

ST. JOHN THE BAPTIST PARISH

ST. JOHN THE BAPTIST PARISH/ ST. CHARLES EASTBANK WATERLINE INTERCONNECTION WITH METER ASSEMBLY

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FEBRUARY 2013

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******SPECIFICATIONS******

FOR

**ST. JOHN THE BAPTIST PARISH/
ST. CHARLES EASTBANK WATERLINE
INTERCONNECTION WITH METER ASSEMBLY**

FOR

**ST. JOHN THE BAPTIST PARISH
1801 WEST AIRLINE HWY.
LAPLACE, LA 70068**

BY:

**C.J. SAVOIE CONSULTING ENGINEERS, INC.
P.O. DRAWER R
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FEBRUARY, 2013

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TECHNICAL SPECIFICATIONS
FOR
ST. JOHN THE BAPTIST PARISH / ST. CHARLES
EASTBANK WATERLINE INTERCONNECTION
WITH METER ASSEMBLY

I. SCOPE:

The specifications cover installation of a proposed tie-in to an existing 12" PVC waterline in St. John Parish and a 8" PVC waterline in St. Charles Parish, 8" meter assembly, with back flow preventer, pipe insulation and approximately 50 LF of 8" PVC waterline, 300 LF of 8" PE waterline to be bored under existing property improvements and a in-line insertion valve along the existing A.C. line as shown. The waterline and meter assembly will parallel The River Road at the St. John the Baptist and St. Charles boundary line. Also included in the project are the installation of valves, transfer of services and connections to existing water mains and all appurtenances necessary to complete the project.

All work is to be done in accordance with these specifications, contract documents and construction plans. This work is being financed by the St. John the Baptist and St. Charles Parish Governments.

II. PERMITS AND PRECAUTIONS:

A. Permits:

The Owner will have the plans approved by the City and/or Parish, the Louisiana State Division of Health, and the Louisiana State Department of Transportation and Development when such is required. The Contractor will be responsible for conforming with the requirements of these approvals.

B. Underground Utilities and Obstructions:

It is the Contractor's responsibility to locate any underground utilities or obstructions and not damage them. He shall be responsible for any damage done.

C. Flow Drains and Sewers Maintained:

Adequate provisions shall be made for flow of sewers, drains and water courses encountered during construction, and the structures, which may have been disturbed, shall be satisfactorily restored upon completion of the work.

D. Property Protection and Traffic Controls:

Trees, fences, shrubbery, poles and all other property on adjoining private property shall be protected unless their removal is authorized; and any property damaged shall be restored by the Contractor. Excavation for pipe laying operations shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches, the Contractor shall provide suitable bridges. All barricades and construction signs will be placed as shown on the plans and in accordance with the requirements set forth in the Louisiana Department of Highway Specifications as last revised.

E. Note-Power Pole Support at Hollywood Street & LA. Hwy. 628:

The existing electrical power pole at Hollywood Street and LA. Hwy. 628 (River Road) is adjacent to the existing proposed excavation work for the valve and fittings installation. The Contractor shall be responsible for temporary support of this power pole during construction and excavation. The use of a high-lift truck may be required. The Contractor shall contact the Utility Power Company for their requirements for support and utilize the Power Company's assistance for assurance purposes during construction. The Contractor shall be responsible for any damage caused by construction work during this installation process.

III. CLEARING:

Clearing of right-of-way will be kept at a minimum. That portion of the right-of-way requiring clearing shall be cleared of all trees, logs, timber, brush, weeds, and vegetation of all kinds together with any trash, rubbish, or obstructions. All materials cleared shall be removed from the site, or piled and burned, or otherwise disposed of and the areas that have been cleared shall be left with a neat and finished appearance. Shrubbery or landscaping including sod shall only be disturbed to the minimum required, and replaced to the same condition as was prior to construction. Excavations along open swale ditches shall be backfilled, regraded and seeded in accordance with Louisiana State Highway Specifications after line installation. Should any removal of driveway culverts and paved entrances be required, then such culverts will be replaced and the entrances repaved with the same type surface material.

IV. GRADING AND EARTHWORK:

A. General:

Excavation for pipe installation shall conform with the lines, grades, slopes and typical cross sections shown on the plans. Placing spreading, filling and compacting the material over the line improvements also shall conform with the lines, grades, slopes and typical cross sections as shown on the finished profiles of the accepted plans. This work shall be done in accordance with the requirements of Section 203 of the Standard Specifications for Road and Bridge Construction of the State of Louisiana, Department of Transportation.

B. Compaction:

The backfill material shall be mechanically compacted to within ninety percent (90%) of the maximum density as determined by AASHTO T-180. "COMPACTION OF BACKFILL WITHIN DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, OFFICE OF HIGHWAYS RIGHT-OF-WAY SHALL BE EQUAL TO OR EXCEED THE DENSITY OF THE SURROUNDING UNDISTURBED GROUND."

C. Weather Conditions:

No fill materials shall be placed, spread or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until the moisture content and density of the fill are as previously specified.

V. WATER SYSTEM:

A. Approval Procedures:

Not less than three (3) days before commencement of construction, the Contractor must submit to the Waterworks notice stating the date construction will begin.

A pre-construction conference will be held by the Contractor with the Waterworks' representative(s).

Upon completion of construction, pressure and leakage tests will be conducted, the lines disinfected and bacteriological samples taken.

The Louisiana Department of Health and Hospitals must approve bacteriological tests on the new system.

NOTE: "ALL ITEMS WHICH WILL BE IN CONTACT WITH THE WATER SUPPLY MUST CONFORM TO ANSI/NSF STANDARD 61 (Including Annex G, No Lead Requirements), ANSI/AWWA C800 (Latest Edition) AND LOUISIANA ADMINISTRATIVE CODE – TITLE 51 PUBLIC HEALTH-SANITARY CODE PART XII. WATER SUPPLIES"

B. Materials:

1. POLYVINYL CHLORIDE PIPE (PVC):

Polyvinyl Chloride (PVC) plastic pipe shall be Class 165 with integral bell that meets the requirements of AWWA C-900 and Underwriter's Laboratories (UL). The pipe shall meet requirements of wall thickness, of dimension ratio DR 18 and shall be manufactured to ductile iron size outside dimensions. The standard length shall be 20 feet. The bell shall consist of an integral wall section with a reinforced rubber ring. C-900 PVC pipe shall be blue in color. J.M. Manufacturer or approved equal.

2. POLYETHYLENE PIPE (PE):

Polyethylene (PE) pipe shall be plain end that meets the requirements of AWWA C-906. PE pipe shall have 130 psi rating, an SDR of 11 and shall be manufactured to ductile iron size outside diameters (DIPS). Standard lengths shall be 40 feet.

Materials used for manufacturing of polyethylene pipe and fittings shall be PE 3408 High Density Polyethylene (HDPE) meeting the ASTM D 3350 cell classification of 345434C. The material shall have a minimum Hydrostatic Design Basis (HDB) of 1,600 psi at 73° F and shall be approved by NSF.

PE pipe shall be manufactured in accordance with AWWA C-906.

