SPECIFICATIONS FOR CONSTRUCTION

In general, unless specifically set forth herein, the work, materials, and methods of measurement and payment shall conform to the applicable divisions and paragraphs (as noted on the Bid Proposal or in the plans) of the most current edition of the:

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS, FRANKFORT

Standard Specifications
for
Road and Bridge Construction

SPECIAL PROVISIONS

ITEMS 105.07 / 107.15 - COOPERATION WITH UTILITIES

All portions of Item 105.07 and Item 107.15 of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction shall apply.

At least two (2) working days prior to commencing construction operations in an area which may involve underground utility facilities as shown on the plans, the Contractor shall notify the Engineer, the registered utility protection service, and the owners of each underground utility facility not members of the registered utility protection service.

The existing underground utilities are shown as accurately as possible on the plans, based on information available. The Owner and/or the Engineer do not assume any liability for location of these underground utility service lines. Any utility services damaged that were previously marked in the field shall be replaced at the Contractor's expense.

Where the plans provide for pipe to be connected to, or to cross either over or under, or close to an existing underground structure, it shall be the responsibility of the Contractor to locate the existing structure, both as to line and grade, before he starts to lay the proposed pipe, in order to assure compatibility with line and grade of the proposed pipe. Payment for all operations described above shall be included in the unit price bid for the pertinent pipe item.

The Contractor shall adjust or arrange with utility company to adjust to proposed grade all existing utility facilities, i.e., manholes, catch basins, valves, boxes, etc., prior to the commencement of paving operations. This shall include utility facilities not shown on the plans, which may be found to be located within the pavement area. Work performed on the utility facilities shall be in strict accordance with the specifications of the applicable utility company and shall be performed under the direction, supervision, and inspection of said company.

COORDINATION WITH UTILITIES

Coordination of work schedules with affected utilities will be required. Upon the contract award, the coordination of all necessary relocations or adjustment of all utility facilities become the responsibility of the Contractor.

ITEM 105.06 - COOPERATION BETWEEN CONTRACTORS

The Contractor shall coordinate his work with other Contractors within or adjacent to the project limits. All improvements completed under this contract shall meet the line and grade of other work in an acceptable manner.

ITEM 106 - CONTROL OF MATERIAL

Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of proper quality and sufficient for the purpose contemplated. The Contractor shall furnish, if so required, satisfactory evidence as to type and quality of materials and workmanship.

All items of equipment and/or material proposed by the Contractor for substitutions must be approved by the Engineer in writing and shall be equal or superior to the items specified in the contract documents. If said substitution proposed by the Contractor for a specified item requires engineering revisions, the total expense of said revisions shall be paid by the Contractor.

Any items of labor and materials required, but not shown as a separate pay item in the proposal, shall be furnished and installed as incidental to the contract, except as noted in the plans and specifications.

ITEM 106.08 - STORAGE OF MATERIALS

The Contractor shall obtain prior approval in writing from the Owner for the locations to be used for the temporary storage of construction materials, tools, and/or machinery. All such materials, tools, and machinery shall be neatly and compactly piled in such a manner as to cause the least inconvenience to the property owners and to traffic. Under no circumstances shall existing drainage courses be blocked or water hydrants, valves, or meter pits covered. All materials, tools, machinery, etc., stored upon public thoroughfares must be provided with warning lights and reflective sheeting at nighttime and weekends to alert traffic of such obstructions.

ITEM 108.02 - PRECONSTRUCTION CONFERENCE

Prior to the commencement of construction activities, the Engineer will arrange a meeting between the Contractor, the representatives of the Owner, and the representatives of each of the utility companies. The time, date, and location of said meeting will be determined after the awarding of the contract, and the parties will be notified by the Engineer.

