



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET

200 Mero Street
Frankfort, Kentucky 40601

Jim Gray
SECRETARY

August 12, 2024

CALL NO. 101
CONTRACT ID NO. 241011
ADDENDUM # 1

Subject: Laurel County, NHPP 0804 (022)
Letting August 22, 2024

- (1) Added - Special Notes - Pages 34A-34K of 358
- (2) Revised - Proposal Bid Items - Pages 353-358 of 358
- (3) Revised - Plan Sheets - R2H, R2J, R80 and R85

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:mr
Enclosures

SPECIAL NOTER FOR PIPE CLEANING

PART 1 -- GENERAL

1.01 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals required to clean all pipes, as specified herein.

B. Cleaning shall include the proper high pressure water jetting, rodding, snaking, bucketing, brushing and flushing of pipes prior to inspection by closed circuit television, pipeline rehabilitation, and testing operations.

C. Cleaning shall dislodge, transport and remove all sludge, mud, sand, gravel, rocks, bricks, grease, roots, sticks, and all other debris from the interior of the sewer pipe and structures as required for pipeline rehabilitation.

PART 2 -- PRODUCTS

2.01 MATERIALS

A. Hydraulically propelled Sewer Cleaning Equipment

1. Hydraulically propelled sewer cleaning equipment shall be the movable dam type constructed such that a portion of the dam may be collapsed during cleaning to prevent flooding of the sewer.

2. The movable dam shall be the same diameter as the pipe being cleaned and shall provide a flexible scraper around the outer periphery to ensure total removal of grease.

3. Contractor shall take precautions against flooding prior to using sewer cleaning balls or

other such equipment that cannot be collapsed instantly.

B. High Velocity Hydro-Cleaning Equipment shall have the following:

1. A minimum of 500-ft of high pressure hose.
2. Two or more high velocity nozzles capable of producing a scouring action from 15 to 45 degrees in all size lines to be cleaned.
3. A high velocity gun for washing and scouring manhole walls and floor.
4. Capability of producing flows from a fine spray to a long distance solid stream.
5. A water tank, auxiliary engines and pumps and a hydraulically driven hose reel.
6. Equipment operating controls located above ground.

C. Mechanical cleaning equipment for sewer mains shall be either power buckets or power rodders.

1. Bucket machines

- a. Be furnished with buckets in pairs
- b. Use V-belts for power transmission or have an overload device. No direct drive machines will be permitted.
- c. Be equipped with a take up drum and a minimum of 500-ft of cable.
- d. Have sufficient dragging power to perform the work efficiently.

2. Power rodding machine

- a. Either sectional or continuous.
- b. Hold a minimum of 750-ft of rod.
- c. The machine shall have a positive rod drive to produce 2000 pounds of rod pull.

PART 3 -- EXECUTION

3.01 PERFORMANCE

- A. Selection of cleaning equipment shall be based on the conditions of the structures and lines at the time the work commences based on the pre-construction CCTV inspection to be conducted by the Contractor under this Contract.
- B. Use properly selected equipment to remove all dirt, grease, rock and other deleterious materials, and obstructions.
- C. Protect existing lines from damage caused by improper use of cleaning equipment.
- D. Take precautions to avoid damage or flooding to public or private property being served by the line being cleaned.
- F. Removal of Materials
 1. Remove all solids and semi-solids at the downstream opening of the section being cleaned.
 2. Passing material from one section of a line to another will not be permitted; unless access to any one section of line cannot be achieved.
- G. Remove from the site and properly dispose of all solids or semi-solids recovered during the cleaning operation.

H. No cleaning shall take place in a particular segment until all upstream pipe segments have been cleaned. If cleaning is done in a downstream pipe segment in order to facilitate overall cleaning operations, the segment shall be re-cleaned at no additional cost, after all pipes upstream of that segment have been cleaned.

3.02 FIELD QUALITY CONTROL

A. Acceptance of this portion of the work shall be dependent upon the results of the television inspection. Lines not acceptably clean as to permit television inspection and rehabilitation shall be re-cleaned and re-inspected at no additional cost to the Owner

B. Following cleaning, the Contractor shall inspect each section in accordance with the Special Note for Pipe Liner Acceptance Testing.

C. Upon the Engineer's final structure to structure inspection of the system, if any foreign matter is still present in the system, clean the sections and portions of the lines as required.

PART 4 – PAYMENT

Payment for cleaning of the pipes as detailed in the Pipe Drainage Summary will be made per linear foot as the price bid for CLEAN. The CLEAN bid item will be paid for the cleaning of all pipe sizes. Payment for CLEAN will be considered full compensation for all work, equipment, and incidentals necessary to clean the pipe in accordance with this note.

SPECIAL NOTE FOR PIPE LINER ACCEPTANCE TESTING

PART 1 -- GENERAL

1.01 SCOPE OF WORK

- A. Furnish all necessary labor, materials, equipment, services and incidentals required to visually inspect by means of closed-circuit television (CCTV) designated pipe sections including, but not limited to, recording and playback equipment, materials and supplies.
- B. The inspection shall be performed on one section (i.e. curb box inlet to curb box inlet) at a time. The section being inspected shall be suitably isolated from the remainder of the system.
- C. Video recordings shall be made of the television inspections and copies of both the recordings and printed inspection logs shall be supplied to the Engineer.
- D. Contractor may have to perform point repairs, remove obstructions or remove protruding service connections to complete pre-rehabilitation TV inspection.

PART 2 -- PRODUCTS

2.01 EQUIPMENT

- A. The television camera used for inspection shall be one specifically designed and constructed for such inspection. Lighting for the camera shall be suitable to allow a clear picture for the entire periphery of the pipe. The camera shall be operative in 100 percent humidity conditions. The camera, television monitor and other components of the video system shall be capable of producing a minimum 500-line resolution color video picture. Picture quality and definition shall be to the satisfaction of the Engineer and if unsatisfactory, inspection shall be performed again with the appropriate changes made as designated by the Engineer at no additional cost to the Engineer. The television inspection equipment shall have an accurate footage counter that shall display on the monitor, the exact distance of the camera from the centerline of the starting manhole.

PART 3 -- EXECUTION

3.01 PROCEDURE

- A. The camera shall be moved through the pipe in either direction at a uniform rate, stopping when necessary to ensure proper documentation of the pipe's condition but in no case will the television camera be pulled at a speed greater than 30 fpm. Manual winches, power winches, TV cable and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the pipe conditions shall be used to move the camera through the line. If, during the inspection operation, the television camera will not pass through the entire section, the equipment shall be removed and repositioned in a manner so that the inspection can be performed from the opposite opening. All set-up costs for the inspection shall be included in the unit prices bid. If the camera fails to pass through the entire section, the Contractor shall perform point repairs as required or approved by the Engineer. Point repairs will be paid as each at the bid price for "PIPE REPAIR". The Contractor shall re-clean or further remove blockage after the point repairs at no additional cost to the Engineer.
- B. Whenever non-remote powered and controlled winches are used to pull the television camera

through the line, telephones, radios, or other suitable means of communication shall be set up between the two openings of the line being inspected to ensure that good communications exist between members of the crew.

The camera height shall be adjusted such that the camera lens is always centered in the pipe being televised. Flow shall be controlled such that depth of flow shall not exceed 20% of pipe's diameter.

Lighting system shall be adequate for quality pictures.

3.02 RECORDING OF FIELD OBSERVATIONS

A. Television Inspection logs

1. Printed location records shall be kept which shall clearly show the location. In addition, other data of significance including joints, unusual conditions, roots, collapsed sections, or presence of scale and corrosion that the camera failed to pass through and reasons for the failure and other discernible features shall be recorded and annotated using the PACP system and a copy of such records shall be supplied to the Engineer.

