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ARCHITECTURE    ENGINEERING    INTERIOR DESIGN    LANDSCAPE ARCHITECTURE

**CONTRACT 1 - BULLOCK PEN LAKE SEWER  
AND  
CONTRACT 2 - BINGHAM PUMP STATION  
RELOCATION**

**FOR**

**GRANT COUNTY SANITARY SEWER DISTRICT  
GRANT COUNTY, KENTUCKY**

**AUGUST 2013**

Set No.

**RECEIVED**

NOV 15 2013

PUBLIC SERVICE  
COMMISSION

**Addendum Number 1**

Bullock Pen Lake Sewer and  
Bingham Pump Station Replacement  
Grant County Sanitary Sewer District

September 25, 2013

Engineer: CMW, Inc.  
400 East Vine  
Lexington, Kentucky  
(859) 254-6623

**TO: All Planholders of Record**

This addendum forms a part of the Bidding and Contract Documents and modifies the original Bidding and Contract Documents dated August, 2013, and any previously issued addenda. Acknowledge receipt of this addendum on the Bid Form. Failure to do so may subject the Bidder to disqualification. This addendum consists of eleven (11) pages.

**1. DIVISION 0 - BIDDING & CONTRACT DOCUMENTS**

- A. Section 00100 – Information For Bidders: At end of the section add the following:  
“Both Contract #1 and Contract #2 are included in the same plans and specifications.  
There is only one set of plans and specifications for both projects”.
- B. Section 00910 State Wage Rates: The State Wage Rates in the bidding documents shall be replaced with attached State Wage Rates with cover letter dated September 24, 2013.

**End of Addendum Number 1**



Steven L. Beshear  
Governor

**KENTUCKY LABOR CABINET**  
DEPARTMENT OF WORKPLACE STANDARDS  
DIVISION OF EMPLOYMENT STANDARDS,  
APPRENTICESHIP & MEDIATION  
1047 US Hwy 127 S - Suite 4  
Frankfort, Kentucky 40601  
Phone: (502) 564-3534  
Fax (502) 696-1897  
www.labor.ky.gov

Larry Roberts  
Secretary

Anthony Russell  
Commissioner

September 24, 2013

Kerry Odle  
CMW Inc  
400 East Vine St. Ste. 400  
Lexington KY 40507

Re: Grant County Sanitary Sewer District, Bullock Pen Lake Sewer & Bingham Pump

Advertising Date as Shown on Notification: October 8, 2013

Dear Kerry Odle:

This office is in receipt of your written notification on the above project as required by KRS 337.510 (1).

I am enclosing a copy of the current prevailing wage determination number CR 8-019, dated June 25, 2013 for GRANT County. This schedule of wages shall be attached to and made a part of the specifications for the work, printed on the bidding blanks, and made a part of the contract for the construction of the public works between the public authority and the successful bidder or bidders.

The determination number assigned to this project is based upon the advertising date contained in your notification. There may be modifications to this wage determination prior to the advertising date indicated. In addition, if the contract is not awarded within 90 days of this advertising date or if the advertising date is modified, a different set of prevailing rates of wages may be applicable. It will be the responsibility of the public authority to contact this office and verify the correct schedule of the prevailing rates of wages for use on the project. Your project number is as follows: 041-H-00078-13-8, Heavy/Highway

Sincerely,

Anthony Russell  
Commissioner



KENTUCKY LABOR CABINET  
ERRATUM

Refer to the Locality Number and Determination Number listed below published by the Kentucky Labor Cabinet, Division of Employment Standards, Apprenticeship and Mediation dated June 25, 2013.

Locality Number 019 – Grant, Owen & Scott Counties

Determination Number CR 8-019

**DELETE:**

Carpenter	BASE RATE	\$21.23
	FRINGE BENEFITS	12.40

Piledriver	BASE RATE	\$21.73
	FRINGE BENEFITS	12.40

**INSERT:**

Carpenter	BASE RATE	\$21.98
	FRINGE BENEFITS	12.70

Piledriver	BASE RATE	\$22.48
	FRINGE BENEFITS	12.70

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Anthony Russell, Commissioner  
Department of Workplace Standards  
Kentucky Labor Cabinet  
Frankfort, KY 40601

This 27<sup>TH</sup> day of June, 2013

PREVAILING WAGE DETERMINATION  
CURRENT REVISION  
LOCALITY NO. 019

Determination No. CR 8-019  
Date of Determination: June 25, 2013

Project No. 041-H-00078-13-8

\_\_\_\_\_ Bldg      \_\_\_\_\_ x \_\_\_\_\_ HH

This schedule of the prevailing rate of wages for Locality No. 019, which includes Grant, Owen & Scott Counties, has been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR 8-019 .

Apprentices shall be permitted to work as such subject to Administrative Regulation 803 KAR 1:010. Copies of this regulation will be furnished upon request to any interested person.

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) per day, and/or in excess of forty (40) per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one workday, but not more than ten (10) hours worked in any one workday, if such written agreement is prior to the over eight (8) hours in a workday actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked. Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

No laborer, workman or mechanic shall be paid at a rate less than that of the General Laborer except those classified as bona fide apprentices registered with the Kentucky State Apprenticeship Supervisor unless otherwise specified in this schedule of wage rates.

NOTE: The type of construction shall be determined by applying the following definitions.

BUILDING CONSTRUCTION

Building construction is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. It includes all construction of such structures, the installation of utilities and the installation of equipment, both above and below grade level, as well as incidental grading, utilities and paving.

HIGHWAY CONSTRUCTION

Highway construction includes the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects not incidental to building or heavy construction. It includes all incidental construction in conjunction with the highway construction project.

HEAVY CONSTRUCTION

Heavy projects are those projects that are not properly classified as either "building" or "highway". For example, dredging projects, water and sewer line projects, dams, flood control projects, sewage treatment plants and facilities, and water treatment plants and facilities are considered heavy.



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Anthony Russell  
COMMISSIONER  
KENTUCKY LABOR CABINET

<b>ASBESTOS/INSULATION WORKERS/HEAT &amp; FROST INSULATORS</b>		BASE RATE	\$28.50
		FRINGE BENEFITS	13.22

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<b>BOILERMAKERS:</b>		BASE RATE	\$24.65
		FRINGE BENEFITS	12.94

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<b>BRICKLAYERS:</b>		BASE RATE	\$26.11
Bricklayers:		FRINGE BENEFITS	9.84

Refractory:		BASE RATE	\$26.61
		FRINGE BENEFITS	9.84

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<b>CARPENTERS:</b>		BASE RATE	<del>\$21.23</del>
Carpenters:	BUILDING	FRINGE BENEFITS	<del>12.40</del>

Piledrivermen	BUILDING	BASE RATE	<del>\$21.73</del>
		FRINGE BENEFITS	<del>12.40</del>

Carpenters:	HEAVY & HIGHWAY	BASE RATE	\$26.90
		FRINGE BENEFITS	14.50

Pildrivermen:	HEAVY & HIGHWAY	BASE RATE	\$27.15
		FRINGE BENEFITS	14.50

Divers:	HEAVY & HIGHWAY	BASE RATE	\$40.73
		FRINGE BENEFITS	14.50

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<b>CEMENT MASONS:</b>		BASE RATE	\$ 17.50
		FRINGE BENEFITS	4.95

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<b>ELECTRICIANS:</b>		BASE RATE	\$29.48
		FRINGE BENEFITS	14.36

LINEMAN:	HEAVY & HIGHWAY	BASE RATE	\$31.86
		FRINGE BENEFITS	11.63

GROUNDSMAN:	HEAVY & HIGHWAY	BASE RATE	\$28.48
		FRINGE BENEFITS	10.94

EQUIPMENT OPERATOR:	HEAVY & HIGHWAY	BASE RATE	\$18.87
		FRINGE BENEFITS	9.03

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<b>ELEVATOR CONSTRUCTORS:</b>		BASE RATE	\$29.75
		FRINGE BENEFITS	10.95

**GLAZIERS:**

OWEN COUNTY:		BASE RATE	\$18.01
		FRINGE BENEFITS	3.88

GRANT & SCOTT COUNTIES:		BASE RATE	\$15.45
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**IRONWORKERS:**

		BASE RATE	\$26.47
		FRINGE BENEFITS	19.56

**LABORERS:**

**BUILDING GROUP 1:** General laborers, asbestos abatement laborer, toxic waste removal laborer, water boys, tool room checker, carpenter tenders, (civil engineer helper, rodman, grade checkers excluding all field work performed by engineering firms), concrete pouring and curing, concrete form stripping and wrecking, hand digging and backfilling of ditches, clearing of right of ways and building sites, wood sheeting and shoring, signalman for concrete bucket and general cleaning, and environmental laborer - nuclear, radiation, toxic and hazardous waste - Level D:

BUILDING		*BASE RATE	\$20.41
		FRINGE BENEFITS	10.69

**BUILDING GROUP 2:** All air tool operators, air track drills, asphalt rakers, tampers, batchers plant and scale man, chain saw, concrete saw, electric hand grinder, all electric bush and chipping hammers, flagmen, forklift operators, form setter (street or highway), metal form setters, heaters, mesh handlers on walkways, streets and roadways outside building, gunnite laborers, hand spiker, Introflax burning rod, joint makers, mason tenders, multi-trade tender, pipe layers, plaster tenders, powderman helpers, power driven Georgia buggies, power posthole diggers, railroad laborers, sandblaster laborers, scow man and deck hand, signal man, sweeper and cleaner machines, vibrator operators, walk behind trenching machines, mortar mixer machines, water pumpmen, and environmental laborers-nuclear, radiation, toxic and hazardous waste - Level C:

BUILDING		*BASE RATE	\$20.81
		FRINGE BENEFITS	10.69

**BUILDING GROUP 3:** Asphalt Paver Screwman, gunnite nozzleman and gunnite nozzle machine operator, sand blaster nozzleman, concrete or grout pumpman, plaster pumpman:

BUILDING		*BASE RATE	\$21.01
		FRINGE BENEFITS	10.69

**BUILDING GROUP 4:** Powderman and blaster, and environmental laborer - nuclear, radiation, toxic and hazardous waste - Level B:

BUILDING		*BASE RATE	\$21.11
		FRINGE BENEFITS	10.69

**BUILDING GROUP 5:** Caisson holes (6 ft. and over) pressure and free air including tools, construction specialist, and environmental laborer-nuclear, radiation, toxic and hazardous waste - Level A:

BUILDING		*BASE RATE	\$21.61
		FRINGE BENEFITS	10.69

**BUILDING GROUP 6:** Tunnel man and tunnel sand miner, cofferdam (pressure and free air), sand hog or mucker (pressure or free air):

BUILDING		*BASE RATE	\$21.91
		FRINGE BENEFITS	10.69

**LABORERS ON BUILDING:** \*Employees handling chemically treated materials which are harmful to the skin shall receive an additional \$.25 above base rate. Any employee working on high work such as towers or smoke stacks or any type of work putting the employee 50 feet above the ground or a solid floor shall receive an additional \$.50 per hour above the base rate. Any employee working on boilers, kilns, melting tanks, furnaces, or when refractory is done using live fire, drying fires, heatups or any hot work shall receive an additional 25% premium above the base rate.

**LABORERS: HEAVY HIGHWAY**

HEAVY HIGHWAY GROUP 1: Aging and curing of concrete (any mode or method); asbestos abatement worker; asphalt plant laborers; asphalt laborers; batch truck dumpers; carpenter tenders; cement mason tenders; cleaning of machines; concrete laborers; demolition laborers; dredging laborers; drill helper; environmental laborer-nuclear, radiation, toxic & hazardous waste-Level D; flagmen; grade checkers; all hand digging and hand back filling; highway marker placers; landscaping laborers; mesh handlers & placers; puddler; railroad laborers; rip-rap & grouters; right of way laborers; sign, guard rail & fence installers (all types); signal men, sound barrier installer; storm and sanitary sewer laborers; swamper; truck spotters & dumpers; wrecking of concrete forms; general cleanup.

HEAVY & HIGHWAY	*BASE RATE	\$21.15
	FRINGE BENEFITS	11.41

HEAVY HIGHWAY GROUP 2: Batter board men (sanitary & storm sewer); brickmason tenders; mortar mixer operator; scaffold builders; burner and welder; bushammers; chain saw operator; concrete saw operators; deckhand scow man; dry cement handlers; environmental laborers-nuclear, radiation, toxic & hazardous waste-Level C; forklift operators for masonry; form setters; green concrete cutting; hand operated grouter and grinder machine operator; jack hammers; lead paint abatement; pavement breakers; paving joint machine; pipe layers-laser operators (non-metallic); plastic pipe fusion; power driven Georgia buggy & wheel barrow; power post hole diggers; precast manhole setters; walk behind tampers; walk behind trenchers; sand blasters; concrete chippers; surface grinders; vibrator operators; wagon drillers

HEAVY & HIGHWAY	*BASE RATE	\$21.40
	FRINGE BENEFITS	11.41

HEAVY HIGHWAY GROUP 3: Asphalt luteman and rakers; gunnite nozzleman; gunnite operators and mixers; grout pump operator; side rail setters; rail paved ditches; screw operators; tunnel laborers (free air) and water blasters.

HEAVY & HIGHWAY	*BASE RATE	\$21.45
	FRINGE BENEFITS	11.41

HEAVY HIGHWAY GROUP 4: Caisson workers (free air) cement finishers; environmental laborers-nuclear, radiation, toxic & hazardous waste-Levels A & B; miners & drillers (free air); tunnel blasters and tunnel muckers (free air); directional and horizontal boring; air drillers (all types); powder man and blasters; troxler and concrete tester if laborer is utilized.

HEAVY & HIGHWAY	*BASE RATE	\$22.05
	FRINGE BENEFITS	11.41

**\*Signal Person will receive the rate equal to the rate paid the laborer classification for which he or she is signaling.**

**MARBLE, TILE & TERRAZZO:**

Finishers:	BASE RATE	\$15.42
	FRINGE BENEFITS	5.42

Setters:	BASE RATE	\$22.64
	FRINGE BENEFITS	6.10

**MILLWRIGHTS:**

	BASE RATE	\$28.21
	FRINGE BENEFITS	15.99

**OPERATING ENGINEERS / BUILDING:**

**BUILDING CLASS A-1:**

NCCCO or OECF Certified:

Cableway, Carry Deck Crane, Cherry Picker, Clamshell, Crane, Derrick, Derrick Boat, Dragline, Hoist Engine (2 or more drums), Hydraulic Boom Truck, Hydrocrane, Orangepeel Bucket, Overhead Crane, Piledriver, Rough Terrain Crane, Tower Cranes (French, German and other types), Truck Crane:

BUILDING	BASE RATE	\$27.90
	FRINGE BENEFITS	13.90



**OPERATING ENGINEERS / BUILDING: CONTINUED**

BUILDING CLASS A: Auto Patrol, Batch Plant, Bituminous Paver, Cableway, Central Compressor Plant, Clamshell, Concrete Mixer (21 cu. ft. or over), Concrete Pump, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Operator, Dredge Engineer, Elevating Grader and all types of Loaders, Forklift (regardless of lift height), Hoe-Type Machine, Hoist (1 drum when used for stack or chimney construction or repair), Hoisting Engine (2 or more drums), Locomotive, Motor Scraper, Carry-all Scoop, Bulldozer, Heavy Duty Welder, Mechanic, Orangepeel Bucket, Piledriver, Power Blade, Motor Grader, Roller (bituminous), Scarifier, Shovel, Tractor Shovel, Truck Crane, Winch Truck, Push Dozer, Highlift, All types of Boom Cats, Core Drill, Hopto, Tow or Push Boat, A-Frame Winch Truck, Concrete Paver, Gradeall, Hoist, Hyster, Pumpcrete, Ross Carrier, Boom, Tail Boom, Rotary Drill, Hydro Hammer, Mucking Machine, Rock Spreader attached to equipment, Scoopmobile, KeCal Loader, Tower Cranes (French, German and other types), Hydrocrane, Backfiller, Gurries, Sub-Grader, Tunnel Mining Machines including Moles, Shields, or similar types of Tunnel Mining Equipment:

BUILDING	BASE RATE	\$26.84
	FRINGE BENEFITS	13.90

**\*Operators on cranes with boom one-hundred fifty feet (150') and over including jib, shall receive seventy-five cents (\$.75) above base rate. All cranes with piling leads will receive \$.50 above base rate regardless of boom length**

BUILDING CLASS B: All Air Compressors (over 900 cfm), Bituminous Mixer, Joint Sealing Machine, Concrete Mixer (under 21 cu. ft), Form Grader, Roller (rock), tractor (50 HP and over), Bull Float, Finish Machine, Outboard Motor Boat, Flexplane, Fireman, Boom Type Tamping Machine, Greaser on Grease Facilities servicing Heavy Equipment, Switchman or brakeman, Mechanic Helper, Whirley Oiler, Self-Propelled Compactor, Tractair and Road Widening Trencher and Farm Tractor with Attachments (except backhoe, highlift and endloader), Elevator (regardless of ownership when used for hoisting any building materials), Hoisting Engineer (1 drum or buck hoist), Forklift ( when used for masonry construction, Firebrick Masonry Excluded), Well Points, Grout Pump, Throttle-Valve Man, Tugger, Electric Vibrator Compactor and Caisson Drill Helper:

BUILDING	BASE RATE	\$23.94
	FRINGE BENEFITS	13.90

BUILDING CLASS C: Bituminous Distributor, Cement Gun, Conveyor, Mud Jack, Paving Joint Machine, Roller (earth), Tamping Machine, Tractors (under 50 HP), Vibrator, Oiler, Concrete Saw, Burlap and Curing Machine, Truck Crane Oiler, Hydro-Seeder, Power Form handling Equipment, Deckhand Steersman, Hydraulic Post Driver and Drill Helper:

BUILDING	BASE RATE	\$23.13
	FRINGE BENEFITS	13.90

**OPERATING ENGINEERS / HEAVY & HIGHWAY:**

HEAVY & HIGHWAY CLASS A-1:  
NCCCO or OECF Certified:

Crane, dragline, hoist (1 drum when used for stack or chimney construction repair), hoisting engineer (2 or more drums), orangepeel bucket, overhead crane, piledriver, truck crane, tower crane, hydraulic crane:

HEAVY & HIGHWAY	BASE RATE	\$28.40
	FRINGE BENEFITS	13.40

**OPERATING ENGINEERS / HEAVY & HIGHWAY: CONTINUED**

**HEAVY & HIGHWAY CLASS A:** A-frame Winch Truck, Auto Patrol, Backfiller, Batcher Plant, Bituminous Paver, Bituminous Transfer Machine, all types of Boom Cats, Bulldozer, Cableway, Carry-All Scoop, Carry Deck Crane, Central Compressor Plant Operator, Clamshell, Concrete Mixer (21 cu. Ft. or over), Concert Paver, Truck-mounted Concrete Pump, Core Drills, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Operator, Dredge Engineer, Earth Movers, Elevating Grader and all types of 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, Hydraulic Boom Truck, Hydrocrane, Hyster, KeCal Loader, Letourneau, Locomotive, Mechanic, Mechanically Operated Laser Screed, Mechanic Welder, Mucking Machine, Motor Scraper, Orangepeel Bucket, Piledriver, Power Blade, Pumpcrete, Push Dozer, Rock Spreader attached to equipment, All rotary Drills, Roller (Bituminous), Scarifier, Scoopmobile, Shovel, Side Boom, Subgrader, Tailboom, Telescoping Type Forklift, Tow or Push Boat, Tower Cranes (French, German, and other types), Tractor Shovel and Truck Crane, Tunnel Mining Machines including Moles, Shields, or similar types of Tunnel Mining Equipment:

HEAVY & HIGHWAY	BASE RATE	\$27.35
	FRINGE BENEFITS	13.40

**Operators on cranes with booms one hundred fifty feet (150) and over (including job) shall receive one dollar (\$1.00) above Class A rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds one hundred fifty (150) feet, shall receive one dollar (\$1.00) above the Class A rate. Where remote, laser, or CPS controlled equipment is utilized to operate the equipment listed in the wage classifications of this agreement, such work for operating purposes shall be the jurisdiction of the Operating Engineers.**

**HEAVY & HIGHWAY CLASS B:** All Air Compressors (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 (on drum or back hoist), Elevator (regardless of lift height), Form Grader, Hoist (one drum), Joint Sealing Machine, Mechanic Helper, Outboard Motor Boat, Power Sweeper (riding type), Roller (rock), Ross Carrier, Skid Mounted or Trailer mounted Concrete Pumps, Skid Steer Machine with all attachments, Switchman or Brakeman, Throttle Valve Man, Tract air and Road Widening Trencher, Tractor (50 H.P. or over), Truck Crane Oiler, Tugger, Welding Machine, Well Points, and Whirley Oiler:

HEAVY & HIGHWAY	BASE RATE	\$24.87
	FRINGE BENEFITS	13.40

**HEAVY & HIGHWAY CLASS B2:** Greaser on Grease Facilities servicing Heavy Equipment, all off road material handling equipment, including articulating dump trucks:

HEAVY & HIGHWAY	BASE RATE	\$25.26
	FRINGE BENEFITS	13.40

**HEAVY & HIGHWAY CLASS C:** Bituminous Distributor, Burlap and Curing Machine, Caisson Drill and Core Drill Helper (track or skid mounted), 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, Tractors (under 50 H.P.) and Vibrator:

HEAVY & HIGHWAY	BASE RATE	\$24.60
	FRINGE BENEFITS	13.40

**PAINTERS:**

Painters: BUILDING

	BASE RATE	\$22.85
	FRINGE BENEFITS	7.10

Brush & Roller: HEAVY & HIGHWAY

	BASE RATE	\$18.20
	FRINGE BENEFITS	5.08

Drywall Finishers & Plasterers: HEAVY & HIGHWAY

	BASE RATE	\$18.45
	FRINGE BENEFITS	5.08

**PAINTERS: CONTINUED**

Spray, Sandblast, Power Tools, Waterblast, Steam Cleaning; Brush & Roller of Mastics, Creosotes, Kwinch Koate and Coal Tar Epoxy: HEAVY & HIGHWAY  
 BASE RATE \$19.20  
 FRINGE BENEFITS 5.08

Spray of Mastics, Creosotes, Kwinch Koate and Coal Tar Epoxy: HEAVY & HIGHWAY  
 BASE RATE \$20.20  
 FRINGE BENEFITS 5.08

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**PLUMBERS & PIPEFITTERS:**  
 BASE RATE \$16.65  
 FRINGE BENEFITS 1.02

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**ROOFERS: (Excluding Metal Roofs)**  
 BASE RATE \$18.90  
 FRINGE BENEFITS 6.79

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**SHEETMETAL WORKERS: (Including Metal Roofs)**  
 BASE RATE \$26.35  
 FRINGE BENEFITS 11.07

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**SPRINKLER FITTERS:**  
 BASE RATE \$29.55  
 FRINGE BENEFITS 17.22

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**TRUCK DRIVERS / BUILDING:**  
 BASE RATE \$18.31  
 FRINGE BENEFITS \*9.24

Truck Drivers performing work on or hauling from a hazardous or toxic waste site, add \$4.00 to base.

\*TRUCK DRIVER Fringe benefits - Apply to each employee (whose name appears on the payroll that week) who has been employed a minimum of twenty (20) work days within any ninety (90) consecutive day period for that employer.

**TRUCK DRIVERS / HEAVY HIGHWAY:**

Four-wheel service trucks, four-wheel dump trucks, Batch Trucks, Oil Distributors, Asphalt Distributors: HEAVY & HIGHWAY  
 BASE RATE \$19.34  
 FRINGE BENEFITS 7.02

Tandems: HEAVY & HIGHWAY  
 BASE RATE \$19.39  
 FRINGE BENEFITS 7.02

Tractor-Trailer; including semi-tractors, pole-trailers, ready-mix trucks; fuel trucks, asphalt-oil spraybar men (see also next line): HEAVY & HIGHWAY  
 BASE RATE \$19.44  
 FRINGE BENEFITS 7.02

Asphalt-Oil spraybar men when operated from cab, Five-Axle trucks & over: HEAVY & HIGHWAY  
 BASE RATE \$19.54  
 FRINGE BENEFITS 7.02

**TRUCK DRIVERS / HEAVY HIGHWAY: CONTINUED**

Belly Dumps, End Dumps, Articulated Dumps, Low-boys & Heavy Duty Equipment, Truck Mechanics: HEAVY & HIGHWAY	BASE RATE	\$19.81
	FRINGE BENEFITS	7.02

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**END OF DOCUMENT**  
**CR 8-019**  
**June 25, 2013**

**PROJECT MANUAL**

**FOR**

**CONTRACT 1 - BULLOCK PEN LAKE SEWER AND  
CONTRACT 2 - BINGHAM PUMP STATION RELOCATION**

**OWNER:**

**GRANT COUNTY SANITARY SEWER DISTRICT**

**AUGUST, 2013**

**CMW, INC  
400 E. VINE STREET  
SUITE 400  
LEXINGTON, KENTUCKY 40507**

**CMW PROJECT NO. 11049.01**

**KIA PROJECT NO. SX21081307 and SX21081308**

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**ADVERTISEMENT FOR BIDS**

Separate sealed BIDS for Contract #1 Bullock Pen Lake Sewer and Contract #2 Bingham Pump Station Relocation, will be received by the OWNER at the office of Grant County Sanitary Sewer District, 1 Farrell Drive, Crittenden, Kentucky, until 11:00 a.m., local time, on Tuesday, October 8, 2013, and then at said office publicly opened and read aloud.

Construction of Contract #1 Base Bid shall consist of approximately 7,303 LF of 3" force main, 2,255 LF of 2" force main, 1,410 LF 1 1/2" force main, 5,130 LF of 1 1/4" force main, 8 sewage combination air valves, 8 flushing stations, 39 individual grinder pumps, 80 LF of road bores and steel encasement, 790 LF of free bore, 515 LF of bores with PVC encasement pipe and all necessary appurtenances.

Construction of Contract #1 Alternate #1 shall consist of approximately 505 LF of 2" force main, 370 LF of 1 1/2" force main, 335 LF of 1 1/4" HDPE force main, 4 individual grinder pumps, 1 flushing station, 25 LF of free bore and all necessary appurtenances.

Construction of Contract #1 Alternate #2 shall consist of approximately 530 LF of 1 1/2" force main, 1,115 LF of 1 1/4" force main, 50 LF bore with steel encasement, 1 flushing station, 3 individual grinding pumps and all necessary appurtenances.

Construction of Contract #2 Base Bid shall consist of approximately 92 LF of 8" PVC gravity sewer, 81 LF of 6" force main, 1 manhole, elimination of existing pump station, 1 submersible pump station, generator, and all necessary appurtenances.

Contractor may be on either Contract #1, Contract #2 or both contracts.

The CONTRACT DOCUMENTS may be examined at the following locations:

CMW, Inc., 400 East Vine Street, Suite 400, Lexington, KY  
Grant County Sanitary Sewer District, 1 Farrell Drive, Crittenden, Kentucky.  
Allied Construction Industries, 1010 Yale Avenue, Cincinnati, OH  
Reed Construction Data/ABC Plan Room, 1812 Taylor Avenue, Louisville, KY  
Reed Construction Data/ABC Plan Room, 2020 Liberty Road, Suite 110, Lexington, KY  
Builders Exchange, 225 Walton Ave, Suite 100, Lexington, KY  
Builders Exchange, 2300 Meadow Drive, Louisville, KY

Copies of the CONTRACT DOCUMENTS may be obtained from Lynn Imaging, 328 Old East Vine Street, Lexington, KY 40507, phone 859\255-1021 upon payment of \$75.00 (non-refundable) for each set. Make checks payable to CMW, Inc.

If bidding documents are requested to be sent by mail, an additional cost for each set to cover cost of handling and postage will be required. This check should be made payable to Lynn Imaging.

The Owner reserves the right to waive any informalities or to reject any or all bids.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information for Bidders.

No bidder may withdraw his bid for within 90 days after the date of the opening thereof.

**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

The award will be made to the lowest, responsive, responsible bidder.

This procurement will be subject to regulations contained in 40 CFR Part 31.36 or with Division of Water Procurement Guidance including the Davis-Bacon Act.

Bidders must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act and 40 CFR 31.36 L (3,4 & 6).

Bidders must comply with the President's Executive Order No. 11246 as amended, which prohibits discrimination in employment regarding race, creed, color, sex or national origin.

This project is in compliance with Executive Order 11246 (Equal Employment Opportunity) as amended.

The Contractor / Subcontractor will comply with 41 CFR 60-4, in regard to affirmative action to insure equal opportunity to females and minorities and will apply the time tables and goal set forth in 41 CFR 60-4 if applicable to the area of the project.

Bidder will make positive efforts to use small, minority, women owned and disadvantaged businesses.

September 25, 2013

Date

GRANT COUNTY SANITARY SEWER DISTRICT  
BOBBY BURGESS, CHAIRMAN

CMW, INC.  
400 EAST VINE STREET, SUITE 400  
LEXINGTON, KENTUCKY

**INFORMATION FOR BIDDERS**

BIDS will be received by Grant County Sanitary Sewer District (herein called the "OWNER"), at the office of Grant County Sanitary Sewer District, 1 Farrell Drive, Crittenden, Kentucky, until 11:00 a.m., local time, on Tuesday, October 8, 2013, and then at said office publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to Grant County Sanitary Sewer District, P.O. Box 460, Crittenden, Kentucky 41311. Each sealed envelope containing a BID must be plainly marked on the outside as BID for Contract #1 Bullock Pen Lake Sewer or Contract #2 Bingham Pump Station Relocation and the envelope should bear on the outside the BIDDER'S name, address, and license number if applicable, and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at P. O. Box 460, Crittenden, Kentucky 41311.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one copy of the BID form is required.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above 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 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information which is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve the contractor from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID bond payable to the OWNER for five percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the Agreement is executed the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

A performance BOND and a payment BOND each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and BOND forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the Property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable performance BOND, payment BOND and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw the signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER AND CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as deemed 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 Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

Award will be made to the lowest responsive responsible BIDDER unless all bids are rejected. The basis for determining responsiveness is based on bidder completing required forms in bid and submit bid prior to 11:00 a.m. on opening day. The basis for determination responsibility is based on previous work done by bidder and positive recommendation by the project OWNER or ENGINEER.

All applicable laws, 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 in fully.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

CONTRACTOR is expected to include in his bid price an amount to cover Federal, State or Local taxes including but not limited to excise taxes, gross profit taxes, sales taxes, use taxes, occupational taxes, business privilege taxes and others which CONTRACTOR or his subcontractors may be required to bear whether directly or indirectly in connection with execution or performance of this Contract. CONTRACTOR will not otherwise be reimbursed or compensated for such tax payments. CONTRACTOR is urged to ascertain at his own risk his actual tax liability in connection with execution or performance of his Contract.

CONTRACTORS shall complete work within 90 consecutive calendar days for Contract #1 Base Bid, 10 consecutive calendar days for Contract #1 Alternate #1, and 10 consecutive calendar days for Contract #1 Alternate #2 and 120 consecutive calendar days for Contract #2. Liquidated damages will be charged at \$500 for each consecutive calendar day.

CONTRACTORS shall be in compliance with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act and the Contract Work Hours Standards Act.

All BIDDERS are required to have a DUNS Number and a Central Contractor Registration Number (CCR).

The ENGINEER IS CMW, Inc. The ENGINEER'S address is 400 East Vine Street, Suite 400, Lexington, KY 40507.

END OF SECTION 00100

**BID**

**CONTRACT #1 – BULLOCK PEN LAKE SEWER  
GRANT COUNTY  
GRANT COUNTY SANITARY SEWER DISTRICT**

Proposal of \_\_\_\_\_ (hereinafter called "BIDDER"), a  
\_\_\_\_\_ \* organized and existing under the laws of the State of  
\_\_\_\_\_ doing business as \_\_\_\_\_ \*.

To the Grant County Sanitary Sewer District (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of Contract #1 - Bullock Pen Lake Sewer, Grant County, in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, the BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the Base Bid within 90 consecutive calendar days, Alternate #1 within 10 consecutive calendar days and Alternate #2 within 10 consecutive calendar days. BIDDER further agrees to pay as liquidated damages, the sum of \$500 for each consecutive calendar day thereafter as hereinafter provided in Section 15 of the General Conditions.

BIDDER acknowledges receipt of the following ADDENDUM:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices:

NOTE: BIDS shall include sales tax and all other applicable taxes and fees.

- (1) BIDS shall include sales tax and all other applicable taxes and fees.

\* Insert "a corporation", "a partnership", or "an individual" as applicable.

- (2) Breakdown of work is for general information. Any work shown on Drawings and/or specified but not listed below shall be included in total base bid. Cost of items of work not specifically described below may be added to related bid item(s) at bidder's discretion.

**BID SCHEDULE**

Part I: Base Bid

<b>Item No.</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Amount</b>
1.	3" HDPE Force Main	7303	LF	\$	\$
2.	2" HDPE Force Main	2255	LF	\$	\$
3.	1 ½" Force Main HDPE	1410	LF	\$	\$
4.	1 ¼" HDPE Force Main	5130	LF	\$	\$
5.	Connection to Existing Manhole	1	EA	\$	\$
6.	Bored and Steel Encasement for 3" Force Main	80	LF	\$	\$
7.	Free Bore for 3" Force Main	20	LF	\$	\$
8.	Free Bore for 2" Force Main	70	LF	\$	\$
9.	Free Bore for 1 ½" Force Main	105	LF	\$	\$
10.	Free Bore for 1 ¼" Force Main	80	LF	\$	\$
11.	Road Bore for 2" Force Main with 3" PVC Encasement Pipe	30	LF	\$	\$
12.	Road Bore for 1 ½" Force Main with 2" PVC Encasement Pipe	60	LF	\$	\$
13.	Road Bore for 1 ¼" Force Main with 2" PVC Encasement Pipe	425	LF	\$	\$
14.	Sewage Combination Air Valve with Box and Cover for Low Pressure Force Main	8	EA	\$	\$
15.	Flushing Station	8	EA	\$	\$

**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total Amount
16.	Individual Grinder Pumps including wet well, piping, valves, check valve lateral assembly and Necessary Appurtenances	39	EA	\$	\$
17.	Extra Crushed Stone Bedding (Undercut)	50	TONS	\$	\$

Total Part I (Base Bid - Contract #1) \$ \_\_\_\_\_  
(Use Figures)

(Use Words)

**Part II: Alternate Bid #1 - Contract #1**

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total Amount
1.	2" HDPE Force Main	505	LF	\$	\$
2.	1 ½" HDPE Force Main	370	LF	\$	\$
3.	1 ¼" HDPE Force Main	335	LF	\$	\$
4.	Individual Grinder Pumps, Including Wet Well and All Piping, Gate Valve and Check Valve (Lateral Assembly) on Force Main and Necessary Appurtenances	4	EA	\$	\$
5.	Flushing Station	1	EA	\$	\$
6.	Free Bore for 2" Force Main	25	LF	\$	\$

Total Part II: (Alternate Bid #1 – Contract #1) \$ \_\_\_\_\_  
(Use Figures)



**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

Part II: Alternate Bid #2 – Contract #1

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total Amount
1.	1 ½" HDPE Force Main	530	LF	\$	\$
2.	1 ¼" HDPE Force Main	1115	LF	\$	\$
3.	Individual Grinder Pumps, Including Wet Well and All Piping, Gate Valve and Check Valve (Lateral Assembly) on Force Main and Necessary Appurtenances	3	EA	\$	\$
4.	Flushing Station	1	EA	\$	\$
5.	Bore with Steel Encasement for 1 ½" Pipe	60	LF	\$	\$
6.	Road Bore for 1 ¼" Force Main with 2" PVC Encasement Pipe	50	LF	\$	\$

Total Part II: (Alternate Bid #2 – Contract #1)

\$ \_\_\_\_\_  
(Use Figures)

Total (Base Bid & Alternate Bids – Contract #1)

\$ \_\_\_\_\_  
(Use Figures)

\_\_\_\_\_  
(Use Words)

SUBTOTALS AND TOTAL AMOUNTS SHALL BE SHOWN IN BOTH WORDS AND FIGURES. IN CASE OF DISCREPANCIES, THE AMOUNT AS WRITTEN IN WORDS SHALL GOVERN.

The above price shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the General Conditions.

Award of the Contract will be based on the lowest and best Total Base Bid and Alternate Bids.

The Bidder agrees that the Owner reserves the right to delete the whole or any part of the project from the Contract.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within ten (10) days and deliver a surety bond or bonds as required by the bid security attached in the sum of \_\_\_\_\_ \$\_\_\_\_\_ is to become the property of the Owner in the Event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted:

\_\_\_\_\_  
(Name of Contracting Firm)

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_

\_\_\_\_\_  
DUNS Number

\_\_\_\_\_  
Central Contractor Registration Number (CCR)

Seal (If Bid by Corporation)

Attest: \_\_\_\_\_

**BID**

**CONTRACT #2 - BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY  
GRANT COUNTY SANITARY SEWER DISTRICT**

Proposal of \_\_\_\_\_ (hereinafter called "BIDDER"), a  
\_\_\_\_\_ \* organized and existing under the laws of the State of  
\_\_\_\_\_ doing business as \_\_\_\_\_\*.

To the Grant County Sanitary Sewer District (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the construction of Contract #2 - Bingham Pump Station Relocation, Grant County, in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, the BIDDER certifies, and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the Base Bid within 120 consecutive calendar days. BIDDER further agrees to pay as liquidated damages, the sum of \$500 for each consecutive calendar day thereafter as hereinafter provided in Section 15 of the General Conditions.

BIDDER acknowledges receipt of the following ADDENDUM:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices:

NOTE: BIDS shall include sales tax and all other applicable taxes and fees.

- (1) BIDS shall include sales tax and all other applicable taxes and fees.

\* Insert "a corporation", "a partnership", or "an individual" as applicable.

- (2) Breakdown of work is for general information. Any work shown on Drawings and/or specified but not listed below shall be included in total base bid. Cost of items of work not specifically described below may be added to related bid item(s) at bidder's discretion.

**BID SCHEDULE**

Part I: Base Bid

<b>Item No.</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Amount</b>
1.	8" PVC Sanitary Sewer SDR 35	92	LF	\$	\$
2.	6" PVC Force Main	81	LF	\$	\$
3.	Standard Manhole (5.01' to 8.0')	1	EA	\$	\$
4.	Lower Existing Manhole Top	3	EA	\$	\$
5.	Submersible Sewage Pump Station including Wet Well, Valve Vault, Fencing, All Piping, Grading, Crushed Stone, Access Road and Necessary Appurtenances	1	EA	\$	\$
6.	125 KW Generator w/Transfer Switches	1	EA	\$	\$
7.	Rehabilitation of Ex Pump Station including removal of pumps and piping, fill and construct channel in wet well to specified inverts, and temporary by-pass pumping around wetwell.	1	EA	\$	\$
8.	Silt Fencing	1	LS	\$	\$
9.	Extra Crushed Stone Bedding (Undercut)	20	TONS	\$	\$

Total Part I (Base Bid – Contract #2)

\$ \_\_\_\_\_  
(Use Figures)

\_\_\_\_\_  
(Use Words)

SUBTOTALS AND TOTAL AMOUNTS SHALL BE SHOWN IN BOTH WORDS AND FIGURES. IN CASE OF DISCREPANCIES, THE AMOUNT AS WRITTEN IN WORDS SHALL GOVERN.