The agenda for the preconstruction meeting shall include the following items:

1. Announcement of Award
2. Utility Company Requirements
3. Designation of Emergency 24-hour Contractor Contacts
4. Discussion of Critical Plan Items
5. Review of Testing and Inspection Procedures
6. Operations Schedule
7. Listing of Haul Roads
8. Identification of Subcontractors
9. Review of Change Order Process
10. Payment Request Submittal Procedure

The Contractor shall coordinate all work with the Engineer. A detailed schedule of operations shall be furnished by the Contractor to the Engineer at the preconstruction meeting and shall list

the order of operations and the time frame for the completion of each item of work. The schedule of operations shall be approved by the Engineer and the Owner in writing prior to the beginning of the work. Changes to said schedule are to be issued in writing and approved by the Engineer and the Owner before operations are changed or rescheduled. No payment will be made to the Contractor while he is delinquent in the submission of a progress schedule.

The Contractor shall supply to the Engineer at the preconstruction meeting, a list of the local roads to be used for the purpose of hauling equipment and/or material to or from the job site. Only the local roads in the vicinity of the project have to be listed; state and/or federal roads do not have to be included. Where necessary, the list shall include the extent of the roads to be affected and any special restrictions, such as height or weight restrictions, which may be applicable along said roads. Construction shall not commence until the Engineer and/or Owner has reviewed the haul road list and approved the haul roads in writing.

The submission of the list to and the review and approval of the list by the Engineer do not relieve the Contractor of the responsibility for the conforming to and the obeying of all applicable height and weight restrictions on the haul roads and of the responsibility for any damage done to and/or along said haul roads. The Contractor is referred to Item 105.10 concerning load restrictions.

ITEM 107.04 - PERMITS, LICENSES AND TAXES

The Contractor shall insure that all required notices are given and all permits acquired before the commencement of work. The Engineer will discuss any special permits required for this project at the preconstruction meeting.

ITEM 107.14 - CONTRACTOR'S RESPONSIBILITY FOR WORK

It shall be the responsibility of the Contractor to perform his work in such a manner as not to damage or destroy any existing feature (i.e., existing inlets, pipes, etc.), which is not marked for replacement or removal. The Contractor shall exercise due care during construction so as not to destroy any trees, plants, shrubs or structures not specifically marked for removal or relocation within the work limits. In some instances, the Contractor will be required to excavate under and around the existing utilities. Extreme care should be used not to damage the utility during this operation. The Contractor shall schedule his operations so that the improved areas have had sufficient time to cure, set and/or harden before the area is opened to traffic or use. The Contractor shall be responsible for the immediate repair of the improved area if any damage is done by traffic. The Contractor shall also be responsible for the immediate rectification of problems created in areas outside of the improved areas which are attributable to the failure of the improved area, i.e., the tracking of materials into unimproved areas.

The Contractor shall be responsible for the protection of areas outside of the designated work limits, but which may be adjacent to those work limits. This will include those areas used by construction traffic for access to and from the work areas. Where the Engineer and/or the Owner determine that the Contractor's operations have been responsible for damage to areas outside of the work limits, the Contractor shall be responsible for the repair of the area subject to the approval of the Engineer. No additional compensation will be due to the Contractor for any such repairs as described above.

ITEMS 202 / 203 REMOVALS

When a bid item is to include the cost of removal of a classified or unclassified material, it shall be the responsibility of the Contractor to verify in the field the type of material and the thickness of the material to be removed prior to submitting his bid. No additional allowance will be due the Contractor for added expense of removals due to unknown materials or thickness.

ITEMS 202 / 203 - DEBRIS REMOVAL

The Contractor will be responsible for removal of all construction debris from the site. All debris shall be disposed of in a proper manner and shall be as directed by all applicable local, State, or Federal regulations.

UTILITY ADJUSTMENTS

Sanitary manhole adjustments to grade shall be paid each as per Sanitation District No. 1 Specifications. Contractor shall notify Sanitation District No. 1 prior to adjustment and coordinate to have SD1 Inspector present. The other adjustments shall be considered incidental to the contract.