Permanent identification of pipe shall be provided by co-extruding longitudinal blue stripes into the pipe's outside surface. The striping material shall be the same material as the pipe material except for color. Stripes printed or painted on the pipe shall not be acceptable.

Joints shall be the "buttfused" method. When jointing PE pipe to PVC pipe a flanged adapter with ductile iron back-up ring shall be fused to the PE pipe and a mechanical joint by flanged adapter with a retainer gland for PVC pipe. All underground flange bolts and nuts shall be 304 stainless steel.

PE pipe will require concrete weights for all bayou and slough crossings. The weights and spacing will be as per manufactures recommendations. Contractors attention is called to the fact that potable water is required to sink pipe in place.

Polyethylene pipe shall be PE 4,000 as manufactured by Phillips Drisco Pipe or an approved equal.

3. DUCTILE IRON:

Ductile Iron pipe shall be mechanical joint type manufactured and factory tested in accordance with AWWA C150 and AWWA C151, Class 53, cement lined conforming to AWWA C104. The standard length shall be 18 feet. Griffin or American or approved equal.

NOTE: All tees and elbows shall be cast iron and NOT PVC. Mechanical joint with gland shall be used to connect tees and elbows to main line. Mechanical joint fittings shall be manufactured by Mueller, M & H Valve and Fitting Company, or approved equal.

4. GATE VALVES:

Gate valves shall be iron bodied and have all integral and external ferrous surfaces coated with a fusion bonded thermosetting powder epoxy coating of a minimum of 10 mils nominal thickness. The coating shall conform to AWWA C550. The Valve disc and guide lugs must be fully (100%) encapsulated in EPDM rubber material. EPDM must be in raised letters molded in the resilient wedge. It must be fully supported with a modified wedge disc with a resilient rubber seat ring internally reinforced by a concentric steel ring, which are manufactured and tested in accordance with AWWA specification C509. They shall be 200 psi working pressure and 400 psi test pressure. Valves shall be non-rising stem with a 2 inch square wrench nut, shall open by turning counter clockwise and shall be equipped with chloramines resistant o-ring stem seals. Hex head nut and bolt material shall be 304 or 316 stainless steel. Valves shall be Mueller series A-2360-20/A-2360-16 and T-2360-16 or approved qual.

5. INSERTION VALVE:

Insertion valves shall be the Occlude insertion valve meeting or exceeding ANSI/AWWA C515 Valve Specifications. This 6-Inch valve shall be applicable for use with Asbestos Cement (AC) pipe.

6. MECHANICAL JOINT FITTINGS:

Mechanical Joint Fittings shall meet or exceed AWWA Ductile Iron C153/A21.53 SSB or approved equal, latest revision. MJ Fittings shall be the rubber gasket compression type. MJ Fittings shall conform to AWWA/ANSI C111/A21.11, latest revision. Gasket material shall be chloramines resistant. Fitting body material shall be ductile iron conforming to ASTM 536. Pressure rating shall be 350 psi for 4" – 24" diameter fittings. Plain end fittings are not permitted. Fittings shall have Fusion-Bonded Epoxy Coatings on all interior and exterior surfaces of Ductile Iron in accordance with AWWA/ANSI C116/A21.16, latest revision Sigma, Star or Approved (CR Tag).

7. MECHANICAL JOINT RESTRAINTS FOR DUCTILE IRON AND PVC:

Mechanical Joint Restraints for Ductile Iron and PVC shall be compatible with joints which meet AWWA C111, latest revision. The follower gland and gripping wedge style joint restraint shall be acceptable on pipe diameters 4" and above. Shall meet or exceed ASTM F1674 for use on PVC. Body material shall be ductile iron conforming to ASTM 536. Wedge gasket material shall be chloramines resistant. Gripping wedge and actuating component material shall be ductile iron conforming to ASTM 536. Working pressure shall be 250 psi, minimum, for use on ductile iron pipe. Restraint devices shall be rated to the full working pressure of the PVC pipe. Restraint devices shall consist of multiple gripping wedges incorporated into the follower gland. Mechanism shall be in place to ensure proper tightening of the restraint without overstressing the pipe. Properly tightening the restraint shall not depend upon accurate field measurements of applied pressure or utilize a tool which required calibration. Torque-off bolts are an example of an acceptable tightening mechanism.

Mechanical Joint Restraints for Ductile Iron Pipe shall be EBAA Iron (Megulug Series 1100) *(CR Tag), SIGMA (One-Lok SLD) *(CR Tag) or approved equal.

Mechanical Joint Restraints for PVC Pipe shall be iron (Megalug Series 2000 PV) *(CR Tag), SIGMA (One-Lok SLC) * (CR Tag) or approved equal.

8. VALVE BOXES:

Valve boxes shall be constructed of cast iron for roadway service, with minimum inside diameter of 5 ¼ inches. The box shall be the adjustable screw type consisting of two pieces (a base and a top section) and shall

include a cover. The cover shall be of the deep (2 inches) socket type with the word "WATER" cast on the top. The box shall be Tyler 461-S/562-S or approved equal.

9. LONG BODY HYMAX 2000 COUPLINGS:

Long Body HYMAX 2000 Couplings material shall be of carbon steel with NSF-61 Registered Fusion bonded epoxy coating. Bolt and nuts shall be stainless steel with coated nuts and anti-seized compound. Pressure assisted gasket shall be NSF61 registered EPDM gasket. Compound approved for contact with drinking water and sewerage. The gasket is made in two layers, with a removable inner layer that allows for pipe diameter range expansion.

Coupling shall join pipes with diameter differences up to 1.30 inches (2.1 inches on the 16 inch size). The couplings shall handle pipe end gaps up to 7.5 inches, and will accommodate angular deflection of up to 8 degrees. It shall offer an efficient range adjustable pressure assisted Hydraulic Sealing system and NSP 61 Registered EPDM Compounded gaskets. Temperature range is 20 degree F to 220 degree F.

It shall be a stab type coupling requiring no disassembly. The installer simply adjusts the gasket, and tightens one bolt on each end of the coupling to the required torque. All work is performed from the topside of the coupling, eliminating the need for extra excavation and under dig for the wrench.

The coupling shall be equipped with a corrosion resistant coating of fusion-bonded epoxy, and come with stainless steel spanner, nuts and bolts.

10. TAPPING SLEEVES:

Tapping Sleeves shall be 18-8 Type Stainless Steel. Bolts shall be type 304 Stainless. The branch outlet shall be heavy stainless steel pipe. Gasket shall be full circumferential EPDM rubber. Flange shall be CF8 Cast Stainless Steel meeting ANSI/AWWA Standard C228 latest revision. ANSI 150 lb. Drilling, recessed for standard tapping valve meeting MSS-SP 60. Tapping sleeves shall be JCM 432 or approved equal.

11. REDUCED PRESSURE BACKFLOW PREVENTERS:

Reduced Pressure Backflow Preventers shall have bronze bodies and bronze or stainless steel trim. A meter must be installed upstream before a backflow preventer. Backflow preventer installations must have prior approval of the Waterworks Department. All backflow preventer assemblies shall have OS&Y gate valves on each end. Watts 909 reduced pressure zone backflow preventer, Watts 957 reduced pressure zone backflow preventer or approved equal.

