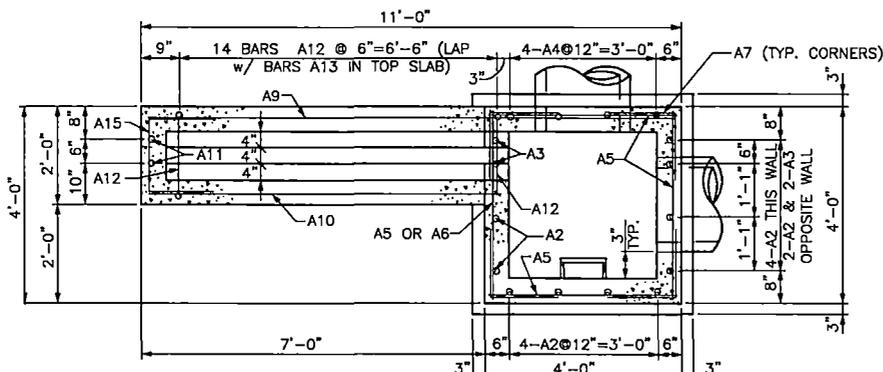
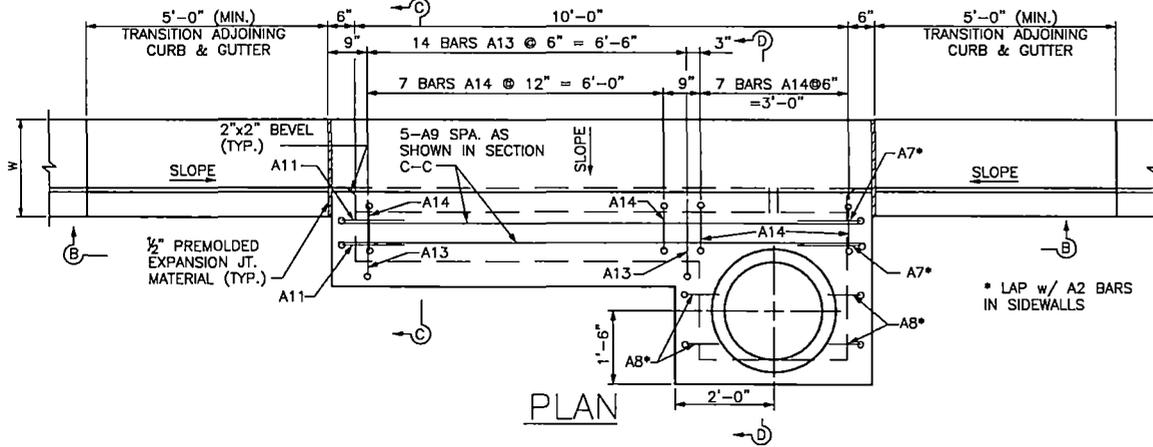
TOP OF BENCH IF PIPE RUNS STRAIGHT THROUGH INLET

SECTION E-E



SECTION F-F

 LEXINGTON	
DIVISION OF ENGINEERING	
SURFACE INLET TYPE "B"	
STANDARD DRAWING NO.	121
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	9/22/17
	DATE



DISTANCE BETWEEN GUTTERLINE AND INVERT H	MIN. DIST.
15"	51"
18"	53"

SEE STD. DWG. 122-2 FOR BILL OF REINFORCEMENT & ADDITIONAL DETAILS



LEXINGTON

DIVISION OF ENGINEERING

CURB BOX INLET TYPE "A"
4'X4' BOX
15"-18" PIPES

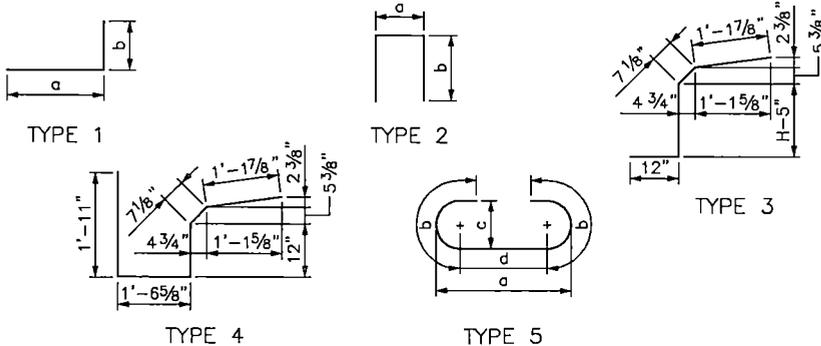
STANDARD DRAWING NO.	122-1
APPROVAL:	
URBAN COUNTY ENGINEER	9/22/17
COMMISSIONER	DATE

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH		LOCATION	a		b		c		d	
				FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.		
A1	STR	#5	10	4	2	FOOTING								
A2	1	#5	10	H+(1'-10")		CHAMBER WALLS	1	0	H+10"					
A3	1	#5	2	H-4"		CHAMBER WALLS	1	0	H-(1'-4")					
A4	3	#5	4	H+(2'-4")		CHAMBER FRONT WALL								
A5	STR	#5	15*	3	8	CHAMBER WALLS								
A6	STR	#5	2	2	2	CHAMBER ABOVE THROAT								
A7	1	#5	19*	2	8	CORNERS	1	4	1	4				
A8	1	#5	4	2	1	CHAMBER WALLS & TOP	1	4	0	9				
A9	STR	#5	8	10	8	TOP SLAB & APRON								
A10	STR	#5	4	7	2	THROAT								
A11	2	#5	2	4	8	THROAT	2	1 5/8	1	4				
A12	4	#5	14	6	1	THROAT & APRON								
A13	1	#5	14	3	5	THROAT	1	11	1	6				
A14	5	#3	14	1	11	TOP SLAB	0	11 1/2	0	7	0	3	0	8 1/2
A15	2	#5	1	4	2	END THROAT	1	6	1	4				

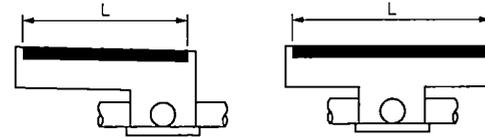
* NO. OF BARS REQUIRED FOR H=4'-0"
ADD OR DEDUCT 4-A5 & 4-A7 FOR EACH 1'-0" INCREASE OR DECREASE IN H.

BAR TYPES



NOTES:

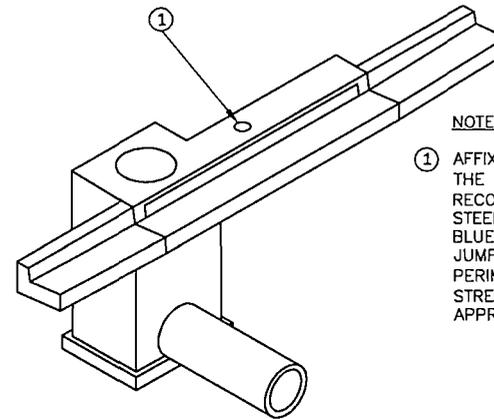
1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI. STEEL REINFORCEMENT SHALL BE ASTM A-615, GRADE 60. ALL EXPOSED EDGES SHALL BE BEVELED 3/4" UNLESS OTHERWISE SHOWN.
2. THIS DRAWING DEPICTS A CURB BOX INLET IN A GRADE SITUATION. FOR CURB BOX INLET IN SAG SITUATION, DETAILS SHALL BE MODIFIED AS INDICATED IN DETAIL 'A'.
3. THE STANDARD OPENING LENGTH IS 10'-0" AS DETAILED HERE. THIS LENGTH MAY BE INCREASED OR DECREASED BASED ON HYDRAULIC ANALYSIS AND APPROVAL BY THE LEXINGTON-FAYETTE COUNTY URBAN GOVERNMENT ENGINEER. MODIFICATION TO THE OPENING LENGTH WILL REQUIRE MODIFICATION OF LENGTH OF BARS A9 & A10 AND INCREASE OR DECREASE IN NUMBER OF BARS A12, A13 & A14 MAINTAINING THE SAME MAXIMUM SPACING SHOWN ON THIS DRAWING.
4. MAXIMUM "H" FOR APPLICATION OF THIS DRAWING SHALL BE 10 FEET.
5. FIELD BEND OR CUT BARS A2, A4, AND A5 AS NECESSARY WHERE PIPES PENETRATE CHAMBER WALLS.
6. FOR CURB BOX INLET IN CURVE WITH CURB RADIUS OF LESS THAN 25', LONGITUDINAL BARS A9, A10 SHALL BE SHOP FABRICATED RADIALLY.



GRADE

SAG

DETAIL 'A'
APPLICABLE SITUATIONS



NOTES:

- ① AFFIX CIRCULAR MARKER TO THE TOP OF THE INLET BOX, PER MANUFACTURER'S RECOMMENDATIONS: 4" DIAMETER STAINLESS STEEL STAMPED DISK WITH BAKED ENAMEL BLUE BACKGROUND. LOGO OF FISH JUMPING OVER WAVES WITH TEXT ON PERIMETER "STORM DRAIN * DRAINS TO STREAM*". ALMETEK INDUSTRIES OR APPROVED EQUAL.

WORK THIS DWG. WITH STD. DWG. 122-1

ISOMETRIC VIEW

LEXINGTON

DIVISION OF ENGINEERING

CURB BOX INLET TYPE "A"
4'X4' BOX
15'-18" PIPES

STANDARD DRAWING NO. 122-2

APPROVAL: 9/22/17

URBAN COUNTY ENGINEER DATE

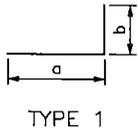
COMMISSIONER DATE

BILL OF REINFORCEMENT

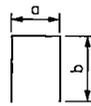
MARK	TYPE	SIZE	NO.	LENGTH		LOCATION	a		b		c		d	
				FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.		
B1	STR	#5	13	5	2	FOOTING								
B2	1	#5	14	H+(1'-10")		CHAMBER WALLS	1	0	H+10"					
B3	1	#5	3	H-4"		CHAMBER WALLS	1	0	H-(1'-4")					
B4	3	#5	5	H+(2'-4")		CHAMBER FRONT WALL								
B5	STR	#5	15*	4	8	CHAMBER WALLS								
B6	STR	#5	2	3	2	CHAMBER ABOVE THROAT								
B7	1	#5	25*	2	8	CORNERS	1	4	1	4				
B8	1	#5	2	2	6	CHAMBER WALLS & TOP	1	4	1	2				
B9	STR	#5	11	10	8	TOP SLAB & APRON								
B10	STR	#5	5	6	2	THROAT								
B11	2	#5	3	4	8	THROAT	2	15/8	1	4				
B12	4	#5	12	6	1	THROAT & APRON								
B13	1	#5	12	3	5	THROAT	1	11	1	6				
B14	5	#5	15	2	4	TOP SLAB	1	5	0	7	0	3	1	2
B15	2	#5	1	4	1	END THROAT	1	6	1	4				

* NO. OF BARS REQUIRED FOR H=4'-0"
ADD OR DEDUCT 4-B5 & 4-B7 FOR EACH 1'-0" INCREASE OR DECREASE IN H.

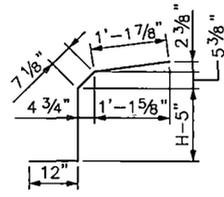
BAR TYPES



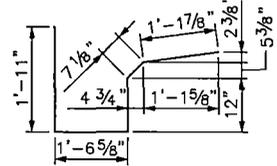
TYPE 1



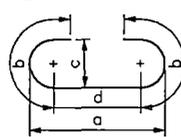
TYPE 2



TYPE 3



TYPE 4

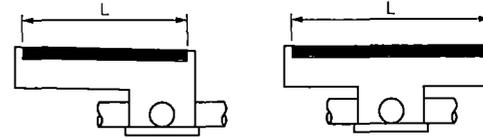


TYPE 5

NOTES:

1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3500 PSI. STEEL REINFORCEMENT SHALL BE ASTM A-615, GRADE 60. ALL EXPOSED EDGES SHALL BE BEVELED 3/4" UNLESS OTHERWISE SHOWN.
2. THIS DRAWING DEPICTS A CURB BOX INLET IN A GRADE SITUATION. DETAILS SHALL BE MODIFIED AS INDICATED IN DETAIL 'A'.
3. THE STANDARD OPENING LENGTH IS 10'-0" AS DETAILED HERE. THIS LENGTH MAY BE INCREASED OR DECREASED BASED ON HYDRAULIC ANALYSIS AND APPROVAL BY THE LEXINGTON-FAYETTE COUNTY URBAN GOVERNMENT ENGINEER. MODIFICATION TO THE OPENING LENGTH WILL REQUIRE MODIFICATION OF LENGTH OF BARS B9 & B10 AND INCREASE OR DECREASE IN NUMBER OF BARS B12, B13 & B14 MAINTAINING THE SAME MAXIMUM SPACING SHOWN ON THIS DRAWING.
4. MAXIMUM "H" FOR APPLICATION OF THIS DRAWING SHALL BE 10 FEET.
5. FIELD BEND OR CUT BARS B2, B4, AND B5 AS NECESSARY WHERE PIPES PENETRATE CHAMBER WALLS.
6. FOR CURB BOX INLET IN CURVE WITH CURB RADIUS OF LESS THAN 25', LONGITUDINAL BARS B9, B10 SHALL BE SHOP FABRICATED RADIALLY.
7. 30" PIPE MAY BE APPROVED IF BOTH PIPES ARE INSTALLED ON THE SAME LINE.

LEXINGTON - FAYETTE URBAN COUNTY GOVERNMENT

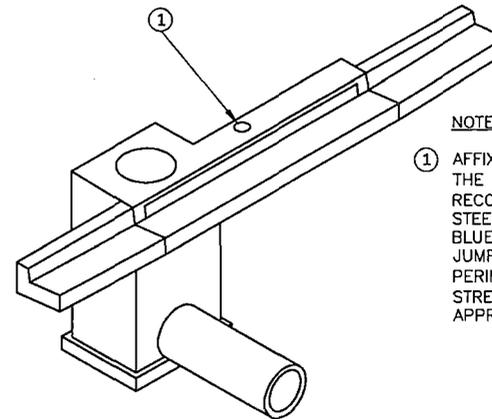


GRADE

SAG

DETAIL 'A'

APPLICABLE SITUATIONS



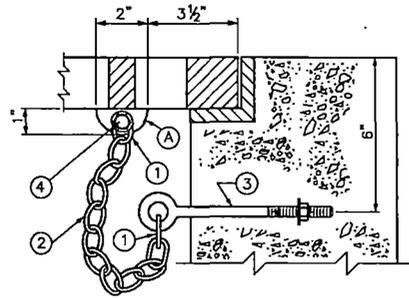
NOTES:

- ① AFFIX CIRCULAR MARKER TO THE TOP OF THE INLET BOX, PER MANUFACTURER'S RECOMMENDATIONS: 4" DIAMETER STAINLESS STEEL STAMPED DISK WITH BAKED ENAMEL BLUE BACKGROUND. LOGO OF FISH JUMPING OVER WAVES WITH TEXT ON PERIMETER "STORM DRAIN * DRAINS TO STREAM". ALMETEK INDUSTRIES OR APPROVED EQUAL.

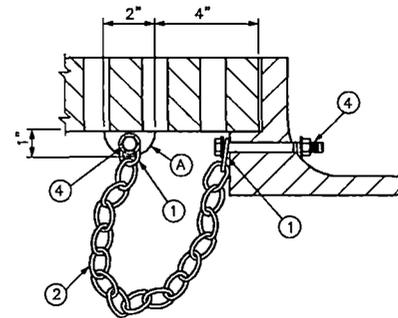
WORK THIS DWG. WITH STD. DWG. 123-1

ISOMETRIC VIEW

LEXINGTON
DIVISION OF ENGINEERING
CURB BOX INLET TYPE "B" 5'X5' BOX 15"-24" PIPES
STANDARD DRAWING NO. 123-2
APPROVAL: 9/22/17
URBAN COUNTY ENGINEER / DATE
COMMISSIONER 9/22/17
DATE



GRATE CONNECTED TO WALL

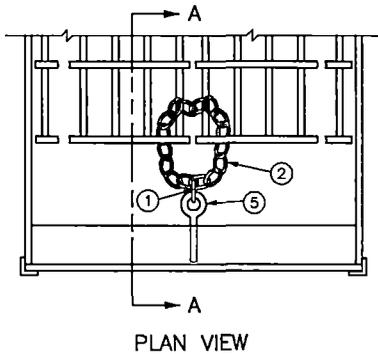


GRATE CONNECTED TO FRAME

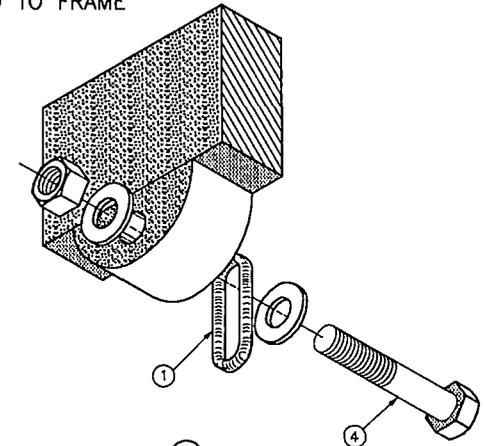
TYPICAL ILLUSTRATIONS FOR CASTINGS

NOTES:

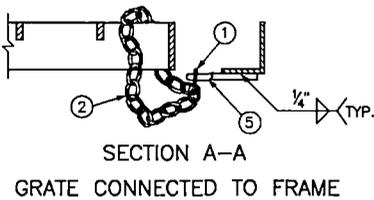
- ① CHAIN SHACKLE, OR COLD SHUT OF AN APPROVED TYPE.
- ② 3/8" PROOF COIL CHAIN OF SUFFICIENT LENGTH TO ALLOW REMOVAL AND DISPLACEMENT OF GRATE, 18" MIN.
- ③ 3/8" x 6" EYE BOLT, NUT, AND WASHER.
- ④ 3/8" HEX HEAD CAP SCREW (GRADE 2), NUT AND WASHERS. LENGTH DETERMINED BY THICKNESS OF FRAME OR GRATE. 7/16" DIA. HOLE FOR CAP SCREW. BATTER THREADS ON CAP SCREW TO PREVENT REMOVAL OF NUT.
- ⑤ 3/8" EYE BOLT (LENGTH DETERMINED BY THE FRAME DIMENSION).
6. ALL EYE BOLTS SHALL HAVE A CONTINUOUS OR SOLID EYE.
7. ALL HARDWARE SHALL BE GALVANIZED AND OF COMMERCIAL QUALITY AND SHALL BE APPROVED BY THE ENGINEER.
8. THE COST OF THE COMPLETE SECURITY DEVICE, INSTALLED, SHALL BE INCIDENTAL TO THE COST OF THE STRUCTURE.
9. THE DESIGNS SHOWN ARE ACCEPTABLE; HOWEVER ARE SUBJECT TO CHANGE IF APPROVED IN WRITING BY THE ENGINEER.



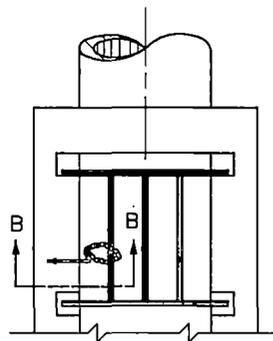
PLAN VIEW



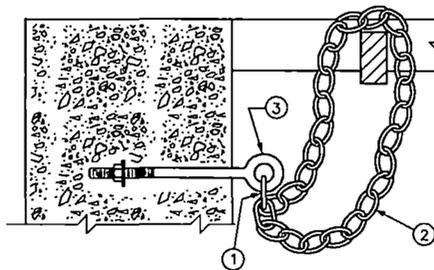
LUG ON CENTER CROSS MEMBER AND BOLT ASSEMBLY (AXONOMETRIC VIEW)



SECTION A-A
GRATE CONNECTED TO FRAME

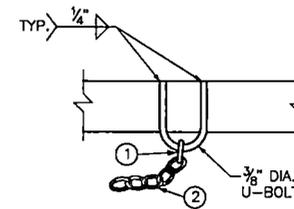


PLAN VIEW



SECTION B-B

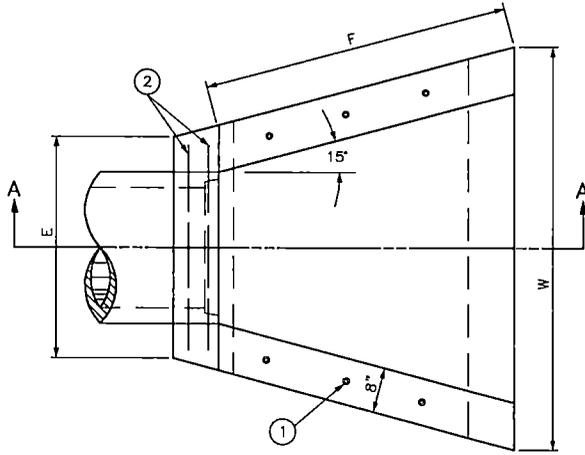
GRATE CONNECTED TO WALL



ALTERNATE FOR
STRUCTURAL STEEL
MEMBERS

TYPICAL ILLUSTRATIONS FOR STRUCTURAL STEEL UNITS

 LEXINGTON	
DIVISION OF ENGINEERING	
SECURITY DEVICES FOR FRAMES AND GRATES	
STANDARD DRAWING NO.	128
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	/DATE
COMMISSIONER	9/22/17
	DATE



PLAN VIEW

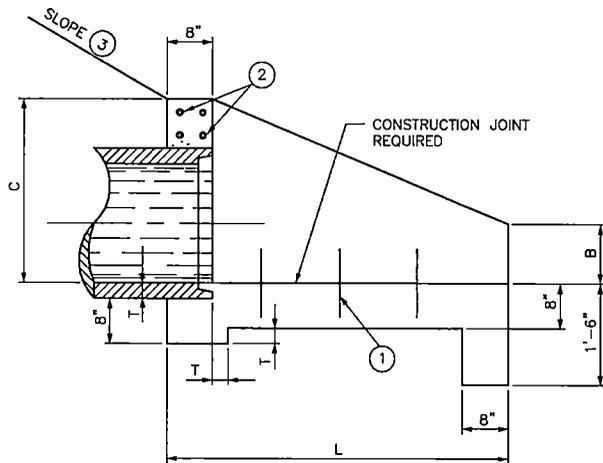
PIPE DIA.	DIMENSIONS							CLASS "A" CONC. C.Y.	REINF. STEEL LBS.
	B	C	E	F	L	W	T		
15"	0'-7 1/2"	2'-0"	2'-9"	3'-5 3/8"	4'-0"	4'-10 3/4"	2 1/4"	0.90	10
18"	0'-9"	2'-3"	3'-0"	3'-11 9/16"	4'-6"	5'-4 15/16"	2 1/2"	0.97	11
21"	0'-10 1/2"	2'-6"	3'-3"	4'-5 13/16"	5'-0"	5'-11 1/8"	2 3/4"	1.17	12
24"	1'-0"	2'-9"	3'-6"	5'-0"	5'-6"	6'-5 3/8"	3"	1.38	12
27"	1'-1 1/2"	3'-0"	3'-9"	5'-6 3/16"	6'-0"	6'-11 9/16"	3 1/4"	1.62	13

SHEET NOTES: ○

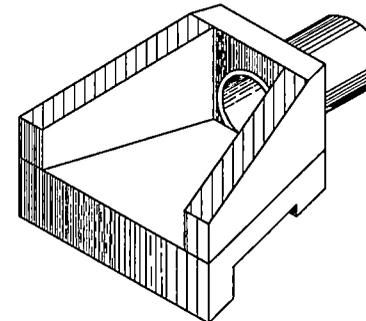
- ① 6 #4 x 1'-0" DOWELS
- ② 4 #4 x ("E" DIMENSION MINUS 4")
- ③ SLOPE SHALL BE WARPED TO FIT HEADWALL WHEN PIPE IS SKEWED AND / OR NORMAL SLOPE VARIES FROM 2:1.

NOTES:

- 1. REINFORCING STEEL MINIMUM GRADE 40, EVENLY SPACED (MIN. SPACING 12" O.C.)
- 2. VOLUME DISPLACED BY PIPE COMPUTED USING INSIDE DIAMETER OF PIPE.
- 3. WING ANGLES AND / OR DIMENSIONS MAY BE ALTERED DURING CONSTRUCTION TO ACCOMMODATE FLOW OF WATER.
- 4. APRON BETWEEN WINGS SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE, BUT NOT TO EXCEED 5%. FRONT FACE OF HEADWALL SHALL REMAIN VERTICAL.
- 5. CHAIN LINK FENCE IS REQUIRED ON ALL HEADWALLS WHEN VERTICAL FACE "C" IS GREATER THAN 30".
- 6. ALL EXPOSED EDGES ARE TO HAVE 3/4" CHAMFER.
- 7. SKEWED PIPE REQUIRES SPECIAL DESIGN.



SECTION A-A



ISOMETRIC VIEW



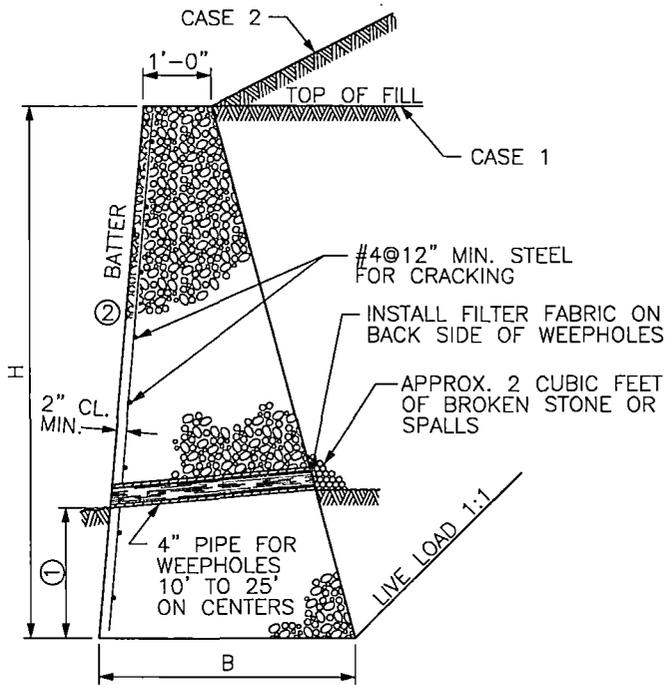
LEXINGTON

DIVISION OF ENGINEERING

PIPE CULVERT HEADWALLS
0° SKEW
15"–27" CIRCULAR PIPE

STANDARD DRAWING NO. 153

APPROVAL: _____ DATE 9/22/17
 URBAN COUNTY ENGINEER _____ DATE 9/22/17
 COMMISSIONER _____ DATE _____



RETAINING WALL

H	B	END AREA SQ. FT.	VOLUME C.Y./L.F.
CASE 1 OR 2			
2'-6"	1'-3"	2.8125	0.1042
3'-0"	1'-6"	3.7500	0.1389
3'-6"	1'-9"	4.8125	0.1782
4'-0"	2'-0"	6.0000	0.2222
4'-6"	2'-3"	7.3125	0.2708
5'-0"	2'-6"	8.7500	0.3241
5'-6"	2'-9"	10.3125	0.3819
6'-0"	3'-0"	12.0000	0.4444
6'-6"	3'-3"	13.8125	0.5116
7'-0"	3'-6"	15.7500	0.5833
7'-6"	3'-9"	17.8125	0.6597
8'-0"	4'-0"	20.0000	0.7407
8'-6"	4'-3"	22.3125	0.8264
9'-0"	4'-6"	24.7500	0.9167
9'-6"	4'-9"	27.3125	1.0116
CASE 1			
10'-0"	5'-0"	30.0000	1.1111
10'-6"	5'-3"	32.8125	1.2153
11'-0"	5'-6"	35.7500	1.3241
11'-6"	5'-9"	38.8125	1.4375
12'-0"	6'-0"	42.0000	1.5556
CASE 2			
10'-0"	6'-0"	35.0000	1.2963
10'-6"	6'-3"	38.0625	1.4097
11'-0"	6'-6"	41.2500	1.5278
11'-6"	6'-9"	44.5625	1.6505
12'-0"	7'-0"	48.0000	1.7778

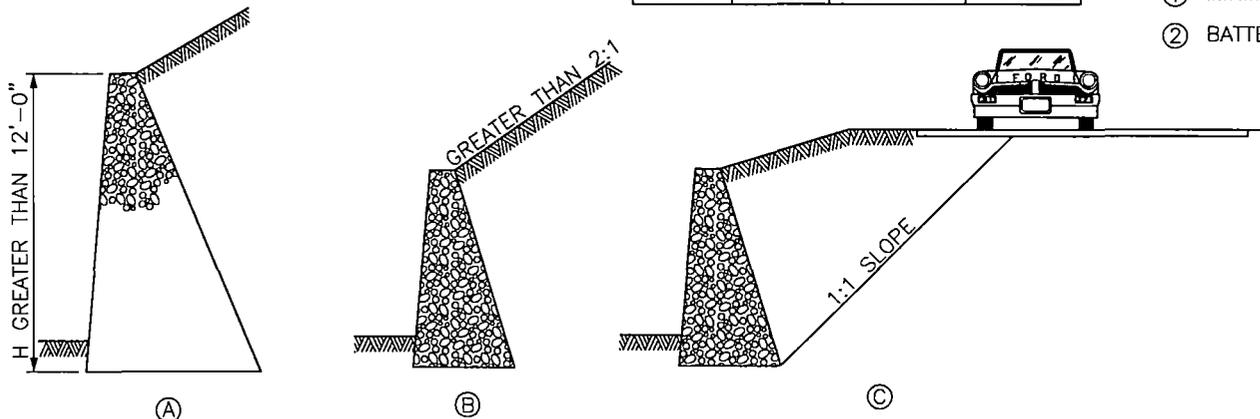
NOTES:

- THE RETAINING WALL DEPICTED ON THIS DRAWING SHALL BE USED WHEN THE HEIGHT ("H" DIMENSION) OF THE WALL IS 2'-6" TO 12'-0" PROVIDED THE FILL COMPLIES WITH THE FOLLOWING CONDITIONS:
 CASE 1 - TOP OF FILL IS LEVEL WITH TOP OF WALL.
 CASE 2 - WALL IS SURCHARGED WITH DEAD LOAD FILL SLOPES OF 2:1 OR LESS.
- AREAS AND VOLUMES HAVE BEEN COMPUTED WITHOUT DEDUCTING FOR BEVELED EDGES OR PIPE DRAINS. WHEN A RETAINING WALL VARIES IN HEIGHT, THE PRISMOIDAL FORMULA SHALL BE USED IN COMPUTING VOLUMES.
- GRAVITY TYPE RETAINING WALLS SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
- TRANSVERSE EXPANSION JOINTS 1/2 INCH IN WIDTH SHALL BE PLACED AT INTERVALS OF NOT OVER 30 FEET THROUGHOUT THE LENGTH OF RETAINING WALLS AND EXPANSION JOINT MATERIAL SHALL BE PLACED THEREIN. ALL EXPOSED EDGES SHALL BE BEVELED 3/4 INCH. THE WALLS SHALL NOT BE SURCHARGED EXCEPT IN SPECIAL CASES WHEREIN SPECIAL DRAWINGS WILL BE FURNISHED.

SHEET NOTES: ○

SPECIAL DESIGNS SHALL BE REQUIRED WHEN ANY ONE OF THE FOLLOWING CONDITIONS EXIST:

- (A) WALL HEIGHT IS GREATER THAN 12'-0" (CASE 1 OR CASE 2 FILL).
 - (B) WALL IS SURCHARGED WITH DEAD LOAD FILL SLOPES GREATER THAN 2:1.
 - (C) WALL IS SURCHARGED WITH A LIVE LOAD WITHIN THE LIMITS OF A 1:1 SLOPE EXTENDING FROM THE BASE OF THE WALL.
- ① MINIMUM VALUE FOR FIRM SOIL IS 2'-0".
- ② BATTER: H=3'-0" TO LESS THAN 5'-0" (VERTICAL)
 H=5'-0" TO LESS THAN 10'-0" (1":1')
 H=10'-0" TO 12'-0" (2":1')

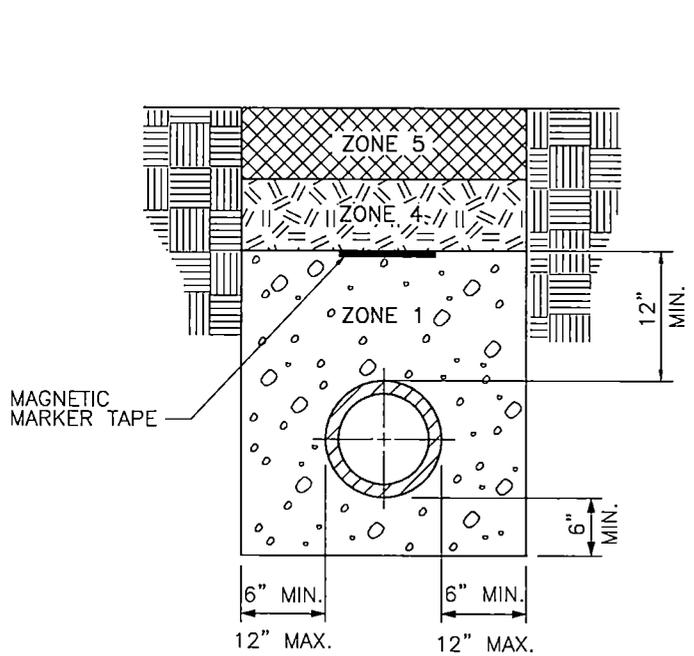


SPECIAL DESIGNS REQUIRED

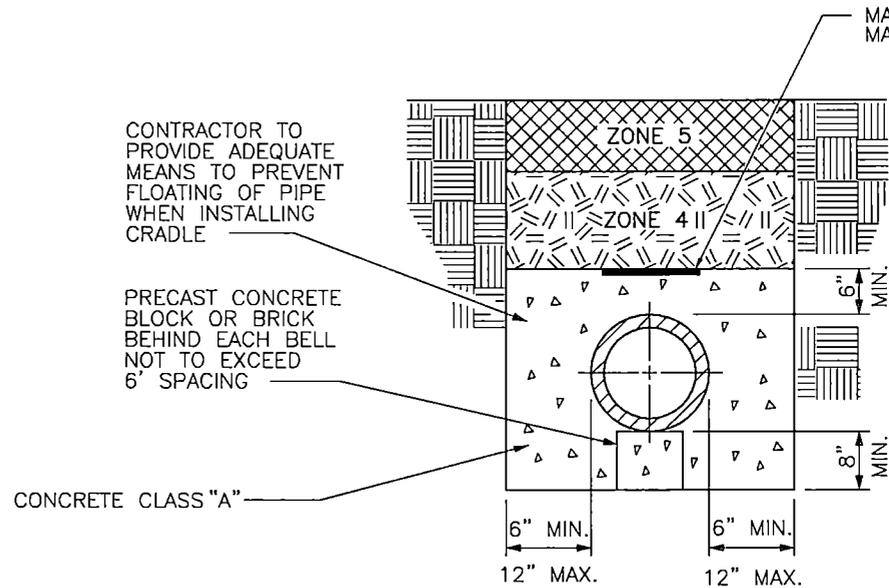
LEXINGTON
 DIVISION OF ENGINEERING

 RETAINING WALL
 GRAVITY TYPE

 STANDARD DRAWING NO. 180
 APPROVAL: / DATE: 9/22/17
 URBAN COUNTY ENGINEER: / DATE: 9/22/17
 COMMISSIONER: / DATE:



PIPE LAID IN ROCK
OR SOIL TRENCH



STANDARD CONCRETE ENCASEMENT
(NOTE: AS REQUIRED BY DESIGN)

PIPE BACKFILL DESCRIPTIONS	
ZONE 1	NO. 9 STONE
ZONE 2	NO. 9 OR NO. 57 STONE
ZONE 3	COMPACTED DGA
ZONE 4	CONSOLIDATED SOIL, (NO ROCK GREATER THAN 6" DIAMETER) NO. 9, OR NO. 57 STONE
ZONE 5	12" MAX. TOPSOIL, NO ROCK ALLOWED

NOTES:

1. COVER, UP TO AND INCLUDING ZONE 4 SHALL BE ESTABLISHED BEFORE TRENCH EXCAVATION.
2. ALL SANITARY SEWER LINES CONSTRUCTED FROM NON-METALLIC MATERIALS SHALL HAVE MAGNETIC MARKER TAPE INSTALLED IN THE TRENCH ABOVE THE SANITARY SEWER LINE.
3. MAGNETIC MARKER TAPE FOR SANITARY SEWER ONLY.

LEXINGTON

DIVISION OF ENGINEERING

TRENCHING, LAYING,
BACKFILLING AND BEDDING
OUTSIDE R/W LIMITS

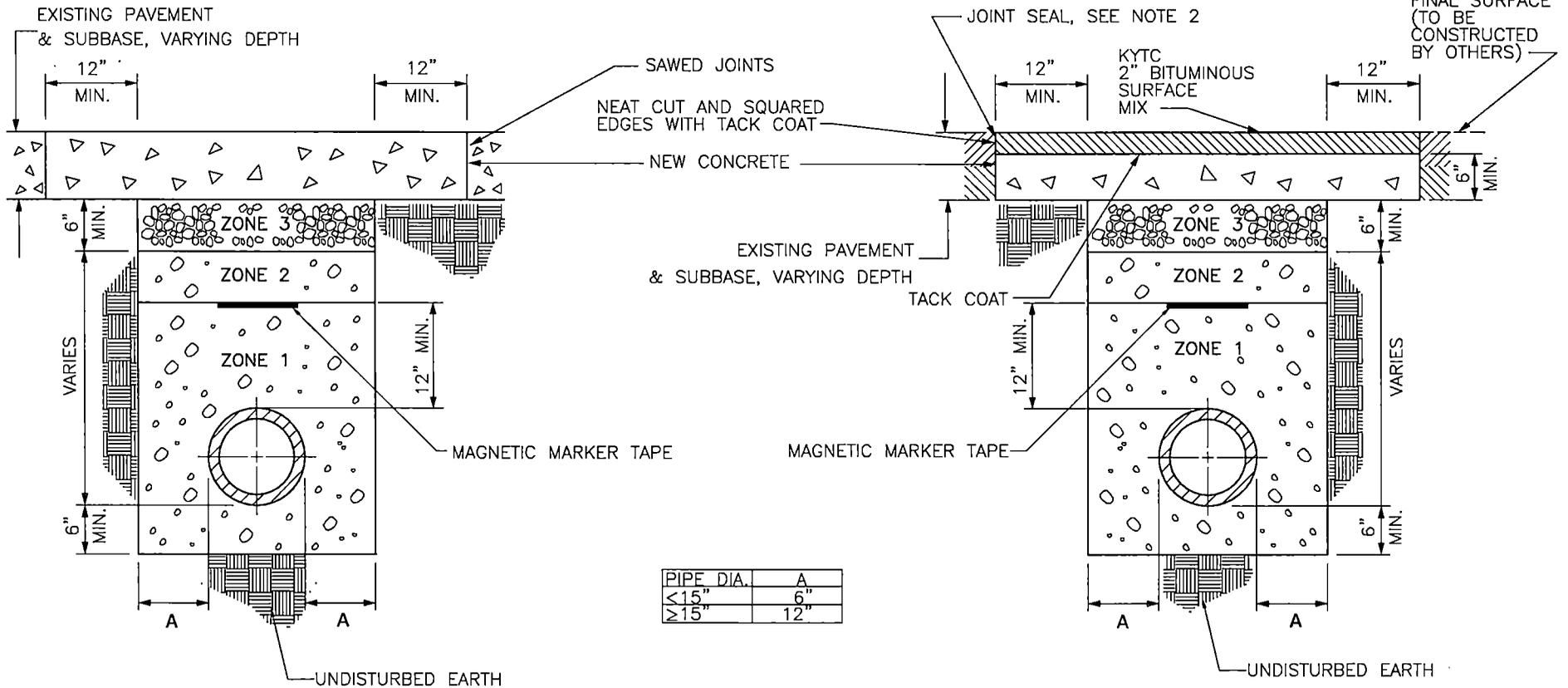
STANDARD DRAWING NO. **200**

APPROVAL: **9/22/17**
URBAN COUNTY ENGINEER DATE

COMMISSIONER **9/22/17**
DATE

CONCRETE PAVEMENT

BITUMINOUS PAVEMENT



PIPE DIA.	A
<15"	6"
≥15"	12"

PIPE BACKFILL DESCRIPTIONS	
ZONE 1	NO. 9 STONE OR AS SPECIFIED BY THE UTILITY
ZONE 2	NO. 9 OR NO. 57 STONE
ZONE 3	COMPACTED DGA

NOTES:

1. REPLACE CONCRETE PAVEMENT WITH NEW CONCRETE PAVEMENT, 6" MINIMUM OR EXISTING THICKNESS, WHICHEVER IS GREATER. PER KYTC SPECIFICATION 601.03.03 A) CLASS A FROM STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
2. SEAL PERIMETER OF CUT PAVEMENT WITH CRACK SEALANT THAT MEETS ASTM D6690, TYPE 2.
3. MAGNETIC MARKER TAPE FOR SANITARY SEWER ONLY.

NO.	DATE	REVISION DESCRIPTION	BY
01	06/01/19	UPDATE NOTES AND TITLE	TAL



DIVISION OF ENGINEERING

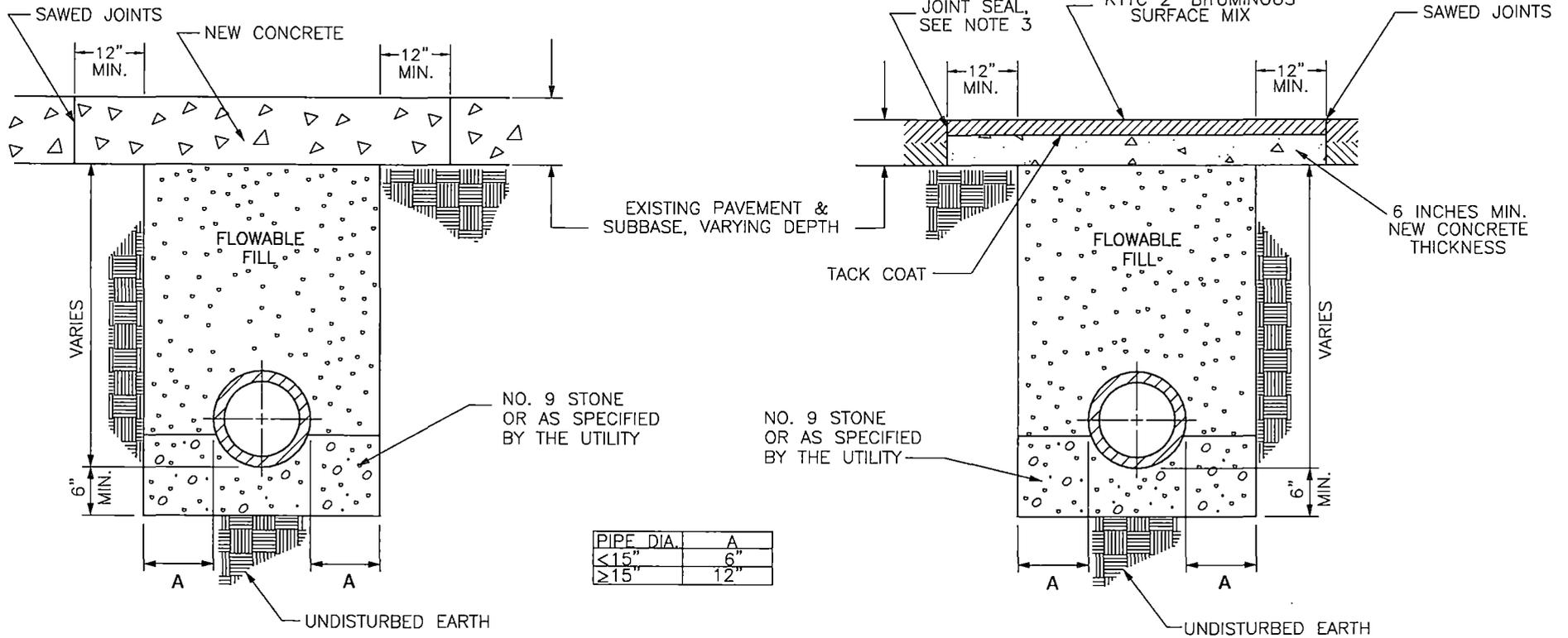
TRENCHING, LAYING, BACKFILLING AND BEDDING UNDER STREET PAVEMENT USING AGGREGATE

STANDARD DRAWING NO.	201-1
APPROVAL	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE

TO BE USED WITH STANDARD DRAWING 201-4

CONCRETE PAVEMENT

BITUMINOUS PAVEMENT



- NOTES:**
1. FLOWABLE FILL PER KYTC SPECIFICATION 601.03.03 FROM STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION CURRENT EDITION.
 2. REPLACE CONCRETE PAVEMENT WITH NEW CONCRETE PAVEMENT, 6" MINIMUM OR EXISTING THICKNESS, WHICHEVER IS GREATER. PER KYTC SPECIFICATION 601.03.03 A) CLASS A FROM STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
 3. SEAL PERIMETER OF CUT PAVEMENT WITH CRACK SEALANT THAT MEETS ASTM D6690, TYPE 2.
 4. UTILITY DESIGNERS AND CONTRACTORS SHALL ACCOUNT FOR AND PROVIDE ANY SUITABLE MEANS TO PREVENT PIPE/CONDUIT FLOATATION.