ITEM 701 – REVIEW OF DRAINAGE FACILITIES

Before any work is started on the project and again before final acceptance by the Owner, the Contractor, with the Engineer, shall make an inspection of the existing sewers within the work limits, which are to remain in service and which may be affected by the work. The condition of the existing pipes and their appurtenances shall be determined from field observations. Written records of the inspection and/or photographic documentation shall be kept by the Engineer.

All existing sewers inspected initially by the above-mentioned parties shall be maintained and left in a condition reasonably comparable to that determined by the original inspection. Any change in the condition resulting from the Contractor's operations shall be corrected by the Contractor to the satisfaction of the Engineer. All existing and/or new pipes, inlets, catch basins, and manholes constructed and/or cleaned as a part of the project shall be free of all foreign matter and in a clean condition before the project will be accepted by the Owner. Payment for all operations described above shall be included in the unit prices bid for the pertinent item.

TRAFFIC CONTROL

Prior to starting application, contractor shall notify the proper agency at least 24 hours in advance. Contractor shall erect all necessary "No Parking" signs on streets intended for treatment. The signs shall be maintained until the initial sweeping is completed. Traffic shall be controlled throughout the construction phase. This shall be accomplished using barricades, lights, signs, and flagmen. The contractor is responsible to maintain traffic at or below 25 mph on the uncured surface. The cost shall be incidental to the contract.

FINAL CLEAN-UP

Sweeping shall be completed within six (6) hours of material application. Initial sweeping shall remove all loose or unbounded material. All debris shall be removed from the job site. A second sweeping shall be accomplished immediately prior to asphalt paving.

INSPECTION

The contractor shall complete one street at a time, which shall be inspected and accepted by the Engineer. This provision shall not include sweeping. Should the engineer determine that any section of work is unsatisfactory, the contractor shall immediately take steps to insure that proper repairs are made.

VERIFICATION OF QUANTITIES

Scale tickets on liquid binder shall be provided to inspection personnel on a daily basis.

Scale tickets shall include:

1. Date and time of loading.
2. List streets where material will be placed.

METHOD OF MEASUREMENT

The method of measurement shall be the actual number of square yards of pavement treated in accordance with specifications and as accepted by the engineer.

"OR APPROVED EQUAL" ITEMS

In the preparation of these documents and plans, several proprietary products may have been specified. In all such cases, it is to be understood that the Contractor may offer a substitute for the specified product, as indicated by the words "Or Approved Equal." However, the Contractor must be aware that, before commencement of construction, he must provide information to the Engineer concerning the substituted product, and that the Engineer must approve in writing the offered product as being equal to the specified product before use or incorporation into the work.

Unless otherwise modified by the Engineer, proprietary products are to be installed and/or constructed in strict compliance with the pertinent Manufacturer's specifications.

PAYMENT

No adjustments to unit prices shall be due to the Owner or the Contractor for increases or decreases in the Engineer's approximate unit quantities shown in the proposal resulting from changes in the amount of work performed.

THE OWNER RESERVES THE RIGHT TO AWARD OR DELETE ANY OR ALL COMBINATIONS.

EXISTING ASPHALT PAVEMENT GRINDING

This item shall consist of grinding and removal of the existing asphalt surface and asphalt patch areas, as directed by the City.

General

All material removed shall be the property of the Contractor and may be used in the overlay as allowed by K.D.O.T. Standard Specifications for Road and Bridge Construction, Section 408, Edition of 2005.

The Contractor shall be responsible for dust control as necessary and as directed by the Engineer. The cost of dust control shall be included in the cost of grinding.

The Contractor shall be responsible to notify all residents 24 hours in advance of any and all grinding operations.

After the grinding operation is complete on each street, the street shall be thoroughly cleaned and made usable until the overlay is complete.

The Contractor shall be responsible for all necessary traffic control during the grinding operation.