12. **CORPORATION STOPS:**

Corporation stops shall conform with AWWA Standard as last revised and shall be Mueller No. H-15009, Ford Meter Box Co., No. F600, or an approved equal.

13. **SERVICE CLAMPS:**

Service clamps for PVC shall be combination Corporation Stop and Saddle Outlet for 110 conductive compression connection for type K copper services pipe or plastic pipe having same O.D. to outside iron pipe thread. If combination Corporation Stop and Saddle Outlet are not used, the saddle must have Mueller thread for use with the H-15008 Mueller Corporation Stop. H-13420 X 2", H-3428 X 4", H-13431 X 6". The Combination Clamp and Corporation Stop can be used on 2", 3" and 4" mains but not available for 6" mains.

14. **WATER METER:**

A. General:

Except as otherwise modified or supplemented herein, the latest revision of AWWA Standard C750 Transit-Time Flowmeters shall provide theory and operation specifics on the basic ultrasonic concept. This document will govern the materials, design, manufacture and testing of all meters furnished under this specification or equal as approved by the Director or his appointed agent.

AWWA Standard C750 is considered by the St. Charles Parish Utility Department to be only the minimum requirements and shall be supplemented herein to ensure the quality required by the utilities department.

Meters shall be manufactured by a company with a minimum of ten (10) years experience in manufacturing *various types* of cold water meters such as Multi-jet, Positive Displacement, Compound and Turbine Type water meters. The Manufacturer's corporate home office shall be in the United States.

Meters shall be bid without strainers and without companion flanges.

The water utilities department reserves the right to request a sample meter of a small size to study prior to awarding bids.

B. Meter Main Case:

Outer cases shall be made of a cast ductile iron alloy equaling or exceeding AWWA Standards such as those listed in ASTM A536 or ASTM A126. The main case shall be protected by a complete fusion-bonded coating conforming to AWWA C-550.

All external bolts and nuts shall be made of bronze or stainless steel, and shall be so designed for easy removal after having been in service for a long period of time.

The main case shall withstand a working pressure of 175 PSI without leakage, seepage in the castings, or distortion affecting the free and accurate operation of the measuring unit.

The size of the meter and the direction of flow shall be case in raised letters on the outer surface of the case.

C. Register Cover:

The register box shall be made of an engineering plastic with the manufacturer's serial number inside the register lid. Serial number of the meter shall also be permanently programmed in the electronic register.

Register cover box shall be attached to main case in a tamper resistant manner. The register cover box shall be equipped with a hinged lid that will overlap the register to protect the reading area.

D. Register:

The factory sealed register shall be electronically driven only and shall be furnished with a low flow leak detection symbol and with a reverse flow notification symbol. The register shall be identical within a given size or model subject to the programming of appropriate flow factors for the particular meter. An effectively tamper proof meter with a displayed tamper indication symbol, is required. The register shall be programmed initially to read in *U.S. Gallons or Cubic Feet* as ordered by the St. Charles Parish Utility Department. The transparent LCD register glass lens shall be made of molded heat-treated 0.25" glass to ensure against scratching and breakage. Serial number shall be permanently programmed in the electronic register.

As defined in these specifications, a "factory sealed" register shall mean a non-fogging, moisture and dust-proof register, electronically driven by the measuring section transmit time sensors. Appearance of any fogging or moisture inside the register within the warranty period shall constitute component failure and will require a factory

replacement. Register shall indicate reverse flow, rate of flow, low battery indication, leak alert, as well as no flow condition.

E. Measuring Section:

The measuring section shall be a unitized unit, completely integral to the meter body. The measuring section shall not include any moving parts and the measuring section shall have an unobstructed flow passage area at least equal to 50% of the nominal Schedule 40 pipe size corresponding to the meter's size.

All parts of the measuring section shall be similar with assemblies of the same size and material.

The measuring section shall be secured in a position in the main case in such a manner that slight distortion of the outer meter case will not affect the sensitivity or registration of the meter.

To ensure longevity of service, the performance of the measuring chamber shall be guaranteed to meet required Compound meter accuracy standards of AWWA M6 Manual for a period of two years from date of manufacturer's shipment.

The measuring section shall be covered for this period by written warranty as required or mentioned elsewhere in these specifications.

F. Signal Processing:

Two pairs of sensors are to be mounted in the chordal direct configuration in the measuring section to measure the actual transit time of the initiated and reception-generated ultrasonic sound pulses. Transit time measurements for a single pass of initiated and return pulses are to be accurate to within 300 pico-seconds for a loop time.

Multiple measurements are sampled at a minimum of 1 second intervals of these transit time loops that are made to significantly improve accuracy over a single pass transit time measurements as employed in typical AWWA C750 ultrasonic meters to achieve low flow rate measuring accuracy.

Ultrasonic meters using single directional sound transmission to determine flow measurements are not acceptable. Meters that use measurement principals based on Faraday's Law are not permitted.

G. Signal Outputs:

The meter shall have 3 optional outputs – Analog, Dual Digital pulse output, or encoder output.

The Analog Output is a 4 – 20 mA current loop (the end user must supply power to the unit). 4 mA is always the set as the lower flow cutoff and the 20 mA output corresponds to the Max Flow Rate of the meter.

The Digital (pulse) Output is to be an open collector (open drain) transistor output that provides pulse per quantity with these options:

1. Two scaled forward flow pulses.
2. One scaled pulse forward flow and one flow direction.
3. One scaled forward flow pulse and one scaled reverse flow pulse.

The Encoder Output is to be serial communication collector utilizing UI1203 or UI1204 communication protocol.

The St. Charles Parish Utility Department shall choose one of these three basic output choices with dependent options on the Digital pulse option.

H. Installation Requirements:

Meters shall be designed so that no strainer or straightening vanes are required. There shall be no internal parts blocking the waterway. No straight runs of pipe shall be necessary before or after the meter.

I. Accuracy and Head Loss Tests:

Meters shall EXCEED current AWWA C-702 test flow, head loss and accuracy standards as follows.

Size	Safe Maximum Flow Rate	C-750 Flow Range Accuracy \pm 0.5%	Normal Flow Range Accuracy \pm 1.5%	Extended Low Flow Range Accuracy \pm 5%	Head Loss @ Safe Maximum	Low Flow Sensitivity
2"	250 GPM	4-200 GPM	½ GPM-250 GPM	0.25 GPM	1.3 PSI	1/16 GPM
3"	500 GPM	5-350 GPM	1 GPM – 500 GPM	0.50 GPM	2.4 PSI	1/16 GPM
4"	1,000 GPM	15-700 GPM	1 ½ GPM – 1,000 GPM	0.75 GPM	3.7 PSI	1/16 GPM
6"	1,600 GPM	20-1,150 GPM	3 GPM – 1,600 GPM	2 GPM	0.7 PSI	¾ GPM
8"	2,800 GPM	50-2,000 GPM	5 GPM – 2,800 GPM	4 GPM	1.9 PSI	¾ GPM
10"	5,500 GPM	90-4,400 GPM	14 GPM-5,500 GPM	9 GPM	2.9 PSI	4 GPM

J. Pressure Capacity:

Meters shall operate up to a working pressure of one hundred seventy five (175) pounds per square inch (PSI) and to a temperature of 122 degrees Fahrenheit, without leakage or damage to any parts. The accuracy shall not be affected when operating at this pressure to possible distortion.