The above price shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the General Conditions.

**BULLOCK PEN LAKE SEWER / BINGHAM PUMP STATION RELOCATION  
GRANT COUNTY SANITARY SEWER DISTRICT**

**11049.08**

Award of the Contract will be based on the lowest and best Total Base Bid and Alternate Bids.

The Bidder agrees that the Owner reserves the right to delete the whole or any part of the project from the Contract.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within ten (10) days and deliver a surety bond or bonds as required by the bid security attached in the sum of \_\_\_\_\_ \$ \_\_\_\_\_ is to become the property of the Owner in the Event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted:

\_\_\_\_\_  
(Name of Contracting Firm)

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_  
DATE: \_\_\_\_\_

\_\_\_\_\_  
DUNS Number

\_\_\_\_\_  
Central Contractor Registration Number (CCR)

Seal (If Bid by Corporation)

Attest: \_\_\_\_\_

**Exhibit F-4  
BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_  
\_\_\_\_\_ as Principal, and \_\_\_\_\_  
\_\_\_\_\_ as Surety, are hereby held and firmly  
bound unto \_\_\_\_\_  
as OWNER in the penal sum of \_\_\_\_\_

for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

The Condition of the above obligation is such that whereas the Principal has submitted to \_\_\_\_\_ a certain  
BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then, this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

\_\_\_\_\_(L.S.)  
Principal

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

IMPORTANT -- Surety companies executing BONDS must appear on the Treasury Department's most current list (circular 570 as amended) and be authorized to transact business in the state where the project is located.

**AUTHENTICATION OF BID AND AFFIDAVIT OF NON-COLLUSION AND  
NON-CONFLICT OF INTEREST**

I hereby swear (or affirm) under the penalty for false swearing as provided by KRS 432.170:

1. That I am the bidder (if the bidder is an individual), a partner in the bidder (if the bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the bidder is a corporation);
2. That the attached bid has been arrived at by the bidder independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment, or services described in the Invitation to Bid, designed to limit independent bidding or competition;
3. That the contents of the bid has not been communicated by the bidder or its employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid and will not be communicated to any such person prior to the official opening of the bid;
4. That the bidder is legally entitled to enter into the contracts with the Grant County Sanitary Sewer District and is not in violation of any prohibited conflicts of interest;
5. (Applicable to corporations only) That as a foreign corporation we are registered with the Secretary of State, Commonwealth of Kentucky, and authorized to do business in the State of \_\_\_\_\_ or, that as a domestic corporation we are in good standing with the Secretary of State, Commonwealth of Kentucky \_\_\_\_\_. (Check the statement applicable.)
6. That this offer is for 90 calendar days from the date this bid is opened. In submitting the above, it is expressly agreed that, upon proper acceptance by Grant County Sanitary Sewer District of any or all items bid above, a contract shall thereby be created with respect to the items accepted.
7. That I have fully informed myself regarding the accuracy of the statements made in this Affidavit.

**READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID**

Signed by \_\_\_\_\_

Title \_\_\_\_\_

Firm \_\_\_\_\_ Telephone No. \_\_\_\_\_

Address \_\_\_\_\_ Area Code \_\_\_\_\_

\_\_\_\_\_ Date \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

END OF SECTION 00400

**AGREEMENT**

THIS AGREEMENT, made this \_\_\_\_ day of \_\_\_\_\_, 2013, by and between Grant County Sanitary Sewer District hereinafter called "OWNER" and \_\_\_\_\_, doing business as a \_\_\_\_\_, hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of Contract # \_\_\_\_\_.
2. The CONTRACTOR will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 10 calendar days after the date of the NOTICE TO PROCEED and will complete the same within \_\_\_\_ calendar days, unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ \_\_\_\_\_ or as shown in the BID schedule.
5. The term "CONTRACT DOCUMENTS" means and includes the following:
  - A. Advertisement
  - B. Information to Bidders
  - C. Bid
  - D. Bid Bond
  - E. Authentication of Bid



- F. Agreement
- G. Performance Bond
- H. Payment Bond
- I. General Conditions
- J. Notice of Award
- K. Notice to Proceed
- L. Change Order
- M. Drawings prepared by CMW, Inc. numbered 0.1 through 2.4 dated August 2013.
- N. SPECIFICATIONS prepared or issued by CMW, Inc., dated August 2013.
- O. ADDENDA:

No. \_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.  
\_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.  
\_\_\_\_\_, dated \_\_\_\_\_, 20\_\_\_\_.

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT

**DOCUMENTS.**

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized official, this Agreement in 6 copies each of which shall be deemed an original on the date first above written.

OWNER:

GRANT COUNTY SANITARY SEWER DISTRICT

BY \_\_\_\_\_

NAME Bobby Burgess  
(Please Type)

TITLE Chairman

(SEAL)

ATTEST:

\_\_\_\_\_

NAME \_\_\_\_\_  
(Please Type)

TITLE Secretary

BY \_\_\_\_\_

NAME \_\_\_\_\_  
(Please Type)

ADDRESS \_\_\_\_\_

\_\_\_\_\_

EMPLOYER IDENTIFICATION NUMBER:

\_\_\_\_\_

(SEAL)

ATTEST:

\_\_\_\_\_

NAME \_\_\_\_\_  
(Please Type)

TITLE \_\_\_\_\_

END OF SECTION

AGREEMENT

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_ (Name of Contractor)

\_\_\_\_\_ (Address of Contractor)

a, \_\_\_\_\_ hereinafter called Principal, and  
(Corporation, Partnership, or Individual)

\_\_\_\_\_ (Name of Surety)

\_\_\_\_\_ (Address of Surety)

hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_ (Name of Owner)

\_\_\_\_\_ (Address of Owner)

hereinafter called OWNER, in the penal sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars, (\$ \_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the day of , 20\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims

and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_(number) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of, \_\_\_\_\_ 20\_\_\_\_ .

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Principal Secretary

By(s)\_\_\_\_\_

(SEAL)

\_\_\_\_\_  
(Witness as to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Surety

ATTEST:

\_\_\_\_\_  
Surety Secretary

\_\_\_\_\_

(SEAL)

\_\_\_\_\_  
(Witness as to Surety)

By \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_

\_\_\_\_\_

NOTE: Date of BOND must not be prior to date of Contract.  
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and must be authorized to transact business in the state where the PROJECT is located.

**Exhibit F-7  
PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_, hereinafter called Principal, and  
(Corporation, Partnership, or Individual)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_  
(Name of Owner)

\_\_\_\_\_  
(Address of Owner)

hereinafter called OWNER, in the penal sum of \_\_\_\_\_

\_\_\_\_\_ Dollars, (\$ \_\_\_\_\_ )  
in lawful money of the United States, for the payment of which sum well and truly to be  
made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these  
presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered  
into a certain contract with the OWNER, dated the \_\_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction  
of: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW THEREFORE, if the Principal shall promptly make payments to all persons, firms,  
SUBCONTRACTORS, and corporations furnishing materials for or performing labor in  
the prosecution of the WORK provided for in such contract, and any authorized  
extension or modification thereof, including all amounts due for materials, lubricants, oil,  
gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in  
connection with the construction of such WORK, and all insurance premiums on said  
WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or  
otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said surety, for value received hereby stipulates and  
agrees that no change, extension of time, alteration or addition to the terms of the  
contract or to the WORK to be performed thereunder or the SPECIFICATIONS  
accompanying the same shall in any way affect its obligation on this BOND, and it does

hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each (Number) one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

ATTEST:

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Principal Secretary

By \_\_\_\_\_ (s)

(SEAL)

\_\_\_\_\_  
(Witness as to Principal) (Address)

\_\_\_\_\_

\_\_\_\_\_  
(Address)

\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Surety Secretary

By \_\_\_\_\_ (s)

(SEAL)

\_\_\_\_\_  
(Witness as to Surety) Attorney-in-Fact

By \_\_\_\_\_

\_\_\_\_\_  
(Address) (Address)

\_\_\_\_\_

NOTE: Date of BOND must not be prior to date of Contract.  
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and must be authorized to transact business in the state where the PROJECT is located.

## GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in the Contract Price
15. Time for Completion and Liquidated Damages

16. Correction of Work
17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
19. Payments to Contractor
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights-of-Way
29. Guaranty
30. Arbitration
31. Taxes

## 1. DEFINITIONS

1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

1.2 ADDENDA -- Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications or corrections.

1.3 BID -- The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.

1.4 BIDDER -- Any person, firm or corporation submitting a BID for the WORK.

1.5 BONDS -- Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.

1.6 CHANGE ORDER -- A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.

1.7 CONTRACT DOCUMENTS -- The contract, including Advertisement For Bids, Information for Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.



1.8 CONTRACT PRICE -- The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

1.9 CONTRACT TIME -- The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

1.10 CONTRACTOR -- The person, firm or corporation with whom the OWNER has executed the Agreement.

1.11 DRAWINGS -- The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.

1.12 ENGINEER -- The person, firm or corporation named as such in the CONTRACT DOCUMENTS.

1.13 FIELD ORDER -- A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.

1.14 NOTICE OF AWARD -- The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.

1.15 NOTICE TO PROCEED -- Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.

1.16 OWNER -- A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the WORK is to be performed.

1.17 PROJECT -- The undertaking to be performed as provided in the CONTRACT DOCUMENTS.

1.18 RESIDENT PROJECT REPRESENTATIVE -- The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.

1.19 SHOP DRAWINGS -- All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.

1.20 SPECIFICATIONS -- A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 SUBCONTRACTOR -- An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the work at the site.

1.22 SUBSTANTIAL COMPLETION -- That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the

PROJECT or specified part can be utilized for the purposes for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS -- Modifications to General Conditions required by a Federal agency for participation in the PROJECT and approved by the agency in writing prior to inclusion in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.

1.24 SUPPLIER -- Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

1.25 WORK -- All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

1.26 WRITTEN NOTICE--Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

## 2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS

2.1 The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

2.2 The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

## 3. SCHEDULES, REPORTS AND RECORDS

3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.

3.2 Prior to the first partial payment estimate the CONTRACTOR shall submit construction progress schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part and, as applicable:

3.2.1 The dates at which special detail drawings will be required; and

3.2.2 Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK.

## 4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

4.2 In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.

4.3 Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

## 5. SHOP DRAWINGS

5.1 The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the

CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

5.2 When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

5.3 Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

## 6. MATERIALS, SERVICES AND FACILITIES

6.1 It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

6.2 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK.

Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

6.4 Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

6.5 Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## 7. INSPECTION AND TESTING

7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS.

7.2 The OWNER shall provide all inspection and testing services not required by the CONTRACT DOCUMENTS.

7.3 The CONTRACTOR shall provide at his expense the testing and inspection services required by the CONTRACT DOCUMENTS.

7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

7.5 Inspections, tests or approvals by the engineer or others shall not relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

7.6 The ENGINEER and his representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.

7.7 If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for his observation and re-placed at the CONTRACTOR'S expense.

7.8 If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover,

expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools. And equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

## 8. SUBSTITUTIONS

8.1 Whenever a material, article or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be

deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

## 9. PATENTS

9.1 The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

## 10. SURVEYS, PERMITS, REGULATIONS

10.1 The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CON-

TRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

## 11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The CONTRACTOR will be responsible for initiating, maintaining

and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

## 12. SUPERVISION BY CONTRACTOR

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

## 13. CHANGES IN THE WORK

13.1 The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase

or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

## 14. CHANGES IN CONTRACT PRICE

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved.
- (b) An agreed lump sum.
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15)

percent of the actual cost of the WORK to cover the cost of general overhead and profit.

## 15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

15.3 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of

such delay to the OWNER or ENGINEER.

15.4.1 To any preference, priority or allocation order duly issued by the OWNER.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather: and

15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

## 16. CORRECTION OF WORK

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and reexecute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten



(10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

## 17. SUBSURFACE CONDITIONS

17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS: or

17.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

17.2 The OWNER shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE; provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

## 18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

18.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take

possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery, thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the 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 and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

18.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the Contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the

CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

#### 19. PAYMENTS TO CONTRACTOR

19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER's title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a

progress payment on the basis of the approved partial payment estimate. The OWNER shall retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the CONTRACT DOCUMENTS. The OWNER at any time, however, after fifty (50) percent of the WORK has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five (5%) percent on the current and remaining estimates. When the WORK is substantially complete (operational or beneficial occupancy), the retained amount may be further reduced below five (5) percent to only that amount necessary to assure completion. On completion and acceptance of a part of the WORK on which the price is stated separately in the CONTRACT DOCUMENTS, payment may be made in full, including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably, stored either at or near the site.

19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.

19.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole

responsibility for the care and protection of the WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

19.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.

19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agent s harmless from all claims growing out of the lawful demands of SUBCONTRACTORS, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the

CONTRACTOR shall be resumed, in accordance, with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

19.7 If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

## 20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT

DOCUMENTS or the Performance BOND and Payment BONDS.

## 21. INSURANCE

21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation disability benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.2 Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the

WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified;

21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any SUBCONTRACTOR under him, or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR under him. Insurance shall be written with a limit of liability of not less than, \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$200,000 aggregate for any such damage sustained by two or more persons in any one accident.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.

21.4 The CONTRACTOR shall procure and maintain at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any work is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount

of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, the ENGINEER, and the OWNER.

## 22. CONTRACT SECURITY

22.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal BONDS, CONTRACTOR shall within

ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

### 23. ASSIGNMENTS

23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

### 24. INDEMNIFICATION

24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

### 25. SEPARATE CONTRACTS

25.1 The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that renders it unsuitable for such proper execution and results.

25.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefor as provided in Sections 14 and 15.

## 26. SUBCONTRACTING

26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(s), in excess of fifty (50%) percent of the CONTRACT PRICE, without prior written approval of the OWNER.

26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

26.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

## 27. ENGINEER'S AUTHORITY

27.1 The ENGINEER shall act as the OWNER'S representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and



execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.

27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

## 28. LAND AND RIGHTS-OF-WAY

28.1 Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS unless otherwise mutually agreed.

28.2 The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired.

28.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

## 29. GUARANTY

29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the system that the

completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance BOND shall remain in full force and effect through the guarantee period.

## 30. ARBITRATION

30.1 All claims, disputes and other matters in question arising out of, or relating to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by the making and acceptance of final payment as provided by Section 20, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

30.2 Notice of the demand for arbitration shall be filed in writing with the other party to the CONTRACT DOCUMENTS and with the American Arbitration Association, and a copy shall be filed with the ENGINEER. Demand for arbitration shall in no event be made

and any claim, dispute or other matter in question which would be barred by the applicable statute of limitations.

30.3 The CONTRACTOR will carry on the WORK and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

### 31. TAXES

31.1 The CONTRACTOR will pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed.

**SUPPLEMENTAL GENERAL CONDITIONS**  
**FOR**  
**CLEAN WATER STATE REVOLVING FUND**  
**DRINKING WATER STATE REVOLVING FUND**  
**(Drinking Water and Wastewater)**

**Project Name: Bullock Pen Lake and Sewer and**  
**Bingham Pump Station Relocation**

**Project Number: A12-01**

The attached instructions and regulations as listed below shall be incorporated into the Specifications and comprise Special Conditions.

	<u>Attachment No.</u>
<b>SRF Special Provisions</b>	<b>1</b>
<b>40 CFR 31.36 (Procurement)-grants only</b>	<b>2</b>
<b>KRS Chapter 45A-Kentucky Model Procurement Code-loans only</b>	<b>3</b>
<b>Equal Employment Opportunity (EEO) Documents:</b>	
<b>Notice of Requirement for Affirmative Action</b>	<b>4</b>
<b>Contract Specifications (Executive Order 11246)</b>	<b>5</b>
<b>EEO Goals for Region 4 Economic Areas</b>	<b>6</b>
<b>Special Notice #1 - Check List of EEO Documentation</b>	<b>7</b>
<b>Employer Information Report EEO-1 (SF 100)</b>	<b>8</b>
<b>Labor Standards Provisions for Federally Assisted Construction, EPA Form 5720-4</b>	<b>9</b>
<b>Certifications</b>	
<b>Debarment, Suspension and Other Responsibility Matters</b>	<b>10</b>
<b>Anti-lobbying</b>	<b>11</b>
<b>Region 4 Disadvantaged Business Enterprise (DBE)</b>	<b>12</b>
<b>Negotiated Rates as of October 1, 2010</b>	<b>13</b>
<b>Bonds and Insurance</b>	<b>14</b>
<b>Outlay Management Schedule</b>	<b>15</b>
<b>Storm Water General Permit</b>	<b>16</b>
<b>Davis Bacon Requirements</b>	<b>17</b>
<b>Wage Rate Requirements under FY 2012 Appropriations</b>	<b>18</b>

**SRF SPECIAL PROVISIONS**

- (a) **Line crossings of all roads and streets shall be done in accordance with the Kentucky Transportation Cabinet requirements as may be set forth in the Special Conditions.**
- (b) **Construction is to be carried out so as to prevent by-passing of flows during construction unless a schedule has been approved by the State or EPA, whichever is applicable. Siltation and soil erosion must be minimized during construction. All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at the following web address: <https://dep.gateway.ky.gov/eForms/default.aspx?FormID=7>.**

**If you have any questions regarding the completion of this form call the Surface Water Permits Branch at (502) 564-3410.**

- (c) **Restore disturbed areas to original or better condition.**
- (d) **Use of Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either DOW or EPA. Use of all such chemicals and disposal of residues shall be in conformance with instructions on the manufacturer's label.**
- (e) **The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of state, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.**
- (f) **The owner shall provide and maintain competent and adequate supervision and inspection.**
- (g) **The Kentucky Infrastructure Authority and Kentucky Division of Water shall have access to the site and the project work at all times.**
- (h) **In the event Archaeological materials (arrowheads, stone tools, stone axes, prehistoric and historic pottery, bottles, foundations, Civil War artifacts, and other types of artifacts) are uncovered during the construction of this project, work is to immediately cease at the location and the Kentucky Heritage Council shall be contacted. The telephone number is (502) 564-7005. Construction shall commence at this location until a written release is received from the Kentucky Heritage Council. Failure to report a find could result in legal action.**
- (i) **This procurement will be subject to DOW Procurement Guidance including the Davis-Bacon Act.**
- (j) **Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.**
- (k) **No wastewater bypassing will occur during construction unless a schedule has been approved by the Kentucky Division of Water.**
- (l) **Change orders to the construction contract (if required) must be negotiated pursuant to DOW/KIA Procurement Guidance for Construction and Equipment Contracts.**

**TITLE 40--PROTECTION OF ENVIRONMENT  
CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY**

**PART 31--UNIFORM ADMINISTRATIVE REQUIREMENTS FOR GRANTS AND  
COOPERATIVE AGREEMENTS TO STATE AND LOCAL GOVERNMENTS**

**Subpart C--Post-Award Requirements**

**Sec. 31.36 Procurement.**

(a) States. When procuring property and services under a grant, a State will follow the same policies and procedures it uses for procurements from its non-Federal funds. The State will ensure that every purchase order or other contract includes any clauses required by Federal statutes and executive orders and their implementing regulations. Other grantees and sub-grantees will follow paragraphs (b) through (i) in this section.

(b) Procurement standards. (1) Grantees and sub-grantees will use their own procurement procedures which reflect applicable State and local laws and regulations, provided that the procurements conform to applicable federal law, the standards identified in this section, and if applicable, Sec. 31.38.

(2) Grantees and sub-grantees will maintain a contract administration system which ensures that contractors perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders.

(3) Grantees and sub-grantees will maintain a written code of standards of conduct governing the performance of their employees engaged in the award and administration of contracts. No employee, officer or agent of the grantee or sub-grantee shall participate in selection, or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:

(i) The employee, officer or agent,

(ii) Any member of his immediate family,

(iii) His or her partner, or

(iv) An organization which employs, or is about to employ, any of the above, has a financial or other interest in the firm selected for award. The grantee's or sub-grantee's officers, employees or agents will neither solicit nor accept gratuities, favors or anything of monetary value from contractors, potential contractors, or parties to sub-agreements. Grantee and sub-grantees may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. To the extent permitted by State or local law or regulations, such standards or conduct will provide for penalties, sanctions, or other disciplinary actions for violations of such standards by the grantee's and sub-grantee's officers, employees, or agents, or by contractors or their agents. The awarding agency may in regulation provide additional prohibitions relative to real, apparent, or potential conflicts of interest.

(4) Grantee and sub-grantee procedures will provide for a review of proposed procurements to avoid purchase of unnecessary or duplicative items. Consideration should be given to consolidating or breaking out procurements to obtain a more economical purchase. Where appropriate, an analysis will be made of lease versus purchase alternatives, and any other appropriate analysis to determine the most economical approach.

(5) To foster greater economy and efficiency, grantees and sub-grantees are encouraged to enter into State and local intergovernmental agreements for procurement or use of common goods and services.

(6) Grantees and sub-grantees are encouraged to use Federal excess and surplus property in lieu of purchasing new equipment and property whenever such use is feasible and reduces project costs.

(7) Grantees and sub-grantees are encouraged to use value engineering clauses in contracts for construction projects of sufficient size to offer reasonable opportunities for cost reductions. Value engineering is a systematic and creative analysis of each contract item or task to ensure that its essential function is provided at the overall lower cost.

(8) Grantees and sub-grantees will make awards only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

(9) Grantees and sub-grantees will maintain records sufficient to detail the significant history of procurement. These records will include, but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price.

(10) Grantees and sub-grantees will use time and material type contracts only--

(i) After a determination that no other contract is suitable, and

(ii) If the contract includes a ceiling price that the contractor exceeds at its own risk.

(11) Grantees and sub-grantees alone will be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to source evaluation, protests, disputes, and claims. These standards do not relieve the grantee or sub-grantee of any contractual responsibilities under its contracts. Federal agencies will not substitute their judgment for that of the grantee or sub-grantee unless the matter is primarily a Federal concern. Violations of law will be referred to the local, State, or Federal authority having proper jurisdiction.

(12) Grantees and sub-grantees will have protest procedures to handle and resolve disputes relating to their procurements and shall in all instances disclose information regarding the protest to the awarding agency. A protestor must exhaust all administrative remedies with the grantee and sub-grantee before pursuing a protest with the Federal agency. Reviews of protests by the Federal agency will be limited to:

(i) Violations of Federal law or regulations and the standards of this section (violations of State or local law will be under the jurisdiction of State or local authorities) and

(ii) Violations of the grantee's or sub-grantee's protest procedures for failure to review a complaint or protest. Protests received by the Federal agency other than those specified above will be referred to the grantee or sub-grantee.

(c) Competition. (1) All procurement transactions will be conducted in a manner providing full and open competition consistent with the standards of Sec. 31.36. Some of the situations considered to be restrictive of competition include but are not limited to:

(i) Placing unreasonable requirements on firms in order for them to qualify to do business,

(ii) Requiring unnecessary experience and excessive bonding,

(iii) Noncompetitive pricing practices between firms or between affiliated companies,

(iv) Noncompetitive awards to consultants that are on retainer contracts,

(v) Organizational conflicts of interest,

(vi) Specifying only a "brand name" product instead of allowing "an equal" product to be offered and describing the performance of other relevant requirements of the procurement, and

(vii) Any arbitrary action in the procurement process.

(2) Grantees and sub-grantees will conduct procurements in a manner that prohibits the use of statutorily or administratively imposed in-State or local geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. Nothing in this section preempts State licensing laws. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criteria provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

(3) Grantees will have written selection procedures for procurement transactions. These procedures will ensure that all solicitations:

(i) Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description shall not, in competitive procurements, contain features, which unduly restrict competition. The description may include a statement of the qualitative nature of the material, product or service to be procured, and when necessary, shall set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a "brand name or equal" description may be used

as a means to define the performance or other salient requirements of a procurement. The specific features of the named brand which must be met by offerers shall be clearly stated; and

(ii) Identify all requirements which the offerers must fulfill and all other factors to be used in evaluating bids or proposals.

(4) Grantees and sub-grantees will ensure that all pre-qualified lists of persons, firms, or products which are used in acquiring goods and services are current and include enough qualified sources to ensure maximum open and free competition. Also, grantees and sub-grantees will not preclude potential bidders from qualifying during the solicitation period.

(5) Construction grants awarded under Title II of the Clean Water Act are subject to the following “Buy American” requirements in paragraphs (c)(5) (i)-(iii) of this section. Section 215 of the Clean Water Act requires that contractors give preference to the use of domestic material in the construction of EPA-funded treatment works.

(i) Contractors must use domestic construction materials in preference to nondomestic material if it is priced no more than 6 percent higher than the bid or offered price of the nondomestic material, including all costs of delivery to the construction site and any applicable duty, whether or not assessed. The grantee will normally base the computations on prices and costs in effect on the date of opening bids or proposals.

(ii) The award official may waive the Buy American provision based on factors the award official considers relevant, including:

(A) Such use is not in the public interest;

(B) The cost is unreasonable;

(C) The Agency’s available resources are not sufficient to implement the provision, subject to the Deputy Administrator’s concurrence;

(D) The articles, materials or supplies of the class or kind to be used or the articles, materials or supplies from which they are manufactured are not mined, produced or manufactured in the United States in sufficient and reasonably available commercial quantities or satisfactory quality for the particular project; or

(E) Application of this provision is contrary to multilateral government procurement agreements, subject to the Deputy Administrator's concurrence.

(iii) All bidding documents, subagreements, and, if appropriate, requests for proposals must contain the following “Buy American” provision: In accordance with section 215 of the Clean Water Act (33 U.S.C. 1251 et seq.) and implementing EPA regulations, the contractor agrees that preference will be given to domestic construction materials by the contractor, subcontractors, materialmen and suppliers in the performance of this subagreement.

(d) Methods of procurement to be followed--(1) Procurement by small purchase procedures. Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other properties that do not cost more than the simplified acquisition threshold fixed at 41 U.S.C. 403(11) (currently set at \$100,000). If small purchase procedures are used, price or rate quotations shall be obtained from an adequate number of qualified sources.

(2) Procurement by sealed bids (formal advertising). Bids are publicly solicited and a firm-fixed-price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bid method is the preferred method for procuring construction, if the conditions in 31.36(d)(2)(i) apply.

(i) In order for sealed bidding to be feasible, the following conditions should be present:

(A) A complete, adequate, and realistic specification or purchase description is available;

(B) Two or more responsible bidders are willing and able to compete effectively and for the business; and

(C) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(ii) If sealed bids are used, the following requirements apply:

(A) The invitation for bids will be publicly advertised and bids shall be solicited from an adequate number of known suppliers, providing them sufficient time prior to the date set for opening the bids;

(B) The invitation for bids, which will include any specifications and pertinent attachments, shall define the items or services in order for the bidder to properly respond;

(C) All bids will be publicly opened at the time and place prescribed in the invitation for bids;

(D) A firm fixed-price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life



cycle costs shall be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and

(E) Any or all bids may be rejected if there is a sound documented reason.

(3) Procurement by competitive proposals. The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed-price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:

(i) Requests for proposals will be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals shall be honored to the maximum extent practical;

(ii) Proposals will be solicited from an adequate number of qualified sources;

(iii) Grantees and sub-grantees will have a method for conducting technical evaluations of the proposals received and for selecting awardees;

(iv) Awards will be made to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered; and

(v) Grantees and sub-grantees may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms are a potential source to perform the proposed effort.

(4) Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source, or after solicitation of a number of sources, competition is determined inadequate.

(i) Procurement by noncompetitive proposals may be used only when the award of a contract is infeasible under small purchase procedures, sealed bids or competitive proposals and one of the following circumstances applies:

(A) The item is available only from a single source;

(B) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;

(C) The awarding agency authorizes noncompetitive proposals; or

(D) After solicitation of a number of sources, competition is determined inadequate.

(ii) Cost analysis, i.e., verifying the proposed cost data, the projections of the data, and the evaluation of the specific elements of costs and profits, is required.

(iii) Grantees and sub-grantees may be required to submit the proposed procurement to the awarding agency for pre-award review in accordance with paragraph (g) of this section.

(e) Contracting with small and minority firms, women's business enterprise and labor surplus area firms.

(1) The grantee and sub-grantee will take all necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible.

(2) Affirmative steps shall include:

(i) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(ii) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(iii) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;

(iv) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises;

(v) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce; and

(vi) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (e)(2) (i) through (v) of this section.

(f) Contract cost and price.

(1) Grantees and sub-grantees must perform a cost or price analysis in connection with every procurement action including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, grantees must make independent

estimates before receiving bids or proposals. A cost analysis must be performed when the offerer is required to submit the elements of his estimated cost, e.g., under professional, consulting, and architectural engineering services contracts. A cost analysis will be necessary when adequate price competition is lacking, and for sole source procurements, including contract modifications or change orders, unless price reasonableness can be established on the basis of a catalog or market price of a commercial product sold in substantial quantities to the general public or based on prices set by law or regulation. A price analysis will be used in all other instances to determine the reasonableness of the proposed contract price.

(2) Grantees and sub-grantees will negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. To establish a fair and reasonable profit, consideration will be given to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.

(3) Costs or prices based on estimated costs for contracts under grants will be allowable only to the extent that costs incurred or cost estimates included in negotiated prices are consistent with Federal cost principles (see Sec. 31.22). Grantees may reference their own cost principles that comply with the applicable Federal cost principles.

(4) The cost plus a percentage of cost and percentage of construction cost methods of contracting shall not be used.

(g) Awarding agency review.

(1) Grantees and sub-grantees must make available, upon request of the awarding agency, technical specifications on proposed procurements where the awarding agency believes such review is needed to ensure that the item and/or service specified is the one being proposed for purchase. This review generally will take place prior to the time the specification is incorporated into a solicitation document. However, if the grantee or sub-grantee desires to have the review accomplished after a solicitation has been developed, the awarding agency may still review the specifications, with such review usually limited to the technical aspects of the proposed purchase.

(2) Grantees and sub-grantees must on request make available for awarding agency pre-award review procurement documents, such as requests for proposals or invitations for bids, independent cost estimates, etc. when:

(i) A grantee's or sub-grantee's procurement procedures or operation fails to comply with the procurement standards in this section; or

(ii) The procurement is expected to exceed the simplified acquisition threshold and is to be awarded without competition or only one bid or offer is received in response to a solicitation; or

(iii) The procurement, which is expected to exceed the simplified acquisition threshold, specifies a "brand name" product; or

(iv) The proposed award is more than the simplified acquisition threshold and is to be awarded to other than the apparent low bidder under a sealed bid procurement; or

(v) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the simplified acquisition threshold.

(3) A grantee or sub-grantee will be exempt from the pre-award review in paragraph (g)(2) of this section if the awarding agency determines that its procurement systems comply with the standards of this section.

(i) A grantee or sub-grantee may request that its procurement system be reviewed by the awarding agency to determine whether its system meets these standards in order for its system to be certified. Generally, these reviews shall occur where there is a continuous high-dollar funding, and third-party contracts are awarded on a regular basis.

(ii) A grantee or sub-grantee may self-certify its procurement system. Such self-certification shall not limit the awarding agency's right to survey the system. Under a self-certification procedure, awarding agencies may wish to rely on written assurances from the grantee or sub-grantee that it is complying with these standards. A grantee or sub-grantee will cite specific procedures, regulations, standards, etc., as being in compliance with these requirements and have its system available for review.

(h) Bonding requirements. For construction or facility improvement contracts or subcontracts exceeding the simplified acquisition threshold, the awarding agency may accept the bonding policy and requirements of the grantee or sub-grantee provided the awarding agency has made a determination that

the awarding agency's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:

(1) A minimum bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.

(2) A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

(3) A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

(i) Contract provisions. A grantee's and sub-grantee's contracts must contain provisions in paragraph (i) of this section. Federal agencies are permitted to require changes, remedies, changed conditions, access and records retention, suspension of work, and other clauses approved by the Office of Federal Procurement Policy.

(1) Administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. (Contracts more than the simplified acquisition threshold)

(2) Termination for cause and for convenience by the grantee or sub-grantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

(3) Compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60). (All construction contracts awarded in excess of \$10,000 by grantees and their contractors or sub-grantees)

(4) Compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR part 3). (All contracts and sub-grants for construction or repair)

(5) Compliance with the Davis-Bacon Act (40 U.S.C. 276a-7) as supplemented by Department of Labor regulations (29 CFR part 5). (Construction contracts in excess of \$2000 awarded by grantees and sub-grantees when required by Federal grant program legislation)

(6) Compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR part 5). (Construction contracts awarded by grantees and sub-grantees in excess of \$2000, and in excess of \$2500 for other contracts which involve the employment of mechanics or laborers)

(7) Notice of awarding agency requirements and regulations pertaining to reporting.

(8) 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.

(9) Awarding agency requirements and regulations pertaining to copyrights and rights in data.

(10) Access by the grantee, the sub-grantee, 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.

(11) Retention of all required records for three years after grantees or sub-grantees make final payments and all other pending matters are closed.

(12) Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 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 sub-grants of amounts in excess of \$100,000)

(13) 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, 89 Stat. 871).

(j) Payment to consultants.

(1) EPA will limit its participation in the salary rate (excluding overhead) paid to individual consultants retained by grantees or by a grantee's contractors or subcontractors to the maximum daily rate for a GS-18. (Grantees may, however, pay consultants more than this amount). This limitation applies to

consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. This rate does not include transportation and subsistence costs for travel performed; grantees will pay these in accordance with their normal travel reimbursement practices. (Pub. L. 99-591).

(2) Sub-agreements with firms for services which are awarded using the procurement requirements in this part are not affected by this limitation.

(k) Use of the same architect or engineer during construction.

(1) If the grantee is satisfied with the qualifications and performance of the architect or engineer who provided any or all of the facilities planning or design services for a waste-water treatment works project and wishes to retain that firm or individual during construction of the project, it may do so without further public notice and evaluation of qualifications, provided:

(i) The grantee received a facilities planning (Step 1) or design grant (Step 2), and selected the architect or engineer in accordance with EPA's procurement regulations in effect when EPA awarded the grant; or

(ii) The award official approves noncompetitive procurement under Sec. 31.36(d)(4) for reasons other than simply using the same individual or firm that provided facilities planning or design services for the project; or

(iii) The grantee attests that:

(A) The initial request for proposals clearly stated the possibility that the firm or individual selected could be awarded a sub-agreement for services during construction; and

(B) The firm or individual was selected for facilities planning or design services in accordance with procedures specified in this section.

(C) No employee, officer or agent of the grantee, any member of their immediate families, or their partners have financial or other interest in the firm selected for award; and

(D) None of the grantee's officers, employees or agents solicited or accepted gratuities, favors or anything of monetary value from contractors or other parties to sub-agreements.

(2) However, if the grantee uses the procedures in paragraph (k)(1) of this section to retain an architect or engineer, any Step 3 sub-agreements between the architect or engineer and the grantee must meet all of the other procurement provisions in Sec. 31.36.

[53 FR 8068 and 8087, Mar. 11, 1988, and amended at 53 FR 8075, Mar. 11, 1988; 60 FR 19639, 19644, Apr. 19, 1995; 66 FR 3794, Jan. 16, 2001]

**KRS Chapter 45A**  
**Kentucky Model Procurement Code**

**45A.075 Methods of awarding state contracts.**

Except as otherwise authorized by law, all state contracts shall be awarded by:

- (1) Competitive sealed bidding, pursuant to KRS 45A.080; or
- (2) Competitive negotiation, pursuant to KRS 45A.085 and 45A.090 or 45A.180; or
- (3) Noncompetitive negotiation, pursuant to KRS 45A.095; or
- (4) Small purchase procedures, pursuant to KRS 45A.100.

**Effective:** June 24, 2003

**History:** Amended 2003 Ky. Acts ch. 98, sec. 4, effective June 24, 2003. -- Created 1978 Ky. Acts ch. 110, sec. 16, effective January 1, 1979.

**45A.080 Competitive sealed bidding.**

(1) Contracts exceeding the amount provided by KRS 45A.100 shall be awarded by competitive sealed bidding unless it is determined in writing that this method is not practicable. Factors to be considered in determining whether competitive sealed bidding is not practicable shall include:

- (a) Whether specifications can be prepared that permit award on the basis of best value; and
- (b) The available sources, the time and place of performance, and other relevant circumstances as are appropriate for the use of competitive sealed bidding.

(2) The invitation for bids shall state that awards shall be made on the basis of best value. In any contract which is awarded under an invitation to bid which requires delivery by a specified date and imposes a penalty for late delivery, if the delivery is late, the contractor shall be given the opportunity to present evidence that the cause of the delay was beyond his control. If it is the opinion of the purchasing officer that there is sufficient justification for delayed delivery, the purchasing officer may adjust or waive any penalty that is provided for in the contract.

(3) Adequate public notice of the invitation for bids shall be given a sufficient time prior to the date set forth for the opening of bids. The notice may include posting on the Internet or publication in a newspaper or newspapers of general circulation in the state as determined by the secretary of the Finance and Administration Cabinet not less than seven (7) days before the date set for the opening of the bids. The provisions of this subsection shall also apply to price contracts and purchase contracts of state institutions of higher education.

(4) Bids shall be opened publicly at the time and place designated in the invitation for bids. At the time the bids are opened, the purchasing agency shall announce the agency's engineer's estimate, if applicable, and make it a part of the agency records pertaining to the letting of any contract for which bids were received. Each bid, together with the name of the bidder and the agency's engineer's estimate, shall be recorded and be open to public inspection. Electronic bid opening and posting of the required information for public viewing shall satisfy the requirements of this subsection.

(5) The contract shall be awarded by written notice to the responsive and responsible bidder whose bid offers the best value.

(6) Correction or withdrawal of bids shall be allowed only to the extent permitted by regulations issued by the secretary.

**Effective:** July 14, 2000

**History:** Amended 2000 Ky. Acts ch. 509, sec. 1, effective July 14, 2000. -- Amended 1998 Ky. Acts ch. 120, sec. 10, effective July 15, 1998. -- Amended 1997 (1<sup>st</sup> Extra. Sess.) Ky. Acts ch. 4, sec. 27, effective May 30, 1997. -- Amended 1996 Ky. Acts ch. 60, sec. 2, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 278, sec. 1, effective July 15, 1994. -- Amended 1982 Ky. Acts ch. 282, sec. 1, effective July 15, 1982. -- Amended 1979 (1<sup>st</sup> Extra. Sess.) Ky. Acts ch. 9, sec. 1, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 17, effective January 1, 1979.

#### **45A.085 Competitive negotiation.**

(1) When, under administrative regulations promulgated by the secretary or under KRS 45A.180, the purchasing officer determines in writing that the use of competitive sealed bidding is not practicable, and except as provided in KRS 45A.095 and 45A.100, a contract may be awarded by competitive negotiation.

(2) Adequate public notice of the request for proposals shall be given in the same manner and circumstances as provided in KRS 45A.080(3).

(3) Contracts other than contracts for projects utilizing an alternative project delivery method under KRS 45A.180 may be competitively negotiated when it is determined in writing by the purchasing officer that the bids received by competitive sealed bidding either are unreasonable as to all or part of the requirements, or were not independently reached in open competition, and for which each competitive bidder has been notified of the intention to negotiate and is given reasonable opportunity to negotiate.

(4) Contracts for projects utilizing an alternative project delivery method shall be processed in accordance with KRS 45A.180.