NO.	DATE	REVISION DESCRIPTION	BY
01	06/01/19	UPDATE NOTES AND TITLE	TAL



DIVISION OF ENGINEERING

TRENCHING, LAYING, BACKFILLING, AND BEDDING UNDER STREET PAVEMENT USING FLOWABLE FILL

STANDARD DRAWING NO.	201-2
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE

TO BE USED WITH STANDARD DRAWING 201-4

TABLE OF:
MAXIMUM ALLOWABLE FILL HEIGHTS
 (LIVE LOAD NOT INCLUDED)

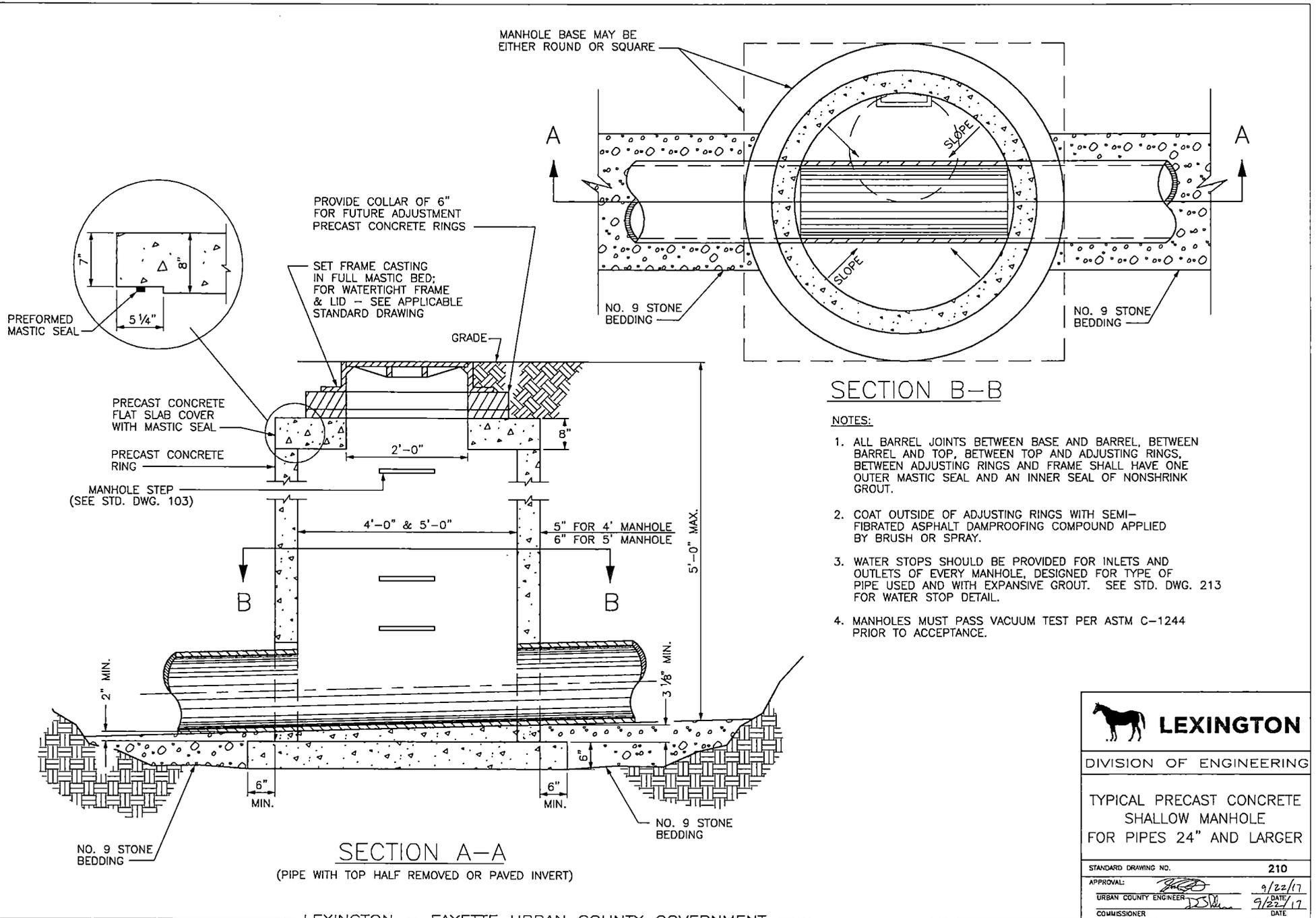
DIAMETER (INCHES)	DUCTILE IRON PIPE		POLYVINYL CHLORIDE (PVC) PIPE	
	CLASS 50 *		SDR-35	SDR-26 HEAVY WALL
	MAXIMUM DEPTH OF COVER (FEET)		MAXIMUM DEPTH OF COVER (FEET)	MAXIMUM DEPTH OF COVER (FEET)
4	-	-	-	-
6	20	15	-	-
8	20	15	-	-
10	20	15	-	-
12	20	15	-	-
14	20	-	-	-
15	-	15	-	-
16	20	-	-	-
18	20	-	-	20
20	18	-	-	-
21	-	-	-	20
24	17	-	-	20
27	-	-	-	20
30	14	-	-	-
36	14	-	-	-
42	13	-	-	-
48	13	-	-	-

NOTES:

1. DEPTH IS BASED ON LAYING CONDITION UTILIZING NO. 9 STONE ENCASING PIPE FROM 6" MINIMUM BELOW PIPE TO A PLANE, LEVEL WITH THE TOP OF THE PIPE AND 6" TO 12" NO. 9 STONE TO EDGE OF TRENCH.
2. WEIGHT OF SOIL AND ROCK COVER MIX IS ASSUMED TO BE APPROXIMATELY 120 LB./CU. FT.
3. DUCTILE IRON PIPE HAS FLEXIBLE LINING.
4. DESIGN ENGINEERS SHOULD USE THIS STANDARD DRAWING FOR GENERAL GUIDELINES AND SHOULD CHECK THEIR DESIGN FOR SAFE, NON-DESTRUCTIVE FILL HEIGHTS FOR ACTUAL BRAND OF PIPE PROPOSED.
5. SPECIAL TRENCHING DETAILS AND PROCEDURES SHOULD BE USED WHERE FILL DEPTHS ARE HIGHER THAN THOSE SHOWN IN TABLE.
6. INSTALLATIONS REQUIRING A DEPTH GREATER THAN 20', MUST BE APPROVED BY THE ENGINEER.

* LIGHTEST CLASS OF DUCTILE IRON PIPE

	LEXINGTON
DIVISION OF ENGINEERING	
SANITARY SEWER PIPE: TYPES & MAXIMUM ALLOWABLE FILL HEIGHTS	
STANDARD DRAWING NO.	204
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER 	DATE
COMMISSIONER 	9/22/17 DATE



MANHOLE BASE MAY BE EITHER ROUND OR SQUARE

PROVIDE COLLAR OF 6" FOR FUTURE ADJUSTMENT PRECAST CONCRETE RINGS

SET FRAME CASTING IN FULL MASTIC BED; FOR WATERTIGHT FRAME & LID - SEE APPLICABLE STANDARD DRAWING

PREFORMED MASTIC SEAL

PRECAST CONCRETE FLAT SLAB COVER WITH MASTIC SEAL

PRECAST CONCRETE RING

MANHOLE STEP (SEE STD. DWG. 103)

B

B

SECTION B-B

NOTES:

1. ALL BARREL JOINTS BETWEEN BASE AND BARREL, BETWEEN BARREL AND TOP, BETWEEN TOP AND ADJUSTING RINGS, BETWEEN ADJUSTING RINGS AND FRAME SHALL HAVE ONE OUTER MASTIC SEAL AND AN INNER SEAL OF NONSHRINK GROUT.
2. COAT OUTSIDE OF ADJUSTING RINGS WITH SEMI-FIBRATED ASPHALT DAMPROOFING COMPOUND APPLIED BY BRUSH OR SPRAY.
3. WATER STOPS SHOULD BE PROVIDED FOR INLETS AND OUTLETS OF EVERY MANHOLE, DESIGNED FOR TYPE OF PIPE USED AND WITH EXPANSIVE GROUT. SEE STD. DWG. 213 FOR WATER STOP DETAIL.
4. MANHOLES MUST PASS VACUUM TEST PER ASTM C-1244 PRIOR TO ACCEPTANCE.

SECTION A-A

(PIPE WITH TOP HALF REMOVED OR PAVED INVERT)

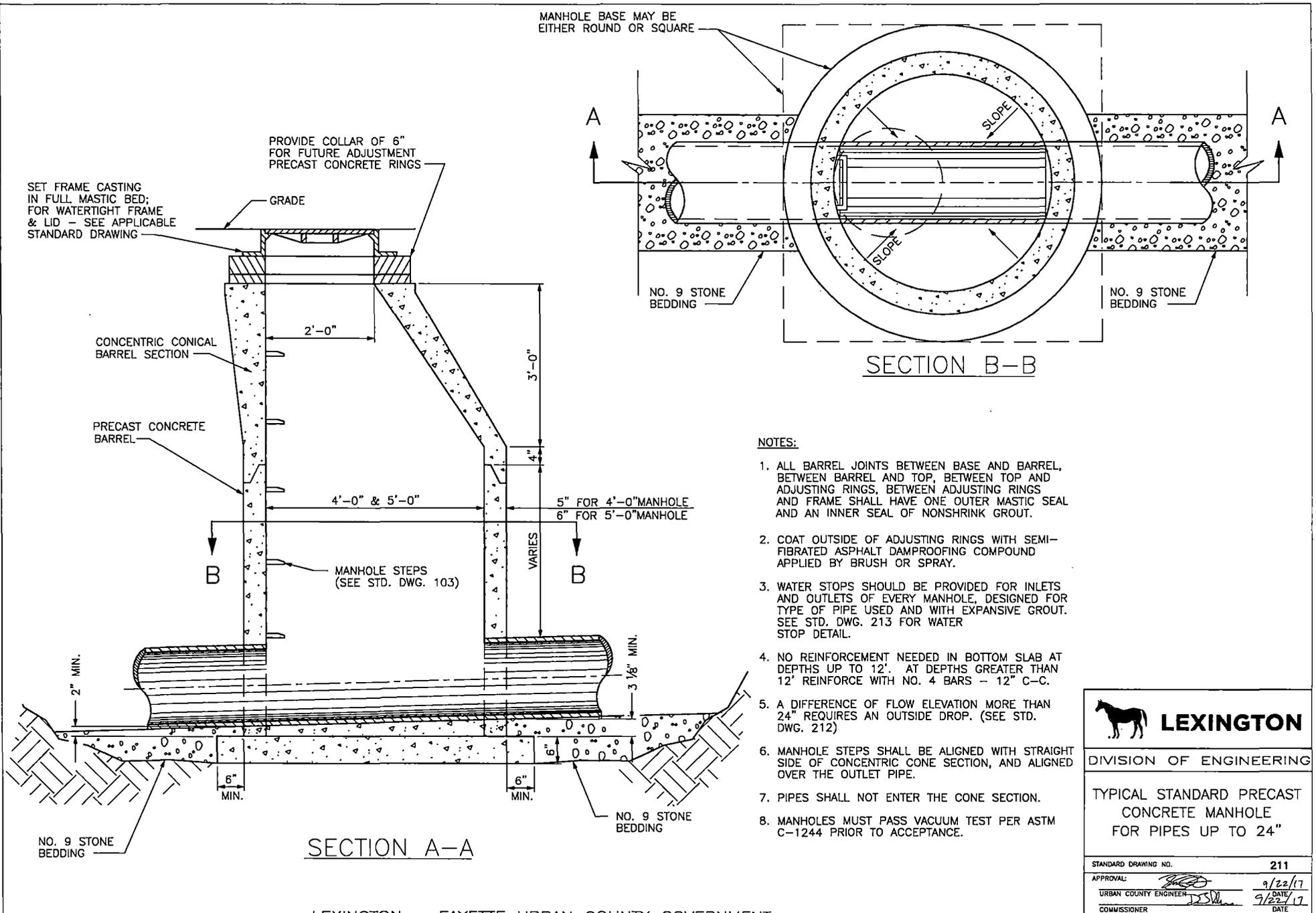


LEXINGTON

DIVISION OF ENGINEERING

TYPICAL PRECAST CONCRETE SHALLOW MANHOLE FOR PIPES 24" AND LARGER

STANDARD DRAWING NO.	210
APPROVAL:	
URBAN COUNTY ENGINEER	9/22/17
COMMISSIONER	DATE



- NOTES:**
1. ALL BARREL JOINTS BETWEEN BASE AND BARREL, BETWEEN BARREL AND TOP, BETWEEN TOP AND ADJUSTING RINGS, BETWEEN ADJUSTING RINGS AND FRAME SHALL HAVE ONE OUTER MASTIC SEAL AND AN INNER SEAL OF NONSHRINK GROUT.
 2. COAT OUTSIDE OF ADJUSTING RINGS WITH SEMI-FIBRATED ASPHALT DAMPROOFING COMPOUND APPLIED BY BRUSH OR SPRAY.
 3. WATER STOPS SHOULD BE PROVIDED FOR INLETS AND OUTLETS OF EVERY MANHOLE, DESIGNED FOR TYPE OF PIPE USED AND WITH EXPANSIVE GROUT. SEE STD. DWG. 213 FOR WATER STOP DETAIL.
 4. NO REINFORCEMENT NEEDED IN BOTTOM SLAB AT DEPTHS UP TO 12'. AT DEPTHS GREATER THAN 12' REINFORCE WITH NO. 4 BARS - 12" C-C.
 5. A DIFFERENCE OF FLOW ELEVATION MORE THAN 24" REQUIRES AN OUTSIDE DROP. (SEE STD. DWG. 212)
 6. MANHOLE STEPS SHALL BE ALIGNED WITH STRAIGHT SIDE OF CONCENTRIC CONE SECTION, AND ALIGNED OVER THE OUTLET PIPE.
 7. PIPES SHALL NOT ENTER THE CONE SECTION.
 8. MANHOLES MUST PASS VACUUM TEST PER ASTM C-1244 PRIOR TO ACCEPTANCE.

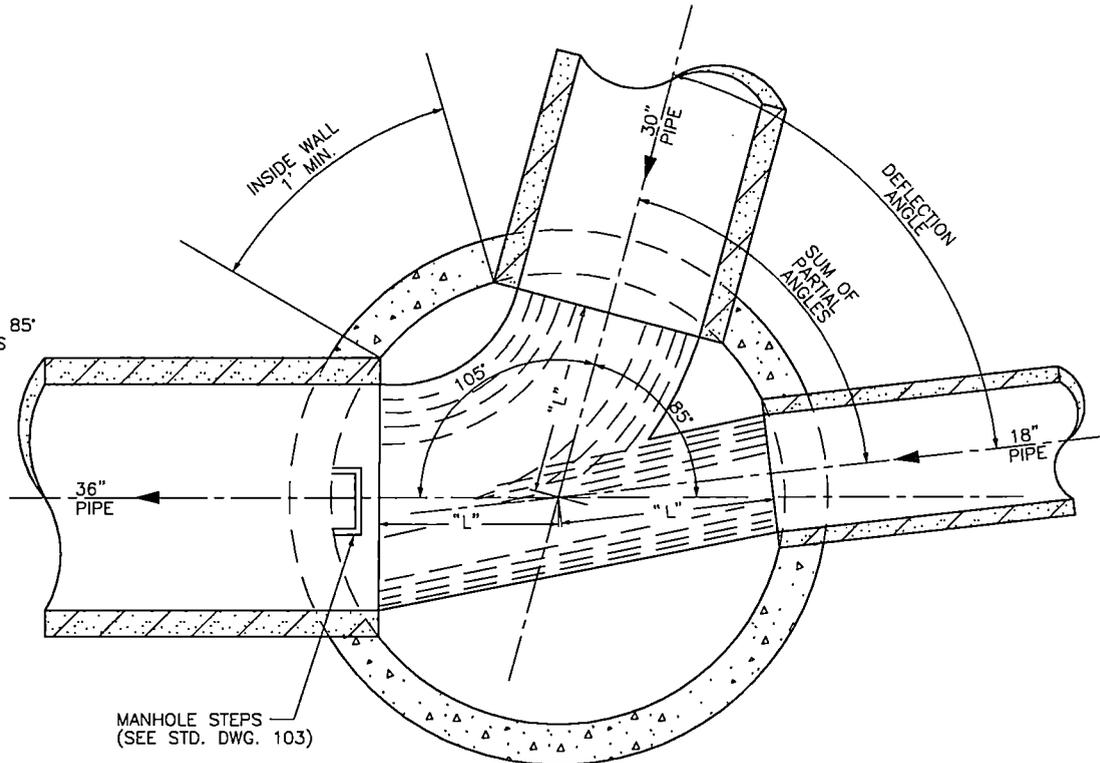
 LEXINGTON	
DIVISION OF ENGINEERING	
TYPICAL STANDARD PRECAST CONCRETE MANHOLE FOR PIPES UP TO 24"	
STANDARD DRAWING NO.	211
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	9/22/17
	DATE

CIRCULAR MANHOLE NOTES:

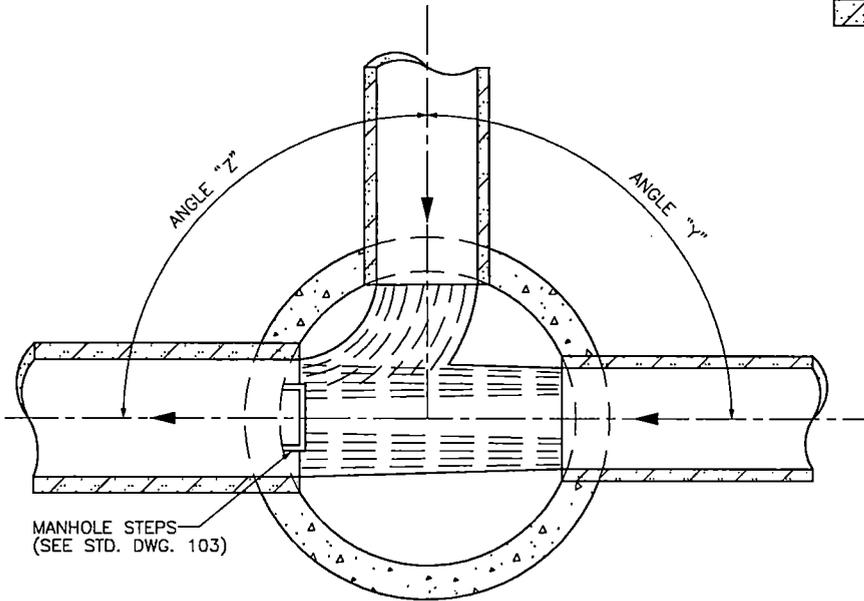
1. THE ANGLE BETWEEN ANY TWO PIPES (e.g. ANGLE "Y" OR "Z") MUST BE GREATER THAN THE SUM OF THE PARTIAL ANGLES. REFER TO SEPARATE STANDARD DRAWINGS FOR TABLE OF MINIMUM PARTIAL ANGLES. ANGLES SMALLER THAN LISTED ON TABLE SHALL REQUIRE LARGER MANHOLE SELECTION.
2. THE MAXIMUM DEFLECTION ANGLE BETWEEN ANY INCOMING PIPE AND THE CENTERLINE EXTENSION OF THE DISCHARGE PIPE SHALL BE NO MORE THAN 90° FOR PIPES UP TO 24" IN DIAMETER. THE MAXIMUM DEFLECTION ANGLE FOR 27" TO 36" PIPES SHALL BE 75°.

EXAMPLE FOR SANITARY MANHOLE SIZE SELECTION:

FOR MANHOLE SHOWN AT RIGHT, THE ANGLE BETWEEN THE 18" AND 30" PIPES IS 85° AND THE ANGLE BETWEEN THE 30" AND 36" PIPES IS 105°. THE TABLE INDICATES THAT FOR A 5'-0" DIAMETER MANHOLE THE MINIMUM PARTIAL ANGLE FOR AN 18" PIPE IS 34° AND FOR A 30" PIPE IS 50°. THE SUM OF THE PARTIAL ANGLES IS 84°, THIS SUM IS LESS THAN THE 85° THEREFORE, A 5'-0" MANHOLE DIAMETER IS ACCEPTABLE.



PLAN SECTION



PLAN SECTION

TABLE OF MINIMUM PARTIAL ANGLES FOR SANITARY MANHOLES

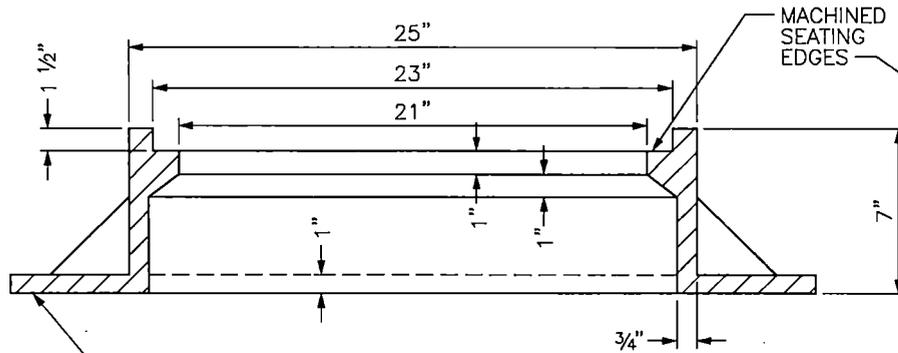
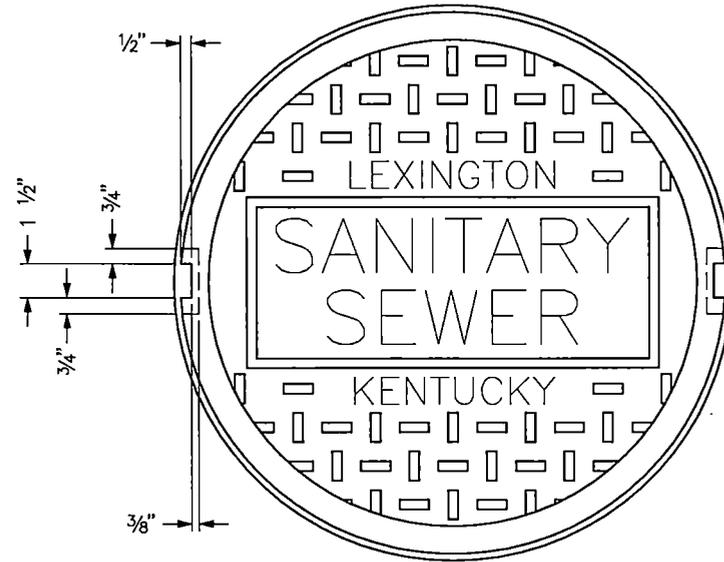
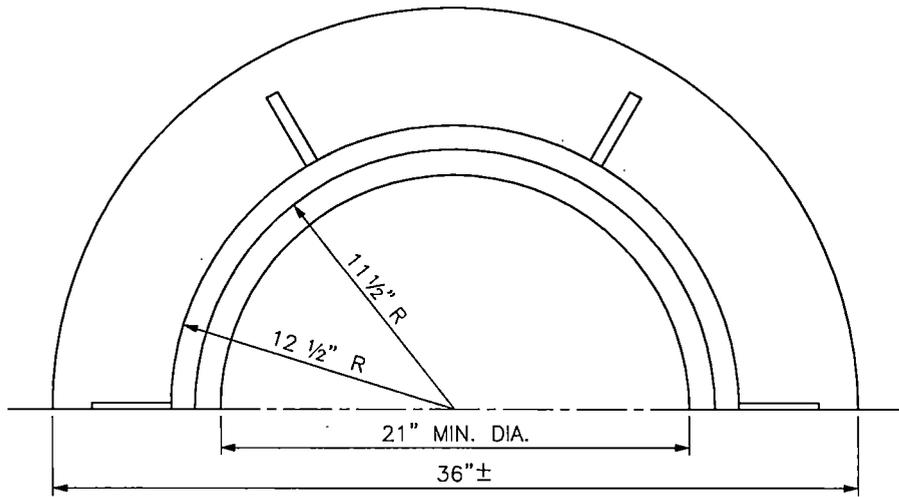
PIPE SIZE	MANHOLE SIZE			
	4'-0"		5'-0"	
	P. ANGLE	L. DIST.	P. ANGLE	L. DIST.
15"	38°	1'-10"	30°	2'-3"
18"	43°	1'-8"	34°	2'-3"
24"	53°	1'-6"	39°	2'-2"
27"	-	-	45°	2'-0"
30"	-	-	50°	1'-11"

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DIVISION OF ENGINEERING

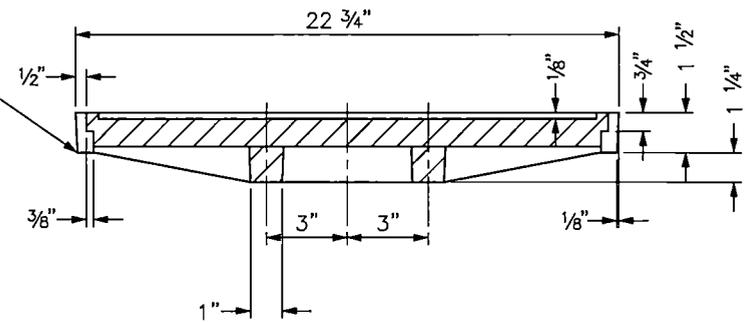
DEFLECTION ANGLE
CRITERIA FOR
SANITARY MANHOLES

STANDARD DRAWING NO.	217
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	9/22/17
	DATE



SET FRAME CASTING IN FULL MORTAR BED, FOR WATERTIGHT MANHOLE FRAME AND LID - SEE APPLICABLE STANDARD DRAWING

FRAME DETAIL

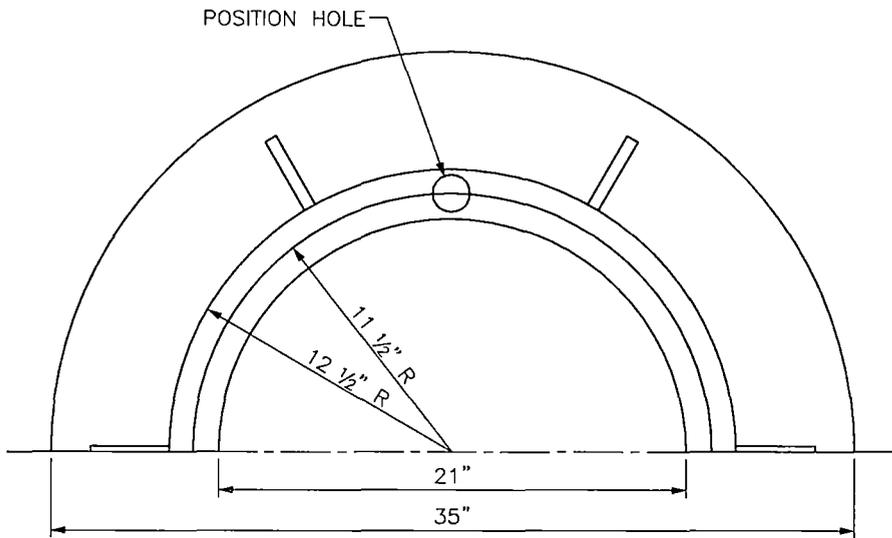


COVER DETAIL

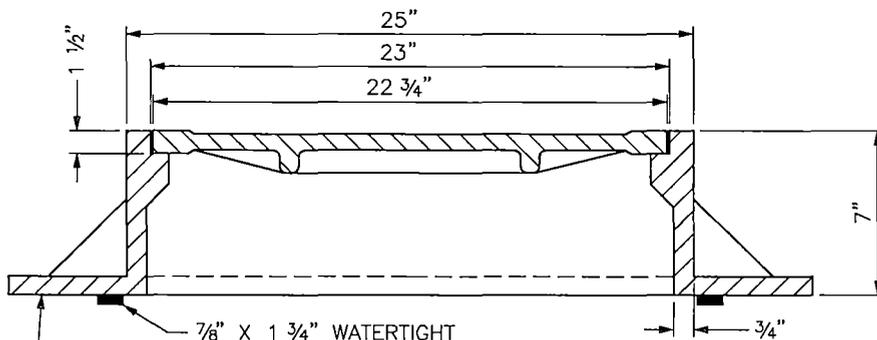
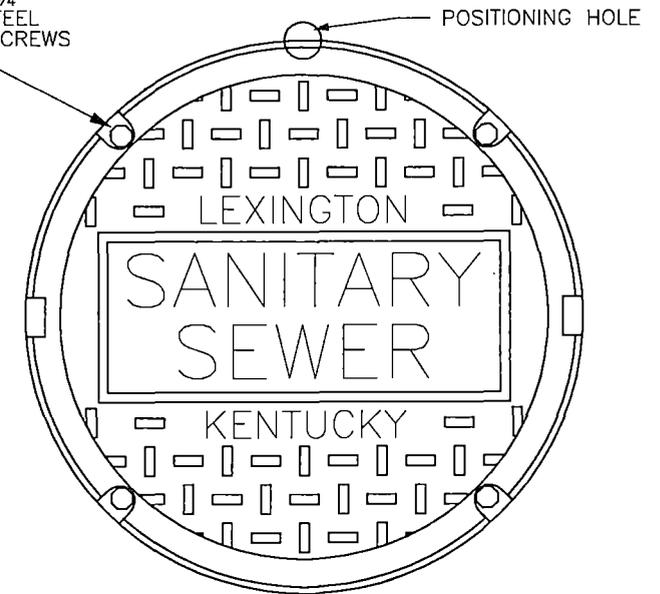
NOTE:

MANHOLE FRAME & LID ASSEMBLY SHALL HAVE A MINIMUM LID WEIGHT OF 120 LBS. AND A TOTAL MINIMUM FRAME & LID WEIGHT OF 305 LBS. WITH ALL STEEL IN ACCORDANCE WITH ASTM A-48 CLASS 35 SPEC.

 LEXINGTON	
DIVISION OF ENGINEERING	
STANDARD CIRCULAR MANHOLE FRAME & COVER	
STANDARD DRAWING NO.	220
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER 	DATE 9/22/17
COMMISSIONER 	DATE



4 1/2" - 13" X 1 3/4"
STAINLESS STEEL
REC'D CAP SCREWS
GREASED



7/8" X 1 3/4" WATERTIGHT
GASKET BETWEEN BOTTOM
FRAME AND TOP OF BARREL

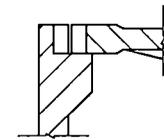
SET FRAME CASTING IN FULL MORTAR
BED, FOR WATERTIGHT MANHOLE FRAME
AND LID - SEE APPLICABLE STANDARD
DRAWING.

FRAME DETAIL

4 - S.S. 3/8" DIA.
BOLTS GREASED

3/8" O-RING GUIDE
TO FRAME

WATERTIGHT DETAIL



POSITIONING
HOLE

COVER DETAIL

NOTE:

MANHOLE FRAME & LID ASSEMBLY SHALL BE NEENAH
#R-1916-D OR APPROVED EQUAL, HAVE A MINIMUM LID
WEIGHT OF 150 LBS. AND A TOTAL MINIMUM FRAME
& LID WEIGHT OF 335 LBS. WITH ALL STEEL IN
ACCORDANCE WITH ASTM A-48 CLASS 35 SPEC.
OR HIGHER.

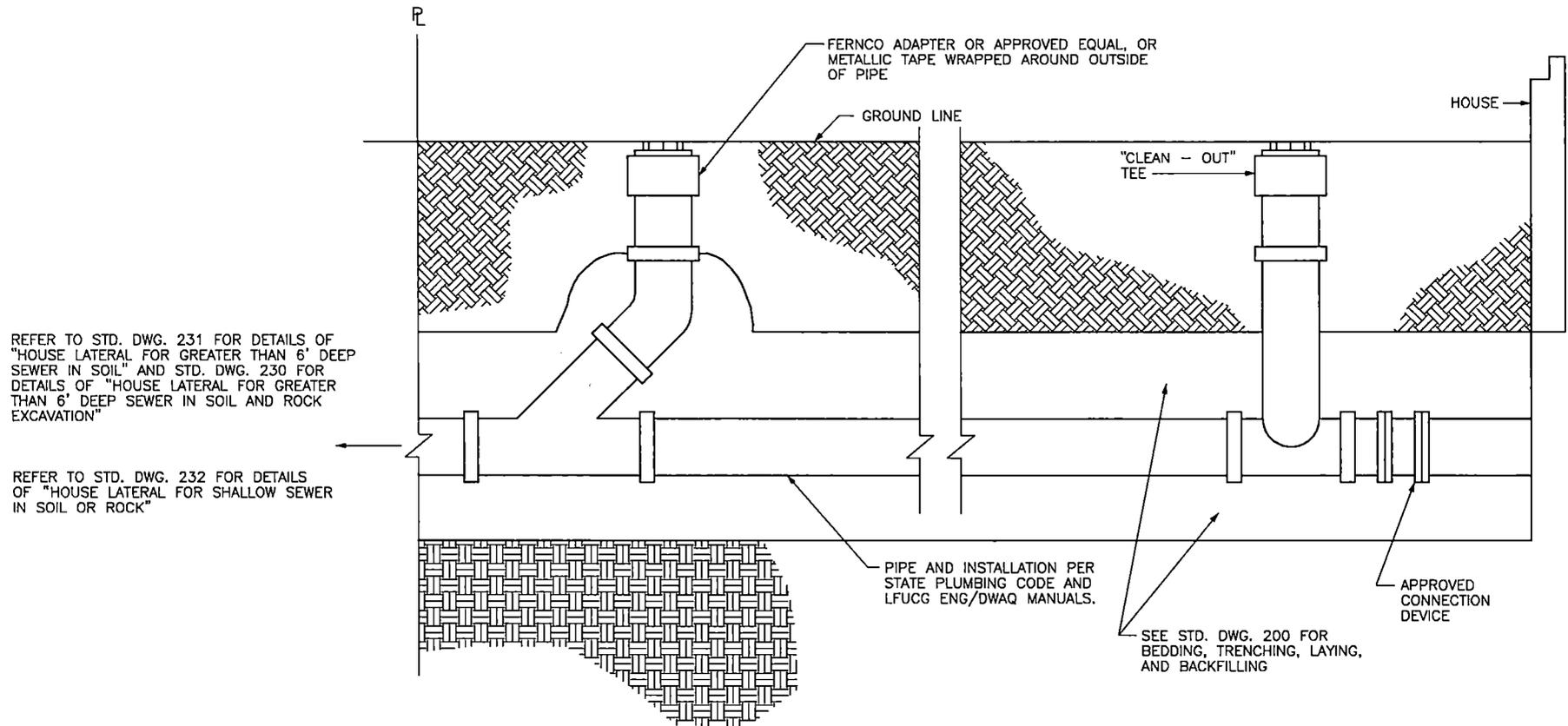


LEXINGTON

DIVISION OF ENGINEERING

STANDARD WATERTIGHT
MANHOLE FRAME & COVER

STANDARD DRAWING NO.	222
APPROVAL:	
URBAN COUNTY ENGINEER	9/22/17
COMMISSIONER	DATE
	9/22/17
	DATE



REFER TO STD. DWG. 231 FOR DETAILS OF "HOUSE LATERAL FOR GREATER THAN 6' DEEP SEWER IN SOIL" AND STD. DWG. 230 FOR DETAILS OF "HOUSE LATERAL FOR GREATER THAN 6' DEEP SEWER IN SOIL AND ROCK EXCAVATION"

REFER TO STD. DWG. 232 FOR DETAILS OF "HOUSE LATERAL FOR SHALLOW SEWER IN SOIL OR ROCK"

NOTE:

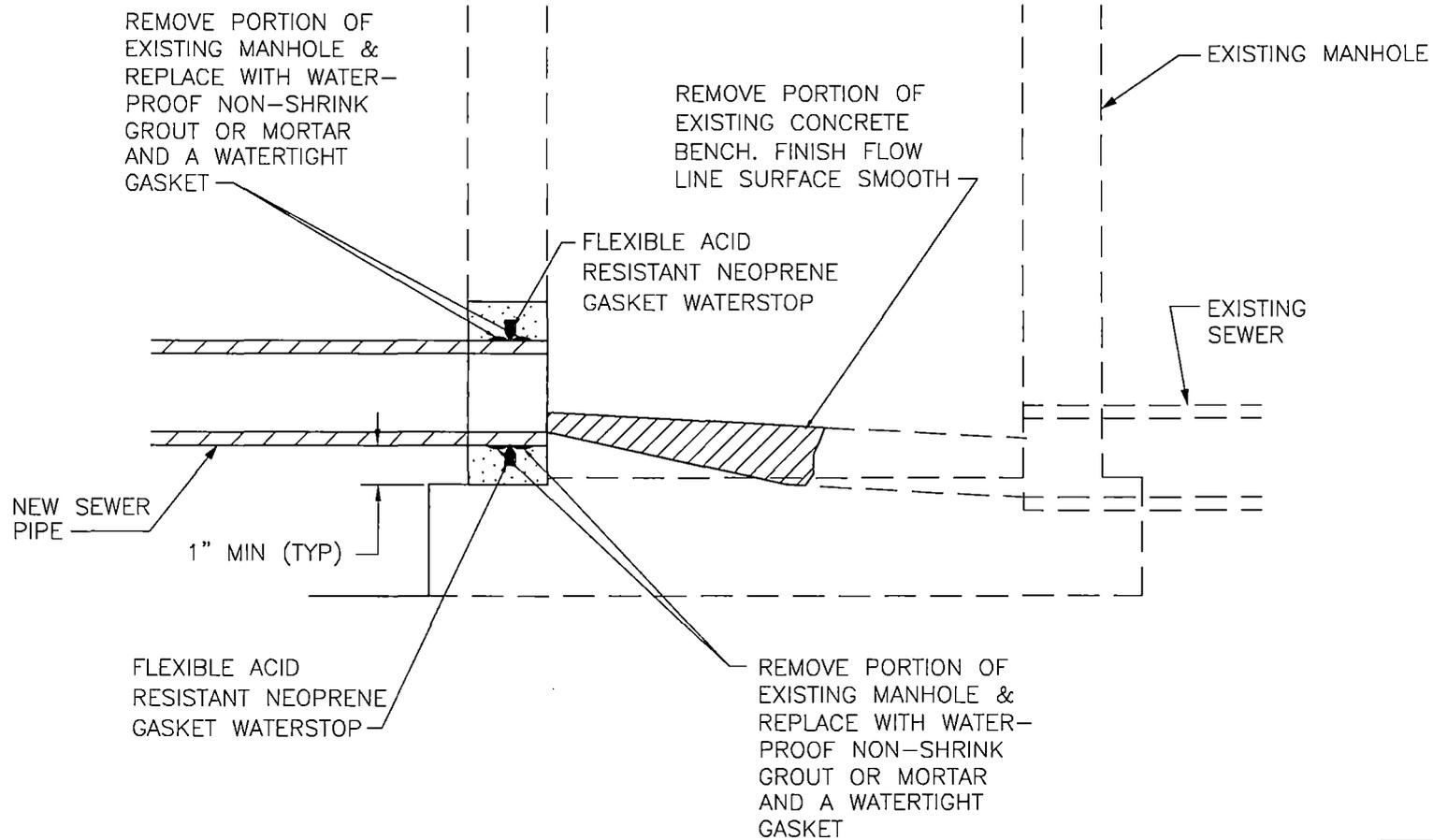
SEWER PIPE FROM HOUSE TO THE LONG SWEEP "L" MUST BE IN ACCORDANCE WITH STATE PLUMBING CODE AND LFUGG ENG/DWAG MANUALS.



DIVISION OF ENGINEERING

LATERAL CLEANOUT IN NON-PAVED AREAS AND YARDS

STANDARD DRAWING NO.	233
APPROVAL:	
URBAN COUNTY ENGINEER	9/22/17
COMMISSIONER	DATE
	9/22/17
	DATE



ALL HOLES CUT INTO SEWER MANHOLES SHALL BE CORE DRILLED.

SEWER CONNECTION TO EXISTING MANHOLE

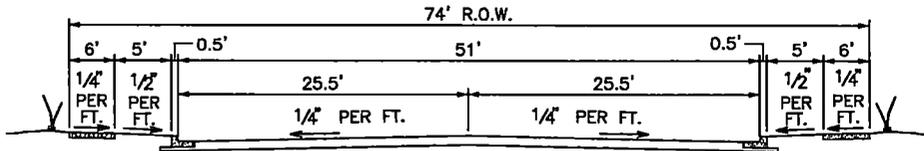


LEXINGTON

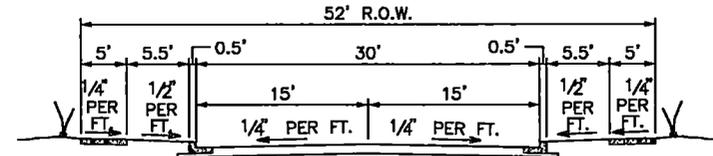
DIVISION OF ENGINEERING

SEWER CONNECTION TO EXISTING CONCRETE MANHOLE

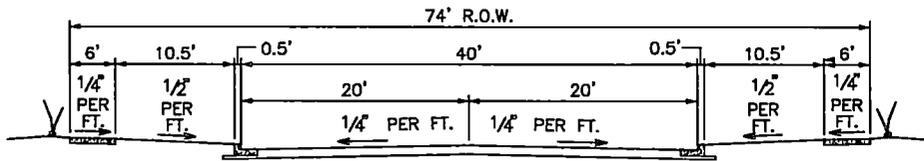
STANDARD DRAWING NO.	260
APPROVAL:	
URBAN COUNTY ENGINEER	9/22/17
COMMISSIONER	9/22/17
	DATE



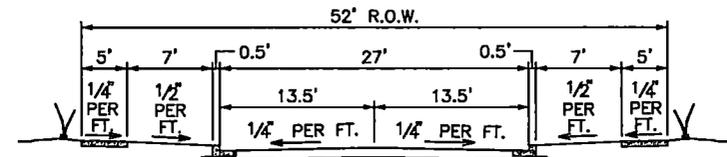
NON-RESIDENTIAL COLLECTOR



RESIDENTIAL CONTINUING LOCAL
OR COMMERCIAL SERVICE

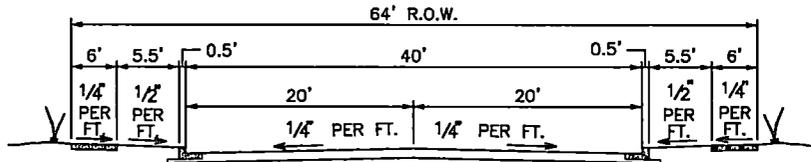


NON-RESIDENTIAL OR INDUSTRIAL COLLECTOR

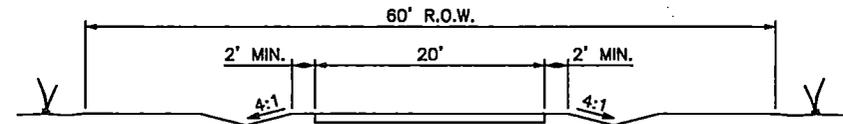


RESIDENTIAL CUL-DE-SAC
AND CONTINUING LOCAL

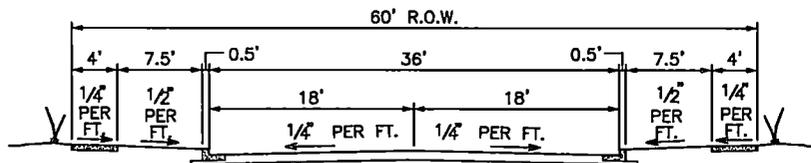
(SEE NOTE 3)



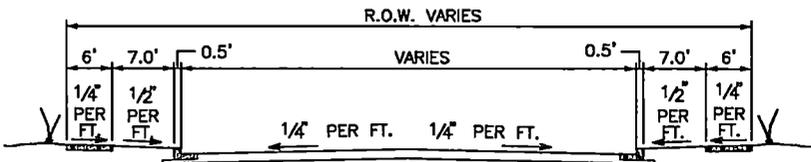
RESIDENTIAL COLLECTOR AND INDUSTRIAL LOCAL
(SEE NOTE 4)



RURAL LOCAL



RESIDENTIAL COLLECTOR
(OBSOLETE) - USED TO COMPLETE EXISTING STREETS



ARTERIAL MAJOR AND MINOR
(SEE NOTE 4)

NOTES:

1. SLOPES AND DRAINAGE DITCHES OUTSIDE THE R.O.W. SHALL BE APPROVED BY THE ENGINEER.
2. THE APPLICATIONS AND USES OF THE ABOVE TYPICAL SECTION SHALL BE IN ACCORDANCE WITH THE L.F.U.C.G. LAND AND SUBDIVISION REGULATIONS, ARTICLE 6.
3. PARKING RESTRICTED TO ONE SIDE OF ROADWAY.
4. SIDEWALK WIDTH SHALL BE 8' IN HIGH USE AREAS, I.E. DOWNTOWN AND URBAN ENVIRONMENTS, NEAR SHOPPING CENTERS, SCHOOLS, CIVIC CENTERS, ETC.