K. Acceptable Meters:

In the interest of standardization, the following meter lines are acceptable to the St. Charles Parish Utility Department provided they fully comply with the above specifications and meet all requirements in the bid package:

1. MASTER METER OCTAVE
2. APPROVED EQUAL

All meter models above shall be at a minimum ultrasonic type with at least two transit time paths. All meters not listed above shall pre-qualify. In order to pre-qualify, the manufacturer shall send necessary drawings and technical data to the St. Charles Parish Utility Department/Project Engineer and complete a minimum of six-months in field testing. Any exceptions to the specifications shall be pre-qualified by the above method.

L. Bidder Responsibility to this Specification:

It is the responsibility of each bidder to carefully examine these specifications and the bid documents and become familiar with the requirements set forth herein. In addition, it is the responsibility of each bidder to submit all necessary information concerning their product to the St. Charles Parish Utility Department/Project Engineer. Failure to do so could result in your bid being declared as non-responsive.

15. SERVICE TUBING:

PE 3406 ¾-inch or 1-inch Driscop Polyethylene Water services tubing, 160 psi working pressure at 73.4 degrees F. SDR-90 ASTM 2737-68 National Sanitation Foundary, manufactured by Phillips Products or an approved equal. All service tubing shall have stainless steel inserts on all ends.

16. CONCRETE PRECAST SLABS:

Concrete Precast Slabs around valve boxes shall be 2500 pound compression strength at 28 days, two feet square and 6" thick. The circular opening in the center of the slab shall be approximately ¾" greater in diameter than the outer diameter of the valve box.

17. LUMBER FOR THRUST BLOCKS OR FIXTURE FOUNDATION:

Lumber for thrust blocks or fixture foundation shall be made with pressure treated southern yellow pine C-2.40 treated lumber for underground service.

C. Installation:

1. ALIGNMENT AND GRADE:

The pipe shall be laid and maintained to the required lines and grades with fittings valves, and hydrants at the required locations and all valves and hydrants stem plumb. All pipe shall be laid with a cover of 36" to 40" unless otherwise shown on Construction Plans.

2. LAYING PIPE:

Pipe shall be received, stored, handled and installed strictly in accordance with the manufacturer's instructions. Only lubricant specified by the pipe manufacturer shall be used. Ends of pipe and fitting shall be thoroughly cleaned before applying joint lubricant. During joint assembly, PVC pipe shall be pushed into the bell up to the circumferential reference mark. In no case will solvent cement be used for joining pipe. Tighten mechanical joint bolts alternately on opposite sides in order to compress the gasket uniformly. Harvey Adapters with stainless steel inserts shall be fused on each end of the Polyethylene pipe. Hymax 2000 long bodied transition couplings shall be used when connecting asbestos cement pipe to C-900 pipe.

Pipe shall be installed according to applicable AWWA Standards.

Each section of pipe and each fitting shall be examined for defects before lowering in the trench. Any defective or damaged material shall be rejected and removed from the work site. All pipe and accessories shall be carefully lowered into the trench in such a manner as to prevent damage. Under no circumstances shall pipe or accessories be dumped or dropped into the trench. The barrel of the pipe shall rest evenly on the trench from end to end except for coupling or bell holes. If the trench bottom will not support the weight of the fitting, a foundation of select earth, sand or limestone bedding shall be installed.

All pipe and material shall be kept clean during and after laying. In all cases a swab will be used to aid in cleaning, utilizing a chlorine solution of not less than 50 ppm. Trench water shall not be permitted to enter pipes. The Waterworks reserves the right to suspend pipe-laying operations when unsuitable trench conditions exist. When pipe-laying is not in progress, the open ends of the pipe shall be closed by use of temporary pipe plugs or night caps. Plywood or similar make shift blocking which does not produce a water tight seal will not be acceptable.

All pipe shall be laid true to alignment and grade. Required horizontal or vertical deflection shall not exceed 75% of the maximum recommended by the pipe manufacturer.

3. **DIRECTION OF LAYING:**

Unless otherwise directed, pipe shall be laid with bell ends facing in the direction of laying. When there is a steep slope, the bells shall face upgrade.

4. **DEFLECTIONS:**

Horizontal or vertical deflection in the pipe line shall not be of less radius than that recommended by the manufacturer of the pipe. If the alignment requires deflection in excess of these recommendations, the Contractor shall provide the necessary bends and fittings to meet the case.

5. **CUTTING PIPE:**

Pipe shall be cut with a suitable pipe cutting tool so as to leave a smooth end.

6. **SERVICE PIPE:**

Service pipe shall have a minimum depth of 30-inches at all highway crossings and 18-inches elsewhere. All service tubing shall have stainless steel inserts at compression fittings.

7. **STEEL CASING:**

Steel casing shall be installed by either jacking or boring in accordance with Section 728 of the Louisiana Standard Specifications for Roads and Bridges as last revised.

8. **CONCRETE ENCASEMENT:**

Concrete encasement will be utilized in the location shown on the Construction Plans and where the distance between the water main and a sewer line is less than 10-feet vertically. Design criteria shall be in accordance with the detail sheet of the Construction Plans and Section VI of these Specifications.

9. **THRUST BLOCK BACKING:**

Thrust block shall be placed at all bends, tees and dead end plugs. The thrust block shall have Celcure treated lumber rated for underground use for Thrust blocks and fixture foundation of sufficient size to resist the force of water on or through the fitting.

10. **SETTINGS, VALVES & FITTINGS:**

Valves, fittings, plugs and hydrants shall be set in locations shown on the

Construction Plans or as directed in the field. A valve box or pit shall be provided for every valve as shown on the plans or as specified herein. If necessary to prevent movement of the appurtenances, the Contractor shall apply suitable metal rods or straps as directed.

11. **HOT TAPS:**

Hot taps made by the Contractor on existing water mains shall be made with a Mueller CL12 or C1-36 tapping machine. The use of any other tapping machine must have prior approval from the Department of Waterworks.

12. **BACKFILLING:**

Backfilling material shall be free from cinders, ashes, refuse, vegetable or organic material, rock or stones, or other material unsuitable for backfill. It shall have a moisture content suitable for compaction to the equivalent density of the surrounding earth.

Backfill under areas to be paved shall be placed in the trench in a maximum of 8-inch layers and mechanically tamped full width and depth to the top of the original ground to density of not less than 100 percent the maximum density determined by A.A.S.H.O. Method Y-99.

The Contractor will supply any deficiency of backfill at his expense.

13. **BORINGS:**

All borings shall be in accordance with Section 728 of the Louisiana Standard Specifications for Roads and Bridges by the Department of Transportation and Development. The boring of a line shall be such that the finished line is not to be subjected to any linear stress. The bore pulling head shall be watertight. All lines crossing state highways shall be encased in steel casing pipe which shall be two (2) pipe diameter sizes larger than the carrier pipe diameter and shall meet the design specifications as set forth by the Louisiana Department of Transportation and Development. The Contractor is to clean all material from boring and return site to pre-existing conditions.