Payment for this item shall be per square yard and shall include any and all incidental items connected with the work.

Wearing Course Removed

The Contractor shall schedule his operations so that there is no more than a two (2) calendar day time period between the wearing course removal and the resurfacing of the streets.

ASPHALTIC CONCRETE OVERLAY

This item shall be composed of the placement of an asphalt overlay on the streets as indicated in the attached details and bid sheets.

Prior to placement of asphalt, the City will complete any necessary pavement and curb repairs.

The street shall be thoroughly cleaned of all foreign material; any manhole castings or other physical objects shall be raised to the level of the finished surface; and a tack coat shall be administered to the existing pavement at a rate of 0.10 gallon per square yard. The Contractor shall exercise care during the rolling phase of the asphalt overlay operations to avoid deforming the surface course.

The Contractor shall take care during the overlay operations not to block the drainage from downspout leaders projecting through the curb.

When the overlay has been completed, all edges of the new surface and edges around physical objects shall be sealed with Item 807.02.01 Hot Joint Sealer.

Payment for this item shall be per ton for surface course and shall include all materials and labor necessary for cleaning, tacking, resurfacing, and any incidentals necessary to satisfactorily complete this phase of construction. Utility adjustments including water meter/valve, storm manhole, catch basin, gas valves & gas meters, and telephone or cable wires shall be incidental to cost of Item 403. Note sanitary manhole adjustments to grade shall be paid each as per Sanitation District No. 1 Specifications. Contractor shall notify Sanitation District No. 1 prior to adjustment and coordinate to have SD1 Inspector present.

All materials cleaned off the street before the surface is put down shall be hauled away and disposed of by the Contractor.

The Contractor shall be responsible for maintaining any traffic during the application so as not to jeopardize the finished product.

The Contractor shall also work with the City Inspector to notify all residents that their driveways will be closed for a specific time during the resurfacing operation.

All damage to yard or landscaping shall be the responsibility of the Contractor at the completion of the work.

Unless otherwise directed, the Contractor shall create a butt joint where proposed asphalt courses meet an existing pavement.

ITEM 402/403 - ASPHALT PAVEMENT SURFACE WITH FIBER REINFORCEMENT

Description

Furnish all material, equipment, labor, and incidentals for mixing aramid fiber into HMA per this specification. Aramid fibers must be treated to prevent them from becoming airborne during the mixing process, and the treatment must become soluble in the asphalt. Treated aramid fiber shall be continuously fed and mixed into HMA per dosage and mixing requirements of this specification. A certified QA/QC mixing technician shall perform continuous feeding of the treated aramid fibers into the asphalt during plant mixing operations for all of the Fiber Reinforced HMA quantities requires for the project and a P.E.-stamped certification report must be submitted upon project completion.

Definitions

a. "HMA" is hot mix asphalt, without aramid fiber.

b. "Fiber Reinforced HMA" is hot mix asphalt including aramid fibers.

c. "Aramid Fiber" is pure aramid fiber meeting the material properties of this specification, without additive materials.

d. "Treatment" is the binder material used to facilitate the proper amount of the aramid fiber into the HMA so that the aramid fiber does not become airborne.

e. "Dosage rate" is the minimum weight of treated aramid per ton of asphalt that is to be continuously fed into HMA.

f. "Continuous feeding" is metering and delivering, in a constant stream-like manner, the dosage rate of treated aramid into the HMA during the asphalt mixing process at the plant.

g. "Manufacturer" is the company that produces the aramid fiber from raw materials.

h. "Supplier" is the company that offers an aramid product.