B. Digital Recordings

1. The purpose of digital recording shall be to supply a visual and audio record of areas of interests of the pipe segments that may be replayed by the Engineer. Digital recording playback shall be at the same speed that it was recorded and shall be made in color. The Contractor shall be required to have all digital media and necessary playback equipment readily accessible for review by the Engineer during the project.
2. The Contractor shall perform CCTV inspection of each newly installed or rehabilitated pipe segment after testing and before re-introducing any flow into the pipe. Each test shall be witnessed by the Engineer.
3. The Contractor shall record each CCTV inspection on a DVD and submit such recordings to the Engineer as a prerequisite for Partial Utilization/Substantial Completion.
4. CCTV inspections shall be performed by a PACP certified and trained person.
5. Inspections shall include narration that notes the location and type of defects, if any.
6. At the completion of the project, the Contractor shall furnish all of the original digital recordings to the Engineer. Each disc shall be labeled as to its contents. Labels shall include the disc number, date televised, sewer segment reach designation, street location, and structure numbers on the disc. The Contractor shall keep a copy of the discs for 30 days after the final payment for the project, at which time the discs may be erased at the Contractor's option.

PART 4 – PAYMENT

Payment for both the video inspection prior to and after the Pipe Liners have been installed will be made as one lump sum payment as PIPE LINER ACCEPTANCE TESTING. Payment for PIPE LINER ACCEPTANCE TESTING will be considered full compensation for all work, equipment, and incidentals necessary to perform the video inspection in accordance with this note.

Payment for pipe point repairs will be made as each at the bid price for PIPE REPAIR. Payment for PIPE REPAIR will be considered full compensation for all work, equipment, and incidentals necessary to make point repairs as required and approved by the Engineer.

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SPECIAL NOTE FOR PVC FOLD-AND-FORM PIPE LINER

I. GENERAL

A. SUMMARY

1. Section Includes: Definition of the approved methods and materials to rehabilitate gravity pipelines by the insertion of a continuously extruded, folded, PVC Fold-and-Form Pipe Liner into a conduit (host pipe), and the “blow-molding” (thermoforming) of the pipe liner to conform to the shape of the existing pipe. The pipe liner shall:

- a) Extend continuously from one access point to the next access point with no joints.
- b) Provide a tightly conforming fit against the inner wall of the host pipe.
- c) Definitions:
 - (1) PVC Fold-and-Form Pipe Liner: A continuously extruded (joint-less), polyvinyl chloride (PVC) Pipe Liner that is shaped into a reduced form to facilitate insertion into existing pipelines or conduits. The Pipe Liner shall return to its extruded, round memory upon application of heat and pressure and form tightly against the host pipe by “blow molding” (thermoforming) techniques.
 - (2) Host Pipe: An existing gravity pipeline or conduit to be internally rehabilitated by installation of the PVC Fold-and-Form Pipe Liner.

B. REFERENCES

1. Codes and standards referred to in this Special Note are:
 - a) ASTM D 256: Standard Test Methods for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
 - b) ASTM D 638: Standard Test Method for Tensile Properties of Plastics
 - c) ASTM D 790: Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastics
 - d) ASTM D 1784: Standard Specification for Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds
 - e) ASTM D 2122: Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
 - f) ASTM D 2152: Standard Test Method for Extrusion Quality using Acetone Immersion
 - g) ASTM D 2444: Standard Test Method for Impact Strength
 - h) ASTM F 1057: Standard Test Method for Extrusion Quality using Heat Reversion
 - i) ASTM F 1504: Standard Specification for Folded/Formed Poly (Vinyl Chloride) Pipe for Existing Sewer and Conduit rehabilitation

C. PIPE DESIGN AND DIMENSION

1. Submittals: The Contractor shall furnish engineering data covering materials and installation procedures.

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2. Unless otherwise specified, the Contractor shall determine the minimum and maximum length of liner to effectively span the distance from the inlet to the outlet of the respective pipelines.

3. The pipe liner shall have a nominal outside diameter and minimum wall thickness based upon project parameters and the condition of the host pipe.

D. SAFETY

1. The CONTRACTOR shall conform to all safety requirements of pertinent regulatory agencies, and shall secure the site for the working conditions in compliance with the same. The CONTRACTOR shall erect signs and devices as are necessary for the safety of the work site.

2. The CONTRACTOR shall also provide all of the WORK in accordance with applicable OSHA standards. Emphasis shall be placed upon the requirements for entering confined spaces and working with steam.

II. PRODUCTS

A. MATERIAL SPECIFICATIONS:

1. The PVC Fold-and-Form Pipe Liner will be manufactured from virgin PVC Fold-and-Form Pipe Liner compound, containing no fillers, and meet or exceed the following minimum physical properties:

- a) COMBUSTIBILITY: Self-Extinguishing
- b) FLEXURAL MODULUS: ASTM D 790 280,000 PSI @73F
- c) FLEXURAL STRENGTH: ASTM D 790 5,000 PSI @73F
- d) IZOD IMPACT: ASTM D 256 1.5 FT-LB/IN
- e) CHEMICAL RESISTANCE: suitable under general sanitary sewer conditions

2. CHARACTERISTICS: The PVC Fold-and-Form Pipe Liner shall be designed to meet the following installation performance requirements:

- a) The Pipe Liner shall be capable of expanding a full pipe size larger than the nominal diameter (ex: 8" to 10") without splitting, or rupturing with the understanding that the pipe liner dimension ratio will increase when so expanded.
- b) After being expanded by "blow-molding", the installed Pipe Liner will match the configuration of the host pipe.
- c) The Pipe Liner shall be capable of negotiating pipe line bends in the host pipe without splitting, rupturing, or wrinkling of the pipe liner material.
- d) The pipe liner shall be dimensionally stable after cool-down.
- e) Processing of the pipe liner shall cause no degradation of the pipe liner physical properties.

3. MARKINGS: The pipe liner shall be marked at maximum five (5) foot intervals indicating ASTM D 1784 cell classification, manufacturer, and size (diameter and SDR). Each production lot will be uniquely coded.

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4. DIMENSIONS:

a) The Pipe Liner outside diameter will be manufactured substantially smaller than the inside diameter of the host pipe. The pipe liner shall be manufactured with sufficient excess wall thickness to allow the pipe liner to meet or exceed the DR requirements after being expanded by “blow-molding” within the host pipe.

b) Unless otherwise specified, the Standard Dimension Ration (SDR) of 4” to 15” diameter Pipe Liner will be SDR 35. 18” to 36” Pipe Liner will be specified by wall thickness. The Pipe Liner will be continuously extruded (no joints) at the factory to the minimum length required to effectively span the distance between access points, in accordance with actual distances which shall be field verified by the Contractor prior to manufacturing.

B. MATERIAL TESTING: Each production lot of Pipe Liner will be inspected and tested at the time of manufacture for defects in accordance with ASTM D 2444, and ASTM D 2152. All pipe liners shall conform to the specified dimensions. Material design properties shall be confirmed in accordance with ASTM D 790.

III. EXECUTION

A. HOST PIPE PREPARATION

1. The existing pipeline shall be cleaned of any obstructions and televised using CCTV immediately prior to installation of the pipe liner. The host pipe condition shall be acceptable to the ENGINEER as appropriate for lining prior to the insertion of the pipe Liner.

2. Prior to beginning the insertion of the pipe liner, the CONTRACTOR shall confirm that the host pipe is adequately cleaned.

B. INSTALLATION PROCEDURES:

1. The pipe liner manufacturer’s installation instructions and procedures shall be followed during installation.

2. Point Repairs

a) Point repairs and obstruction removals shall be completed, as necessary, in order to enable lining.

3. Liner Insertion

a) The entrance to the host pipe shall be covered so as to provide a smooth surface to prevent damage to the Pipe Liner.

b) The Pipe Liner shall be positioned to enable it to naturally curve into the access point and the host pipe.

c) The insertion end of the Pipe Liner shall be sealed to inhibit fluids and solids from entering the lumen of the Pipe Liner.

d) Insert the Pipe Liner into the entry access point. Slowly feed the Pipe Liner from the supply reel, while simultaneously pulling the Pipe Liner at the exit access point, to minimize tension on the Pipe Liner. Maintain two-way communication between personnel at entry and exit access points to coordinate the rate of Pipe Liner supply and pulling operations.

e) Use a power winch and a steel cable connected to the pulling head as recommended by the manufacturer to advance the Pipe Liner.