14. **PVC JOINT RESTRAINERS:**

When mechanical joint fittings, valves, or appurtenances are used to join PVC Pressure Pipe, restrained joints shall be provided with retainer glands in the following cases:

All Mechanical Joint Bells

DIRECTION CHG. (bends / offsets)	– Restrain inlet & outlet.
SIZE CHANGE (reducers)	– Restrain inlet & outlet.
BRANCHES (tees, crosses, wyes)	– Restrain branches only.

DEAD ENDS (caps, valves &
hydrants)

– Restrain all joints.

PE TO PVC TRANSITIONS

– Restrain 60 ft.

DIRECTION CHANGES "L" DIMENSION SHALL BE:

	4	6	8	10	12	24
90° degree Ells.	20'	21'	26'	32'	39'	47'
45° degree Ells.	11'	13'	16'	20'	24'	30'
22-1/2° + 11-1/4° degree Ells	6'	7'	10'	11'	14'	20'
DEAD ENDS 20'	21'	26'	32'	39'	109'	

TEES AT BRANCHES

TEES WHEN USED AS 90 DEGREE ELLS. SAME AS DEAD ENDS.

Restraint shall be provided by c clamping ring installed on the PVC pipe and connected to the mechanical joint fitting with T-Head bolts or rods. All clamping rings shall incorporate serrations on the inside surface to provide positive restraints on the outside surface of the PVC pipe. Restraints shall provide one full support (360 degree contact) around the circumference of the pipe to maintain roundness and avoid point loading.

15. **UNDERGROUND FACILITY:**

Any underground facility must be installed with a non-corrosive tape placed directly over and on the center of the facility about 24 inches above the pipe. The tape must be connected to all fixtures and appurtenances. A #12 solid core copper tracer wire shall also be attached directly to the pipe, all fixtures and appurtenances. The tracer wire will be run to the top of each valve box to allow direct connection to the wire. A #8 stranded copper wire must be used when HDPE pipe is bored.

Radial clearance between parallel water and sewer lines shall be not less than six (6) feet radial distance from water lines. In the event that sewer lines cross water mains, sewer lines must be at least eighteen (18) inches below water main at a 90° crossing.

No utilities shall be installed directly above the water lines running parallel or closer than three (3) feet to the center of the water main.

D. **Installation Inspection:**

1. **INSPECTION:**

The installation of water systems shall be inspected by the Waterworks' designated inspector and Waterworks' personnel for compliance with approved plans and specifications at the expense of the developer.

The Contractor shall extend full cooperation to the inspector and any Waterworks' personnel in the course of making inspections and shall comply with all reasonable requests to observe work in progress and to review work which has already been performed. The inspector and Waterworks' personnel will be allowed an opportunity to inspect all lines, valves and fittings before being covered. Required pressure and leakage tests shall be witnessed by the inspector and by Waterworks' personnel.

E. Flushing/Testing/Disinfection:

1. FLUSHING:

Before testing and disinfecting, the pipeline shall be flushed clean with potable water. Flushing shall be accomplished through a stand pipe of the same diameter of the newly installed water main.

The Contractor shall notify the Department of Waterworks a minimum of 72 hours prior to filling or flushing new lines. The Contractor shall not operate any valves in the Waterworks' system without securing permission. Waterworks' personnel shall be present prior to any flushing.

The Contractor will be allowed four times the volume of water in the pipe being laid for flushing purposes. Any additional water required for flushing shall be charged to the Contractor at the current water rates.

2. PRESSURE AND LEAKAGE TEST:

Waterworks' personnel shall be present prior to the commencement of any pressure test. Each section of line between valves shall be submitted to a hydrostatic pressure test and leakage test of 120 psi for not less than two hours.

Water lines being pressure tested must only be connected to a Waterworks' line by the use of a reduced pressure backflow assembly.

Each section of pipe to be tested shall be slowly filled with water, and all air expelled from the pipe through taps at points of highest elevation in the section to be tested.

After the test pressure of 120 pounds per square inch has been obtained, verify all valves in the section being tested are open completely and commence leakage test as follows: Leakage shall be defined as the quantity of water that must be supplied into the pipe section being tested to maintain a pressure within 5 psi of the specified leakage test pressure after the pipe has been filled with water and the air in the pipeline has been expelled. No installation will be accepted if the leakage is greater than that determined by the formula:

Where: $L = (ND \times \text{Square Root of } P) \text{ Divided by } 7,400$
L = allowable leakage, in gallons per hour
N = number of joints in the length of pipeline tested
D = nominal diameter of the pipe, in inches
P = average test pressure during the leakage test, in pounds per square inch (gauge)

Leakage gallons per hour = (# of joints) X (Pipe Diameter) X (.00148)

All pressure test and leakage tests are performed at 120 psi.

If any loss in pressure is not noted during the two-hour test period, the Contractor shall examine the pipeline and determine the source of the leakage. If leaks are found in a joint, the joint shall be disassembled, and necessary repairs made. Clamps shall not be used to repair leaks. Any cracked or defective pipes, fittings or specials discovered in consequence of this pressure test shall be removed and replaced with sound material at the Contractor's expense. After repairs, the section of line shall be re-tested until a hydrostatic pressure and leakage test of 120 psi is maintained for not less than two hours.

3. **LEAKAGE TEST:**

The pipeline as a whole or in such sections as the Waterworks may designate, shall be tested to a pressure of 120 pounds per square inch. The 120 pounds per square inch pressure shall be held a sufficient time to allow a true evaluation of leakage and shall depend upon the length of line tested, except, that in no event shall the pressure be maintained for less than two hours. Suitable means shall be provided for determining the quantity of water lost by leakage during the final hydrostatic pressure test. No pipeline or portion thereof shall be accepted until or unless the leakage is within the limit of 0.00148 gallons per joint per inch of nominal pipe diameter per hour.

Any section of line that fails to meet the leakage test shall be repaired by the Contractor and re-tested until the leakage is within the allowable limits. The Waterworks' employee must witness final pressure and leakage tests.

4. **DISINFECTING:**

After completion of leakage tests, all parts of the pipelines installed shall be disinfected by the Department of Waterworks.

5. **FINAL FLUSHING:**

After the 24-hour retention period, the chlorine solution shall be flushed out of the lines for appropriate disposal by the Contractor performing the installation and the lines filled with potable water. The lines shall then stand

for 24 hours before samples are taken for bacteriological tests. Sample points shall be installed as directed by the Waterworks. Samples shall be taken by the Waterworks' personnel and submitted to the State Department of Health for bacteriological examination. If any samples show a positive reaction, that portion of the line represented by the sample shall be disinfected again and the flushing and sampling repeated. This procedure shall be repeated until all portions of the system are completely disinfected with all associated costs being borne by the Contractor.

F. Backflow Prevention Installation:

A bypass installation of any type is prohibited. Unrestricted Access to the meter assembly and RPZ is required. All equipment should be protected from freezing. Any enclosure shall have a hinged door at the bottom that would allow any discharge water to escape the enclosure.