(5) The request for proposals shall indicate the relative importance of price and other evaluation factors.

(6) Award shall be made to the responsible offerer whose proposal is determined in writing to be the most advantageous to the Commonwealth, taking into consideration price and the evaluation factors set forth in the request for proposals.

(7) Written or oral discussions shall be conducted with all responsible offerers who submit proposals determined in writing to be reasonably susceptible of being selected for award. Discussions shall not disclose any information derived from proposals submitted by competing offerers. Discussions need not be conducted:

(a) With respect to prices, where the prices are fixed by law or administrative regulation, except that consideration shall be given to competitive terms and conditions;

(b) Where time of delivery or performance will not permit discussions; or

(c) Where it can be clearly demonstrated and documented from the existence of adequate competition or prior experience with the particular supply, service, or construction item, that acceptance of an initial offer without discussion would result in fair and reasonable best value procurement, and the request for proposals notifies all offerers of the possibility that award may be made on the basis of the initial offers.

**Effective:** June 24, 2003

**History:** Amended 2003 Ky. Acts ch. 98, sec. 5, effective June 24, 2003. – Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 28, effective May 30, 1997. – Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 2, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 18, effective January 1, 1979.

#### **45A.090 Negotiation after competitive sealed bidding when all bids exceed available funds.**

(1) In the event that all bids submitted pursuant to competitive sealed bidding under KRS 45A.080 result in bid prices in excess of the funds available for the purchase, and the chief purchasing officer determines in writing:

(a) That there are no additional funds available from any source so as to permit an award to the responsive and responsible bidder whose bid offers the best value; and

(b) The best interest of the state will not permit the delay attendant to a resolicitation under revised specifications, or for revised quantities, under competitive sealed bidding as provided in KRS 45A.080, then a negotiated award may be made as set forth in subsections (2) or (3) of this section.

(2) Where there is more than one (1) bidder, competitive negotiations pursuant to KRS 45A.085(3) shall be conducted with the three (3) (two (2) if there are only two (2)) bidders determined in writing to be the most responsive and responsible bidders, based on criteria

contained in the bid invitation. Such competitive negotiations shall be conducted under the following restrictions:

- (a) If discussions pertaining to the revision of the specifications or quantities are held with any potential offerer, all other potential offerers shall be afforded an opportunity to take part in such discussions; and
- (b) A request for proposals, based upon revised specifications or quantities, shall be issued as promptly as possible, shall provide for an expeditious response to the revised requirements, and shall be awarded upon the basis of best value.
- (3) Where, after competitive sealed bidding, it is determined in writing that there is only one (1) responsive and responsible bidder, a noncompetitive negotiated award may be made with such bidder in accordance with KRS 45A.095.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 6, effective June 24, 2003. – Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 29, effective May 30, 1997. – Created 1978 Ky. Acts ch. 110, sec. 19, effective January 1, 1979.

#### **45A.095 Noncompetitive negotiation.**

(1) A contract may be made by noncompetitive negotiation only for sole source purchases, or when competition is not feasible, as determined by the purchasing officer in writing prior to award, under administrative regulations promulgated by the secretary of the Finance and Administration Cabinet or the governing boards of universities operating under KRS Chapter 164A, or when emergency conditions exist. Sole source is a situation in which there is only one (1) known capable supplier of a commodity or service, occasioned by the unique nature of the requirement, the supplier, or market conditions. Insofar as it is practical, no less than three (3) suppliers shall be solicited to submit written or oral quotations whenever it is determined that competitive sealed bidding is not feasible. Award shall be made to the supplier offering the best value. The names of the suppliers submitting quotations and the date and amount of each quotation shall be placed in the procurement file and maintained as a public record. Competitive bids may not be required:

- (a) For contractual services where no competition exists, such as telephone service, electrical energy, and other public utility services;
- (b) Where rates are fixed by law or ordinance;
- (c) For library books;
- (d) For commercial items that are purchased for resale;
- (e) For interests in real property;
- (f) For visiting speakers, professors, expert witnesses, and performing artists;
- (g) For personal service contracts executed pursuant to KRS 45A.690 to 45A.725; and
- (h) For agricultural products in accordance with KRS 45A.645.

(2) The chief procurement officer, the head of a using agency, or a person authorized in writing as the designee of either officer may make or authorize others to make emergency procurements when an emergency condition exists.

(3) An emergency condition is a situation which creates a threat or impending threat to public health, welfare, or safety such as may arise by reason of fires, floods, tornadoes, other natural or man-caused disasters, epidemics, riots, enemy attack, sabotage, explosion, power failure, energy shortages, transportation emergencies, equipment failures, state or federal legislative mandates, or similar events. The existence of the emergency condition creates an immediate and serious need for services, construction, or items of tangible personal property that cannot be met through normal procurement methods and the lack of which would seriously threaten the functioning of government, the preservation or protection of property, or the health or safety of any person.

(4) The Finance and Administration Cabinet may negotiate directly for the purchase of contractual services, supplies, materials, or equipment in bona fide emergencies regardless of estimated costs. The existence of the emergency shall be fully explained, in writing, by the head

of the agency for which the purchase is to be made. The explanation shall be approved by the secretary of the Finance and Administration Cabinet and shall include the name of the vendor receiving the contract along with any other price quotations and a written determination for selection of the vendor receiving the contract. This information shall be filed with the record of all such purchases and made available to the public. Where practical, standard specifications shall be followed in making emergency purchases. In any event, every effort should be made to effect a competitively established price for purchases made by the state.

**Effective:** July 15, 2002

**History:** Amended 2002 Ky. Acts ch. 344, sec. 9, effective July 15, 2002. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 30, effective May 30, 1997. -- Amended 1990 Ky. Acts ch. 496, sec. 4, effective July 13, 1990. -- Created 1978 Ky. Acts ch. 110, sec. 20, effective January 1, 1979.

#### **45A.100 Small purchases.**

(1) Procurements may be made in accordance with small purchase administrative regulations promulgated by the secretary of the Finance and Administration Cabinet, pursuant to KRS Chapter 13A, as follows:

(a) Up to ten thousand dollars (\$10,000) per project for construction and one thousand dollars (\$1,000) for purchases by any state governmental body, except for those state administrative bodies specified in paragraph (b) of this subsection; and

(b) Up to forty thousand dollars (\$40,000) per project for construction or purchases by the Finance and Administration Cabinet, state institutions of higher education, and the legislative branch of government.

(2) Procurement requirements shall not be artificially divided so as to constitute a small purchase under this section. At least every two (2) years, the secretary shall review the prevailing costs of labor and materials and may make recommendations to the next regular session of the General Assembly for the revision of the then current maximum small purchase amount as justified by intervening changes in the cost of labor and materials.

(3) The secretary of the Finance and Administration Cabinet may grant to any state agency with a justifiable need a delegation of small purchasing authority, which exceeds the agency's small purchase limit, provided in subsection (1) of this section. Delegations of small purchasing authority shall be granted or revoked by the secretary of the Finance and Administration Cabinet, in accordance with administrative regulations promulgated by the cabinet pursuant to KRS Chapter 13A. These administrative regulations shall establish, at a minimum, the criteria for granting and revoking delegations of small purchasing authority, including the requesting agency's past compliance with purchasing regulations, the level of training of the agency's purchasing staff, and the extent to which the agency utilizes the Kentucky Automated Purchasing System. The administrative regulations may permit the secretary of the Finance and Administration Cabinet to delegate small purchase procurements up to the maximum amount specified in subsection (1)(b) of this section.

**Effective:** July 15, 2002

**History:** Amended 2002 Ky. Acts ch. 320, sec. 2, effective July 15, 2002. -- Amended 2000 Ky. Acts ch. 225, sec. 1, effective July 14, 2000. -- Amended 1996 Ky. Acts ch. 60, sec. 1, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 323, sec. 1, effective July 15, 1994. -- Amended 1990 Ky. Acts ch. 496, sec. 5, effective July 13, 1990. -- Amended 1986 Ky. Acts ch. 384, sec. 1, effective July 15, 1986. -- Amended 1984 Ky. Acts ch. 384, sec. 1, effective July 13, 1984. -- Amended 1982 Ky. Acts ch. 282, sec. 2, effective July 15, 1982. -- Amended 1980 Ky. Acts ch. 242, sec. 1, effective July 15, 1980; and ch. 250, sec. 19, effective April 9, 1980.-- Created 1978 Ky. Acts ch. 110, sec. 21, effective January 1, 1979.



**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE  
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

The following excerpts are from 45 FR 65984 (October 3, 1980):

The minority and female goals apply to Federal and federally assisted construction contractors and subcontractors which have covered contracts. The goals are expressed as a percentage of the total hours worked by such a covered or subcontractor's entire onsite construction workforce, which is working on any construction site within a relevant area. The goal applies to each construction craft and trade in the contractor's entire workforce in the relevant area including those employees working on private non-federally involved projects.

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographic area. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or non-federally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply as follows:

Goals for female participation in each trade.....6.9%  
Goals for minority participation in each trade.....Insert goals for each year  
(see Attachment Number 6)

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area.

The following excerpts are from 45 FR 65977 (October 3, 1980):

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 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 (insert description of the geographical areas where the contract is to be performed giving the state, country, and city, if any).

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION  
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

EEO Specifications

Following is the standard language, which must be incorporated into all solicitations for offers and bids on all Federal and Federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in designated geographical areas:

1. As used in these specifications:
  - (a) Covered Area means the geographical area described in the solicitation from which this contract resulted.
  - (b) Director means Director, Office of Federal Contract Compliance Program, United States Department of Labor, or any person to whom the Director delegates authority;
  - (c) Employer identification number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
  - (d) Minority includes:
    - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take a good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7-a through p of these specifications. The goals set forth in the solicitation from which this contract resulted

are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative actions steps at least as extensively as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligation.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7-b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by

publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, lay-off, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative actions obligations (7 a through p). The efforts of a contractor association, joint contractor-union, contractor-community, of other similar group of which the contractor is a member and

participant may be asserted as fulfilling any one or more of its obligations under 7 a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example: even though the Contractor has achieved its goal for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables for affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**EEO Goals for Economic Areas in Region 4**

Source: Appendix B-80 in 45 FR 65984 (October 3, 1980)

**Kentucky:**

056 Paducah, KY:	
Non-SMSA Counties	5.2
IL Hardin; IL Massac; IL Pope; KY Ballard; KY Caldwell; KY Calloway. KY Carlisle; KY Crittenden; KY Fulton; KY Graves; KY Hickman; KY Livingston; KY Lyon. KY McCracken; KY Marshall.	
057 Louisville, KY:	
SMSA Counties:	
4520 Louisville, KY-IN	11.2
IN Clark; IN Floyd; KY Bullitt; KY Jefferson; KY Oldham.	
Non-SMSA Counties	9.6
IN Crawford; IN Harrison; IN Jefferson; IN Orange; IN Scott; IN Washington; KY Breckinridge; KY Grayson; KY Hardin; KY Hart; KY Henry; KY Larue; KY Marion; KY Meade; KY Nelson; KY Shelby; KY Spencer; KY Trimble; KY Washington.	
058 Lexington, KY	
SMSA Counties	
4280 Lexington-Fayette, KY	10.8
KY Bourbon; KY Clark; KY Fayette; KY Jessamine; KY Scott; KY Woodford.	
Non-SMSA Counties	7.0
KY Adair KY Anderson; KY Bath; KY Boyle; KY Breathitt; KY Casey; KY Clay; KY Estill; KY Franklin- KY Garrard; KY Green; KY Harrison- KY Jackson; KY Knott; KY Lee; KY Leslie; KY Letcher; KY Lincoln; KY Madison; KY Magoffin; KY Menifee; KY Mercer; KY Montgomery; KY Morgan. KY Nicholas; KY Owsley; KY Perry; KY Powell; KY Pulaski; KY Rockcastle; KY Russell; KY Taylor; KY Wolfe.	

**CHECK LIST OF EEO DOCUMENTATION FOR BIDDERS  
ON GRANT/LOAN CONSTRUCTION  
(Required by Executive Order 11246 as amended)**

The low, responsive responsible bidder must forward the following items, in duplicate, to the owner no later than ten (10) days after bid opening. The owner shall have one (1) copy available for inspection by the Office of Federal Contracts Compliance within 14 days after the bid opening. The web site for the OFCC is [http://www.dol.gov/esa/ofcp\\_org.htm](http://www.dol.gov/esa/ofcp_org.htm).

1. Project Number. Project Location. Type of Construction.
2. Proof of registration with the Joint Reporting Commission. (See Attachment Number 8.)
3. Copy of Affirmative Action Plan of contractor. Indicate company official responsible for EEO.
4. List of current construction contracts, with dollar amount. List contracting Federal Agency, if applicable.
5. Statistics concerning company percent workforce, permanent and temporary, by sex, race, trade, handicapped, and age. 40 CFR Part 7.
6. List of employment sources for project in question. If union sources are utilized, indicate percentage of minority membership within the union crafts.
7. Anticipated employment needs for this project, by sex, race and trade, with estimate of minority participation in specific trades.
8. List of subcontractors (name, address and telephone) with dollar amount and duration of subcontract. Subcontractor contracts over \$10,000 must submit items 1- 8. The following information must be provided for all supplier contracts regardless of contract size: name of company, contact person, address, telephone number, dollar value of the contract, and a list of the materials to be supplied to the prime contractor.
9. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
10. Contract Price. Duration of prime contract.
11. DBE Documents - See special instructions regarding use of Minority, and Women Owned, and Small Businesses.

## Employer Information Report EEO-1

Under the direction of the US Equal Employment Opportunity Commission, the Joint Reporting Committee is responsible for the full-length, multi-phase processing of employment statistics collected on the Employer Information Report EEO-1. This report, also termed Standard Form 100, details the sex and race/ethnic composition of an employer's work force by job category.

The Employer Information EEO-1 survey is conducted annually under the authority of Public Law 88-352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972. All employers with 15 or more employees are covered by Public Law 88-352 and are required to keep employment records as specified by Commission regulations. Based on the number of employees and federal contract activities, certain large employers are required to file an EEO-1 Report on an annual basis.

The EEO-1 Report must be filed by:

(A) All private employers who are: (1) subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) with 100 or more employees EXCLUDING State and local governments, primary and secondary school systems, institutions of higher education, Indian tribes and tax-exempt private memberships clubs other than labor organizations; OR (2) subject to Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise and the entire enterprise employs a total of 100 or more employees.

(B) All federal contractors (private employers), who: (1) are not exempt as provided for by 41 CFR 60-1.5, (2) have 50 or more employees, and (a) are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or (b) serve as depository of Government funds in any amount, or (c) is a financial institution which is an issuing an paying agent for U.S. Savings Bonds and Notes.

Only those establishments located in the District of Columbia and the 50 states are required to submit the EEO-1 Report. No Reports should be filed for establishments in Puerto Rico, the Virgin Islands or other American Protectorates.

When filing for the EEO-1 Report for the first time, go to the web site at: <http://www.mimdns.com/jrc.html> and select "Filing for the first time" from the box labeled INFORMATION. File out the electronic questionnaire to enter your company into Joint Reporting Committee (JRC) system. One you have completed the registration process, you will be contacted on how to proceed with the EEO-1 Report. If you have previously registered with the JRC, follow their instructions to update your information.



### Labor Standards Provisions for Federally Assisted Construction

Labor standards provisions applicable to contracts covering federally financed and assisted construction (29 CFR 5.5, Contract Provisions and Related Matters) that apply to EPA Special Appropriations Projects grants are:

(a)(4)(iii) 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.

(a)(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.

(a)(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5 (a) (1) through (10) and such other clauses as the U.S. Environmental Protection Agency may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses 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.

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

(b) Contractor Work Hours and Safety Standards Act. The Administrator, EPA shall cause or require the contracting officer to insert the following clauses set forth in paragraph (b)(1),(2),(3), and (4) of this section in full in any contract 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 \*Section 5.5(a) of this title. 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 work week in which he or she is employed on such work to 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 (b) (1) of this section the contractor and any subcontractor responsible therefore 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 unliquidated 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 (b)(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 (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The U.S. Environmental Protection 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 liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b) (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(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 (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in section 5.1, the Administrator of EPA shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly worked, deductions made, and actual wages paid. Further, the Administrator of EPA shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the U.S. Environmental Protection Agency and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job. (Approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017.)

## CERTIFICATIONS

### **Debarred Firms**

All prime Construction Contractors shall certify that Subcontractors have not and will not be awarded to any firm that is currently on the EPA Master List of Debarred, Suspended and Voluntarily Excluded Persons in accordance with the provisions of 40 CFR 32.500(c). Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete the attached certification (Attachment Number 10) and submit to the owner with the bid proposal.

### **Anti-lobbying Certification**

All prime Construction Contractors must certify (Attachment Number 11) that no appropriated funds were or will be expended for the purpose of lobbying the Executive or Legislative Branches of the Federal Government or Federal Agency concerning this contract (contract in excess of \$100,000). If the Contractor has made or agreed to make payment to influence any member of Congress in regard to award of this contract, a Disclosure Form must be completed and submitted to the owner with the bid proposal.

All prime Contractors must require all Subcontractors to submit the certification, which must also be submitted to the owner.

**CERTIFICATION REGARDING DEBARMENT,  
SUSPENSION AND OTHER RESPONSIBILITY MATTERS**

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) 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;
- (c) 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)(b) of this certification; and
- (d) 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.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to \$10,000 or imprisonment for up to 5 years, or both.

\_\_\_\_\_  
Typed Name & Title of Authorized Representative

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_ I am unable to certify to the above statements. My explanation is attached.

**CERTIFICATION REGARDING LOBBYING**  
**Certification for Contracts, Grants,**  
**Loans, and Cooperative Agreements**

The undersigned certifies, 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 an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any 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.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 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.

\_\_\_\_\_  
TYPED NAME & TITLE OF AUTHORIZED REPRESENTATIVE

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED REPRESENTATIVE                      DATE

\_\_\_\_ I am unable to certify to the above statements. My explanation is attached.

## EPA DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

### Grant recipient responsibilities:

- Conduct an Availability Analysis and negotiate fair share objectives with EPA (§ 33.411), or adopt the fair share objectives of the oversight state agency revolving loan fund for comparable infrastructure. (§ 33.405(b)(3)).
- Include the Appendix A term and condition in each contract with a primary contractor (§ 3.106). The term and condition is included in the EPA Region 4 contract specifications insert *FEDERAL REQUIREMENTS AND CONTRACT PROVISIONS FOR SPECIAL APPROPRIATION ACT PROJECTS US ENVIRONMENTAL PROTECTION AGENCY, Region III, June 2008*.
- Employ the six Good Faith Efforts during prime contractor procurement (§ 33.301).
- Require prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
  - To employ the six Good Faith Efforts steps in paragraphs (a) through (e) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).
  - To provide EPA form 6100-2 – *DBE Subcontractor Participation Form* to all DBE subcontractors (§ 33.302(e)).
  - To submit EPA forms 6100-3 – *DBE Program Subcontractor Performance Form* and 6100-4 – *DBE Program Subcontractor Utilization Form* with bid package or proposal. (§ 33.302 (f) and (g)).
  - To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§ 33.302(a)).
  - To notify recipient in writing by its prime contractor prior to any termination of a DBE subcontractor for convenience by the prime contractor (§ 33.302(b)).
  - To employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§ 33.302(c)).
  - To employ the six good faith efforts described in § 33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).

- Semiannually complete and submit to Charles Hayes, EPA Region 4 DBE Coordinator EPA form 5700-52A summarizing DBE participation achieved during the previous six months (§ 33.502).
- Maintain records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§ 33.501(a)).

**Prime Contractor Responsibilities:**

- Employ the six Good Faith Efforts steps in paragraphs (a) through (e) of § 33.301 if the prime contractor awards subcontracts (§ 33.301(f)).
- Provide EPA form number 6100-2 – *DBE Program Subcontractor Participation Form* and form number 6100-3 – *DBE Program Subcontractor Performance Form* to each DBE subcontractor prior to opening of the contractor's bid or proposal (§ 33.302(e) and (f)).
- Complete EPA form number 6100-4 – *DBE Program Subcontractor Utilization Form* (§ 33.302(g)).
- Submit to recipient with its bid package or proposal the completed EPA form number 6100-4, plus an EPA form number 6100-3 for each DBE subcontractor used in the contractor's bid or proposal (§ 33.302(f) and (g)).
- Pay subcontractors for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§ 33.302(a)).
- Notify the recipient in writing prior to prime contractor termination of a DBE subcontractor for convenience (§ 33.302(b)).
- Employ the six good faith efforts described in § 33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§ 33.302(c)).
- Employ the six good faith efforts described in § 33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).
- Semiannually inform recipient of DBE participation achieved (§ 33.502).
- Maintain records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§ 33.501(a)).

**Subcontractor Responsibilities:**

- May submit EPA form 6100-2 – *DBE Subcontractor Participation Form* to Charles Hayes, EPA Region 4 DBE Coordinator (§ 33.302(e)).
- Must complete EPA form 6100-3 – *DBE Program Subcontractor Performance Form*, and submit it to the prime contractor soliciting services from the subcontractor prior to the opening of bids for the prime contract.

**SPAP Requirements:**

Form	Requirement	Provided By:	Completed By:	Submitted To:
EPA Form 6100-2	Grant Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	EPA Region 4 DBE Coordinator Charles Hayes
EPA Form 6100-3	Grant Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	Grant Recipients as part of a bid or proposal package
EPA Form 6100-4	Grant Recipients required to have prime contractors complete the form	Grant Recipients	Prime Contractors	Grant Recipients as part of a bid or proposal package

**SRF Requirements:**

Form	Requirement	Provided By:	Completed By:	Submitted To:
EPA Form 6100-2	Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	DOW Project Administrator
EPA Form 6100-3	Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	Dow Project Administrator w/ ATA Package
EPA Form 6100-4	Recipients required to have prime contractors complete the form	Recipients	Prime Contractors	DOW Project Administrator w/ ATA Package
Pay Request DBE Form	Recipients required to have prime contractors complete the form	Recipients	Prime Contractors	DOW Project Administrator w/ EACH PAYMENT



**DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION POLICY**

**PROJECT NAME:** \_\_\_\_\_

**BID DATE:** \_\_\_\_\_

**1. Name, address and telephone number of contact person on all DBE matters:**

Prime Contractor's Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Cell Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Total Contract Amount: \_\_\_\_\_

**2. Total dollar amount/percent of contract of MBE participation:** \_\_\_\_\_

**3. Total dollar amount/percent of contract of WBE participation:** \_\_\_\_\_

**4. Are certifications\* for each MBE/WBE/DBE subcontractor enclosed; if no, please explain:**  Yes  No \_\_\_\_\_

**5. Are MBE/WBE/DBE subcontracts or letters of intent signed by both parties enclosed; if no, please explain:**  Yes  No \_\_\_\_\_

**6. List of MBE Subcontractors:**

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

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Cell Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Type of Contract: \_\_\_\_\_

Work to be Done: \_\_\_\_\_

Amount: \_\_\_\_\_

**7. List of WBE Subcontractors:**

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

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Cell Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Type of Contract: \_\_\_\_\_

Work to be Done: \_\_\_\_\_

Amount: \_\_\_\_\_

Attach Additional Sheets, If Necessary

\*Self-certification: Self certification of MBE/WBE/DBE firms will NOT be accepted as a valid form of certification of MBE/WBE/DBE status.

**8. Information and documentation concerning efforts taken to comply with EPA's "six good faith efforts"**

- (i). Ensure DBE construction firms or material suppliers are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including placing DBEs on solicitation lists and soliciting them whenever they are potential sources. A good source for a list of DBEs is the Kentucky Transportation's website: <http://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-DBE-Directory.aspx>.
- The prime contractor certifies that a bidders list (see example sheet below) of qualified vendors, including DBEs, was developed for current and future solicitations and that the list will be maintained. *Submit a copy of the list as documentation.*
- (ii). Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process; including, whenever possible, posting solicitation for bids or proposals for a sufficient amount of time as to receive a competitive bid or proposal pool.
- The prime contractor certifies that every opportunity was provided to a number of DBEs to encourage their participation in the competitive process and that an adequate amount of time was provided for response.
- a. List each DBE construction firm or material supplier to which a solicitation was attempted. *Submit copies of letters, emails, faxes, telecommunication logs, certified mail receipts, returned envelopes, certified mail return receipts, etc. as documentation.*
- Company name and phone number: \_\_\_\_\_  
Area of work expertise: \_\_\_\_\_  
Date of any follow-ups and person spoke to: \_\_\_\_\_
- b. Advertisements, if applicable: List each publication in which an announcement or notification was placed. *Submit a tear sheet of each announcement from each publication as documentation.*
- Name of publication: \_\_\_\_\_  
Date(s) of advertisement: \_\_\_\_\_  
Specific subcontract areas announced: \_\_\_\_\_
- c. Other, if applicable: List each notification method in which an announcement or outreach was used; list serve, public meeting, etc. *Submit applicable information to document effort.*
- Method of notification: \_\_\_\_\_  
Date(s) of notification: \_\_\_\_\_
- (iii). Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs; including dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- The prime contractor certifies that the project was broken into its basic elements (i.e., dirt hauling, landscaping, painting, pipe installation, material supplies, etc.) and that a determination was made whether it's economically feasible to bid the elements separately and that the analysis of this effort was documented with a short memo to the project file.

- (iv). Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women’s business enterprises.
- The prime contractor certifies that they established delivery schedules which would allow DBEs to participate in the projects.
- (v). Use the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) of the U.S. Department of Commerce. The easiest way to utilize the services of SBA and MBDA is to visit their websites: [www.sba.gov](http://www.sba.gov) and [www.mbda.gov](http://www.mbda.gov) and use the electronic tools available there or you may send the nearest SBA and MBDA office a certified letter that generally describes the solicitation, the dates it will be open, the types of vendors you are seeking and applicable SIC or NAIC codes if known. You may also use the services and assistance of the Kentucky Procurement Assistance Program (KPAP). The easiest way to utilize the services of KPAP is to send an email: [ced.kpap@ky.gov](mailto:ced.kpap@ky.gov) and provide information on forthcoming opportunities available to DBEs.
- The prime contractor certifies that the assistance of the SBA, MBDA, and/or KPAP was utilized. *Submit pages printed off the SBA and MBDA websites which evidence efforts to register a solicitation on those sites or submit copies of the letter sent and certified mail receipt as documentation; submit copies of emails with KPAP as documentation.*
- (vi). If a subcontractor awards any subcontracts, require the subcontractor to take the steps in numbers (i) through (v) above.
- The prime contractor certifies that subcontractors used for this project will be required to follow the steps of the “six good faith efforts” as listed above.

**9. Signature and date:**

To the best of my knowledge and belief, all “six good faith efforts” have been met and the information contained in this document is true and correct; the document has been duly authorized by the legal representative.

\_\_\_\_\_

Signature

\_\_\_\_\_

Print name and title

\_\_\_\_\_

Date



**REGION 4**  
**DISADVANTAGED BUSINESS ENTERPRISE (DBE) NEGOTIATED RATES**  
**(Subject to change - refer to grant award for specific fair share objectives)**

KENTUCKY

Construction: (both programs)	4.10% MBE and 4.60% WBE
Equipment:	1.10% MBE and 1.20% WBE
Services:	10.8% MBE and 18.6% WBE
Supplies:*	3.40% MBE and 6.30% WBE

**BONDS AND INSURANCE**

The minimum requirements shall be as follows:

Bonding requirements for contracts of \$100,000 or less are contained in 40 CFR 31.36(h).

Bond requirements for contracts in excess of \$100,000 are:

- < Bid guarantee equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;
- < Performance bond equal to 100 percent of the contract price, and
- < Payment bond equal to 100 percent of the contract price. Bonds must be obtained from companies holding Certificates of Authority as acceptable sureties, issued by the U.S. Treasury.

Insurance requirements are contained in the General Conditions of the contract. In addition to the other required insurance, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 44 CFR Parts 59-79, if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency. The owners requirements on Flood Insurance are contained in the Special Conditions Section of the Contracts Documents.

## OUTLAY MANAGEMENT

The contractor must provide a contract progress schedule of percentage of work in place and costs against time; and a schedule of projected payments (cumulative) for construction and for the architectural/engineering contract when the contract is awarded. The payment schedule must be submitted, in a format similar to the attached sample, to the owner for forwarding to the State when the contract is awarded, and whenever actual payments on a project vary beyond -5 percent and +10 percent from the schedule, as determined by the grantee.

Contractor will be required to review each of these contract schedules during the month of June and to submit revised schedules, as necessary, no later than July 1<sup>st</sup> of each year.

THIS FORMAT IS A SAMPLE ONLY.

CONSTRUCTION AND OUTLAY SCHEDULE

Project No.: \_\_\_\_\_

Applicant: \_\_\_\_\_

Contract Identification: \_\_\_\_\_

Description of Contract: \_\_\_\_\_

\_\_\_\_\_  
*(INSTRUCTIONS FOR USE ON REVERSE SIDE)*

SCHEDULE I - CONSTRUCTION SCHEDULE

Date for Advertisement: \_\_\_\_\_

Date for Opening Bids: \_\_\_\_\_

Pre-Construction Conference Date: \_\_\_\_\_

Date of Contract Award: \_\_\_\_\_

Contract Period: \_\_\_\_\_ days Projected Contract Completion Date: \_\_\_\_\_

Total Eligible Contract Amount: \_\_\_\_\_

Work Order Date: \_\_\_\_\_

Start Construction Date: \_\_\_\_\_

Contract Completed: \_\_\_\_\_

SCHEDULE II - CUMULATIVE OUTLAY SCHEDULE (55% EPA Share) - Projection  
only for quarters that remain in the fiscal year (FY) plus cumulative  
annual amount for the next FY.

Cum EPA Amount thru 1 <sup>st</sup> Qtr. Oct./Dec.:	\$ _____
Cum EPA Amount thru 2 <sup>nd</sup> Qtr. Jan./Mar.:	\$ _____
Cum EPA Amount thru 3 <sup>rd</sup> Qtr. Apr./June:	\$ _____
Cum EPA Amount thru 4 <sup>th</sup> Qtr. July/Sept.:	\$ _____
Cum EPA Amount for Next Fiscal Year:	\$ _____



## INSTRUCTIONS (Construction and Outlay Schedules)

To insure timely achievement of the grant objectives the owner (grantee) must provide EPA with a grants activities schedule, contract construction schedules and corresponding payment outlay schedules for the grant and each contract under the grant. One copy of information similar to that showing the Construction and Outlay Schedule Form will be submitted for the grant schedule with the grant acceptance. A separate form will accompany each contract at time of contract award.

- A. The grant activities schedule shall depict the period from grant award through grant closeout and cover all major milestone date. The grant activities schedule shall include Schedule I information items as well as other appropriate items necessary to monitor the grant. Schedule II shall be filled out to estimate the cumulative (all construction and architectural/engineering contracts) payment schedule to be requested by the grantee from EPA during the grant period, and whenever actual outlays vary beyond -5% and +10% from the schedule.
- B. Individual contractor's construction schedules for each contract will be submitted to support the grant activities schedule. The Schedule I shall be submitted prior to date of advertisement of each contract and Schedule II along with the contractor's construction schedule shall be submitted seven (7) calendar days prior to the dates of the pre-construction conference. The contractor's construction schedule shall depict the contractor's plan for completing all contract requirements and show work placement in dollars versus contract time. Schedule II shall depict the contract payment outlay by month or quarter. The contract schedule will be coordinated with all parties at the pre-construction conference.

The grants activities schedule, contractor construction schedules, will be the basis for monitoring progress towards completion of the project. The schedules shall be maintained at the available for inspection and updated at least monthly. The schedules shall be revised to incorporate approved change orders as they occur.

All of the schedules will be submitted to the State Division of Water.

**NOTICE OF INTENT**

All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at the following web address: **<https://dep.gateway.ky.gov/eForms/default.aspx?FormID=7>**.

If you have any questions regarding the completion of this form call the Surface Water Permits Branch, at (502) 564-3410.

## DAVIS BACON REQUIREMENTS

Federal Davis-Bacon rates are applicable for these funds. This determination applies only to the loan portion of this project. Please contact the other funding sources, if applicable, for their requirements pertaining to federal wage rates. You must contact the Kentucky Labor Cabinet for determination of applicable state wages.

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in §5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, Provided, That such modifications are first approved by the Department of Labor):

(1) Minimum wages. (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), 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 (a)(1)(iv) 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 §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 (a)(1)(ii) 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.

(ii)(A) 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:

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

(B) 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.

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

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) 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.

(iii) 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.

(iv) 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 (write in name of Federal Agency or the loan or grant recipient) 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 (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, 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. (i) 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 (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). 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.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as

the case may be, for transmission to the (write in name of 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 (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, 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 sponsoring government agency (or the applicant, sponsor, or owner).

(B) 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:

( 1 ) 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;

( 2 ) 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;

( 3 ) 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.

(C) 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 (a)(3)(ii)(B) of this section.

(D) 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.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) 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 Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, 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 —(i) Apprentices. 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.

(ii) Trainees. 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.

(iii) 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.

(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 in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses 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. (i) 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).

(ii) 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).

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

(b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any 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 §5.5(a) or 4.6 of part 4 of this title. 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 (b)(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 (b)(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 (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) 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 (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(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 (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in §5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

## 5. Compliance Verification

(a). The subrecipient shall periodically interview, a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c). The subrecipient shall conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on an assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date of the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d). The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.



## WAGE RATE REQUIREMENTS UNDER FY2011 APPROPRIATIONS

CWSRF: The recipient agrees to include in all agreements to provide assistance for the construction of treatment works carried out in whole or in part with such assistance made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.), or with such assistance made available under section 205(m) of that Act (33 U.S.C. 1285(m)), or both, a term and condition requiring compliance with the requirements of section 513 of that Act (33 U.S.C. 1372) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for the construction of treatment works carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled "Wage Rate Requirements Under FY 2010 Appropriations." This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009 and before October 1, 2010.

DWSRF: The recipient agrees to include in all agreements to provide assistance for any construction project carried out in whole or in part with such assistance made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12), a term and condition requiring compliance with the requirements of section 1450(e) of the Safe Drinking Water Act (42 U.S.C.300j-9(e)) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions All contracts and subcontracts for any construction project carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled "Wage Rate Requirements Under FY 2010 Appropriations." This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009 and before October 1, 2010.

### Wage Rate Requirements Under FY 2010 Appropriations

#### Preamble

With respect to the Clean Water and Safe Drinking Water State revolving Funds, EPA provides capitalization grants to each State which in turn provides subgrants or loans to eligible entities within the State. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the subrecipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

### **I. Requirements under FY 2010 Appropriations For Subrecipients That Are Governmental Entities:**

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY 2010 Appropriations with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact **Dorothy L. Rayfield, Chief, Grants, Finance and Cost Recovery Branch, Regional EPA DB contact at (404) 562-9278 or [Rayfield.Dorothy@epa.gov](mailto:Rayfield.Dorothy@epa.gov)** for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/esa/whd/recovery/>

#### 1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2010 Appropriation, Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

#### 2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

- (i) While the solicitation remains open, the subrecipient shall monitor [www.wdol.gov](http://www.wdol.gov) weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

- (ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor [www.wdol.gov](http://www.wdol.gov) on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from [www.wdol.gov](http://www.wdol.gov) into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

### **3. Contract and Subcontract provisions.**

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2010 appropriation , the following clauses:

#### **(1) Minimum wages.**

(i) 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  
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such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) 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 § 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 (a)(1)(ii) 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.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, [www.dol.gov](http://www.dol.gov).

(ii)(A) The subrecipient(s), on behalf of EPA, 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 State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

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

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

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

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of

receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) 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.

(iii) 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.

(iv) 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 subrecipient(s), shall upon written request of the EPA Award Official or 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 (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, 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.

(i) 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.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls 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 the weekly payrolls. 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 subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, 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 subrecipient(s).

(B) 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:

(1) 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;

(2) 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;

(3) 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.

(C) 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 (a)(3)(ii)(B) of this section.

(D) 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.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA 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 Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, 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--

(i) Apprentices. 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.

(ii) Trainees. 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.

(iii) 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.

(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 in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses 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 Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.



(i) 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).

(ii) 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).

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

#### **4. Contract Provision for Contracts in Excess of \$100,000.**

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any 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 Item 3, above 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 (a)(1) of this section the contractor and any subcontractor responsible therefore 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 (a)(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 (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall 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 (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(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 (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

## 5. Compliance Verification

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractor's use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

## **II. Requirements under FY 2010 Appropriations Act For Subrecipients That Are Not Governmental Entities**

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2010 Appropriations Act with respect to subrecipients that are not governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. If a State recipient needs guidance, the recipient may contact **Dorothy L. Rayfield, Chief, Grants, Finance and Cost Recovery Branch, Regional EPA DB contact at (404) 562-9278 or [Rayfield.Dorothy@epa.gov](mailto:Rayfield.Dorothy@epa.gov)** for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/esa/whd/recovery/>

**Under these terms and conditions, the subrecipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.**

### 1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2010 Appropriation, Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

### 2. Obtaining Wage Determinations.

(a) Subrecipients must obtain proposed wage determinations for specific localities at [www.wdol.gov](http://www.wdol.gov). After the Subrecipient obtains its proposed wage determination, it must submit the wage determination to (insert contact information for State recipient DB point of contact for wage determination) for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors (ordering instruments unless subsequently directed otherwise by the State recipient Award Official).

(b) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

- (i) While the solicitation remains open, the subrecipient shall monitor [www.wdol.gov](http://www.wdol.gov) on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.
- (ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor [www.wdol.gov](http://www.wdol.gov) on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(c) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from [www.wdol.gov](http://www.wdol.gov) into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

### **3. Contract and Subcontract provisions.**

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency

to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2010 appropriation , the following clauses:

(1) Minimum wages.

(i) 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 (a)(1)(iv) 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 § 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 (a)(1)(ii) 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.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, [www.dol.gov](http://www.dol.gov).

(ii)(A) The subrecipient(s), on behalf of EPA, 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 State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

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

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate

(including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

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

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) 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.

(iii) 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.

(iv) 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 subrecipient(s) shall upon written request of the EPA Award Official or 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 (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, 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.

(i) 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.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls 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 the weekly payrolls. 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 subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, 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 subrecipient(s).

(B) 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:

(1) 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;

(2) 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;

(3) 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.

(C) 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 (a)(3)(ii)(B) of this section.

(D) 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.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA 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 Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, 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--

(i) Apprentices. 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.

(ii) Trainees. 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.

(iii) 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.

(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 in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses 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 Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) 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).

(ii) 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).

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

#### **4. Contract Provision for Contracts in Excess of \$100,000.**

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any 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 Item 3, above 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 (b)(1) of this section the contractor and any subcontractor responsible therefore 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 (b)(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 (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient shall upon the request of the EPA Award Official or 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 (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(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 (b)(1) through (4) of this section.

(c) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

## 5. Compliance Verification

(a). The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct

necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c). The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB . In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d). The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

U.S. EPA, Office of Grants and Debarment

**Tip Sheet for Registering with the Central Contractor Registration (CCR)**

**What is CCR?**

- The CCR is a government-wide registry for organizations that seek to do business with the federal government. The CCR collects, validates, stores and disseminates data to support a variety of federal initiatives.
- **Already registered?** An organization may check if it is already registered by logging onto [www.ccr.gov](http://www.ccr.gov), clicking on "Search CCR," and providing the organization's DUNS number.
- **Need to register?** If an organization is not registered, it may register online at [www.ccr.gov](http://www.ccr.gov). CCR has developed a user guide at <http://www.ccr.gov/doc/CCRUsersGuide.pdf> and a handbook at <http://www.ccr.gov/Handbook.aspx> to assist with the process. These publications include details on the information that will need to be gathered to complete the CCR registration process.