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4. Pipe Liner Processing and “Blow-Molding”:
 - a) Process and “blow-mold” the PVC Fold and-Form Pipe Liner in accordance with the manufacturer’s instructions for heating and expanding the Pipe Liner. Upon completion of processing and “blow-molding”, the Pipe Liner shall fit tightly against the inside wall of the host pipe and be locked into the joints of the host pipe, if possible.
 - b) Temperature and pressure gauges shall be used at the insertion and termination access points to monitor internal conditions during Pipe Liner processing and “blow-molding”.
 - c) Introduce pressurized steam to heat and relax the Pipe Liner in strict accordance with the recommendations of the Pipe Liner manufacturer.
 - d) Continue the application of steam while introducing compressed air to increase internal pressure on the Pipe Liner as recommended by the manufacturer. **DO NOT ALLOW PRESSURE TO EXCEED 12 PSI, AS DAMAGE MAY OCCUR TO HOST PIPE.**
 - e) Discontinue the use of steam while continuing the use of compressed air to maintain the internal pressure. Allow the Pipe Liner to cool below 100 F before releasing pressure.
5. Liner Termination:
 - a) During the pulling in place and “blow-molding” process, the PVC liner shall form a bell shape at each end effectively locking the liner in place.

IV. **PAYMENT**

- A. Payment for PVC Fold and Form Pipe Liners will be made per linear foot as
 1. PVC FOLD AND FORM PIPE LINER – 12 IN - ITEM 24860EC
 2. PVC FOLD AND FORM PIPE LINER – 15 IN - ITEM 24861EC
 3. PVC FOLD AND FORM PIPE LINER – 18 IN - ITEM 24862EC
 4. PVC FOLD AND FORM PIPE LINER – 24 IN - ITEM 24863EC
 5. PVC FOLD AND FORM PIPE LINER – 30 IN - ITEM 24864EC
 6. PVC FOLD AND FORM PIPE LINER – 36 IN - ITEM 24865EC
- B. Payment will be considered full compensation for all work, equipment, and incidentals necessary to install the pipe liners in accordance with this note.

PROPOSAL BID ITEMS

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Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	00003		CRUSHED STONE BASE	47,835.00	TON		\$	
0020	00100		ASPHALT SEAL AGGREGATE	178.00	TON		\$	
0030	00103		ASPHALT SEAL COAT	38.00	TON		\$	
0040	00212		CL2 ASPH BASE 1.00D PG64-22	1,699.00	TON		\$	
0050	00214		CL3 ASPH BASE 1.00D PG64-22	7,605.00	TON		\$	
0060	00216		CL3 ASPH BASE 1.00D PG76-22	21,368.00	TON		\$	
0070	00301		CL2 ASPH SURF 0.38D PG64-22	1,019.00	TON		\$	
0080	00336		CL3 ASPH SURF 0.38A PG76-22	7,180.00	TON		\$	
0090	00340		CL2 ASPH SURF 0.38D PG76-22	2,443.00	TON		\$	
0100	00356		ASPHALT MATERIAL FOR TACK	96.00	TON		\$	
0110	02602		FABRIC-GEOTEXTILE CLASS 1	136,883.00	SQYD		\$	
0120	20071EC		JOINT ADHESIVE	99,484.00	LF		\$	
0130	20696ES403		CL2 ASPH BASE 1.00D PG76-22	2,443.00	TON		\$	

Section: 0002 - ROADWAY

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0140	00078		CRUSHED AGGREGATE SIZE NO 2	78,357.00	TON		\$	
0150	01000		PERFORATED PIPE-4 IN	11,310.00	LF		\$	
0160	01002		PERFORATED PIPE-8 IN	235.00	LF		\$	
0170	01010		NON-PERFORATED PIPE-4 IN	1,855.00	LF		\$	
0180	01020		PERF PIPE HEADWALL TY 1-4 IN	21.00	EACH		\$	
0190	01022		PERF PIPE HEADWALL TY 1-8 IN	8.00	EACH		\$	
0200	01028		PERF PIPE HEADWALL TY 3-4 IN	6.00	EACH		\$	
0210	01810		STANDARD CURB AND GUTTER	93.00	LF		\$	
0220	01982		DELINEATOR FOR GUARDRAIL MONO DIRECTIONAL WHITE	12.00	EACH		\$	
0230	01987		DELINEATOR FOR GUARDRAIL BI DIRECTIONAL WHITE	187.00	EACH		\$	
0240	02014		BARRICADE-TYPE III	2.00	EACH		\$	
0250	02159		TEMP DITCH	6,799.00	LF		\$	
0260	02160		CLEAN TEMP DITCH	3,400.00	LF		\$	
0270	02200		ROADWAY EXCAVATION	126,311.00	CUYD		\$	
0280	02242		WATER	603.00	MGAL		\$	
0290	02268		REMOVE & REPLACE FENCE	325.00	LF		\$	
0300	02351		GUARDRAIL-STEEL W BEAM-S FACE	19,837.50	LF		\$	
0310	02360		GUARDRAIL TERMINAL SECTION NO 1	9.00	EACH		\$	
0320	02367		GUARDRAIL END TREATMENT TYPE 1	2.00	EACH		\$	
0330	02381		REMOVE GUARDRAIL	16,682.00	LF		\$	
0340	02391		GUARDRAIL END TREATMENT TYPE 4A	9.00	EACH		\$	
0350	02432		WITNESS POST	3.00	EACH		\$	
0360	02483		CHANNEL LINING CLASS II	4,251.50	TON		\$	
0370	02484		CHANNEL LINING CLASS III	2,133.00	TON		\$	
0380	02545		CLEARING AND GRUBBING 69 ACRES	1.00	LS		\$	
0390	02562		TEMPORARY SIGNS	665.80	SQFT		\$	
0400	02585		EDGE KEY	335.00	LF		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0410	02607		FABRIC-GEOTEXTILE CLASS 2 FOR PIPE	2,308.00	SQYD	\$2.00	\$	\$4,616.00
0420	02650		MAINTAIN & CONTROL TRAFFIC	1.00	LS		\$	
0430	02671		PORTABLE CHANGEABLE MESSAGE SIGN	3.00	EACH		\$	
0440	02690		SAFELoADING	29.00	CUYD		\$	
0450	02697		EDGELINE RUMBLE STRIPS	27,630.70	LF		\$	
0460	02701		TEMP SILT FENCE	6,799.00	LF		\$	
0470	02703		SILT TRAP TYPE A	69.00	EACH		\$	
0480	02704		SILT TRAP TYPE B	69.00	EACH		\$	
0490	02705		SILT TRAP TYPE C	69.00	EACH		\$	
0500	02706		CLEAN SILT TRAP TYPE A	69.00	EACH		\$	
0510	02707		CLEAN SILT TRAP TYPE B	69.00	EACH		\$	
0520	02708		CLEAN SILT TRAP TYPE C	69.00	EACH		\$	
0530	02726		STAKING	1.00	LS		\$	
0540	02731		REMOVE STRUCTURE BRIDGE- STA 107+49.25	1.00	LS		\$	
0550	02731		REMOVE STRUCTURE BRIDGE- STA 245+89.46	1.00	LS		\$	
0560	02898		RELOCATE CRASH CUSHION	2.00	EACH		\$	
0570	03171		CONCRETE BARRIER WALL TYPE 9T	375.00	LF		\$	
0580	05950		EROSION CONTROL BLANKET	9,595.00	SQYD		\$	
0590	05952		TEMP MULCH	220,206.00	SQYD		\$	
0600	05953		TEMP SEEDING AND PROTECTION	165,154.00	SQYD		\$	
0610	05963		INITIAL FERTILIZER	9.10	TON		\$	
0620	05964		MAINTENANCE FERTILIZER	15.30	TON		\$	
0630	05985		SEEDING AND PROTECTION	294,887.00	SQYD		\$	
0640	05992		AGRICULTURAL LIMESTONE	183.00	TON		\$	
0650	06540		PAVE STRIPING-THERMO-4 IN W	1,185.00	LF		\$	
0660	06541		PAVE STRIPING-THERMO-4 IN Y	1,349.00	LF		\$	
0670	06542		PAVE STRIPING-THERMO-6 IN W	40,932.00	LF		\$	
0680	06543		PAVE STRIPING-THERMO-6 IN Y	31,070.00	LF		\$	
0690	06546		PAVE STRIPING-THERMO-12 IN W	1,172.00	LF		\$	
0700	06554		PAVE STRIPING-DUR TY 1-4 IN W	392.00	LF		\$	
0710	06555		PAVE STRIPING-DUR TY 1-4 IN Y	392.00	LF		\$	
0720	06556		PAVE STRIPING-DUR TY 1-6 IN W	198.00	LF		\$	
0730	06557		PAVE STRIPING-DUR TY 1-6 IN Y	152.00	LF		\$	
0740	06568		PAVE MARKING-THERMO STOP BAR-24IN	304.00	LF		\$	
0750	06569		PAVE MARKING-THERMO CROSS-HATCH	4,494.00	SQFT		\$	
0760	06574		PAVE MARKING-THERMO CURV ARROW	75.00	EACH		\$	
0770	06575		PAVE MARKING-THERMO COMB ARROW	5.00	EACH		\$	
0780	06610		INLAID PAVEMENT MARKER-MW	412.00	EACH		\$	
0790	06612		INLAID PAVEMENT MARKER-BY	275.00	EACH		\$	
0800	08903		CRASH CUSHION TY VI CLASS BT TL3	3.00	EACH		\$	
0810	10020NS		FUEL ADJUSTMENT	121,390.00	DOLL	\$1.00	\$	\$121,390.00
0820	10030NS		ASPHALT ADJUSTMENT	171,917.00	DOLL	\$1.00	\$	\$171,917.00
0830	20191ED		OBJECT MARKER TY 3	11.00	EACH		\$	
0840	20458ES403		CENTERLINE RUMBLE STRIPS	4,493.00	LF		\$	
0850	21289ED		LONGITUDINAL EDGE KEY	32,284.00	LF		\$	
0860	21373ND		REMOVE SIGN	20.00	EACH		\$	
0870	23791EC		PAVE STRIPING-CHEVRON MARKINGS	689.00	SQFT		\$	
0880	25078ED		THRIE BEAM GUARDRAIL TRANSITION TL-3	8.00	EACH		\$	