NO.	DATE	REVISION DESCRIPTION	BY
01	06/21/18	UPDATE APPROVAL STATUS	TAL
02	10/28/19	UPDATE SIDEWALK WIDTHS	TAL

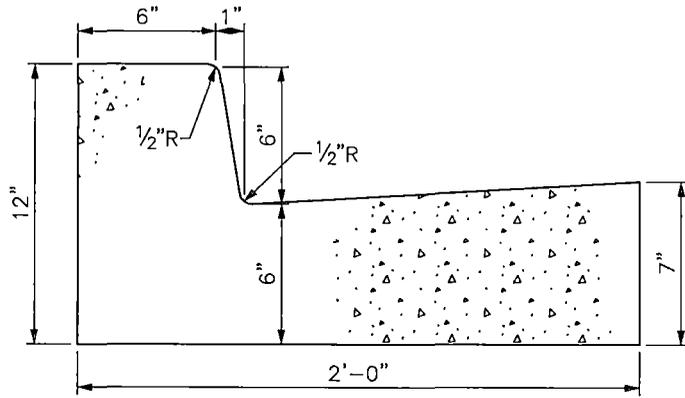


LEXINGTON

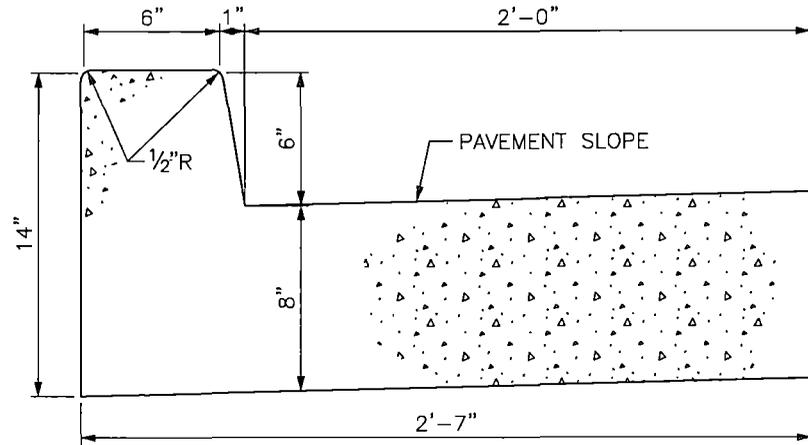
DIVISION OF ENGINEERING

TYPICAL STREET
SECTIONS

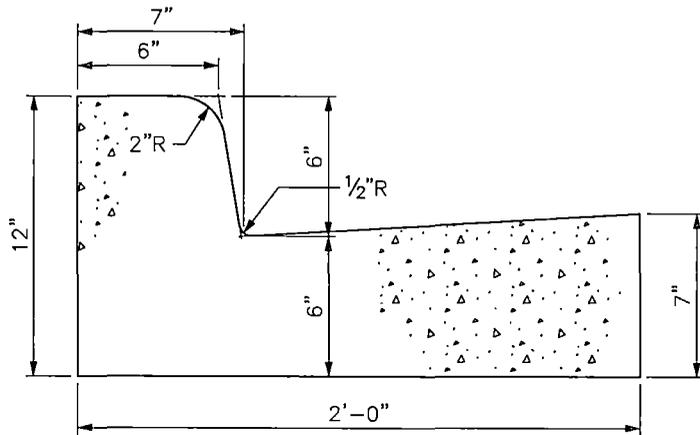
STANDARD DRAWING NO.	300
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE



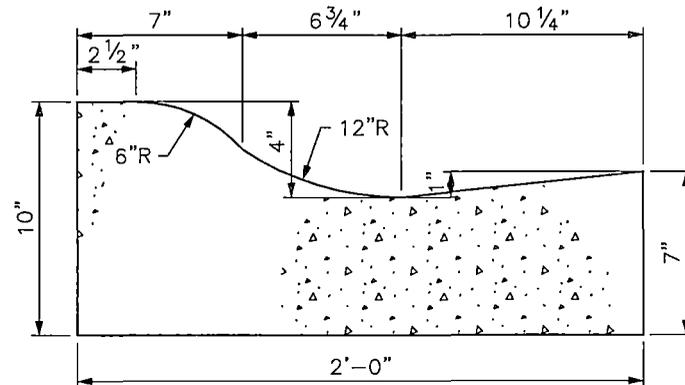
TYPE 1



TYPE 2



TYPE 3



TYPE 4

(RESIDENTIAL LOCAL STREETS ONLY)

NOTES:

1. CONCRETE SHALL BE KDOT CLASS "A".
2. SAWED CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY 20 FEET, WITH A MIN. DEPTH OF 3", IN ACCORDANCE WITH KDOT STANDARD SPECIFICATION.
3. ALL CURB & GUTTER SHOULD BE CONSTRUCTED ON COMPACTED SUBGRADE OR DGA.
4. FULL DEPTH EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL BREAKS IN ALIGNMENT, AT CONTACT WITH NEW OR EXISTING CONCRETE, AT ALL DRAINAGE INLETS, AT THE BEGINING AND ENDING POINTS OF CURVES, AND NOT TO EXCEED 200' MAXIMUM SPACING FOR SLIP FORM APPLICATION AND 30' MAXIMUM SPACING FOR HAND PLACED.
5. ALL CONCRETE SHALL BE CURED WITH WHITE PIGMENTED MEMBRANE FORMING COMPOUND (AASHTO M 148, TYPE 2).

NO.	DATE	REVISION DESCRIPTION	BY
01	06/01/19	UPDATE NOTES	TAL

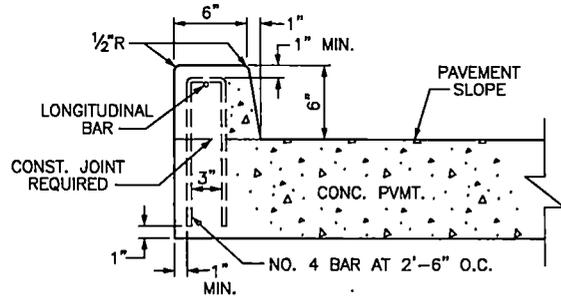


LEXINGTON

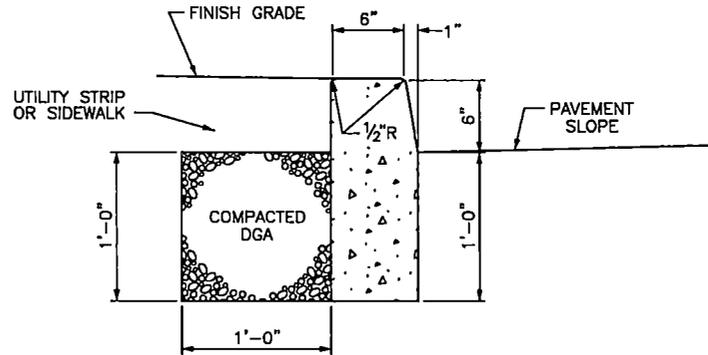
DIVISION OF ENGINEERING

CURB & GUTTER

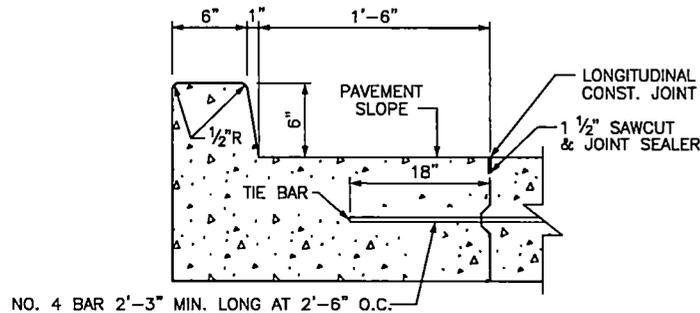
STANDARD DRAWING NO.	301
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE



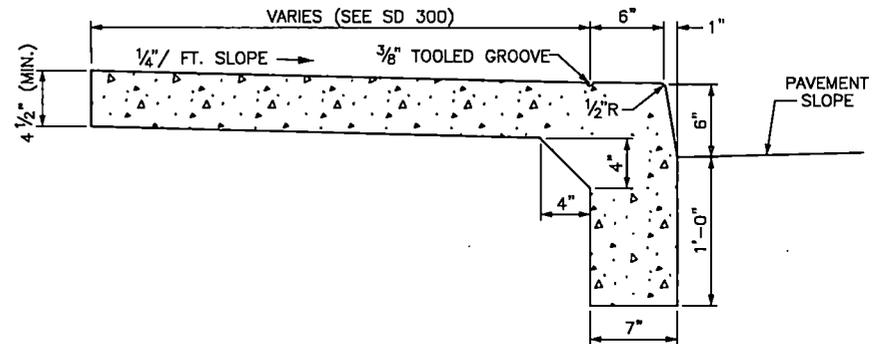
INTEGRAL CURB, TYPE 1



HEADER CURB



INTEGRAL CURB, TYPE 2



MONOLITHIC CURB AND SIDEWALK

NOTES:

1. CONCRETE SHALL BE KDOT CLASS "A".
2. SAWED CONTRACTION JOINTS SHALL BE CONSTRUCTED EVERY 20 FEET, 3" MINIMUM DEPTH.
3. THE CONTRACTOR HAS THE OPTION OF CONSTRUCTING THE STANDARD INTEGRAL CURB AS DETAILED IN EITHER TYPE 1 OR 2. IF TYPE 2 IS CHOSEN A LONGITUDINAL CONSTRUCTION JOINT SHALL BE REQUIRED AND THE REMAINING PAVEMENT AND CURB SHALL BE CONSTRUCTED MONOLITHIC WITHOUT A HORIZONTAL CONSTRUCTION JOINT AND ACCOMPANYING REINFORCING STEEL (TYPE 1).

4. FULL DEPTH EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL BREAKS IN ALIGNMENT, AT ALL DRAINAGE INLETS AND AT THE BEGINNING AND ENDING POINTS OF CURVES.
5. ALL CONCRETE, EXCEPT BONDING SURFACES, SHALL BE CURED WITH WHITE PIGMENTED MEMBRANE FORMING COMPOUND (AASHTO M 148, TYPE 2).

NO.	DATE	REVISION DESCRIPTION	BY
01	06/01/19	UPDATE NOTES AND TITLE	TAL
02	10/28/19	UPDATE SIDEWALK WIDTHS	TAL



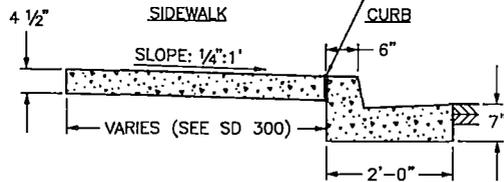
LEXINGTON

DIVISION OF ENGINEERING

INTEGRAL CURB,
HEADER CURB,
MONOLITHIC CURB
& SIDEWALK

STANDARD DRAWING NO.	302
APPROVAL:	<i>[Signature]</i> 9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE

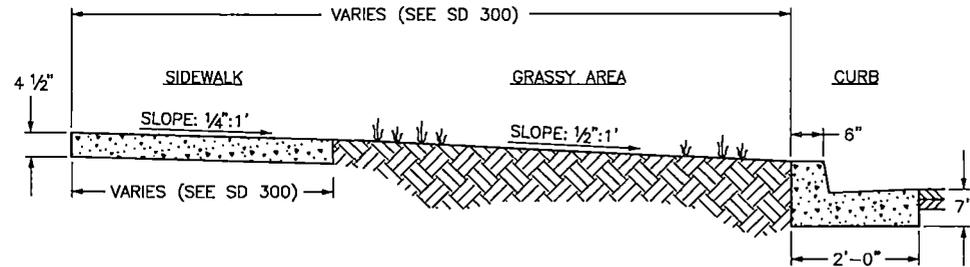
EXPANSION JOINT, FULL DEPTH AND SPAN



SIDEWALK/CURB AND GUTTER

NOTES:

1. CONCRETE SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED ON A THOROUGHLY COMPACTED SUB-GRADE AND SHALL BE FOUR AND ONE HALF (4 1/2) INCHES IN THICKNESS AND A MINIMUM WIDTH OF FIVE (5) FEET. CONCRETE SHALL MEET THE REQUIREMENTS FOR CLASS "A" AND SHALL BE COATED WITH WHITE PIGMENTED CURING COMPOUND TYPE 2, ALL AS SPECIFIED IN KYTC SPECIFICATION, SECTION 823.02.
2. FULL DEPTH EXPANSION JOINTS SHALL BE PLACED AT CONTACT WITH NEW OR EXISTING CONCRETE, EXISTING CONCRETE, AT ABUTTING RIGID STRUCTURES OR FEATURES SUCH AS BUILDINGS, DRIVEWAYS, UTILITY POLES FIRE HYDRANTS, ECT. AND NOT TO EXCEED 200' MAXIMUM SPACING FOR SLIP FORM APPLICATION AND 32' FOR HAND PLACED. EXPANSION MATERIAL SHALL BE 1/2" ASPHALTIC MATERIAL OR APPROVED EQUAL MEETING KYTC 807.04.03.
3. CONTROL JOINTS SHALL BE PLACED AT INTERVALS EQUIVALENT TO THE SIDEWALK WIDTH, WITH A DEPTH OF 1/4 THE SIDEWALK THICKNESS.
4. THE SIDEWALKS SHALL BE PLACED ADJACENT TO THE STREET RIGHT-OF-WAY LINE. SLOPE TOWARD CURB SHALL BE ONE QUARTER (1/4) OF AN INCH TO THE FOOT. CONSTRUCTION IN EXISTING NEIGHBORHOODS SHALL REQUIRE THE CONTRACTOR TO MATCH EXISTING GRADE AND SIDEWALK WIDTH UNLESS SPECIFIED OTHERWISE BY THE DIVISION OF ENGINEERING.
5. SIDEWALK REPAIR FOR ANY CUTS MADE FOR UTILITY WORK REPLACEMENT SHALL BE FULL PANEL MATCHING THE ORIGINAL DIMENSIONS.



SIDEWALK/CURB AND GUTTER WITH GRASS UTILITY STRIP

NO.	DATE	REVISION DESCRIPTION	BY
01	10/28/19	UPDATE SIDEWALK WIDTHS	TAL

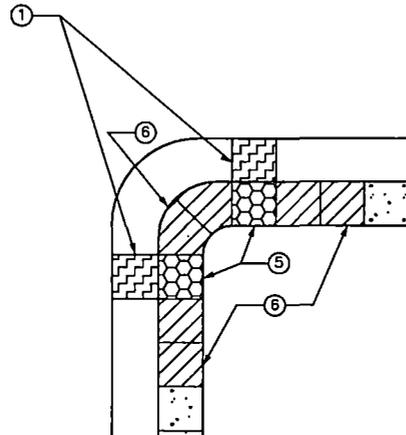
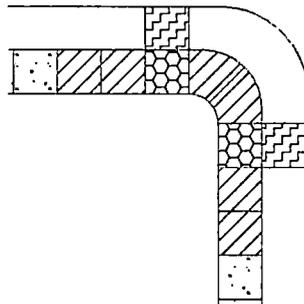
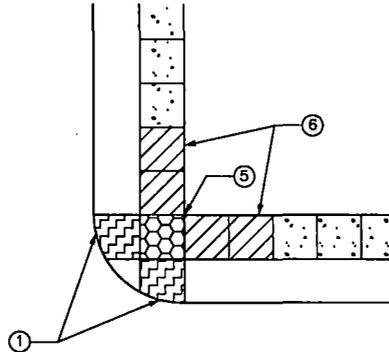
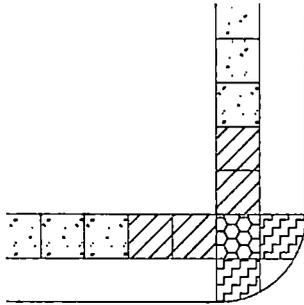


LEXINGTON

DIVISION OF ENGINEERING

SIDEWALK CONSTRUCTION SPECIFICATIONS

STANDARD DRAWING NO.	303
APPROVAL:	
URBAN COUNTY ENGINEER	DATE 9/22/17
COMMISSIONER	DATE 9/22/17



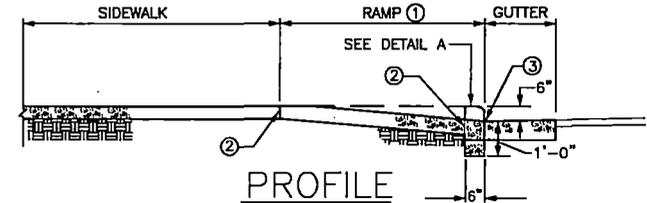
PLAN VIEW

NOTES:

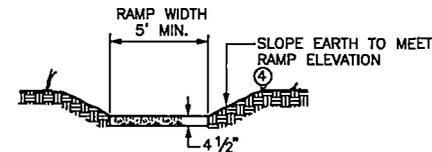
1. INLET LOCATIONS WILL VARY, DEPENDENT ON CROSSWALK AND RAMP LOCATION.
2. THE RAMP SHALL BE CONSTRUCTED OF CLASS A" CONCRETE, AND SHALL UTILIZE CAST IN PLACE REPLACEABLE TACTILE WARNING TILE, SUCH AS ADA SOLUTIONS, INC., ACCESS TILE TACTILE SYSTEMS, ARMOR-TILE HERCULITE OR APPROVED EQUAL. TILE COLOR SHALL BE FEDERAL YELLOW.
3. THE NORMAL GUTTER LINE SHOULD BE MAINTAINED THROUGH THE RAMP.
4. RAMPS SHOULD BE LOCATED WITHIN MARKED LIMITS OF CROSSWALKS.
5. WHERE NO CURB EXISTS, STREET EDGE SHALL BE SAW CUT, OR AS DIRECTED BY L.F.U.C.G. ENGINEER.
6. MAXIMUM CROSS SLOPE OF SIDEWALK 1/4": 1'.
7. SIDEWALK REPAIR FOR ANY CUTS MADE FOR UTILITY WORK REPLACEMENT SHALL BE FULL PANEL MATCHING THE ORIGINAL DIMENSIONS.

SHEET NOTES: ○

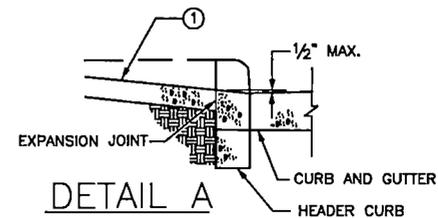
- ① MAXIMUM RAMP SLOPE 1":1'.
- ② 1/2" EXPANSION JOINT AT BACK OF CURBLINE AND SIDEWALK LINE, FULL DEPTH.
- ③ NO BUMP PERMITTED.
- ④ SLOPE VARIES UNIFORMLY TO A MAXIMUM OF 1":1' AT GUTTER LINE.
- ⑤ MAXIMUM CROSS SLOPE OF LANDING 1/4": 1' IN ALL DIRECTIONS.
- ⑥ MAXIMUM LONGITUDINAL SLOPE 1/2": 1', OR ALONG THE CENTERLINE GRADE OF THE ADJACENT ROADWAY.



PROFILE



CROSS SECTION



DETAIL A

NO.	DATE	REVISION DESCRIPTION	BY
01	06/05/18	UPDATE PLAN VIEW NOTE	TAL
02	10/28/19	UPDATE SIDEWALK WIDTHS	TAL



LEXINGTON

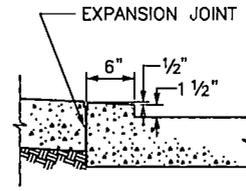
DIVISION OF ENGINEERING

SIDEWALK RAMP

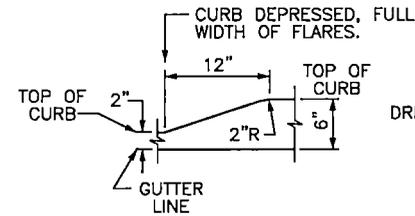
STANDARD DRAWING NO.	304
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE

MAXIMUM ALLOWABLE APRON AND DRIVEWAY WIDTHS

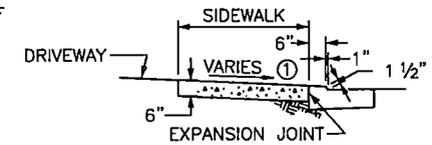
CLASSIFICATION	DRIVEWAY	APRON
SINGLE RESIDENTIAL	12'	18'
DOUBLE OR JOINT RESIDENTIAL	20'	26'



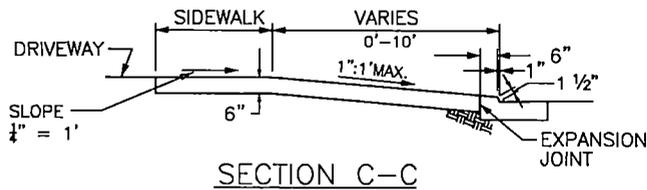
SECTION A-A



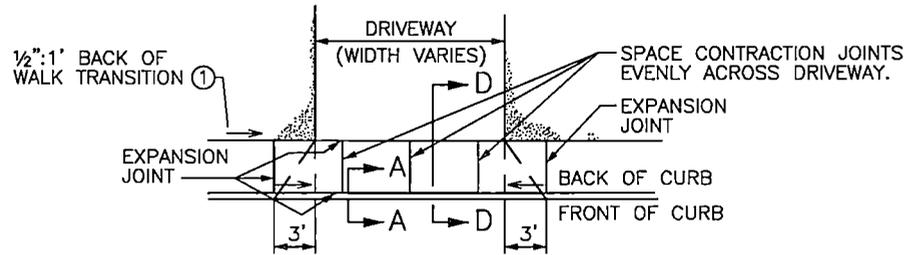
SECTION B-B



SECTION D-D



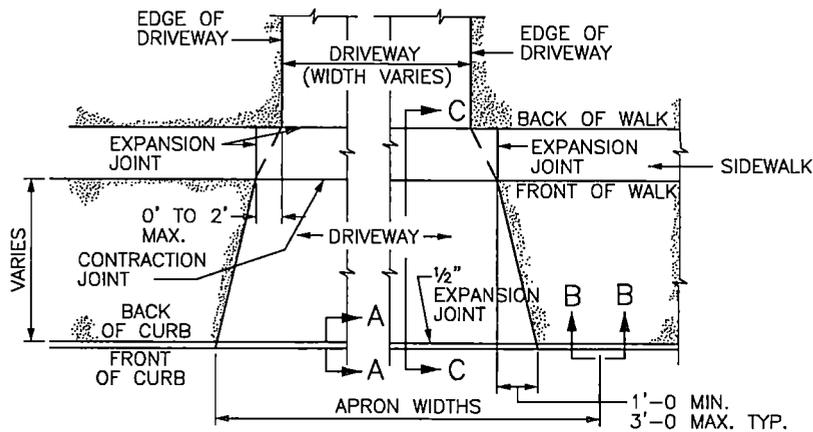
SECTION C-C



ENTRANCE WITHOUT UTILITY STRIP

STREET WITH PARKING LANE

STREET WITHOUT PARKING LANE



ENTRANCE WITH UTILITY STRIP

NOTES:

- ① DROP BACK OF SIDEWALK GRADE 1 1/2" OVER 3' TO PROVIDE A MAXIMUM SLOPE OF 1":1'.
- PROVIDE A SAWED JOINT ALONG CENTER LINE OF APRON.
- MAXIMUM DROP AT BACK OF SIDEWALK SHALL NOT EXCEED 1 1/2".
- MAXIMUM CROSS SLOPE ON SIDEWALK SHALL NOT EXCEED 1/4" = 1".
- MAXIMUM SLOPE ON APRON SHALL NOT EXCEED 1":1' (8.3%).
- ENTIRE APRON FROM BACK OF CURB TO BACK OF SIDEWALK SHALL BE CONSTRUCTED WITH A SINGLE POUR.
- ALL EXPANSION JOINTS SHALL BE FULL DEPTH.

NO.	DATE	REVISION DESCRIPTION	BY
01	10/28/19	UPDATE SIDEWALK WIDTHS	TAL



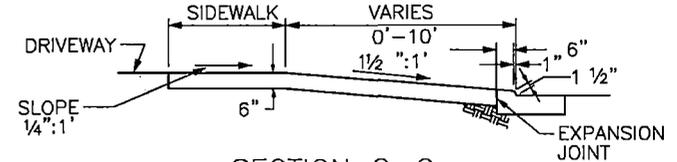
DIVISION OF ENGINEERING

RESIDENTIAL ENTRANCE DETAILS

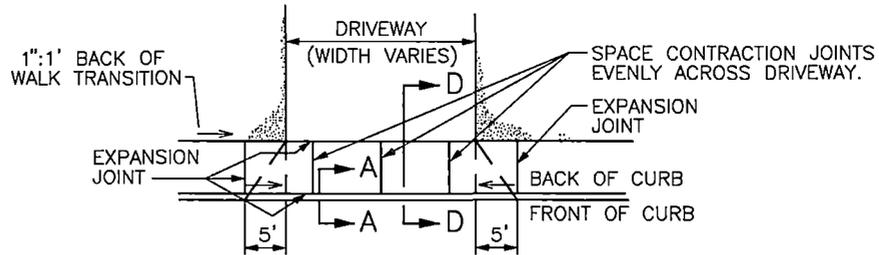
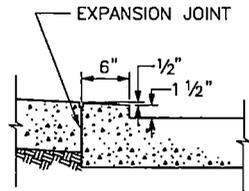
STANDARD DRAWING NO.	307-1
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER	DATE
COMMISSIONER	DATE

MAXIMUM ALLOWABLE APRON AND DRIVEWAY WIDTHS

CLASSIFICATION	DRIVEWAY	STANDARD APRON	ALTERNATE APRON
NON-RESIDENTIAL	30'	5' STRAIGHT FLARE=40' CURB CUT	10' RADIAL FLARE=50' CURB CUT
COMMERCIAL LOADING	30'	15' STRAIGHT FLARE=60' CURB CUT	20' RADIAL FLARE=70' CURB CUT
INDUSTRIAL	40'	20' STRAIGHT FLARE=80' CURB CUT	25' RADIAL FLARE=90' CURB CUT

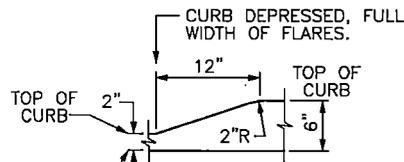


FRONT OF SIDEWALK ELEVATION DETERMINED BY ADDING 1/2":1' ACROSS UTILITY STRIP FROM TOP OF CURB. IF COMING OFF 1 1/2" LIP ADD ANOTHER 4 1/2" TO DETERMINE ELEVATION AT FRONT OF SIDEWALK.

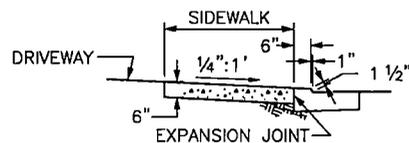


NOTES:

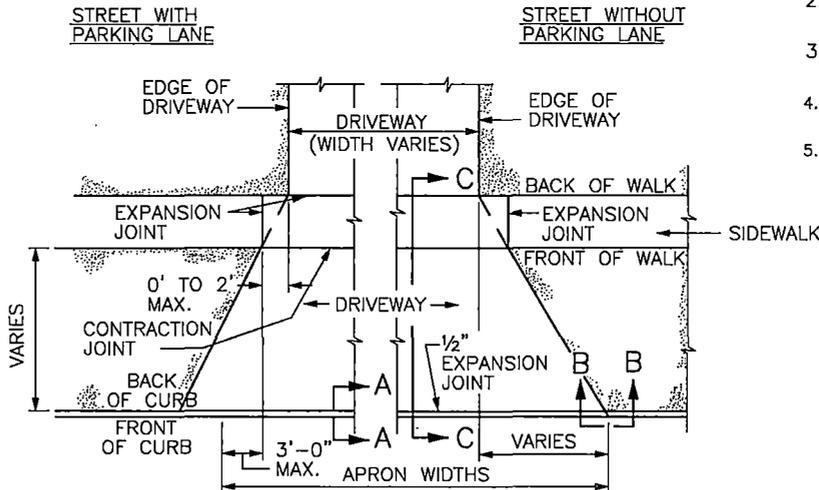
1. PROVIDE A SAWED JOINT ALONG CENTER LINE OF APRON.
2. MAXIMUM CROSS SLOPE ON SIDEWALK SHALL NOT EXCEED 1/4":1'
3. MAXIMUM SLOPE ON APRON SHALL NOT EXCEED 1 1/2":1'.
4. NO CATCH BASINS WILL BE PUT IN APRONS.
5. ALL EXPANSION JOINTS SHALL BE FULL DEPTH.



SECTION B-B



SECTION D-D



ENTRANCE WITH UTILITY STRIP



LEXINGTON

DIVISION OF ENGINEERING

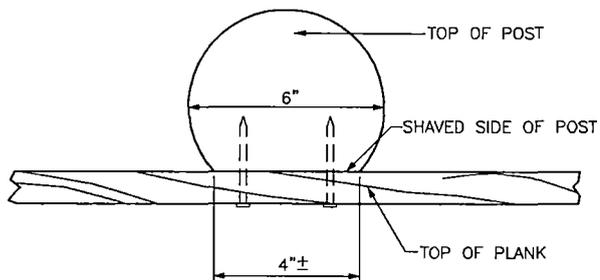
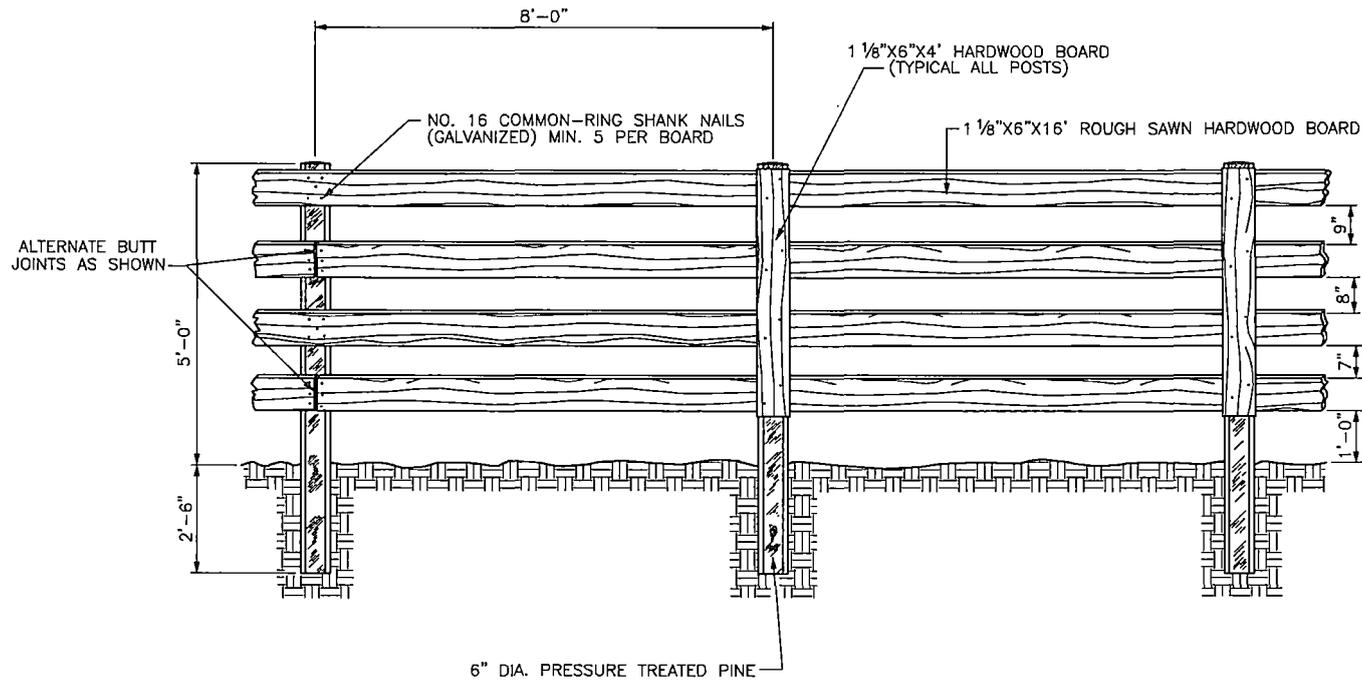
COMMERCIAL ENTRANCE DETAILS

STANDARD DRAWING NO. **307-2**

APPROVAL: *[Signature]* / DATE: 9/22/17

URBAN COUNTY ENGINEER / DATE: 9/22/17

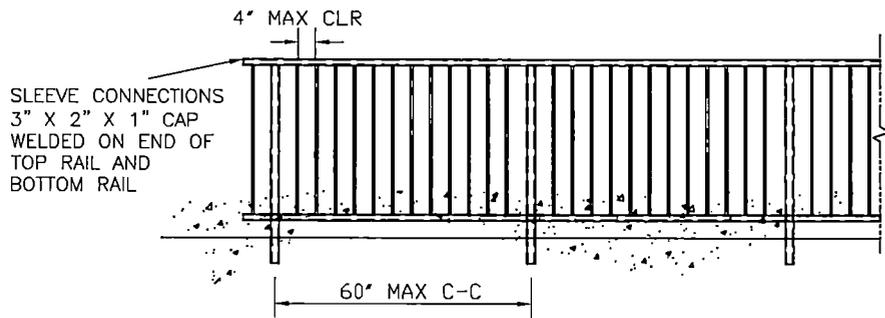
COMMISSIONER / DATE: 9/22/17



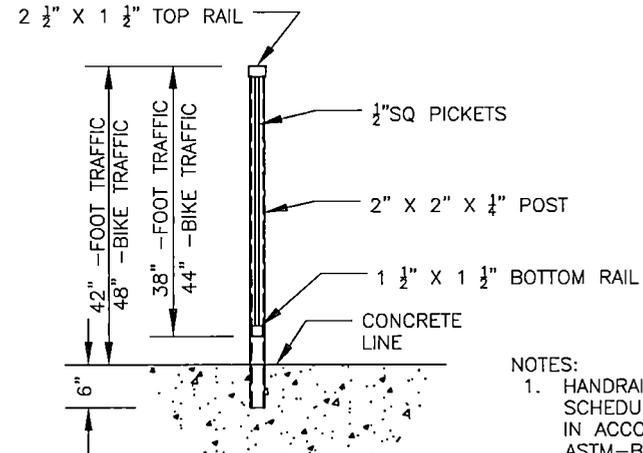
NOTES:

1. POSTS ARE TO BE DRIVEN 2'-6" INTO GROUND AND TOPS CUT AT AN ANGLE TO DRAIN WATER.
2. FENCE SHALL BE PAINTED BLACK OR WHITE WITH PAINT AND APPLICATION RATE AS APPROVED BY THE ENGINEER.
3. HARDWOODS APPROVED ARE RED OAK, WHITE OAK, AND POPLAR.

 LEXINGTON	
DIVISION OF ENGINEERING	
PLANK FENCE	
STANDARD DRAWING NO.	311
APPROVAL:	
URBAN COUNTY ENGINEER	DATE 9/22/17
COMMISSIONER	DATE 9/22/17



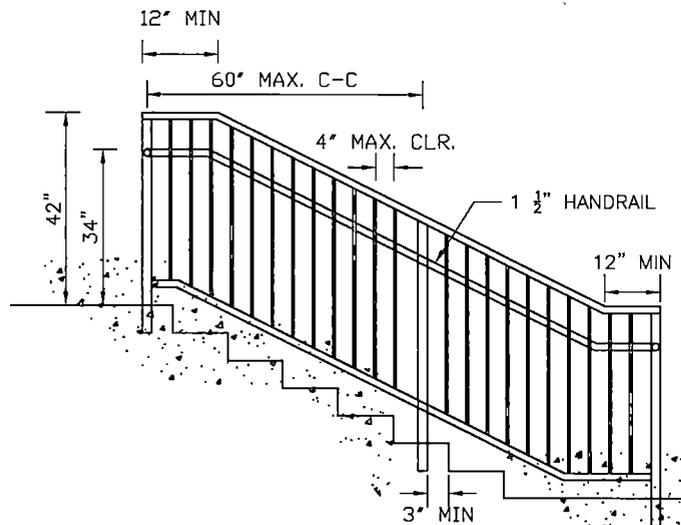
TOP RAIL FOR RETAINING WALLS



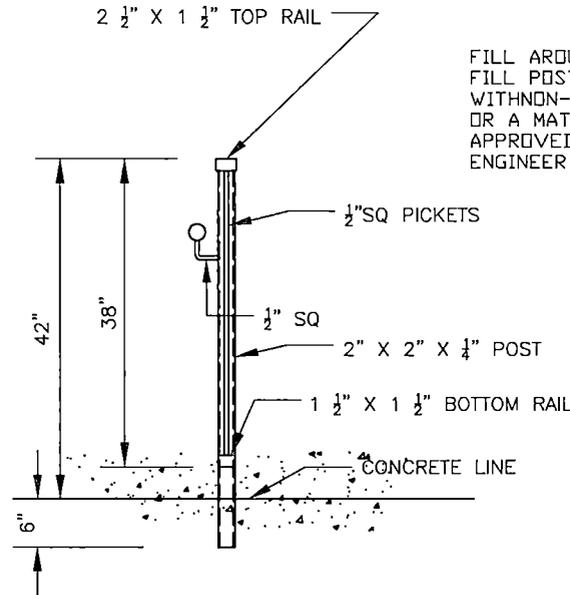
SECTION

NOTES:

1. HANDRAILS SHALL BE DN 40 SCHEDULE 40 ALUMINUM PIPE IN ACCORDANCE WITH ASTM-B221 OR B210 ALLOY 6061-T6.
2. SQUARE BARS SHALL BE DN 40 SCHEDULE ALUMINUM IN ACCORDANCE WITH ASTM-B221 OR B210 ALLOY 6061-T6.
3. ALL METAL TO BE POWDER COATED BLACK IN ACCORDANCE WITH AAMA 2605.
4. GROUT POSTS TO CONCRETE - SEE POST SETTINGS DETAIL THIS SHEET.
5. ANCHOR POSTS IN CORED OR FORMED HOLES.
6. ALUMINUM SURFACES, SUCH AS EXPOSED ENDS, IN CONTACT WITH CONCRETE, GROUT, OR DISSIMILAR METALS SHALL BE PROTECTED WITH A COAT OF BITUMINOUS PAINT.

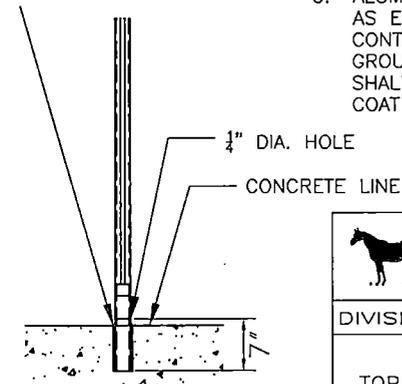


HANDRAIL FOR STEPS



SECTION

FILL AROUND POST AND FILL POST TO HOLE WITH NON-SHRINK GROUT OR A MATERIAL APPROVED BY THE ENGINEER



POST SETTING DETAIL

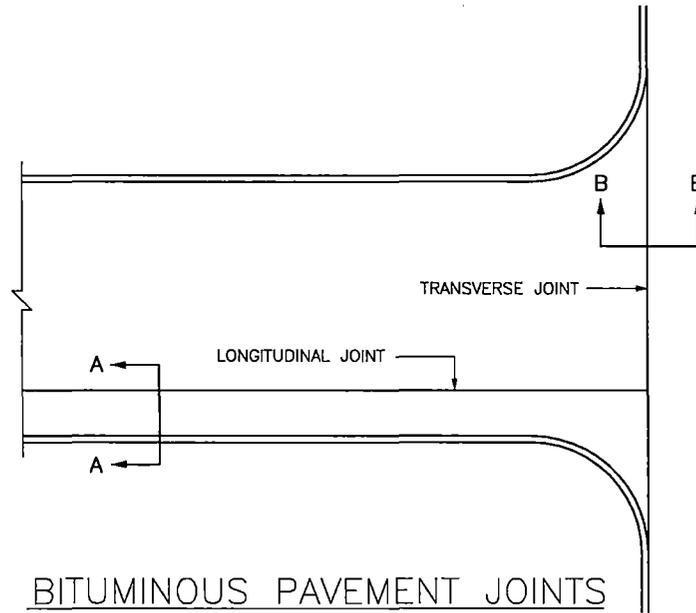


LEXINGTON

DIVISION OF ENGINEERING

TOP RAIL FOR RETAINING WALLS HANDRAIL FOR STEPS

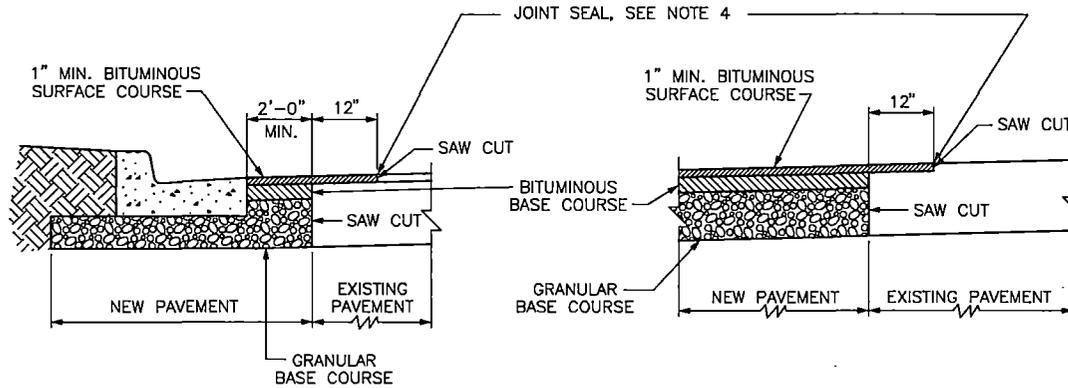
STANDARD DRAWING NO.	316
APPROVAL:	
URBAN COUNTY ENGINEER	9/22/17
COMMISSIONER	DATE



BITUMINOUS PAVEMENT JOINTS

NOTES:

1. ALL SAW-CUTS SHALL BE NEAT AND STRAIGHT.
2. IMMEDIATELY BEFORE LAYING NEW BITUMINOUS COURSES, ALL SAW CUT EDGES SHALL BE CLEANED OF DUST AND DEBRIS AND SPRAYED WITH A BITUMINOUS TACK COAT.
3. EDGE KEY SHALL NOT BE REQUIRED IF BOTH EXISTING AND NEW PAVEMENT ARE TO RECEIVE AN OVERLAY AS PART OF THIS CONTRACT.
4. SEAL PERIMETER OF CUT PAVEMENT WITH CRACK SEALANT THAT MEETS ASTM D6690, TYPE 2.