Materials

Meet the following Aramid and Treatment material properties:

Aramid Properties	Measure
Material	Aramid Fiber (50-51% by weight)
Form	Filament Yarn
Length	1.5 +/-0.03 (inch)
Tensile Strength	2.4-3.6 (GPa)
Elongation at Break	3.0-4.4 (%)
Modulus	60.80 (GPa)
Specific Gravity	1.44-1.45 g/cm^3
Decomposition Temperature	>930° F

Treatment Properties	Measure
Treatment Type	Sasobit® Wax (49-50% by weight)
Treatment Melting Temperature	>190° F

Submittals

Provide the following from the product supplier at least two weeks prior to asphalt production:

1. Identify the mixing plant and type (Batch or Continuous Drum).
2. Material data sheet for the treated aramid fiber describing aramid fiber and treatment properties, including the type, weight, and flash point of treatment material.
3. A certified QA/QC mixing plan including procedures for continuously feeding the aramid fiber into the asphalt. The fiber supplier must approve the QA/QC mixing plan and provide certification of the QA/QC mixing technician at the asphalt mixing plant who is responsible for continuous feeding of the fiber into the HMA. The continuous feeding can be accomplished by using either manual or machine operated dosing equipment for the entire fiber mixing process.

Job Mix Formula

When treated aramid fiber is required as a mixture ingredient, modification to the job mix formula is not required.

Storage Requirements

Store treated aramid product in a dry environment and do not allow it to be in contact with moisture.

Dosage and Mixing Requirements

The aramid dosage rat is 2.1 ounces (+/- 5%) per ton of HMA. This does not include the treatment weight. For uniform disbursement, treated aramid shall be metered and continuously fed in a constant stream-like manner. It shall be mixed with the heated aggregates before injection of the liquid asphalt during the asphalt mixing process at the Batch or Continuous Drum Plant below.

1. Batch Plant

   Feed treated aramid manually, or with machine-operated dosing equipment, onto RAP or aggregate belts, or directly into the pug mill or weigh hopper. Standard project HMA batch mixing times apply. Metering shall be based on batch size (tons) and dosage rate (oz/ton). Feeding shall occur in a constant stream-like manner during the heated aggregate mixing batch time. If necessary, increase the mixing time with heated aggregates to ensure the aramid fibers are uniformly distributed.

2. Continuous Drum Plant

   Feed treated aramid manually, or with machine-operated dosing equipment, onto RAP belt or directly into the mixing drum through the RAP collar. Standard project HMA asphalt production rates apply. Metering shall be calibrated based on the asphalt production rate (tons/hr), and the dosage rate (oz/ton). Feeding shall occur in a constant stream-like manner. If necessary, increase the mixing time with heated aggregates to ensure the aramid fibers are uniformly distributed.

Inspection

Visual inspection shall be performed during the mixing process to verify uniform distribution of aramid fiber.

Fiber Reinforced HMA Placement

All construction, mixture and density requirements of the asphalt as detailed in the Standard Specifications shall apply.

Pre-Approved Products, Manufacturers, Suppliers, and QA/QC Mixing

Product: ACE Fiber™

Manufacturer: Surface Tech

Distributor: Site Supply Inc.
Contact: Matt Kirby
(513) 383-8408
mattkirby@sitefabric.com
33 Glendale-Milford Road
Loveland, OH 45140

Acceptance

Acceptance of the reinforced HMA will include the following factors:

1. The Owner/Specifier shall receive from the Contractor, a Professional Engineer-stamped QA/QC report which certifies that the metering and continuous feeding was performed per the dosage rate and all other requirements of this specification by a certified technician, and that visual inspection was performed during the mixing process to certify that no clumping of aramid fiber or treatment product occurred.
2. All other construction, mixture, and density requirements of the asphalt as detailed in the Standard Specifications shall apply.

Basis of Payment

Each tone of Fiber Reinforced HMA placed according to this specification will be measured and paid for at the contract unit bid price per ton, and shall include full compensation for furnishing all material labor, tools, equipment, QA/QC mixing and reporting, and incidentals for doing all the work involved in metering and feeding the treat aramid fiber, and placement and compaction of the Fiber Reinforced HMA.