The backflow preventer shall be installed with the following clearances:

1. At least 24" above the ground and 24" above the flood level whichever is the highest.
2. Not more than 36" above the ground or floor.
3. Not less than 24" clearance on the side the access door or discharge valve is located.
4. Not less than 12" clearance on the opposite side.
5. All installations must have adequate overhead space to remove the unit for repairs.

G. Contractors:

The Contractor shall conduct all work in such a manner that will not disturb the existing water line or contaminate drinking water in existing Waterworks' lines.

The Contractor must take every precaution to keep water mains clean before and during installation to avoid unnecessary delays due to bacteriological contamination.

The Contractor shall not expose, cut, tap into or connect to existing Waterworks' lines and shall not open or close any valves or any fire hydrants without first advising and securing permission of the Waterworks and a Waterworks' representative must be present.

The Contractor must purchase water used for any purpose other than for pre-arranged flushing and testing of the water lines.

Any breakage of existing water lines or other utilities is the responsibility of the Contractor.

Damage to any water line shall be repaired by the Department of Waterworks at the expense of the Contractor

VI. LIMESTONE:

The limestone for bedding and dresswork shall be 610 limestone aggregate per ASTM Specifications and shall be spread and compacted in accordance with Section 401 of the Louisiana Department of Transportation and Development Specifications. The material shall be spread uniformly and graded to the thickness and widths as shown on the Construction Plans. The thickness shown on the plans are loose vehicle measurements (L. V. M.). Compaction will be completed by use of a light roller or rubber tire vehicle.

VII. CLEAN-UP:

Before final inspection and acceptance the Contractor shall clean ditches, shape shoulders and restore all disturbed areas, including street crossings, grass plots, to as good a condition as existed before work started. All trenches shall be leveled, and loose material removed from pavement, gutters, and sidewalks, employing hand labor if necessary.

VIII. BASIS OF PAYMENT:

The number of completed units of the various items listed on the proposal shall be determined and payment made at the unit price designed, therefore, on the proposal for each item. Such payment shall be full and complete compensation for the completion of such items, including the furnishing of all materials, labor, supervision, workmanship, handling, transporting, installation, cleaning up, testing and incidentals necessary for the completion of each item. Payments shall be made upon the percent completed at the end of the month. Percentages shall be determined by the Project Engineer and Contractor jointly and shall be based on invoices for materials and labor involved.

The Contractor shall submit all partial pay invoices on or before the first (1st) of each month to the Engineer who shall check all items for pay by St. John the Baptist Parish.

Ten percent (10%) shall be retained on all partial pay estimates for projects less than \$500,000.00 in cost and five percent (5%) for projects greater than \$500,000.00 in cost for construction in accordance with these plans and specifications. If all items are completed in accordance with these plans and specifications, a substantial completion shall be accepted by St. John the Baptist Parish Council and recorded with the Clerk of Court in the Parish where the work was performed. Upon approval of the substantial completion by the Council, a five percent (5%) retainage of the total contract price shall be withheld. The remaining five percent (5%) will be paid within forty-five (45) calendar days after final acceptance of the job by the Engineer and provided that all liens and other encumbrances have been shown in writing to be free and clear, to the satisfaction of the Owner. The Contractor shall warrant this project in writing against all defective materials and workmanship, hereinafter, for a period of one (1) year from the time of acceptance of the job by the Engineer.

ATTACHMENT

RULE

Office of the Governor Division of Administration Office of Facility Planning and Control

Louisiana Uniform Public Work Bid Form (LAC 34:III.Chapter 3)

In accordance with the provisions of the Administrative Procedure Act (R.S. 49:950 et seq.) and the provisions of RS 39:121, the Division of Administration, Facility Planning and Control has adopted a new Rule: LAC 34:III.Chapter 3, Louisiana Uniform Public Work Bid Form. This Rule is required by Acts 726 and 727 of the 2008 Regular Legislative Session and provides rules for their implementation as authorized by the Act.

Title 34

GOVERNMENT CONTRACTS, PROCUREMENT AND PROPERTY CONTROL

Part III. Facility Planning and Control

Chapter 3. Louisiana Uniform Public Work Bid Form

§301. Name

A. The name of this document shall be the "Louisiana Uniform Public Work Bid Form" also referred to hereinafter as "Bid Form."

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:2212.

HISTORICAL NOTE: Promulgated by the Office of the Governor, Division of Administration, Office of Facility Planning and Control, LR 35:1521 (August 2009).

§303. Authority

A. This form is prepared and issued in accordance with Acts 726 and 727 of the 2008 Regular Legislative Session.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:2212.

HISTORICAL NOTE: Promulgated by the Office of the Governor, Division of Administration, Office of Facility Planning and Control, LR 35:1521 (August 2009).

§305. Purpose

A. The purpose of this rule shall be to provide for the more effective and efficient letting of public works contracts and to establish a uniform standardized bid form to facilitate this.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:2212.

HISTORICAL NOTE: Promulgated by the Office of the Governor, Division of Administration, Office of Facility Planning and Control, LR 35:1521 (August 2009).

§307. Applicability

A. This rule shall apply to all state agencies and political subdivisions. The bid form shall require only the information necessary to determine the lowest bidder. With the exception of unit prices, all items on the Louisiana Uniform Public Works bid form shall be included for public works projects. No other information may be required from the bidder. Other documentation required shall be furnished by the low bidder at a later date, in accordance with the bidding documents.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:2212.

HISTORICAL NOTE: Promulgated by the Office of the Governor, Division of Administration, Office of Facility Planning and Control, LR 35:1521 (August 2009).

§309. Definitions

A. For the purposes of the Louisiana Uniform Public Works bid form the following terms shall have the stated meanings.

Alternate—a specified item of construction that is set apart by a separate sum. An alternate may or may not be incorporated into the contract sum at the discretion of the owner at the time of contract award.

Base Bid—the amount of money stated in the bid as the sum for which the bidder offers to perform the work described in the bidding documents, prior to the adjustments for alternate bids but including any unit prices.

Bid—a complete signed proposal to perform work or a designated portion for a stipulated sum. A bid is submitted in accordance with the bidding documents, is evaluated on price alone and is not subject to qualification.

Bidder—an entity or person who submits a bid for a prime contract with the owner. A bidder is not a contractor on a specific project until a contract is signed between the bidder and the owner.

Bid Form—a form provided to the bidder on which to submit his bid.

Bid Security—a bid bond or deposit submitted with a bid to guarantee to the owner that the bidder, if awarded the contract, will execute the contract within a specified period of time and will furnish any bonds or other requirements of the bidding documents.

Bidding Documents—documents usually including advertisement, bid notice or invitation to bidders, instructions to bidders, bid form, form of contract, forms of bonds, conditions of contract, drawings, specifications addenda, special provisions, and all other written instruments prepared by or on behalf of a public entity for use by prospective bidders on a public contract.

Owner—the public entity issuing the bid.

Public Entity—means and includes the state of Louisiana, or any agency, board, commission, department, or public corporation of the state, created by the constitution or statute or pursuant thereto, or any political subdivision of the state, including but not limited to any political subdivision as defined in Article VI Section 44 of the Constitution of Louisiana, and any public housing authority, public school board, or any public officer whether or not an officer of a public corporation or political subdivision. "Public entity" shall not include a public body or officer where the particular transaction of the public body or officer is governed by the provisions of the model procurement code.