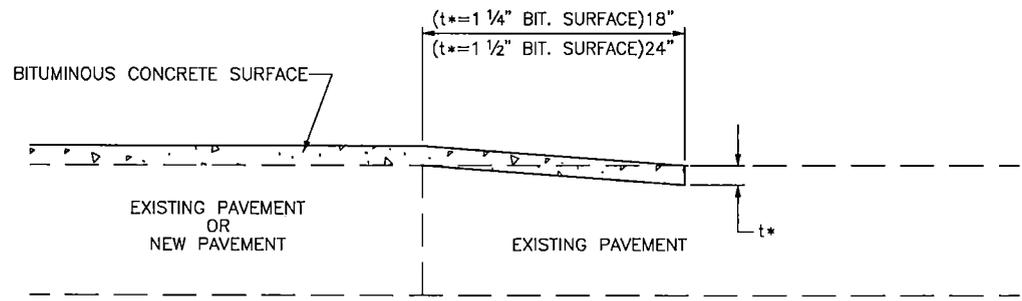
SECTION A-A

LONGITUDINAL EDGE KEY

SECTION B-B

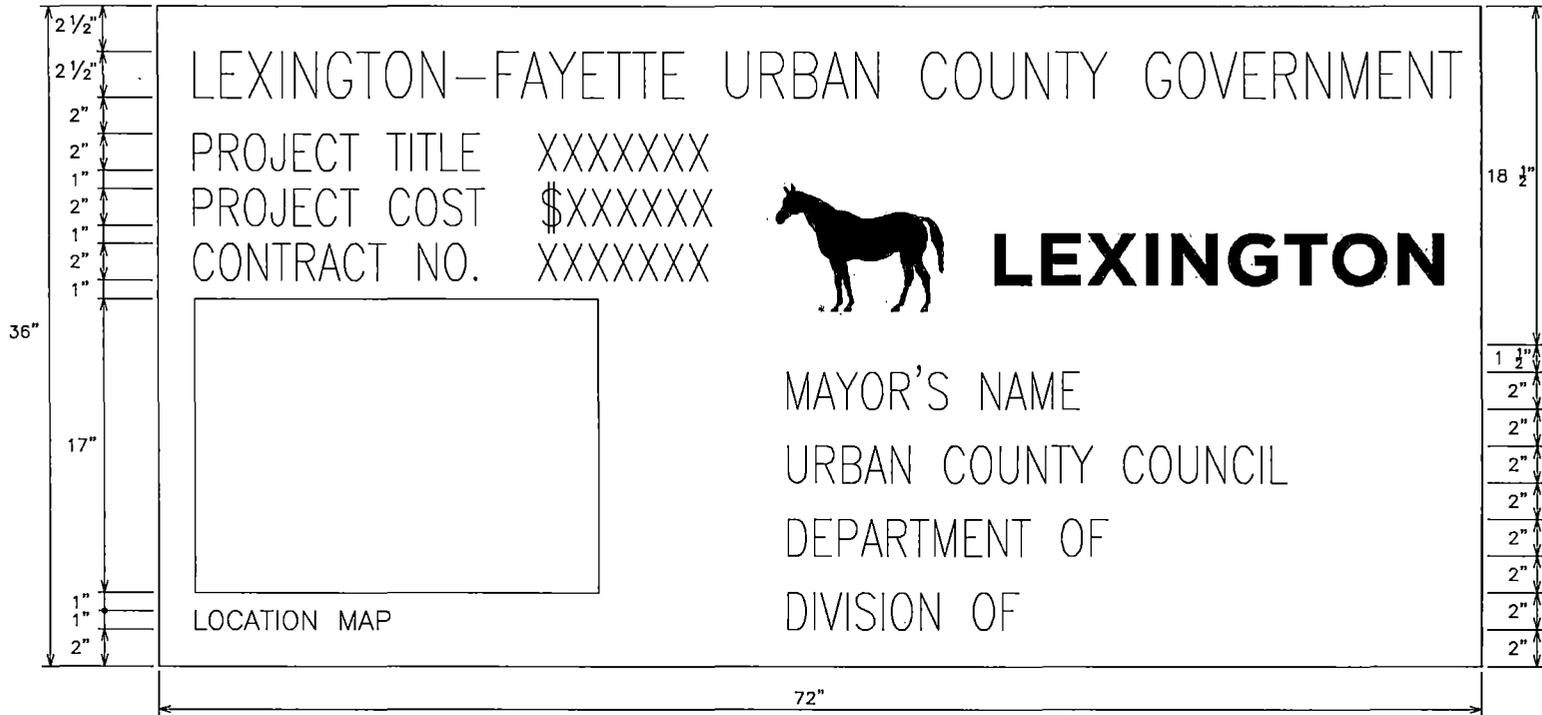
TRANSVERSE EDGE KEY

 LEXINGTON	
DIVISION OF ENGINEERING	
EDGE KEY	
STANDARD DRAWING NO.	318
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER 	DATE 9/22/17
COMMISSIONER 	DATE



EDGE KEY

 LEXINGTON	
DIVISION OF ENGINEERING	
TYPICAL EDGE KEY FOR MINIMUM OVERLAYS, SHORT PROJECTS, LOW SPEED	
STANDARD DRAWING NO.	319
APPROVAL:	<i>[Signature]</i> 9/22/17
URBAN COUNTY ENGINEER	DATE 9/22/17
COMMISSIONER	<i>[Signature]</i> DATE

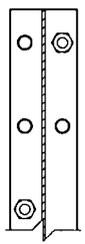
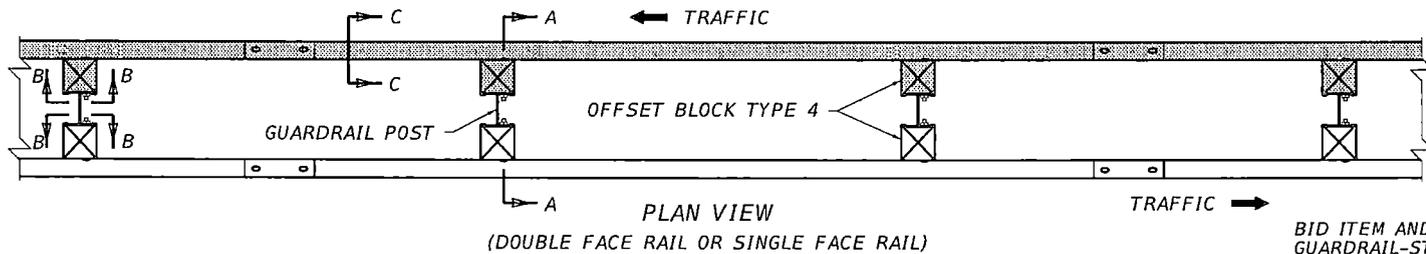
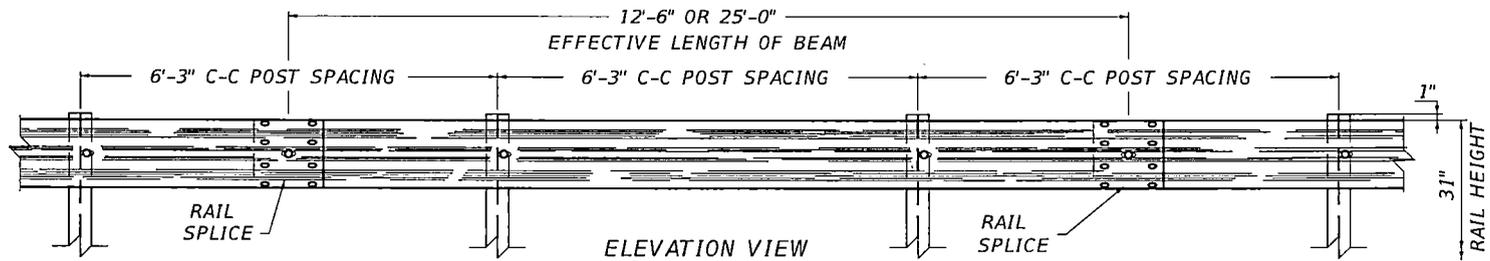


NOTES:

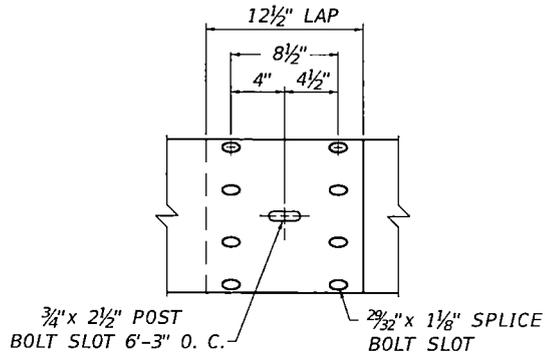
THIS SIGN SHALL BE:

1. FURNISHED AND ERECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE, IN ADDITION TO THE NORMAL WARNING AND REGULATORY SIGNS.
2. OF GOOD QUALITY EXTERIOR PLYWOOD OR OTHER APPROVED MATERIAL.
3. PAINTED WITH SOLID BLUE LETTERS ON A WHITE BACKGROUND.
4. UPDATED AS NEEDED TO INDICATE THE APPROPRIATE MAYOR'S NAME.
5. FRAMED AND BRACED SO AS TO REMAIN VERTICAL AND PLAINLY VISIBLE TO THE TRAVELING PUBLIC.
6. ERECTED PRIOR TO STARTING CONSTRUCTION WORK.
7. ERECTED AT EACH END OF THE PROJECT AT LOCATIONS DIRECTED BY THE ENGINEER AND AT OTHER LOCATIONS SPECIFIED ON THE PLANS OR IN THE PROPOSAL.
8. KEPT CLEAN AND IN GOOD CONDITION FOR THE DURATION OF THE CONSTRUCTION AS DIRECTED BY THE ENGINEER.
9. THE COST SHOWN APPLIES ONLY TO THE PORTION OF PROJECT UNDER CONSTRUCTION IN A CONTINUOUS SECTION. IN THE EVENT THE PROJECT CONSISTS OF MORE THAN ONE CONTINUOUS SECTION THE COST SHOWN SHALL BE FOR THE PARTICULAR SECTION WHERE WORK IS IN PROGRESS.
10. NOT TO BE USED ON FEDERAL AID TRANSPORTATION PROJECTS

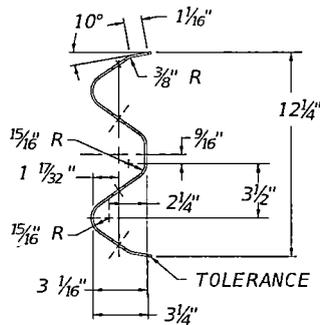
	LEXINGTON
DIVISION OF ENGINEERING	
PUBLIC IMPROVEMENT SIGN	
STANDARD DRAWING NO.	323
APPROVAL:	9/22/17
URBAN COUNTY ENGINEER 	DATE/
COMMISSIONER 	9/22/17
	DATE



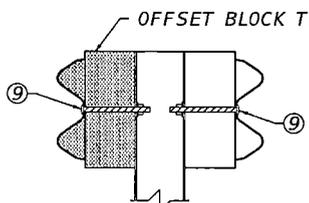
SECTION B-B



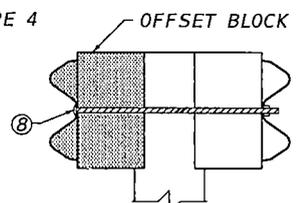
RAIL SPLICE ⑤



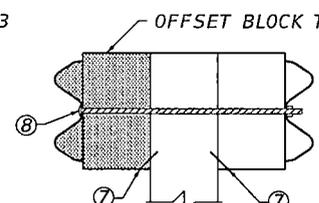
SECTION C-C
(RAIL CORRUGATED SHEET STEEL BEAM)



SECTION A-A
DOUBLE FACE RAIL WITH STEEL POST (W6x9)
(TIMBER OR APPROVED COMPOSITE OFFSET BLOCK)



SECTION A-A
DOUBLE FACE RAIL WITH ROUND TIMBER POST

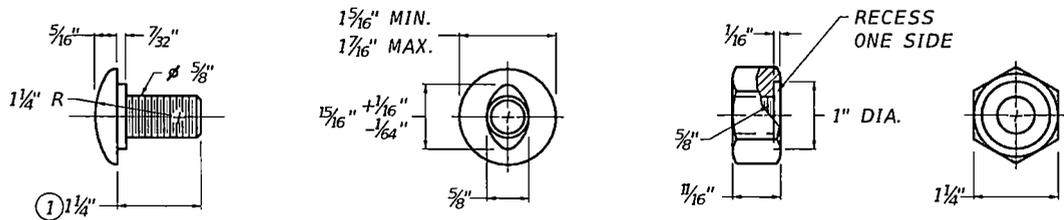


SECTION A-A
DOUBLE FACE RAIL WITH TIMBER POST

~ NOTES ~

- BID ITEM AND UNIT TO BID
GUARDRAIL-STEEL W BEAM-S FACE LF
OR
GUARDRAIL-STEEL W BEAM-D FACE LF
- 1. DIMENSIONAL TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE AND ACCEPTED MANUFACTURING PRACTICES.
- 2. THE RAIL ELEMENT SHALL COMPLY WITH AASHTO M-180 -CLASS A, TYPE II.
- 3. ALL LAPS SHALL BE PLACED IN THE DIRECTION OF TRAFFIC FLOW.
- ④ TOLERANCE + 1/4", -3/4"
- ⑤ 8-5/8" x 1" LONG BUTTON HEAD BOLTS AND HEX HEAD RECESS NUTS REQUIRED FOR EACH RAIL SPLICE.
- ⑥ LENGTH EQUALS POST AND BLOCK WIDTH PLUS 2" FOR BOLT OR 2 1/4" FOR THREADED ROD.
- ⑦ GALVANIZED STEEL 10d COMMON COATED NAIL (DRIVE NAIL AT THE TOP OR BOTTOM CENTER OF BLOCK AND POST AFTER BOLT IS INSTALLED).
- ⑧ 5/8" x ⑥ STEEL THREADED ROD AND TWO (2) HEX HEAD NUTS OR 5/8" x ⑥ BUTTON OR HEX HEAD BOLT AND HEX HEAD NUT.
- ⑨ 5/8" x 8" BUTTON HEAD BOLT, HEX HEAD RECESS NUT AND ONE 5/8" ROUND WASHER (TYP.). BOLT SHALL HAVE A MINIMUM THREAD LENGTH OF 2".
 REQUIRED FOR DOUBLE RAIL
- 10. BOTH 12'-6" AND 25' LENGTHS OF "W" BEAM GUARDRAIL SECTIONS WILL BE PERMITTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

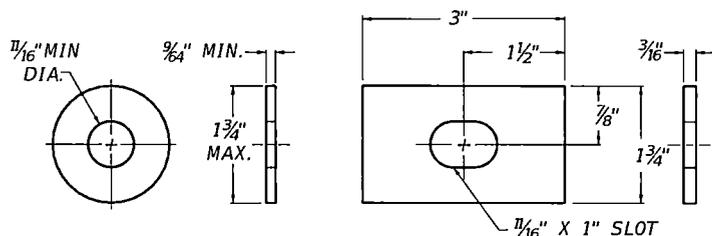
KENTUCKY DEPARTMENT OF HIGHWAYS	
STEEL BEAM GUARDRAIL ("W" BEAM)	
STANDARD DRAWING NO. RBR-001-13	
SUBMITTED	DATE
<i>[Signature]</i>	02-26-20
APPROVED	DATE
<i>[Signature]</i>	02-26-20



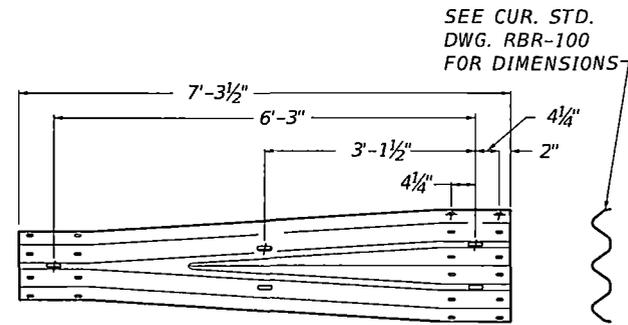
5/8" BUTTON HEAD BOLT AND RECESSED NUT

~ NOTES ~

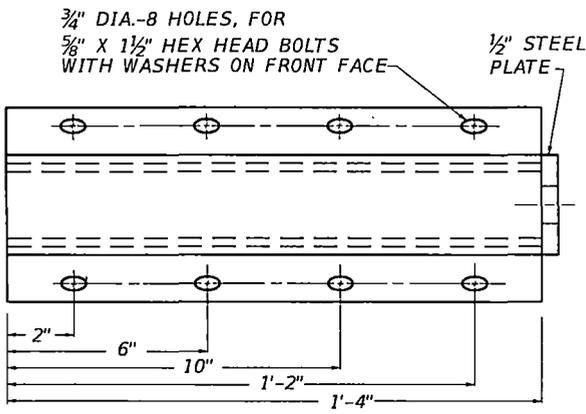
- ① RAIL BOLT SIMILAR EXCEPT LENGTH.
 - ② THE THRIE BEAM TO "W" BEAM CONNECTOR SHALL COMPLY WITH AASHTO M-180 CLASS A, TYPE 2 EXCEPT WHERE IT IS IN CONFLICT WITH THIS DETAIL.
- BID ITEM AND UNIT TO BID
THRIE BEAM TO W BEAM CONNECTOR EACH



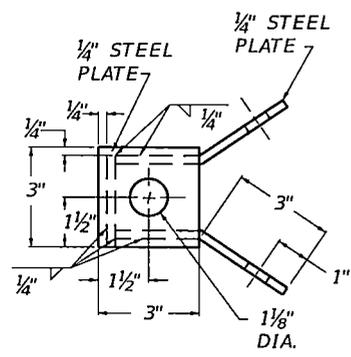
ROUND WASHER AND RECTANGULAR PLATE WASHER



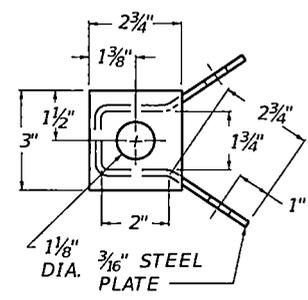
THRIE BEAM TO "W" BEAM CONNECTOR ②



RAIL ANCHOR ASSEMBLY



ALTERNATE NO. 1



ALTERNATE NO. 2

USE WITH CUR. STD. DWG. RBR-001

KENTUCKY
DEPARTMENT OF HIGHWAYS

GUARDRAIL
COMPONENTS

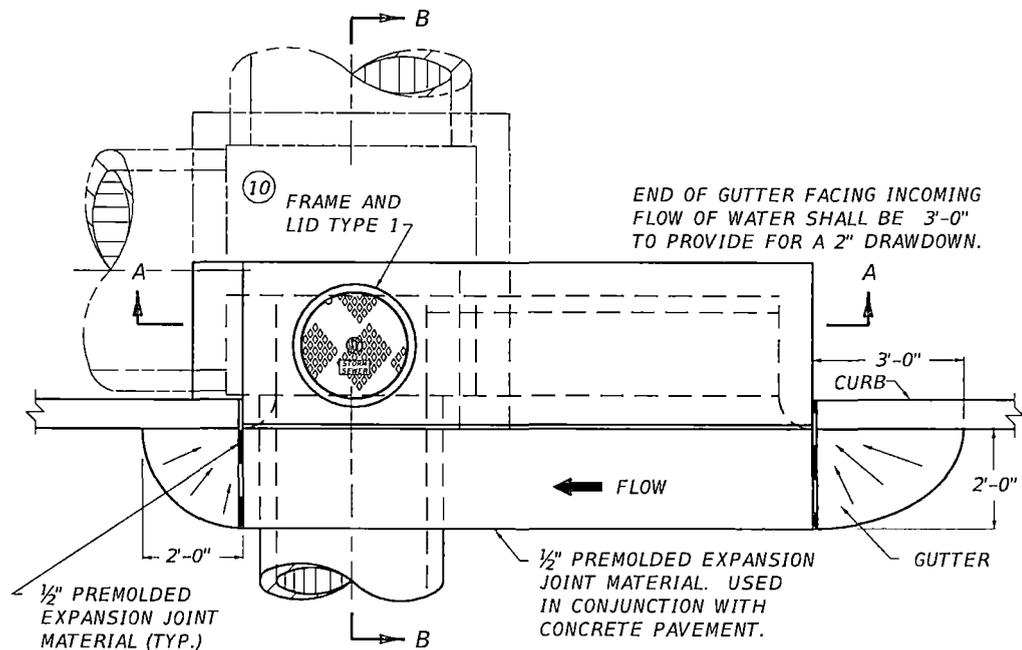
STANDARD DRAWING NO. RBR-005-11

SUBMITTED *[Signature]* 12-01-15
DATE

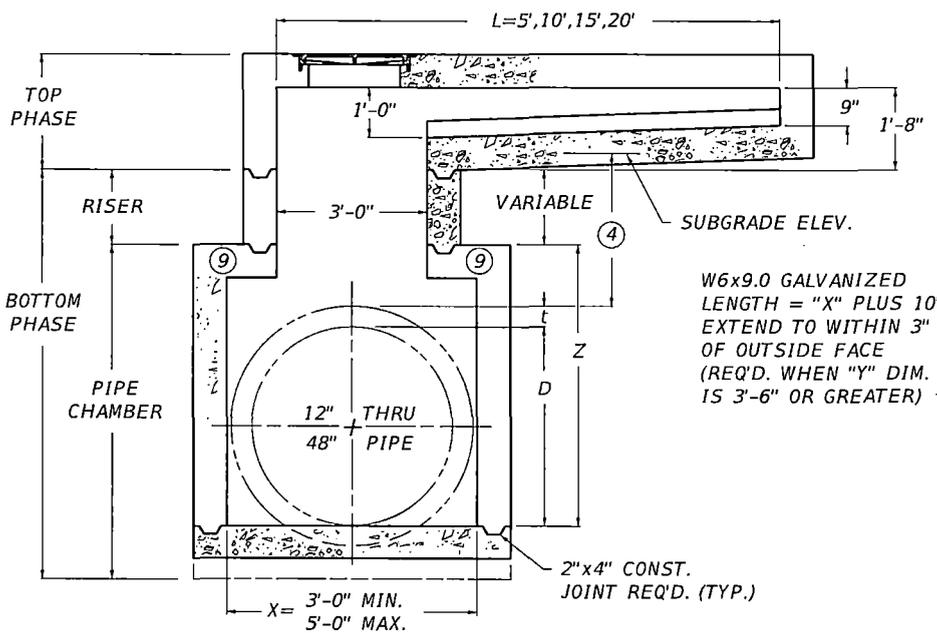
APPROVED *[Signature]* 12-01-15
STATE HIGHWAY ENGINEER DATE

~ NOTES ~

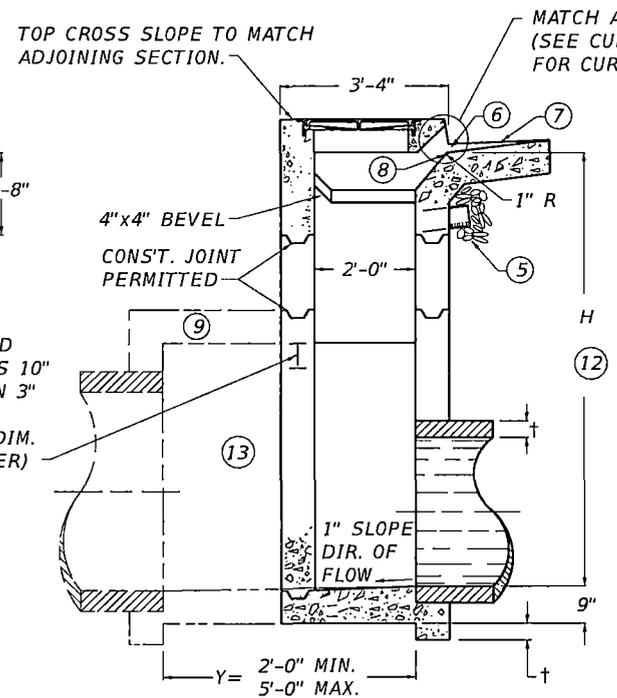
- BID ITEM AND UNIT TO BID
 CURB BOX INLET TYPE A Δ EACH
 Δ (B) = BOTTOM PHASE ONLY, Δ (T) = TOP PHASE ONLY
 NO SUFFIX INDICATES COMPLETE INLET.
1. INLET SHALL BE CONSTRUCTED IN TWO PHASES (BOTTOM AND TOP)
 2. SEE CUR. STD. DWGS. RDB-271, RDB-272, RDB-273, RDB-400, RDB-410 AND RDB-420 FOR STEEL PATTERN, DIMENSIONS AND QUANTITIES.
 3. ALL WALLS, SLABS AND GUTTERS ARE 8" THICK UNLESS OTHERWISE INDICATED.
 4. 2'-0" DESIRED COVER, 1'-0" MINIMUM COVER.
 5. SPALLS OR CRUSHED STONE AROUND END OF 4" OR 6" PIPE FOR SUBGRADE DRAINAGE.
 6. 2" MINIMUM DRAWDOWN.
 7. GUTTER CROSS SLOPE.
 8. FLOW LINE (2" BELOW NORMAL GUTTERLINE ELEVATION).
 9. LID MAY BE RAISED OR LOWERED IF APPROVED BY THE ENGINEER.
 10. SEE CUR. STD. DWG. RDM-100 FOR FRAME AND LID TYPE 1.
 11. "t" IS CONCRETE PIPE WALL THICKNESS OR METAL PIPE CORRUGATION DEPTH.
 12. MINIMUM HEIGHTS
 $H = Z + 1'-8"$ FOR STANDARD CURB
 $H = Z + 1'-10"$ FOR ISLAND CURB
 $H = Z + 1'-5"$ FOR BARRIER CURB
 13. CHAMBER MAY BE SHIFTED TO ROADWAY SIDE OF BOX PROVIDED THERE IS 1'-0" MINIMUM COVER BETWEEN SUBGRADE ELEVATION AND TOP OF PIPE.



PLAN VIEW



SECTION A-A



SECTION B-B

RISER	
CU. YDS. CONC. PER FT. HT.	0.3

USE WITH CUR. STD. DWGS.
 RDB-271 RDB-272 RDB-273
 RDB-400 RDB-410 RDB-420
 RDM-100

KENTUCKY
 DEPARTMENT OF HIGHWAYS

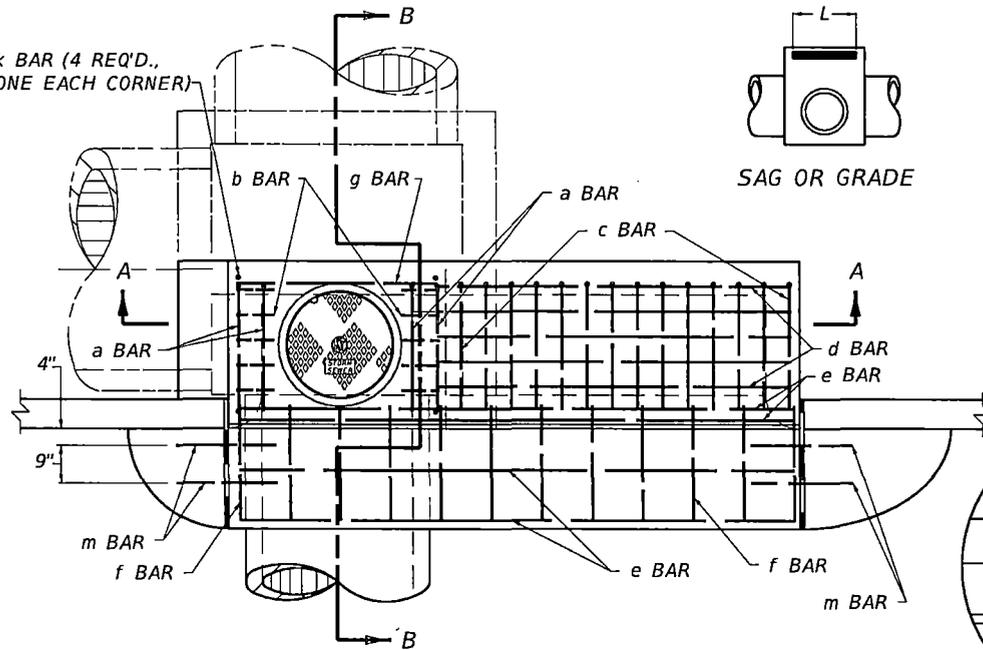
CURB BOX INLET
 TYPE A
 (DETAIL DRAWING)

STANDARD DRAWING NO. RDB-270-09

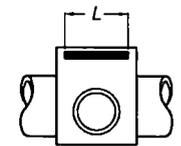
SUBMITTED: *[Signature]* 12-01-15
DIRECTOR DIVISION OF DESIGN DATE

APPROVED: *[Signature]* 12-01-15
STATE HIGHWAY ENGINEER DATE

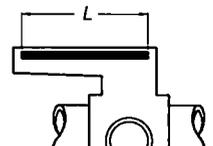
k BAR (4 REQ'D., ONE EACH CORNER)



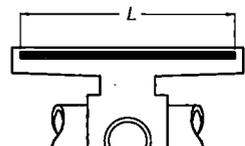
PLAN VIEW



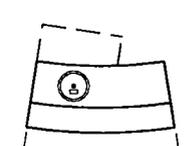
SAG OR GRADE



GRADE



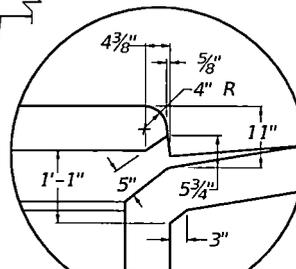
SAG



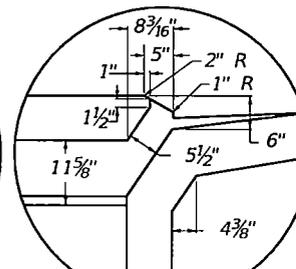
CURVE LAYOUT

~ NOTES ~

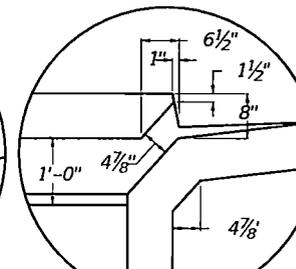
- ① SEE CUR. STD. DWG. RDB-273 FOR LID REINFORCEMENT.
2. e, f, AND g BARS SPACED 1'-0" O.C. ALL OTHER BARS SPACED 6" O.C. EXCEPT WHERE OTHERWISE SPECIFIED.
3. PLACE ALL STEEL REINFORCEMENT 2" FROM INSIDE OF INLET WALL EXCEPT WHERE OTHERWISE SPECIFIED.



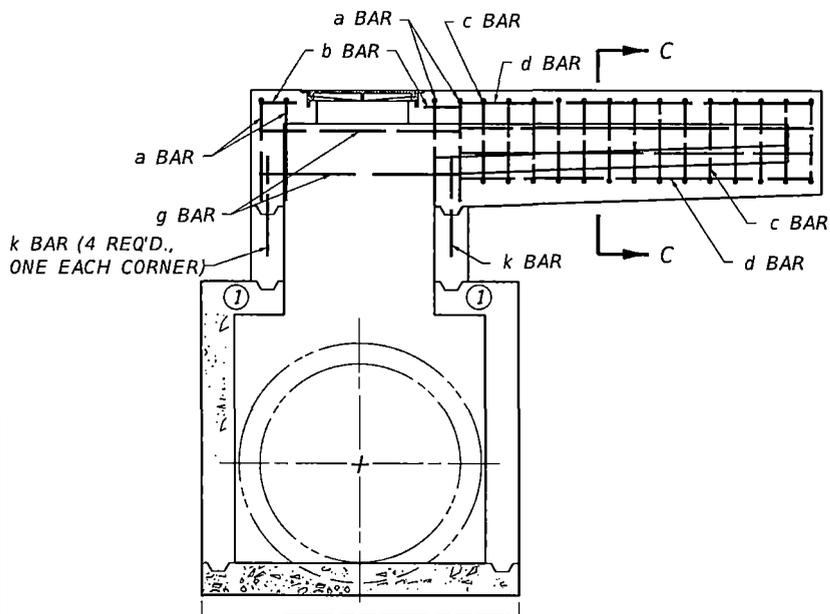
BARRIER CURB



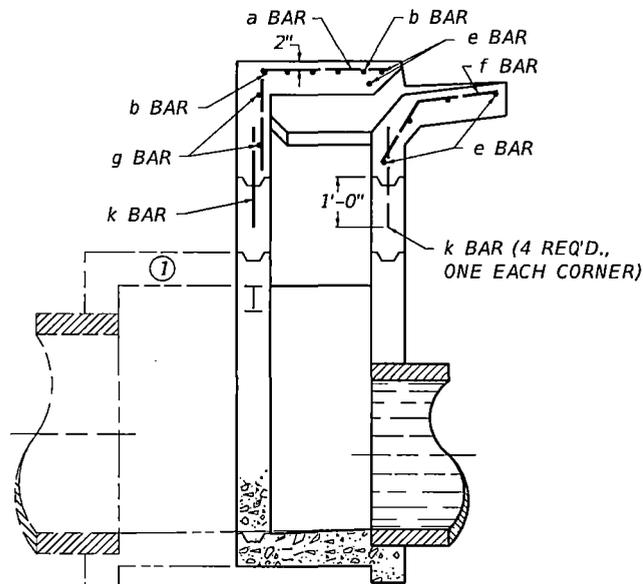
ISLAND CURB



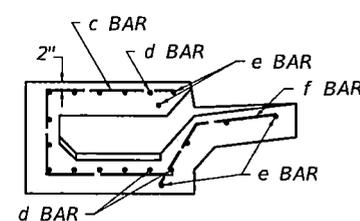
STANDARD CURB



SECTION A-A



SECTION B-B



SECTION C-C

USE WITH CUR. STD. DWGS.
RDB-270 RDB-272 RDB-273
RDB-400 RDB-410 RDB-420

KENTUCKY
DEPARTMENT OF HIGHWAYS

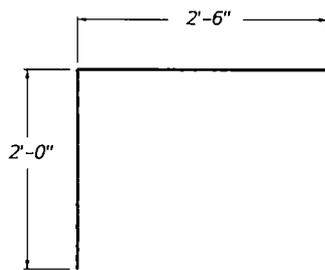
CURB BOX INLET
TYPE A
(STEEL DRAWING)

STANDARD DRAWING NO. RDB-271-05

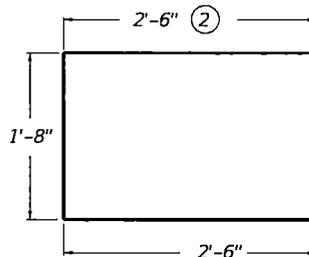
SUBMITTED *W. P. Seal* 12-01-15
DATE
APPROVED *W. P. Seal* 12-01-15
DATE
STATE HIGHWAY ENGINEER

DIMENSIONS AND ESTIMATE OF QUANTITIES (TOP PHASE)

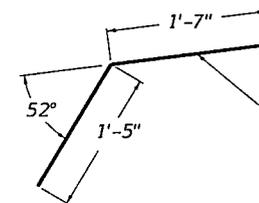
③ SIZE NO.		THROAT "L"	CONC.	NO. 5 STEEL BARS																		LBS.					
				BAR a		BAR b		BAR c		BAR d ④		BAR d ⑤		BAR e		BAR f		BAR g		BAR k ①			BAR m				
GRADE	SAG	FT.	CU.YDS.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.		
1	5	5'-0"	1.4	4	4'-6"	10	0'-9"	4	6'-7"	13	2'-0"	26	1'-0"	6	6'-0"	7	3'-0"	2	4'-0"	4	2'-0"	4	2'-0"	4	2'-0"	165	
2	6	10'-0"	2.7					14			7'-0"		3'-6"		11'-0"											12	349
3	7	15'-0"	3.9					24			12'-0"		6'-0"		16'-0"											17	532
4	8	20'-0"	5.1					34			17'-0"		8'-6"		21'-0"											22	716



a BAR



c BAR



f BAR

THIS PORTION
GOES IN GUTTER.

~ NOTES ~

- ① USE "k" BARS ONLY IN CONJUNCTION WITH THE RISER.
- ② 2'-3" FOR ISLAND CURB.
- ③ INLETS ARE SHOWN ON PLANS AS "CURB BOX INLET TYPE A". FOLLOWING THIS ON THE PLANS ARE TWO NUMBERS AND A BOX HEIGHT. USE SECOND NUMBER WITH THIS CHART.
- ④ THIS SET OF "d" BARS ARE TO BE USED ONLY WHEN THE BOX INLET IS BUILT ON GRADE.
- ⑤ THIS SET OF "d" BARS ARE TO BE USED ONLY WHEN THE BOX INLET IS BUILT IN A SAG.
6. "b", "d", "e", "g", "k", AND "m" BARS ARE ALL STRAIGHT BARS.
7. THE ENGINEER MAY REQUIRE ADDITIONAL REINFORCEMENT TO ELIMINATE SETTLEMENT OF ADJOINING SIDEWALK WHEN APPLICABLE. THIS WORK SHALL BE INCIDENTAL TO THE COST OF THE CURB BOX.

USE WITH CUR. STD. DWGS.
RDB-270 RDB-271 RDB-273
RDB-400 RDB-410 RDB-420

KENTUCKY
DEPARTMENT OF HIGHWAYS

CURB BOX INLET
TYPE A
(TOP PHASE TABLE)

STANDARD DRAWING NO. RDB-272-07

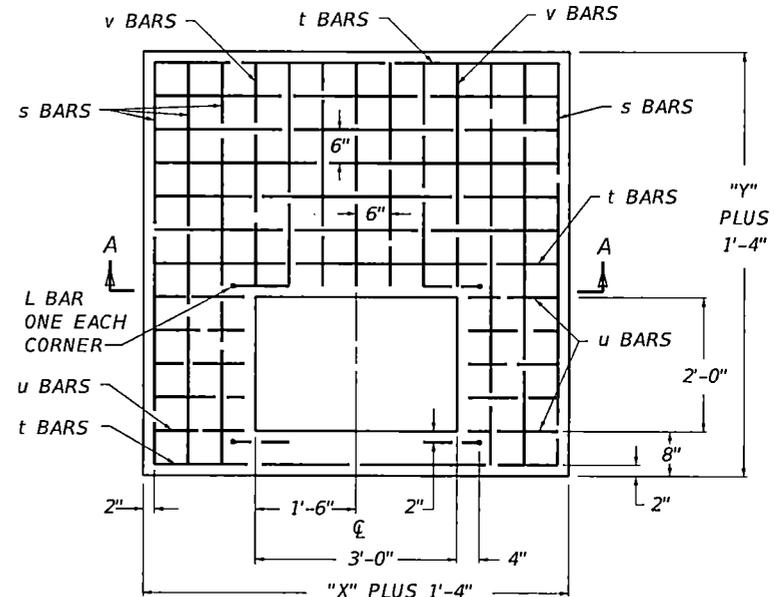
SUBMITTED <i>William P. Eichel</i>	12-01-15
DIRECTOR, DIVISION OF DESIGN	DATE
APPROVED <i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE

REINFORCEMENT STEEL FOR 8" LID

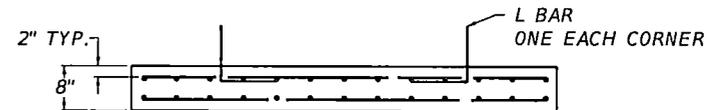
SIZE		NO. 5 STEEL BARS								LBS.
		BAR s		BAR t		BAR u		BAR v		
X	Y	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	
3'-0"	2'-0"	-	-	-	-	-	-	-	-	7
	2'-6"	4	3'-6"	6	4'-0"	-	-	14	0'-10"	59
	3'-0"		4'-0"	8					1'-4"	77
	3'-6"		4'-6"	10					1'-10"	94
	4'-0"		5'-0"	12					2'-4"	112
	4'-6"		5'-6"	14					2'-10"	130
	5'-0"		6'-0"	16					3'-4"	147
3'-6"	2'-0"		4	3'-0"					4	4'-6"
	2'-6"	3'-6"		6	0'-10"	62				
	3'-0"	4'-0"		8	1'-4"	81				
	3'-6"	4'-6"		10	1'-10"	100				
	4'-0"	5'-0"		12	2'-4"	118				
	4'-6"	5'-6"		14	2'-10"	137				
	5'-0"	6'-0"		16	3'-4"	156				
4'-0"	2'-0"	8	3'-0"	4	5'-0"	20	0'-10"	14	-	70
	2'-6"		3'-6"	6					0'-10"	97
	3'-0"		4'-0"	8					1'-4"	119
	3'-6"		4'-6"	10					1'-10"	141
	4'-0"		5'-0"	12					2'-4"	163
	4'-6"		5'-6"	14					2'-10"	185
	5'-0"		6'-0"	16					3'-4"	207
4'-6"	2'-0"	8	3'-0"	4	5'-6"	20	1'-1"	14	-	78
	2'-6"		3'-6"	6					0'-10"	105
	3'-0"		4'-0"	8					1'-4"	128
	3'-6"		4'-6"	10					1'-10"	151
	4'-0"		5'-0"	12					2'-4"	174
	4'-6"		5'-6"	14					2'-10"	197
	5'-0"		6'-0"	16					3'-4"	220
5'-0"	2'-0"	12	3'-0"	4	6'-0"	20	1'-4"	14	-	97
	2'-6"		3'-6"	6					0'-10"	127
	3'-0"		4'-0"	8					1'-4"	154
	3'-6"		4'-6"	10					1'-10"	180
	4'-0"		5'-0"	12					2'-4"	207
	4'-6"		5'-6"	14					2'-10"	233
	5'-0"		6'-0"	16					3'-4"	259

~ NOTES ~

1. IN ADDITION TO THE CHARTED STEEL, FOUR "L" BARS ARE REQUIRED IN THE LID AND ARE INCLUDED IN THE TOTALS.
2. CONCRETE QUANTITIES FOR LID ARE INCLUDED ON "DIMENSIONS AND ESTIMATE OF QUANTITIES (PIPE CHAMBER)", SEE CUR. STD. DWG.RDB-410.
3. REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE OUTSIDE FACE UNLESS OTHERWISE SHOWN.