**How long should CCR Registration take?**

- If an organization already has an Employer Identification Number (EIN) or Taxpayer Identification Number (TIN), it should allow a minimum of 48 hours to complete the entire CCR registration.
- If an organization does not have an EIN or TIN, it should allow two weeks for obtaining information from IRS when requesting the EIN or TIN via phone or Internet. The delay is due to security information that is mailed to the organization.

**When an organization registers with the CCR, it must provide:**

- **DUNS number.** The Data Universal Numbering System (DUNS) Number is a unique nine-character identification number provided by D&B. Organizations may call D&B at 1-866-705-5711 or access the website <http://fedgov.dnb.com/webform> if they do not have a DUNS Number. The process to request a DUNS Number via phone takes about 10 minutes and is free of charge. Internet requests are fulfilled within 24 hours. Once a DUNS Number has been issued, it will be available for use in CCR within 24 hours.
- **U.S. Federal TIN.** The Tax Identification Number (TIN) is the nine-digit number which is either an Employer Identification Number (EIN) assigned by the Internal Revenue Service (IRS) or Social Security Number (SSN) assigned by the Social Security Administration (SSA). If an organization does not have a TIN/EIN, contact the IRS at 1-866-255-0654.
- **CCR Point of Contact (CCR POC).** This individual is responsible for maintaining the accuracy and timeliness of the information in the CCR registry for the organization.
- **Electronic Business Point of Contact (EB POC).** This individual will have sole authority to designate the staff member(s) who may represent the organization to federal business systems. The same individual may serve as both the CCR POC and as the EB POC.
- **Marketing Partner ID (MPIN).** During registration, organizations will be asked to designate a special password called an MPIN. Record and protect passwords.

U.S. EPA, Office of Grants and Debarment  
**Tip Sheet for Registering with the Central Contractor Registration (CCR)**

**Important Notes:**

- **CCR registration must be updated or renewed at least once a year or it will expire.** CCR will alert the CCR POC when it is time for renewal.
- **Organizations must ensure that all information contained in each database, the D&B DUNS, IRS and CCR databases, matches exactly.** For example: if an organization's address is 123 First Street in one database – entering 123 1<sup>st</sup> St. in another database will significantly delay the CCR registration process.
- **CCR uses data from the D&B DUNS number record for each CCR registrant's name and address.** If, upon review, an organization finds that any name or address information in their CCR registration needs to be updated, it will have to go back to D&B, which in turn will send the modified data to CCR where the CCR POC will have to accept it. An update will add a minimum of 2 days to the CCR registration process.
- **CCR also verifies with the IRS the Tax Identification Number (also known as the TIN or EIN) that each organization provides during the registration process.** Because of this, it may take CCR 2 or 3 days after receipt of an organization's information, with a D&B-validated name and address, to finalize a CCR registration.
- After the CCR registration is complete, CCR will e-mail a confirmation to the CCR POC.



## Kentucky State Revolving Fund Loan Program

Kentucky Infrastructure Authority  
1024 Capital Center Drive – Suite 340  
Frankfort, KY 40601  
[www.kia.ky.gov](http://www.kia.ky.gov)

Kentucky Division of Water  
200 Fair Oaks Lane – 4<sup>th</sup> Floor  
Frankfort, KY 40601  
[www.water.ky.gov](http://www.water.ky.gov)

## A SUMMARY OF THE NEW EPA DBE RULE AND ITS IMPACT ON SRF LOAN PARTICIPANTS

The Environmental Protection Agency's (EPA) new Disadvantaged Business Enterprise (DBE) rule became effective on May 27, 2008. This rule sets forth an EPA program that serves the compelling government interest of remedying past and current racial discrimination through agency-wide procurement objectives. It revises and replaces EPA's Minority and Women Business Enterprise (MBE/WBE) Program. Because the State Revolving Fund (SRF) Loan Program funding is provided by EPA, the new DBE rule requirements apply to all SRF funded projects. It is designed to increase the participation of DBE's in procurements funded by EPA assistance agreements. The key substantive changes that the new EPA DBE rule makes to the MBE/WBE program involve the following: certification of minority & women owned businesses, the six good faith efforts, contract administration requirements, negotiation of fair share goals, recordkeeping & reporting requirements and new requirements for Tribal and insular area fair share negotiations.

**\* Certification of MBE/WBE:** In order to be counted as a MBE/WBE under the new EPA DBE rule MBE/WBEs must be certified by a federal agency (e.g., EPA, Small Business Administration, Department of Transportation ) or by a State, locality, Indian Tribe, or independent private organization that meets the certification requirements of the new EPA DBE rule. In addition, individuals claiming economic disadvantaged status must have an initial and continued personal net worth of less than \$750,000.

**Q: Where can MBE/WBEs get certified in the State of Kentucky?**

**A:** MBE/WBEs can get certified with the Kentucky Transportation Cabinet (KTC). KTC's certification process meets the requirements of the new EPA DBE rule. The website is <http://transportation.ky.gov/OBOD/>. Please identify on the application that you are seeking certification under the new EPA DBE rule. If you have any questions regarding the KTC website or certification process contact the KTC Certification Coordinator Melvin Bynes at 1-800-928-3079.

**Q: If my firm is currently on the Kentucky Transportation Cabinet's list of certified DBEs do I need to get recertified?**

**A:** No, you do not need to get re-certified. KTC's certification process meets the requirements of the new EPA DBE rule.

**Q: Are there entities that KTC cannot certify? If so, where can those entities go for certification under the new EPA DBE rule?**

**A:** There are entities that KTC cannot certify. Those entities are: a) Disabled American-owned firms, b) non – profit organizations (private and voluntary organizations controlled by individuals who are socially and economically disadvantaged), and c) those entities who exceed the size standards that are specific to DOT certification process under 49 CFR Part 26. These entities should seek certification through EPA's DBE certification program. The entity may apply to EPA's Office of Small Business Programs (EPA OSBP) for certification as an MBE/WBE. The website is <http://www.epa.gov/osbp/grants.htm>. For questions regarding certification by EPA, please contact Kimberly Patrick, EPA Office of Small Business Programs, at 202-566-2605 or email [Patrick.kimberly@epa.gov](mailto:Patrick.kimberly@epa.gov). Direct general questions regarding the new EPA DBE rule to Charles Hayes, Region 4 MBE/WBE Coordinator, phone number is (404) 562-8377 and email [hayes.charles@epa.gov](mailto:hayes.charles@epa.gov).



**Q: Can I self-certify as an MBE/WBE through my attorney?**

A: No. Therefore, if you want to bid on SRF projects then you will need to get certified through KTC or the EPA in order to be counted as a MBE/WBE under the new EPA DBE rule. Noncertified MBE/WBEs may be used by loan recipients for their procurement needs but those firms cannot be counted toward their MBE/WBE accomplishments. Under the new EPA DBE rule entities can no longer self-certify.

**Q: How do I obtain certification as an MBE/WBE?**

A: Under the new DBE program, in order to be counted as an MBE or WBE under an EPA financial assistance agreement, an entity will have to be certified as such. The EPA will require an MBE/WBE to first seek certification by a federal agency (such as the U.S. Small Business Administration, the U.S. Department of Transportation) or by a State, local, or independent private organization provided their criteria match those of the Small Business Act and SBA's applicable Business Development Program regulations. The EPA will only consider certifying firms that cannot get certified by one of these entities. An EPA DBE certification would only be accepted by the EPA.

**Q: Where can I find a list of MBE/WBEs who have been certified and meet the requirements under the new EPA DBE rule?**

A: The KTC DBE directory can be accessed at: <http://transportation.ky.gov/OBOD/> which is located under the heading Disadvantaged Business Enterprise Directories. Those entities that were certified through EPA are posted on the EPA Office of Small Business Program's (OSBP) website. The website is: <http://www.epa.gov/osbp/grants.htm>.

**Q: Can individuals having a personal net worth of \$750,000 or more get certified as a DBE under the new EPA rule?**

A: No. An individual claiming economic disadvantaged status must have an initial and continued personal net worth of less than \$750,000.

**Q: How can I find out more information about certification and the new EPA DBE rule in general?**

A: You are encouraged to read the fact sheets located at <http://www.epa.gov/osbp/grants.htm>.

**\* Contract Administration:** The new EPA DBE rule adds additional contract administration requirements that are intended to protect DBE subcontractors. Some of the requirements include provisions intended to ensure that subcontractors receive prompt payment from prime contractors (30 day payment provision). Loan recipients must be notified of DBE subcontractor terminations and prime contractors are required to make good faith efforts if the prime contractor chooses to hire another subcontractor. The rule requires that 3 new forms be filled out by the prime contractor and subcontractor if there are DBE subcontractors involved in a procurement.

To view the Federal Register showing the DBE rule from the EPA, see Vol. 73, No. 59, pages 15904 - 15922 at <http://www.epa.gov/osdbu/pdfs/dbe/final%20dbe%20rule.pdf>

The loan recipient must ensure that each contract awarded contains the term and condition set forth below:

**"Term and Condition:** The contractor 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 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. 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 other legally available remedies."

Another new requirement is that loan recipients are now required to create and maintain a bidders list. The list must include all firms that bid or quote on prime contracts or subcontracts, including MBE/WBEs and non MBE/WBEs. The bidders list must be kept until the project period for the identified loan has ended. The project period is defined as the timeframe that the loan recipient receives SRF funding. The following information must be obtained from all prime and subcontractors: 1) entity's name with point of contact; 2) entity's mailing address, telephone number, and e-mail address; 3) the procurement on which the entity bid or quoted, and when; and 4) entity's status as an MBE/WBE or non-MBE/WBE.

**Q: What is the purpose of the bidders list? And, as a loan recipient must I maintain it? Do I need to also provide a copy to SRF?**

A: The purpose of the bidders list is to provide the loan recipient and SRF with a more accurate database of the universe of MBE/WBE and non MBE/WBE prime and subcontractors. The bidders list is intended to be a list of all firms that are participating, or attempting to participate, on EPA assisted contracts. The list must include all firms that bid on prime contracts, or bid or quote on subcontracts under EPA assisted projects, including both MBE/WBEs and non MBE/WBEs. As a loan recipient you must maintain the list. You will also provide SRF a copy of the bidders list when you submit your post-bid documentation to the Kentucky Division of Water's SRF & SPAP Section.



**\* Reporting Requirements:** Loan participants, who close loans after the signing of the 2009 EPA Capitalization Grant, will be required to submit their MBE/WBE participation reports on a **semiannual basis** to the **Kentucky Division of Water's SRF & SPAP Section**. All loan participants who closed loans prior to the signing of the 2009 EPA Capitalization Grant will continue to report on a quarterly basis. Only certified MBE/WBE will be counted towards MBE/WBE participation.

**Q: What are the Six Good Faith Efforts?**

**A:** The good faith efforts are activities by an SRF loan recipient and its prime contractor to increase DBE awareness of procurement opportunities through race/gender neutral efforts. EPA combined the "Six Positive Efforts" (found at 40 CFR Part 31) with the "Six Affirmative Steps" (found at 40 CFR Part 30) and renamed them the six "good faith efforts" (found at 40 CFR Part 33). The substance of the efforts has not changed.

**The Six Good Faith Efforts as defined by the EPA are as follows:**

- Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
- Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
- If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

**Q: What are the three new forms and where can I go to get a copy of the new forms?**

**A:** The forms can be obtained at <http://www.epa.gov/osbp.grants.htm> under "Forms".

The three new forms are:

\* EPA Form 6100-2 - DBE Program Subcontractor Participation Form. This form gives a DBE subcontractor the opportunity to describe the work the DBE subcontractor received from the prime contractor, how much the DBE subcontractor was paid and any other concerns the DBE subcontractor might have.

\* EPA Form 6100-3 - DBE Program Subcontractor Performance Form. This form captures an intended subcontractor's description of work to be performed for the prime contractor and the price of the work submitted to the prime.

\* EPA Form 6100-4 – DBE Program Subcontractor Utilization Form. This form captures the prime's intended use of an identified DBE subcontractor, and the estimated dollar amount of the subcontract.

Form	Requirement	Provided By:	Completed By:	Submitted To:
EPA Form 6100-2	Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	EPA DBE Coordinator
EPA Form 6100-3	Recipients required to have prime contractors provide form to Subcontractors	Prime Contractors	DBE Subcontractors	Recipients as part of a bid or proposal package
EPA Form 6100-4	Recipients required to have prime contractors complete the form	Recipients	Prime Contractors	Recipients as part of a bid or proposal package

\* Filled out by DBE subcontractor. \* Submitted any time during project.

OMB Control No: 2090-0030  
 Approved: 05/01/2008  
 Approval Expires: 01/31/2011



Environmental  
 Protection Agency

**Disadvantaged Business Enterprise Program  
 DBE Subcontractor Participation Form**

NAME OF SUBCONTRACTOR <sup>1</sup>	PROJECT NAME
ADDRESS	CONTRACT NO.
TELEPHONE NO.	EMAIL ADDRESS
PRIME CONTRACTOR NAME	

Please use the space below to report any concerns regarding the above EPA-funded project (e.g., reason for termination by prime contractor, late payment, etc.).

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CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SERVICES RECEIVED FROM THE PRIME CONTRACTOR	AMOUNT SUBCONTRACTOR WAS PAID BY PRIME CONTRACTOR

Subcontractor Signature	Title/Date
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<sup>1</sup>Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

\* Filled out by DBE subcontractor. \* Submitted any time during project.

OMB Control No: 2090-0030

Approved: 05/01/2008

Approval Expires: 01/31/2011



Environmental  
Protection Agency

**Disadvantaged Business Enterprise Program  
DBE Subcontractor Participation Form**

The public reporting and recordkeeping burden for this collection of information is estimated to average fifteen (15) minutes. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA DBE Subcontractor Participation Form to this address.

\* Filled out by DBE subcontractors.

\* Submitted after opening bids.

OMB Control No: 2090-0030  
 Approved: 05/01/2008  
 Approval Expires: 01/31/2011



Environmental  
 Protection Agency

**Disadvantaged Business Enterprise Program  
 DBE Subcontractor Performance Form**

NAME OF SUBCONTRACTOR <sup>1</sup>		PROJECT NAME
ADDRESS		BID/PROPOSAL NO.
TELEPHONE NO.		E-MAIL ADDRESS
PRIME CONTRACTOR NAME		
CONTRACT ITEM NO.	ITEM OF WORK OR DESCRIPTION OF SERVICES BID TO PRIME	PRICE OF WORK SUBMITTED TO PRIME CONTRACTOR
Currently certified as an MBE or WBE under EPA's DBE Program? ____ Yes ____ No		
_____ Signature of Prime Contractor		_____ Date
_____ Print Name		_____ Title
_____ Signature of Subcontractor		_____ Date
_____ Print Name		_____ Title

<sup>1</sup>Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

\* Filled out by DBE subcontractors.

\* Submitted after opening bids.

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Environmental  
Protection Agency

**Disadvantaged Business Enterprise Program  
DBE Subcontractor Performance Form**

The public reporting and recordkeeping burden for this collection of information is estimated to average fifteen (15) minutes. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed EPA DBE Subcontractor Performance Form to this address.

\* Filled out by prime contractor.

\* Submitted after opening bids.

OMB Control No: 2090-0030  
 Approved: 05/01/2008  
 Approval Expires: 01/31/2011



Environmental  
 Protection Agency

**Disadvantaged Business Enterprise Program  
 DBE Subcontractor Utilization Form**

BID/PROPOSAL NO.	PROJECT NAME
NAME OF PRIME BIDDER/PROPOSER	E-MAIL ADDRESS
ADDRESS	
TELEPHONE NO.	FAX NO.

The following subcontractors <sup>1</sup> will be used on this project:			
COMPANY NAME, ADDRESS, PHONE NUMBER, AND E-MAIL ADDRESS	TYPE OF WORK TO BE PERFORMED	ESTIMATED DOLLAR AMOUNT	CURRENTLY CERTIFIED AS AN MBE OR WBE?

I certify under penalty of perjury that the forgoing statements are true and correct. In the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302(c).

\_\_\_\_\_  
 Signature of Prime Contractor

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Print Name

\_\_\_\_\_  
 Title

Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

\* Filled out by prime contractor.

\* Submitted after opening bids.

OMB Control No: 2090-0030  
Approved: 05/01/2008  
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Environmental  
Protection Agency

**Disadvantaged Business Enterprise Program  
DBE Subcontractor Utilization Form**

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## Davis Bacon Quarterly Compliance – Contractor

Please fill out one form for each contract awarded and submit to the KIA loan recipient. This information is required for compliance of the Davis Bacon provisions of the Clean Water SRF or Drinking Water SRF funded projects. This form should be submitted to the Prime Contractor no later than 5<sup>th</sup> day of each calendar quarter.

Borrower Name:	
WX / SX Number:	
KIA Loan Number:	
Project Name:	
Federal Wage decision # and modification # used in contract:	
Effective Date of Wage Decision used in contract:	
Contract Amount:	
Contractor Name:	
Contractor Address:	
Contract Actual Start / Anticipated End Date	

Questions regarding Davis Bacon determination:

	Yes or No
Was the appropriate wage rate paid to all workers from the first day on which work was performed?	
Have all weekly payroll information reports with a Statement of Compliance (in the form of WH-347) been submitted to the Borrower?	
Is the appropriate signage and notification of federal wage rates posted at the construction site?	
Are all sub-contracts in compliance?	

I certify the correct wage decision is being applied to the above noted project.

\_\_\_\_\_  
Signature of Authorized Official of Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Official

- *The prime contractor must keep a complete set of all of the payrolls for every contractor (including subcontractors) for at least 3 years after completion of the project.*
- *Every contractor (including every subcontractor) must keep a complete set of their own payrolls and other basic records such as time cards, tax records, and evidence of fringe benefit payments, for a Davis Bacon project for at least 3 years after the project is complete.*

**PLEASE NOTE:** KIA will use a combination of funding (CWSRF/DWSRF funds and non-CWSRF/DWSRF funds) to finance projects. Both federal Davis Bacon prevailing wages and the Commonwealth of Kentucky prevailing wages apply to this project. Payment of the wage and fringe benefits that are most beneficial to the employees are required.





## Davis Bacon Quarterly Compliance – Sub-Contractor

Please fill out one form for each contract awarded and should be submitted to the Prime Contractor. This information is required for compliance of the Davis Bacon provisions of the Clean Water SRF or Drinking Water SRF funded projects. This form should be submitted to the Prime Contractor no later than 5<sup>th</sup> day of each calendar quarter.

Borrower Name:	
WX / SX Number:	
KIA Loan Number:	
Project Name:	
Federal Wage decision # and modification # used in contract:	
Effective Date of Wage Decision used in contract:	
Contract Amount:	
Prime Contractor Name:	
Contractor Address:	
Sub-Contractor Name:	
Sub-Contractor Address:	
Sub-Contract Actual Start / Anticipated End Date	

Questions regarding Davis Bacon determination:

	Yes or No
Was the appropriate wage rate paid to all workers from the first day on which work was performed?	
Have all weekly payroll information reports with a Statement of Compliance (in the form of WH-347) been submitted to the Borrower or Prime Contractor?	
Is the appropriate signage and notification of federal wage rates posted at the construction site?	

I certify the correct wage decision is being applied to the above noted project.

\_\_\_\_\_  
Signature of Authorized Official of Sub-Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Official

- ***Every contractor (including every subcontractor) must keep a complete set of their own payrolls and other basic records such as time cards, tax records, and evidence of fringe benefit payments, for a Davis Bacon project for at least 3 years after the project is complete.***

**PLEASE NOTE: KIA will use a combination of funding (CWSRF/DWSRF funds and non-CWSRF/DWSRF funds) to finance projects. Both federal Davis Bacon prevailing wages and the Commonwealth of Kentucky prevailing wages apply to this project. Payment of the wage and fringe benefits that are most beneficial to the employees are required.**

General Decision Number: KY130087 07/19/2013 KY87

Superseded General Decision Number: KY20120112

State: Kentucky

Construction Type: Heavy  
Including Water and Sewer Line Construction

Counties: Gallatin, Grant and Pendleton Counties in Kentucky.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Modification Number	Publication Date
0	01/04/2013
1	01/11/2013
2	03/29/2013
3	04/05/2013
4	04/26/2013
5	06/07/2013
6	06/14/2013
7	06/28/2013
8	07/05/2013
9	07/19/2013

CARP0549-002 04/01/2013

GALLATIN COUNTY

	Rates	Fringes
CARPENTER (Including Form Work).....	\$ 26.90	14.46

CARP0698-003 05/01/2011

GRANT AND PENDLETON COUNTIES

	Rates	Fringes
CARPENTER (Including Form Work).....	\$ 25.74	12.69

ELEC0212-007 06/03/2013

	Rates	Fringes
ELECTRICIAN.....	\$ 26.35	16.09

ENGI0013-024 05/01/2012

PENDLETON COUNTY

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		

Backhoe/Trackhoe/Excavator..\$ 30.79	12.25
Bobcat/Skid Loader & Forklift (All other types)..\$ 29.63	12.25
Bulldozer & Loader (Front End).....\$ 30.67	12.25
Crane.....\$ 30.79	12.25
Masonry Forklift & Roller...\$ 29.63	12.25
Oiler.....\$ 22.99	12.25

ENGI0181-006 07/01/2013

GALLATIN AND GRANT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Backhoe/Excavator/Trackhoe, Bulldozer & Loader (Front End).....\$ 28.00		13.90
Bobcat/Skid Loader & Forklift.....\$ 25.45		13.90
Crane.....\$ 29.07		13.90
Oiler & Roller.....\$ 25.17		13.90

Operators on cranes with booms one hundred fifty feet (150) and over (including jib) shall receive one dollar (\$1.00) above rate

All crane operators operating cranes where the lenth of the boom in combination with the length of the piling leads equal or exceeds one hundred fifty (150) feet, shall receive one dollar (\$1.00) above the rate.

IRON0044-016 06/01/2013

	Rates	Fringes
IRONWORKER, STRUCTURAL.....\$ 25.00		18.40

\* IRON0372-017 06/01/2013

	Rates	Fringes
IRONWORKER, REINFORCING.....\$ 26.47		19.30

LABO0189-034 07/01/2013

	Rates	Fringes
LABORER Common or General.....\$ 21.35		11.61

PLAS0132-013 06/01/2013

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...\$ 22.00		11.65

PLUM0392-008 06/01/2013

	Rates	Fringes
PLUMBER.....	\$ 29.60	17.09
-----		
TEAM0089-004 03/31/2013		

GRANT AND PENDLETON COUNTIES

	Rates	Fringes
TRUCK DRIVER (Dump Truck).....	\$ 19.56	16.85
-----		
TEAM0100-003 03/31/2013		

GALLATIN COUNTY

	Rates	Fringes
TRUCK DRIVER (Dump Truck).....	\$ 19.56	16.85
-----		
SUKY2010-146 09/14/2010		

	Rates	Fringes
LABORER: Pipelayer.....	\$ 17.51	6.89
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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====  
 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)).  
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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 union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e.,

Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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#### 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.

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

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

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

=====  
END OF GENERAL DECISION



Steven L. Beshear  
Governor

**KENTUCKY LABOR CABINET**  
DEPARTMENT OF WORKPLACE STANDARDS  
DIVISION OF EMPLOYMENT STANDARDS,  
APPRENTICESHIP & MEDIATION  
1047 US Hwy 127 S - Suite 4  
Frankfort, Kentucky 40601  
Phone: (502) 564-3534  
Fax (502) 696-1897  
www.labor.ky.gov

Mark S. Brown  
Secretary  
  
Michael Donta  
Deputy Commissioner

April 3, 2013

Kerry Odle  
CMW Inc  
400 East Vine St. Ste. 400  
Lexington KY 40507

Re: Grant County Sanitary Sewer District, Bullock Pen Lake Sewer & Bingham Pump Station

Advertising Date as Shown on Notification: May 1, 2013

Dear Kerry Odle:

This office is in receipt of your written notification on the above project as required by KRS 337.510 (1).

I am enclosing a copy of the current prevailing wage determination number CR 7-019, dated June 5, 2012 for GRANT County. This schedule of wages shall be attached to and made a part of the specifications for the work, printed on the bidding blanks, and made a part of the contract for the construction of the public works between the public authority and the successful bidder or bidders.

The determination number assigned to this project is based upon the advertising date contained in your notification. There may be modifications to this wage determination prior to the advertising date indicated. In addition, if the contract is not awarded within 90 days of this advertising date or if the advertising date is modified, a different set of prevailing rates of wages may be applicable. It will be the responsibility of the public authority to contact this office and verify the correct schedule of the prevailing rates of wages for use on the project. Your project number is as follows: 041-H-00078-12-7, Heavy/Highway

Sincerely,

Michael Donta  
Deputy Commissioner





ERRATUM

Refer to the Locality Number and Determination Number listed below published by the Kentucky Labor Cabinet, Division of Employment Standards, Apprenticeship and Mediation dated June 5, 2012.

Locality Number 019 – Grant, Owen & Scott Counties

Determination Number CR 7-019

**DELETE:**

Asbestos/Insulation Workers/  
Heat & Frost Insulators

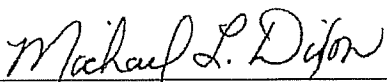
FRINGE BENEFITS 14.64

**INSERT:**

Asbestos/Insulation Workers/  
Heat & Frost Insulators

FRINGE BENEFITS 12.89

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\_\_\_\_\_  
Michael L. Dixon, Commissioner  
Department of Workplace Standards  
Kentucky Labor Cabinet  
Frankfort, KY 40601

This 14<sup>th</sup> day of June 2012.



PREVAILING WAGE DETERMINATION  
CURRENT REVISION  
LOCALITY NO. 019

Determination No. CR-7-019  
Date of Determination: June 5, 2012

Project No. 041-H-00078-12-7

\_\_\_ Bldg \_\_\_ x \_\_\_ HH

This schedule of the prevailing rate of wages for Locality No. 019, which includes Grant, Owen & Scott Counties, has been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR-7-019.

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

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) per day, and/or in excess of forty (40) per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one workday, but not more than ten (10) hours worked in any one workday, if such written agreement is prior to the over eight (8) hours in a workday actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked. Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

No laborer, workman or mechanic shall be paid at a rate less than that of the General Laborer except those classified as bona fide apprentices registered with the Kentucky State Apprenticeship Supervisor unless otherwise specified in this schedule of wage rates.

NOTE: The type of construction shall be determined by applying the following definitions.

BUILDING CONSTRUCTION

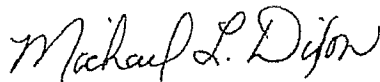
Building construction is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. It includes all construction of such structures, the installation of utilities and the installation of equipment, both above and below grade level, as well as incidental grading, utilities and paving.

HIGHWAY CONSTRUCTION

Highway construction includes the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects not incidental to building or heavy construction. It includes all incidental construction in conjunction with the highway construction project.

HEAVY CONSTRUCTION

Heavy projects are those projects that are not properly classified as either "building" or "highway". For example, dredging projects, water and sewer line projects, dams, flood control projects, sewage treatment plants and facilities, and water treatment plants and facilities are considered heavy.



---

Michael L. Dixon  
COMMISSIONER  
KENTUCKY LABOR CABINET

<b>ASBESTOS/INSULATION WORKERS/HEAT &amp; FROST INSULATORS</b>		BASE RATE	\$28.13
		FRINGE BENEFITS	<del>14.64</del>

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<b>BOILERMAKERS:</b>		BASE RATE	\$24.65
		FRINGE BENEFITS	12.94

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<b>BRICKLAYERS:</b>		BASE RATE	\$26.11
Bricklayers:		FRINGE BENEFITS	9.84

Refractory:		BASE RATE	\$26.61
		FRINGE BENEFITS	9.84

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<b>CARPENTERS:</b>		BASE RATE	\$21.23
Carpenters:	BUILDING	FRINGE BENEFITS	12.40

Piledrivermen	BUILDING	BASE RATE	\$21.73
		FRINGE BENEFITS	12.40

Carpenters:	HEAVY & HIGHWAY	BASE RATE	\$26.40
		FRINGE BENEFITS	13.95

Pildrivermen:	HEAVY & HIGHWAY	BASE RATE	\$26.65
		FRINGE BENEFITS	13.95

Divers:	HEAVY & HIGHWAY	BASE RATE	\$39.98
		FRINGE BENEFITS	13.95

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<b>CEMENT MASONS:</b>		BASE RATE	\$ 17.50
		FRINGE BENEFITS	4.95

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<b>ELECTRICIANS:</b>		BASE RATE	\$29.32
		FRINGE BENEFITS	<del>14.27</del>

LINEMAN:	HEAVY & HIGHWAY	BASE RATE	\$30.78
		FRINGE BENEFITS	11.33

GROUNDSMAN:	HEAVY & HIGHWAY	BASE RATE	\$27.52
		FRINGE BENEFITS	10.69

EQUIPMENT OPERATOR:	HEAVY & HIGHWAY	BASE RATE	\$18.23
		FRINGE BENEFITS	8.86

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<b>ELEVATOR CONSTRUCTORS:</b>		BASE RATE	\$29.75
		FRINGE BENEFITS	10.95

**GLAZIERS:**

OWEN COUNTY:		BASE RATE	\$18.01
		FRINGE BENEFITS	3.88

GRANT & SCOTT COUNTIES:		BASE RATE	\$15.45
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**IRONWORKERS:**

		BASE RATE	\$26.34
		FRINGE BENEFITS	18.84

**LABORERS:**

BUILDING GROUP 1: General laborers, asbestos abatement laborer, toxic waste removal laborer, water boys, tool room checker, carpenter tenders, (civil engineer helper, rodman, grade checkers excluding all field work performed by engineering firms), concrete pouring and curing, concrete form stripping and wrecking, hand digging and backfilling of ditches, clearing of right of ways and building sites, wood sheeting and shoring, signalman for concrete bucket and general cleaning, and environmental laborer - nuclear, radiation, toxic and hazardous waste - Level D:

BUILDING		*BASE RATE	\$20.01
		FRINGE BENEFITS	10.09

BUILDING GROUP 2: All air tool operators, air track drills, asphalt rakers, tampers, batchers plant and scale man, chain saw, concrete saw, electric hand grinder, all electric bush and chipping hammers, flagmen, forklift operators, form setter (street or highway), metal form setters, heaters, mesh handlers on walkways, streets and roadways outside building, gunnite laborers, hand spiker, introflax burning rod, joint makers, mason tenders, multi-trade tender, pipe layers, plaster tenders, powderman helpers, power driven Georgia buggies, power posthole diggers, railroad laborers, sandblaster laborers, scow man and deck hand, signal man, sweeper and cleaner machines, vibrator operators, walk behind trenching machines, mortar mixer machines, water pumpmen, and environmental laborers-nuclear, radiation, toxic and hazardous waste - Level C:

BUILDING		*BASE RATE	\$20.41
		FRINGE BENEFITS	10.09

BUILDING GROUP 3: Asphalt Paver Screwman, gunnite nozzleleman and gunnite nozzle machine operator, sand blaster nozzleleman, concrete or grout pumpman, plaster pumpman:

BUILDING		*BASE RATE	\$20.61
		FRINGE BENEFITS	10.09

BUILDING GROUP 4: Powderman and blaster, and environmental laborer - nuclear, radiation, toxic and hazardous waste - Level B:

BUILDING		*BASE RATE	\$20.71
		FRINGE BENEFITS	10.09

BUILDING GROUP 5: Caisson holes (6 ft. and over) pressure and free air including tools, construction specialist, and environmental laborer-nuclear, radiation, toxic and hazardous waste - Level A:

BUILDING		*BASE RATE	\$21.21
		FRINGE BENEFITS	10.09

BUILDING GROUP 6: Tunnel man and tunnel sand miner, cofferdam (pressure and free air), sand hog or mucker (pressure or free air):

BUILDING		*BASE RATE	\$21.51
		FRINGE BENEFITS	10.09

**LABORERS ON BUILDING:** \*Employees handling chemically treated materials which are harmful to the skin shall receive an additional \$.25 above base rate. Any employee working on high work such as towers or smoke stacks or any type of work putting the employee 50 feet above the ground or a solid floor shall receive an additional \$.50 per hour above the base rate. Any employee working on boilers, kilns, melting tanks, furnaces, or when refractory is done using live fire, drying fires, heatups or any hot work shall receive an additional 25% premium above the base rate.

**LABORERS: HEAVY HIGHWAY**

HEAVY HIGHWAY GROUP 1: Aging and curing of concrete (any mode or method); asbestos abatement worker; asphalt plant laborers; asphalt laborers; batch truck dumpers; carpenter tenders; cement mason tenders; cleaning of machines; concrete laborers; demolition laborers; dredging laborers; drill helper; environmental laborer-nuclear, radiation, toxic & hazardous waste-Level D; flagmen; grade checkers; all hand digging and hand back filling; highway marker placers; landscaping laborers; mesh handlers & placers; puddler; railroad laborers; rip-rap & grouters; right of way laborers; sign, guard rail & fence installers (all types); signal men, sound barrier installer; storm and sanitary sewer laborers; swampers; truck spotters & dumpers; wrecking of concrete forms; general cleanup.

HEAVY & HIGHWAY	*BASE RATE	\$20.81
	FRINGE BENEFITS	10.85

HEAVY HIGHWAY GROUP 2: Batter board men (sanitary & storm sewer); brickmason tenders; mortar mixer operator; scaffold builders; burner and welder; bushammers; chain saw operator; concrete saw operators; deckhand scow man; dry cement handlers; environmental laborers-nuclear, radiation, toxic & hazardous waste-Level C; forklift operators for masonry; form setters; green concrete cutting; hand operated grouter and grinder machine operator; jack hammers; lead paint abatement; pavement breakers; paving joint machine; pipe layers-laser operators (non-metallic); plastic pipe fusion; power driven Georgia buggy & wheel barrow; power post hole diggers; precast manhole setters; walk behind tampers; walk behind trenchers; sand blasters; concrete chippers; surface grinders; vibrator operators; wagon drillers

HEAVY & HIGHWAY	*BASE RATE	\$21.06
	FRINGE BENEFITS	10.85

HEAVY HIGHWAY GROUP 3: Asphalt luteman and rakers; gunnite nozzleman; gunnite operators and mixers; grout pump operator; side rail setters; rail paved ditches; screw operators; tunnel laborers (free air) and water blasters.

HEAVY & HIGHWAY	*BASE RATE	\$21.11
	FRINGE BENEFITS	10.85

HEAVY HIGHWAY GROUP 4: Caisson workers (free air) cement finishers; environmental laborers-nuclear, radiation, toxic & hazardous waste-Levels A & B; miners & drillers (free air); tunnel blasters and tunnel muckers (free air); directional and horizontal boring; air drillers (all types); powder man and blasters; troxler and concrete tester if laborer is utilized.