Pay Item

402/403/SPL Asphalt Pavement Surface with Fiber Reinforcement

DUKE ENERGY
ELECTRIC UTILITY NOTES

1. **DANGER** - Contractor shall contact the company prior to excavation in vicinity of electric underground facilities (approximate plan location shown) or when working near overhead electric facilities.

   (A) For Field Inspector to locate underground electric line, in Ohio call "Ohio Utilities Protection Service" at 1-800-362-2764, and in Kentucky call "Kentucky Underground Protection Service (KUPS)" at 1-800-752-6007 (at least 48 hours in advance), excluding hours Sat., Sun., and State Legal Holidays.

   (B) For notification of construction activity near energized electric facilities, call Mr. Bob Schroeder, 287-3426.

   (C) For additional underground electric record information, call 287-2454.

   (D) For electric engineering notification, agreements and correspondence, address to Mr. James Dugan, Central Accounting Marketing Section, Duke Energy, P. O. Box 960, Cincinnati, Ohio 45202-0960.

2. Contractor shall be responsible for all damages to electric facilities during construction.

3. Electric facilities to be kept in service at all times.

4. Contractor shall be responsible for supporting existing electric facilities affected by the proposed construction.

   A. Where high pressure oil filled pipe type cable installations are exposed or otherwise interfered with by the Contractor, protection by the Contractor will be required against damage to the coating or surrounding thermal sand envelope.

   B. Where concrete encased conduit systems or direct buried cable systems are exposed or otherwise interfered with, the Contractor shall protect the system as necessary against damage. As soon as feasible, the Contractor shall take additional appropriate steps to provide permanent measures to restore support. The methods used shall be based on conditions to be determined by the utility.

   C. Where poles or anchors that support overhead electric facilities are exposed or otherwise interfered with, the contractor shall protect them from damage and provide temporary support to insure the integrity of the system. As soon as feasible, the Contractor shall take additional appropriate steps to provide permanent measures to restore support. The methods used shall be based on conditions to be determined by the utility.

   D. Where the depth of excavation for the proposed work is greater than five (5) feet, the Contractor shall sheet and shore the trench to continuously maintain the support of electric facilities at locations where the electric facilities are within the zone of influence adjacent to the excavation as determined by the natural angle of repose of the soil.

   E. All damage to electric facilities and services requiring adjustments, relocations and/or repairs will be made at the Contractor's cost.

5. Contractor shall not backfill exposed electric facilities until the company has inspected its facility or performed any adjustments and/or maintenance that may be required.

NOTE: Should Contractor damage electric facilities, Contractor shall immediately notify the Electric Service Desk through the Company Operator (381-2000). Contractor shall keep everyone clear of damaged electric facilities until company personnel arrive at the work site.

DUKE ENERGY
GAS FACILITY NOTES

Gas Facility Notes

I. For Gas Engineering Notification, agreements, and official correspondence, address to:

Duke Energy
139 East Fourth Street
P.O. Box 960, Room 460-A
Cincinnati, Ohio 45202

II. The gas main information provided shows the approximate locations and depths of cover and is provided to comply with statutory regulations. This information should be used only for planning, not construction.

III. All gas main depths of cover noted are approximate depths of cover recorded at the time of installation. Any resulting grade changes since the time of the main installation will cause the existing depth of cover to be different. Extreme care must be taken to ensure safe excavation when approaching known or suspected gas facilities.

IV. All gas services were installed at a minimum of 1'-6" of cover. See item III above.

V. For additional gas facility record information, call 1-800-372-7612.

VI. To comply with federal and state regulations concerning damage prevention programs, the utility companies must be contacted at least 48 hours (two working days) prior to excavation by calling the OHIO UTILITIES PROTECTION SERVICE (OUPS), toll free, at 1-800-362-2764.