DETAIL OF 8" LID
PLAN VIEW



SECTION A-A



L BAR DETAIL

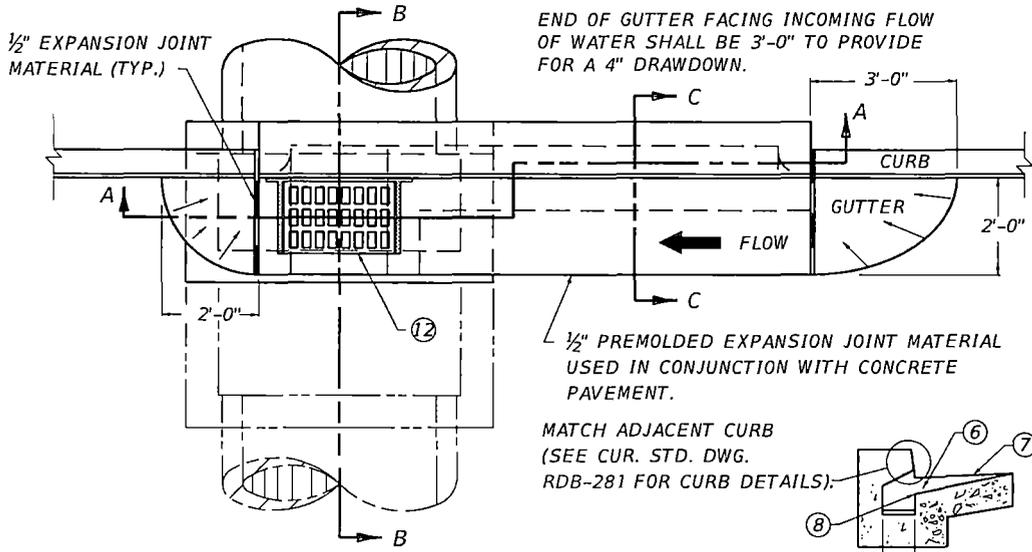
USE WITH CUR. STD. DWGS.
RDB-271 RDB-272 RDB-400
RDB-410 RDB-420 RDB-270

KENTUCKY
DEPARTMENT OF HIGHWAYS

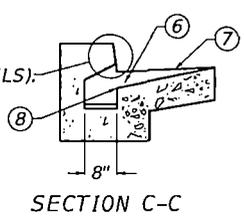
CURB BOX INLET
TYPE A
(DETAIL & BAR CHART FOR 8" LID)

STANDARD DRAWING NO. RDB-273-06

SUBMITTED: <i>[Signature]</i>	12-01-15
APPROVED: <i>[Signature]</i>	12-01-15



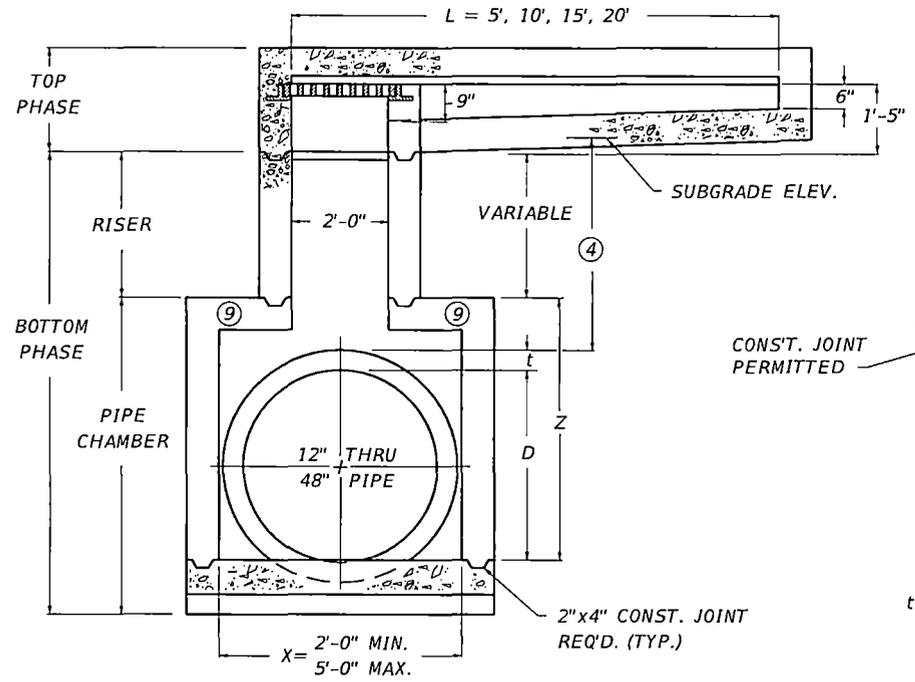
PLAN VIEW



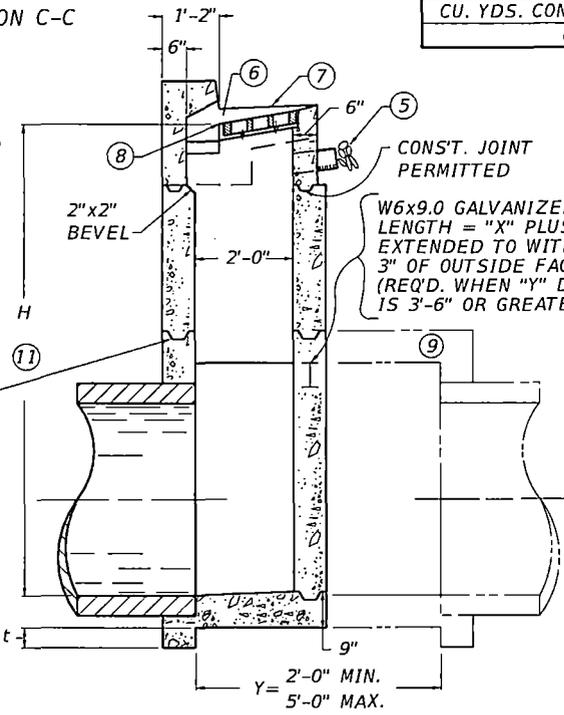
~ NOTES ~

- BID ITEM AND UNIT TO BID CURB BOX INLET TYPE B Δ EACH Δ (B) = BOTTOM PHASE ONLY Δ (T) = TOP PHASE ONLY NO SUFFIX INDICATES COMPLETE INLET.
1. INLET SHALL BE CONSTRUCTED IN TWO PHASES (BOTTOM AND TOP).
 2. SEE CUR. STD. DWGS. RDB-281 RDB-282 RDB-283 RDB-400 RDB-410 AND RDB-420 FOR STEEL PATTERN, DIMENSIONS AND QUANTITIES.
 3. ALL WALLS, SLABS AND GUTTERS ARE 8" THICK UNLESS OTHERWISE INDICATED.
 4. 24" DESIRED COVER, 12" MINIMUM COVER.
 5. SPALLS OR CRUSHED STONE AROUND END OF A 4" OR 6" PIPE FOR SUBGRADE DRAINAGE.
 6. 4" MINIMUM DRAWDOWN.
 7. GUTTER CROSS SLOPE.
 8. FLOW LINE (4" BELOW NORMAL GUTTERLINE ELEVATION).
 9. LID MAY BE RAISED OR LOWERED IF APPROVED BY THE ENGINEER.
 10. "t" IS CONCRETE PIPE WALL THICKNESS OR METAL PIPE CORRUGATION DEPTH.
 11. MINIMUM HEIGHT $H = Z + 1'-4"$ FOR ALL CURB TYPES
 12. SEE CUR. STD. DWG. RDB-282 FOR FRAME AND GRATE DETAIL.

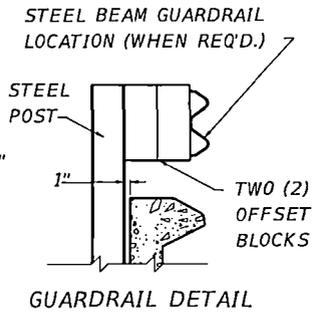
RISER	
CU. YDS.	CONC. PER FT. HT.
	0.3



SECTION A-A



SECTION B-B



USE WITH CUR. STD. DWGS. RDB-281 RDB-282 RDB-283 RDB-400 RDB-410 RDB-420

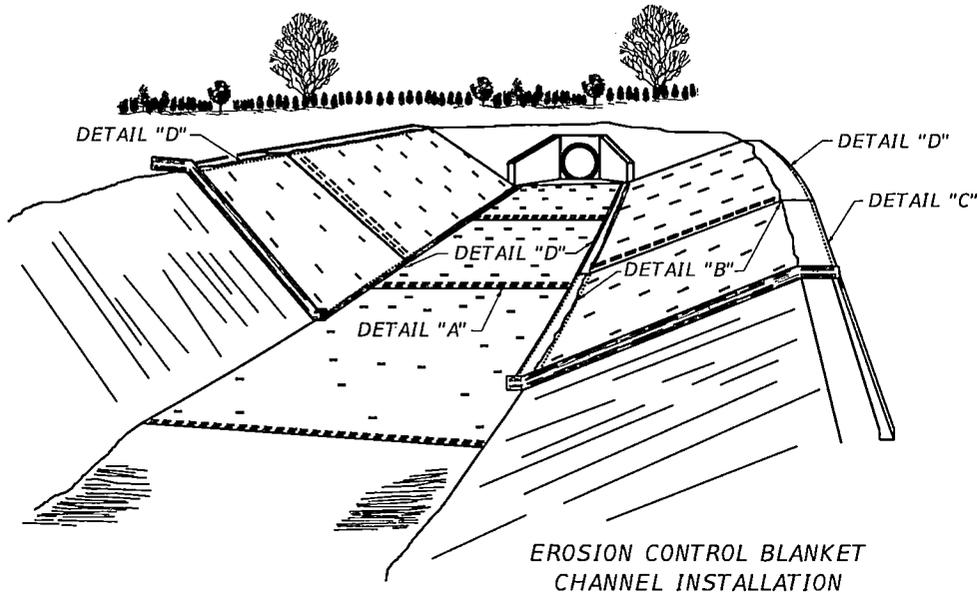
KENTUCKY DEPARTMENT OF HIGHWAYS

CURB BOX INLET TYPE B (DETAIL DRAWING)

STANDARD DRAWING NO. RDB-280-06

SUBMITTED: *[Signature]* 12-01-15
DIRECTOR OF DIVISION OF DESIGN DATE

APPROVED: *[Signature]* 12-01-15
STATE HIGHWAY ENGINEER DATE

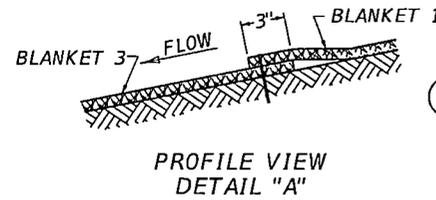


EROSION CONTROL BLANKET CHANNEL INSTALLATION

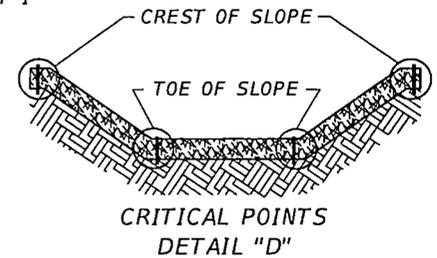
~ NOTES ~

BID ITEMS AND UNIT TO BID
EROSION CONTROL BLANKET SQYD
SEEDING AND PROTECTION SQYD

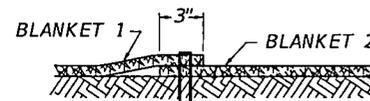
1. CONSTRUCT A 6" X 12" ANCHOR TRENCH AT THE BEGINNING OF THE CHANNEL. LINE THE ANCHOR TRENCH WITH EROSION CONTROL BLANKET (ECB) LEAVING 12" EXTENDING PAST THE ANCHOR TRENCH. FASTEN THE ECB MATERIAL INTO THE ANCHOR TRENCH ON 12" CENTERS BACKFILL THE TRENCH WITH TOPSOIL AND COMPACT. COVER THE AREA WITH THE REMAINING 12" OF THE ECB'S TERMINAL END LEAVING 6" TO OVERLAP THE EROSION CONTROL BLANKET. SECURE THE 6" OVERLAP WITH STAPLES ON 12" CENTERS.
2. UNROLL THE ECB PARALLEL TO THE PRIMARY DIRECTION OF WATER FLOW AND PLACE IN DIRECT CONTACT WITH THE SOIL SURFACE. DO NOT STRETCH OR ALLOW THE MATERIAL TO BRIDGE OVER SURFACE INCONSISTENCIES.
- ③ EXCAVATE 6" X 6" CHECK SLOTS EVERY 25' ALONG THE LENGTH OF THE CHANNEL. LINE THE SIDE AND BOTTOM OF THE SLOT WITH THE ECB AND THEN PULL BACK OVER. FASTEN WITH STAPLES ON 12" CENTERS. FILL THE CHECK SLOT WITH TOPSOIL, COMPACT, AND CONTINUE UNROLLING ECB DOWN THE CHANNEL.
4. CONTINUE UNROLLING THE ECB DOWNSTREAM OVER THE COMPACTED SLOT TO THE NEXT CHECK SLOT OR TERMINAL ANCHOR TRENCH. IF MORE THAN ONE SECTION OF ECB IS USED OVERLAP UPSTREAM ECB OVER TOP OF THE DOWNSTREAM ECB 3" AND SECURE STAPLES ON 12" CENTERS.
5. SECURE ECB WHILE UNROLLING ON SIDESLOPES AND CHANNEL BOTTOMS WITH STAPLES AT A FREQUENCY THE TABLE INDICATES. USE STAPLES HAVING SUFFICIENT GROUND PENETRATION TO RESIST PULLOUT. INCREASE ANCHORING FREQUENCY AS DIRECTED BY THE ENGINEER AND MANUFACTURER'S REPRESENTATIVE.
6. APPLY SEEDING AND PROTECTION ACCORDING TO SECTION 212.03.03 USING SEED MIX TYPE I. DIRECTLY AFTER APPLYING SEEDING AND TREATMENTS IN 212.03.03, BUT BEFORE APPLYING MULCHING OR HYDROMULCHING: INFILL THE VOID SPACES IN THE ECB WITH 1/2" OF TOPSOIL. TOPSOIL IS THE SOIL PROFILE DEFINED TECHNICALLY AS "A" HORIZON BY THE SOIL SCIENCE SOCIETY OF AMERICA. USE LOOSE, FRIABLE TOPSOIL THAT IS FREE OF STONES 1" OR GREATER IN OVERALL DIMENSIONS, ADMIXTURE OF SUBSOIL, REFUSE, STUMPS, ROOTS, BRUSH, WEEDS AND OTHER MATERIALS THAT PREVENT THE FORMATION OF A SUITABLE SEED BED. DO NOT USE TOPSOIL FROM SITES HAVING JOHNSON GRASS, CANADA THISTLE, QUACK GRASS, NODDING THISTLE OR EXCESSIVE AMOUNTS OF WEEDS OR THEIR RHIZOMES.



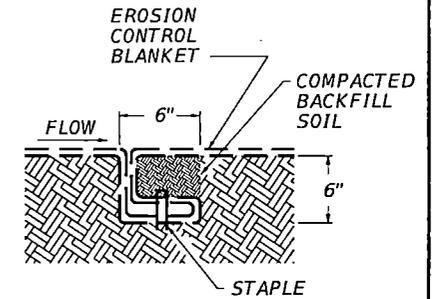
PROFILE VIEW
DETAIL "A"



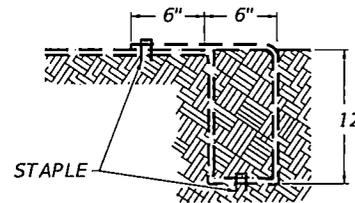
CRITICAL POINTS
DETAIL "D"



CROSS SECTION VIEW
DETAIL "B"



CHANNEL CHECK SLOT ③



PROFILE VIEW
DETAIL "C"

SLOPE GRADE	ANCHORING FREQUENCY
UP TO 2H:1V	1.5 ANCHORS/SQYD
2H:1V TO 1H:1V	2.0 ANCHORS/SQYD
STEEPER THAN 1H:1V AND CHANNEL BOTTOMS	3.0 ANCHORS/SQYD

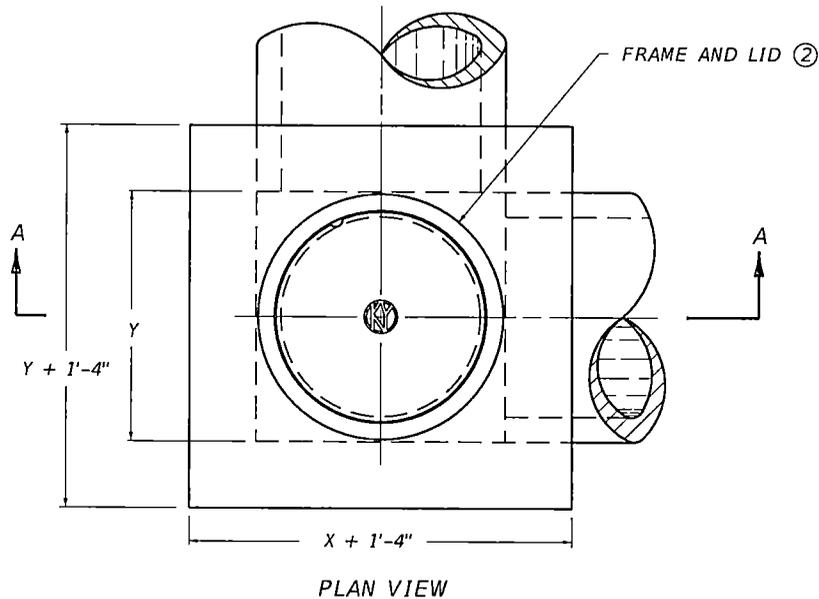
KENTUCKY
DEPARTMENT OF HIGHWAYS

EROSION CONTROL
BLANKET CHANNEL
INSTALLATION

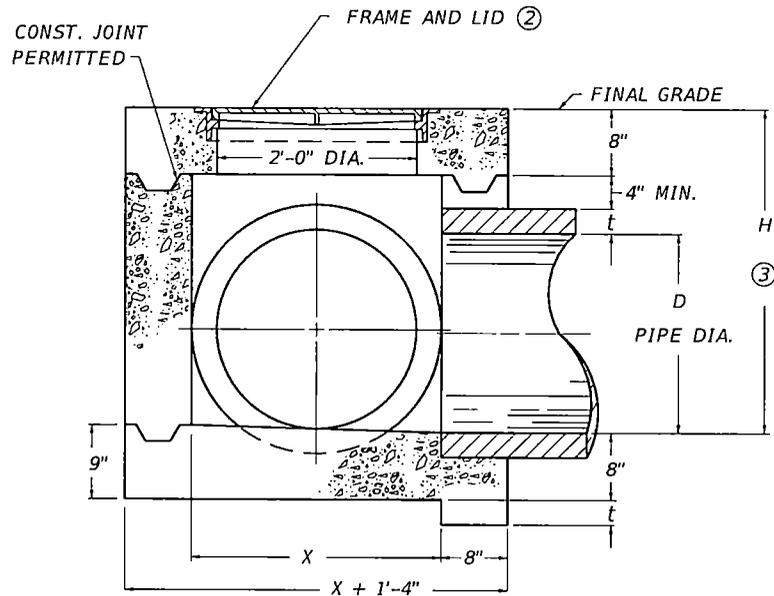
STANDARD DRAWING NO. RDI-041-01

SUBMITTED *[Signature]* 12-01-15
DATE
APPROVED *[Signature]* 12-01-15
DATE
STATE HIGHWAY ENGINEER

~ NOTES ~



PLAN VIEW



SECTION A-A

BID ITEM AND UNIT TO BID
 JUNCTION BOX TYPE B (★) EACH
 (★) = "1" (FRAME AND LID TYPE 1)
 (★) = "2" (FRAME AND LID TYPE 2)

1. THE CONTRACT UNIT PRICE EACH SHALL INCLUDE PAYMENT IN FULL FOR EXCAVATION, LABOR, FRAME AND LID, CONCRETE, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.
- ② WHEN THIS BOX IS TO BE USED IN NON-VEHICULAR TRAFFIC AREAS SEE CUR. STD. DWG. RDM-100 "FRAME AND LID TYPE 1". WHEN THIS BOX IS TO BE USED IN VEHICULAR TRAFFIC AREAS SEE CUR. STD. DWG. RDM-105 "FRAME AND LID TYPE 2".
- ③ THE MAXIMUM DEPTH OF THE BOX FROM FINAL GRADE TO FLOW LINE OF PIPE SHALL BE 8'-0". ANY BOXES DEEPER THAN 8'-0" SHALL BE SPECIFICALLY DESIGNED.
- ④ BASED ON "H" AS EQUAL TO $D + t + 1'-0"$.
- ⑤ "Q" = CUBIC YARDS OF CONCRETE PER FOOT INCREASE OR DECREASE WHEN "H" VARIES FROM $D + t + 1'-0"$.
6. NO DEDUCTIONS HAVE BEEN MADE FOR PIPE, SEE REFERENCE CHART FOR QUANTITIES TO DEDUCT.
7. THE DIMENSIONS AND QUANTITIES HAVE BEEN CALCULATED FOR ROUND CONCRETE PIPE. WHEN NON-CIRCULAR PIPE IS USED THE BOX SIZE SHALL BE DETERMINED BY THE CONTROLLING DIMENSIONS OF THE PIPE.
8. FOR THIS APPLICATION THE "X" DIMENSION IS ASSUMED TO BE EQUAL TO OR GREATER THAN THE "Y" DIMENSION.
9. THE BOX SIZE NUMBER IS TO BE SHOWN ON THE PLANS AND SHALL BE DETERMINED BY THE LARGEST PIPE IN THE "X" AND "Y" DIMENSION.

DIMENSIONS & ESTIMATE OF QUANTITIES

NO.	INLET SIZE		PIPE MAX. DIA.	④ H	CONCRETE	
	X	Y			CU. YDS.	⑤ Q
1	2'-0"	2'-0"	12"	2'-2"	0.91	0.3
2			15"	2'-5"	0.98	
3			18"	2'-9"	1.05	
4	2'-6"	2'-6"	21"	3'-0"	1.27	
5			24"	3'-3"	1.43	
6			2'-0"	3'-3"	1.36	
7			2'-6"	3'-3"	1.52	

DIA. OF PIPE	REFERENCE CHART		CONCRETE TO DEDUCT FOR EACH PIPE CU. YDS.
	PIPE ON "X" SIDE OF BOX	PIPE ON "Y" SIDE OF BOX	
0			---
12"	2'-0"	2'-0"	0.1
15"-18"			
21"-24"	2'-6"	2'-6"	

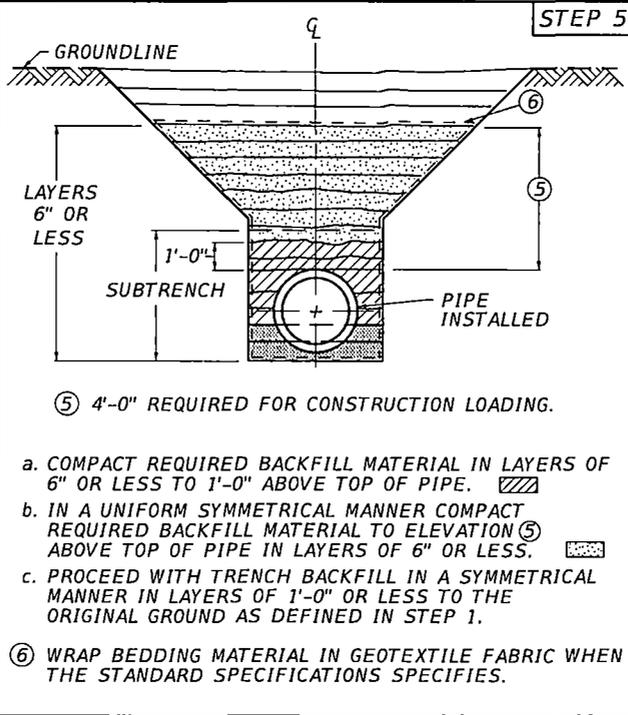
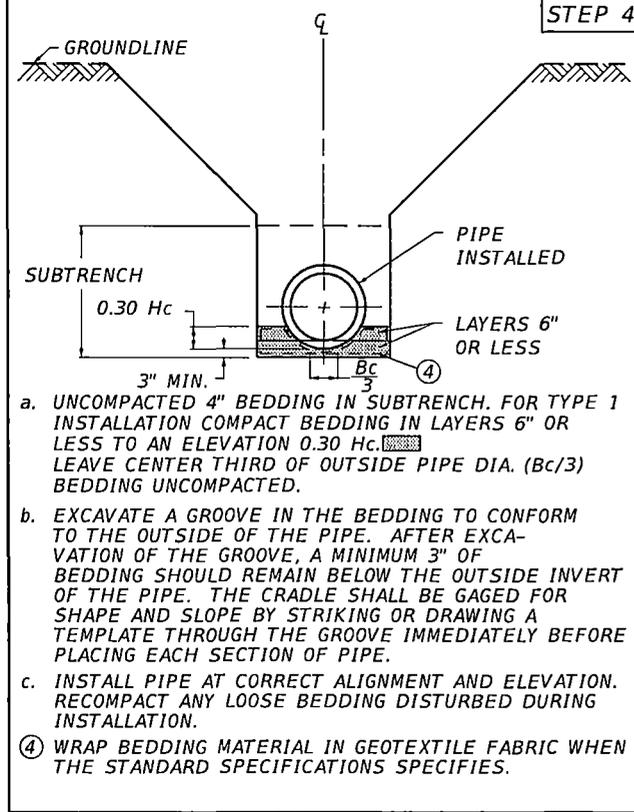
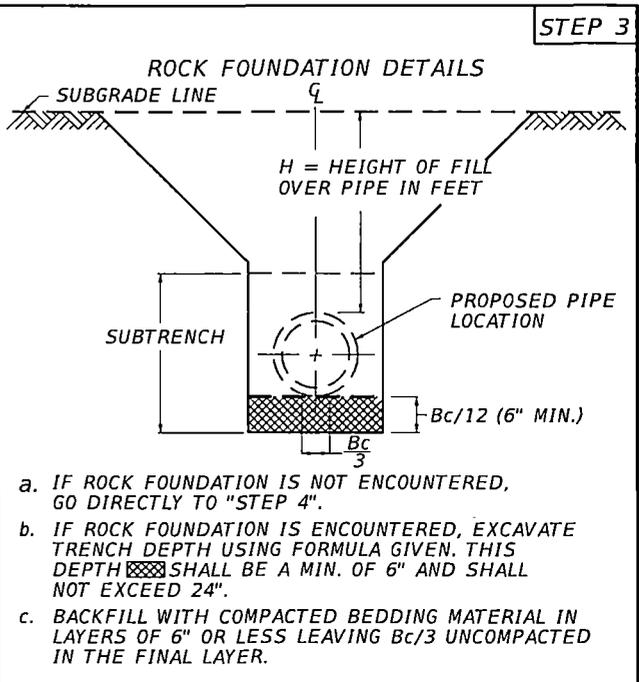
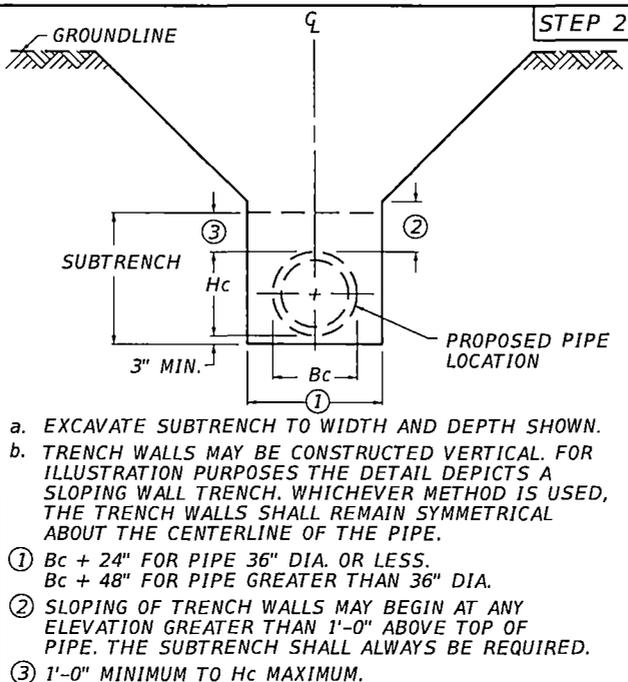
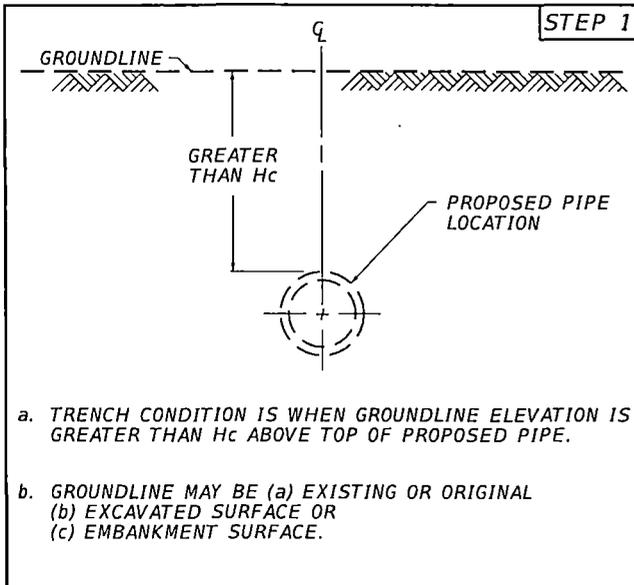
USE WITH CUR. STD. DWGS.
 RDM-100 RDM-105

KENTUCKY
 DEPARTMENT OF HIGHWAYS

JUNCTION BOX
 TYPE B★

STANDARD DRAWING NO. RDX-005-03

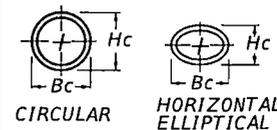
SUBMITTED: *[Signature]* 12-01-15
 DIRECTOR, DIVISION OF DESIGN DATE
 APPROVED: *[Signature]* 12-01-15
 STATE HIGHWAY ENGINEER DATE



CLASS	MAX. COVER HEIGHT	
	TYPE 1	TYPE 4
III	25'	9'
IV	38'	15'
V	57'	23'

CLASS	2' OF COVER OR LESS	
	PIPE DIA.	
V	12"-15"-18"	
IV	21"-24"	
III	27" & LARGER	

- ~ NOTES ~
- 10' MAXIMUM COVER HEIGHT FOR HORIZONTAL ELLIPTICAL CLASS HE III PIPE.
 - COVER HEIGHTS EXCEEDING THOSE SHOWN IN TABLES REQUIRE SPECIAL DESIGNS.
 - FOR TYPE 4 INSTALLATION PLACE EMBANKMENT MATERIAL ACCORDING TO SECTION 701.03.06A OF CURRENT SPEC. BOOK.
 - FOR TYPE 1 INSTALLATION, WHEN THE TOP OF THE PIPE IS NOT WITHIN ONE PIPE DIAMETER OF THE SUBGRADE, INSTALL ACCORDING TO SECTION 701.03.06A OF THE CURRENT SPEC. BOOK. USE WITH CUR. STD. DWG. RDI-021



KENTUCKY
DEPARTMENT OF HIGHWAYS

PIPE BEDDING
TRENCH CONDITION
REINFORCED CONC. PIPE

STANDARD DRAWING NO. RDI-026-01

SUBMITTED: *[Signature]* 12-01-15
DIRECTOR, DIVISION OF DESIGN DATE

APPROVED: *[Signature]* 12-01-15
STATE HIGHWAY ENGINEER DATE

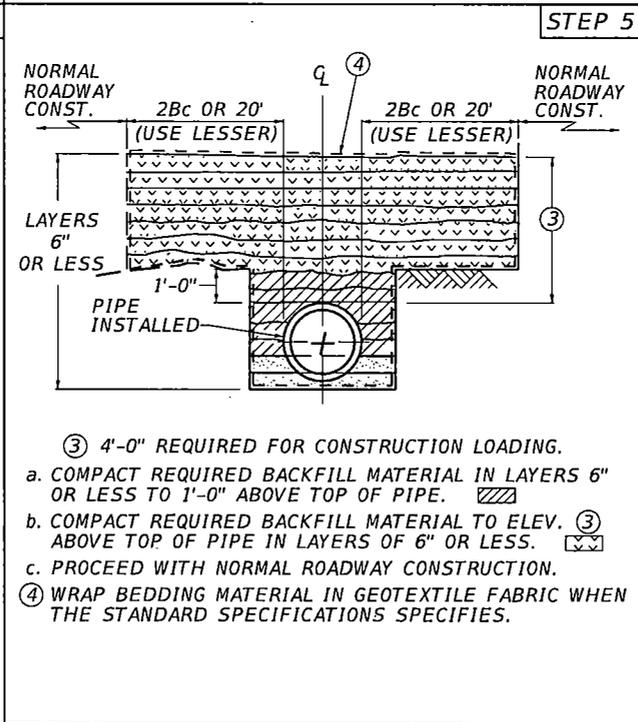
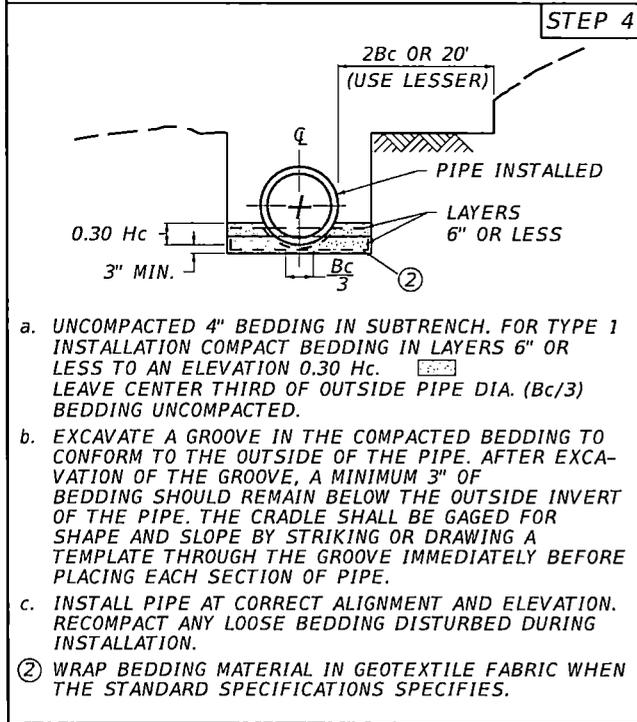
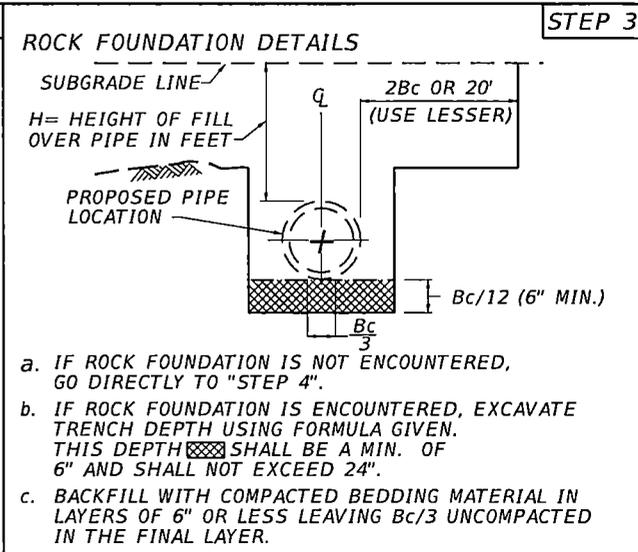
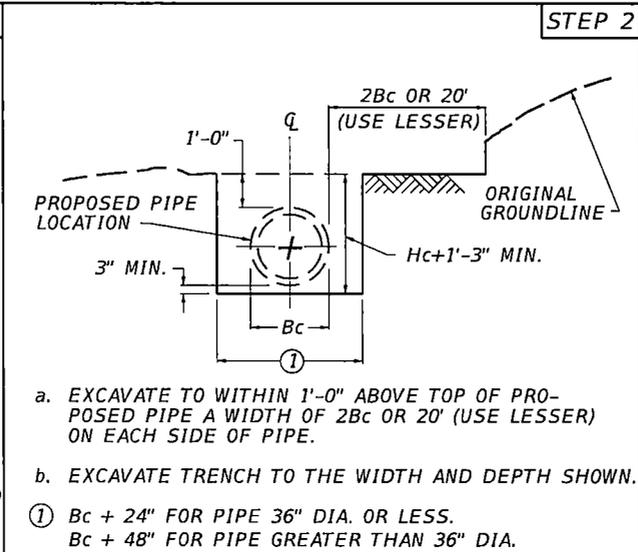
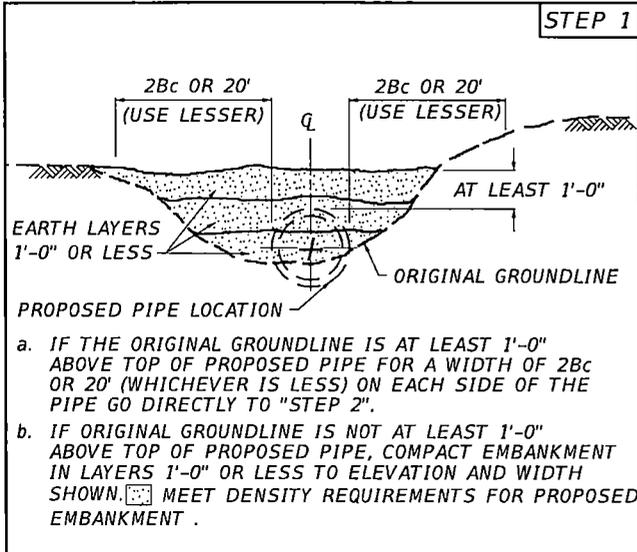
PIPE MATERIAL	pH RANGE ③					
	(ACID) L (< 5)		M (5 - 9) ④		(BASE) H (> 9)	
	COATING	PAVING	COATING	PAVING	COATING	PAVING
STEEL GALVANIZED	P	I	BP	I	P	I
ALUMINUM-COATED TYPE 2 STEEL	-	-	HB	I	-	-
ALUMINUM ALLOY	B	I	HB	I	B	I
REINFORCED CONCRETE	-	EP	-	-	-	EP
PLASTIC	-	-	-	-	-	-

HB - HALF ASPHALT COATED
 B - FULLY ASPHALT COATED
 BP - FULLY ASPHALT COATED OR POLYMERIC COATED
 P - POLYMERIC COATED (PRECOATED GALVANIZED)
 EP - EXTRA PROTECTION
 I - PAVED INVERT

~ NOTES ~

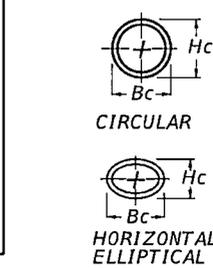
1. EXCEPTIONS FOR STORM SEWERS:
 - a. ANNULAR CORRUGATED PIPE SHALL BE FULLY LINED.
 - b. HELICAL CORRUGATED PIPE > 24" DIA. SHALL BE FULLY LINED.
 - c. HELICAL CORRUGATED PIPE < 24" DIA. SHALL NOT REQUIRE COATING, PAVING, OR LINING.
 - d. SPIRAL RIB PIPE SHALL NOT REQUIRE COATING, PAVED INVERT, OR LINING.
 2. EXCEPTIONS FOR ENTRANCE PIPE:
 - a. COATINGS REQUIRED FOR LOW pH LEVELS.
 - b. PAVED INVERTS SHALL NOT BE REQUIRED FOR ENTRANCE PIPE.
 - c. ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE CULVERT PIPE.
- ③ L = LOW pH RANGE (ACID)
 M = MEDIUM pH RANGE
 H = HIGH pH RANGE (BASE)
- ④ ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN Ph RANGES OF 5 TO 9.

KENTUCKY DEPARTMENT OF HIGHWAYS	
COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PLATE PIPE	
STANDARD DRAWING NO. RDI-035-02	
SUBMITTED <i>[Signature]</i>	12-01-15 DATE
APPROVED <i>[Signature]</i>	12-01-15 DATE
<small>STATE HIGHWAY ENGINEER</small>	



MAX. COVER HEIGHT			2' OF COVER OR LESS	
CLASS	TYPE 1	TYPE 4	CLASS	PIPE DIA.
III	25'	9'	V	12"-15"-18"
IV	38'	15'	IV	21"-24"
V	57'	23'	III	27" & LARGER

- ~ NOTES ~
- 10' MAXIMUM COVER HEIGHT FOR HORIZONTAL ELLIPTICAL CLASS HE III PIPE.
 - COVER HEIGHTS EXCEEDING THOSE SHOWN IN TABLES REQUIRE SPECIAL DESIGNS.
 - FOR TYPE 4 INSTALLATION PLACE EMBANKMENT MATERIAL ACCORDING TO SECTION 701.03.06A OF THE CURRENT SPEC. BOOK.
 - FOR TYPE 1 INSTALLATION, WHEN THE TOP OF PIPE IS NOT WITHIN ONE PIPE DIAMETER OF THE SUBGRADE, INSTALL ACCORDING TO SECTION 701.03.06A OF THE CURRENT SPEC. BOOK.