HEAVY & HIGHWAY	*BASE RATE	\$21.71
	FRINGE BENEFITS	10.85

**\*Signal Person will receive the rate equal to the rate paid the laborer classification for which he or she is signaling.**

**MARBLE, TILE & TERRAZZO:**

Finishers:	BASE RATE	\$15.42
	FRINGE BENEFITS	5.42

Setters:	BASE RATE	\$22.64
	FRINGE BENEFITS	6.10

**MILLWRIGHTS:**

BASE RATE	\$28.21
FRINGE BENEFITS	15.99

**OPERATING ENGINEERS / BUILDING:**

BUILDING CLASS A-1:

NCCCO or OECF Certified:

Cableway, Carry Deck Crane, Cherry Picker, Clamshell, Crane, Derrick, Derrick Boat, Dragline, Hoist Engine (2 or more drums), Hydraulic Boom Truck, Hydrocrane, Orangepeel Bucket, Overhead Crane, Piledriver, Rough Terrain Crane, Tower Cranes (French, German and other types), Truck Crane:

BUILDING	BASE RATE	\$26.55
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FRINGE BENEFITS 13.00

**OPERATING ENGINEERS / BUILDING: CONTINUED**

BUILDING CLASS A: Auto Patrol, Batch Plant, Bituminous Paver, Cableway, Central Compressor Plant, Clamshell, Concrete Mixer (21 cu. ft. or over), Concrete Pump, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Operator, Dredge Engineer, Elevating Grader and all types of Loaders, Forklift (regardless of lift height), Hoe-Type Machine, Hoist (1 drum when used for stack or chimney construction or repair), Hoisting Engine (2 or more drums), Locomotive, Motor Scraper, Carry-all Scoop, Bulldozer, Heavy Duty Welder, Mechanic, Orangepeel Bucket, Piledriver, Power Blade, Motor Grader, Roller (bituminous), Scarifier, Shovel, Tractor Shovel, Truck Crane, Winch Truck, Push Dozer, Highlift, All types of Boom Cats, Core Drill, Hopto, Tow or Push Boat, A-Frame Winch Truck, Concrete Paver, Gradeall, Hoist, Hyster, Pumpcrete, Ross Carrier, Boom, Tail Boom, Rotary Drill, Hydro Hammer, Mucking Machine, Rock Spreader attached to equipment, Scoopmobile, KeCal Loader, Tower Cranes (French, German and other types), Hydrocrane, Backfiller, Gurries, Sub-Grader, Tunnel Mining Machines including Moles, Shields, or similar types of Tunnel Mining Equipment:

BUILDING	BASE RATE	\$25.55
	FRINGE BENEFITS	13.00

**\*Operators on cranes with boom one-hundred fifty feet (150') and over including jib, shall receive seventy-five cents (\$.75) above base rate. All cranes with piling leads will receive \$.50 above base rate regardless of boom length**

BUILDING CLASS B: All Air Compressors (over 900 cfm), Bituminous Mixer, Joint Sealing Machine, Concrete Mixer (under 21 cu. ft), Form Grader, Roller (rock), tractor (50 HP and over), Bull Float, Finish Machine, Outboard Motor Boat, Flexplane, Fireman, Boom Type Tamping Machine, Greaser on Grease Facilities servicing Heavy Equipment, Switchman or brakeman, Mechanic Helper, Whirley Oiler, Self-Propelled Compactor, Tractair and Road Widening Trencher and Farm Tractor with Attachments (except backhoe, highlift and endloader), Elevator (regardless of ownership when used for hoisting any building materials), Hoisting Engineer (1 drum or buck hoist), Forklift ( when used for masonry construction, Firebrick Masonry Excluded), Well Points, Grout Pump, Throttle-Valve Man, Tugger, Electric Vibrator Compactor and Caisson Drill Helper:

BUILDING	BASE RATE	\$22.81
	FRINGE BENEFITS	13.00

BUILDING CLASS C: Bituminous Distributor, Cement Gun, Conveyor, Mud Jack, Paving Joint Machine, Roller (earth), Tamping Machine, Tractors (under 50 HP), Vibrator, Oiler, Concrete Saw, Burlap and Curing Machine, Truck Crane Oiler, Hydro-Seeder, Power Form handling Equipment, Deckhand Steersman, Hydraulic Post Driver and Drill Helper:

BUILDING	BASE RATE	\$22.04
	FRINGE BENEFITS	13.00

**OPERATING ENGINEERS / HEAVY & HIGHWAY:**

HEAVY & HIGHWAY CLASS A-1:  
 NCCCO or OECP Certified:

Crane, dragline, hoist (1 drum when used for stack or chimney construction repair), hoisting engineer (2 or more drums), orangepeel bucket, overhead crane, piledriver, truck crane, tower crane, hydraulic crane:

HEAVY & HIGHWAY	BASE RATE	\$27.50
	FRINGE BENEFITS	13.00



**OPERATING ENGINEERS / HEAVY & HIGHWAY: CONTINUED**

HEAVY & HIGHWAY CLASS A: A-frame Winch Truck, Auto Patrol, Backfiller, Batcher Plant, Bituminous Paver, Bituminous Transfer Machine, all types of Boom Cats, Bulldozer, Cableway, Carry-All Scoop, Carry Deck Crane, Central Compressor Plant Operator, Clamshell, Concrete Mixer (21 cu. Ft. or over), Concert Paver, Truck-mounted Concrete Pump, Core Drills, Crane, Crusher Plant, Derrick, Derrick Boat, Ditching and Trenching Machine, Dragline, Dredge Operator, Dredge Engineer, Earth Movers, Elevating Grader and all types of Loaders, Grade-all, Gurrries, 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, Hydraulic Boom Truck, Hydrocrane, Hyster, KeCal Loader, Letourneau, Locomotive, Mechanic, Mechanically Operated Laser Screed, Mechanic Welder, Mucking Machine, Motor Scraper, Orangepeel Bucket, Piledriver, Power Blade, Pumpcrete, Push Dozer, Rock Spreader attached to equipment, All rotary Drills, Roller (Bituminous), Scarifier, Scoopmobile, Shovel, Side Boom, Subgrader, Tailboom, Telescoping Type Forklift, Tow or Push Boat, Tower Cranes (French, German, and other types), Tractor Shovel and Truck Crane, Tunnel Mining Machines including Moles, Shields, or similar types of Tunnel Mining Equipment:

	HEAVY & HIGHWAY	BASE RATE	\$26.50
		FRINGE BENEFITS	13.00

**Operators on cranes with booms one hundred fifty feet (150) and over (including job) shall receive one dollar (\$1.00) above Class A rate. Combination Rate: All crane operators operating cranes, where the length of the boom in combination with the length of the piling leads equal or exceeds one hundred fifty (150) feet, shall receive one dollar (\$1.00) above the Class A rate. Where remote, laser, or CPS controlled equipment is utilized to operate the equipment listed in the wage classifications of this agreement, such work for operating purposes shall be the jurisdiction of the Operating Engineers.**

HEAVY & HIGHWAY CLASS B: All Air Compressors (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 (on drum or back hoist), Elevator (regardless of lift height), Form Grader, Hoist (one drum), Joint Sealing Machine, Mechanic Helper, Outboard Motor Boat, Power Sweeper (riding type), Roller (rock), Ross Carrier, Skid Mounted or Trailer mounted Concrete Pumps, Skid Steer Machine with all attachments, Switchman or Brakeman, Throttle Valve Man, Tract air and Road Widening Trencher, Tractor (50 H.P. or over), Truck Crane Oiler, Tugger, Welding Machine, Well Points, and Whirley Oiler:

	HEAVY & HIGHWAY	BASE RATE	\$24.08
		FRINGE BENEFITS	13.00

HEAVY & HIGHWAY CLASS B2: Greaser on Grease Facilities servicing Heavy Equipment, all off road material handling equipment, including articulating dump trucks:

	HEAVY & HIGHWAY	BASE RATE	\$24.46
		FRINGE BENEFITS	13.00

HEAVY & HIGHWAY CLASS C: Bituminous Distributor, Burlap and Curing Machine, Caisson Drill and Core Drill Helper (track or skid mounted), 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, Tractors (under 50 H.P.) and Vibrator:

	HEAVY & HIGHWAY	BASE RATE	\$23.82
		FRINGE BENEFITS	13.00

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**PAINTERS:**

Painters:	BUILDING	BASE RATE	\$22.85
		FRINGE BENEFITS	7.10
Brush & Roller:	HEAVY & HIGHWAY	BASE RATE	\$18.20
		FRINGE BENEFITS	5.08
Drywall Finishers & Plasterers:	HEAVY & HIGHWAY	BASE RATE	\$18.45
		FRINGE BENEFITS	5.08

**PAINTERS: CONTINUED**

Spray, Sandblast, Power Tools, Waterblast, Steam Cleaning; Brush & Roller of Mastics, Creosotes, Kwinch Koate and Coal Tar Epoxy:	HEAVY & HIGHWAY	BASE RATE	\$19.20
		FRINGE BENEFITS	5.08
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Spray of Mastics, Creosotes, Kwinch Koate and Coal Tar Epoxy:	HEAVY & HIGHWAY	BASE RATE	\$20.20
		FRINGE BENEFITS	5.08

**PLUMBERS & PIPEFITTERS:  
 SCOTT COUNTY**

BASE RATE	\$29.00
FRINGE BENEFITS	15.31

**PLUMBERS & PIPEFITTERS:  
 OWEN & GRANT COUNTIES:**

BASE RATE	\$31.00
FRINGE BENEFITS	15.31

**ROOFERS: (Excluding Metal Roofs)**

BASE RATE	\$18.90
FRINGE BENEFITS	6.79

**SHEETMETAL WORKERS: (Including Metal Roofs)**

BASE RATE	\$26.35
FRINGE BENEFITS	11.07

**SPRINKLER FITTERS:**

BASE RATE	\$29.55
FRINGE BENEFITS	17.22

**TRUCK DRIVERS / BUILDING:**

BASE RATE	\$18.31
FRINGE BENEFITS	*9.24

**Truck Drivers performing work on or hauling from a hazardous or toxic waste site, add \$4.00 to base.**

\*TRUCK DRIVER Fringe benefits - Apply to each employee (whose name appears on the payroll that week) who has been employed a minimum of twenty (20) work days within any ninety (90) consecutive day period for that employer.

**TRUCK DRIVERS / HEAVY HIGHWAY:**

Four-wheel service trucks, four-wheel dump trucks, Batch Trucks, Oil Distributors, Asphalt Distributors:	HEAVY & HIGHWAY	BASE RATE	\$19.34
		FRINGE BENEFITS	7.02
Tandems:	HEAVY & HIGHWAY	BASE RATE	\$19.39
		FRINGE BENEFITS	7.02
Tractor-Trailer; including semi-tractors, pole-trailers, ready-mix trucks; fuel trucks, asphalt-oil spraybar men (see also next line):	HEAVY & HIGHWAY	BASE RATE	\$19.44
		FRINGE BENEFITS	7.02
Asphalt-Oil spraybar men when operated from cab, Five-Axle trucks & over:	HEAVY & HIGHWAY	BASE RATE	\$19.54
		FRINGE BENEFITS	7.02

**TRUCK DRIVERS / HEAVY HIGHWAY: CONTINUED**

Belly Dumps, End Dumps, Articulated Dumps, Low-boys & Heavy Duty Equipment, Truck Mechanics: HEAVY & HIGHWAY	BASE RATE	\$19.81
	FRINGE BENEFITS	7.02

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**END OF DOCUMENT**  
**CR-7-019**  
**June 5, 2012**



**BULLOCK PEN LAKE SEWER AND  
BINGHAM PUMP STATION RELOCATION  
DIVISION I – GENERAL REQUIREMENTS**

**SECTION 01010 - SPECIAL CONDITIONS**

1. **RELATED DOCUMENTS**

General Provisions of Contract, General and Supplementary Conditions apply to this section.

2. **DESCRIPTION OF WORK**

Provide labor, materials, equipment and services necessary for proper and complete construction of this contract for the sanitary sewers in Grant County, Kentucky.

3. **CONTRACTOR'S QUALIFICATIONS**

A. Contractor shall have completed a minimum of five similar sanitary sewer projects.

B. Each bidder shall submit, in writing, the following information:

- (1) Name and address of principal owner of contracting company.
- (2) A list of projects with the name and address of Engineer on each project which shows contractor meets requirements on Part A.
- (3) A list of all other similar work performed within the past five (5) years with name and address of Engineer on each project.

4. **CONTRACTOR'S SUPERINTENDENT**

Contractor shall keep on his work, at all times during its progress, a competent superintendent satisfactory to Engineer. The Superintendent shall not be changed, except with consent of Engineer, unless he proves to be unsatisfactory to Contractor and ceases to be in his employ. Superintendent shall represent Contractor in his absence and all directives given to him shall be binding as if given to Contractor.

5. **INTENT**

The intent of these Specifications is to require a high level of quality in materials and workmanship resulting in timely completion of all Work in an orderly sequence and manner without inconvenience to the Owner, adjacent property owners or the public.

6. **WORK REASONABLY INFERRED BUT NOT PARTICULARLY DELINEATED OR SPECIFIED**

A. Contractor shall make a thorough examination of site and study all drawings and specifications and all conditions relating to work, and if any materials or labor are evidently necessary for proper and complete execution of work which are not specifically mentioned and included in drawings and specifications, although reasonably inferred therefrom, unless eliminated by special mention, or if any error or inconsistency appears therein, or in the event of any doubts arising as to the true intent and meaning of drawings or specifications, he shall report it to Engineer at least five (5) days in advance of date set for receiving bids. If appropriate, Engineer will then issue an addendum containing the proper information to all Contractors not later than three (3) days prior to the date set for opening of bids.

- B. If Contractor fails to make such report and Engineer is not otherwise advised of such doubtful matters, Contractor is hereby made responsible for furnishing all necessary labor and material reasonably inferred for any additional work involved in correction of apparent errors or inconsistencies and in executing the true intent and meaning of drawings and specifications as interrupted by Engineer, and all such labor and material shall be provided at Contractor's expense and under no circumstances will any such labor and material be allowed as extra cost.

**7. QUALITY OF MATERIALS, EQUIPMENT AND WORKMANSHIP**

- A. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- B. Approval of manufacturer's shop drawings of materials and equipment shall not mean final acceptance, but they shall be subject to inspection and test on delivery and installation. Contractor shall repair, replace, or adjust any materials or equipment found defective or not operating properly due to improper materials, workmanship, and adjustment for a period of one year after completion and acceptance of work.
- C. Contractor shall at all times enforce strict discipline and good order among his employees, and shall not employ anyone not skilled in the work assigned to him.

**8. TRADE NAMES**

Whenever manufactured products, devices or materials are specified under a particular trade name or name of manufacturer, it shall be understood that the specifications are open to other manufacturers whether or not the clause "or approved equal" is included. Other products comparable in type, quality, utility and price are acceptable if approved by Engineer and Owner. The burden of proof of equality shall rest with Contractor. Owner shall be the sole judge of equality and reserves the right to require the product or material specified by name and furnished at no increase in contract amount.

**9. MANUFACTURER'S EQUIPMENT - SHOP DRAWINGS**

- A. Various items of equipment indicated on Drawings have been indicated schematically only; actual details of each item of equipment shall be verified in shop drawings submitted to Engineer for approval. Data shown on shop drawings shall be complete with respect to dimensions, design criteria, materials of construction, wiring diagrams and component parts, and all details to enable Engineer to review the information as required. At the time of submission, the manufacturer shall in writing, call Engineer's attention to any deviations that shop drawings may have from requirements of Engineer's specifications, or deviation in dimension or equipment weight which might affect structural design or stability. Engineer's approval of shop drawings shall not relieve Contractor from responsibility for compliance with requirements of specifications. Engineer shall not be held responsible for omission or deletion of any components of manufacturer's equipment. Equipment manufacturer shall be responsible for all components of equipment and shall guarantee that equipment will perform and operate satisfactorily in accordance with requirements set forth in these specifications.

- B. Contractor shall furnish six (6) copies of all shop drawings to Engineer for review. No equipment or materials shall be ordered prior to Engineer's written approval of shop drawings.

10. EXISTING UTILITIES

- A. Before proceeding with work, Contractor shall verify location of, and possible interference with, existing utilities, arrange for necessary suspension of service, and make arrangements to locate and avoid interference with all utilities.
- B. Contractor shall protect all utility lines which are to remain in service.
- C. Special precautions shall be taken by Contractor to avoid damage to existing overhead and underground utilities owned and operated by public or private utility companies.
- D. With particular respect to existing underground utilities, the available information concerning their location has been indicated on Drawings. While it is believed that the locations shown are reasonably correct, neither Engineer nor Owner can guarantee accuracy of adequacy of this information.
- E. Before proceeding with work, Contractor shall confer with all public or private companies, agencies, or departments that own and operate utilities in vicinity of construction. The purpose of the conference, or conferences, shall be to notify said companies, agencies, or departments of proposed construction schedule, verify location of, and possible interference with, existing utilities that are indicated on Drawings, arrange for necessary suspension of service, and make arrangements to locate and avoid interference with all utilities (including house connections) that are not indicated on Drawings. Engineer and Owner have no objection to Contractor arranging for said utility companies, agencies, or departments to locate and uncover their own utilities; however, Contractor shall bear entire responsibility for and cost of locating and avoiding or repairing damage to any and all existing utilities.
- F. Contractor shall be diligent in his efforts and use every possible means to locate existing utilities. Any claims for unavoidable damage, based on improper or unknown locations, will be thoroughly examined in light of Contractor's efforts to locate said utilities or obstructions prior to beginning construction.
- G. A partial list of contacts for underground utility information follows:  
Bullock Pen Water District  
Cincinnati Bell-  
Owen County Rural Electric  
Insight Cable  
For General Utility Information call:  
B.U.D. (Before you Dig)  
811

Note: The above list is furnished with the intention of assisting the contractor in obtaining information concerning existing utilities. It is not intended to be a comprehensive list



of all utility owners. Contractor shall be responsible for contacting all utility owners on a schedule far enough in advance of trench work to allow utility owners to respond.

11. DAMAGE TO EXISTING UTILITIES

- A. Contractor shall be responsible for any and all damage done to existing utilities.
- B. Damage done to existing utilities shall be repaired promptly, to satisfaction of utility company, at no cost to Owner.

12. PUBLIC AND PRIVATE HIGHWAYS AND STREETS

- A. Contractor shall ascertain and obey all State and County road load limits in order to prevent damage to pavements resulting from his operation.
- B. Public Convenience and Safety
  - (1) Contractor shall, at all times, conduct work in such manner as to insure minimum obstruction to public travel. Convenience of general public and of residents along and adjacent to area of work shall be provided for in a satisfactory manner, consistent with operation and local conditions and as directed by the Engineer.
  - (2) Flagmen shall be used at any time that work of any kind is being performed on any portion of roadway pavement, shoulder, ditch or road right-of-way.
  - (3) "Construction" signs shall be placed immediately adjacent to work, in conspicuous positions at such locations as traffic demands. Signs shall conform to requirements of Manual on Uniform Traffic Control Devices (MUTCD) published by U. S. Department of Transportation, Federal Highway Administration, latest edition. The manual is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. At any time that streets are required to be closed, Contractor shall notify law enforcement agencies, fire departments, and parties operating emergency vehicles before streets are closed and again as soon as it is reopened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times.
  - (4) Trenches shall be backfilled at end of each day's work as directed by Engineer. Trenches left open shall be adequately protected with suitable flashing barricades, in compliance with MUTCD and as approved by Engineer. All trenches are required to be backfilled at end of work week. No trenches shall remain open over a weekend. Contractor shall place and maintain DGA on streets and in trenches in construction area when directed by Engineer to maintain roads in safe and traversable condition. Placement of DGA and maintenance of traffic in construction area is considered incidental to construction and will not be paid for separately.

- (5) At anytime when excavated material is placed on a paved road the road shall be cleaned at the end of the day with a power broom as directed by the Engineer. Contractor shall power broom at any time as determined by the Engineer or his Representative that a hazard exists.
- (6) When excavated material is placed or stockpiled on gravel roads, the contractor shall place crushed stone in these areas to the thickness as approved by the Engineer. The road shall have as much or more gravel or crushed stone as prior to construction as determined by Engineer.

13. WORK ON PRIVATE PROPERTY

- A. In connection with work performed on "private property" (property other than public rights-of-way), Contractor shall confine equipment, storage of materials, and operation of his workmen to limits indicated on plans, or to lands and rights-of-way provided for the project by Owner, and shall take every precaution to avoid damage to private property owners' buildings, grounds and facilities.
- B. Fences, hedges, shrubs, etc. within construction limits, shall be carefully removed, preserved, and replaced after construction on the private property is completed. Private property owners' facilities, and grounds, shall be restored to as good or better condition than found, as quickly as possible, at Contractor's expense.
- C. Large trees or other facilities within construction limits that cannot be preserved and replaced shall be removed by Contractor upon approval by Engineers, but Owner will assume responsibility for settling with property owner for loss of said trees or facilities. Such trees and facilities, however, may be indicated on Drawings. Contractor shall be solely and entirely responsible for any damage to trees or facilities whether indicated on Drawings or not.
- D. Foundations, adjacent to excavations made below bottoms of the foundations, shall be supported by shoring, bracing, and underpinning as required as long as excavations remain open, and Contractor shall be responsible for any damage to foundations.
- E. Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees that receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.

14. BLASTING

- A. All blasting operations shall be conducted in strict accordance with Kentucky Revised Statutes 351.320 to 351.340 and 351.340, effective October 6, 1972, and subsequent revisions, which shall be deemed to be included in these specifications the same as though herein written out in full. Contractor shall also comply with applicable municipal ordinances, Federal safety regulations and Section 9 of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, Inc. All explosives shall be stored in conformity with said ordinances, laws and safety regulations. No blasting shall be done within any other

underground utility lines, except with light charges of explosives. Any damage done by blasting is the responsibility of the Contractor and shall be promptly and satisfactorily repaired by him.

- B. If directed by Engineer, all shots shall be covered with heavy timber or steel blasting mats to prevent flying material. Unless otherwise specified or directed, delay caps shall be used to reduce earth vibrations and noise.
- C. All blasting shall be supervised and performed by qualified personnel.

15. CLEAN-UP

- A. Clean-up shall be performed on a daily basis. All debris shall be removed from site regularly. The site shall be kept in a neat condition, ready for subsequent operations.
- B. Excess dirt and rock stockpiles shall be placed at locations approved by Engineers. Stockpiles shall not be placed in the immediate front yards of houses or businesses.
- C. If Contractor fails to perform proper or adequate cleanup behind pipe laying operations, Engineer may recommend to Owner that an additional amount of retainage, not to exceed ten (10) percent, be withheld from payment(s) due Contractor or may recommend that the construction be suspended until clean-up is acceptable. When construction is suspended due to inadequate clean-up, construction time will continue during the suspension.

16. PRECONSTRUCTION CONFERENCE

- A. Following signing of Contract Documents and prior to actual beginning of construction, a Pre-Construction Conference will be held. Contractor, Contractor's Superintendent, and major subcontractors, shall be present to discuss the Construction Schedule, Contractor's Plan of Operation, Engineer's authority, Resident Inspector's authority, procedures for monthly progress reviews and payments, and other relevant questions. Preconstruction conference will be scheduled by Engineer within ten (10) calendar days following date of signing of Agreement.
- B. Unless otherwise instructed by Engineer, Contractor shall prepare and submit five (5) copies of his proposed Construction Schedule for review at Preconstruction Conference.
  - (1) Construction Schedule shall be in a line-item/bar chart format showing anticipated starts, durations and completion of all major items, operations or disciplines or work.

17. TEMPORARY TOILETS, UTILITIES, STORAGE, ETC.

- A. Contractor shall be responsible for providing suitable temporary toilets for use by all workmen.

- B. Contractor shall be responsible for providing suitable sources of potable water for all operations required for completion of work.
- C. Contractor shall make arrangements for on-site areas for storage of materials and equipment, etc.
- D. Costs for any and all items covered under this paragraph shall be at Contractor's expense.

18. SECURITY

- A. Contractor shall be responsible for protection of his materials, equipment and work during period of Contract. Damage done to construction stakes or to material, equipment, or to completed work shall be replaced or repaired to Engineer's satisfaction and at no additional cost to Owner.
- B. Contractor shall be responsible for protection of adjacent public and private property affected by work performed under this Contract, and shall make all necessary and appropriate arrangements with adjacent property owners and with Engineer for such protection prior to commencing work. Damage done to adjacent property resulting from Contractor's operations, or loss suffered by owners of adjacent property, shall be repaired or otherwise compensated by Contractor to satisfaction of Engineer and the affected owner of adjacent property at no additional cost to Owner.

19. LAYOUT OUT WORK

- A. Sanitary manhole - All manholes and pump stations will be staked with cut stakes one time.
- B. Contractor will be responsible for replacement stakes and off-set stakes and shall furnish all materials required for staking. Contractor's personnel engaged in staking work shall be capable of performing duties set out herein.

20. MEASUREMENTS

- A. Contractor and each subcontractor shall be responsible for verification of all measurements at site before ordering materials or doing work. No extra charge or compensation shall be allowed due to differences between actual dimensions found in the field and dimensions indicated on Bid Form or on Drawings.
- B. Contractor shall be prepared to guarantee to each of his subcontractors dimensions which he may require for layout and fitting of his work to surrounding work.

21. RECORD DOCUMENTS

Contractor shall maintain in good condition at project site one (1) set of prints of all Contract Drawings, upon which Contractor's Representative will record periodically as required the actual location and conditions of construction, if different than shown or indicated on Drawings. Approval of final payment is contingent in part, upon receipt of record drawings by Engineer.

22. USE OF PREMISES AND REMOVAL OF DEBRIS

Contractor shall, at his own expense:

- A. Take every precaution against injuries to persons or damage to property;
- B. Store his apparatus, materials, supplies and equipment in such orderly fashion at site of work as will not unduly interfere with progress of his work or work of any other contractors or subcontractors.
- C. Preserve all trees outside the construction limits.
- D. Place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work;
- E. Clean up daily all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of work shall present a neat, orderly and workmanlike appearance.
- F. Before final inspection, remove all surplus materials, falsework, temporary structures, including foundations thereof, all debris resulting from his operation, and put the site in a neat, orderly condition;
- G. Effect all cutting, fitting or patching of his work required to make same conform to intent of Plans and Specifications and, except with consent of Engineer, no cut or otherwise alter the work of any other Contractor.

23. FIELD CHANGES

Engineer may issue written "Changes" which interpret Contract Documents without change in contract price or contract time, and Contractor shall carry out such field orders promptly.

24. GENERAL GUARANTY

The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from date of substantial completion. Contractor warrants and guarantees for a period of one (1) year from date of substantial completion of system that completed system is free from all defects due to faulty materials or workmanship and Contractor shall promptly make such corrections as may be necessary by reason of such defects including repairs or damage of other parts of system resulting from such defects. Owner will give notice of observed defects with reasonable promptness. In the event that Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

25. PARTIAL PAYMENT SCHEDULE

- A. Partial Payment Estimate forms will be furnished by Engineer at Preconstruction Conference. Contractor shall prepare monthly Request Forms, as described in General Conditions.

- B. Contractor shall submit partial pay estimates to Engineer by 20<sup>th</sup> day of each month. Pay Request will be submitted to KIA and DOW by the 5<sup>th</sup> of the next month. Payment shall be sent to Contractor by the 25<sup>th</sup> of the month.
- C. Contractor shall attend monthly Progress Meetings, scheduled by Engineer, for purpose of reviewing Contractor's Request for Payment and other matters pertaining to performance of work. If directed by Engineer, Contractor shall arrange for his subcontractors to be present at Progress Meetings.
- D. Payments Withhold
  - (1) Engineer may withhold or, on account or subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect Owner from loss on account of:
    - a. Defective work not remedied.
    - b. Claims filed or reasonable evidence indicating probable filing of claims.
    - c. Failure of the contractor to make payments properly to subcontractors or for material or labor.
    - d. A reasonable doubt that the contract can be completed for the balance then unpaid.
    - e. Damage to another Contractor.
    - f. Performance of work in violation of the terms of the contract.
- D. Where work on unit price items is substantially complete but lacks clean-up and/or corrections order by Engineer, amounts shall be deducted from unit prices in payment certificates to amply cover such clean-up and corrections. When the above clean-up and/or corrections are made, payment shall be made for amounts withheld.

26. APPROVALS AND PERMITS

- A. Contractor shall obtain permit from Kentucky Transportation Cabinet for construction within State right-of-way. The "Encroachment Permit" has been submitted pending receipt of bond from Contractor. Contact Permit Engineer in D.O.T. District No. 6 Office in Covington, Kentucky concerning this permit. Contractor shall not begin work in State right-of-way until he has furnished copy of approved encroachment permit to Engineer.
- B. Use of rights-of-way shall be subject to written conditions on permits. Contractor shall comply with all requirements of access documents, for storage of materials, traffic control, restoration, etc.

27. SPECIFICATIONS BY REFERENCE

- A. Whenever the term "Standard Specifications" is used, it shall mean "Standard Specifications for Road and Bridge Construction" of the Kentucky Transportation

Cabinet, Department of Highways latest Edition. Items described by reference to "Standard Specifications" shall comply with "Standard Specifications" as if they were printed herein.

- B. Copies of "Standard Specifications" may be obtained from: Transportation Cabinet, Department of Administration, Division of Management Services, State Office Building, Frankfort, KY 40622.

**28. INSPECTION**

- A. One inspector will be working on this project. If more than one crew is working, trenches must remain open until the inspector approves the work.
- B. In inspector is not contacted by contractor concerning no work due to rain or wet weather conditions and comes to job site, no rain day will be allowed for the contract time.
- C. If more than one crew is working on project, the starting time for all crews shall be the same.

**29. SAFETY STANDARDS**

Contractor shall be in compliance with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

**30. CHANGE ORDERS**

- A. Change Orders shall be negotiated between the Engineer and Contractor. No work on Change Order shall proceed until change or has been approved by all parties.
- B. Change Orders to construction contract (if required) must be negotiated with DOW/KIA Procurement Guidance for Construction and Engineer Contracts.
- C. Change Orders must be negotiated pursuant to 40 CFR31.36 (f) (1).

**31. SILTATION AND SOIL EROSION**

Contractor shall use BMP to minimize siltation and soil erosion during construction.

**32. WASTEWATER BYPASSING**

No wastewater bypassing will be allowed during construction unless a schedule has been approved by the State and/or by EPA/NEPA permit if required.

**33. POTENTIAL INDIANA BAT ROOST TREES**

- A. Where the proposed project goes through fields and woods, there is a potential for Indiana Bat roost trees within the construction limits. If seasonal clearing of trees between October 15 through March 31 is performed by the Contractor, then an

Indiana Bat Survey is not required. However, if the construction schedule dictates clearing of trees between April 1 through October 14, an Indiana Bat Survey is required.

- B. If clearing of trees between April 1 through October 14 and an Indiana Bat Survey is necessary, the Contractor must coordinate with the Grant County Sanitary Sewer District to acquire an Indiana Bat Survey.
- C. Contractor must work with the ecologist hired by the Grant County Sewer District to locate the potential Indiana bat roost trees within the construction limits.
- D. Cost of Indiana Bat Survey will be paid by the Contractor.
- E. Due to PSC review, contract will not be awarded until 90 days after bid opening.

END OF SECTION 01010



**BULLOCK PEN LAKE SEWER AND  
BINGHAM PUMP STATION RELOCATION  
DIVISION 2 – TECHNICAL SPECIFICATIONS**

**SECTION 02235 - SILTATION CONTROL**

**1. RELATED DOCUMENTS**

General provisions of Contract, General and Supplementary General Conditions, and General Requirements apply to this Section.

**2. DESCRIPTION OF WORK**

- A. Provide labor, material, equipment and services necessary for proper and complete siltation control.
- B. This work shall consist of temporary control measures as ordered by Engineer during life of contract to control siltation through use of erosion control methods; and coordinating these measures with permanent erosion control features specified elsewhere in contract to extent practicable to assure effective and continuous erosion control throughout construction and postconstruction period.
- C. Intent of this specification is to protect quality of water through prevention, control, and abatement of siltation resulting from construction project.
- D. Contractor shall exercise every reasonable precaution at all times to prevent siltation of all streams. He shall conduct and schedule his operations so as to avoid or minimize muddying or siltation of all streams. No partially completed item of work shall be left in a manner that will contribute to erosion during period in which work on item is suspended.

**3. QUALITY ASSURANCE**

**A. Progress Requirements**

- (1) All silt fences and rock check dams shall be installed before any construction is started.
- (2) Both permanent and temporary erosion control measures shall be progressively coordinated with construction operations throughout duration of project.
- (3) As areas of erodible earth material are exposed to elements of erosion, every effort should be made to stabilize and protect areas as quickly as possible, and as directed. Upon failure of Contractor to coordinate erosion control measures with construction operations in a manner to effectively control erosion and to prevent water pollution, Engineer may suspend Contractor's operations and withhold monies due Contractor on current estimates until such time that all aspects of work are coordinated in an acceptable manner.
- (4) Contractor must be familiar with and adhere to the K.P.D.E.S. General Permit for Storm Water Discharges.

**B. Payment**

- (1) Temporary erosion and pollution control measures which are required, which are ordered by Engineer or shown on plans, shall be performed by Contractor at his own expense.
- (2) If required, Engineer shall direct temporary seeding operations. Temporary seeding will be considered part of the seeding bid item.

**4. CONSTRUCTION**

**A. Prevention of Pollution**

- (1) Construction operations shall not be performed in stream channels except in those areas where creek crossings are indicated on Drawings or where necessary for temporary or permanent structure.
- (2) Material removed from excavation shall not be deposited in streams, stream channels, other areas subject to flooding, or other locations where it may be washed away by high stream flows or fast runoff. Soil stockpiles should be located in areas contained by silt fence.
- (3) Fuels, oils, bitumens, calcium chloride, or other harmful materials shall not be placed where they may be carried into a stream or underground waters at any time.
- (4) Duration of exposure of uncompleted construction shall be as short as practicable. All backfilled trenches shall be permanently vegetated progressively with construction.
- (5) Contractor shall exercise every reasonable effort to prevent grass or brush fires that will expose areas of soil to erosion. Areas exposed to erosion by fire resulting from Contractor's operations shall be seeded and protected at no cost to Owner.
- (6) Lands and waters outside limits of construction, shall not be disturbed, except as may be found necessary and as permitted. Before final acceptance of work, all such disturbed areas, including abandoned haul roads, storage areas and plant sites, shall be reshaped to conform to adjacent ground and shall be revegetated by Contractor at his expense.

**B. Best Management Practices**

- (1) The erosion control plan (EPSC) effectively controls erosion from disturbed soils and wash water. However no plan can be made that details all possible control measures throughout construction. The Contractor is to provide adequate funds in their base bid to comply with the requirements of the GCSSD and the Kentucky Division of Water (KDOW).
- (2) Contractor is to take immediate action to clean up spills of illicit material and must maintain oil and grease absorbing materials on-site. Contractor is to deposit rubbish, trash garbage, litter, etc. in sealed containers. Contractor is to control dust from the site. Concrete trucks must wash out on-site such that the wash water is discharged to a sediment trapping device.

- (3) If the disturbed area is greater than or equal to 1 acre, the Contractor must secure the K.P.D.E.S. notification of coverage prior to beginning construction activities. The K.P.D.E.S. notice of intent (NOI) must be submitted at least seven (7) days prior to beginning construction activities if the KDOW online e-permitting web site is utilized. The NOI must be submitted thirty (30) days prior to beginning construction activities if a paper copy is sent to the KDOW.
- (4) Contractor to keep a signed and sealed erosion control plan on-site, and make it available to inspectors from the GCSSD and the KDOW.
- (5) Contractor (at their own expense) is to amend the EPSC plan as necessary. All necessary modifications to the EPSC plan must be completed before the next storm event whenever possible and no later than seven (7) calendar days after discovering the need for modification. Contractor is to clearly mark all changes that are made, the location of fueling stations, maintenance and cleaning areas, loading areas, and locations where materials are exposed to precipitation on the EPSC plan.
- (6) Contractor is to immediately contain and clean up any illicit spills. Contractor is to mark the location of any major spill or leak on the EPSC plan. When major spills enter a waterway or storm sewer, contact GCSSD or KDOW.
- (7) Erosion control measures, discharge locations, vehicle exits, disturbed areas, and storage areas must be inspected by qualified personnel employed by the Contractor. The inspections must be done at least once every seven (7) calendar days and within 24 hours after any storm event equal to 1/2 inch or greater. Reports of the inspections must be kept on-site and made available to inspectors from the GCSSD and the KDOW.

**C. Temporary Control Measures**

- (1) Engineer may limit surface area of erodible earth material exposed by trenching and backfilling operations, and may direct Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams.
- (2) Temporary pollution control measures shall be coordinated with permanent erosion control features to extent deemed practicable by Engineer to assure effective and continuous erosion control throughout construction and post-construction periods.
- (3) Temporary erosion control measures shall be used at any time during life of project when directed to prevent soil erosion and pollution of streams.
- (4) Erosion control features installed by Contractor shall be acceptably maintained by him.
- (5) Temporary silt fence is to be installed as specified in the Drawings.
- (6) Temporary rock check dams are to be installed as specified in the Drawings.
- (7) Construction exit is to be installed as specified in the Drawings.
- (8) Permanent rip rap protection is to be installed as specified in the Drawings.

- (9) Erosion control blankets are to be installed on all slopes steeper than 3:1 as specified in the Drawings meeting the Erosion Control Technology Council Specifications as outlined in Section 4.5.3 of the Kentucky Technical Specifications for BMPs.

**D. Stream Crossings**

- (1) All stream crossings shall be constructed perpendicular to the stream.
- (2) Silt fence will be placed on each side of stream to be crossed to prevent siltation and erosion.
- (3) Stream crossing site shall be regraded and reseeded within 14 days after disturbance.
- (4) No excavated material shall be placed in stream bed during construction.
- (5) Stream crossings shall be done at periods of low flow.

**5. CLEAN-UP**

At completion of project, when site has stabilized in conformance with the K.P.D.E.S. regulations and when approved by Engineer, all temporary erosion control materials (silt fences, rock check dams, etc.) shall be removed from the site and properly disposed of.

**END SECTION**

**SECTION 02530 - SANITARY SEWERS**

1. **RELATED DOCUMENTS**

General provisions of the Contract, General, Supplemental and Special Conditions and General Requirements apply to this Section.

2. **DESCRIPTION OF WORK**

Provide labor, materials, equipment and services necessary for proper and complete installation of gravity sanitary sewer mains, manholes, and miscellaneous appurtenances.

3. **QUALITY ASSURANCE**

A. Method of Measurement and Payment:

Payment shall include all excavation; bedding; furnishing, joining and laying pipe; air tests; backfill according to these specifications; handling ground water flow in trenches, ditches and drains as required; protecting trees and shrubs; culverts, ground surfaces and grassed areas; disposal of surplus materials; cleaning up; and all other work incidental to laying pipe and pipe fittings for items listed below:

- (1) 8 inch sanitary sewer pipe will be measured horizontally from edge of manhole to edge of manhole.
- (2) Manholes will be paid for each standard 4 foot diameter manhole as described in specifications and indicated on Drawing.
- (3) Manholes Drops will be paid for each manhole drop at a manhole.
- (4) Extra crushed stone bedding will be paid for in tons to fill spaces under pipe or manholes that are made by removing unsuitable material directed by Engineer.

B. The following items will be considered incidental, and no extra payment will be made:

Excavation of earth and rock, line and grade control, roadway and driveway surface replacement, dewatering, stone bedding and cover, earth or crushed stone backfill, preliminary and final cleanup, regrading, spreading topsoil and seeding. List is not intended to be complete but to indicate common items of work that are NOT pay items.

C. All excavation for trenching is considered to be unclassified excavation. No additional payment will be made for rock excavation.

4. **MATERIALS**

A. Polyvinyl Chloride Pipe and Fittings (PVC):

- (1) PVC pipe shall be extruded from Type I, Grade 1, polyvinyl chloride material designated as PVC 1120, meeting ASTM Specifications D3034, Type PSM, and have a standard dimension ratio of SDR 35 on SDR26 as specified on plans.

- (2) Pipe shall be homogeneous throughout and free from cracks, holes, foreign inclusions or other defects. Pipe shall be as uniform as commercially practical in color.
- (3) Workmanship, pipe dimensions and tolerances, outside diameters, wall thickness, eccentricity, sustained pressures, burst pressures, flattening, extrusion quality, marking and all other requirements of Commercial Standards CS 256-63 shall be complied with in all respects.
- (4) Pipe shall have a bell on one end. Male ends of pipe must be beveled on the outside. Pipe shall have a ring painted around male end or ends in such a manner as to allow field checking of setting depth of pipe in the socket. This requirement is made to assist construction superintendents and inspectors in visual inspection of pipe installation.
- (5) Pipe must be delivered to job site by means which will adequately support it and not subject it to undue stresses. In particular, the load shall be so supported that the bottom rows of pipe are not damaged by crushing. Pipe shall be unloaded carefully and strung or stored as close to final point of placement as is practical. Pipe must not be exposed to direct rays of sun for an extended period of time. If pipe is not to be installed shortly after delivery to job site, it must be stored in shaded location and strung as needed.
- (6) All pipe and fittings shall be clearly marked on the outside indicating name of manufacturer, nominal diameter, and specification classification.

**B. Manholes:**

- (1) **Precast Concrete Rings:**  
Precast concrete rings for manholes shall conform to ASTM C 76, Table II, Wall B, with minimum concrete strength of 4,000 psi, except that rings for manholes over 12 feet deep shall be in accordance with Table III. O-ring gaskets shall be installed between connected ring sections.
- (2) **Precast Concrete Eccentric Cones:**  
Precast concrete eccentric cones shall be of size and shape indicated on Drawings and shall conform to ASTM C 76 for reinforced concrete sewer pipe.
- (3) **Manhole Bases:**  
Manhole bases shall be formed as indicated on Drawings. Manholes shall be as manufactured by Cloud Concrete Products, Inc. or approved equal. Watertight seals, such as "Dura-Seal" shall be factory installed in the bases.
- (4) **Manhole Steps:**  
Manhole steps shall be made of steel reinforced polypropylene plastic as the PS1 manhole step manufactured by M.A. Ind., Inc., Peachtree City, Georgia, or any steel reinforced plastic step which produces equal or better performance.
- (5) **Manhole Frames and Covers:**  
Manhole castings shall consist of cast iron frames and 22-3/4 inch diameter covers, dimensioned as indicated on Drawings. Manhole covers shall set

neatly in rings, with contact edges machined for even bearing and tops flush with ring edge. They shall have sufficient corrugations to prevent slipperiness and be marked in large letters, "SANITARY SEWER". Covers shall have two pick holes about 1-1/4" inches wide and sanitary sewer manholes shall not be perforated. Standard manhole frames (for medium traffic) shall be 7 inches thick and weigh 350 pounds, heavy duty manhole frames shall be 9 inches thick and weigh 450 pounds. Four (4) inch frames are not permitted.

**5. SHOP DRAWINGS**

Contractor shall furnish to Engineer for approval, six (6) sets of shop drawings, catalog cuts and certificates for all materials used in construction of sanitary sewers. Contractor shall not order material or equipment until approval of shop drawings is given by Engineer.