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LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0890	25079ED		THRIE BEAM GUARDRAIL TRANSITION TL-2	4.00	EACH		\$	

Section: 0003 - DRAINAGE

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0900	00440		ENTRANCE PIPE-15 IN	72.00	LF		\$	
0910	00441		ENTRANCE PIPE-18 IN	83.00	LF		\$	
0920	00462		CULVERT PIPE-18 IN	70.00	LF		\$	
0930	00464		CULVERT PIPE-24 IN	193.00	LF		\$	
0940	00466		CULVERT PIPE-30 IN	89.00	LF		\$	
0950	00468		CULVERT PIPE-36 IN	112.00	LF		\$	
0960	00470		CULVERT PIPE-48 IN	17.00	LF		\$	
0970	00521		STORM SEWER PIPE-15 IN	140.00	LF		\$	
0980	00522		STORM SEWER PIPE-18 IN	84.50	LF		\$	
0990	01204		PIPE CULVERT HEADWALL-18 IN	3.00	EACH		\$	
1000	01208		PIPE CULVERT HEADWALL-24 IN	10.00	EACH		\$	
1010	01210		PIPE CULVERT HEADWALL-30 IN	4.00	EACH		\$	
1020	01212		PIPE CULVERT HEADWALL-36 IN	6.00	EACH		\$	
1030	01216		PIPE CULVERT HEADWALL-48 IN	2.00	EACH		\$	
1040	01480		CURB BOX INLET TYPE B	2.00	EACH		\$	
1050	01490		DROP BOX INLET TYPE 1	1.00	EACH		\$	
1060	01535		DROP BOX INLET TYPE 6F	1.00	EACH		\$	
1070	01691		FLUME INLET TYPE 2	2.00	EACH		\$	
1075	03262		CLEAN PIPE STRUCTURE (ADDED 8-12-2024)	2.00	EACH		\$	
1080	08100		CONCRETE-CLASS A	4.50	CUYD		\$	
1090	24863EC		PVC FOLD AND FORM PIPE LINER-24 IN (REVISED 8/12/2024)	173.00	LF		\$	
1100	24864EC		PVC FOLD AND FORM PIPE LINER-30 IN (REVISED 8-12-2024)	161.00	LF		\$	
1110	23952EC		DRAINAGE JUNCTION BOX TY B	1.00	EACH		\$	
1120	24186EC		BORE AND JACK PIPE-36 IN	143.00	LF		\$	
1130	24814EC		PIPELINE INSPECTION	981.00	LF		\$	

Section: 0004 - BRIDGE- #28886 - RCBC - HAL ROGERS PARKWAY STA. 182+52.71

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1140	02403		REMOVE CONCRETE MASONRY	17.20	CUYD		\$	
1150	08002		STRUCTURE EXCAV-SOLID ROCK	13.00	CUYD		\$	
1160	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1170	08100		CONCRETE-CLASS A	41.90	CUYD		\$	
1180	08150		STEEL REINFORCEMENT	3,409.00	LB		\$	

Section: 0005 - BRIDGE- #28887 - HAL ROGERS PARKWAY STA. 245+89.46

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1190	02231		STRUCTURE GRANULAR BACKFILL	438.00	CUYD		\$	

PROPOSAL BID ITEMS

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Report Date 8/12/24

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1200	26233EC		MOBILIZATION FOR CONCRETE SURF TREATMENT	1.00	LS		\$	
1210	03299		ARMORED EDGE FOR CONCRETE	144.00	LF		\$	
1220	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1230	08019		CYCLOPEAN STONE RIP RAP	1,124.00	TON		\$	
1240	08033		TEST PILES	44.00	LF		\$	
1250	08051		PILES-STEEL HP14X89	299.00	LF		\$	
1260	08067		PILES-14 IN	18.00	LF		\$	
1270	08100		CONCRETE-CLASS A	107.20	CUYD		\$	
1280	08104		CONCRETE-CLASS AA	191.70	CUYD		\$	
1290	08140		MECHANICAL REINF COUPLER #5 EPOXY COATED	33.00	EACH		\$	
1300	08151		STEEL REINFORCEMENT-EPOXY COATED	47,937.00	LB		\$	
1310	08670		PRECAST PC BOX BEAM SB27	819.50	LF		\$	
1320	23378EC		CONCRETE SEALING	8,738.00	SQFT		\$	
1330	23813EC		DECK DRAIN	2.00	EACH		\$	
1340	24405EC		MECHANICAL REINF COUPLER-#8 EPOXY COATED	21.00	EACH		\$	
1350	25028ED		RAIL SYSTEM SINGLE SLOPE - 40 IN	152.00	LF		\$	