~ PIPE SHAPES ~

FOR TRENCH CONDITIONS

USE WITH CUR. STD. DWG. RDI-026

KENTUCKY
DEPARTMENT OF HIGHWAYS

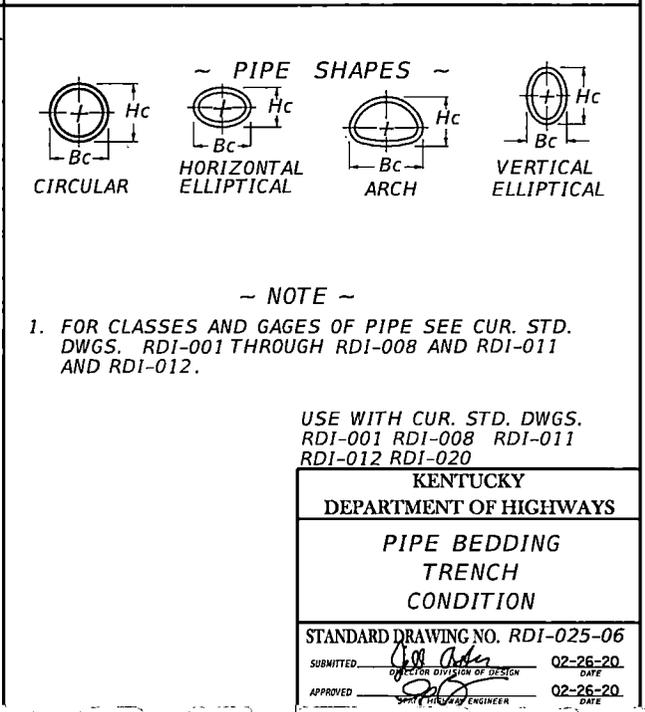
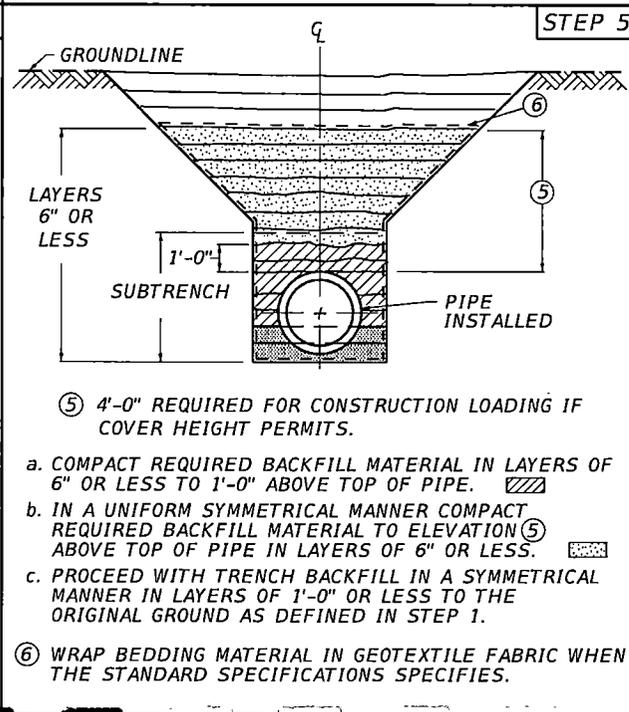
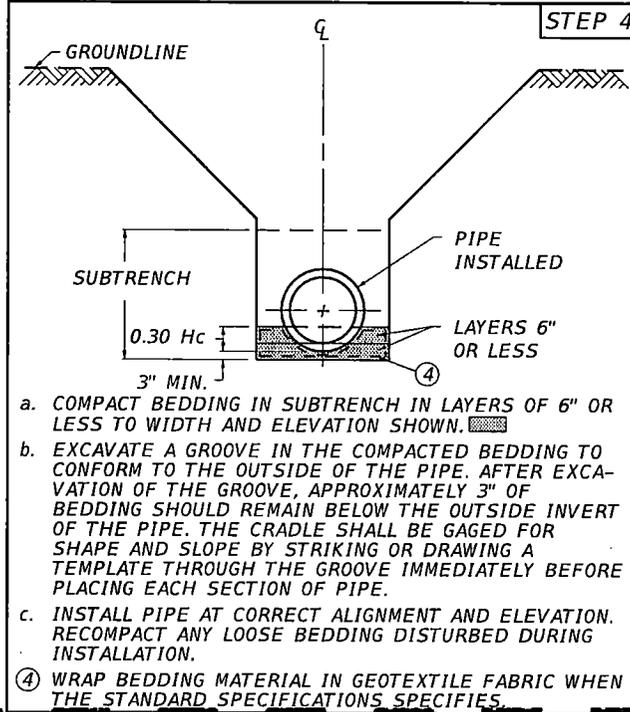
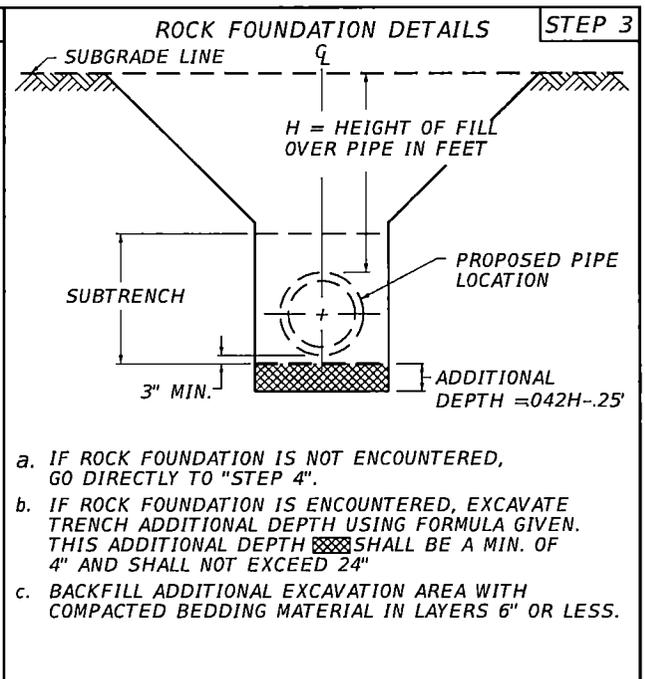
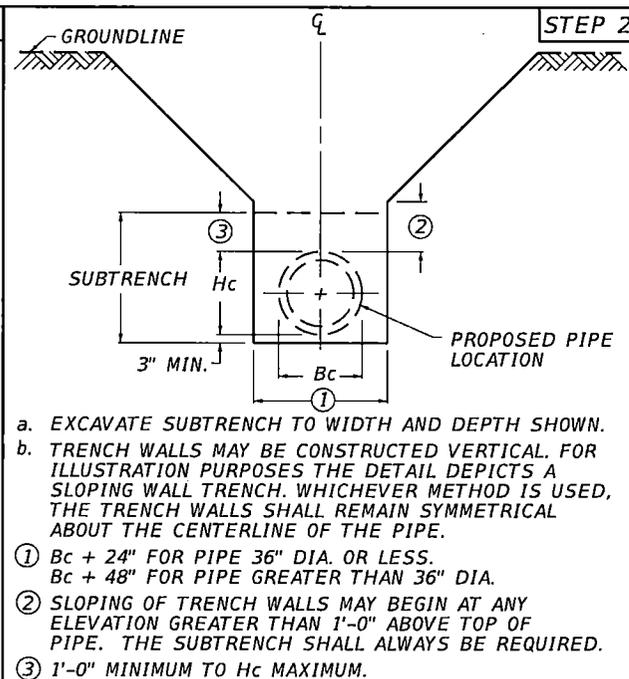
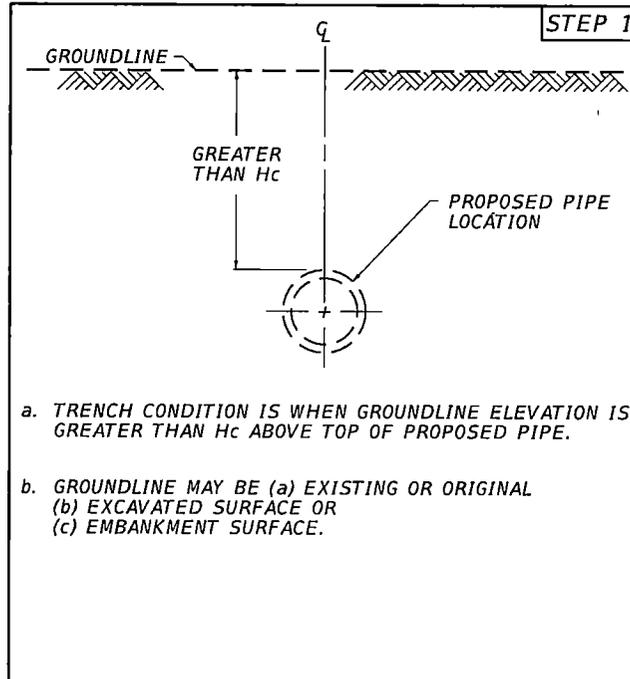
PIPE BEDDING FOR
CULVERTS, ENTRANCE,
AND STORM SEWER
REINFORCED CONC. PIPE

STANDARD DRAWING NO. RDI-021-01

SUBMITTED: *[Signature]* 12-01-15
DATE: 12-01-15

APPROVED: *[Signature]* 12-01-15
DATE: 12-01-15

STATE HIGHWAY ENGINEER



EQUI. PIPE DIA. (IN)	PIPE TYPE	NON-CIRCULAR PIPE COVER HEIGHTS IN FEET					
		2-5	6	7	8	9	10
15	2 2/3" x 1/2" CSPA (1)	16 GA.					
	2 2/3" x 1/2" CAPA	16 GA.					
18	2 2/3" x 1/2" CSPA (1)	16 GA.					
	2 2/3" x 1/2" CAPA	16 GA.					
	SRSA (1)	16 GA.					
	SRAA	16 GA.					
	RCHEP (12)						
21	2 2/3" x 1/2" CSPA (1)	16 GA.					
	2 2/3" x 1/2" CAPA	16 GA.					
	SRSA (1)	16 GA.					
	SRAA	16 GA.					
24	2 2/3" x 1/2" CSPA (1)	16 GA.					
	2 2/3" x 1/2" CAPA	14 GA.					
	SRSA (1)	16 GA.					
	SRAA	14 GA.					
	RCHEP (12)						

EQUI. PIPE DIA. (IN)	PIPE TYPE	NON-CIRCULAR PIPE COVER HEIGHTS IN FEET					
		2-5	6	7	8	9	10
30	2 2/3" x 1/2" CSPA (1)	16 GA.					
	2 2/3" x 1/2" CAPA	14 GA.					
	SRSA (1)	16 GA.					
	SRAA	14 GA.					
	RCHEP (12)						
36	2 2/3" x 1/2" CSPA (1)	14 GA.					
	2 2/3" x 1/2" CAPA	12 GA.					
	SRSA (1)	14 GA.					
	RCHEP (12)						
42	2 2/3" x 1/2" CSPA (1)	14 GA.					
	2 2/3" x 1/2" CAPA	12 GA.					
	SRSA (1)	14 GA.					
	SRAA	12 GA.					
	RCHEP (12)						

EQUI. PIPE DIA. (IN)	PIPE TYPE	NON-CIRCULAR PIPE COVER HEIGHTS IN FEET					
		2-5	6	7	8	9	10
48	2 2/3" x 1/2" CSPA (1)	12 GA.					
	2 2/3" x 1/2" CAPA	10 GA.					
	SRSA (1)	14 GA.					
	SRAA	12 GA.					
	RCHEP (12)						
54	2 2/3" x 1/2" CSPA (1)	12 GA.					
	(3) CSPA (1)	14 GA.					
	2 2/3" x 1/2" CAPA	10 GA.					
	3" x 1" CAPA	14 GA.					
	SRSA (1)	14 GA.					
	SRAA	12 GA.					
60	RCHEP (12)						
	2 2/3" x 1/2" CSPA (1)	10 GA.					
	(3) CSPA (1)	14 GA.					
	2 2/3" x 1/2" CAPA	8 GA.					
	3" x 1" CAPA	14 GA.					
	SRSA (1)	12 GA.					
	SRAA	10 GA.					
RCHEP (12)							

~ NOTES ~

- ① GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9.
2. WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- ③ 3" x 1" OR 5" x 1"
4. CSPA, CAPA, SRSA AND SRAA ARE SHOWN IN GAGE.
5. MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
6. MINIMUM COVER HEIGHTS FOR PIPE SHALL BE 2 FEET. GAGE OF PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL BE THAT SHOWN FOR COVER HEIGHTS OF 10 FEET. (SEE STANDARD SPECIFICATIONS FOR BACKFILL)
7. MAXIMUM COVER HEIGHT FOR NON-CIRCULAR PIPE IS 10 FEET. NON-CIRCULAR PIPE SHALL ONLY BE USED WHERE COVER LIMITATIONS EXIST.
8. GAGE OF ENTRANCE PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
 - a. GAGE OF CAPA SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLE.
 - b. GAGE OF CSPA SHALL BE THAT SHOWN IN TABLE.
- ⑨ ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE CULVERT PIPE.
10. SEE CUR. STD. DWG. RDI-016 FOR NON-CIRCULAR PIPE ALTERNATES.
11. SEE CUR. STD. DWG. RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
- ⑫ SEE CUR. STD. DWGS. RDI-021 AND RDI-026 FOR RCHEP COVER HEIGHT AND BEDDING REQUIREMENTS.

LEGEND

- CSPA: CORRUGATED STEEL PIPE ARCH
- CAPA: CORRUGATED ALUMINUM ALLOY PIPE ARCH
- SRSA: SPIRAL RIB STEEL ARCH
- SRAA: SPIRAL RIB ALUMINUM ARCH
- RCHEP: REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE

USE WITH CUR. STD. DWGS.
RDI-016 RDI-021 RDI-026
RDI-035

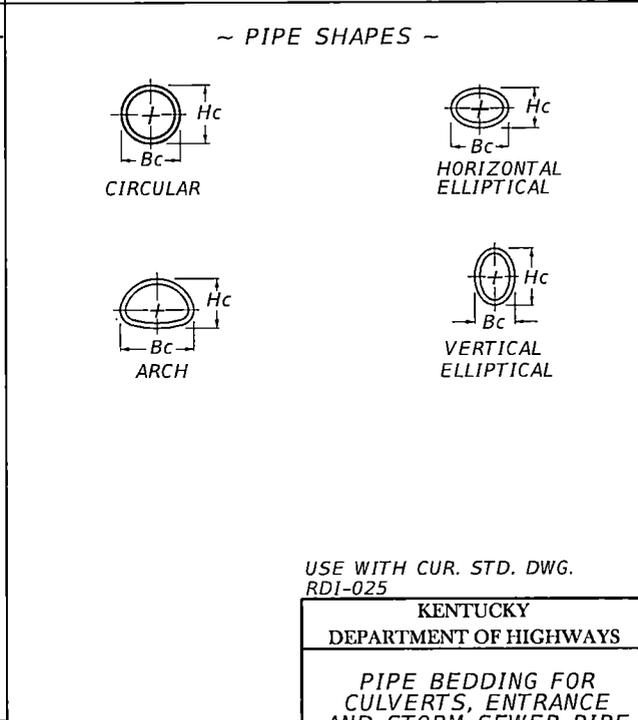
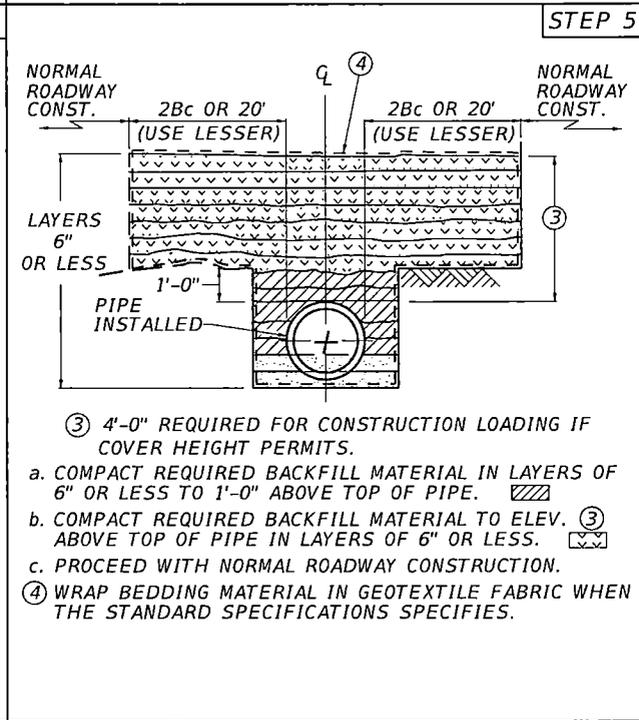
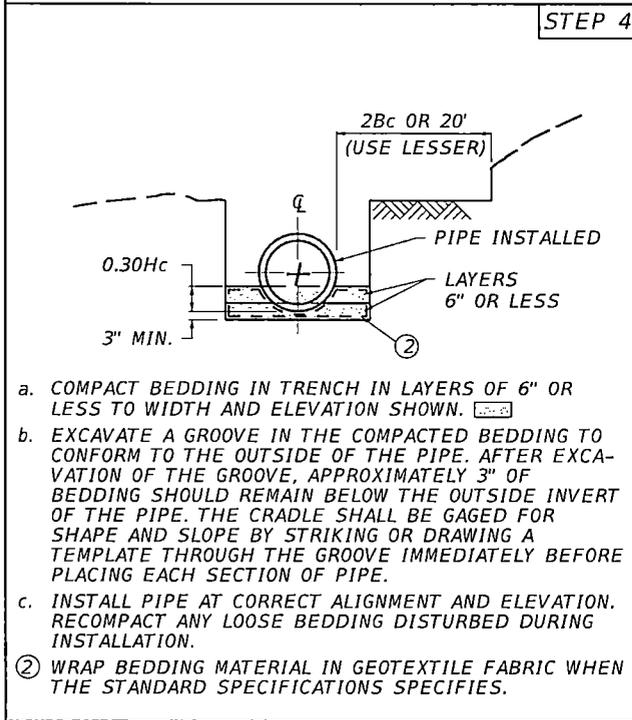
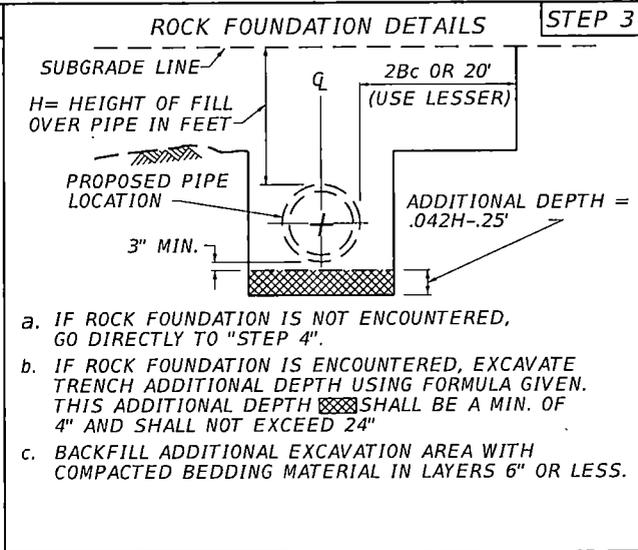
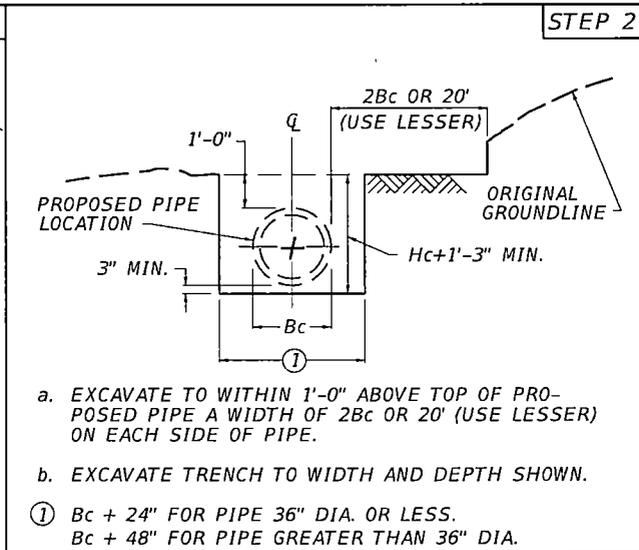
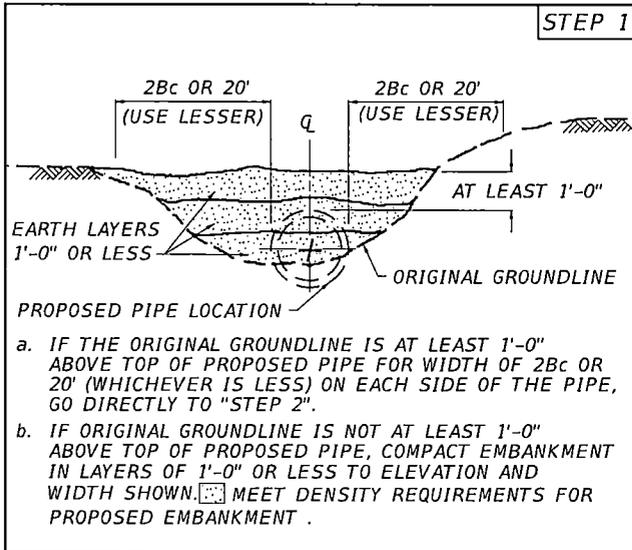
**KENTUCKY
DEPARTMENT OF HIGHWAYS**

**CULVERT, ENTRANCE AND
STORM SEWER PIPE TYPES
AND COVER HEIGHTS**

STANDARD DRAWING NO. RDI-011-03

SUBMITTED	<i>[Signature]</i>	12-01-15
DATE	DATE	DATE
APPROVED	<i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE	DATE

NON-CIRCULAR
15" PIPE - 60" PIPE



FOR TRENCH CONDITIONS

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET						PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET												
		2-5	5-10	10-15	15-20	20-25	25-30			2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65
12 & 15	2 2/3" x 1/2" CSPHS (1)	16 GA.						21	2 2/3" x 1/2" CSPHS (1)	16 GA.												
	2 2/3" x 1/2" CSPLS (1)	16 GA.							2 2/3" x 1/2" CSPLS (1)	16 GA.												10 GA.
	2 2/3" x 1/2" CAPHS	16 GA.							2 2/3" x 1/2" CAPHS	16 GA.												
	PVC	SMOOTH WALL (SOLID WALL)							SRS (1)	16 GA.												
	HDPE								SRA	16 GA.			14 GA.									
	RCP (1)								PVC	RIBBED (PROFILE WALL)												
18	2 2/3" x 1/2" CSPHS (1)	16 GA.						24	2 2/3" x 1/2" CSPHS (1)	16 GA.						14 GA.						
	2 2/3" x 1/2" CSPLS (1)	16 GA.							2 2/3" x 1/2" CSPLS (1)	16 GA.						10 GA.						
	2 2/3" x 1/2" CAPHS	16 GA.							2 2/3" x 1/2" CAPHS	16 GA.						14 GA.						
	SRS (1)	16 GA.							SRS (1)	16 GA.						14 GA.						
	SRA	16 GA.							SRA	16 GA.			14 GA.			12 GA.			10 GA.			
	PVC	RIBBED (PROFILE WALL)							PVC	RIBBED (PROFILE WALL)												
HDPE							HDPE							FF								
RCP (1)							RCP (1)															
		2-5	5-10	10-15	15-20	20-25	25-30			2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65

~ NOTES ~

- ① GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN PH RANGES OF 5 TO 9
2. WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
3. CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
4. MAXIMUM COVER HEIGHT IS MEASURED FROM THE TOP OF PIPE TO SUBGRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR THE ENTIRE LENGTH OF PIPE INSTALLATION.
5. MINIMUM COVER HEIGHTS FOR PIPE SHALL BE 2 FEET. GAGE OF PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL BE THAT SHOWN FOR COVER HEIGHTS OF 30 FEET (SEE STD. SPECIFICATIONS FOR BACKFILL). HDPE AND PVC SHALL NOT BE PERMITTED FOR COVER HEIGHTS LESS THAN 2 FEET.
- ⑥ 24" DIA. PIPE IS MINIMUM SIZE FOR COVER HEIGHTS FROM 30 FEET TO 65 FEET.
7. MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
8. GAGE OF ENTRANCE PIPE FOR COVER HEIGHTS LESS THAN 2 FEET SHALL MEET THE FOLLOWING REQUIREMENTS:
 - a. GAGE OF CSP SHALL BE THAT SHOWN FOR HEIGHTS OF 30 FEET.
 - b. GAGE OF CAP SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLE.
9. ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
10. SEE CUR. STD. DWG. RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.
- ① SEE CUR. STD. DWGS. RDI-021 AND RDI-026 FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

LEGEND

- CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)
- CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)
- CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)
- HDPE: HIGH DENSITY POLYETHYLENE PIPE
- PVC: POLYVINYL CHLORIDE
- SRS: SPIRAL RIB STEEL
- SRA: SPIRAL RIB ALUMINUM
- RCP: CIRCULAR REINFORCED CONCRETE PIPE
- FF: FLOWABLE FILL REQUIRED

USE WITH CUR. STD. DWGS.
RDI-021 RDI-026 RDI-035

KENTUCKY
DEPARTMENT OF HIGHWAYS
CULVERT AND
STORM SEWER PIPE TYPES
AND COVER HEIGHTS

STANDARD DRAWING NO. RDI-001-10

SUBMITTED *[Signature]* 12-01-15
DATE
APPROVED *[Signature]* 12-01-15
DATE

12" PIPE - 24" PIPE

PIPE DIA. (IN)	PIPE TYPE	CIRCULAR PIPE COVER HEIGHTS IN FEET ⁽³⁾												
		2-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65
27 & 30	2 7/8" x 1/2" CSPHS (1)	16 GA.						14 GA.			12 GA.			
	2 7/8" x 1/2" CSPLS (1)	16 GA.				12 GA.				/				
	2 7/8" x 1/2" CAPHS	14 GA.						12 GA.			10 GA.			
	SRS (1)	16 GA.						14 GA.			12 GA.			
	SRA	16 GA.		14 GA.		12 GA.		10 GA.						
	PVC	RIBBED (PROFILE WALL)												
	HDPE	/						FF						
RCP (10)	/													
36	2 7/8" x 1/2" CSPHS (1)	14 GA.						12 GA.			10 GA.			
	2 7/8" x 1/2" CSPLS (1)	14 GA.		12 GA.		10 GA.				/				
	2 7/8" x 1/2" CAPHS	14 GA.						12 GA.			10 GA.			8 GA.
	SRS (1)	14 GA.						12 GA.						
	SRA	14 GA.		12 GA.		10 GA.								
	PVC	RIBBED (PROFILE WALL)												
	HDPE	/						FF						
RCP (10)	/													
42	2 7/8" x 1/2" CSPHS (1)	14 GA.						12 GA.			10 GA.			
	2 7/8" x 1/2" CSPLS (1)	14 GA.				12 GA.				10 GA.				
	2 7/8" x 1/2" CAPHS	12 GA.						10 GA.			8 GA.			
	SRS (1)	14 GA.						12 GA.						
	SRA	12 GA.		10 GA.										
	PVC	RIBBED (PROFILE WALL)												
	HDPE	/						/						
RCP (10)	/													

LEGEND

CSPHS: CORRUGATED STEEL PIPE WITH HELICAL LOCK SEAM OR HELICAL WELDED SEAM (HELICAL CORR.)

CSPLS: CORRUGATED STEEL PIPE WITH LONGITUDINAL RIVETED OR SPOT WELDED SEAM (ANNULAR CORR.)

CAPHS: CORRUGATED ALUMINUM ALLOY PIPE WITH HELICAL LOCK SEAM (HELICAL CORR.)

HDPE: HIGH DENSITY POLYETHYLENE PIPE

PVC: POLYVINYL CHLORIDE

SRS: SPIRAL RIB STEEL

SRA: SPIRAL RIB ALUMINUM

RCP: CIRCULAR REINFORCED CONCRETE PIPE

FF: FLOWABLE FILL REQUIRED

NOTES CONTINUED

(10) SEE DETAIL SHEET "PIPE BEDDING FOR CULVERTS, ENTRANCE, AND STORM SEWER REINFORCED CONC. PIPE" AND DETAIL SHEET "PIPE BEDDING TRENCH CONDITION REINFORCED CONC. PIPE" FOR RCP COVER HEIGHT AND BEDDING REQUIREMENTS.

~ NOTES ~

- GAGES FOR CORRUGATED STEEL PIPE ITEMS SHOWN ARE BASED ON ALUMINUM-COATED TYPE 2 STEEL AS PER AASHTO M-274. ALUMINUM COATED TYPE 2 STEEL IS ONLY PERMITTED IN Ph RANGES OF 5 TO 9.
- WHEN CORRUGATED STEEL PIPE IS ZINC COATED (GALVANIZED) THE GAGE SHALL BE ONE GAGE HEAVIER THAN SHOWN IN THE TABLES.
- SEE CUR. STD. DWG. RDI-001 FOR EXPLANATION OF COVER HEIGHTS LESS THAN 2 FEET.
- CSP, CAP, SRS AND SRA ARE SHOWN IN GAGE.
- MAXIMUM COVER HEIGHT MEASURED FROM TOP OF PIPE TO SUB GRADE ELEVATION SHALL GOVERN GAGE OF PIPE TO BE USED FOR ENTIRE LENGTH OF PIPE INSTALLATION.
- MINIMUM COVER HEIGHT FOR ENTRANCE PIPE SHALL BE 0.5 FEET.
- ALL CIRCULAR STRUCTURAL PLATE SHALL BE 5% VERTICALLY ELONGATED.
- ENTRANCE PIPE GREATER THAN 30" DIA. SHALL BE A CULVERT PIPE.
- SEE CUR. STD. DWG. RDI-035 FOR COATINGS, LININGS AND PAVINGS FOR NON-STRUCTURAL PIPE.

USE WITH CUR. STD. DWGS.
RDI-001 RDI-035

KENTUCKY
DEPARTMENT OF HIGHWAYS

CULVERT AND
STORM SEWER PIPE TYPES
AND COVER HEIGHTS

STANDARD DRAWING NO. RDI-002-05

SUBMITTED *[Signature]* 12-01-15
DATE

APPROVED *[Signature]* 12-01-15
DATE

**DIMENSIONS AND ESTIMATE OF QUANTITIES
(PIPE CHAMBER)**

~ NOTES ~

INLET SIZE ④ NO. ⑥	PIPE		Z ①	CONCRETE				
	MAX. DIA.	LOCA-TION		CU. YDS. ①	②	Q ③		
1	2'-0"		12"		2'-2"	0.9		
2	3'-0"		12"		2'-2"	1.1		
3	2'-0"	2'-0"	15"	X OR Y	2'-5"	0.9		
4	3'-0"		2'-5"		1.2			
5	2'-0"	18"	15"	X OR Y	2'-9"	1.0		
6	3'-0"		2'-9"		1.3			
7	2'-0"	2'-6"	21"	Y	3'-0"	1.2		
8	2'-6"	2'-0"				X		
9	2'-6"	2'-6"	21"	X OR Y	3'-0"	1.4		
10	3'-0"	2'-0"				X		
11	3'-0"	2'-6"	24"	X OR Y	3'-3"	1.5		0.3
12	2'-0"					2'-0"	X	
13	2'-6"	2'-0"	24"	X OR Y	3'-3"	1.3		
14	2'-6"	2'-6"				X		
15	3'-0"	2'-0"	24"	X OR Y	3'-3"	1.5		
16	3'-0"	2'-6"				X		
17	2'-0"	3'-0"	27"	Y	3'-6"	1.6		
18	2'-6"					2'-0"	X	
19	2'-0"	2'-0"	27"	X	3'-6"	1.5		
20	3'-0"	2'-6"				X OR Y		
21	3'-0"	3'-0"				1.7		
22	2'-0"	3'-6"	30"	Y	4'-1"	1.9		0.4
23	2'-6"					2.1		0.3
24	3'-0"	2'-0"	30"	X	3'-10"	2.3		0.4
25	2'-0"	2'-6"				X OR Y		
26	3'-6"	3'-0"				2.2		0.4
27	3'-6"	3'-0"				2.5		
28	2'-0"	3'-6"	33"	Y	4'-4"	2.0		0.3
29	2'-6"					2.2		0.4
30	2'-6"	3'-6"	33"	X	4'-1"	2.4		
31	3'-0"					1.9		0.3
32	2'-0"	2'-0"	33"	X	4'-1"	2.1		
33	3'-6"	2'-6"				2.3		
34	3'-6"	3'-0"	33"	X OR Y	4'-4"	2.6		
35	3'-6"	3'-6"				2.2		
36	2'-0"	4'-0"	36"	Y	4'-7"	2.5		0.4
37	2'-6"					2.7		
38	3'-0"	2'-0"	36"	X	4'-4"	2.9		
39	3'-6"	2'-6"				2.1		
40	2'-0"	2'-6"	36"	X	4'-4"	2.4		
41	2'-6"	3'-0"				2.6		
42	4'-0"	3'-0"	36"	X OR Y	4'-7"	2.9		
43	4'-0"	3'-6"				3.2		0.5
44	4'-0"	4'-0"				2.6		
45	2'-0"	4'-6"	42"	Y	5'-2"	2.9		0.4
46	2'-6"					2.9		
47	3'-0"	4'-6"				3.2		

INLET SIZE ④ NO. ⑥	PIPE		Z ①	CONCRETE				
	MAX. DIA.	LOCA-TION		CU. YDS. ①	②	Q ③		
48	3'-6"	4'-6"	42"	Y	5'-2"	3.4		0.5
49	4'-0"	4'-6"				3.7		
50	4'-6"	2'-0"	42"	X	4'-11"	2.5		0.4
51		2'-6"				2.8		
52		3'-0"				3.0		
53		3'-6"				3.4		
54	4'-0"	48"	48"	X OR Y	5'-2"	3.5		0.5
55	4'-6"					3.9		
56	2'-0"	48"	48"	Y	5'-8"	3.0		0.4
57	2'-6"					3.3		
58	3'-0"	48"	48"	Y	5'-8"	3.6		0.5
59	3'-6"					3.9		
60	4'-0"	48"	48"	X	5'-5"	4.2		
61	4'-6"					4.5		
62	5'-0"	2'-0"	48"	X	5'-5"	2.9		0.4
63		2'-6"				3.2		
64		3'-0"				3.5		
65		3'-6"				3.9		
66	4'-0"	48"	48"	X	5'-8"	4.2		0.5
67	4'-6"					4.5		
68	5'-0"	5'-0"		X OR Y		4.7		0.6

- ① BASED ON "Z" AS EQUAL TO D+t+12" WHEN "Y" DIMENSION IS LESS THAN 3'-6". BASED ON "Z" AS EQUAL TO D+t+15" WHEN "Y" DIMENSION IS 3'-6" OR GREATER.
- ② SEE REFERENCE CHART FOR QUANTITIES TO DEDUCT FOR PIPE.
- ③ Q = CU. YDS. PER FT. INCREASE OR DECREASE WHEN "Z" VARIES.
- ④ SEE THE FOLLOWING CUR. STD. DWGS. FOR STEEL PATTERN AND DIMENSIONS:
CURB BOX INLET TYPE A - RDB-270 AND RDB-271
CURB BOX INLET TYPE B - RDB-280 AND RDB-281
5. SEE CUR. STD. DWGS. RDB-400 AND RDB-420 FOR REINFORCEMENT IN PIPE CHAMBER AND RISER WHEN "H" = 8'-0" OR GREATER.
- ⑥ INLETS ARE SHOWN ON PLANS AS CURB BOX INLET TYPE "A" OR CURB BOX INLET TYPE "B". FOLLOWING THIS ON THE PLANS ARE TWO NUMBERS AND A BOX HEIGHT. USE FIRST NUMBER WITH THIS CHART.

REFERENCE CHART

DIA. OF PIPE	C.B.I. TYPE A		C.B.I. TYPE B		CONCRETE TO DEDUCT FOR EACH PIPE CU. YDS.
	PIPE ON "X" SIDE OF INLET	PIPE ON "Y" SIDE OF INLET	PIPE ON "X" SIDE OF INLET	PIPE ON "Y" SIDE OF INLET	
0					-
12"		2'-0"	2'-0"	2'-0"	
15"-18"	3'-0"				0.1
21"-24"		2'-6"	2'-6"	2'-6"	
27"		3'-0"	3'-0"	3'-0"	
30"-33"	3'-6"	3'-6"	3'-6"	3'-6"	0.2
36"	4'-0"	4'-0"	4'-0"	4'-0"	0.3
42"	4'-6"	4'-6"	4'-6"	4'-6"	0.4
48"	5'-0"	5'-0"	5'-0"	5'-0"	0.5

USE THIS DRAWING FOR BOTTOM PHASE AND COMPLETE INLET WITH C.B.I. A AND C.B.I. B.

USE WITH CUR. STD. DWG. RDB-270 RDB-271 RDB-280 RDB-281 RDB-400 RDB-420

KENTUCKY DEPARTMENT OF HIGHWAYS	
BOX INLET PIPE CHAMBER	
STANDARD DRAWING NO. RDB-410-06	
SUBMITTED <i>[Signature]</i>	12-01-15
APPROVED <i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE

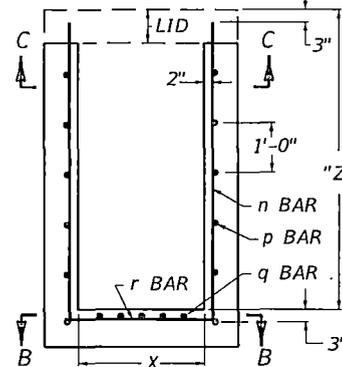
① ADDITIONAL STEEL REINFORCEMENT REQUIREMENTS
(PIPE CHAMBER, H = 8' TO 15')

SIZE ②		NO. 5 STEEL BARS									
X	Y	③ BAR n		④ BAR p		BAR q		BAR r		LBS. ⑤	
		QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	TOTAL	⑥
2'-0"	2'-0"	20			10'-2"		2'-6"	4		220	31
	2'-6"	22			11'-2"		3'-0"	5		245	35
	3'-0"	24			12'-2"		3'-6"	6		269	38
	3'-6"	26	6'-0"	7	13'-2"	4	4'-0"	7	2'-6"	294	41
	4'-0"	28			14'-2"		4'-6"	8		318	44
	4'-6"	30			15'-2"		5'-0"	9		343	47
5'-0"	32			16'-2"		5'-6"	10		367	50	
2'-6"	2'-0"	22			11'-2"		2'-6"	4		245	35
	2'-6"	24			12'-2"		3'-0"	5		270	38
	3'-0"	26	6'-0"	7	13'-2"	5	3'-6"	6	3'-0"	296	41
	3'-6"	28			14'-2"		4'-0"	7		321	44
	4'-0"	30			15'-2"		4'-6"	8		347	47
	4'-6"	32			16'-2"		5'-0"	9		373	50
5'-0"	34			17'-2"		5'-6"	10		398	53	
3'-0"	2'-0"	24			12'-2"		2'-6"	4		268	38
	2'-6"	26			13'-2"		3'-0"	5		295	41
	3'-0"	28	6'-0"	7	14'-2"		3'-6"	6	3'-6"	321	44
	3'-6"	30			15'-2"	6	4'-0"	7		348	47
	4'-0"	32			16'-2"		4'-6"	8		374	50
	4'-6"	34			17'-2"		5'-0"	9		401	53
5'-0"	36			18'-2"		5'-6"	10		427	57	
3'-6"	2'-0"	26			13'-2"		2'-6"	4		293	41
	2'-6"	28			14'-2"		3'-0"	5		320	44
	3'-0"	30	6'-0"	7	15'-2"		3'-6"	6	4'-0"	348	47
	3'-6"	32			16'-2"	7	4'-0"	7		376	50
	4'-0"	34			17'-2"		4'-6"	8		404	53
	4'-6"	36			18'-2"		5'-0"	9		431	56
5'-0"	38			19'-2"		5'-6"	10		459	60	
4'-0"	2'-0"	28			14'-2"		2'-6"	4		317	44
	2'-6"	30			15'-2"		3'-0"	5		346	47
	3'-0"	32	6'-0"	7	16'-2"		3'-6"	6	4'-6"	374	50
	3'-6"	34			17'-2"	8	4'-0"	7		404	53
	4'-0"	36			18'-2"		4'-6"	8		432	56
	4'-6"	38			19'-2"		5'-0"	9		460	60
5'-0"	40			20'-2"		5'-6"	10		490	63	
4'-6"	2'-0"	30			15'-2"		2'-6"	4		342	47
	2'-6"	32			16'-2"		3'-0"	5		371	50
	3'-0"	34	6'-0"	7	17'-2"		3'-6"	6	5'-0"	401	53
	3'-6"	36			18'-2"	9	4'-0"	7		431	56
	4'-0"	38			19'-2"		4'-6"	8		460	60
	4'-6"	40			20'-2"		5'-0"	9		490	63
5'-0"	42			21'-2"		5'-6"	10		519	66	

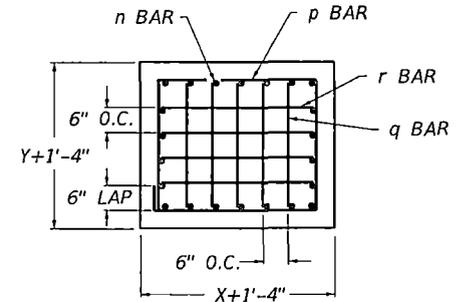
SIZE ②		NO. 5 STEEL BARS									
X	Y	③ BAR n		④ BAR p		BAR q		BAR r		LBS. ⑤	
		QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	TOTAL	⑥
5'-0"	2'-0"	32			16'-2"		2'-6"	4		367	50
	2'-6"	34			17'-2"		3'-0"	5		398	53
	3'-0"	36	6'-0"	7	18'-2"		3'-6"	6	5'-6"	427	56
	3'-6"	38			19'-2"	10	4'-0"	7		459	60
	4'-0"	40			20'-2"		4'-6"	8		490	63
	4'-6"	42			21'-2"		5'-0"	9		519	66
5'-0"	44			22'-2"		5'-6"	10		551	69	

~ NOTES ~

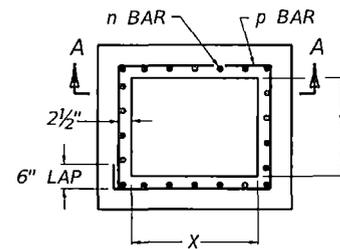
- ① BASED ON "Z" AS EQUAL TO 6'-0".
- ② SEE CUR. STD. DWGS. RDB-270 AND RDB-280 FOR LOCATION AND DIMENSIONS.
- ③ LENGTH OF "n" BAR IS ALWAYS SAME AS "Z" DIMENSION.
- ④ ADD OR SUBTRACT ONE "p" BAR PER EVEN FT. VARIANCE FROM 6'-0" "Z".
- ⑤ NO DEDUCTIONS HAVE BEEN MADE FOR PIPE.
- ⑥ ADD OR SUBTRACT LBS. STEEL PER FT. VARIANCE FROM 6'-0" "Z".
7. REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE FACE UNLESS OTHERWISE SHOWN.



SECTION A-A



SECTION B-B



SECTION C-C

USE WITH CUR. STD. DWGS.
RDB-270 RDB-280

KENTUCKY
DEPARTMENT OF HIGHWAYS

BOX INLET
PIPE CHAMBER
(ADDITIONAL STEEL)

STANDARD DRAWING NO. RDB-420-05

SUBMITTED	<i>[Signature]</i>	12-01-15
DATE	DIVISION OF DESIGN	DATE
APPROVED	<i>[Signature]</i>	12-01-15
DATE	STATE HIGHWAY ENGINEER	DATE

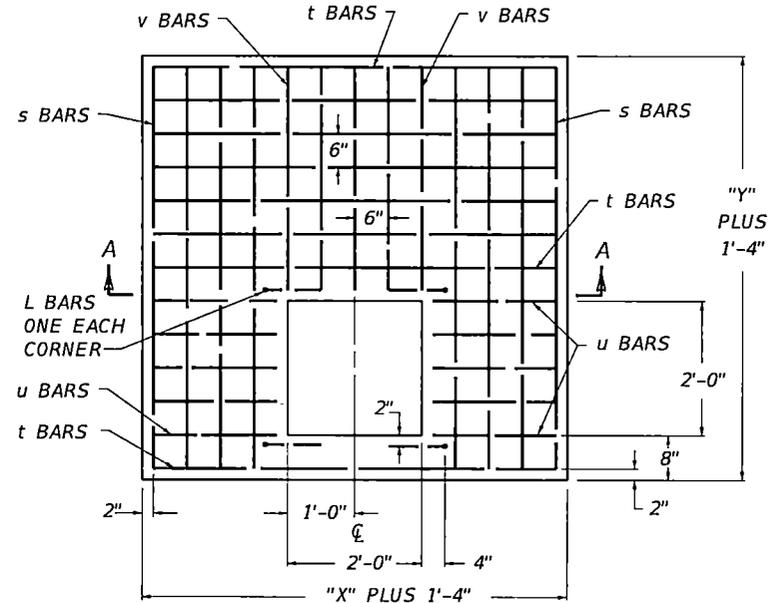
(USE WITH C.B.I. A and
C.B.I. B WHEN H = 8' to 15')

REINFORCEMENT STEEL FOR 8" LID

~ NOTES ~

1. IN ADDITION TO THE CHARTED STEEL, FOUR "L" BARS ARE REQUIRED IN THE LID AND ARE INCLUDED IN THE TOTALS.
2. CONCRETE QUANTITIES FOR LID ARE INCLUDED ON "DIMENSIONS AND ESTIMATE OF QUANTITIES (PIPE CHAMBER)", SEE CUR. STD. DWG. RDB-410.
3. REINFORCEMENT SHALL HAVE A CLEAR DISTANCE OF 2" FROM THE OUTSIDE FACE UNLESS OTHERWISE SHOWN.