**6. TRENCH EXCAVATION**

**A. Trenching:**

- (1) Unless specifically approved or directed otherwise by Engineer, not more than 400 feet of trench shall be opened ahead of pipe laying work of one crew, and not more than 400 feet of open ditch shall be left behind pipe laying work of any one crew.
- (2) Trenches in which pipes are to be laid shall be excavated in open cut to depths indicated on Drawings, cut sheets or as specified by Engineer. Minimum allowable trench width shall not be less than outside diameter of pipe plus twelve inches. Where rock is encountered, it shall be removed to a minimum depth of six inches below the pipe.
- (3) Unless specifically authorized by Engineer, trenches shall in no case be excavated or permitted to become wider than 2 feet 6 inches plus nominal diameter of pipe at level or below top of pipe. If trench does become wider than 2 feet 6 inches at level of or below top of pipe, special precautions may be necessary, such as providing compacted granular fill up to top of pipe or providing pipe with additional crushing strength determined by Engineer after taking into account actual trench loads that may result and strength of pipe being used. Contractor shall bear cost of such special precautions as necessary.
- (4) All excavated materials shall be placed a minimum of 2 feet from edge of trench.
- (5) Where conditions exist that may be conducive to slides or cave-ins, proper and adequate sheeting, shoring and bracing shall be installed to provide safe working conditions and to prevent damage to work.
- (6) Trenches shall be kept free of water during laying of pipe and until pipeline has been backfilled. Removal of water shall be at Contractor's expense.
- (7) Backfilling shall be as set out hereinafter.
- (8) All trenching operations shall be in compliance with OSHA regulations and state requirements.



- (9) When excavated material is placed on paved roads, the contractor shall clean road with power broom at the end of each days work or as directed by the Engineer.
- (10) When excavated material is placed on gravel or dirt roads, the contractor shall place crushed stone to the same thickness of the road prior to construction as determined by the Engineer.

**B. Shoring, Sheeting and Bracing:**

- (1) Where unstable material is encountered or where depth of excavation in earth exceeds six feet, sides of trench or excavation shall be supported by substantial sheeting, bracing and shoring, or side sloped to angle of repose. Sloping sides of ditch to angle of repose will not be permitted in streets, roads, narrow rights-of-way or other constricted areas unless otherwise specified. Design and installation of all sheeting, sheet piling, bracing and shoring shall be based on computations of pressure exerted by materials to be retained under construction conditions. Adequate and proper shoring of all excavations shall be the entire responsibility of Contractor.
- (2) Foundations, adjacent to where excavation is to be made below depth of existing foundation, shall be supported by shoring, bracing, or underpinning as long as excavation shall remain open, or thereafter if required to insure stability of structure supported by the foundation, and Contractor shall be held strictly responsible for any damage to said foundation.
- (3) Solid sheeting will be required for wet or unstable material. It shall consist of continuous vertical sheet piling of timber or steel with suitable whales and braces.
- (4) Care shall be taken to avoid excessive backfill loads on the completed pipelines and the requirements that width of trench at level of crown of pipe be not more than two feet six inches plus nominal diameter of pipe shall, as set out hereinbefore, shall be strictly observed.
- (5) Trench sheeting shall not be removed until sufficient backfill has been placed to protect the pipe.
- (6) All sheeting, shoring, planking, timbering, bracing and bridging shall be placed, renewed and maintained as long as necessary.
- (7) Nothing in this section shall override any requirements of OSHA or of the State of Kentucky.

**C. Blasting:**

- (1) Shall be conducted in accordance with municipal ordinances, state laws, and Section 9 of the Manual of Accident Prevention in Construction published by the Associated General Contractors of America, Inc. All explosives shall be stored in conformity with said ordinances, laws and safety regulations. No blasting shall be done within five feet of any water mains, except with light charges of explosives. Any damage done by blasting is the responsibility of the Contractor and shall be promptly and satisfactorily repaired by him.

- (2) All shots shall be covered with heavy timber or steel blasting mats to prevent flying material. Unless otherwise specified or directed, delay caps shall be used to reduce earth vibrations and noise.
- (3) All blasting operations shall be covered by public liability insurance, or if said public liability insurance does not cover blasting, then the Contractor shall have separate public liability insurance to cover his blasting operations.
- (4) All blasting operations shall be supervised and performed by qualified licensed personnel.

**7. PIPE BEDDING**

**A. General:**

- (1) In all cases foundation for pipes shall be prepared so that entire load of backfill on top of pipe will be carried on barrel of pipe and where bell and spigot pipe are involved, none of load will be carried on bells.
- (2) For bell and spigot pipe, bell holes shall be cut in granular bedding to prevent bells from being supported on undisturbed earth or granular material.
- (3) Supporting of pipe shall be as set out hereinafter, and in no case shall the supporting of pipe on blocks be permitted.

**B. Earth Foundations:**

Foundations for pipes laid in trenches shall be prepared so that entire load of backfill on top of pipe will be carried uniformly on barrel of pipe. Pipe bells shall not carry any load of backfill. Excavation shall be undercut to a minimum depth of six inches below bottom of pipe. Pipe shall be laid on a bed of granular material to provide continuous support for the lower section of pipe. Granular bedding shall be Dense Graded Aggregate (DGA) or #9 stone.

**C. Rock Foundation:**

If trench bottom is in rock, excavation shall be undercut to a minimum depth of six inches below bottom of pipe. Pipe shall be laid on a bed of granular material to provide continuous support for the lower section of pipe. Granular bedding shall be Dense Graded Aggregate (DGA) or #9 stone.

**D. Special Bedding:**

- (1) 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 of such a fluid nature that such movements of pipe might take place during placing of backfill, pipe must be weighted or secured permanently in place by such means as will prove effective. When directed by Engineer, yielding and mucky material in subgrades shall be removed below ordinary trench depth in order to prepare a proper bed for pipe. Crushed stone or other such granular material, if necessary, as determined by Engineer to replace poor subgrade material, shall be classified as "Special Pipe Bedding".
- (2) Granular material for "Special Pipe Bedding" shall be K.D.H.S. #9, as described in "Standard Specifications" unless other gradation of granular material is approved by the Engineer.

**8. PIPE LAYING**

- A. Laying of sewer pipe in finished trenches shall commence at lowest point so that spigot or tongue ends point in the direction of flow.
- B. Contractor shall use a laser instrument to set grades on sewer lines. In using such an instrument, Contractor shall be responsible for maintaining grades and elevations as called for on drawing profiles, and any variances found shall be corrected by Contractor at no additional cost to Owner.
- C. All pipe lengths shall be laid with ends abutting and true to line and grade as given by Engineer. They shall be fitted and matched so that when laid they will form a sewer with a smooth and uniform invert. Foundation of pipe shall be as set out hereinbefore under "Pipe Bedding" and in no case shall supporting of pipe on blocks be permitted.
- D. Branches, fittings and specials for sewer lines shall be provided and laid as and where directed by Engineer or indicated on Drawings.
- E. Before each piece of pipe is lowered into trench, it shall be thoroughly cleaned and inspected. Each piece of pipe shall be lowered separately. No piece of pipe or fitting which is known to be defective shall be laid or placed in trenches. If defective pipe or fitting shall be discovered after pipe is laid, it shall be removed and replaced with a satisfactory pipe or fitting. In case a length of pipe is cut to fit in a line, it shall be so cut to leave a smooth end at right angles to longitudinal axis of pipe.
- F. When laying of pipe is stopped for any reason, the exposed end of such pipe shall be closed with a suitable plug, fitted into pipe bell, so as to exclude earth or other material, and precautions taken to prevent floatation of pipe by runoff into trench.
- G. Pipe Joints:  
All joints and connections shall be as established hereinbefore. Assembly of pipe and fitting joints shall be in accordance with manufacturer's recommendations.

**9. BACKFILLING**

- A. General:
  - (1) All backfilling shall be accomplished in accordance with detail drawings and the requirements of this section. Any variances must be approved in writing by Engineer.
  - (2) When directed by Engineer, Contractor shall add water to backfill material or dry out material when needed to attain a condition near optimum moisture content for a maximum density of material when it is tamped. Contractor shall obtain a compaction of the backfill of at least 95 percent of a standard (ASTM D698) Proctor density where mechanical tamping of backfill is required.

- (3) Before final acceptance, Contractor will be required to level off all trenches or to bring trench up to level of surrounding terrain. Contractor shall also remove from roadways, rights-of-way and/or private property all excess earth or other materials resulting from construction.
- (4) In the event that pavement is not placed immediately following trench backfilling in streets and highways, Contractor shall be responsible for maintaining trench surface in a level condition at proper pavement grade at all times. Pavement shall be replaced within 30 calendar days unless asphalt plant is closed.
- (5) In all cases walking or working on completed pipelines except as may be necessary in tamping or backfilling will not be permitted until trench has been backfilled to a point one foot above top of pipe. Filling of the trench and tamping of backfill shall be carried on simultaneously on both sides of the pipe in such a manner that completed pipeline will not be disturbed and injurious side pressures do not occur.

**B. Method "A" Backfilling in Open Terrain (AREAS NOT SUBJECT TO VEHICULAR TRAFFIC)**

- (1) Backfilling of pipeline trenches in open terrain shall be accomplished in the following manner:  

Lower portion of trench, from pipe bedding to a level plane 12 inches above top of pipe shall be backfilled with DGA or #9 stone.
- (2) Upper portion of trench above crushed stone portion shall be backfilled with material which is free from large rock. Incorporation of rock having a volume exceeding one-half cubic foot is prohibited. Backfilling this portion of trench may be accomplished by any means approved by Engineer. The trench backfill shall be leveled.

**C. Method "B" Backfilling Under Paved Streets and Roads:  
(Open Cut Method)**

- (1) Backfilling of pipeline trenches under sidewalks, streets, proposed streets, and parking lots shall be backfilled with DGA or #9 stone. Backfill shall be placed full depth in trench.
- (2) No extra payment will be made for crushed stone backfilling or pavement replacement.

**D. Settlement of Trenches:**

The Contractor shall be responsible for any trench settlement which occurs within one year from time of final acceptance of all work in the project. If paving shall require replacement because of trench settlement, within this time, it shall be replaced by Contractor. Repair of settlement damage shall meet approval of appropriate governing body.

**E. Concrete Cradle, Anchors or Encasement:**

Concrete cradle, anchors or encasement of sewer lines and/or fittings shall be placed where indicated on Drawings or directed by Engineer. Concrete shall be Class "B" and shall be mixed sufficiently wet to permit it to flow under pipe to form a continuous bed. In tamping concrete, care shall be taken not to disturb grade or line of pipe or injure joints.

10. MANHOLES

A. General:

Manholes shall be installed where and as indicated on Drawings.

B. Standard Manholes: Standard manholes shall be over five feet in depth, measured from base of cover frame to top of concrete footing and shall be of cone-type top construction as indicated on Drawings.

C. Shallow Manholes: Shallow manholes shall be five feet or less in depth, measured from base of cover frame to top of concrete footing and shall be of flat top construction as indicated on drawings.

D. Manhole excavation shall be kept free of water while manhole is being constructed and the manhole shall not be backfilled until inspected by the Engineer.

E. Prior to installation, manhole shall be inspected for damage.

11. TESTING GRAVITY SEWERS

A. General:

(1) After collection and/or outfall lines have been brought to completion, and prior to final inspection, Contractor shall rod out entire system by pushing through each individual line in system, from manhole to manhole, appropriate tools for removal from the lines of any and all dirt, debris and trash.

(2) 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 leaking sections of pipe, or are obstructed in such a manner that they cannot be satisfactorily corrected otherwise, shall be removed and replaced.

B. Low Pressure Air Test:

(1) All sanitary sewers will receive a low-pressure air test for leakage. Air test will be made after all laterals have been installed to property lines and backfilling has been completed and compacted.

(2) All ties and end of sewer services shall be plugged with flexible joints plugs or end caps securely fastened to withstand internal test pressures. Such plugs or caps shall be readily removable, and their removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.

(3) Prior to testing, pipe shall be checked to see that it is clean. If not, it shall be cleaned by passing a full gauge squeegee through the pipe. It shall be Contractor's responsibility to clean the pipe.

(4) Immediately following this check or cleaning, pipe installation shall be tested with low-pressure air. Air shall be slowly supplied to plugged pipe installation until internal air pressure reaches 4.0 pounds per square inch greater than average back pressure of any ground water that may be in the pipe. At least two minutes shall be allowed for temperature stabilization.

- (5) Requirements of air test shall be considered satisfied provided that the time required, in seconds for pressure to decrease from 3.5 to 3.0 pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe is not less than that shown in the "Allowable Time Table" listed below, which is for 400 foot sections of pipe. For testing of shorter sections of pipe the Engineer shall determine duration of test.

ALLOWABLE TIME TABLE

PIPE SIZE	<u>TIME</u> MIN.	SEC.	PIPE SIZE	<u>TIME</u> MIN.	SEC.
6"	2	55	18"	8	30
8"	3	57	21"	9	50
10"	4	43	24"	11	20
12"	5	40	27"	12	45
15"	7	05	30"	14	10

- (6) Contractor shall furnish all labor and equipment necessary to conduct low pressure air test. Records of test results shall be kept for each section of sewer tested.
- (7) Engineer must witness each satisfactory air test before it will be accepted as fulfilling requirements of these specifications.

**C. Infiltration Test:**

- (1) Contractor shall lay sewer lines, including house connections, so that ground water infiltration shall not average more than 1500 gallons per 24 hours per mile of sewer without regard to diameter of sewer. Only length of main sewers shall be used in making the foregoing computation even though house connections (from the main sewer to property line) should be in place and included as a part of system when infiltration is measured. This requirement may be applied to a portion of contract work, such as sewers in a separate drainage area or to a single section of line between two manholes.
- (2) In order to test for infiltration, the Engineer may also require exfiltration tests on each section of pipe between manholes after it has been laid but prior to backfilling of joints. Exfiltration tests shall be conducted by plugging lower end of section of sewer to be tested and filling sewer with water to a point approximately five feet above invert at lower end observing for leakage at all joints and measuring the amount of leakage for a given interval of time. Exfiltration shall not exceed 110 percent of infiltration limits set out hereinbefore. All observed leaks shall be corrected even if exfiltration is within allowable limits. Exfiltration tests will normally be required for flat sections of sewer that are expected to be below wet season ground water table.

- (3) To test for infiltration, Engineer may also require that Contractor plug open ends of all lines at manhole so that measurements may be made in each section of sewer line. This infiltration test will not be made until sewer line is completed, and Contractor will be required to correct all conditions that are conducive to excessive infiltration and may be required to relay such sections of line that may not be corrected otherwise. All observed leaks shall be corrected even if infiltration is within allowable limits.

D. Deflection Test:

- (1) Deflection tests shall be performed on all sewers after they have been constructed a minimum of 30 days. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95 percent of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices. Pipe deflection shall be measured and recorded by the CONTRACTOR in the presence of the Engineer using appropriate methods approved by the pipe manufacturer and acceptable to the Engineer. Equipment required for the test shall be provided by the Contractor.
- (2) Any sewer line exceeding 5% of deflection shall be replaced.

E. Each manhole shall be tested for water tightness.

13. CLEAN-UP

Upon completion of installation of section of sewer lines, remove all debris and surplus construction materials. Grade ground surface along each side of pipe trench in a uniform and neat manner leaving construction area in a shape as near as possible to original ground line and ready for seeding to be as specified elsewhere.

END OF SECTION 02530

**SECTION 02531 - SEWAGE FORCE MAIN**

1. RELATED DOCUMENTS

General Provisions of the Contract, General, Supplemental and Special Conditions, and General Requirements apply to this section.

2. DESCRIPTION OF WORK

Provide labor, material, equipment and services necessary for proper and complete installation of sanitary sewage force main.

3. MATERIALS

A. Polyvinyl Chloride Pipe (PVC):

- (1) PVC pressure pipe shall conform as a minimum, to ASTM Specifications D-2241, and shall be pressure Class 200. Pipe furnished under ASTM A-2241 shall have a standard dimension ratio not to exceed SDR 21, and shall be rated to a working pressure of at least 200 psi at 73.4°F.
- (2) Fittings shall be cast iron Mechanical Joint Class 250 conforming to AWWA Specifications C110 for short body cast iron fittings. Fittings shall be tar-coated outside, and shall receive standard cement lining with bituminous seal coat on inside.
- (3) Joints shall be of push-on type conforming to ASTM D3139 and F477 requirements for elastometric-gasket joints. All jointing material and lubricants shall be non-toxic.

B. High Density Polyethylene Pipe (HDPE):

- (1) Pipe shall be high-performance, high-molecular-weight, high-density polyethylene pipe SDR 11. The pipe material shall be a Type III, Class C, Category 5, P34 material as described in ASTM D 1248. Minimum cell classification values of the pipe material shall be 3 4 5 4 3 4 C as referenced in ASTM D 3350 – 84. The density shall be 0.941 – 0.957 gms/cm<sup>3</sup> when tested in accordance with ASTM D 1505.
- (2) Melt Flow shall be no greater than 0.15 gms/10 min. when tested in accordance with ASTM D 1238 - Condition E. (Melt Flow shall be no greater than 4.0 gms/10 min. when tested in accordance with ASTM D 1238 - Condition F.) 1 Flexural Modulus shall be 110,000 psi to less than 160,000 psi when tested in accordance with ASTM D 790. Tensile strength at yield shall be 3,200 psi to less than 3,500 psi when tested in accordance with ASTM D 638. Environmental Stress Crack Resistance shall be in excess of 5,000 hours with zero failures when tested in accordance with ASTM D 1693 - Condition C.
- (3) Hydrostatic Design Basis shall be 1,600 psi at 23°C when tested in accordance with ASTM D 2837.



- C. Engineered Thermoplastic Valves and Fittings (For Individual Pumps):
- (1) All plastic valve and fitting components are to be tested for compliance with ASTM D 1599 (Categories 7.1.1, 7.2.2, and 7.2.3). Components shall be tested against the requirements of ASTM D2513 (Categories 6.10.1 and 6.10.2).
  - (2) All pipe connections shall be made using compression fitting connections including a Buna-N O-ring for sealing to the outside diameter of the pipe. A split-collect locking device shall be integrated into all pipe connection fittings to securely restrain the pipe from hydraulic pressure and external loading caused by shifting and settling.
  - (3) Polypropylene curb stop valves shall be pressure-tight in both directions. The tee-head shall include a ratcheting feature to prevent breaking from over-torquing the valve handle. EPDM or Buna-N O-rings shall be used to provide a redundant, watertight seal on the stem. A spherical, PVC ball shall be supported in molded, polyethylene seats to provide watertight seals in either direction, as well as maximum flow capacity and ease of operation. Valves shall be designed to withstand a working pressure of 150 psi minimum.
- D. Check Valves (For Individual Pumps):
- (1) Check valves shall be injection-molded from noncorroding, glass fiber reinforced PVC for durability. The check valve flapper shall include a non-fouling, integral hinge made from fabric-reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, fatigue strength and trouble-free operation. The check valve will provide a full-ported passageway and shall introduce a friction loss of less than 6 inches of water at maximum rated flow. A nonmetallic hinge shall be an integral part of the flapper assembly, providing a maximum degree of freedom to ensure seating at low back pressure.
- E. Sewage Combination Air Valves (Low Pressure Force Main)
- (1) The air release valve shall be a 2" Male NPT combination air valve that will act as an air release valve by allowing accumulated/entrapped air in the force main to escape as well as provide vacuum relief when needed. The valve shall include an inlet, outlet, body, cover, float and lever mechanism, orifice and seat. The valve shall be a single body standard combination valve designed specifically for sewage applications.
  - (2) (a) The tank shall be an open bottom wetwell design made of high density polyethylene of a grade selected for environmental stress cracking resistance. Corrugated sections are to be made of a double wall construction with the internal wall being generally smooth. Corrugations of the outside wall are to be of a minimum amplitude of 1-1/2" to provide necessary transverse stiffness. Any incidental sections of a single wall construction are to be a minimum .250 inch thick. All seams created during tank construction are to be thermally welded and factory tested for leak tightness. Tank wall must

withstand the pressure exerted by saturated soil loading at maximum burial depth. All station components must function normally when exposed to maximum external soil and hydrostatic pressure.

- (b) The tank shall include a lockable cover assembly providing low profile mounting and watertight capability. The cover shall be high density polyethylene, green in color, with a load rating of 150 lbs per square foot. The cover assembly shall also include an integral 2-inch vent to prevent sewage gases from accumulating in the tank. The accessway design and construction shall facilitate field adjustment of station height in increments of 3" or less without the use of any adhesives or sealants requiring cure time before installation can be completed.
  - (c) The station shall have all necessary penetrations factory sealed and tested. No field penetrations shall be acceptable. The Tank shall have a stainless steel bulkhead for connection to the force main which terminates outside the tank wall with a 1-1/4" female pipe thread. The bulkhead shall be factory installed and warranted by the manufacturer to be watertight.
- (3) All valve manifold fittings and piping shall be constructed from 304 Stainless steel and shall be factory assembled. The valve inlet manifold shall also include a 1/4" stainless steel bleed off valve for ease of service. The tank shall include a 1-1/4" stainless steel ball valve rated for 235 psi WOG with a quick disconnect feature to simplify installation and valve removal. The bulkhead penetration of this valve shall be a factory installed and warranted by the manufacturer to be watertight and shall terminate outside the accessway bulkhead with a stainless steel, 1-1/4" female NPT fitting. PVC ball valves or brass ball/gate valves will not be accepted.

**F. Lateral Kit (For Individual Pumps)**

- (1) The manufacturer shall furnish service lateral kits (exclusive of piping); each consisting of three (3) compression fittings, one (1) combination curb stop/check valve assembly and one (1) curb box. The curb stop/check valve assembly shall be 304 stainless steel and have a two-piece cast 304 stainless steel housing. All plastic compression fittings are to be molded from polypropylene and shall be tested for resistance to aging, pressure rating, tensile strength, and flexural strength. All components shall incorporate compression fitting connections for easy, reliable installation of piping. The lateral kit shall be rated for 150 psi service. Lateral kits with pressure-tested combination curb stop/check valve assembly shall be provided by Environmental One Corporation, Niskayuna, New York, or approved equal.
- (2) Engineered Thermoplastic Fittings: All plastic fitting components are to be in compliance with applicable ASTM standard. All pipe connections shall be made using compression fitting connections including a Buna-N-o-ring for sealing to the outside diameter of the pipe. A split-collect locking device shall be integrated into all pipe connection fittings to securely restrain the pipe from hydraulic pressure and external loading caused by shifting and settling.

- (3) Stainless Steel Curb Stop/Check Valve Assembly
  - (a) The curb stop shall be pressure-tight in both directions. The ball valve actuator shall include position stop features at the fully opened and closed positions. The curb stop/check valve assembly shall be designed to withstand a working pressure of 235 psi.
  - (b) The stainless steel check valve shall be integral with the curb stop valve. The check valve will provide a full-ported 1-1/4" passageway and shall introduce minimal friction loss at maximum rated flow. The flapper hinge design shall provide a maximum degree of freedom and ensure seating at low back pressure.
  
- (4) Curb Boxes: Curb boxes shall be constructed of ABS, conforming to ASTM-D 1788. Lid top casting shall be cast iron, conforming to ASTM A-48 Class 25, providing magnetic detectability, and be painted black. All components shall be inherently corrosion-resistant to ensure durability in the ground. Curb boxes shall provide height adjustment downward (shorter) from their nominal height.

**4. SHOP DRAWINGS**

Contractor shall furnish to Engineer for approval, six (6) sets of catalog cuts and certifications for all materials used in construction of sewage force main. Contractor shall not order material or equipment until approval is given by Engineer.

**5. TRENCHING, BEDDING, PIPE LAYING, BACKFILLING AND HIGHWAY CROSSING**

Trenching, bedding, pipe laying, backfilling and highway crossing for force main shall be as indicated on the drawings.

**6. TESTING OF SEWAGE FORCE MAINS**

- A. Finished work shall comply with provisions listed below:
  - (1) Leakage in pipelines, when tested under pressure of 50# in excess of normal operating pressure, shall not exceed 5 psi differential during duration of test.
  - (2) Where practicable, pipelines shall be tested between line valves or plugs in lengths of not more than 1500 feet.
  - (3) Pipelines shall be tested before backfilling at joints except where otherwise required by necessity, local ordinance, or public convenience.
  - (4) Duration of test shall be not less than two hours.
  - (5) Where leaks are visible at exposed joints and/or evident on surface where joints are covered, joints shall be repaired or relaid, and leakage minimized, regardless of total leakage as shown by test.
  - (6) All pipe, fittings and other materials found to be defective under test shall be removed and replaced at Contractor's expense.

- (7) Lines which fail to meet tests shall be repaired and retested as necessary until requirements are complied with.
- (8) All tools, equipment, labor, materials, and water necessary for pressure testing of force main shall be provided by Contractor at no additional cost to Owner.

7. CLEAN-UP

Upon completion of installation of sewage force main, remove all debris and surplus construction materials. Grade ground along each side of pipe trench in a uniform and neat manner leaving construction area as shown on the typical section and ready for seeding to be as specified elsewhere.

END OF SECTION 02531

**SECTION 02920 - SEEDING, FERTILIZING AND MULCHING**

1. RELATED DOCUMENTS

General provisions of Contract, and General, Supplemental, and Special Conditions apply to this Section.

2. DESCRIPTION OF WORK

Provide labor, material, equipment and services necessary for proper and complete seeding and mulching.

3. QUALITY ASSURANCE

The intent of these Specifications is to require the Contractor to provide, in all areas to be seeded, fertilized and mulched, a smooth uniform turf of the grasses specified free from bare spots, eroded areas, weeds or other deficiencies. Acceptance by the Engineer is conditional upon compliance with this intent after the initial growing season.

4. MATERIALS

- A. Mulch shall be a high quality small-grain straw or a hydraulically applied wood-cellulose fiber mulch approved by Engineer.
- B. Commercial fertilizer shall be a complete fertilizer, uniform in composition, dry and free flowing. Fertilizer which becomes caked or otherwise damaged making it unsuitable for use will not be accepted.
- C. Lime shall be agricultural limestone containing not less than 85% of total carbonates and shall be ground to a fineness that 50% will pass through a 100-mesh sieve and 80% will pass through a 20-mesh sieve. Coarser material will be acceptable provided that specified rates of application are increased proportionally on basis of quantities passing 100-mesh sieve.
- D. Seed Mixture:
  - (1) Lawn Seed shall be guaranteed by dealer and distributed as follows:
    - a. Farm or pasture
      - 80% Kentucky 31 Tall Fescue
      - 20% Annual Ryegrass
    - b. Residential Yards
      - 40% Kentucky Bluegrass
      - 40% Fine Leaf Fescue
      - 20% Annual Ryegrass
  - (2) Seed mixture shall be sown at rate of 5 pounds per 1000 square feet.

**5. SOIL IMPROVEMENTS**

Fertilizer shall be applied to all seeded areas as follows:

- A. Agricultural limestone - 75 pounds per 1000 square feet.
- B. Fertilizer - 20 pounds, 10-10-10 fertilizer per 1,000 square feet.
- C. Application:
  - (1) Limestone shall be thoroughly mixed into topsoil as far ahead of seeding as will not interfere with other grading operations.
  - (2) Fertilizer shall be applied to areas being prepared for seeding and shall be mixed lightly in top few inches of topsoil.

**6. SEEDING AND MULCHING**

A. Seeding:

- (1) Immediately before seed is sown, loosen soil to a depth of 3 inches by rotary tools, discs, harrows, or other approved methods. Engineer may reduce depth to which soil is loosened on steep slopes or places inaccessible to mechanical equipment.
- (2) Remove all large or unsightly clods or stones, and other foreign material brought to surface and repair all gullies, washes, or disturbed areas before seed is applied.
- (3) Seed shall be broadcast either by hand or by approved sowing equipment at rate specified.
- (4) Do not perform seeding during high winds that would prevent uniform distribution of seed.

B. Mulching:

All seeded areas shall be mulched with straw to depth of approximately 1-1/2 inches. Mulching shall follow seeding operation not later than 48 hours.

**7. PLANTING SEASON**

Spring seeding season shall be between February 15 and April 15. Fall seeding season shall be between August 1 and October 20. Seeding seasons may be extended only at direction of Engineer.

**8. CLEAN-UP**

Soil, peat or similar material which has been brought onto paved areas within or outside construction limit by hauling operations or otherwise shall be removed promptly, keeping these areas clean at all times. Upon completion of seeding, all excess soil, stones and debris which have not previously been cleaned up shall be removed from site or disposed of as directed by Engineer. All lawn areas shall be prepared for final inspection.

**9. MAINTENANCE**

Maintenance shall begin immediately following last operation of seeding and shall continue until lawn is formally accepted. Maintenance shall include sufficient watering, weeding, cultivating, mulching, regular mowing of seeded areas, and removal of dead materials.

**10. INSPECTION FOR ACCEPTANCE**

Inspection of work of this section to determine completion, exclusive of possible replacement of seed, will be made by Engineer upon written notice requesting such inspection submitted at least ten (10) days prior to anticipated date of inspection and provided that an 80% minimum coverage per square foot for all seeded lawn areas has been established. Contractor shall guarantee, at the time of this inspection, that the seeded areas will be in compliance with the intent of this Specification described herein. This guarantee shall apply to all permanent seeding performed in conjunction with project, regardless of type protection used or season in which seeding is performed.

**11. GUARANTEE**

- A. When seeding does not meet guarantee requirements at time of inspection, Contractor will be advised of amount and location of corrective work deemed necessary. Additional work required may include preparation of a new seedbed, refertilizing, reseeding, remulching, or any erosion control items that are required. Contractor shall perform all corrective work as soon as favorable working conditions occur after being advised of corrective work required. Corrective work and materials required to fulfill guarantee requirements will not be paid for, except as hereinafter provided for unavoidable damage.
- B. When unavoidable damage occurs after date project is declared complete and before inspection previously described, then payment will be made at original contract unit prices for additional seeding and protection work ordered by Engineer. Unavoidable damage may result from slides, vehicular traffic, fires, and deluges. Failure of seed to sprout and grow will not be considered unavoidable damage.
- C. From time seeding and protection work begins until date project is declared complete, keep all seeded areas in good condition at all times. Damage to seeded areas or to mulch materials shall be promptly repaired as directed. All work and materials necessary to protect, maintain, and restore seeded areas during life of contract shall be performed at no additional cost to Owner, except additional work caused by changes in project authorized by Engineer.
- D. When it becomes necessary to disturb previously seeded areas at direction of Engineer, payment for a reasonable amount of additional work, as determined by Engineer, will be made at original contract unit price. No payment will be made for additional work due to changes made for benefit of Contractor, nor will payment be made for corrective work required because Contractor has failed to properly coordinate his entire erosion control schedule thus causing previously seeded areas to be disturbed by operations that could have been performed prior to seeding.

END OF SECTION 02920

**BULLOCK PEN LAKE SEWER AND  
BINGHAM PUMP STATION RELOCATION  
DIVISION 3 – TECHNICAL SPECIFICATIONS**



**SECTION 03300 - CONCRETE**

1. **RELATED DOCUMENTS**

General Provisions of Contract, General, Supplemental and Special Conditions, and General Requirements apply to this Section.

2. **DESCRIPTION OF WORK**

Provide labor, transportation, materials, tools, equipment and appliances necessary for proper and complete installation of all concrete work related to sanitary sewer and other related components of the project.

3. **MATERIALS**

A. General

All materials used in the work shall be stored and handled in such a manner as will prevent deterioration or intrusion of foreign matter. Material which has deteriorated or has been damaged shall be immediately and completely removed for premises. All material shall comply with requirements of standards of American Society for Testing and Materials.

B. Manufactured Materials

Manufactured materials such as cement, shall be delivered and stored in original packages, plainly marked with brand and maker's name. Material in broken containers or in packages showing water marks or other evidence of damage will be rejected. Unless otherwise noted, all materials used in concrete work shall be as specified below:

(1) Portland Cement---Type I or Type III - ASTM C-150.

(2) Aggregates-----ASTM C-33.

a. Fine aggregates shall consist of natural sand having clean, hard, uncoated particles and free from injurious amounts of soft friable, thin, elongated or laminated pieces. Aggregates shall not absorb more than 3% moisture by weight. Maximum size of pieces shall be 3/4".

b. Coarse aggregates shall be crushed stone having clean, hard, uncoated particles and free from injurious amounts of soft friable, thin, elongated or laminated pieces. Aggregate shall not absorb more than 3% by weight.

(3) Air Entraining Agent-----ASTM 226.

(4) Water shall be clean and free from deleterious amounts of acids, alkalis or organic materials.

C. Metal Reinforcement

All reinforcing shall be ASTM A-615, with a minimum yield of 60,000 psi.

- D. Concrete Curing and Hardening Compound shall be Sonneborne "Kure-N-Seal" or equal.
- E. Anti-spalling compound shall be Sonneborne "Pitt-Loc" or equal.
- F. Expansion joint material shall be premoulded filler as manufactured by Homasote Co. (Homex 300); Dayton SURE-Grip (G-30) or equal.

**4. CONCRETE - QUALITY**

- A. Ready-mixed concrete complying with these Specifications and conforming to ASTM designation C-94, Strength Method shall be used.
- B. Class "A" Concrete
  - (1) Class "A" concrete shall be used for all manholes and miscellaneous structures.
  - (2) Min. Compressive Strength at 28 days-----3,500 psi  
Slump-----3-5 inches  
Air Content-----4%
- C. Class "B" Concrete
  - (1) Class "B" Concrete shall be used for encasement or cradle for pipelines and other underground work.
  - (2) Min. Compressive Strength at 28 days-----2,500 psi  
Slump-----3 - 5 inches  
Air Content-----3 - 6%
- D. Use of admixtures is prohibited except where written consent is given by Engineer.
- E. Ready mix design shall be submitted to Engineer for approval prior to ordering concrete for project.

**5. REINFORCING**

Detailing, fabrication and placing shall conform to American Concrete Institute "Manual of Standard Practice for Detailing Reinforced Structures" (ACI-315).

**6. CONSISTENCE OF CONCRETE**

Consistency of concrete shall be such as to produce a mixture which will work readily into corners and angles of forms and around reinforcement, but without permitting materials to segregate or excess water to collect on surface. When specified slump is three inches or less, the tolerance shall be plus or minus 1/2 inch. When the specified slump is greater than three inches, the tolerance shall be plus or minus one inch.

7. TRANSPORTING AND/OR CONVEYING

- A. Concrete shall be conveyed from mixer to place of final deposit immediately after mixing by methods which will prevent separation or loss of materials.
- B. Equipment for chuting, pumping and pneumatically conveying concrete shall be of such size and design as to insure a practically continuous flow of concrete at delivery and without segregation of materials.
- C. Non-agitating type trucks shall not be used to haul ready mixed concrete under any circumstances. With respect to the trucks used to deliver ready mixed concrete, the number of revolutions of the drum at agitation speed and other such details shall conform to ASTM C94. In all such cases, however, concrete shall be delivered to job site and discharged within 1-1/2 hours or before drum has been revolved 300 times, whichever comes first, after mixing water has been added to other ingredients. In hot weather or under other conditions contributing to quick stiffening of concrete, a time less than 1-1/2 hours may be specified by Engineer.

8. PLACING CONCRETE

- A. Concrete shall be delivered to its position of placement, within the required time for delivery after mixing and within the required time interval between delivery of batches, as specified hereinbefore or as directed by Engineer for the method of mixing and handling employed.
- B. Water shall be removed from all foundation excavation or formwork before concrete is deposited. The method and manner of placing shall be such as to avoid the possibility of segregation or separation of aggregates or displacement of reinforcement. Placing of concrete shall be such as to entirely fill forms, but not to bulge or distort forms or their alignment. Special care shall be taken to fill each part of forms by depositing concrete as near to its final position as possible, to work coarser aggregate back from face and to force concrete under and around reinforcing bars without displacing them.
- C. Concrete shall not be allowed to drop freely more than three or four feet. In thin sections, drop chutes of rubber, canvas or metal shall be used. Drop chutes shall be provided in several lengths or shall be in sections which can be hooked together so that length can be adjusted as concreting progresses.
- D. When vibrating is required, it shall be done by methods and with equipment approved by Engineer.

9. CURING

- A. All concrete shall be cured for a period of not less than 7 days after pouring. The method used to provide curing shall be approved by Engineer. Membrane curing, plastic sheet curing, and wetted burlap curing will be considered satisfactory.
- B. If at any time during seven day curing period, air temperature is 40 degrees F. or less, concrete shall be insulated and/or heated as directed by Engineer to aid curing and to prevent freezing. Protective covering which will protect surface off freshly

placed concrete from rain shall be readily available at site of work. Concrete damaged as a result of failure on the part of Contractor to adequately protect concrete from rain or freezing shall be removed and replaced at the expense of Contractor as directed by Engineer.

10. TESTING CONCRETE

A. Slump Test

At least one slump test shall be made before first concrete pour, at start of pouring any concrete at each 5 cubic yards deposited during one operation. These shall be made for the same samples as those taken for cylinder tests, and records of same kept therewith. Test shall be made according to ASTM Designation (C-143), and as required under ASTM Designation C-94 for ready-mixed concrete. Mix designed for a slump test of 2" and not more than 4", except in cases where thin sections would indicate in the opinion of the Engineer that a wetter mix is more desirable. The Contractor shall furnish necessary equipment for the slump test.

B. Cylinder Test

- (1) At the start of concreting, the Contractor shall make from a single batch a set of four (4) cylinders per ASTM Designation C-31. Two shall be tested at 7 days and two at 28 days, per ASTM Designation C-39.
- (2) At each time when twenty or more cubic yards of concrete are placed during one operation, and when the sum of smaller deposits of concrete equal thirty cubic yards since previous tests, and at any change in mix, four (4) cylinder tests will be required, two tested at 7 days and two at 28 days, per ASTM Designation C-39. In case of C-94 and C-172 shall be added. Class "A" concrete samples shall show a compressive strength of not less than 3500 lbs. per square inch in 28 days.
- (3) The Contractor shall furnish all equipment for sampling and curing on the job, and shall bear the cost of laboratory curing and testing.
- (4) If cylinders do not meet strength requirements, Engineer may order shutdown on all concreting and redesign of concrete mix by laboratory selected by Owner. Cost of mix redesign shall be paid for by Contractor. Engineer may also order additional tests, such as load tests, Swiss Hammer Tests and/or core tests in areas of work represented by unacceptable cylinders. If areas of work are found to be under strength requirements, Engineer may order the Contractor to strengthen or replace those areas at expense of Contractor.

12. FINISHING AND RUBBING

- A. Rubbing is not required below ground. Inside vaults and basins shall not be rubbed, but all fins shall be removed and holes patched.

**B. Slabs**

(1) Under no circumstances shall dry cement or a mixture of dry cement and sand be sprinkled directly on surface to absorb moisture or to stiffen mix.

(2) Finish slabs shall be as follows:

Surface of slab shall be struck off true to elevations called for, and all surface water, laitance and dirt removed. After allowing concrete to dry out from 20 - 30 minutes, depending on weather conditions, surfaces shall be brought to final grade with a wood float. Surfaces shall be tested with a straight edge to detect high and low spots which shall be eliminated. After concrete has hardened sufficiently to prevent excess fine material from working to surface, surface shall be steel troweled to a smooth hard finish, impervious and free from imperfections, pits and other irregularities, and true to a maximum tolerance of 1/8" in six (6) feet.