Public Work—the erection, construction, alteration, improvement, or repair of any public facility or immovable property owned, used, or leased by a public entity.

Unit Price—the amount stated in a project bid representing the price per unit of materials and/or services.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:2212.

HISTORICAL NOTE: Promulgated by the Office of the Governor, Division of Administration, Office of Facility Planning and Control, LR 35:1521 (August 2009).

§311. Alternates

A. Provide space for, give descriptive title to and arrange for alternates in the order of priority. A maximum of three alternates are allowed by state law.

AUTHORITY NOTE: Promulgated in accordance with R.S. 38:2212.

HISTORICAL NOTE: Promulgated by the Office of the Governor, Division of Administration, Office of Facility Planning and Control, LR 35:1522 (August 2009).

§313. Unit Price Form

A. The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

LOUISIANA UNIFORM PUBLIC WORK BID FORM
UNIT PRICE BID FORM

TO: St. John the Baptist Parish
1801 W. Airline Highway
LaPlace, Louisiana 70068
(Owner to provide name and address of owner)

BID FOR: St. John the Baptist Parish/ St. Charles Eastbank
waterline interconnection with meter assembly
(Owner to provide name of project and other identifying information)

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

Bid Proposal

(St. John the Baptist Parish/ St. Charles Eastbank Waterline Interconnection With Meter Assembly)

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
I. 8" PVC (DR 18) WATERLINE (Incl: Fittings, Bedding, Backfill, Restrainer Glands, and Thrust Blocking)	50	LF	\$ _____/LF	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
II. 8" PE C-906 (SDR 11) WATERLINE BORED (Incl: Adapters & Fittings)	300	LF	\$ _____/LF	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
III. CONNECTION TO EXISTING 12" PVC TRANSMISSION LINE ALONG LA. HWY. 628 (Incl: 12" x 8" Reducer, 8" 45° elbow [2 ea], restrainer glands & thrust blocking)	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION <i>(Quantity times Unit Price)</i>
IV. CONNECTION TO EXISTING 8" PVC WATERLINE ALONG HOLLYWOOD PARK DR. (Incl: 8" x 8" Hot tapping sleeve & valve with valve box & thrust blocking)	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
V. 8" METER ASSEMBLY WITH BACK FLOW (RPZ) PREVENTION SYSTEM (Incl: Flow meter, Fittings, Valves, piping, restrainers, insulation and thrust blocking)	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
VI. 6" INSERTION VALVE/ 6" AC WATERLINE	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
VII. CLEANING AND DRESSWORK	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
VIII. POWER POLE SUPPORT @ HOLLYWOOD & LA. 628 DURING CONSTRUCTION	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
IX. TESTING & CHLORINATION	LUMP SUM	LUMP SUM	\$ _____	

DESCRIPTION:	<input checked="" type="checkbox"/> Base Bid or <input type="checkbox"/> Alt.# _____			
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)
X. MOBILIZATION	LUMP SUM	LUMP SUM	\$ _____	

Total Bid Price\$ _____

(WRITE OUT)

The Work will not begin until after the contract is executed. The Contractor shall commence the work to be performed under this agreement on a date to be specified in a written order from the Owner and shall fully complete all work hereunder within 60 days. The undersigned bidder does hereby declare and stipulate that this proposal is made in good faith, without collusion or connection with any other person or persons bidding for the same work, and that is made in

pursuance of, and subject to all the terms and conditions of the Notice and Instruction to Bidders, the Construction Contracts, the Detailed Specifications, and the Construction Plans, all of which have been examined by the undersigned. The undersigned bidder agrees to execute and deliver the contracts on the forms hereto attached, and for the price named in this proposal, within ten (10) calendar days from the date when a written notice is mailed to said bidder at the address herein given, stating that the contracts have been awarded him and are ready for his signature.

SIGNED: _____

BY: _____

(Address)

DATE: _____

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **: _____

DATE: _____

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** If someone other than a corporate officer signs for the Bidder/Contractor, a copy of a corporate resolution or other signature authorization shall be required for submission of bid. Failure to include a copy of the appropriate signature authorization, if required, may result in the rejection of the bid unless bidder has complied with La. R.S. 38:2212(A)(1)(c) or RS 38:2212(O) .

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218.A is attached to and made a part of this bid.

PAST CRIMINAL CONVICTIONS OF BIDDERS ATTESTATION (LA. R.S. 38:2227)

STATE OF LOUISIANA

PARISH OF _____

BEFORE ME, the undersigned Notary Public PERSONALLY CAME AND APPEARED,

I, _____, (Appearer) the owner/authorized representative of

Company / Individual / Legal Entity Name

Appearer, as a Bidder on the herein named Project, does hereby attest that:

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named herein, including any silent or dormant owner or manager, has been convicted of, or has entered a plea of guilty or nolo contendere to, any of the following state crimes or equivalent federal crimes:

- (a) Public bribery (R.S. 14:118)
- (b) Corrupt influencing (R.S. 14:120)

- (c) Extortion (R.S. 14:66)
- (d) Money laundering (R.S. 14:230)

B. For five years prior to the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named herein, including any silent or dormant owner or manager, has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

- (a) Theft (R.S. 14:67)
- (b) Identity Theft (R.S. 14:67.16)
- (c) Theft of a business record (R.S. 14:67.20)
- (d) False accounting (R.S. 14:70)
- (e) Contractor's misapplication of payments (R.S. 14:202)

- (f) Bank fraud (R.S. 14:71.1)
- (g) Forgery (R.S. 14:72)
- (h) Issuing worthless checks (R.S. 14:71)
- (i) Malfeasance in office (R.S. 14:134)

Name of Bidder

Signature of Authorized Signatory of Bidder

Project Name/Number

Title of Authorized Signatory

SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF _____,
20____.

Notary Signature

Printed Notary Name: _____

Notary/Bar Roll Number: _____

My Commission is For/Expires: _____

**SAINT JOHN THE BAPTIST PARISH
NON-SOLICITATION AND UNEMPLOYMENT AFFIDAVIT**

(Pursuant to La. R.S. 38:2224 and La. R.S. 23:1726(B))

STATE OF _____

PARISH/COUNTY OF _____

Before me, the undersigned authority, came and appeared,

I, _____, the owner/authorized representative of

Company/Individual/Legal Entity Name

who, being first duly sworn, depose and state that I personally and as an authorized representative of the above identified legal person executes this continuing affidavit stating that neither the above named Contractor nor a person acting on its behalf, either directly or indirectly, employed, paid, nor promised any gift, consideration or commission to any person or legal entity to procure or assist in procuring this public contract, other than persons regularly employed by Contractor whose services were in the regular course of their duties for Contractor in connection with the construction, alteration or demolition of a public building or project.

The above named Contractor, if awarded, continually affirms that no part of the contract price received by Contractor was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services were in the regular course of their duties for Contractor.

The above named Contractor hereby attests and certifies that it does not have any unpaid assessment or penalty levied against it regarding unemployment compensation and currently does and will continue to properly classify each employee. Contractor verifies that Contractor will collect an affidavit in this form from any approved subcontractor and forward a copy to: Saint John the Baptist Parish, 1801 West Airline Hwy, LaPlace, Louisiana 70068, no later than five business days after contracting with its subcontractor; however, in no instance shall the affidavit be received after commencement of work by the subcontractor.