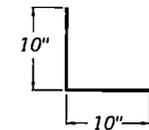
SIZE		NO. 5 STEEL BARS									LBS.
X	Y	BAR s		BAR t		BAR u		BAR v			
		QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.		
2'-0"	2'-0"	-	-	-	-	-	-	-	-	7	
	2'-6"	4	3'-6"	6	3'-0"	-	-	10	0'-10"	49	
	3'-0"		4'-0"	8					1'-4"	63	
	3'-6"		4'-6"	10					1'-10"	76	
	4'-0"		5'-0"	12					2'-4"	90	
	4'-6"		5'-6"	14					2'-10"	103	
	5'-0"		6'-0"	16					3'-4"	117	
2'-6"	2'-0"	4	3'-0"	4	3'-6"	-	-	10	-	34	
	2'-6"		3'-6"	6					0'-10"	52	
	3'-0"		4'-0"	8					1'-4"	67	
	3'-6"		4'-6"	10					1'-10"	81	
	4'-0"		5'-0"	12					2'-4"	96	
	4'-6"		5'-6"	14					2'-10"	111	
	5'-0"	6'-0"	16	3'-4"	125						
3'-0"	2'-0"	8	3'-0"	4	4'-0"	20	0'-10"	10	-	66	
	2'-6"		3'-6"	6					0'-10"	87	
	3'-0"		4'-0"	8					1'-4"	105	
	3'-6"		4'-6"	10					1'-10"	123	
	4'-0"		5'-0"	12					2'-4"	141	
	4'-6"		5'-6"	14					2'-10"	158	
	5'-0"	6'-0"	16	3'-4"	178						
3'-6"	2'-0"	8	3'-0"	4	4'-6"	20	1'-1"	10	-	73	
	2'-6"		3'-6"	6					0'-10"	96	
	3'-0"		4'-0"	8					1'-4"	114	
	3'-6"		4'-6"	10					1'-10"	133	
	4'-0"		5'-0"	12					2'-4"	152	
	4'-6"		5'-6"	14					2'-10"	171	
	5'-0"	6'-0"	16	3'-4"	190						
4'-0"	2'-0"	12	3'-0"	4	5'-0"	20	1'-4"	10	-	93	
	2'-6"		3'-6"	6					0'-10"	119	
	3'-0"		4'-0"	8					1'-4"	141	
	3'-6"		4'-6"	10					1'-10"	162	
	4'-0"		5'-0"	12					2'-4"	184	
	4'-6"		5'-6"	14					2'-10"	206	
	5'-0"	6'-0"	16	3'-4"	228						
4'-6"	2'-0"	12	3'-0"	4	5'-6"	20	1'-7"	10	-	101	
	2'-6"		3'-6"	6					0'-10"	127	
	3'-0"		4'-0"	8					1'-4"	150	
	3'-6"		4'-6"	10					1'-10"	173	
	4'-0"		5'-0"	12					2'-4"	196	
	4'-6"		5'-6"	14					2'-10"	219	
	5'-0"	6'-0"	16	3'-4"	242						
5'-0"	2'-0"	16	3'-0"	4	6'-0"	20	1'-10"	10	-	120	
	2'-6"		3'-6"	6					0'-10"	150	
	3'-0"		4'-0"	8					1'-4"	176	
	3'-6"		4'-6"	10					1'-10"	202	
	4'-0"		5'-0"	12					2'-4"	228	
	4'-6"		5'-6"	14					2'-10"	254	
	5'-0"	6'-0"	16	3'-4"	280						



DETAIL OF 8" LID
PLAN VIEW



SECTION A-A



L BAR DETAIL

USE WITH CUR. STD. DWGS.
RDB-280 RDB-281 RDB-282
RDB-400 RDB-410 RDB-420

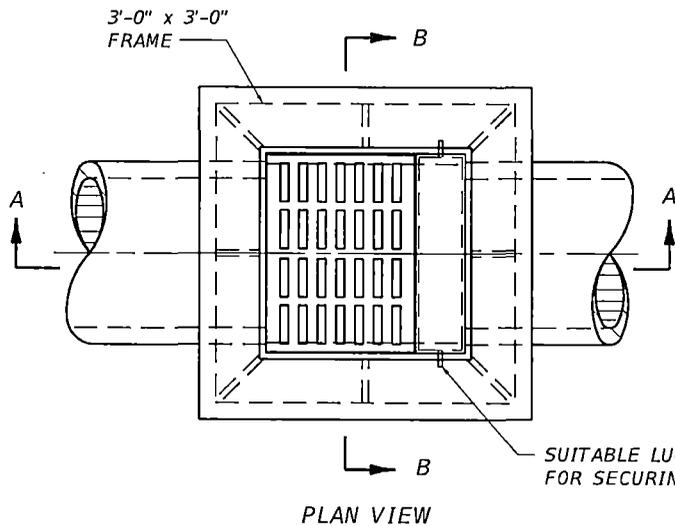
KENTUCKY
DEPARTMENT OF HIGHWAYS

CURB BOX INLET
TYPE B

(DETAIL & BAR CHART FOR 8" LID)

STANDARD DRAWING NO. RDB-283-04

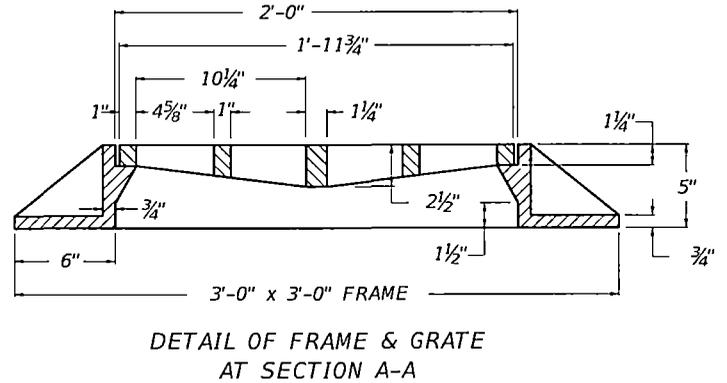
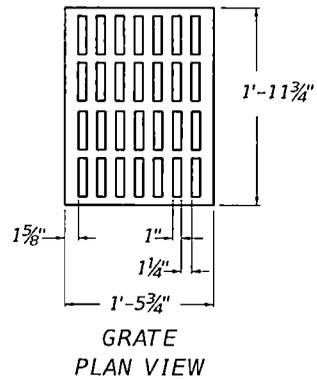
SUBMITTED: *[Signature]* 12-01-15
DATE: *[Signature]* 12-01-15
APPROVED: *[Signature]* 12-01-15
DATE: *[Signature]* 12-01-15



SUITABLE LUGS SHALL BE PROVIDED FOR SECURING CURB BOX.

BID ITEM AND UNIT TO BID CURB BOX INLET TYPE F

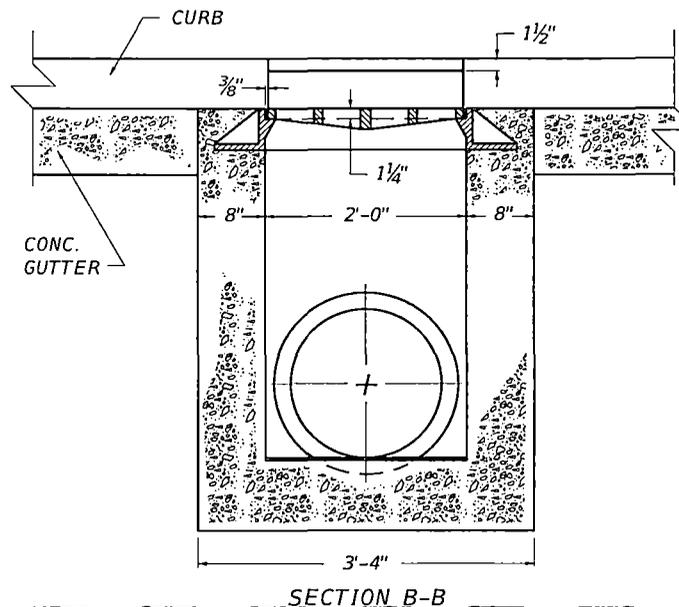
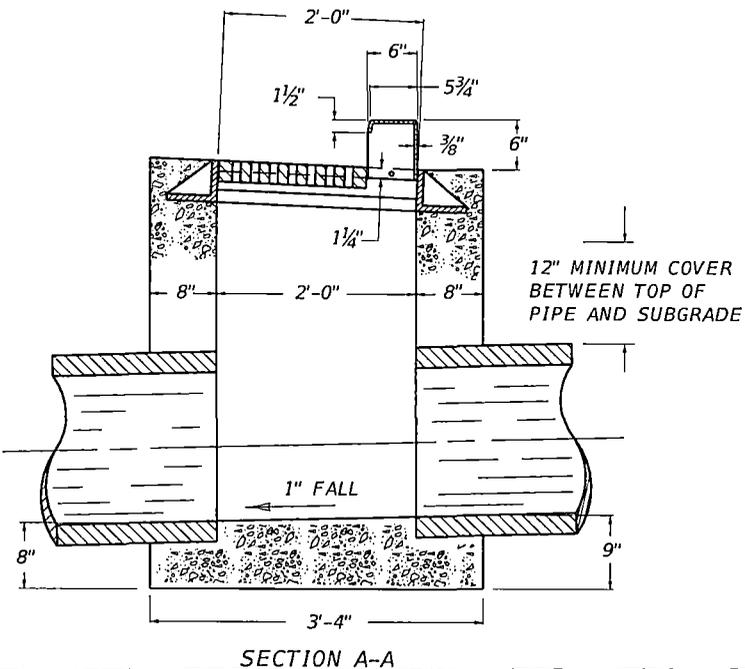
EACH



APPROXIMATE QUANTITIES

PIPE SIZE	MIN. HEIGHT	CU. YDS. CONC.
15"	4'-0"	1.15
18"	4'-3"	1.22
CURB FRAME WEIGHT = 61 LBS.		
FRAME WEIGHT = 277 LBS.		
GRATE WEIGHT = 127 LBS.		

NO DEDUCTIONS HAVE BEEN MADE FOR PIPE.



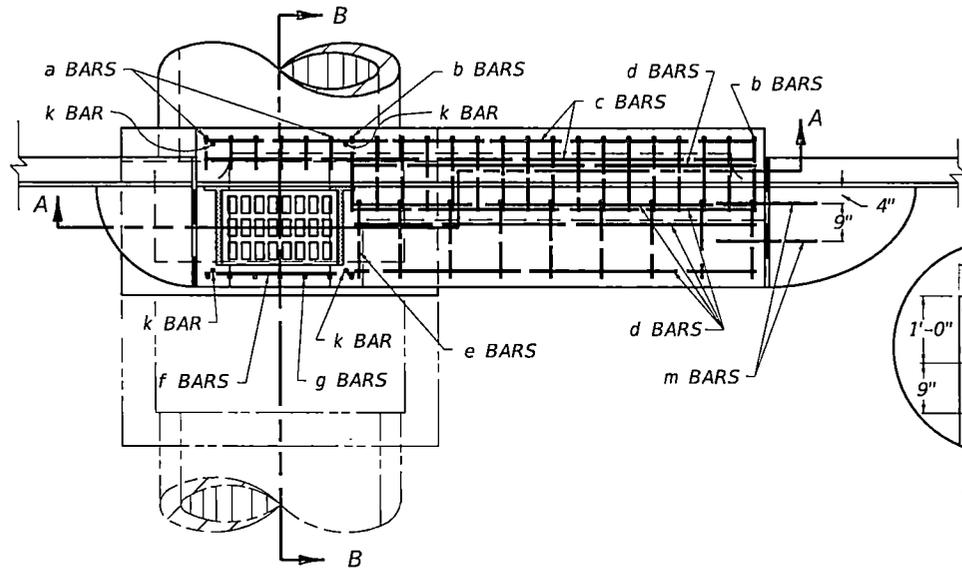
KENTUCKY
DEPARTMENT OF HIGHWAYS

CURB BOX INLET
TYPE F

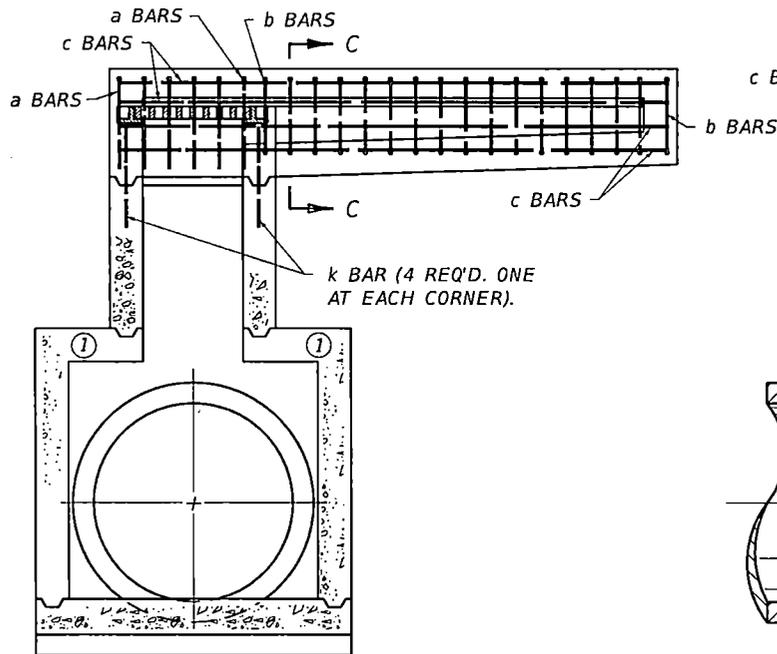
STANDARD DRAWING NO. RDB-320-06

SUBMITTED *[Signature]* 12-01-15
DATE

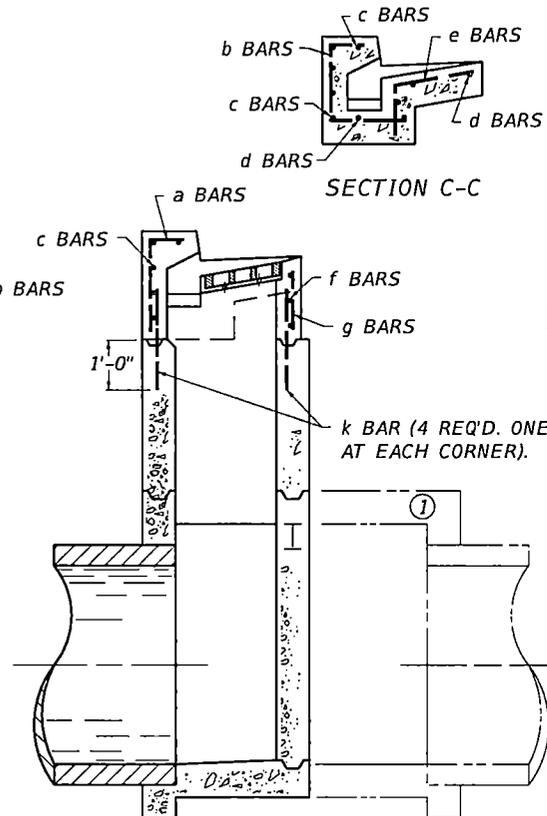
APPROVED *[Signature]* 12-01-15
DATE



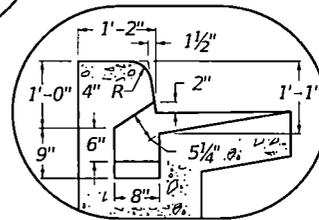
PLAN VIEW



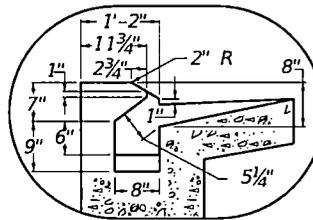
SECTION A-A



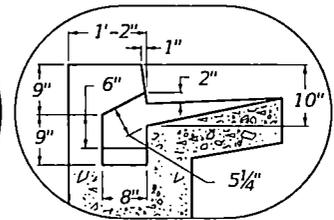
SECTION B-B



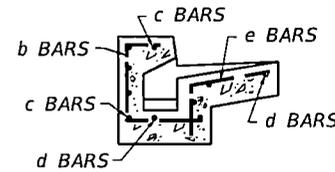
BARRIER CURB



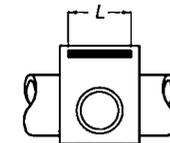
ISLAND CURB



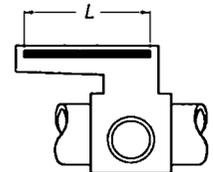
STANDARD CURB



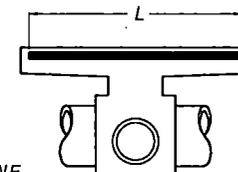
SECTION C-C



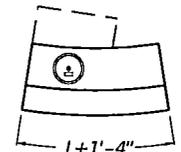
SAG OR GRADE



GRADE



SAG



CURVE LAYOUT

~ NOTES ~

- ① SEE CUR. STD. DWG. RDB-283 FOR LID REINFORCEMENT.
2. "e" and "d" BARS SPACED 1'-0" O.C. ALL OTHER BARS SPACED 6" O.C. EXCEPT WHERE OTHERWISE SPECIFIED.
3. PLACE ALL STEEL REINFORCEMENT 2" FROM INSIDE OF INLET WALL EXCEPT WHERE OTHERWISE SPECIFIED.

USE WITH CUR. STD. DWGS.
RDB-280 RDB-282 RDB-283
RDB-400 RDB-410 RDB-420

KENTUCKY
DEPARTMENT OF HIGHWAYS

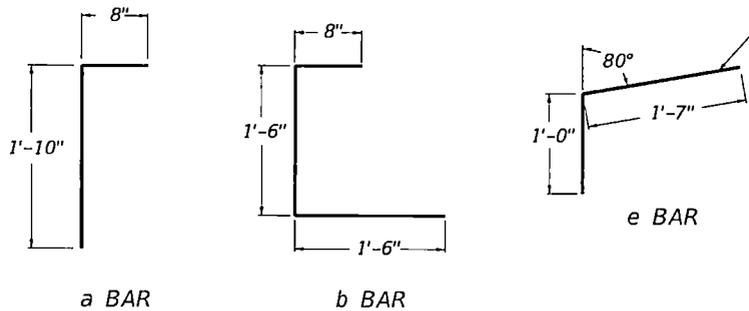
CURB BOX INLET
TYPE B
(STEEL DRAWING)

STANDARD DRAWING NO. RDB-281-03

SUBMITTED	<i>[Signature]</i>	12-01-15
DIRECTOR	DIVISION OF DESIGN	DATE
APPROVED	<i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER		DATE

DIMENSIONS AND ESTIMATE OF QUANTITIES (TOP PHASE)

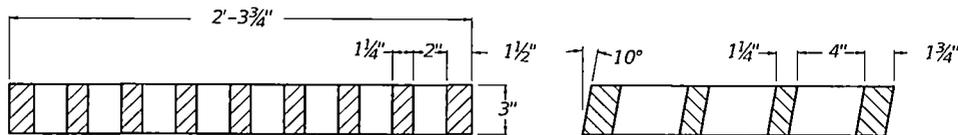
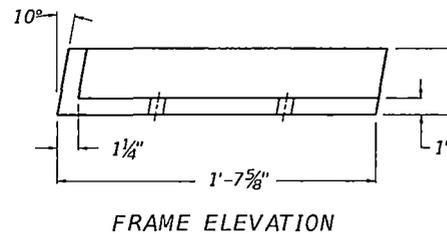
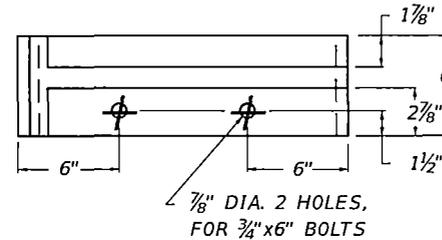
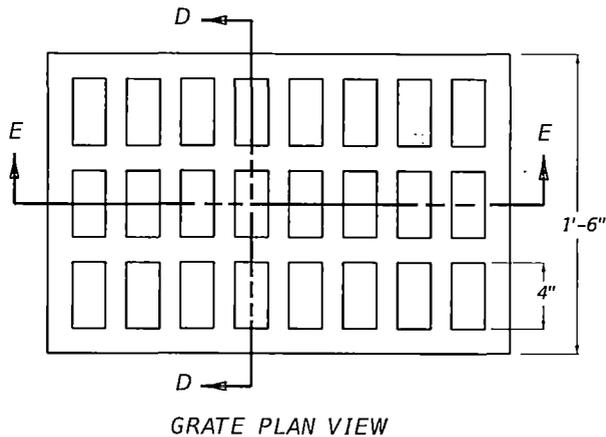
② SIZE NO.		THROAT "L"	CONC.	NO. 5 STEEL BARS																				LBS.				
				BAR a		BAR b		BAR c		BAR d ④		BAR d ⑤		BAR e		BAR f		BAR g		BAR k ①		BAR m						
GRADE	SAG	FT.	CU.YDS.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.	QTY.	LIN. FT.			
1	5	5'-0"	0.8			7			6'-0"		3'-0"		1'-6"	4												127		
2	6	10'-0"	1.5	6	2'-6"	17	3'-7"	5	11'-0"	5	8'-0"	10	4'-0"	10	2'-7"	3	3'-0"	7	1'-2"	4	2'-0"	4	2'-0"			233		
3	7	15'-0"	2.1			27			16'-0"		5		13'-0"	14												6'-6"	14	333
4	8	20'-0"	2.8			37			21'-0"		5		18'-0"	20												9'-0"	20	439



THIS PORTION
GOES IN GUTTER.

~ NOTES ~

- ① USE "k" BARS ONLY IN CONJUNCTION WITH THE RISER.
- ② INLETS ARE SHOWN ON PLANS AS "CURB BOX INLET TYPE B". FOLLOWING THIS ON THE PLANS ARE TWO NUMBERS AND A BOX HEIGHT. USE SECOND NUMBER WITH THIS CHART.
3. MANUFACTURER'S DRAFT WILL BE ACCEPTED ON ALL CASTINGS.
- ④ THIS SET OF "d" BARS ARE TO BE USED ONLY WHEN THE BOX INLET IS BUILT ON GRADE.
- ⑤ THIS SET OF "d" BARS ARE TO BE USED ONLY WHEN THE BOX INLET IS BUILT IN A SAG.
6. "c", "d", "f", "g", "k", AND "m" BARS ARE ALL STRAIGHT BARS.
7. THE ENGINEER MAY REQUIRE ADDITIONAL REINFORCEMENT, TO ELIMINATE SETTLEMENT OF ADJOINING SIDEWALK WHEN APPLICABLE. THIS WORK SHALL BE INCIDENTAL TO THE COST OF THE CURB BOX.



SECTION E-E

SECTION D-D

USE WITH CUR. STD. DWGS.
RDB-280 RDB-281 RDB-283
RDB-400 RDB-410 RDB-420

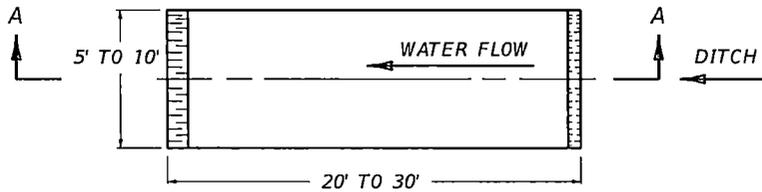
KENTUCKY
DEPARTMENT OF HIGHWAYS

CURB BOX INLET
TYPE B
(TOP PHASE TABLE)

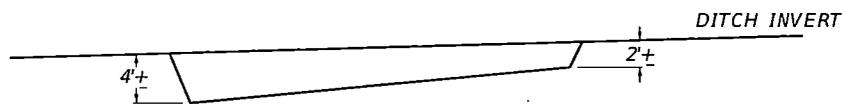
STANDARD DRAWING NO. RDB-282-04

SUBMITTED *[Signature]* 12-01-15
APPROVED *[Signature]* 12-01-15
DATE DATE

ALTERNATE NO. 1

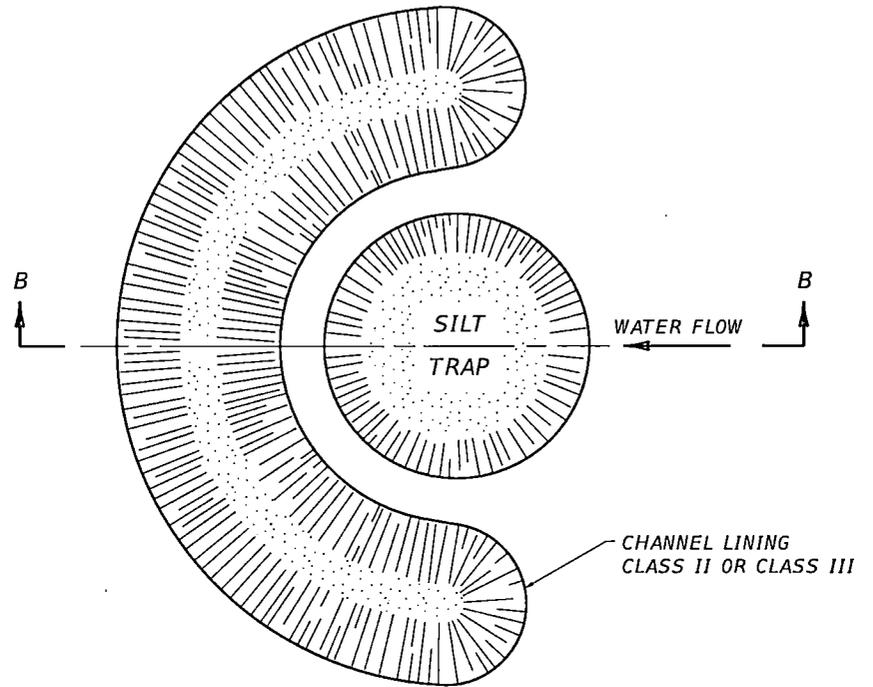


PLAN VIEW

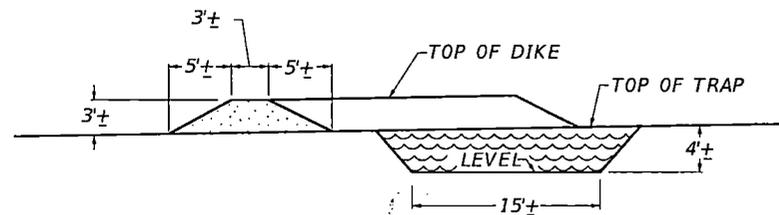


SECTION A-A

ALTERNATE NO. 2



PLAN VIEW



SECTION B-B

~ NOTES ~

BID ITEMS AND UNIT TO BID
SILT TRAP TYPE A
CLEAN SILT TRAP TYPE A

EACH
EACH

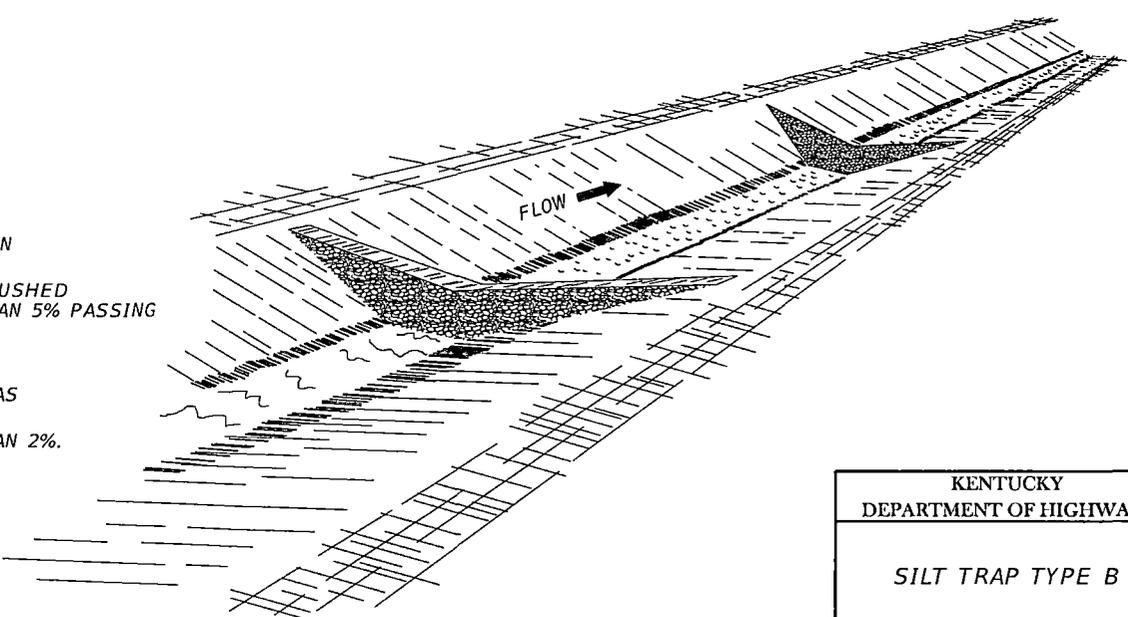
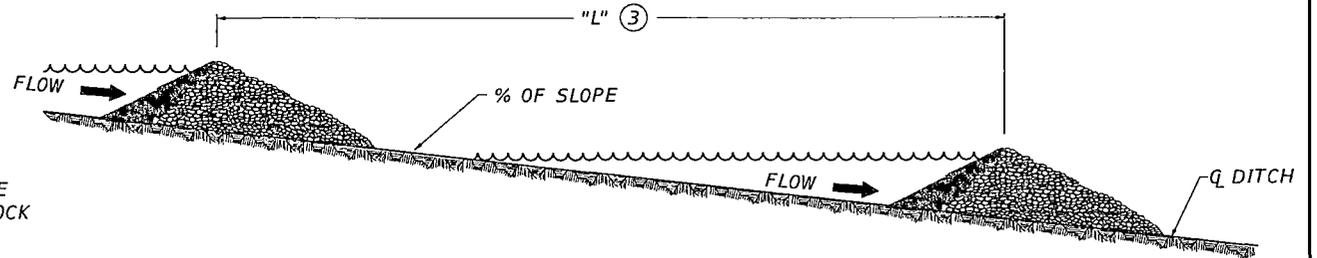
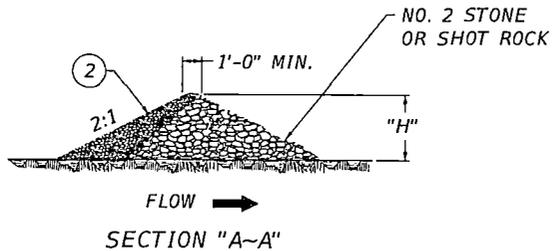
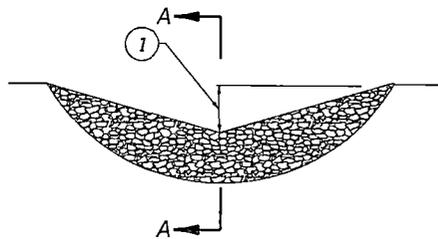
1. THE SIZE, SHAPE AND LOCATION OF A TRAP MAY BE ADJUSTED FROM THAT SHOWN IN THE PLANS, AS DIRECTED BY THE ENGINEER.
2. THE SILT TRAP SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER TO MEET VOLUME REQUIREMENTS INDICATED ON THE PLANS.
3. MATERIAL REMOVED IN THE PROCESS OF CONSTRUCTING SILT TRAP TYPE A SHALL BE WASTED ON SITE AT NO ADDITIONAL COST.

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SILT TRAP
TYPE A

STANDARD DRAWING NO. RDX-220-05

SUBMITTED *[Signature]* 12-01-15 DATE
APPROVED *[Signature]* 12-01-15 DATE
STATE HIGHWAY ENGINEER



~ NOTES ~

BID ITEMS AND UNIT TO BID
 SILT TRAP TYPE B EACH
 CLEAN SILT TRAP TYPE B EACH

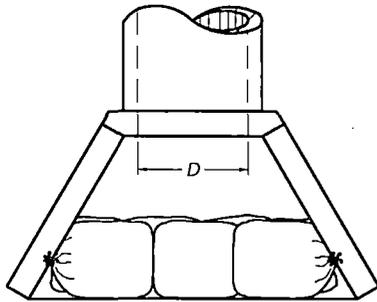
- ① MIDDLE OF SILT TRAP SHALL BE A MINIMUM OF 1'-0" LOWER THAN SIDES SO FLOW WILL NOT BYPASS TRAP OR ERODE BANKS.
- ② UPSTREAM FACE OF SILT TRAP SHALL BE A 4" MIN. LAYER OF CRUSHED AGGREGATE HAVING 100% PASSING A 3" SIEVE AND NO MORE THAN 5% PASSING A NO. 8 SIEVE (SEE SECTION "A-A").
- ③ $L = \frac{H}{\text{SLOPE OF DITCH}}$
4. SPACE SILT TRAPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. SILT TRAP TYPE B SHALL BE USED ON ALL SLOPES GREATER THAN 2%.
6. SILT TRAP TYPE B MAY BE USED ON ALL SLOPES LESS THAN 2%.

KENTUCKY
 DEPARTMENT OF HIGHWAYS

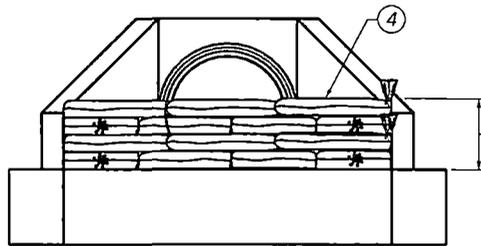
SILT TRAP TYPE B

STANDARD DRAWING NO. RDX-225-01

SUBMITTED: *[Signature]* 12-01-15
DIRECTOR DIVISION OF DESIGN DATE
 APPROVED: *[Signature]* 12-01-15
STATE HIGHWAY ENGINEER DATE



PLAN VIEW



FRONT ELEVATION

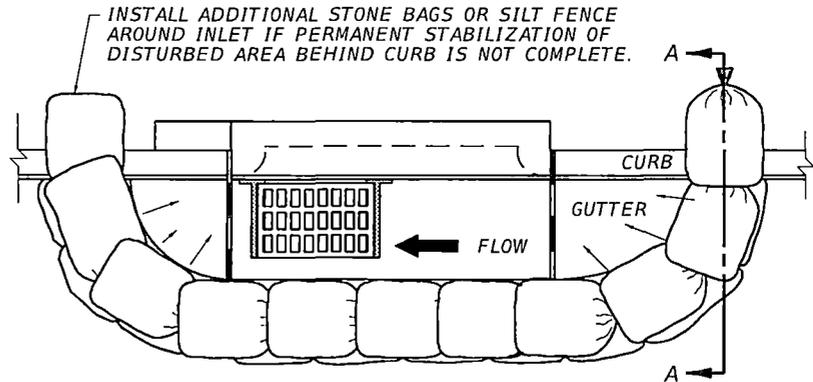
HEIGHT OF BAGS = $D/2$ ③

~ NOTES ~

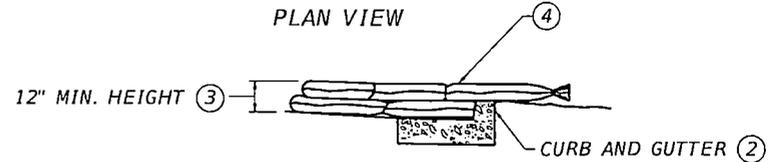
BID ITEMS AND UNIT TO BID:
SILT TRAP TYPE C
CLEAN SILT TRAP TYPE C

EACH
EACH

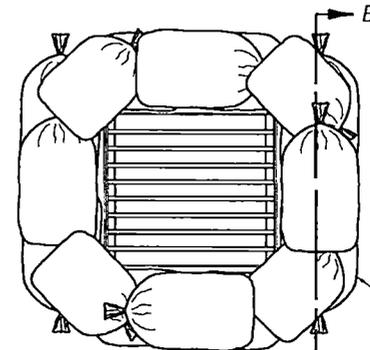
1. SILT TRAP TYPE C SHALL INCLUDE GEOTEXTILE FABRIC BAGS, NO. 57 STONE, LABOR AND ALL INCIDENTALS NECESSARY FOR ONE COMPLETE INSTALLATION.
- ② INLET PROTECTION IS SUITABLE FOR USE IN BOTH PAVED AND UNPAVED AREAS.
- ③ THE HEIGHT REQUIREMENT IS WAIVED IN CASES WHERE IT WILL CREATE AN UNACCEPTABLE PONDING SITUATION ON THE PAVEMENT OR ON AN ADJACENT PROPERTY.
- ④ INTERWEAVE BAG ENDS TO FILL GAPS BETWEEN BAGS.
5. CONSTRUCT 18" X 30" BAGS OF NON-WOVEN TYPE II GEOTEXTILE FABRIC CONFORMING TO SECTION 843 OF THE STANDARD SPECIFICATIONS. DOUBLE STITCH BAG SEAMS WITH 1 LB. POLYESTER THREAD. ATTACH ONE (1) TIE STRING TO EACH BAG. BAG OPENING SHALL BE ON 18" SIDE.
6. FILL BAGS WITH NO. 57 STONE BETWEEN 1/2 TO 2/3 FULL (50 LB TO 60 LB).
7. SILT TRAP TYPE C SHALL NOT BE USED IN BLUE LINE STREAMS.



PLAN VIEW

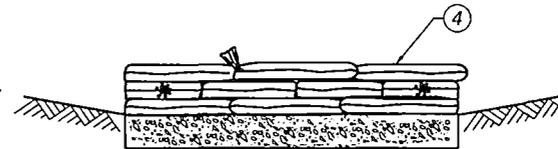


SECTION A-A



PLAN VIEW

SURROUND INLET WITH TWO COURSES OF BAGS (MINIMUM).



SECTION B-B

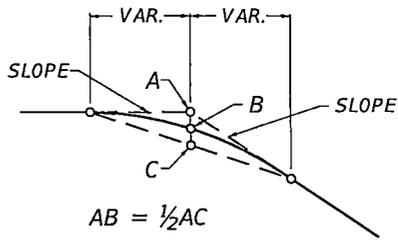
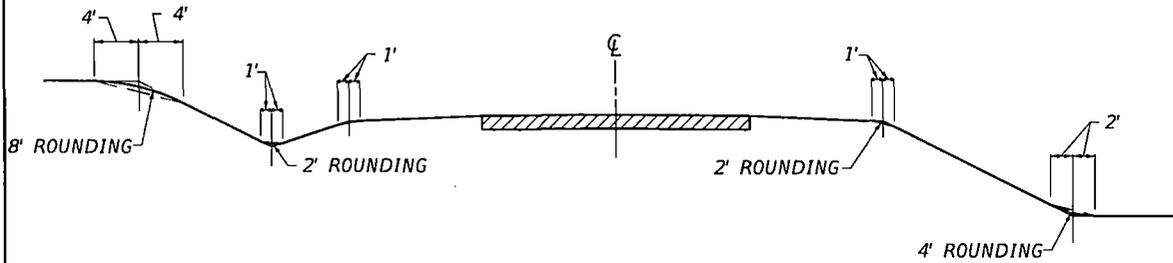
KENTUCKY
DEPARTMENT OF HIGHWAYS

SILT TRAP TYPE C

STANDARD DRAWING NO. RDX-230-01

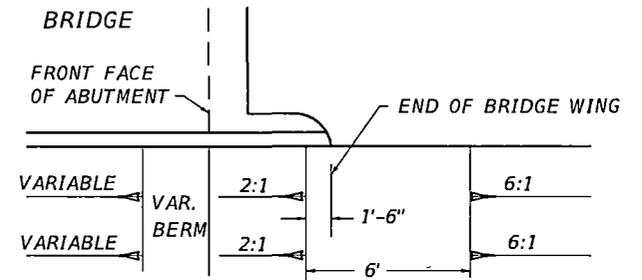
SUBMITTED *[Signature]* 12-01-15
DATE
APPROVED *[Signature]* 12-01-15
DATE

TYPICAL SECTION SHOWING ROUNDING OF SLOPES

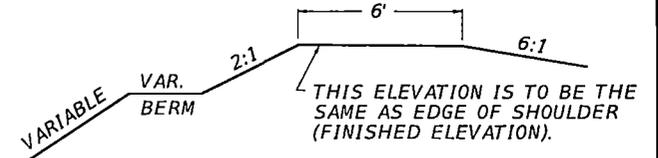


DETAIL FOR ROUNDING OF SLOPES

EARTH DIKE IN DEPRESSED MEDIAN AT THE END OF TWIN BRIDGES

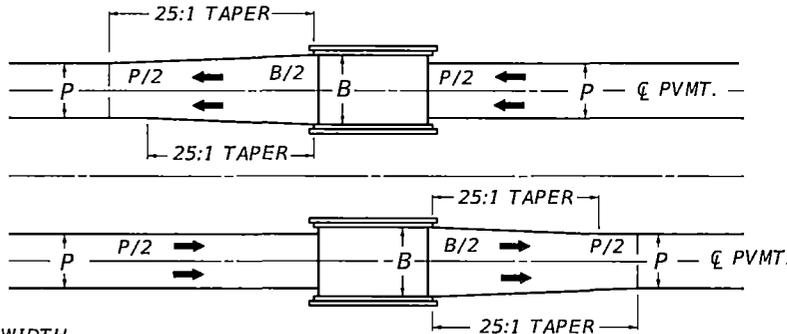


PLAN VIEW



TO BE CONSTRUCTED ON GRADE AND DRAIN CONTRACT.
PROFILE OF EARTH DIKE

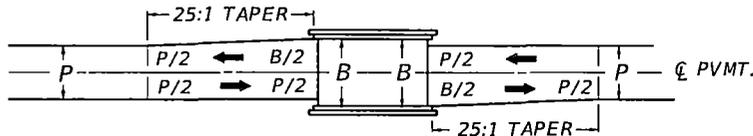
BRIDGE APPROACH FOR USE IN CONJUNCTION WITH ASPHALT CONCRETE PAVEMENT



P = NORMAL PAVEMENT WIDTH

B = BRIDGE ROADWAY

TWIN BRIDGES

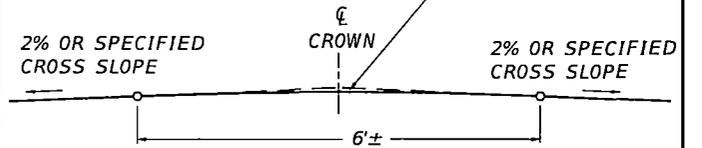


SINGLE BRIDGE

NORMAL PAVEMENT SHALL BE TRANSITIONED TO MEET BRIDGE ROADWAY AS INDICATED ABOVE.

PAVEMENT AND SHOULDER CROWN ROUNDED

ROUNDING FROM EXTENDED CROSS SLOPE IN ORDER TO AVOID PEAK AT CENTER.



IN A HORIZONTAL CURVE, ROUNDING SHOULD BE USED AT HINGE POINT BETWEEN SUPERABLE AND NON-SUPERABLE SHOULDERS.

KENTUCKY
DEPARTMENT OF HIGHWAYS

MISCELLANEOUS
STANDARDS

STANDARD DRAWING NO. RGX-001-06

SUBMITTED *[Signature]* 12-01-15
DATE
APPROVED *[Signature]* 12-01-15
DATE

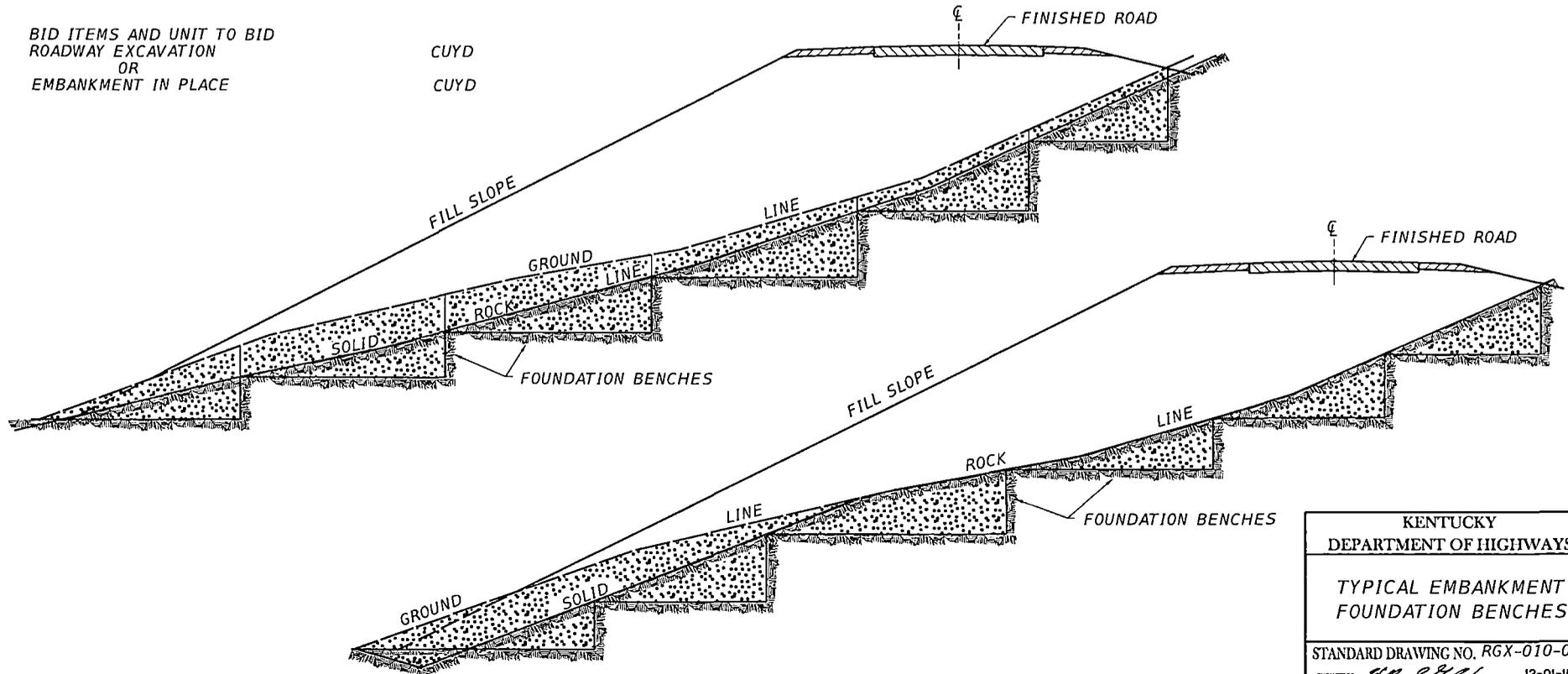
~ NOTES ~

1. THIS TREATMENT FOR EMBANKMENT FOUNDATION BENCHES, AS INDICATED ON THIS SHEET, SHALL BE ACCEPTED AS GUIDES FOR HIGHWAY DESIGN, HOWEVER, ALL THE CONDITIONS THAT WILL BE ENCOUNTERED CANNOT BE SHOWN, SO THE DESIGNER MUST GIVE CONSIDERABLE THOUGHT TO THE LOCATIONS AND DIMENSIONS OF THESE BENCHES.
2. DEFINITE DESIGN INFORMATION CANNOT BE ESTABLISHED AS TO THE SIZE OF THESE BENCHES, DUE TO THE IRREGULARITIES AND THE DIFFERENT RATES OF INCLINE OF THE EXISTING CROSS SECTION, HOWEVER, IT IS GENERALLY BELIEVED THAT A 6' TO 12' RISE AND A 20' TO 35' HORIZONTAL RUN IS FAIRLY TYPICAL WITH A 15' HORIZONTAL RUN BEING THE MINIMUM.
3. WHEN THE INCLINE OF THE CROSS SECTION IS 15% OR GREATER THESE EMBANKMENT FOUNDATION BENCHES SHALL BE CONSTRUCTED IN THE ORIGINAL SLOPE AS THE EMBANKMENT IS CONSTRUCTED IN COMPACTED LAYERS OR LIFTS.
4. WHEN EMBANKMENT FOUNDATION BENCHES ARE SHOWN ON THE CROSS SECTION, THE VOLUME SHALL BE COMPUTED AS ROADWAY EXCAVATION OR EMBANKMENT IN PLACE AS APPLICABLE AND SHOWN IN THE SHEET TOTALS AND BROUGHT FORWARD TO BE INCLUDED IN THE TOTAL EARTHWORK WITH THE NOTE "TOTAL INCLUDES "X" NUMBER OF CUBIC YARDS FROM EMBANKMENT FOUNDATION BENCHES."
5. THE EXCAVATION FROM THESE BENCHES WILL NOT BE SHOWN IN THE DISTRIBUTION OF QUANTITIES BUT THEY WILL DEFINITELY BE A PAY QUANTITY BY VIRTUE OF THE FACT THAT THEY ARE INCLUDED IN THE TOTAL OF ROADWAY EXCAVATION QUANTITIES.
6. NO QUANTITIES WILL BE ALLOWED FOR THE REFILLING OF THESE BENCHES, SINCE SUPPOSEDLY, THE MATERIAL THAT WAS EXCAVATED WILL BE PROCESSED AND PLACED BACK IN THESE BENCHES.
7. IF THE CROSS SECTION IS AN EARTH ONE, THAT IS IF NO ROCK IS SHOWN, THEN THE FOUNDATION BENCHES SHALL BE INDICATED ON THE CROSS SECTION AND CONSTRUCTED AS SHOWN BY THE DRAWING AND THE VOLUME OF EXCAVATION BECOMES A PAY ITEM AS ROADWAY EXCAVATION OR EMBANKMENT IN PLACE AS APPLICABLE, IN OTHER WORDS, SUPPORT BENCHING OF EARTH SECTIONS SHALL BE GIVEN SAME TREATMENT AS ROCK OR NEAR ROCK SECTION.
8. SHOULD IT BE EVIDENT, AT THE TIME OF CONSTRUCTION, THAT THE ENGINEER FINDS AND SO DIRECTS THAT THE EMBANKMENT FOUNDATION BENCHING IS NECESSARY AND IT IS NOT SO INDICATED ON THE DESIGN CROSS SECTIONS THE BASIS OF PAYMENT SHALL BE AS HEREIN BEFORE STATED.