Section: 0006 - BRIDGE- #28888 - SLATE LICK RD STA. 107+48.89

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1360	02231		STRUCTURE GRANULAR BACKFILL	438.00	CUYD		\$	
1370	03299		ARMORED EDGE FOR CONCRETE	66.20	LF		\$	
1380	08002		STRUCTURE EXCAV-SOLID ROCK	219.00	CUYD		\$	
1390	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1400	08020		CRUSHED AGGREGATE SLOPE PROT	420.00	TON		\$	
1410	08033		TEST PILES	52.00	LF		\$	
1420	08039		PRE-DRILLING FOR PILES	328.00	LF		\$	
1430	08051		PILES-STEEL HP14X89	356.00	LF		\$	
1440	08100		CONCRETE-CLASS A	211.60	CUYD		\$	
1450	08104		CONCRETE-CLASS AA	259.60	CUYD		\$	
1460	08150		STEEL REINFORCEMENT	21,604.00	LB		\$	
1470	08151		STEEL REINFORCEMENT-EPOXY COATED	90,958.00	LB		\$	
1480	08633		PRECAST PC I BEAM TYPE 3	769.30	LF		\$	
1490	20743ED		DRILLED SHAFT 54 IN-SOLID ROCK	36.00	LF		\$	
1500	20745ED		ROCK SOUNDINGS	44.20	LF		\$	
1510	20746ED		ROCK CORINGS	98.20	LF		\$	
1520	23378EC		CONCRETE SEALING	17,216.00	SQFT		\$	
1530	23813EC		DECK DRAIN	12.00	EACH		\$	
1540	25028ED		RAIL SYSTEM SINGLE SLOPE - 40 IN	392.00	LF		\$	

Section: 0007 - BRIDGE- #28889 - RCBC - JOHNSON RD STA. 50+85.87

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1550	02403		REMOVE CONCRETE MASONRY	11.40	CUYD		\$	
1560	08002		STRUCTURE EXCAV-SOLID ROCK	13.00	CUYD		\$	

PROPOSAL BID ITEMS

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Report Date 8/12/24

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1570	08003		FOUNDATION PREPARATION	1.00	LS		\$	
1580	08100		CONCRETE-CLASS A	34.80	CUYD		\$	
1590	08150		STEEL REINFORCEMENT	3,574.00	LB		\$	

Section: 0009 - SEWER

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1740	15017		S ENCASMENT STEEL BORED RANGE 4 16 IN	210.00	LF		\$	
1750	15092		S MANHOLE 4 FT	5.00	EACH		\$	
1760	15093		S MANHOLE ABANDON/REMOVE	3.00	EACH		\$	
1770	15099		S MANHOLE TAP EXISTING	2.00	EACH		\$	
1780	15112		S PIPE PVC 08 INCH	330.00	LF		\$	
1790	15114		S PIPE PVC 12 INCH	727.00	LF		\$	
1800	23340EC		PAVEMENT REPLACEMENT	33.00	TON		\$	

Section: 0010 - SIGNALIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
1810	04820		TRENCHING AND BACKFILLING	3,770.00	LF		\$	
1820	04844		CABLE-NO. 14/5C	4,725.00	LF		\$	
1830	04845		CABLE-NO. 14/7C	3,900.00	LF		\$	
1840	04884		ANCHOR	4.00	EACH		\$	
1850	04886		MESSENGER-15400 LB	1,740.00	LF		\$	
1860	04932		INSTALL STEEL STRAIN POLE	14.00	EACH		\$	
1870	04953		TEMP RELOCATION OF SIGNAL HEAD	20.00	EACH		\$	
1880	06472		INSTALL SPAN MOUNTED SIGN	4.00	EACH		\$	
1890	20188NS835		INSTALL LED SIGNAL-3 SECTION	21.00	EACH		\$	
1900	20189NS835		INSTALL LED SIGNAL-5 SECTION	1.00	EACH		\$	
1910	20266ES835		INSTALL LED SIGNAL- 4 SECTION	4.00	EACH		\$	
1920	20390NS835		INSTALL COORDINATING UNIT	2.00	EACH		\$	
1930	20408ES835		INSTALL LED BEACON-12 IN	14.00	EACH		\$	
1940	23157EN		TRAFFIC SIGNAL POLE BASE	65.00	CUYD		\$	
1950	24525EC		ADVANCE WARNING FLASHER	3.00	EACH		\$	
1960	24528ED		TETHER WIRE	600.00	LF		\$	
1970	24900EC		PVC CONDUIT-1 1/4 IN-SCHEDULE 80	3,775.00	LF		\$	
1980	24901EC		PVC CONDUIT-2 IN-SCHEDULE 80	240.00	LF		\$	
1990	24908EC		INSTALL SIGNAL CONTROLLER-TY ATC	2.00	EACH		\$	
2000	24955ED		REMOVE SIGNAL EQUIPMENT	4.00	EACH		\$	
2010	26119EC		INSTALL RADAR PRESENCE DETECTOR TYPE A	16.00	EACH		\$	
2020	26120EC		INSTALL RADAR ADVANCE DETECTOR TYPE B	2.00	EACH		\$	

Section: 0011 - LIGHTING

PROPOSAL BID ITEMS

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Report Date 8/12/24

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2030	04701		POLE 40 FT MTG HT	19.00	EACH		\$	
2040	04725		BRACKET 15 FT	19.00	EACH		\$	
2050	04740		POLE BASE	19.00	EACH		\$	
2060	04750		TRANSFORMER BASE	19.00	EACH		\$	
2070	04780		FUSED CONNECTOR KIT	38.00	EACH		\$	
2080	04820		TRENCHING AND BACKFILLING	2,255.00	LF		\$	
2090	04832		WIRE-NO. 12	1,045.00	LF		\$	
2100	04940		REMOVE LIGHTING	1.00	LS		\$	
2110	20391NS835		ELECTRICAL JUNCTION BOX TYPE A	6.00	EACH		\$	
2120	21543EN		BORE AND JACK CONDUIT	885.00	LF		\$	
2130	23778EC		WIRE-NO. 10	9,525.00	LF		\$	
2140	24589ED		LED LUMINAIRE	19.00	EACH		\$	
2150	24900EC		PVC CONDUIT-1 1/4 IN-SCHEDULE 80	2,125.00	LF		\$	
2160	24901EC		PVC CONDUIT-2 IN-SCHEDULE 80	855.00	LF		\$	

Section: 0012 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
2170	02568		MOBILIZATION	1.00	LS		\$	
2180	02569		DEMOBILIZATION	1.00	LS		\$	

SHEET NO.	ITEM CODE	SKEW	COVER HEIGHT	DESIGN pH LEVEL	ENTRANCE PIPE-15 IN	ENTRANCE PIPE-18 IN	CULVERT PIPE 18 IN	CULVERT PIPE 24 IN	CULVERT PIPE 30 IN	CULVERT PIPE 36 IN	CULVERT PIPE 48 IN	STORM SEWER PIPE-15 IN	STORM SEWER PIPE-18 IN	PIPE CULVERT HEADWALL-18 IN	PIPE CULVERT HEADWALL-24 IN	PIPE CULVERT HEADWALL-30 IN	PIPE CULVERT HEADWALL-36 IN	PIPE CULVERT HEADWALL-48 IN	CURB BOX INLET TYPE B	DROP BOX INLET TYPE 1	DROP BOX INLET TYPE 6F	FLUME INLET TYPE 2	CHANNEL LINING CLASS II	CHANNEL LINING CLASS III	CONCRETE CLASS A	PVC FOLD AND FORM PIPE LINER 24 INCH	PVC FOLD AND FORM PIPE LINER 30 INCH	CLEAN PIPE STRUCTURE	REMARKS
	HR 9006				00440	00441	00462	00464	00466	00468	00470	00521	00522	01204	01208	01210	01212	01216	01480	01490	01535	01691	02483	02484	08100	24863EC	24864EC	03262	
	UNIT TO BID				LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	TON	TON	CUYD	LF	LF	EACH	
	135+91.37	00°06'26" LT	32.6	M																			6						
	138+17.14	0°	N/A	M											1								21						
	144+73.56	43°40'11" RT	24.1	M			19								2														
	157+04.18	29°28'26" LT	29.4	M			44			65																			
	160+16.14	32°44'11" LT	27.8	M			28								1														
	167+21.91	14°55'24" LT	9.54	M																						173		1	
	182+52.71	14°39'29" LT	4.15	M																									
	185.31.38	15°26'16" LT	5.88	M					36																				
	193+08.93	06°58'54" LT	4.73	M						47																			
	199+02.80	00°03'15" LT	8.03	M			22																						
	207+75.41	28°44'32" LT	13.1	M					53																				
	215+20.00	0°	12.8	M																									
	219+92.20	45°12'06" LT	14.8	M																									
	242+48.23	16°14'19" LT	10.6	M			46																						
	254+63.44	13°29'09" LT	4.41	M			22																						
	258+87.96	0°27'58" RT	21.3	M			42																						
	266+12.28	15°01'56" LT	5.66	M			28																						
	KY 638																												
	50+73.86	09°39'09" RT	1.00	M																									
	KY 472																												
	48+99.66	00°55'31" RT	12.5	M			12																						
	50+85.87	08°20'57" RT	10.0	M																									
	ENTRANCE PIPES																												
	HR 9006																												
	165+50 LT			M																									
	199+75 RT	04°51'54" RT	7.31	M																									
	212+32 LT	02°18'42" LT	6.79	M							17																		
	KY 472																												
	46+20 RT			M																									
	SLATE LICK RD.																												
	102+50.40	00°24'02"		M																									
	103+75	0°		M																									
	106+18.75	26°24'02"		M																									
	108+90	0°		M																									
	TOTAL PROJECT				72	83	70	193	89	112	17	140	84.5	3	10	4	6	2	2	1	2	2	209.5	2100	4.5	173	161	2	