**13. INSPECTION**

A. Concrete shall not be placed over pipes and conduits until such work has been tested, inspected and approved.

B. All concrete placed in violation of these provisions shall be subject to rejection. If rejected by Engineer, Contractor shall remove and replace concrete work at no additional cost to Owner.

**14. COLD WEATHER REQUIREMENTS**

A. No concrete shall be poured when air temperature is 35 degree F or less unless approved by Engineer.

B. The contractor shall furnish the Engineer with a detailed plan of equipment and material to be used for protection of the concrete during the curing period.

END OF SECTION 03300

**BULLOCK PEN LAKE SEWER AND  
BINGHAM PUMP STATION RELOCATION  
DIVISION 15 – TECHNICAL SPECIFICATIONS**

**SECTION 15445 - SUBMERSIBLE SEWAGE PUMP STATION**

1. RELATED DOCUMENTS

General Provisions of the Contract, General, Supplemental and Special Conditions, and General Requirements apply to this Section.

2. DESCRIPTION OF WORK

Provide labor, material, equipment and services necessary for proper installation of factory built underground submersible sewage pumping station complete and in operating condition. Work shall include excavation, concrete base slab, pump well, valve pit, including hatches and covers, connecting influent sewers, all interior piping, connection of force main and all other necessary piping, valves, fittings, and appurtenances required, backfilling, grading, access road electrical work including service pole and connections, meter, and acceptance tests.

3. GENERAL

Underground submersible sewage pumping station shall be furnished with all necessary equipment installed in precast concrete manhole as indicated on Drawings. Principal items of equipment in station shall include two vertical, motor-driven valves, non-clog submersible sewage pumps, necessary gate valves and check valves, required piping, electrical power source, central control panel with circuit breakers, motor starters, access hatch, and automatic pumping level controllers, vent piping, guide rails, and other required appurtenances and wiring.

4. PUMPS

A. Scope:

- (1) The heavy duty submersible wastewater pumps shall be capable of handling raw unscreened sewage without clogging.
- (2) At each station, furnish two (2) heavy-duty explosion proof non-clog submersible sewage pumps, upper guide bar jacket, 20 feet of stainless steel lifting chain and 20 feet of pypalon-jacketed type SPC cable P-MSHA approved and sized according to N.E.C. and ICEA standards. The premium efficiency motor shall be an integral part of the pump unit.
- (3) Each pump in the sewage pump station shall meet the following design conditions as listed below.

	<u>PUMPING RATE</u> <u>GPM</u>	<u>TOTAL HEAD</u> <u>(FEET)</u>	<u>MINIMUM</u> <u>H.P.</u>	<u>EFFICIENCY</u>
Primary Control Point	317	177'	30	58%
Second Control Point	175	215'		
Third Control Point	560	120'		
Shut Off Head		240' (minimum)		

- B. Pump Construction: Major pump components shall be of gray cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of porosity or other irregularities. All exposed nuts and bolts shall be AISI type 316 stainless steel construction. All metal surfaces coming into contact with the pumped media (other than the stainless steel components) shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a high solids two part epoxy paint finish on the exterior of the pump. The pump shall be equipped with an open lifting hoop suitable for attachment of standard chain fittings or for hooking from wet well surfaces.
- C. Sealing design for the pump/motor assembly shall incorporate metal to metal contact between machined surfaces. Critical mating surfaces where a watertight seal is required shall be machined and fitted with Nitrile or Viton rubber O-rings. Sealing will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without requiring a specific torque limit. Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered adequate or equal. Secondary sealing compounds shall neither be required nor used.
- D. Impeller: The impeller shall be of gray cast iron, ASTM A-48, Class 35B and shall be of the semi-open, single vane, non-clogging design capable of passing spherical solids with a diameter of 2.0 inches. The impeller shall have a slip fit into the motor shaft and drive key, and shall be fastened to the shaft by a stainless steel bolt, which is mechanically prevented from loosening by a positively engaging ratcheting washer assembly. The impeller shall be highly clog resistant by virtue of its single vane semi-open design. The head of the impeller bolt shall be effectively recessed within the impeller bore to prevent disruption of the flow stream and loss of hydraulic efficiency. The impeller shall be dynamically balanced to the ISO 10816 standard to provide smooth vibration free operation.
- E. Self Cleaning Wear Plate: The pump shall be equipped with a self cleaning wear plate constructed from gray cast iron, ASTM A-48, Class 35B. The wear plate shall be designed with an inlet incorporating strategically placed cutting grooves and an outward spiral V-shaped groove on the side facing the impeller, to shred and force stringy solids outward from the impeller and through the pump discharge. The wear plate shall be mounted to the volute with four stainless steel securing screws and four stainless steel adjusting screws to permit close tolerance adjustment between the wear plate and impeller for maximum pump efficiency. Adjustment to allow for wear and restore peak pumping performance shall be accomplished using standard tools, and without requiring disassembly of the pump. The use of fixed or non-adjustable wear plates or rings, or systems that require disassembly of the pump or shimming of the impeller to facilitate adjustment shall not be considered equal. The suction flange shall be integrated into the wear plate and its bolt holes shall be drilled and threaded to accept standard 4 inch ANSI class 125 flanged fittings.
- F. Pump Volute: The pump volute shall be single piece gray cast iron, ASTM A48, Class 35B, non-concentric design with centerline discharge. Passages shall be smooth, and large enough to pass any solids that may exit the impeller. The discharge flange design shall permit attachment to either standard ANSI or



metric flanges/appurtenances. The discharge flange shall be slotted to accept both 4 inch ANSI class 125 and metric DN100 (PN10) metric flanged fittings. Proprietary or non standard flange dimensions shall not be considered acceptable. The minimum working pressure of the volute and pump assembly shall be 10 bar (145 psi).

H. Shaft: The pump shaft and motor shaft shall be an integral, one piece unit adequately designed to meet the maximum torque required at any normal start-up condition or operating point in the system. The shaft shall have a full shutoff head design safety factor of 1.7, and the maximum shaft deflection shall not exceed .05 mm (.002 inch) at the lower seal during normal pump operation. Each shaft shall be stainless steel 1.4021 (AISI 420) material, and shall have a polished finish with accurately machined shoulders to accommodate bearings, seals and impeller. Carbon steel, chrome plated, or multi piece welded shafts shall not be considered adequate or equal.

J. Mechanical Seals:

(1) Each pump shall be equipped with a tandem mechanical shaft seal system consisting of two totally independent mechanical seals. The seals shall operate in a lubricant reservoir that hydro-dynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary industrial duty silicon-carbide seal ring and one rotating industrial duty silicon-carbide seal ring. The seal holding plate shall be equipped with swirl disruption ribs to prevent abrasive material from prematurely wearing the seal plate. The upper, secondary seal unit, located between the lubricant chamber and motor housing, shall contain one stationary industrial duty silicon-carbide seal ring, and one rotating one rotating industrial duty silicon-carbide seal ring. Each seal interface shall be held in contact by its own spring system. The seals shall not require routine maintenance, or adjustment, and shall not be dependent on the direction of rotation for proper sealing. Each pump shall be provided with a lubricant chamber for the shaft sealing system which shall provide superior heat transfer and maximum seal cooling. The lubricant chamber shall be designed to prevent overfilling, and to provide lubricant expansion capacity. The drain and inspection plug shall have a positive anti-leak seal, and shall be easily accessible from the outside of the pump. The seal system shall not rely upon the pumped media for lubrication and shall not be damaged when the pump is run dry.

K. Bearings: Each pump shaft shall rotate on high quality permanently lubricated, greased bearings. The upper bearing shall be a deep groove ball bearing. The lower bearings shall be a heavy-duty double row angular contact ball bearing. Bearings shall be of sufficient size and properly spaced to transfer all radial and axial loads to the pump housing and minimize shaft deflection. L-10 bearing life shall be a minimum of 100,000 hours at flows ranging from ½ of BEP flow to 1½ times BEP flow (BEP is best efficiency point).

**5. PREMIUM EFFICIENCY MOTOR**

- A. The Premium Efficiency motor shall meet efficiency standards in accordance with IEC 60034-30, level IE3 and NEMA Premium. Motor rating tests shall be conducted in accordance with IEC 60034-2-1 requirements and shall be certified accurate and correct by a third party certifying agency. A certificate shall be available upon request.
- B. The Premium Efficiency motor shall be housed in a water tight gray cast iron, EN-GJL-250 (ASTM A-48, Class 35B) enclosure capable of continuous submerged operation underwater to a depth of 20 meters (65 feet), and shall have an IP68 protection rating. The motor shall be of the squirrel-cage induction design, NEMA type B, Premium Efficiency. The copper stator windings shall be insulated with moisture resistant Class H insulation materials, rated for 180oC (356oF). The stator shall be press fitted into the stator housing. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is unacceptable. The rotor bars and short circuit rings shall be made of cast aluminum.
- C. The motor shall be designed for continuous duty. The maximum continuous temperature of the pumped liquid shall be 40oC (104oF), and intermittently up to 50oC (122oF). The motor shall be capable of handling up to 15 evenly spaced starts per hour without overheating. The service factor (as defined by the NEMA MG1 standard) shall be 1.3. The motor shall have a voltage tolerance of +/- 10% from nominal, and a phase to phase voltage imbalance tolerance of 1%. The motor shall be FM and CSA approved for use in NEC Class I, Division I, Groups C & D hazardous locations. The surface temperature rating shall be T3C. The motor shall meet the requirements of NEMA MG1 Part 30 and 31 for operation on PWM type Variable Frequency Drives
- D. The motor shall be capable of operating, completely submerged, partially submerged, or unsubmerged. For submerged (wet pit) applications, the motor shall be self cooling via the process fluid surrounding the motor. For unsubmerged (dry pit) applications, an optional integrated glycol based cooling system shall be utilized to enhance heat transfer, and allow the motor to operate at full rated power continuously without the need for de-rating or reduced duty cycle.
- E. Thermal Protection: Each phase of the motor shall contain a normally closed bi-metallic temperature monitor switch imbedded in the motor windings. These thermal switches shall be connected in series and set to open at 140oC +/- 5oC (284oF). They shall be connected to the control panel to provide a high stator temperature shutdown signal, and are used in conjunction with external motor overload protection. As an option, an RTD (PT100) type temperature measuring device shall be available for the motor winding to provide actual temperature measurement of the winding. When the RTD option is supplied for the motor winding, bi-metallic switches shall also be supplied in the winding. The bi-metallic system must be connected to the control to provide positive shutdown of the motor in the event of an overheat condition. This is required in order to conform to FM and CSA rules for explosion proof equipment.
- F. Mechanical Seal Protection System:  
The primary mechanical seal shall be protected from interference by particles in the waste water, including fibrous materials, by an active Seal Protection System integrated into the impeller. The back side of the impeller shall be equipped with a sinusoidal cutting ring, forming a close clearance cutting system with the lower submersible motor

housing or seal plate. This sinusoidal cutting ring shall spin with the pump impeller providing a minimum of 75 shearing actions per pump revolution. Large particles or fibrous material which attempt to lodge behind the impeller, or wrap around the mechanical seal shall be effectively sheared by the active cutting system into particles small enough to prevent interference with the mechanical seal. The Seal Protection System shall operate whenever the pump operates, and shall not require adjustment or maintenance in order to function. Submersible pump designs which do not incorporate an active cutting system to protect the primary mechanical seal shall not be considered acceptable for wastewater service.

- G. Seal Failure Early Warning System: The integrity of the mechanical seal system shall be continuously monitored during pump operation and standby time. An electrical probe shall be provided in a sensing chamber positioned above the mechanical seals for detecting the presence of water contamination within the chamber. The sensing chamber shall be air filled, and shall have a drain / inspection plug with a positive anti-leak seal which is easily accessible from the outside of the pump. A solid-state relay mounted in the pump control panel or in a separate enclosure shall send a low voltage, low amperage signal to the probe, continuously monitoring the conductivity of the liquid in the sensing chamber. If sufficient water enters the sensing chamber through the mechanical seal system, the probe shall sense the increase in conductivity and signal the solid state relay in the control panel. The relay shall then energize a warning light on the control panel, or optionally, cause the pump shut down. This system shall provide an early warning of mechanical seal leakage, thereby preventing damage to the submersible pump, and allowing scheduled rather than emergency maintenance. Systems utilizing float switches or any other monitoring devices located in the stator housing rather than in a sensing chamber between the mechanical seals are not considered to be early warning systems, and shall not be considered equal or acceptable.
- H. Power Cables: The power cables shall be sized and selected according to applicable NEC, CSA, and FM standards and shall be of sufficient length to reach the junction box without requiring splices. The outer jacket of the cable shall be an oil resistant and UV stable material, and shall be capable of continuous submergence in water to a depth of 65 feet.
- I. Cable Entry/Junction Chamber:
  - (1) The cable entry design shall not require a specific torque to insure a watertight seal. The cable entry shall consist of cylindrical elastomer grommets, flanked by stainless steel washers. A cable cap incorporating a strain relief and bend radius limiter shall mount to the cable entry boss, compressing the grommet ID to the cable while the grommet OD seals against the bore of the cable entry. Cable entry designs which utilize potting compounds to provide a water tight seal, or those which do not allow the cable to be easily changed in the field shall not be considered equal.
  - (2) The junction chamber shall be isolated and sealed from the motor by means of sealing glands. Electrical connections between the power cables and motor leads shall be made via a compression or post type terminal board, allowing for easy disconnection and maintenance.

6. QUICK CONNECT GUIDE RAIL SYSTEM:

The discharge base and elbow assembly shall be permanently installed in the wet well and connected to the discharge piping. In order to prevent binding or separation of the pump from the guide rail system, the pump(s) shall connect to the guide rail base automatically and firmly, guided by one 2 inch pipe (two pipes optional) extending from the top of the station to the discharge base elbow. Systems using guide cable in lieu of rigid guide bars or pipes shall not be considered acceptable. The sliding guide bracket shall be a separate part of the pumping unit, capable of being attached to either standard ANSI or standard DIN pump flanges, so that the bracket is interchangeable with other pumps, and not limited to a specific pump. Non standard flange dimensions or proprietary flange designs shall not be considered acceptable. There shall be no need for personnel to enter the wet well to remove or reinstall the pump(s). A field replaceable Nitrile rubber profile gasket or o-ring shall accomplish positive sealing of the pump flange/guide rail bracket to the discharge elbow. Metal to metal contact between the pump and discharge base elbow as a means of sealing shall not be considered acceptable. No portion of the pump shall bear directly on the floor of the sump. The guide rail system shall be a non-sparking version, approved by Factory Mutual for use in NEC Class 1, Division 1, Group C&D hazardous locations.

7. LEVEL CONTROLS

Liquid level controls shall include mercury switch level sensors in corrosion and shock resistant plastic casing with flexible cord and weight. Level control system shall include support brackets for suspending a minimum of four sensors at proper levels in wet well, and a NEMA 4x Aluminum or Stainless Steel lockable, watertight junction box pedestal mounted on the top slab of the wet well as indicated on Drawings: one for pump turn-on; one for pump turn-off; one for both pumps ON; and one for alarm. Controls for automatically alternating the pumps shall also be installed. Explosion proof, intrinsically safe relays are required.

8. MOTOR CONTROLS

- A. Motor controls shall consist of a duplex control panel in a NEMA 4x Aluminum or Stainless Steel lockable waterproof enclosure, and shall have a dead front with separate removable inside panel to protect electrical equipment. Panel will contain circuit breakers, magnetic starter and Hand-Off-Auto switch for each motor. Duplex panels will include an automatic electric alternator and a pump runtime meter.
- B. A waterproof high sewage level alarm and flashing light shall be mounted on the control panel enclosure.
- C. All motor controls shall include all equipment required by manufacturer and Engineer to insure proper operation of pumping station.
- D. All conduit seals must be explosion proof.

9. ELECTRICAL WIRING

- A. Pumping stations shall be completely wired at factory, in accordance with National Electric Code and wiring shall be color coded. Pump cables shall be

one continuous cable, without splices or junction boxes of any type, from pump to control panel. All wiring outside the control cabinet shall be in rigid conduit or "Sealtite". All accessory equipment shall be permanently wired with suitable disconnecting means and overload protection. Each flexible cable shall be provided with a watertight seal and separate strain relief. Cord, plug and receptacle type connections will not be acceptable.

- B. Control panel shall include NICAD battery for operation of alarm system during power outage. Battery shall be maintained to full capacity by DC trickle charger in control panel. Operation of alarm shall be automatic on failure of electric power to station.
- C. Electrical systems and components in raw wastewater wet well shall comply with NEC Class 1, Group D, Division 1 requirements and shall be suitable for use under corrosive conditions.

10. OUTSIDE ELECTRICAL SERVICE

- A. Connection of electrical service to pumping station shall be as indicated on Drawings and further specified herein.
  - (1) Service pole shall be fully treated, southern yellow pine roofed 15 degrees one way and gained before treatment.
  - (2) Weatherproof switch and meter socket shall be fastened to rustproof channels that are banded to pole with rustproof bands.
  - (3) A weatherproof fused disconnect switch located above ground on service pole shall be main powerfeed to pump station.
  - (4) Service entrance fitting at pole shall be cast aluminum with stainless steel screws.
  - (5) Conduit and conduit fittings shall be heavy, threaded, galvanized steel. Fittings shall have neoprene gaskets for covers. Conduit shall be fastened to service pole with two-hole, heavy, galvanized straps with rustproof lag screws - minimum spacing on 5 foot centers.
  - (6) Control wire extensions shall be made as indicated on Drawings. Components shall be Nema 4.
  - (7) Insulating bushings of heavy fiber reinforced type shall be employed on all conduit terminations.
  - (8) All screws and fasteners are to be rustproof, double hot dipped galvanized, Monel metal or stainless steel.
  - (9) Fuses shall be Bussman "Low-Peak", or approved equal.
  - (10) All electrical work shall be inspected and approved by an electrical inspector. Three (3) copies of certificates of approval by Electrical Inspector shall be furnished to Engineer and a label of acceptance must be glued inside door of disconnect before final acceptance.

- B. Furnish and install circuit breaking 110 volt ground fault interruption receptacle on outside of pump station.

11. PUMP AND VALVE PITS

Pump and valve pits shall be constructed of precast reinforced concrete manhole riser sections conforming to requirements of ASTM C-478. Concrete slab cover for pump pit shall be adequately reinforced to support a live load of 100 pounds per square foot and HS20-44 loading, whichever is greater. Prefabricated steel pump and valve pits will NOT be considered as an approved equal.

12. SEWAGE PIPE, FITTINGS AND VALVES

- A. All inside piping shall be Class 52 Ductile Iron Pipe, flanged ANSI Class 125 inside and terminating in mechanical joints bells outside. Outside piping shall conform to requirements listed elsewhere in these Specifications.
- B. Gate valves shall be solid wedge, bronze fitted. Check valves shall be weight loaded, external lever type, bronze fitted. Gate valves shall be provided on discharge lines and a check valve on discharged line between pump and gate valve as indicated on Drawings.
- C. A pressure gauge shall be installed downstream of the check valve. Coupling adapters shall be Type 912 cast iron as manufactured by Smith-Blair, or approved equal.
- D. The 4" overflow pipe shall be as specified in 02530 Sanitary Sewer.
- E. All bolts, nuts, washers, unions, couplings, etc. inside the pump well and valve pit must be stainless steel.

13. CONCRETE BASE, PUMP WELL AND VALVE PIT

Class "A" reinforced concrete shall be provided for pumping station base slab as indicated on Drawings. Pump well shall be of precast reinforced concrete manhole riser sections of dimensions indicated on Drawings, or approved equal. All applicable provisions of concrete specifications shall govern construction of the pump well and valve pit. Valve pit shall have 1/4 inch hot dipped galvanized steel checkered plat covering.

14. FACTORY TESTING

- A. Pump manufacturer shall perform the following inspections and tests on each pump before shipment to insure proper operation of pump and compliance to customer's purchase order.
  - (1) Impeller, motor rating and electrical connections shall first be checked for compliance to the customer's purchase order.
  - (2) A motor and cable insulation test for moisture content or insulation defects shall be made.

- (3) Prior to submergence, the pump shall be run dry to establish correct rotation and mechanical integrity.
- (4) The pump shall be run submerged in water to a minimum of six (6) feet.
- (5) After operational test No. 4, the insulation test (No. 2) is to be performed again.

B. A written report stating the foregoing steps have been done shall be supplied with each pump at the time of shipment. This report must also include a factory test report certifying the pumps have been tested in accordance with the latest provisions of the Hydraulic Institute.

15. ACCEPTANCE TEST

- A. After installation, pumping station shall be given a running test of all equipment. During test all piping and seals shall be checked to insure no leaks occur and controls shall be carefully checked and balanced for proper operation.
- B. Contractor shall furnish all necessary tools, materials, equipment and supervision of tests. Owner will furnish electrical energy.
- C. Any defects in equipment or failure to meet guaranteed requirements of these specifications shall be promptly corrected by Contractor by replacement.

16. TOOLS, SPARE PARTS AND MANUALS

- A. One complete set of tools required for routine maintenance, together with any special tools required for such purpose, shall be furnished. Tools shall be supplied in a substantial steel tool box.
- B. A complete replacement pump shaft seal assembly for each pump provided, complete with installation instructions and spare volute gasket shall be furnished.

17. WARRANTY

Complete pump station shall have an unconditional one (1) year warranty on all parts and labor. Sewage pumps shall have a five (5) year non-prorated manufacturer's warranty.

18. CHAIN LINK FENCING

- A. Fencing
  - (1) Fabric shall be galvanized steel chain link 72" high, No. 9 gauge wire woven in a 2" mesh. Selvages shall be barbed. Fabric shall conform to ASTM 491-63T in its entirety. Minimum coating weight shall be 0.40 oz. per sq. ft.
  - (2) Barb wire shall consist of three lines of galvanized steel barbed wire which is to be of the 4-point pattern composed of two strands of 12-1/2 gauge line wires with 14 gauge aluminum barbs spaced on approximately 5" centers. Minimum weights of coating shall be 0.30 oz. per sq. ft. of wire surface.

- (3) Barb wire arms: Intermediate post tops shall be of pressed steel or malleable iron base. Base shall include pressed steel extension farms to accommodate 3-barb style. Three-barb style shall extend at a 45 degree angle. Barb wire arms shall support a minimum of 400 lbs. vertical dead load from top of arm.
- (4) Chain link fabric shall be securely fastened to all terminal posts using 3/16" x 3/4" tension bars and heavy 12 gauge tension bands. There shall be one band for each foot in the height of the fence. The fabric shall be fastened to all intermediate posts with 9 gauge tie wires, spacing not to exceed 14" apart. Fabric shall be tied to top rail with 9 gauge tie wires, spacing not to exceed 24".

**B. Framework**

- (1) All posts and other appurtenances used in the construction of this fence shall be hot dipped galvanized with a minimum of 1.8 oz. per sq. ft. of surface.
- (2) Intermediate posts shall be 2-1/2" O.D. nominal weight 3.65 per lineal foot.
- (3) All end, corner, and pull posts shall be 3" O.D. nominal weight pipe, nominal weight 5.79 lbs. per lineal foot.
- (4) Posts for swing gates shall be standard weight pipe of 4" O.D. St. 5.79 lbs. PLS.
- (5) Evenly spaced posts in the line of fence no further apart than 10'-0" on center.
- (6) Top rails shall be 1-5/8" O. D. standard weight pipe wt 2.27 per lineal foot, provided with couplings approximately every 20'-0". Couplings are to be outside sleeve type.
- (7) Brace pipe shall be same as top rail and extend from terminal post to first adjacent line post. Braces shall be furnished to fasten to posts by heavy sand cast aluminum or malleable fittings, then securely trussed from line post to base of terminal post with a 3/8" truss rod and tightener. Brace pipe is required only in heights of 6'-0" and higher.

**C. Gates: Gate frames shall be 1-5/8" O.D. standard weight pipe, wt. 2.72 per lineal foot. Gates shall be fabricated using welded construction. Gates must be properly braced to eliminate any possible sagging condition.**

- (1) Gate Fillers: Frames shall be filled with same specification of fabric as is used in line of fence.
- (2) Hinges: Hinges shall be a ball and socket offset type allowing gates to swing parallel with line of fence; shall be of malleable iron or forging, and shall have hot dipped galvanized finish.
- (3) Double Latch: Double latch shall be drop bar type securely bolted to gate frame and shall engage in a heavy malleable iron gate stop.

**D. Installation**

- (1) Installation shall be made in a workmanlike manner by skilled mechanics experienced in erection of this type of fence. Erect fence on line and to



grade designated. Set all posts in concrete foundations in ground to a minimum depth of 48". Diameter of foundation shall be a minimum of 9", except for gate posts on which minimum diameter shall be three times the outside diameter of gate post. Foundation shall be 1-2-4 mixture of concrete. All foundations shall extend approximately 2" above grade and shall slope away from post to provide for proper drainage.

- (2) Fabric and barb wire shall be stretched to proper tension between terminal posts and securely fastened to the framework members as covered in previous sections. Bottom of fabric shall be held as uniformly as is practicable to finished grade.

END OF SECTION 15445

**SECTION 15447 – INDIVIDUAL SUBMERSIBLE GRINDER PUMP STATION**

**1. RELATED DOCUMENTS**

General Provisions of the Contract, General, Supplemental and Special Conditions, and General Requirements apply to this Section.

**2. DESCRIPTION OF WORK**

Provide labor, material, equipment and services necessary for installation of factory-built and tested grinder pump unit(s), each consisting of a grinder pump core suitably mounted on an integral stand of stainless steel, tank, electrical quick disconnect (NEMA 6P), pump removal harness, discharge assembly/shut-off valve, anti-siphon valve/check valve assembly, electrical alarm assembly and all necessary internal wiring and controls. For ease of serviceability, all pump motor/grinder units shall be of like type and horsepower throughout the system.

**3. SHOP DRAWINGS**

Six sets of shop drawings detailing the equipment to be furnished including dimensional data and materials of construction shall be furnished to the Engineer. The Engineer shall promptly review this data, and return two copies as accepted, or with requested modifications. Upon receipt of accepted shop drawings, the Manufacturer shall proceed immediately with fabrication of the equipment.

**4. GENERAL**

A. Grinder pump stations, complete with all appurtenances, form an integral system, and as such, shall be supplied by one grinder pump station manufacturer. The Contractor shall be responsible for the satisfactory operation of the entire system. The equipment specified shall be a product of a company experienced in the design and manufacture of grinder pumps for specific use in low pressure sewage systems. The company shall submit detailed installation and user instructions for its product, submit evidence of an established service program including complete parts and service manuals, and be responsible for maintaining a continuing inventory of grinder pump replacement parts. The Manufacturer shall provide, upon request, a reference and contact list from five of its largest contiguous grinder pump installations of the type of grinder pumps described within this specification.

B. The equipment furnished hereunder shall be the product of a company experienced in the design and manufacture of grinder pumps specifically designed for use in low pressure systems. All manufacturers proposing equipment for this project shall have at least 5 years of experience in the design and manufacture of units of identical size(s) and performance to the specified units. All manufacturers proposing equipment for this project must also have not less than 25 successful installations of low pressure sewer systems utilizing grinder pumps of like type to the grinder pumps specified herein. An installation is defined as a minimum of 25 pumps discharging into a common force main which forms a low pressure sewer system.

C. Grant County Sanitary Sewer District currently has 18 E-one pumps in operations from a previous project. Any proposed pump system must be compatible with the E-one pumps currently in their system.

5. OPERATING CONDITIONS

The pumps shall be capable of delivering 15 GPM against a rated total dynamic head of 0 feet (0 PSIG), 11 GPM against a rated total dynamic head of 92 feet (40 PSIG), and 7.8 GPM against a rated total dynamic head of 185 feet (80 PSIG). The pump(s) must also be capable of operating at negative total dynamic head without overloading the motor(s). Under no conditions shall in-line piping or valving be allowed to create a false apparent head.

6. WARRANTY

The grinder pump Manufacturer shall provide a part(s) and labor warranty on the complete station and accessories, including, but not limited to, the panel for a period of 60 months after notice of Owner's acceptance, but no greater than 63 months after receipt of shipment. Any manufacturing defects found during the warranty period will be reported to the Manufacturer by the Owner and will be corrected by the Manufacturer at no cost to the Owner.

7. PUMPS

A. PUMPS

- (1) The pump shall be a custom designed, integral, vertical rotor, motor driven, solids handling pump of the progressing cavity type with a single mechanical seal. Double radial O-ring seals are required at all casting joints to minimize corrosion and create a protective barrier. All pump castings shall be cast iron, fully epoxy coated to 8-10 mil Nominal dry thickness, wet applied. The rotor shall be through-hardened, highly polished, precipitation hardened stainless steel. The stator shall be of a specifically compounded ethylene propylene synthetic elastomer. This material shall be suitable for domestic wastewater service. Its physical properties shall include high tear and abrasion resistance, grease resistance, water and detergent resistance, temperature stability, excellent aging properties, and outstanding wear resistance. Buna-N is not acceptable as a stator material because it does not exhibit the properties as outlined above and required for wastewater service.

B. GRINDER

- (1) The grinder shall be placed immediately below the pumping elements and shall be direct-driven by a single, one-piece motor shaft. The grinder impeller assembly shall be securely fastened to the pump motor shaft by means of a threaded connection attaching the grinder impeller to the motor shaft. Attachment by means of pins or keys will not be acceptable. The grinder will be a one-piece, forged 4140 cutter wheel of the rotating type with inductively hardened cutter teeth (Rockwell 55-58c) for abrasion resistance. A stationary quench hardened and ground shredding ring shall be provided. The shredding ring will have a staggered tooth pattern with only one edge engaged at a time, maximizing the cutting torque.

- (2) This assembly shall be dynamically balanced and operate without objectionable noise or vibration over the entire range of recommended operating pressures. The grinder shall be constructed so as to minimize clogging and jamming under all normal operating conditions including starting. Sufficient vortex action shall be created to scour the tank free of deposits or sludge banks which would impair the operation of the pump. These requirements shall be accomplished by the following, in conjunction with the pump:
  - a. The grinder shall be positioned in such a way that solids are fed in an upward flow direction.
  - b. The maximum flow rate through the cutting mechanism must not exceed 4 feet per second.
  - c. The inlet shroud shall have a diameter of no less than 5 inches. Inlet shrouds that are less than 5 inches in diameter will not be accepted due to their inability to maintain the specified 4 feet per second maximum inlet velocity which by design prevents unnecessary jamming of the cutter mechanism and minimizes blinding of the pump by large objects that block the inlet shroud.
  - d. The impeller mechanism must rotate at a nominal speed of no greater than 1800 rpm.
  
- (3) The grinder shall be capable of reducing all components in normal domestic sewage, including a reasonable amount of "foreign objects," such as paper, wood, plastic, glass, wipes, rubber and the like, to finely-divided particles which will pass freely through the passages of the pump and the 1-1/4" diameter stainless steel discharge piping.

C. **ELECTRIC MOTOR:** As a maximum, the motor shall be a 1 HP, 1725 RPM, 240 Volt 60 Hertz, 1 Phase, capacitor start, ball bearing, air-cooled induction type with Class F installation, low starting current not to exceed 30 amperes and high starting torque of 8.4 foot pounds. The motor shall be press-fit into the casting for better heat transfer and longer winding life. Inherent protection against running overloads or locked rotor conditions for the pump motor shall be provided by the use of an automatic-reset, integral thermal overload protector incorporated into the motor. This motor protector combination shall have been specifically investigated and listed by Underwriters Laboratories, Inc., for the application. Non-capacitor start motors or permanent split capacitor motors will not be accepted because of their reduced starting torque and consequent diminished grinding capability. The wet portion of the motor armature must be 300 Series stainless. To reduce the potential of environmental concerns, the expense of handling and disposing of oil, and the associated maintenance costs, oil-filled motors will not be accepted.

D. **MECHANICAL SEAL:** The pump/core shall be provided with a mechanical shaft seal to prevent leakage between the motor and pump. The seal shall have a stationary ceramic seat and carbon rotating surface with faces precision lapped and held in position by a stainless steel spring.

## 8. WETWELL

A. The tank shall be a wetwell design made of high density polyethylene of a grade selected for environmental stress cracking resistance. Corrugated sections are to be made of a double wall construction with the internal wall being generally smooth to promote scouring.

Corrugations of the outside wall are to be of a minimum amplitude of 1-1/2" to provide necessary transverse stiffness. Any incidental sections of a single wall construction are to be a minimum .250 inch thick. All seams created during tank construction are to be thermally welded and factory tested for leak tightness. Tank wall and bottom must withstand the pressure exerted by saturated soil loading at maximum burial depth. All station components must function normally when exposed to maximum external soil and hydrostatic pressure.

B. The tank shall be furnished with a factory installed PVC inlet flange to accept a 4.50" OD (4" DWV or SCH 40) inlet pipe.

C. The tank shall include a lockable cover assembly providing low profile mounting and watertight capability. The cover assembly shall also include an integral 2-inch vent to prevent sewage gases from accumulating in the tank. The accessway design and construction shall facilitate field adjustment of station height in increments of 4" or less without the use of any adhesives or sealants requiring cure time before installation can be completed.

D. The power and control cable shall connect to the pump by means of the provided NEMA 6P Electrical Quick Disconnect (EQD) and shall enter the tank through a factory installed watertight strain relief connector. An electrical junction box shall not be permitted in the tank.

E. The station shall have all necessary penetrations factory sealed and tested. No field penetrations shall be acceptable.

9. DISCHARGE HOSE AND DISCONNECT/VALVE: All discharge fittings and piping shall be constructed of polypropylene, EPDM or PVC. The discharge hose assembly shall include a shut-off valve rated for 200 psi WOG and a quick disconnect feature to simplify installation and pump removal. The bulkhead penetration shall be factory installed and warranted by the manufacturer to be watertight.

10. ELECTRICAL QUICK DISCONNECT: The grinder pump core shall include a factory-installed NEMA 6P electrical quick disconnect (EQD) for all power and control functions. The EQD will be supplied with 32', 25' of useable, electrical supply cable (ESC) to connect to the alarm panel. The EQD shall require no tools for assembly, seal against water before the electrical connection is made, and include radial seals to assure a watertight seal regardless of tightening torque. Plug-type connections of the power cable onto the pump housing will not be acceptable due to the potential for leaks and electrical shorts. Junction boxes are not acceptable due to the large number of potential leak points. The EQD shall be so designed to be conducive to field wiring as required.

11. CHECK VALVE: The pump discharge shall be equipped with a factory installed, gravity operated, flapper-type integral check valve built into the discharge piping. The check valve will provide a full-ported passageway when open, and shall introduce a friction loss of less than 6 inches of water at maximum rated flow. Moving parts will be made of a 300 Series stainless steel and fabric reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, and fatigue strength. A nonmetallic hinge shall be an integral part of the flapper assembly providing a maximum degree of freedom to assure seating even at a very low back-pressure. The valve body shall be an injection molded part made of an engineered thermoplastic resin. The working pressure of the valve shall be at least 235 psi. Ball-type check valves are unacceptable due to their limited sealing capacity in slurry applications.

12. ANTI-SIPHON VALVE: The pump discharge shall be equipped with a factory-installed, gravity-operated, flapper-type integral anti-siphon valve built into the discharge piping. Moving parts will be made of 300 Series stainless steel and fabric-reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, and fatigue strength. A nonmetallic hinge shall be an integral part of the flapper assembly, providing a maximum degree of freedom to ensure proper operation even at a very low pressure. The valve body shall be injection-molded from an engineered thermoplastic resin. Holes or ports in the discharge piping are not acceptable anti-siphon devices due to their tendency to clog from the solids in the slurry being pumped. The anti-siphon port diameter shall be no less than 60% of the inside diameter of the pump discharge piping.

13. CORE UNIT: The grinder pump station shall have an easily removable core assembly containing pump, motor, grinder, all motor controls, check valve, anti-siphon valve, electrical quick disconnect and wiring. The watertight integrity of the core unit shall be established by a 100% factory test at a minimum of 5 PSIG.

14. CONTROLS

A. All necessary motor starting controls shall be located in the cast iron enclosure of the core unit secured by stainless steel fasteners. Locating motor starting controls in a plastic enclosure is not acceptable. Wastewater level sensing controls shall be housed in a separate enclosure from motor starting controls. Level sensor housing must be sealed via a radial type seal; solvents or glues are not acceptable. Level sensing control housing must be integrally attached to pump assembly so that it may be removed from the station with the pump and in such a way as to minimize the potential for the accumulation of grease and debris accumulation, etc. Level sensing housing must be a high-impact thermoplastic copolymer over-molded with a thermo plastic elastomer. The use of PVC for the level sensing housing is not acceptable.

B. Non-fouling wastewater level controls for controlling pump operation shall be accomplished by monitoring the pressure changes in an integral air column connected to a pressure switch. The air column shall be integrally molded from a thermoplastic elastomer suitable for use in wastewater and with excellent impact resistance. The air column shall have only a single connection between the water level being monitored and the pressure switch. Any connections are to be sealed radially with redundant O-rings. The level detection device shall have no moving parts in direct contact with the wastewater and shall be integral to the pump core assembly in a single, readily-exchanged unit. Depressing the push to run button must operate the pump even with the level sensor housing removed from the pump.

C. All fasteners throughout the assembly shall be 300 Series stainless steel. High-level sensing will be accomplished in the manner detailed above by a separate air column sensor and pressure switch of the same type. Closure of the high-level sensing device will energize an alarm circuit as well as a redundant pump-on circuit. For increased reliability, pump ON/OFF and high-level alarm functions shall not be controlled by the same switch. Float switches of any kind, including float trees, will not be accepted due to the periodic need to maintain (rinsing, cleaning) such devices and their tendency to malfunction because of incorrect wiring, tangling, grease buildup, and mechanical cord fatigue. To assure reliable operation of the pressure switches, each core shall be equipped with a factory installed equalizer diaphragm that compensates for any atmospheric pressure or temperature changes. Tube or piping runs outside of the station tank or into tank-mounted junction boxes providing pressure switch equalization will not be permitted due to their susceptibility to condensation, kinking, pinching,

and insect infestation. The grinder pump will be furnished with a 6 conductor 14 gauge, type SJOW cable, pre-wired and watertight to meet UL requirements with a factory installed NEMA 6P EQD half attached to it.

15. ALARM PANEL

A. Each grinder pump station shall include a NEMA 4X, UL-listed alarm panel suitable for wall or pole mounting. The NEMA 4X enclosure shall be manufactured of thermoplastic polyester to ensure corrosion resistance. The enclosure shall include a hinged, lockable cover with padlock, preventing access to electrical components, and creating a secured safety front to allow access only to authorized personnel. The enclosure shall not exceed 10.5" W x 14" H x 7" D, or 12.5" W x 16" H x 7.5" D if certain options are included.

B. The alarm panel shall contain one 15-amp, double-pole circuit breaker for the pump core's power circuit and one 15-amp single-pole circuit breaker for the alarm circuit. The panel shall contain a push-to-run feature, an internal run indicator, and a complete alarm circuit. All circuit boards in the alarm panel are to be protected with a conformal coating on both sides and the AC power circuit shall include an auto resetting fuse.