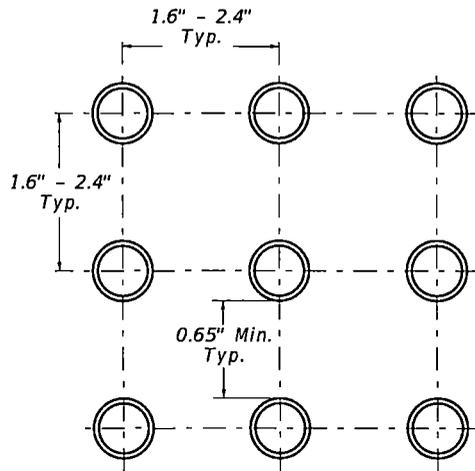
BID ITEMS AND UNIT TO BID
 ROADWAY EXCAVATION
 OR
 EMBANKMENT IN PLACE

CUYD

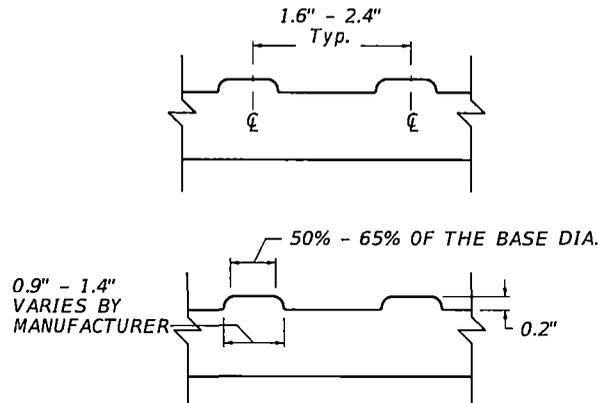
CUYD



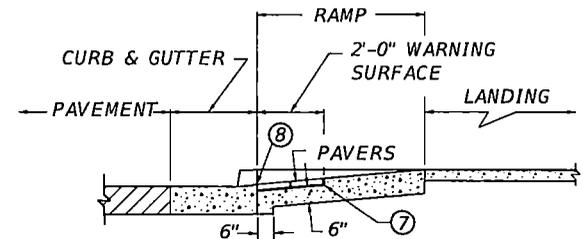
KENTUCKY DEPARTMENT OF HIGHWAYS	
TYPICAL EMBANKMENT FOUNDATION BENCHES	
STANDARD DRAWING NO. RGX-010-04	
SUBMITTED <i>[Signature]</i>	12-01-15 DATE
APPROVED <i>[Signature]</i>	12-01-15 DATE
STATE HIGHWAY ENGINEER	



SQUARE PATTERN



CONCRETE PAVER PROFILE



TYPICAL CONCRETE PAVER DETECTABLE WARNING INSTALLATION

~ NOTES ~

BID ITEM AND UNIT TO BID.
DETECTABLE WARNINGS

SF

1. LANDINGS WILL PROVIDE A LEVEL AREA (MAX. 2% GRADE OR CROSS SLOPE) AT APPROXIMATE STREET ELEVATION. A 4' SQUARE LEVEL LANDING IS THE REQUIRED MINIMUM. SEE NOTE 9 ON CUR. STD. DWG. RPM-170.
2. DETECTABLE WARNINGS SHALL BE INSTALLED USING CONCRETE PAVERS IN ACCORDANCE WITH THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
3. JOINTS AROUND PAVERS SHALL BE FILLED WITH DRY MORTAR. MORTAR SHALL BE BRUSHED IN WITH A COURSE BROOM. SAND WILL NOT BE ALLOWED.
4. COMMERCIAL DRIVEWAYS WITH TRAFFIC CONTROL DEVICES REQUIRE ADA SIDEWALK TREATMENTS WITH DETECTABLE WARNINGS.
5. CONCRETE PAVERS SHALL BE CONCRETE WITH A MINIMUM THICKNESS OF 2".
6. CONCRETE PAVERS SHALL BE A COLOR HOMOGENOUS THROUGHOUT THE PAVER, THAT COLOR SHALL CONTRAST VISUALLY WITH THE ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. THE DEPARTMENT WILL ALLOW EITHER YELLOW OR RED AS COLORS.
- ⑦ CONCRETE PAVERS SHALL BE SET IN MORTAR.
- ⑧ DETECTABLE WARNING SURFACE BEGINS AT BACK OF CURB.

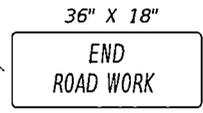
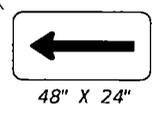
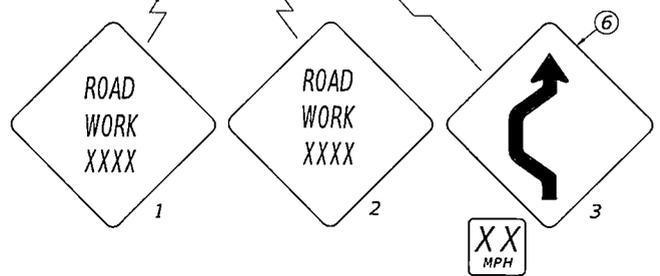
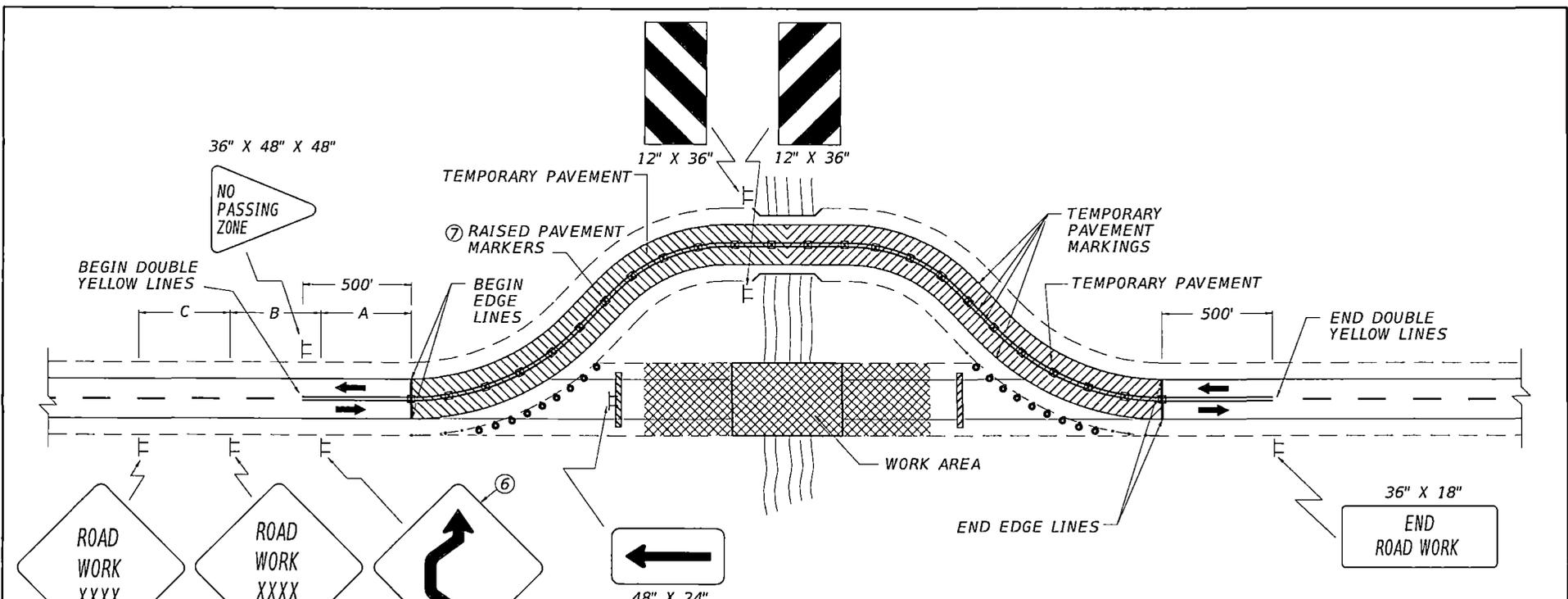
USE WITH CUR. STD. DWGS.
RPM-170 RPM-172

KENTUCKY
DEPARTMENT OF HIGHWAYS

DETECTABLE
WARNINGS

STANDARD DRAWING NO. RGX-040-03

SUBMITTED John P. [Signature] 12-01-15
DIRECTOR, DIVISION OF DESIGN DATE
APPROVED [Signature] 12-01-15
STATE HIGHWAY ENGINEER DATE



- LEGEND**
- TYPE III BARRICADE
 - SIGN
 - CHANNELIZING DEVICES
DRUMS
 - PAVEMENT MARKERS
TYPE IVA
(BI-DIRECTIONAL YELLOW)

~ NOTES ~

1. DEVICES SIMILAR TO THOSE DEPICTED SHALL BE PLACED FOR OPPOSITE DIRECTION OF TRAVEL.
2. THE SIZE OF SIGNS 1 THRU 3 SHALL BE 48" X 48" IF THE SPEED LIMIT IS 45 MPH OR GREATER. OTHERWISE, 36" X 36" SIGNS MAY BE USED.
3. THE ADVISORY SPEED LIMIT ON SIGN 3 SHALL BE DETERMINED BY THE ENGINEER.
4. PAVEMENT MARKINGS WHICH ARE NO LONGER APPLICABLE SHALL BE OBLITERATED BY AN APPROVED METHOD.
5. SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 20'.
- ⑥ IF THE TANGENT DISTANCE ALONG THE TEMPORARY DIVERSION IS MORE THAN 600 FEET, A REVERSE CURVE SIGN, LEFT FIRST, SHOULD BE USED INSTEAD OF THE DOUBLE REVERSE CURVE SIGN, AND A SECOND REVERSE CURVE SIGN, RIGHT FIRST, SHOULD BE PLACED IN ADVANCE OF THE SECOND REVERSE CURVE BACK TO THE ORIGINAL ALIGNMENT. WHEN THE TANGENT SECTION OF THE DIVERSION IS MORE THAN 600 FEET, AND THE DIVERSION HAS SHARP CURVES WITH RECOMMENDED SPEEDS OF 30 MPH OR LESS, REVERSE TURN SIGNS SHOULD BE USED.
- ⑦ RAISED PAVEMENT MARKERS ARE REQUIRED ONLY FOR HARD SURFACE ROADWAYS. TYPE IVA MARKERS SHALL BE MAINTAINED THROUGHOUT THE ENTIRE LIMITS OF THE DIVERSION AT A SPACING OF 20'.

BID ITEMS AND UNIT TO BID
 BARRICADE TYPE-III EACH
 DIVERSION LUMP SUM
 REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

SIGNING AND SPACING TABLE			
ROAD TYPE	A	B	C
EXPRESSWAY/ FREEWAY	1000'	1600'	2600'
SP. LT. ≥ 45 MPH*	500'	500'	500'
SP. LT. ≤ 40 MPH*	250'	250'	500'

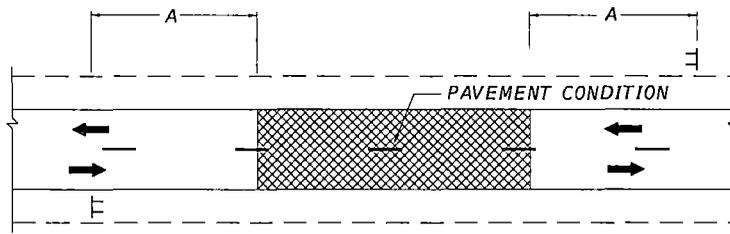
*NOTE: USE NORMAL POSTED SPEED LIMIT

DRAWING NOT TO SCALE

**KENTUCKY
DEPARTMENT OF HIGHWAYS**

**ROAD CLOSURE
WITH
DIVERSION**

STANDARD DRAWING NO. TTC-150-04
 SUBMITTED *R. Allen White* 02-26-20 DATE
 DIRECTOR DIVISION OF TRAFFIC OPERATIONS
 APPROVED *[Signature]* 02-26-20 DATE
 STATE HIGHWAY ENGINEER



SIGN SPACING TABLE	
ROAD TYPE	A
EXPRESSWAY/ FREEWAY	750'
RURAL/URBAN SP. LT. \geq 45 MPH*	500'
URBAN SP. LT. \leq 40 MPH*	250'

*NOTE: USE NORMAL POSTED SPEED LIMIT



W21-2

APPLICATION

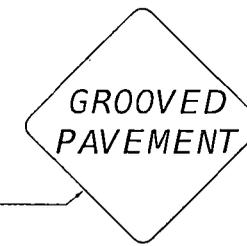
PAVEMENT CONDITION SIGNS GIVE MOTORISTS ADVANCE WARNING OF TEMPORARY IMPACTS TO PAVEMENT CONDITIONS WITHIN WORK ZONES. SUCH ADVANCE WARNING IS PARTICULARLY CRITICAL FOR MOTORCYCLISTS. THIS DRAWING IS INTENDED TO BE USED IN CONJUNCTION WITH OTHER APPLICABLE TEMPORARY TRAFFIC CONTROL STANDARD DRAWINGS.

~ NOTES ~

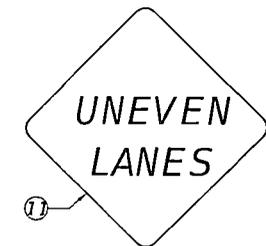
1. SIGNS SHALL HAVE A BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND.
 2. THE SIZE OF ABOVE SIGNS SHALL BE 48" X 48" FOR EXPRESSWAYS/FREEWAYS AND 36" X 36" FOR OTHER ROADWAYS. A FREEWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS. AN EXPRESSWAY SHALL BE DEFINED AS A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
 3. SIGNS SHALL BE MOUNTED AT ELEVATIONS AND OFFSETS PRESCRIBED IN THE MUTCD.
 4. SIGNS SHALL BE DUAL-MOUNTED ON MULTI-LANE HIGHWAYS WHERE MEDIAN IS WIDE ENOUGH TO MAINTAIN LATERAL CLEARANCES AS PRESCRIBED IN THE MUTCD.
 5. ADDITIONAL SIGNS MAY BE REQUIRED FOR LONG CONSTRUCTION ZONES OR WHERE RAMPS OR INTERSECTING STREETS JUNCTION WITHIN THE PROJECT LIMITS.
 6. SIGNS SHOULD BE INSTALLED IN ACCORDANCE WITH SPACING IN SIGN SPACING TABLE AND NO CLOSER THAN 250' TO ANY OTHER REQUIRED WORK ZONE SIGNING.
 7. IF A PAVEMENT CONDITION EXISTS OVER A LONG STRETCH OF ROADWAY, PAVEMENT CONDITION WARNING SIGNS MAY BE USED IN COMBINATION WITH A SUPPLEMENTARY DISTANCE PLAQUE (W7-3A).
 - ⑧ "WET PAVEMENT" SIGNS SHOULD BE INSTALLED IN ADVANCE OF LOCATIONS WHERE WATER IS APPLIED TO THE PAVEMENT TO CONTROL DUST IN A WORK ZONE.
 - ⑨ "FRESH OIL" SIGNS SHOULD BE INSTALLED WHERE PAVING OPERATIONS RESULT IN A SLIPPERY PAVEMENT SURFACE AND/OR WHERE SPLASHING MAY OCCUR.
 - ⑩ "ROUGH ROAD" OR "GROOVED PAVEMENT" SIGNS SHOULD BE INSTALLED IN ADVANCE OF ANY TEMPORARILY TEXTURED/MILLED PAVEMENT SURFACES. PERMANENT SIGNS MAY BE INSTALLED IF ENGINEERING JUDGMENT DETERMINES THAT WARNING FOR A NON-TEMPORARY TEXTURED SURFACE (I.E. DIAMOND GRINDED PAVEMENT) IS NECESSARY.
 - ⑪ "UNEVEN LANES" SIGNS SHOULD BE INSTALLED IN ADVANCE OF LOCATIONS WHERE THERE IS A SUBSTANTIAL DIFFERENCE IN ELEVATION BETWEEN ADJACENT LANES THAT ARE OPEN TO TRAVEL.
 - ⑫ "LOOSE GRAVEL" SIGNS SHOULD BE INSTALLED WHERE WORK ZONE OPERATIONS FREQUENTLY RESULT IN ROCK DEBRIS IN THE ROADWAY.
 - ⑬ "STEEL PLATE AHEAD" SIGNS WITH SUPPLEMENTAL "STEEL PLATE" PLAQUES SHOULD BE INSTALLED IN ADVANCE OF LOCATIONS WHERE STEEL PLATES ARE USED TO BRIDGE OPEN CUTS IN THE ROADWAY.
 - ⑭ A MOTORCYCLE (W8-15P) PLAQUE MAY BE MOUNTED BELOW OR ABOVE ANY OF THE PRESCRIBED SIGNS IN THIS DRAWING IF THE WARNING IS INTENDED TO BE DIRECTED PRIMARILY TO MOTORCYCLISTS.
- BID ITEMS AND UNIT TO BID
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.



W8-8



W8-15



W8-11



W8-7

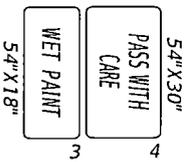
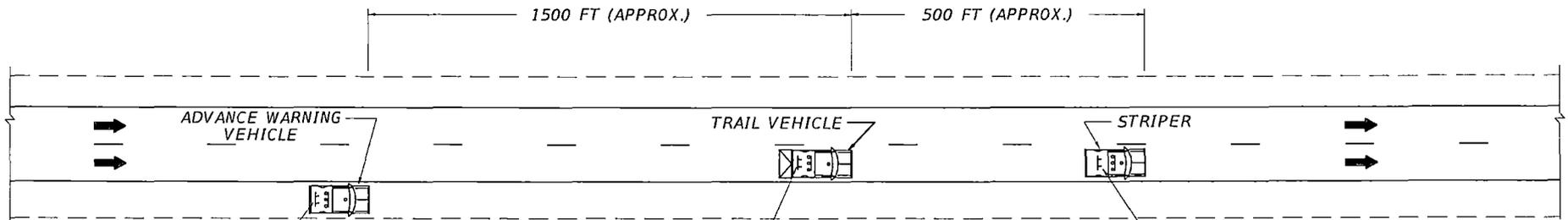


W8-24



W8-15P

KENTUCKY DEPARTMENT OF HIGHWAYS	
PAVEMENT CONDITION WARNING SIGNS	
STANDARD DRAWING NO. TTD-125-03	
SUBMITTED <i>B. Allen Wolfe</i>	02-26-20
DIRECTOR DIVISION OF TRAFFIC OPERATIONS	DATE
APPROVED <i>[Signature]</i>	02-26-20
STATE HIGHWAY ENGINEER	DATE



- LEGEND**
- ⏏ FLASHING ARROW PANEL
 - ⏏ SIGN
 - ⏏ TRUCK MOUNTED ATTENUATOR

~ NOTES ~

1. FLASH ARROW PANELS TO DIRECT TRAFFIC RIGHT OR LEFT AS APPROPRIATE. FLASHING ARROW PANELS SHALL BE TYPE B (60"X30") OR LARGER.
 2. SIGNS 1 THRU 3 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF FLUORESCENT ORANGE SHEETING. SIGN 4 SHALL HAVE A BLACK BORDER AND LEGEND ON A BACKGROUND OF REFLECTIVE WHITE SHEETING.
 3. ALL VEHICLES IN THE STRIPING TRAIN SHALL BE EQUIPPED WITH HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ON THE CAB.
 4. THE LAST TRAIL VEHICLE IN THE WORK TRAIN SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR (T.M.A.) IF LANES ARE 10' WIDE OR GREATER.
 5. TWO-WAY RADIO COMMUNICATION SHALL BE MAINTAINED BETWEEN ALL VEHICLES IN THE WORK TRAIN.
 6. THE SPACING BETWEEN VEHICLES IN THE WORK TRAIN SHOULD BE ADJUSTED, AS NEEDED, TO PROVIDE ADEQUATE SIGHT DISTANCE TO APPROACHING VEHICLES AND TO PROTECT THE FRESHLY APPLIED LINE.
 7. VEHICLE-MOUNTED SIGNS SHALL BE MOUNTED IN A MANNER SUCH THAT THEY ARE NOT OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
- BID ITEMS AND UNIT TO BID
REFER TO SECTION 112 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

DRAWING NOT TO SCALE

APPLICATION

THIS DRAWING APPLIES TO DURABLE STRIPING OPERATIONS ON MULTI-LANE ROADWAYS INVOLVING THE CLOSURE OF ONE LANE ONLY.

KENTUCKY DEPARTMENT OF HIGHWAYS	
MOBILE OPERATION FOR DURABLE STRIPING CASE I	
STANDARD DRAWING NO. TTS-120-02	
SUBMITTED <i>R. Allen Wolf</i>	12-01-15
DIRECTOR OF TRAFFIC OPERATIONS	DATE
APPROVED <i>[Signature]</i>	12-01-15
STATE HIGHWAY ENGINEER	DATE

APPENDIX C
HIGHWAY ENCROACHMENT PERMIT

APPROVED

KENTUCKY TRANSPORTATION CABINET
Department of Highways
PERMITS BRANCH

TC 99-1A
Rev. 09/2018
Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

5-12-2020

KYTC KEPT #: 07-2019-00434

SECTION 1: APPLICANT CONTACT INFORMATION

NAME Lexington-Fayette Urban County Govt	ADDRESS 101 E. Vine Street 4 th Floor	CITY Lexington	STATE KY	ZIP 40507
EMAIL		PHONE # (859) 258-3410	CELL #	
CONTACT NAME 1 Brian K. Hayes, P.E.	EMAIL bhayes@lexingtonky.gov	PHONE # (859) 258-3410	CELL #	
CONTACT NAME 2 (if applicable) Mark H. Feibes, P.E.	EMAIL mfeibes@lexingtonky.gov	PHONE # (859) 258-3410	CELL #	

SECTION 2: PROPOSED WORK LOCATION

ADDRESS 1700 Harrodsburg Road	CITY Lexington	STATE Kentucky	ZIP 40503	
COUNTY Fayette	ROUTE # U.S. 68	MILE POINT	LONGITUDE (X) 38.030566	LATITUDE (Y) 84.528611

FOR KYTC USE ONLY

Permit Type: Air Right Entrance Utilities Vegetation Removal Other: _____

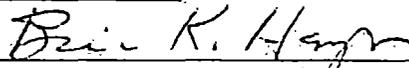
Location: Left Right Crossing

Access: Full Partial by Permit

SECTION 3: GENERAL DESCRIPTION OF WORK

Reconstruction of Clays Mill Road up to and adjoining NB U.S. 68 (Harrodsburg Road).

THE UNDERSIGNED APPLICANT(s), being duly authorized representative(s) or owner(s), DO AGREE TO ALL ORIGINAL UNEDITED TERMS AND CONDITIONS ON THE TC 99-1A, pages 1-4.


SIGNATURE

July 22, 2019
DATE

This is not a permit unless and until the applicant(s) receives an approved TC 99-1B from KYTC. This application shall become void if not approved by the cancellation date. The cancellation date shall be a minimum of one year from the date the applicant submits their application.



APPLICATION FOR ENCROACHMENT PERMIT

TERMS AND CONDITIONS

1. The permit, including this application and all related and accompanying documents and drawings making up the permit, remains in effect and is binding upon the Applicant/Permittee, its successors and assigns, as long as the encroachment(s) exists and also until the permittee is finally relieved by the Department of Highways from all its obligations.
2. Applicant shall meet all requirements of the Clean Water Act if the project will disturb one acre or more, the applicant shall obtain a KPDES KYR10 Permit from the Kentucky Division of Water. All disturbed areas shall meet the requirements of the Department of Highway's Standard Specifications, Sections 212 and 213, as amended.
3. **INDEMNITY:**
 - A. **PERFORMANCE BOND:** The permittee shall provide to the Department a performance bond according to the Permits Manual, Section PE-203 as a guarantee of conformance with the Department's Encroachment Permit requirements.
 - B. **PAYMENT BOND:** At the discretion of the department, a payment bond shall be required of the permittee to ensure payment of liquidated damages assessed to the permittee.
 - C. **LIABILITY INSURANCE:** Liability insurance shall be required of the permittee (in an amount approved by the department) to cover all liabilities associated with the encroachment.
 - D. It shall be the responsibility of the permittee, its successors and assigns, to maintain all indemnities in full force and effect until the permittee is authorized to release the indemnity by the Department.
4. A copy of this application and all related documents making up the approved permit shall be given to the applicant and shall be made readily available for review at the work site at all times.
5. Perpetual maintenance of the encroachment is the responsibility of the permittee, its successors and assigns, with the approval of the Department as required, unless otherwise stated.
6. Permittee, its successors and assigns, shall comply with and agree to be bound by the requirements and terms of (a) this application and all related documents making up the approved permit, (b) by the Department's Permits Manual, and (c) by the Manual on Uniform Traffic Control Devices, both manuals as revised to and in effect on the date of issuance of the permit, all of which documents are made a part thereof by this reference. Compliance by the permittee, its successors and assigns, with subsequent revisions to applicable provisions of either manual or other policy of the Department may be made a condition of allowing the encroachment to persist under the permit.
7. Permittee agrees that this and any encroachment may be ordered removed by the Department at any time, and for any reason, upon thirty days written notice to the last known address of the applicant or to the address at the location of the encroachment. The permittee agrees that the cost of removing and of restoring the associated right-of-way is the responsibility of the permittee, its successors and assigns.
8. Permittee, its successors and assigns, agree that if the Department determines that motor vehicular safety deficiencies develop as a result of the installation or use of the encroachment, the permittee, its successors and assigns, shall provide and bear the expenses to adjust, relocate, or reconstruct the facilities, add signs, auxiliary lanes, or other corrective measures reasonably deemed necessary by the Department within a reasonable time after receipt of a written notice of such deficiency. The period within which such adjustments, relocations, additions, modifications, or other corrective measures must be completed will be specified in the notice.
9. Where traffic signals are required as a condition of granting the requested permit or are thereafter required to correct motor vehicular safety deficiencies, as determined by the Department, the costs for signal equipment and installation(s) shall be borne by the permittee, its successors and assigns and the Department in its reasonable discretion and only in accordance with the Department's current policy set forth in the Traffic Operations Manual and Permits Manual. Any modifications to the permittee's entrance necessary to accommodate signalization (including necessary easement(s) on private property) shall be the responsibility of the permittee, its successors and assigns, at no expense to the Department.



APPLICATION FOR ENCROACHMENT PERMIT

10. The requested encroachment shall not infringe on the frontage rights of an abutting owner without their written consent as hereinafter described. Each abutting owner shall express their consent, which shall be binding on their successors and assigns, by the submission of a notarized statement as follows, "I (we), _____, hereby consent to the granting of the permit requested by the applicant along Route _____, which permit does affect frontage rights along my (our) adjacent real property." By signature(s) _____ subscribed and sworn by _____ on this date _____.
11. The permit, if approved, is subject to the agreement that it shall not interfere with any similar rights or permit(s) previously granted to any other party, except as otherwise provided by law.
12. Permittee shall include documentation which describes the facilities to be constructed. Permittee, its successors and assigns, agree as a condition of the granting of the permit to construct and maintain any and all permitted facilities or other encroachments in strict accordance with the submitted and approved permit documentation and the policies and procedures of the Department. Permittee, its successors and assigns, shall not use facilities authorized herein in any manner contrary to that prescribed by the approved permit. Only normal usage as contemplated by the parties and by this application and routine maintenance are authorized by the permit.
13. Permittee, its successors and assigns, at all times from the date permitted work is commenced until such time as all permitted facilities or other encroachments are removed from the right-of-way and the right-of-way restored, **shall defend, protect, indemnify and save harmless** the Department from any and all liability claims and demands arising out of the work, encroachment, maintenance, or other undertaking by the permittee, its successors and assigns, related or undertaken pursuant to the granted permit, due to any claimed act or omission by the permittee, its servants, agents, employees, or contractors. This provision shall not inure to the benefit of any third party nor operate to enlarge any liability of the Department beyond that existing at common law or otherwise if this right to indemnity did not exist.
14. Upon a violation of any provision of the permit, or otherwise in its reasonable discretion, the Department may require additional action by the permittee, its successors and assigns, up to and including the removal of the encroachment and restoration of the right-of-way. In the event additional actions required by the Department under the permit are not undertaken as ordered and within a reasonable time, the Department may in its discretion cause those or other additional corrective actions to be undertaken and the Department shall recover the reasonable costs of those corrective actions from the permittee, its successors and assigns.
15. Permittee, its successors and assigns, shall use the encroachment premises in compliance with all requirements of federal law and regulation, including those imposed pursuant to Title VI of the Civil Right Act of 1964 (42 U.S.C. § 2000d et seq.) and the related regulations of the U.S. Department of Transportation in Title 49 C.F.R. Part 21, all as amended.
16. Permittee, its successors and assigns, agree that if the Department determines it is necessary for the facilities or other encroachment authorized by the permit to be removed, relocated or reconstructed in connection with the reconstruction, relocation or improvement of a highway, the Department may revoke permission for the encroachment to remain under the permit and may order its removal, relocation or reconstruction by the permittee, its successors and assigns, at the expense of the permittee, except where the Department is required by law to pay any or all of those costs.



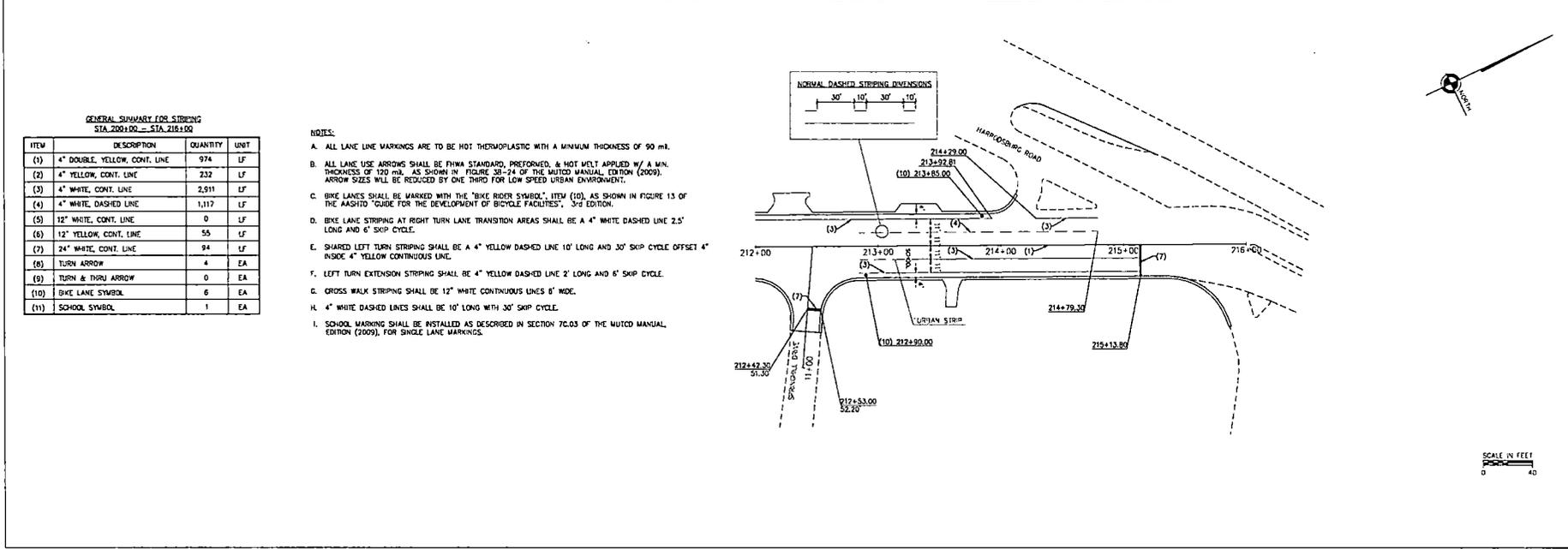
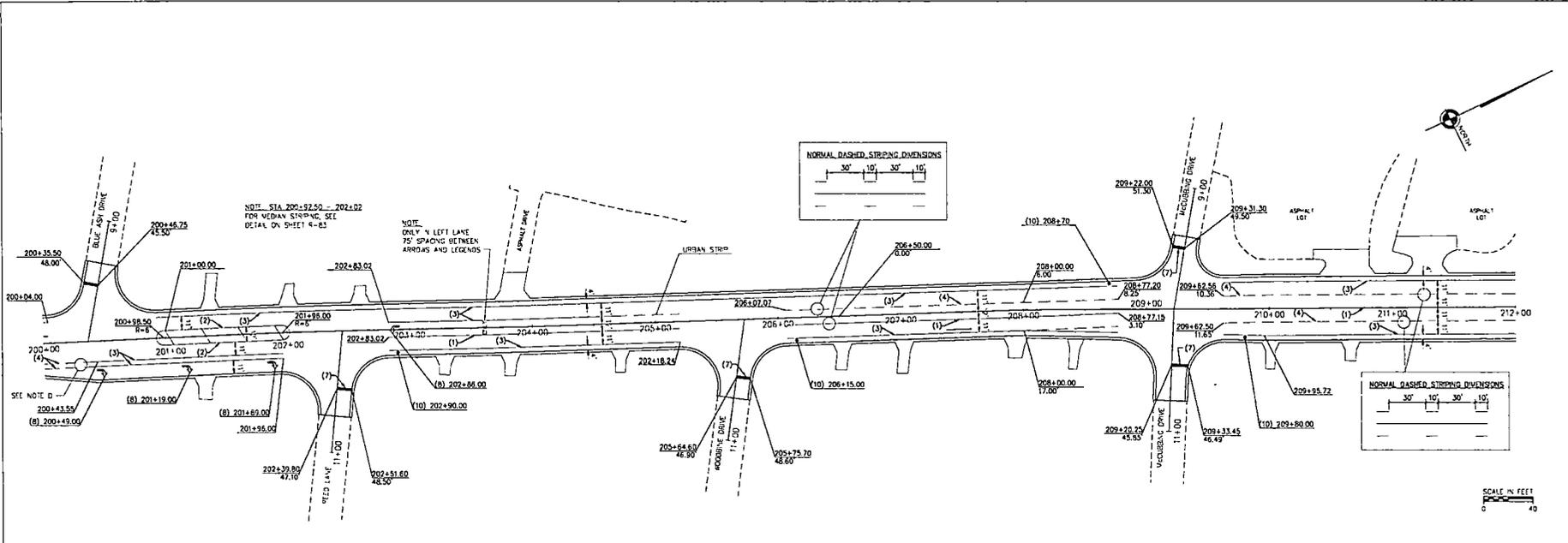
APPLICATION FOR ENCROACHMENT PERMIT

17. Permittee agrees that the authorized permit is personal to the permittee and shall remain in effect until such time as (a) the permittee's rights to the adjoining real property to have benefitted from the requested encroachment have been relinquished, (b) until all permit obligations have been assumed by appropriate successors and assigns, and (c) unless and until a written release from permit obligations has been granted by the Department. The permit and its requirements shall also bind the real property to have benefitted from the requested encroachment to the extent permitted by law. The permit and the related encroachment become the responsibility of the successors and assigns of the permittee and the successors and assigns of each property owner benefitting from the encroachment, or the encroachment may not otherwise permissibly continue to be maintained on the right-of-way. (Does not apply to utility encroachments serving the general public.)
18. If work authorized by the permit is within a highway construction project in the construction phase, it shall be the responsibility of the permittee to make personal contact with the Department's Engineer on the project in order to coordinate all permitted work with the Department's prime contractor on the project.
19. This permit is not intended to, nor shall it, affect, alter or alleviate any requirement imposed upon the permittee, its successors and assigns, by any other agency.
20. Permittee, its successors and assigns, agree to contain and maintain all dirt, mud, and other debris emanating from the encroachment away from the surrounding right-of-way and the travel way of the highway hereafter and at all times that its obligations under the permit remain in effect.
21. Before You Dig: The contractor is instructed to call 1-800-752-6007 to reach KY 811, the One-Call system for information on the location of existing underground utilities. The call is to be placed a minimum of two (2) and no more than ten (10) business days prior to excavation. The contractor should be aware that the owners of underground facilities are not required to be members of the KY 811 One-Call Before U-Dig (BUD) service. The contractor must coordinate excavation with the utility owners, including those whom do not subscribe to KY 811. It may be necessary for the contractor to contact the County Clerk to determine what utility companies have facilities in the area.



To Submit a Locate Request
24 Hours a Day, Seven Days a Week:
Call 811 or 800-752-6007

ARD & P Engineers, Inc. 15001 E. 15th Ave., Suite 100, Denver, CO 80202
 File # 15001-15001 - City of Aurora, CO
 Project # 15001-15001 - City of Aurora, CO
 Project Name: 15001-15001 - City of Aurora, CO
 Project Date: 04/15/2015 10:45 AM BY: R. GARDNER



GENERAL SUMMARY FOR STRIPING
STA. 200+00 - STA. 216+00

ITEM	DESCRIPTION	QUANTITY	UNIT
(1)	4" DOUBLE YELLOW, CONT. LINE	974	LF
(2)	4" YELLOW, CONT. LINE	232	LF
(3)	4" WHITE, CONT. LINE	2,511	LF
(4)	4" WHITE, DASHED LINE	1,117	LF
(5)	12" WHITE, CONT. LINE	0	LF
(6)	12" YELLOW, CONT. LINE	55	LF
(7)	24" WHITE, CONT. LINE	94	LF
(8)	TURN ARROW	4	EA
(9)	TURN & TURN ARROW	0	EA
(10)	BIKE LANE SYMBOL	6	EA
(11)	SCHOOL SYMBOL	1	EA

- NOTES:**
- ALL LANE LINE MARKINGS ARE TO BE HOT THERMOPLASTIC WITH A MINIMUM THICKNESS OF 90 MIL.
 - ALL LANE USE ARROWS SHALL BE FHWA STANDARD, PREFORMED, & HOT MELT APPLIED W/ A MIN. THICKNESS OF 120 MIL, AS SHOWN IN FIGURE 30-24 OF THE MUTCD MANUAL, EDITION (2009). ARROW SIZES WILL BE REDUCED BY ONE THIRD FOR LOW SPEED URBAN ENVIRONMENT.
 - BIKE LANES SHALL BE MARKED WITH THE "BIKE RIDER SYMBOL", ITEM (10), AS SHOWN IN FIGURE 13 OF THE AASHTO "GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES", 3rd EDITION.
 - BIKE LANE STRIPING AT RIGHT TURN LANE TRANSITION AREAS SHALL BE A 4" WHITE DASHED LINE 2.5' LONG AND 6" SKIP CYCLE.
 - SHARED LEFT TURN STRIPING SHALL BE A 4" YELLOW DASHED LINE 10' LONG AND 30' SKIP CYCLE OFFSET 4" INSIDE 4" YELLOW CONTINUOUS LINE.
 - LEFT TURN EXTENSION STRIPING SHALL BE 4" YELLOW DASHED LINE 2' LONG AND 6" SKIP CYCLE.
 - GROSS WALK STRIPING SHALL BE 12" WHITE CONTINUOUS LINES 6" WIDE.
 - 4" WHITE DASHED LINES SHALL BE 10' LONG WITH 30' SKIP CYCLE.
 - SCHOOL MARKING SHALL BE INSTALLED AS DESCRIBED IN SECTION 70.03 OF THE MUTCD MANUAL, EDITION (2009), FOR SINGLE LANE MARKINGS.



3200 Main Street, Lexington, KY 40503
 T: 606.254.7000 F: 606.254.7001

STRIPING
STATIONS: 200+00 - 216+00
SECTION
CLAYS HILL ROAD IMPROVEMENTS
LEXINGTON, KY



LEXINGTON-ARLETTE
URBAN COUNTY GOVERNMENT
LEXINGTON, KY



SEAL OF THE CITY OF LEXINGTON, KY

PROJECT #	#15003
SCALE	1" = 40'
DATE	2015
DRAWN BY	RLM
DESIGNED BY	GPB
CHECKED BY	
NO.	
DATE	
BY	

SHEET
R-85

DISCLAIMER: This drawing is intended for the sole use of the Owner on the project named herein. It is the property of CDP Engineers, Inc. and shall not be copied, distributed, revised, or used in any way without the expressed written consent of CDP Engineers, Inc.



Kentucky Transportation Cabinet
 Department of Highways
 Division of Maintenance
 Permits Branch

ENCROACHMENT PERMIT

KYTC KEPT #: 07-2019-00434

Permittee: LFUCG

Permit Type / Subtype: Other / Miscellaneous

Work Completion Date: 7/1/2021

INDEMNITIES		
Type	Amount Required	Tracking Number
Performance Bond	\$0.00	
Cash / Check	\$0.00	
Self-Insured	\$10,000.00	0009633
Payment Bond	\$0.00	
Liability Insurance	\$0.00	

This permit has been: **APPROVED** **DENIED**

Daniel Kucela	D7 Engineering Support - TEBM	5/12/2020
SIGNATURE	TITLE	DATE

The TC 99-1(B), including the application TC-99 1(A) and all related and accompanying documents and drawings make up the permit. It is not a permit unless both the TC 99-1(A) and TC 99-1(B) are both present.

LOCATION(S)			
Description	County - Route	Latitude	Longitude
	Fayette - US 68	38.030677	-84.528472



To Submit a Locate Request
 24 Hours a Day, Seven Days a Week:
 Call 811 or 800-752-6007