① QUANTITIES ARE ADDED TO GENERAL SUMMARY



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



DRAWING TITLE: PIPE SUMMARY

OpenRoads Designer v10.12.02.4

DATE PLOTTED: 9/7/2005 7:08:02 PM

USER: Blake.Combs

ITEM NO. 11-365.00 COUNTY OF LAUREL
SHEET NO. R2H

FILE NAME: C:\PWORK\KYYC_BLAKE.COMBS\0236892011_00365_00_P_PIPESUMMARY.DGN

SHEET NO.	ITEM CODE	SKEW	COVER HEIGHT	DESIGN PH LEVEL	ENTRANCE PIPE-15 IN	ENTRANCE PIPE-18 IN	CULVERT PIPE 18 IN	CULVERT PIPE 24 IN	CULVERT PIPE 30 IN	CULVERT PIPE 36 IN	CULVERT PIPE 48 IN	STORM SEWER PIPE-15 IN	STORM SEWER PIPE-18 IN	PIPE CULVERT HEADWALL-18 IN	PIPE CULVERT HEADWALL-24 IN	PIPE CULVERT HEADWALL-30 IN	PIPE CULVERT HEADWALL-36 IN	PIPE CULVERT HEADWALL-48 IN	CURB BOX INLET TYPE B	DROP BOX INLET TYPE 1	DROP BOX INLET TYPE 6F	FLUME INLET TYPE 2	CHANNEL LINING CLASS II	CHANNEL LINING CLASS III	CONCRETE CLASS A	PVC FOLD AND FORM PIPE LINER 24 INCH	PVC FOLD AND FORM PIPE LINER 30 INCH	CLEAN PIPE STRUCTURE	REMARKS										
	HR 9006				00440	00441	00462	00464	00466	00468	00470	00521	00522	01204	01208	01210	01212	01216	01480	01490	01535	01691	02483	02484	08100	24863EC	24864EC	03262											
	UNIT TO BID				LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	TON	TON	CUYD	LF	LF	EACH											
	135+91.37	00°06'26" LT	32.6	M												2							6																
	138+17.14	0°	N/A	M											1								21																
	144+73.56	43°40'11" RT	24.1	M			19								2								25																
	157+04.18	29°28'26" LT	29.4	M			44			65													80																
	160+16.14	32°44'11" LT	27.8	M											1								7																
	167+21.91	14°55'24" LT	9.54	M			28																12																
	182+52.71	14°39'29" LT	4.15	M												2							16																
	185.31.38	15°26'16" LT	5.88	M					36														238																
	193+08.93	06°58'54" LT	4.73	M						47													137																
	199+02.80	00°03'15" LT	8.03	M			22																23																
	207+75.41	28°44'32" LT	13.1	M					53														7																
	215+20.00	0°	12.8	M																																			
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	48+99.66	00°55'31" RT	12.5	M				12																															
	50+85.87	08°20'57" RT	10.0	M																																			
	ENTRANCE PIPES																																						
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	165+50 LT			M																																			
	199+75 RT	04°51'54" RT	7.31	M																																			
	212+32 LT	02°18'42" LT	6.79	M							17																												
	KY 472																																						
	46+20 RT			M																																			
	SLATE LICK RD.																																						
	102+50.40	00°24'02"		M																																			
	103+75	0°		M																																			
	106+18.75	26°24'02"		M																																			
	108+90	0°		M																																			
	TOTAL PROJECT				72	83	70	193	89	112	17	140	84.5	3	10	4	6	2	2	1	2	2	209.5	2100	4.5	173	161												

① QUANTITIES ARE ADDED TO GENERAL SUMMARY

General Provisions, Special Notes, and Special Provisions

DIVISION 100 -- GENERAL PROVISIONS

160 N.G.S. (U.S.G.S.) BENCH MARKS

DO NOT DISTURB N.G.S. (U.S.G.S.) BENCH MARKS IN ANY MANNER UNLESS DIRECTED BY THE ENGINEER.

165 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 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.

190 DEPARTMENT OF THE ARMY PERMIT AND WATER QUALITY CERTIFICATION APPROVALS

A DEPARTMENT OF THE ARMY (DA) PERMIT, WHICH MAY REQUIRE APPROVAL OF A STATE WATER QUALITY CERTIFICATION FROM THE KENTUCKY DIVISION OF WATER, REGULATES THIS PROJECT AT ONE OR MORE LOCATIONS. PERFORM ALL APPLICABLE WORK IN COMPLIANCE WITH THE CONDITIONS STATED IN THE DA PERMIT AND THE APPROVED WATER QUALITY CERTIFICATION. POST A COPY OF THE DA PERMIT AND THE WATER QUALITY CERTIFICATION IN A CONSPICUOUS PLACE AT THE PROJECT SITE. IF A DA PERMIT OR WATER QUALITY CERTIFICATION APPROVAL IS PENDING, DO NOT WORK IN OR DISTURB THE DESIGNATED AREA(S) UNTIL OBTAINING THE APPROPRIATE APPROVAL(S). REFER TO NOTICE(S) CONTAINED IN THE CONTRACT BID PROPOSAL FOR DESIGNATED AREA(S) WHERE WORK IS PROHIBITED BY THE ABSENCE OF APPROVAL.

DIVISION 400 -- ASPHALT PAVEMENTS

444(B) ASPHALT PAVEMENT RIDE QUALITY

PAVEMENT RIDEABILITY REQUIREMENTS, IN ACCORDANCE WITH SECTION 410 OF THE STANDARD SPECIFICATIONS, SHALL APPLY ON THIS PROJECT. CATEGORY B SHALL APPLY.

447 COMPACTION OF ASPHALT MIXTURES

WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED FOR DRIVING LANES AND RAMPS AT ONE INCH (25 MM) OR GREATER ON THIS PROJECT BY OPTION A ACCORDING TO SUBSECTIONS 402 AND 403 OF THE CURRENT STANDARD SPECIFICATIONS. USE JOINT CORES AS DESCRIBED IN SUBSECTION 402.03.02 FOR SURFACE MIXTURES ONLY. WILL ACCEPT THE COMPACTION OF ALL OTHER ASPHALT MIXTURES BY OPTION B.