C. The alarm panel shall include the following features: external audible and visual alarm; push-to-run switch; push-to-silence switch; redundant pump start; and high level alarm capability. The alarm sequence is to be as follows when the pump and alarm breakers are on:

- (1) When liquid level in the sewage wet-well rises above the alarm level, audible and visual alarms are activated, the contacts on the alarm pressure switch activate, and the redundant pump starting system is energized.
- (2) The audible alarm may be silenced by means of the externally mounted, push-to-silence button.
- (3) Visual alarm remains illuminated until the sewage level in the wet-well drops below the "off" setting of the alarm pressure switch.

D. The visual alarm lamp shall be inside a red, oblong lens at least 3.75" L x 2.38" W x 1.5" H. Visual alarm shall be mounted to the top of the enclosure in such a manner as to maintain the NEMA 4X rating. The audible alarm shall be externally mounted on the bottom of the enclosure, capable of 93 dB @ 2 feet. The audible alarm shall be capable of being deactivated by depressing a push-type switch that is encapsulated in a weatherproof silicone boot and mounted on the bottom of the enclosure (push-to-silence button).

E. The entire alarm panel, as manufactured and including any of the following options, shall be listed by Underwriters Laboratories, Inc.

16. SERVICEABILITY: The grinder pump core, including level sensor assembly, shall have two lifting hooks complete with lift-out harness connected to its top housing to facilitate easy core removal when necessary. The level sensor assembly must be easily removed from the pump assembly for service or replacement. All mechanical and electrical connections must provide easy disconnect capability for core unit removal and installation. Each EQD half must include a water-tight cover to protect the internal electrical pins while the EQD is unplugged. A pump push-to-run feature will be provided for field trouble shooting. The push-to-run feature must operate the pump even if the level sensor assembly has been removed from the pump assembly. All motor control components shall be mounted on a readily replaceable bracket for ease of field service.

17. OSHA CONFINED SPACE: All maintenance tasks for the grinder pump station must be possible without entry into the grinder pump station (as per OSHA 1910.146 Permit-required confined spaces). *“Entry means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant’s body breaks the plane of an opening into the space.”*

18. SAFETY

A. The grinder pump shall be free from electrical and fire hazards as required in a residential environment. As evidence of compliance with this requirement, the completely assembled and wired grinder pump station shall be listed by Underwriters Laboratories, Inc., to be safe and appropriate for the intended use. UL listing of components of the station, or third-party testing to UL standard are not acceptable.

B. The grinder pump shall meet accepted standards for plumbing equipment for use in or near residences, shall be free from noise, odor, or health hazards, and shall have been tested by an independent laboratory to certify its capability to perform as specified in either individual or low pressure sewer system applications. As evidence of compliance with this requirement, the grinder pump shall bear the seal of NSF International. Third-party testing to NSF standard is not acceptable.

19. FACTORY TEST

A. Each grinder pump shall be submerged and operated for 5 minutes (minimum). Included in this procedure will be the testing of all ancillary components such as, the anti-siphon valve, check valve, discharge assembly and each unit’s dedicated level controls and motor controls. All factory tests shall incorporate each of the above listed items. Actual appurtenances and controls which will be installed in the field, shall be particular to the tested pump only. A common set of appurtenances and controls for testing all pumps is not acceptable. Certified test results shall be available upon request showing the operation of each grinder pump at two different points on its curve, with a maximum pressure of no less than 80 psi and a factory bearing vibration test. The Engineer reserves the right to inspect such testing procedures with representatives of the Owner, at the Grinder Pumps Manufacturer’s facility.

B. All HDPE basins shall be factory leak tested to assure the integrity of all joints, seams and penetrations. All necessary penetrations such as inlets, discharge fittings and cable connectors shall be included in this test along with their respective sealing means (grommets, gaskets etc.). Fiberglass basins with stainless steel discharge bulkhead shall be factory tested to be watertight.

20. DELIVERY: All grinder pump core units, including level controls, will be delivered to the job site 100 percent completely assembled, including testing, ready for installation. Grinder pump cores will be shipped separately from the tanks. Installing the cores and discharge piping/hose into the tanks is the only assembly step required and allowed due to the workmanship issues associated with other on-site assembly. Grinder pump cores must be boxed for ease of handling.



21. INSTALLATION

A. The Contractor shall be responsible for handling ground water to provide a firm, dry subgrade for the structure, and shall guard against flotation or other damage resulting from general water or flooding.

B. The grinder pump stations shall not be set into the excavation until the installation procedures and excavation have been approved by the Engineer.

C. Remove packing material. Users instructions MUST be given to the Owner. Hardware supplied with the unit, if required, will be used at installation. The basin will be supplied with a standard 4" inlet grommet (4.50" OD) for connecting the incoming sewer line. Appropriate inlet piping must be used. The basin may not be dropped, rolled or laid on its side for any reason.

D. Installation shall be accomplished so that 1" to 4" of accessway, below the bottom of the lid, extends above the finished grade line. The finished grade shall slope away from the unit. The diameter of the excavated hole must be large enough to allow for the concrete anchor.

E. A 6" inch (minimum) layer of naturally rounded aggregate, clean and free flowing, with particle size of not less than 1/8" or more than 3/4" shall be used as bedding material under each unit.

F. A concrete anti-flotation collar, as detailed on the drawings, and sized according to the manufacturer's instructions, shall be required and shall be pre-cast to the grinder pump or poured in place. Each grinder pump station with its pre-cast anti-flotation collar shall have a minimum of three lifting eyes for loading and unloading purposes.

G. If the concrete is poured in place, the unit shall be leveled, and filled with water, to the bottom of the inlet, to help prevent the unit from shifting while the concrete is being poured. The concrete must be manually vibrated to ensure there are no voids. If it is necessary to pour the concrete to a level higher than the inlet piping, an 8" sleeve is required over the inlet prior to the concrete being poured.

H. The Contractor will provide and install a 4-foot piece of 4-inch SCH 40 PVC pipe with water tight cap, to stub-out the inlet for the property owners' installation contractor, as depicted on the contract drawings.

I. The electrical enclosure shall be furnished, installed and wired to the grinder pump station by the Contractor. An alarm device is required on every installation, there shall be NO EXCEPTIONS. It will be the responsibility of the Contractor and the Engineer to coordinate with the individual property owner(s) to determine the optimum location for the alarm panel.

J. The Contractor shall mount the alarm device in a conspicuous location, as per national and local codes. The alarm panel will be connected to the grinder pump station by a length of 6 conductor 12 gauge type TC cable as shown on the contract drawings. The power and alarm circuits must be on separate power circuits. The grinder pump stations will be provided with 32', 25' of useable, electrical supply cable to connect the station to the alarm panel. This cable shall be supplied with a factory installed EQD half to connect to the mating EQD half on the core.

**22. BACKFILL REQUIREMENTS**

A. Proper backfill is essential to the long-term reliability of any underground structure. The method of backfilling is to surround the unit to grade using Class I or Class II backfill material as defined in ASTM 2321.

B. Improper backfilling may result in damaged accessways. The grinder pump station shall be installed at a minimum depth from grade to the top of the 1 1/4" discharge line, to assure maximum frost protection. The finish grade line shall be 1" to 4" below the bottom of the lid, and final grade shall slope away from the grinder pump station.

C. All restoration will be the responsibility of the Contractor. Per unit costs for this item shall be included in the Contractor's bid price for the individual grinder pump station. The properties shall be restored to their original condition in all respects, including, but not limited to, curb and sidewalk replacement, landscaping, loaming and seeding, and restoration of the traveled ways, as directed by the Engineer

**22. START-UP AND FIELD TESTING**

A. The Manufacturer shall provide the services of qualified factory trained technician(s) who shall inspect the placement and wiring of each station, perform field tests as specified herein, and instruct the Owner's personnel in the operation and maintenance of the equipment before the stations are accepted by the Owner.

B. All equipment and materials necessary to perform testing shall be the responsibility of the INSTALLING CONTRACTOR. This includes, as a minimum, a portable generator and power cable (if temporary power is required), water in each basin (filled to a depth sufficient to verify the high level alarm is operating), and opening of all valves in the system. These steps shall be completed prior to the qualified factory trained technician(s) arrival on site.

C. The services of a trained, factory-authorized technician shall be provided at a rate of 40 hours for every 100 grinder pump stations supplied.

D. Upon completion of the installation, the authorized factory technician(s) will perform the following test on each station:

- (1) Make certain the discharge shut-off valve in the station is fully open.
- (2) Turn ON the alarm power circuit and verify the alarm is functioning properly.
- (3) Turn ON the pump power circuit. Initiate the pump operation to verify automatic "on/off" controls are operative. The pump should immediately turn ON.
- (4) Consult the Manufacturer's Service Manual for detailed start-up procedures.

E. Upon completion of the start-up and testing, the Manufacturer shall submit to the Engineer the start-up authorization form describing the results of the tests performed for each grinder pump station. Final acceptance of the system will not occur until authorization forms have been received for each pump station installed and any installation deficiencies corrected.

END OF SECTION 15447

**BULLOCK PEN LAKE SEWER AND  
BINGHAM PUMP STATION RELOCATION**

**DIVISION 26 – TECHNICAL SPECIFICATIONS**

**SECTION 263213 - ENGINE GENERATORS**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes packaged engine-generator sets for emergency power supply with the following features:
  - 1. Diesel engine.
  - 2. Unit-mounted cooling system.
  - 3. Unit-mounted control and monitoring.
  - 4. Performance requirements for sensitive loads.
  - 5. Outdoor enclosure.
- B. Related Sections include the following:
  - 1. Section 263600 "Transfer Switches" for transfer switches including sensors and relays to initiate automatic-starting and -stopping signals for engine-generator sets.

**1.3 DEFINITIONS**

- A. Operational Bandwidth: The total variation from the lowest to highest value of a parameter over the range of conditions indicated, expressed as a percentage of the nominal value of the parameter.

**1.4 ACTION SUBMITTALS**

- A. Product Data: For each type of packaged engine generator indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories. In addition, include the following:
  - 1. Thermal damage curve for generator.
  - 2. Time-current characteristic curves for generator protective device.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

1. Dimensioned outline plan and elevation drawings of engine-generator set and other components specified.
2. Design Calculations: Signed and sealed by a qualified professional engineer. Calculate requirements for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.
3. Vibration Isolation Base Details: Signed and sealed by a qualified professional engineer. Detail fabrication, including anchorages and attachments to structure and to supported equipment. Include base weights.
4. Wiring Diagrams: Power, signal, and control wiring.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For installer and manufacturer.
- B. Source quality-control test reports.
  1. Certified summary of prototype-unit test report.
  2. Certified Test Reports: For components and accessories that are equivalent, but not identical, to those tested on prototype unit.
  3. Certified Summary of Performance Tests: Certify compliance with specified requirement to meet performance criteria for sensitive loads.
  4. Report of factory test on units to be shipped for this Project, showing evidence of compliance with specified requirements.
  5. Report of sound generation.
  6. Report of exhaust emissions showing compliance with applicable regulations.
  7. Certified Torsional Vibration Compatibility: Comply with NFPA 110.
- C. Field quality-control test reports.
- D. Warranty: Special warranty specified in this Section.

#### 1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For packaged engine generators to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
  1. List of tools and replacement items recommended to be stored at Project for ready access. Include part and drawing numbers, current unit prices, and source of supply.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
  1. Maintenance Proximity: Not more than four hours' normal travel time from Installer's place of business to Project site.

2. Engineering Responsibility: Preparation of data for vibration isolators and seismic restraints of engine skid mounts, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
  - B. Manufacturer Qualifications: A qualified manufacturer. Maintain, within 200 miles (321 km) of Project site, a service center capable of providing training, parts, and emergency maintenance repairs.
  - C. Source Limitations: Obtain packaged generator sets and auxiliary components through one source from a single manufacturer.
  - D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
  - E. Comply with ASME B15.1.
  - F. Comply with NFPA 37.
  - G. Comply with NFPA 70.
  - H. Comply with NFPA 110 requirements for Level 2 emergency power supply system.
  - I. Comply with UL 2200.
  - J. Engine Exhaust Emissions: Comply with applicable state and local government requirements.
  - K. Noise Emission: Comply with applicable state and local government requirements for maximum noise level at adjacent property boundaries due to sound emitted by generator set including engine, engine exhaust, engine cooling-air intake and discharge, and other components of installation.

#### 1.8 PROJECT CONDITIONS

- A. Environmental Conditions: Engine-generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
  1. Ambient Temperature: Minus 15 to plus 40 deg C.
  2. Relative Humidity: 0 to 95 percent.
  3. Altitude: Sea level to 1000 feet (300 m).

#### 1.9 COORDINATION

- A. Coordinate size and location of concrete bases for package engine generators. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified with concrete.

- B. Coordinate size and location of roof curbs, equipment supports, and roof penetrations for remote radiators. These items are specified in Section 077200 "Roof Accessories."

**1.10 EXTRA MATERIALS**

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Fuses: One for every 10 of each type and rating, but no fewer than one of each.
  - 2. Indicator Lamps: Two for every six of each type used, but no fewer than two of each.
  - 3. Filters: One set each of lubricating oil, fuel, and combustion-air filters

**1.11 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Two years from date of Substantial Completion.

**1.12 MAINTENANCE SERVICE**

- A. Initial Maintenance Service: Beginning at Substantial Completion, provide 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include quarterly exercising to check for proper starting, load transfer, and running under load. Include routine preventive maintenance as recommended by manufacturer and adjusting as required for proper operation. Provide parts and supplies same as those used in the manufacture and installation of original equipment.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Caterpillar; Engine Div.
  - 2. Generac Power Systems, Inc.
  - 3. Kohler Co.; Generator Division.
  - 4. Onan/Cummins Power Generation; Industrial Business Group.

**2.2 ENGINE-GENERATOR SET**

- A. Factory-assembled and -tested, engine-generator set.



- B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.
  - 1. Rigging Diagram: Inscribed on metal plate permanently attached to mounting frame to indicate location and lifting capacity of each lifting attachment and generator-set center of gravity.
- C. Capacities and Characteristics:
  - 1. Power Output Ratings: Nominal ratings as indicated, with capacity as required to operate as a unit as evidenced by records of prototype testing.
  - 2. Output Connections: Three-phase, four wire.
  - 3. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of component.
- D. Generator-Set Performance:
  - 1. Steady-State Voltage Operational Bandwidth: 3 percent of rated output voltage from no load to full load.
  - 2. Transient Voltage Performance: Not more than 20 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within three seconds.
  - 3. Steady-State Frequency Operational Bandwidth: 0.5 percent of rated frequency from no load to full load.
  - 4. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
  - 5. Transient Frequency Performance: Less than 5 percent variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within five seconds.
  - 6. Output Waveform: At no load, harmonic content measured line to line or line to neutral shall not exceed 5 percent total and 3 percent for single harmonics. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent.
  - 7. Sustained Short-Circuit Current: For a 3-phase, bolted short circuit at system output terminals, system shall supply a minimum of 250 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to generator system components.
- E. Generator-Set Performance for Sensitive Loads:
  - 1. Oversizing generator compared with the rated power output of the engine is permissible to meet specified performance.
    - a. Nameplate Data for Oversized Generator: Show ratings required by the Contract Documents rather than ratings that would normally be applied to generator size installed.
  - 2. Steady-State Voltage Operational Bandwidth: 1 percent of rated output voltage from no load to full load.

3. Transient Voltage Performance: Not more than 10 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within 0.5 second.
4. Steady-State Frequency Operational Bandwidth: Plus or minus 0.25 percent of rated frequency from no load to full load.
5. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
6. Transient Frequency Performance: Less than 2-Hz variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within three seconds.
7. Output Waveform: At no load, harmonic content measured line to neutral shall not exceed 2 percent total with no slot ripple. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent.
8. Sustained Short-Circuit Current: For a 3-phase, bolted short circuit at system output terminals, system shall supply a minimum of 300 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to winding insulation or other generator system components.
9. Excitation System: Performance shall be unaffected by voltage distortion caused by nonlinear load.
  - a. Provide permanent magnet excitation for power source to voltage regulator.

### 2.3 ENGINE

- A. Fuel: Fuel oil, Grade DF-2.
- B. Rated Engine Speed: 1800 rpm.
- C. Maximum Piston Speed for Four-Cycle Engines: 2250 fpm (11.4 m/s).
- D. Lubrication System: The following items are mounted on engine or skid:
  1. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow.
  2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
  3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.
- E. Engine Fuel System:
  1. Main Fuel Pump: Mounted on engine. Pump ensures adequate primary fuel flow under starting and load conditions.
  2. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.

- F. Coolant Jacket Heater: Electric-immersion type, factory installed in coolant jacket system. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity.
- G. Governor: Adjustable electronic isochronous, with speed sensing. Maintain a +/- 6 RPM steady state frequency variation from steady state no load to steady state full load..
- H. Cooling System: Closed loop, liquid cooled, with radiator factory mounted on engine-generator-set mounting frame and integral engine-driven coolant pump.
  - 1. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.
  - 2. Size of Radiator: Adequate to contain expansion of total system coolant from cold start to 110 percent load condition.
  - 3. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.
  - 4. Coolant Hose: Flexible assembly with inside surface of nonporous rubber and outer covering of aging-, ultraviolet-, and abrasion-resistant fabric.
    - a. Rating: 50-psig (345-kPa) maximum working pressure with coolant at 180 deg F (82 deg C), and noncollapsible under vacuum.
    - b. End Fittings: Flanges or steel pipe nipples with clamps to suit piping and equipment connections.
- I. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.
  - 1. Minimum sound attenuation of 25 dB at 500 Hz.
  - 2. Sound level measured at a distance of 10 feet (3 m) from exhaust discharge after installation is complete shall be 85 dBA or less.
- J. Air-Intake Filter: Standard-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
- K. Starting System: 12-V electric, with negative ground.
  - 1. Components: Sized so they will not be damaged during a full engine-cranking cycle with ambient temperature at maximum specified in Part 1 "Project Conditions" Article.
  - 2. Cranking Motor: Heavy-duty unit that automatically engages and releases from engine flywheel without binding.
  - 3. Cranking Cycle: As required by NFPA 110 for system level specified.
  - 4. Battery: Adequate capacity within ambient temperature range specified in Part 1 "Project Conditions" Article to provide specified cranking cycle at least three times without recharging.
  - 5. Battery Cable: Size as recommended by engine manufacturer for cable length indicated. Include required interconnecting conductors and connection accessories.

6. Battery Compartment: Factory fabricated of metal with acid-resistant finish and thermal insulation. Thermostatically controlled heater shall be arranged to maintain battery above 10 deg C regardless of external ambient temperature within range specified in Part 1 "Project Conditions" Article. Include accessories required to support and fasten batteries in place.
7. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation and 35-A minimum continuous rating.
8. Battery Charger: Current-limiting, automatic-equalizing and float-charging type. Unit shall comply with UL 1236 and include the following features:
  - a. Operation: Equalizing-charging rate of 10 A shall be initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit shall then be automatically switched to a lower float-charging mode and shall continue to operate in that mode until battery is discharged again.
  - b. Automatic Temperature Compensation: Adjust float and equalize voltages for variations in ambient temperature from minus 40 deg C to plus 60 deg C to prevent overcharging at high temperatures and undercharging at low temperatures.
  - c. Automatic Voltage Regulation: Maintain constant output voltage regardless of input voltage variations up to plus or minus 10 percent.
  - d. Ammeter and Voltmeter: Flush mounted in door. Meters shall indicate charging rates.
  - e. Safety Functions: Sense abnormally low battery voltage and close contacts providing low battery voltage indication on control and monitoring panel. Sense high battery voltage and loss of ac input or dc output of battery charger. Either condition shall close contacts that provide a battery-charger malfunction indication at system control and monitoring panel.
  - f. Enclosure and Mounting: NEMA 250, Type 1, wall-mounted cabinet.

#### 2.4 FUEL OIL STORAGE

- A. Comply with NFPA 30.
- B. Base-Mounted Fuel Oil Tank: Factory installed and piped, complying with UL 142 fuel oil tank. Features include the following:
  1. Tank level indicator.
  2. Capacity: Fuel for 24 hours' continuous operation at 100 percent rated power output.
  3. Vandal-resistant fill cap.
  4. Containment Provisions: Comply with requirements of authorities having jurisdiction. Double wall with 1105 capacity rupture basin meeting U.L. 142 standards. Locking fuel cap, low level alarm contacts and fuel tank rupture alarm.

**2.5 CONTROL AND MONITORING**

- A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of generator set. When mode-selector switch is switched to the on position, generator set starts. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.
  
- B. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common control and monitoring panel mounted on the generator set. Mounting method shall isolate the control panel from generator-set vibration.
  
- C. Indicating and Protective Devices and Controls: As required by NFPA 110 for Level 2 system, and the following:
  - 1. AC voltmeter.
  - 2. AC ammeter.
  - 3. AC frequency meter.
  - 4. DC voltmeter (alternator battery charging).
  - 5. Engine-coolant temperature gage.
  - 6. Engine lubricating-oil pressure gage.
  - 7. Running-time meter.
  - 8. Ammeter-voltmeter, phase-selector switch(es).
  - 9. Generator-voltage adjusting rheostat.
  - 10. Generator overload.
  
- D. Indicating and Protective Devices and Controls:
  - 1. AC voltmeter.
  - 2. AC ammeter.
  - 3. AC frequency meter.
  - 4. DC voltmeter (alternator battery charging).
  - 5. Engine-coolant temperature gage.
  - 6. Engine lubricating-oil pressure gage.
  - 7. Running-time meter.
  - 8. Ammeter-voltmeter, phase-selector switch(es).
  - 9. Generator-voltage adjusting rheostat.
  - 10. Start-stop switch.
  - 11. Overspeed shutdown device.
  - 12. Coolant high-temperature shutdown device.
  - 13. Coolant low-level shutdown device.
  - 14. Oil low-pressure shutdown device.
  - 15. Generator overload.
  
- E. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator, unless otherwise indicated.

- F. Common Remote Audible Alarm: Comply with NFPA 110 requirements for Level 1 systems. Include necessary contacts and terminals in control and monitoring panel.
  - 1. Overcrank shutdown.
  - 2. Coolant low-temperature alarm.
  - 3. Control switch not in auto position.
  - 4. Battery-charger malfunction alarm.
  - 5. Battery low-voltage alarm.
  
- G. Common Remote Audible Alarm: Signal the occurrence of any events listed below without differentiating between event types. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset.
  - 1. Engine high-temperature shutdown.
  - 2. Lube-oil, low-pressure shutdown.
  - 3. Overspeed shutdown.
  - 4. Remote emergency-stop shutdown.
  - 5. Engine high-temperature prealarm.
  - 6. Lube-oil, low-pressure prealarm.
  - 7. Fuel tank, low-fuel level.
  - 8. Low coolant level.
  
- H. Remote Emergency-Stop Switch: Flush; wall mounted, unless otherwise indicated; and labeled. Push button shall be protected from accidental operation.

## 2.6 GENERATOR OVERCURRENT AND FAULT PROTECTION

- A. Generator Circuit Breake(s)r: Molded-case, electronic-trip type; 100 percent rated; complying with UL 489. Two required as indicated on plan:
  - 1. Tripping Characteristics: Adjustable long-time and short-time delay and instantaneous.
  - 2. Trip Settings: Selected to coordinate with generator thermal damage curve.
  - 3. Shunt Trip: Connected to trip breaker when generator set is shut down by other protective devices.
  - 4. Mounting: Adjacent to or integrated with control and monitoring panel.

## 2.7 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

- A. Comply with NEMA MG 1.
  
- B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.
  
- C. Electrical Insulation: Class H or Class F.
  
- D. Stator-Winding Leads: Brought out to terminal box to permit future reconnection for other voltages if required.

- E. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, overspeed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.
- F. Enclosure: Dripproof.
- G. Instrument Transformers: Mounted within generator enclosure.
- H. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified.
  - 1. Adjusting rheostat on control and monitoring panel shall provide plus or minus 5 percent adjustment of output-voltage operating band.
- I. Strip Heater: Thermostatically controlled unit arranged to maintain stator windings above dew point.
- J. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding.

## 2.8 OUTDOOR GENERATOR-SET ENCLOSURE

- A. Description: Vandal-resistant, weatherproof steel housing, wind resistant up to 100 mph (160 km/h). Multiple panels shall be lockable and provide adequate access to components requiring maintenance. Panels shall be removable by one person without tools. Instruments and control shall be mounted within enclosure.
  - 1. Structural Design and Anchorage: Comply with ASCE 7 for wind loads.
  - 2. Louvers: Equipped with bird screen and filter arranged to permit air circulation when engine is not running while excluding exterior dust, birds, and rodents.
  - 3. Hinged Doors: With padlocking provisions.
  - 4. Ventilation: Louvers equipped with bird screen and filter arranged to permit air circulation while excluding exterior dust, birds, and rodents.
  - 5. Muffler Location: Within enclosure.
- B. Engine Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for 2 hours with ambient temperature at top of range specified in system service conditions.
  - 1. Louvers: Fixed-engine, cooling-air inlet and discharge. Storm-proof and drainable louvers prevent entry of rain and snow.

## 2.9 VIBRATION ISOLATION DEVICES

- A. Elastomeric Isolator Pads: Oil- and water-resistant elastomer or natural rubber, arranged in single or multiple layers, molded with a nonslip pattern and galvanized-steel baseplates of sufficient stiffness for uniform loading over pad area, and factory cut to sizes that match requirements of supported equipment.
  - 1. Material: Standard neoprene.

2. Durometer Rating: 30
3. Number of Layers: One.

## 2.10 FINISHES

- A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

## 2.11 SOURCE QUALITY CONTROL

- A. Prototype Testing: Factory test engine-generator set using same engine model, constructed of identical or equivalent components and equipped with identical or equivalent accessories.

1. Tests: Comply with NFPA 110, Level 1 Energy Converters and with IEEE 115.

- B. Project-Specific Equipment Tests: Before shipment, factory test engine-generator set and other system components and accessories manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:

1. Test components and accessories furnished with installed unit that are not identical to those on tested prototype to demonstrate compatibility and reliability.
2. Full load run.
3. Maximum power.
4. Voltage regulation.
5. Transient and steady-state governing.
6. Single-step load pickup.
7. Safety shutdown.
8. Report factory test results within 10 days of completion of test.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine areas, equipment bases, and conditions, with Installer present, for compliance with requirements for installation and other conditions affecting packaged engine-generator performance.
- B. Examine roughing-in of piping systems and electrical connections. Verify actual locations of connections before packaged engine-generator installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.



**3.2 INSTALLATION**

- A. Comply with packaged engine-generator manufacturers' written installation and alignment instructions and with NFPA 110.
- B. Install packaged engine generator to provide access, without removing connections or accessories, for periodic maintenance.
- C. Install packaged engine generator with elastomeric isolator pads having a minimum deflection of 1 inch (25 mm) on 4-inch- (100-mm-) high concrete base. Secure sets to anchor bolts installed in concrete bases. Concrete base construction is specified in Section 260548 "Vibration and Seismic Controls for Electrical Systems."
- D. Electrical Wiring: Install electrical devices furnished by equipment manufacturers but not specified to be factory mounted.

**3.3 FIELD QUALITY CONTROL**

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections. Report results in writing.
- B. Tests and Inspections:
  - 1. Perform tests recommended by manufacturer and each electrical test and visual and mechanical inspection (except those indicated to be optional) for "AC Generators and for Emergency Systems" specified in NETA Acceptance Testing Specification. Certify compliance with test parameters.
  - 2. NFPA 110 Acceptance Tests: Perform tests required by NFPA 110 that are additional to those specified here including, but not limited to, single-step full-load pickup test.
  - 3. Battery Tests: Equalize charging of battery cells according to manufacturer's written instructions. Record individual cell voltages.
    - a. Measure charging voltage and voltages between available battery terminals for full-charging and float-charging conditions. Check electrolyte level and specific gravity under both conditions.
    - b. Test for contact integrity of all connectors. Perform an integrity load test and a capacity load test for the battery.
    - c. Verify acceptance of charge for each element of the battery after discharge.
    - d. Verify that measurements are within manufacturer's specifications.
  - 4. Battery-Charger Tests: Verify specified rates of charge for both equalizing and float-charging conditions.
  - 5. System Integrity Tests: Methodically verify proper installation, connection, and integrity of each element of engine-generator system before and during system operation. Check for air, exhaust, and fluid leaks.

6. Voltage and Frequency Transient Stability Tests: Use recording oscilloscope to measure voltage and frequency transients for 50 and 100 percent step-load increases and decreases, and verify that performance is as specified.
  7. Harmonic-Content Tests: Measure harmonic content of output voltage under 25 percent and at 100 percent of rated linear load. Verify that harmonic content is within specified limits.
- C. Coordinate tests with tests for transfer switches and run them concurrently.
  - D. Test instruments shall have been calibrated within the last 12 months, traceable to standards of NIST, and adequate for making positive observation of test results. Make calibration records available for examination on request.
  - E. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
  - F. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
  - G. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
  - H. Remove and replace malfunctioning units and retest as specified above.
  - I. Retest: Correct deficiencies identified by tests and observations and retest until specified requirements are met.
  - J. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation resistances, time delays, and other values and observations. Attach a label or tag to each tested component indicating satisfactory completion of tests.
- 3.4 DEMONSTRATION
- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators. Refer to Section 017900 "Demonstration and Training."

END OF SECTION 263213

**SECTION 263600 - TRANSFER SWITCHES**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. Section includes transfer switches rated 600 V and less, including the following:
  - 1. Automatic transfer switches.

**1.3 ACTION SUBMITTALS**

- A. Product Data: For each type of product indicated. Include rated capacities, weights, operating characteristics, furnished specialties, and accessories.
- B. Shop Drawings: Dimensioned plans, elevations, sections, and details showing minimum clearances, conductor entry provisions, gutter space, installed features and devices, and material lists for each switch specified.

**1.4 INFORMATIONAL SUBMITTALS**

- A. Qualification Data: For manufacturer.
- B. Field quality-control reports.

**1.5 CLOSEOUT SUBMITTALS**

- A. Operation and Maintenance Data: For each type of product to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
  - 1. Features and operating sequences, both automatic and manual.
  - 2. List of all factory settings of relays; provide relay-setting and calibration instructions, including software, where applicable.

**1.6 QUALITY ASSURANCE**

- A. **Manufacturer Qualifications:** Maintain a service center capable of providing training, parts, and emergency maintenance repairs within a response period of less than eight hours from time of notification.
- B. **Electrical Components, Devices, and Accessories:** Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with NEMA ICS 1.
- D. Comply with NFPA 70.
- E. Comply with NFPA 110.
- F. Comply with UL 1008 unless requirements of these Specifications are stricter.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURED UNITS**

- A. **Contactor Transfer Switches:**
  - 1. **Manufacturers:** Subject to compliance with requirements, provide products by one of the following:
    - a. Caterpillar; Engine Div.
    - b. Emerson; ASCO Power Technologies, LP.
    - c. Generac Power Systems, Inc.
    - d. GE Zenith Controls.
    - e. Kohler Power Systems; Generator Division.
    - f. Onan/Cummins Power Generation; Industrial Business Group.
    - g. Russelectric, Inc.

**2.2 GENERAL TRANSFER-SWITCH PRODUCT REQUIREMENTS**

- A. **Indicated Current Ratings:** Apply as defined in UL 1008 for continuous loading and total system transfer, including tungsten filament lamp loads not exceeding 30 percent of switch ampere rating, unless otherwise indicated.
- B. **Tested Fault-Current Closing and Withstand Ratings:** Adequate for duty imposed by protective devices at installation locations in Project under the fault conditions indicated, based on testing according to UL 1008.
- C. **Solid-State Controls:** Repetitive accuracy of all settings shall be plus or minus 2 percent or better over an operating temperature range of minus 20 to plus 70 deg C.

- D. Resistance to Damage by Voltage Transients: Components shall meet or exceed voltage-surge withstand capability requirements when tested according to IEEE C62.41. Components shall meet or exceed voltage-impulse withstand test of NEMA ICS 1.
- E. Electrical Operation: Accomplish by a nonfused, momentarily energized solenoid or electric-motor-operated mechanism, mechanically and electrically interlocked in both directions.
- F. Switch Characteristics: Designed for continuous-duty repetitive transfer of full-rated current between active power sources.
  - 1. Limitation: Switches using molded-case switches or circuit breakers or insulated-case circuit-breaker components are not acceptable.
  - 2. Switch Action: Double throw; mechanically held in both directions.
  - 3. Contacts: Silver composition or silver alloy for load-current switching. Conventional automatic transfer-switch units, rated 225 A and higher, shall have separate arcing contacts.
- G. Neutral Terminal: Solid and fully rated, unless otherwise indicated.
- H. Heater: Equip switches exposed to outdoor temperatures and humidity, and other units indicated, with an internal heater. Provide thermostat within enclosure to control heater.
- I. Factory Wiring: Train and bundle factory wiring and label, consistent with Shop Drawings, either by color-code or by numbered or lettered wire and cable tape markers at terminations. Color-coding and wire and cable tape markers are specified in Section 260553 "Identification for Electrical Systems."
  - 1. Designated Terminals: Pressure type, suitable for types and sizes of field wiring indicated.
  - 2. Power-Terminal Arrangement and Field-Wiring Space: Suitable for top, side, or bottom entrance of feeder conductors as indicated.
  - 3. Control Wiring: Equipped with lugs suitable for connection to terminal strips.
- J. Enclosures: General-purpose NEMA 250, Type 3R, complying with NEMA ICS 6 and UL 508, unless otherwise indicated.

## 2.3 AUTOMATIC TRANSFER SWITCHES

- A. Comply with Level 1 equipment according to NFPA 110.
- B. Switching Arrangement: Double-throw type, incapable of pauses or intermediate position stops during normal functioning, unless otherwise indicated.
- C. Manual Switch Operation: Unloaded. Control circuit automatically disconnects from electrical operator during manual operation.

- D. Signal-Before-Transfer Contacts: A set of normally open/normally closed dry contacts operates in advance of retransfer to normal source. Interval is adjustable from 1 to 30 seconds.
- E. Digital Communication Interface: Matched to capability of remote annunciator or annunciator and control panel.
- F. In-Phase Monitor: Factory-wired, internal relay controls transfer so it occurs only when the two sources are synchronized in phase. Relay compares phase relationship and frequency difference between normal and emergency sources and initiates transfer when both sources are within 15 electrical degrees, and only if transfer can be completed within 60 electrical degrees. Transfer is initiated only if both sources are within 2 Hz of nominal frequency and 70 percent or more of nominal voltage.
- G. Automatic Transfer-Switch Features:
  - 1. Undervoltage Sensing for Each Phase of Normal Source: Sense low phase-to-ground voltage on each phase. Pickup voltage shall be adjustable from 85 to 100 percent of nominal, and dropout voltage is adjustable from 75 to 98 percent of pickup value. Factory set for pickup at 90 percent and dropout at 85 percent.
  - 2. Adjustable Time Delay: For override of normal-source voltage sensing to delay transfer and engine start signals. Adjustable from zero to six seconds, and factory set for one second.
  - 3. Voltage/Frequency Lockout Relay: Prevent premature transfer to generator. Pickup voltage shall be adjustable from 85 to 100 percent of nominal. Factory set for pickup at 90 percent. Pickup frequency shall be adjustable from 90 to 100 percent of nominal. Factory set for pickup at 95 percent.
  - 4. Time Delay for Retransfer to Normal Source: Adjustable from 0 to 30 minutes, and factory set for 10 minutes to automatically defeat delay on loss of voltage or sustained undervoltage of emergency source, provided normal supply has been restored.
  - 5. Test Switch: Simulate normal-source failure.
  - 6. Switch-Position Pilot Lights: Indicate source to which load is connected.
  - 7. Source-Available Indicating Lights: Supervise sources via transfer-switch normal- and emergency-source sensing circuits.
    - a. Normal Power Supervision: Green light with nameplate engraved "Normal Source Available."
    - b. Emergency Power Supervision: Red light with nameplate engraved "Emergency Source Available."
  - 8. Unassigned Auxiliary Contacts: Two normally open, single-pole, double-throw contacts for each switch position, rated 10 A at 240-V ac.
  - 9. Transfer Override Switch: Overrides automatic retransfer control so automatic transfer switch will remain connected to emergency power source regardless of condition of normal source. Pilot light indicates override status.
  - 10. Engine Starting Contacts: One isolated and normally closed, and one isolated and normally open; rated 10 A at 32-V dc minimum.
  - 11. Engine Shutdown Contacts: Time delay adjustable from zero to five minutes, and factory set for five minutes. Contacts shall initiate shutdown at remote engine-generator controls after retransfer of load to normal source.

12. Engine-Generator Exerciser: Solid-state, programmable-time switch starts engine generator and transfers load to it from normal source for a preset time, then retransfers and shuts down engine after a preset cool-down period. Initiates exercise cycle at preset intervals adjustable from 7 to 30 days. Running periods are adjustable from 10 to 30 minutes. Factory settings are for 7-day exercise cycle, 20-minute running period, and 5-minute cool-down period. Exerciser features include the following:
  - a. Exerciser Transfer Selector Switch: Permits selection of exercise with and without load transfer.
  - b. Push-button programming control with digital display of settings.
  - c. Integral battery operation of time switch when normal control power is not available.

## 2.4 SOURCE QUALITY CONTROL

- A. Factory test and inspect components, assembled switches, and associated equipment. Ensure proper operation. Check transfer time and voltage, frequency, and time-delay settings for compliance with specified requirements. Perform dielectric strength test complying with NEMA ICS 1.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Set field-adjustable intervals and delays, relays, and engine exerciser clock.

### 3.2 CONNECTIONS

- A. Wiring to Remote Components: Match type and number of cables and conductors to control and communication requirements of transfer switches as recommended by manufacturer. Increase raceway sizes at no additional cost to Owner if necessary to accommodate required wiring.
- B. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
- C. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

### 3.3 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.

1. After installing equipment and after electrical circuitry has been energized, test for compliance with requirements.
  2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
  3. Measure insulation resistance phase-to-phase and phase-to-ground with insulation-resistance tester. Include external annunciation and control circuits. Use test voltages and procedure recommended by manufacturer. Comply with manufacturer's specified minimum resistance.
    - a. Check for electrical continuity of circuits and for short circuits.
    - b. Inspect for physical damage, proper installation and connection, and integrity of barriers, covers, and safety features.
    - c. Verify that manual transfer warnings are properly placed.
    - d. Perform manual transfer operation.
  4. After energizing circuits, demonstrate interlocking sequence and operational function for each switch at least three times.
    - a. Simulate power failures of normal source to automatic transfer switches and of emergency source with normal source available.
    - b. Simulate loss of phase-to-ground voltage for each phase of normal source.
    - c. Verify time-delay settings.
    - d. Verify pickup and dropout voltages by data readout or inspection of control settings.
    - e. Test bypass/isolation unit functional modes and related automatic transfer-switch operations.
    - f. Verify proper sequence and correct timing of automatic engine starting, transfer time delay, retransfer time delay on restoration of normal power, and engine cool-down and shutdown.
- B. Coordinate tests with tests of generator and run them concurrently.
- C. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation and contact resistances and time delays. Attach a label or tag to each tested component indicating satisfactory completion of tests.
- D. Remove and replace malfunctioning units and retest as specified above.
- E. Prepare test and inspection reports.
- 3.4 DEMONSTRATION
- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain transfer switches and related equipment
  - B. Coordinate this training with that for generator equipment.

END OF SECTION 263600