Construction Notes

I. Gas facilities are to be kept in service at all times.

II. The contractor shall be responsible for all damages to gas facilities during or as a result of the Contractor's construction. All damage to gas facilities requiring adjustments, relocations and/or repairs will be made at the contractor's cost.

III. The contractor shall sheet and shore all excavations as required to continuously support gas facilities within the zone of influence (as determined by the natural angle of repose of the soil).

IV. Crossing buried gas facilities with heavy construction equipment may cause damage to the gas facilities. Contact the Duke Energy Gas Engineering Department for details on how to protect the gas facilities from damage.

V. The contractor shall not backfill exposed gas facilities until the utility has inspected its facilities and performed any maintenance and/or adjustments that may be required.

VI. The contractor is responsible for preventing any damage to our gas facilities. This includes protection of coatings and wrappings on steel gas mains. It also includes any damage with may have occurred to plastic gas mains, such as crimps or gouges.

VII. When cast iron or similar gas facilities are exposed or interfered with by the contractor, replacement or reinforcement by Duke Energy may be required at the contractor's expense. Backfill with control low strength material will be required.

VIII. Blasting or other construction procedures which may transmit loads or vibrations in the vicinity of gas facilities must be approved by Duke Energy Gas Engineering Department. A blasting plan, identifying all pertinent information, must be submitted in writing by a blasting expert prior to any work.

Proposed Developments at Gas R/W & Easements (If Applicable)

I. Proposed development plans around and near gas facilities within private easements must be submitted to Duke Energy Gas Engineering Dept. for review. These plans must be approved before any work may begin within our easements.

II. Specified easement widths must be maintained in order for Duke Energy to protect its facilities.

III. No permanent structures may be built within the easements.

IV. Cuts and fills are generally not permitted within the easements. Some fills may be allowed, and will be reviewed on an individual basis. Any permitted fills will be limited to an amount which will allow Duke Energy to properly maintain its facilities.

V. Perpendicular utility crossings of gas easements are acceptable, provided proper clearances are maintained. Parallel installations are normally not allowed.

NORTHERN KENTUCKY WATER DISTRICT NOTES

All work pertaining to water district items shall be done in strict accordance with the specifications of the Northern Kentucky Water Service District here within, and under the direction, supervision and inspection of the Water District. Water main items are to be constructed in accordance with the provisions of the Kentucky Transportation Cabinet / Department of Highways, Standard Specifications for Road and Bridge Construction, latest edition, and the Part B Specifications.

A cushion of 12" shall be maintained between the proposed water mains and the existing sewers, inlet connections, and drains. If a greater clearance is desired, it will be so designated. Building sewer laterals are not to be disturbed or trapped. Existing drains, sewers and culverts are not be disturbed. If the water main is to be under culverts or pipe sewers, they shall be tunneled and backfilled with Class "T" concrete.

It shall be the Contractor's responsibility to arrange for removal and replacement of any poles and guys necessary for the installation of the proposed water mains, and any cost connected thereto shall be his expense.

SANITARY SEWER NOTES

Sanitary sewer and/or combination sewer items are to be constructed in accordance with the provisions of the Sanitation District No. 1, and under the direction, supervision and inspection of the Sanitation District No. 1. Sanitation sewer items are to be constructed in accordance with the provisions of the Kentucky Transportation Cabinet / Department of Highways, Standard Specifications for Road and Bridge Construction, (latest edition).

The Contractor shall supply separate bid items for raising manholes using manhole adjustment rings and for using brick and mortar. If only one bid item is received, the Contractor shall raise all manholes with brick and mortar. Sewer manhole adjustment prior to machine paving shall be done in accordance with the Sanitation District No. 1 Rules and Regulations.

In the event that manhole adjusting rings cannot be used on sanitary and/or storm sewer manholes, the Contractor shall be required to use brick masonry and to adjust manholes to grade. Stacking of adjusting rings shall not be permitted. Substandard or damaged manhole casting shall be replaced with standard casting.