455 EDGE KEY

THIS WORK INCLUDES CUTTING OUT THE EXISTING ASPHALT SURFACE TO A MINIMUM DEPTH AND WIDTH AS DETAILED ELSEWHERE IN THE PLANS SO THAT THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE CONTRACT UNIT PRICE BID LINEAR FOOT (PER METER) FOR "EDGE KEY" INCLUDES ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND DISPOSE OF THE REMOVED ASPHALT MATERIAL.

DIVISION 600 -- STRUCTURES AND CONCRETE

650 STANDARD DRAWINGS

STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES IN FRANKFORT, KY. AT (502) 564-4610

SIGNAGE

EXISTING ROADWAY SIGNAGE TO BE REMOVED (INCIDENTAL TO ROADWAY EXCAVATION) UNHARMED, AND DELIVERED TO THE KYTC TRAFFIC FACILITY AT 310 VALLEY CREEK RD (KY567) ELIZABETHTOWN, KY 42701. NEW SIGNAGE TO BE UPDATED BY THE DEPARTMENT TO BE ACCURATE AS PHASE OF PROJECT PROGRESSES - CONTACT CHRIS HARRIS 606-598-2145.

PAVEMENT MARKINGS / STRIPING / THERMO

CONTACT KYTC TRAFFIC ENGINEER (CHRIS HARRIS) PRIOR TO PERMANENT STRIPING OR THERMO. 606-598-2145

SPECIAL NOTES

SPECIAL NOTE 11 PORTABLE CHANGEABLE MESSAGE SIGNS

SPECIAL NOTE FOR PIPE LINER ACCEPTANCE TESTING

SPECIAL NOTE FOR PVC FOLD AND FORM PIPE LINER

SPECIAL NOTE FOR PIPE CLEANING

SPECIAL NOTE 11N LONGITUDINAL PAVEMENT JOINT ADHESIVE 2019

MATERIAL TRANSFER VEHICLE

A MATERIAL TRANSFER VEHICLE (MTV) SHALL BE REQUIRED FOR ALL COURSES PAVING ON THIS JOB IN ACCORDANCE WITH SECTION 403.02.10 OF THE STANDARD SPECIFICATION, CURRENT EDITION.



COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



DRAWING TITLE: GENERAL NOTES

General Provisions, Special Notes, and Special Provisions

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DO NOT DISTURB N.G.S. (U.S.G.S.) BENCH MARKS IN ANY MANNER UNLESS DIRECTED BY THE ENGINEER.

165 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 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.

190 DEPARTMENT OF THE ARMY PERMIT AND WATER QUALITY CERTIFICATION APPROVALS

A DEPARTMENT OF THE ARMY (DA) PERMIT, WHICH MAY REQUIRE APPROVAL OF A STATE WATER QUALITY CERTIFICATION FROM THE KENTUCKY DIVISION OF WATER, REGULATES THIS PROJECT AT ONE OR MORE LOCATIONS. PERFORM ALL APPLICABLE WORK IN COMPLIANCE WITH THE CONDITIONS STATED IN THE DA PERMIT AND THE APPROVED WATER QUALITY CERTIFICATION. POST A COPY OF THE DA PERMIT AND THE WATER QUALITY CERTIFICATION IN A CONSPICUOUS PLACE AT THE PROJECT SITE. IF A DA PERMIT OR WATER QUALITY CERTIFICATION APPROVAL IS PENDING, DO NOT WORK IN OR DISTURB THE DESIGNATED AREA(S) UNTIL OBTAINING THE APPROPRIATE APPROVAL(S). REFER TO NOTICE(S) CONTAINED IN THE CONTRACT BID PROPOSAL FOR DESIGNATED AREA(S) WHERE WORK IS PROHIBITED BY THE ABSENCE OF APPROVAL.

DIVISION 400 -- ASPHALT PAVEMENTS

444(B) ASPHALT PAVEMENT RIDE QUALITY

PAVEMENT RIDEABILITY REQUIREMENTS, IN ACCORDANCE WITH SECTION 410 OF THE STANDARD SPECIFICATIONS, SHALL APPLY ON THIS PROJECT. CATEGORY B SHALL APPLY.

447 COMPACTION OF ASPHALT MIXTURES

WILL ACCEPT THE COMPACTION OF ASPHALT MIXTURES FURNISHED FOR DRIVING LANES AND RAMPS AT ONE INCH (25 MM) OR GREATER ON THIS PROJECT BY OPTION A ACCORDING TO SUBSECTIONS 402 AND 403 OF THE CURRENT STANDARD SPECIFICATIONS. USE JOINT CORES AS DESCRIBED IN SUBSECTION 402.03.02 FOR SURFACE MIXTURES ONLY. WILL ACCEPT THE COMPACTION OF ALL OTHER ASPHALT MIXTURES BY OPTION B.

455 EDGE KEY

THIS WORK INCLUDES CUTTING OUT THE EXISTING ASPHALT SURFACE TO A MINIMUM DEPTH AND WIDTH AS DETAILED ELSEWHERE IN THE PLANS SO THAT THE NEW SURFACE MAY HEEL INTO THE EXISTING SURFACE. THE CONTRACT UNIT PRICE BID LINEAR FOOT (PER METER) FOR "EDGE KEY" INCLUDES ALL NECESSARY MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND DISPOSE OF THE REMOVED ASPHALT MATERIAL.

DIVISION 600 -- STRUCTURES AND CONCRETE

650 STANDARD DRAWINGS

STANDARD DRAWINGS ARE NOT ATTACHED TO THESE PLANS. A STANDARD DRAWING BOOK AND THE HEADWALL SUPPLEMENTAL BOOK MAY BE OBTAINED FROM THE POLICY SUPPORT BRANCH OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES IN FRANKFORT, KY. AT (502) 564-4610

SIGNAGE

EXISTING ROADWAY SIGNAGE TO BE REMOVED (INCIDENTAL TO ROADWAY EXCAVATION) UNHARMED, AND DELIVERED TO THE KYTC TRAFFIC FACILITY AT 310 VALLEY CREEK RD (KY567) ELIZABETHTOWN, KY 42701. NEW SIGNAGE TO BE UPDATED BY THE DEPARTMENT TO BE ACCURATE AS PHASE OF PROJECT PROGRESSES - CONTACT CHRIS HARRIS 606-598-2145.

PAVEMENT MARKINGS / STRIPING / THERMO

CONTACT KYTC TRAFFIC ENGINEER (CHRIS HARRIS) PRIOR TO PERMANENT STRIPING OR THERMO. 606-598-2145

SPECIAL NOTES

SPECIAL NOTE 11 PORTABLE CHANGEABLE MESSAGE SIGNS

SPECIAL NOTE FOR PIPE LINER ACCEPTANCE TESTING

SPECIAL NOTE FOR PVC FOLD AND FORM PIPE LINER

SPECIAL NOTE FOR PIPE CLEANING

SPECIAL NOTE 11N LONGITUDINAL PAVEMENT JOINT ADHESIVE 2019

MATERIAL TRANSFER VEHICLE

A MATERIAL TRANSFER VEHICLE (MTV) SHALL BE REQUIRED FOR ALL COURSES PAVING ON THIS JOB IN ACCORDANCE WITH SECTION 403.02.10 OF THE STANDARD SPECIFICATION, CURRENT EDITION.



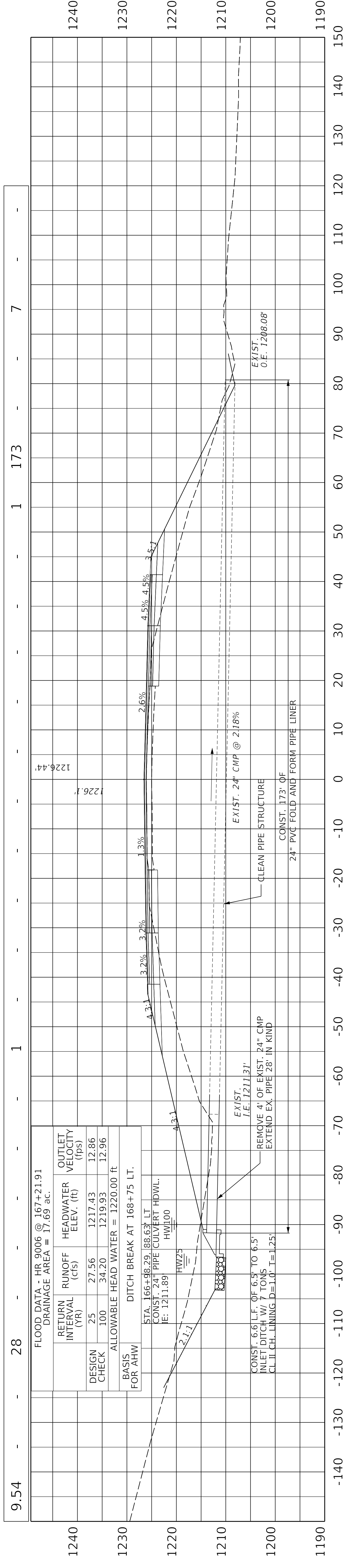
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS



DRAWING TITLE: GENERAL NOTES

PIPE DRAINAGE SHEET 4 of 19

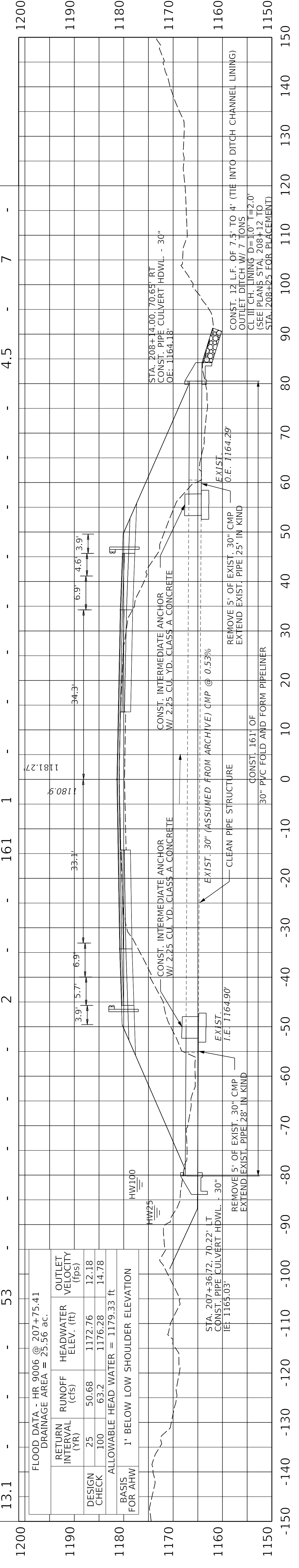
COVER HEIGHT	DESIGN PH LEVEL	18" CULVERT PIPE	LF	
		24" CULVERT PIPE	LF	
		30" CULVERT PIPE	LF	
		36" CULVERT PIPE	LF	
		48" CULVERT PIPE	LF	
		18" CULVERT PIPE HEADWALL	EACH	
		24" CULVERT PIPE HEADWALL	EACH	
		30" CULVERT PIPE HEADWALL	EACH	
		36" CULVERT PIPE HEADWALL	EACH	
		48" CULVERT PIPE HEADWALL	EACH	
		CLEAN PIPE STRUCTURE	EACH	
		PVC FOLD AND FORM PIPE LINER-24 IN	LF	
		CHANNEL LINING CLASS II	TONS	
		CHANNEL LINING CLASS III	TONS	



167+21.91
@ 14°55'24" SK. LT.

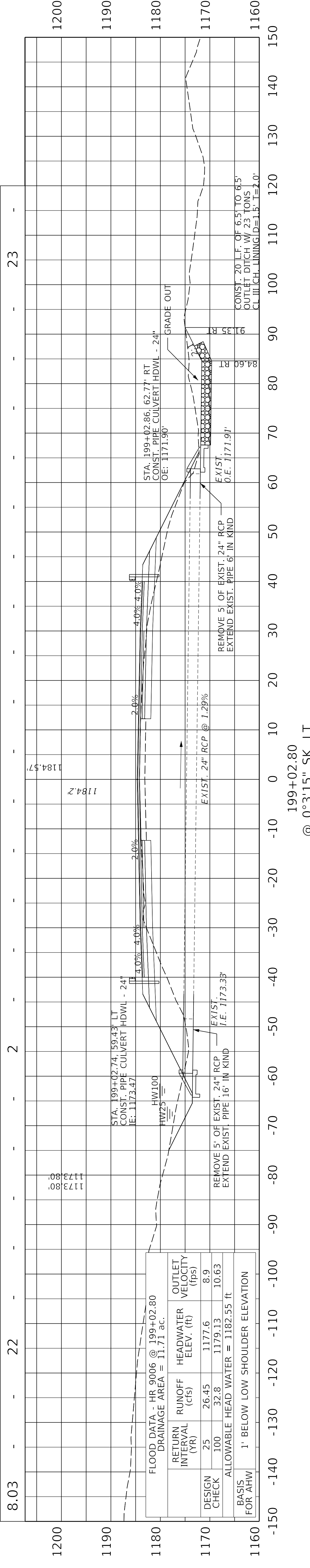
PIPE DRAINAGE SHEET 9 OF 19

COVER HEIGHT	DESIGN PH LEVEL	STRUCTURE												TONS			
		18" CULVERT PIPE	24" CULVERT PIPE	30" CULVERT PIPE	48" CULVERT PIPE	CULVERT PIPE HEADWALL	48" CULVERT PIPE HEADWALL	PVC FOLD AND FORM PIPE	CLEAN PIPE STRUCTURE	1" CULVERT PIPE HEADWALL	24" CULVERT PIPE HEADWALL	30" CULVERT PIPE HEADWALL	48" CULVERT PIPE HEADWALL		CONCRETE CLASS A	CHANNEL LINING CLASS II	CHANNEL LINING CLASS III
		LF	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	LF	EACH	LF	EACH	EACH	TONS
																	7



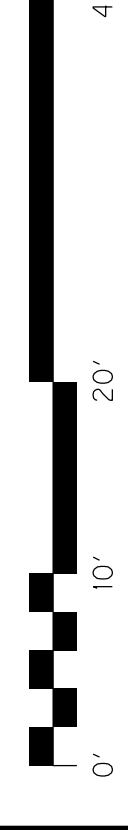
FLOOD DATA - HR 9006 @ 207+75.41 DRAINAGE AREA = 23.56 ac.			
RETURN INTERVAL (YR)	RUNOFF (cfs)	HEADWATER ELEV. (ft)	OUTLET VELOCITY (fps)
25	50.68	1172.76	12.18
100	63.2	1176.28	14.78
ALLOWABLE HEAD WATER = 1179.33 ft			
BASIS FOR AHW 1' BELOW LOW SHOULDER ELEVATION			

207+75.41
@ 28°44'32" SK. LT.



FLOOD DATA - HR 9006 @ 199+02.80 DRAINAGE AREA = 11.71 ac.			
RETURN INTERVAL (YR)	RUNOFF (cfs)	HEADWATER ELEV. (ft)	OUTLET VELOCITY (fps)
25	26.45	1177.6	8.9
100	32.8	1179.13	10.63
ALLOWABLE HEAD WATER = 1182.55 ft			
BASIS FOR AHW 1' BELOW LOW SHOULDER ELEVATION			

199+02.80
@ 0°3'15" SK. LT.



PIPE DRAINAGE SHEET 9 of 19

COVER HEIGHT	DESIGN PH LEVEL	18" CULVERT PIPE					24" CULVERT PIPE			30" CULVERT PIPE		36" CULVERT PIPE		48" CULVERT PIPE		CONCRETE CLASS A		CHANNEL LINING CLASS II		CHANNEL LINING CLASS III	
		LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	TONS	TONS	TONS	TONS
13.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-	-	7	-