<p>_____ Signature of Authorized Signatory</p> <p>_____ Printed Name of Signatory</p> <p>_____ Title of Authorized Signatory</p> <p>_____ Project Name/Number</p>	<p>SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF _____ 2012.</p> <p>_____ Notary Signature</p> <p>Printed Notary Name: _____</p> <p>Notary/Bar Roll Number: _____</p> <p>My Commission is for/expires on: _____</p>
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SPECIAL CONDITIONS

I. SCOPE

Insurance, certificates, Contractor's insurance responsibility, commencement, construction schedule, Engineer's responsibility, acceptance for maintenance, Owner's financial responsibility, and Owner's payment responsibility and late payment penalty.

II. INSURANCE

Contractor shall obtain, pay for, and keep in force the following minimum insurance effective in all localities where Contractor may perform the work hereunder, with such carriers as shall be acceptable to Owner.

- A. **Statutory Workmen's Compensation** covering all state and local requirements and Employer's Liability Insurance covering all persons employed by the Contractor in connection with this agreement.

The limits for "A" above shall not be less than:

- (1) Employees Liability limits of \$1,000,000/1,000,000/1,000,000
- (2) Some Contracts may require USL&H or maritime coverage. This should be checked out with the School Board.
- (3) **St. John the Baptist Parish shall be waived.**
- (4) No excluded classes of personnel or employees shall be allowed on St. John's premises.

- B. **Comprehensive General Public Liability**, including:
Contractual liability assumed by this agreement.
Contractor's Contingent (protective).
Personal & advertising liability.
Completed operations.
Medical payments.

The limits for "B" above shall not be less than:

- (1) \$1,000,000 each occurrence limit
- (2) \$1,000,000 general aggregate limit other than products – completed operations
- (3) \$1,000,000 personal and advertising injury limit
- (4) \$1,000,000 products/completed operations aggregate limit
- (5) \$50,000 fire damage limit
- (6) \$50,000 medical expense limit (desirable but necessary)
- (7) \$1,000,000 CSL each occurrence with no annual aggregate will be acceptable in lieu of 1+2 above. Must include BFCGL endorsement.

- (8) **St. John the Baptist Parish shall be named and waived.**
- (9) Some Contracts may require Protection and Indemnity Coverage.
This should be checked with St. John the Baptist Parish.

C. Comprehensive Automobile Liability covering all owned, hired, and other non-owned vehicles of the Contractor.

The limits for "C" above shall not be less than:

- (1) \$1,000,000 CSL
- (2) **St. John the Baptist Parish shall be named and waived.**

III. CERTIFICATES

Prior to starting the work, the Contractor shall deliver to the Engineer, certificates in triplicate evidencing that the insurance required in Section SC-02 above is in effect. Such certificates shall provide that the Insurer shall give the Owner fifteen (15) days written notice of any material change in or cancellation of such insurance.

IV. BOND REQUIREMENTS

The Contractor shall provide a 100% Performance and Payment Bond in an amount equal to the Contract Price or as set forth in the bid specifications and comply with Louisiana Revised Statute 38:2241. The Bonds shall fully indemnify and protect the Owner for the entire length of time of the contract and for a period of one (1) year beyond final acceptance of the project. The said Bonds must be written and secured by a Surety Company licensed in the State of Louisiana. The Surety Company must be certified by the U.S. Department of Treasury Circular 570 as last revised and must have a A-1+ Rating with Standard and Poors, and/or an "A" Rating in the latest edition of the A.M. Best Insurance Report. All Bonds shall be signed by the Attorney-in-Fact with a certified copy of their Power of Attorney for signing along with the Countersignature of a Louisiana Licensed Insurance Agent as provided in Louisiana Revised Statute 38:2216A(2).

V. CONTRACTORS INSURANCE RESPONSIBILITY

The Contractor at his expense shall maintain adequate physical damage insurance in the amounts and against the perils desired by the Contractor on all items of Contractor's equipment including tools which are owned or rented by the Contractor or for which the Contractor is liable and which are not to remain as part of the permanent construction.

VI. COMMENCEMENT OF WORK

The Contractor shall start the work within ten days after he is mailed a "Notice to Proceed". The eleventh calendar days after the Notice is mailed shall be the first day counted in the time allowed for completion.

VII. TIME OF COMPLETION, CONSTRUCTION, SCHEDULE AND DAMAGES

Time is of the essence of the Contract, and all of the work is to be completed within the time limit set in the Contractor's Proposal and incorporated in the Contract. Immediately after execution and delivery of the contract, and before the first partial payment is made the Contractor shall deliver to the Owner an estimated construction progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion of each of the various subdivision or work required under the Contract Documents and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule.

In the event that the progress of the work should fall behind this schedule, the Contractor shall immediately start working longer hours, or shall employ additional men and equipment on the project or both, as necessary to assure completion of the project within the specified time limit.

If the Contractor shall be delayed in the performance of the work for any unforeseeable cause beyond his control, he shall, upon written application to the Owner within five days of the beginning of such delay, be granted such extension of the time as the Owner may deem equitable and just.

If the time required for completion of the work exceeds the time stipulated in the contract, plus any additions granted by the Owner, the sum of three hundred dollars (\$300.00) per day of additional time shall be deducted from the amount paid the Contractor. This deduction is not a penalty, but a reasonable amount that is estimated the Owner will be damaged because of the Contractor's failure to complete the work within the agreed time.

VIII. ENGINEER'S RESPONSIBILITY

The term "Engineer" refers to the firm of C. J. Savoie Consulting Engineers, Inc., which has been designated by the Owner as its engineering representative for this project. The Engineer's Responsibility is as stated in the General Conditions of the Contract as supplemented here. Computations of quantities that are the basis for payment estimates, both monthly and final, will be checked and approved by the Engineer. It shall be the duty of the Engineer to enforce the specifications in a fair unbiased manner.

The Engineer will furnish the street rights-of-way, and benchmarks at each end of the project. It will be the Contractor's responsibility to locate the various items to be constructed, and to establish any additional lines, grades, or elevations that may be needed.

IX. ACCEPTANCE FOR MAINTENANCE

The Owner shall furnish the Contractor with a certificate from his source of financing that the funds are available to meet his financial obligations in connection with this Contract.

X. OWNER'S RESPONSIBILITY

The Owner shall furnish the Contractor with a certificate from his source of financing that the funds are available to meet his financial obligations in connection with his Contract.

XI. OWNER'S PAYMENT RESPONSIBILITY AND LATE PAYMENT PENALTY

The Owner agrees to pay the Contractor on or before the tenth (10) day of each month for work performed or materials delivered during the preceding calendar month as estimated by the Contractor shall submit his estimate to the Engineer no later than the last day of the preceding month and if it is necessary to make corrections or alterations to the estimate the final day for payment shall be extended for the time required to make the adjustments to the monthly payment estimate.

XII. CONTRACTOR'S INVOICING AND WARRANTY

The Contractor shall submit all partial pay invoices on or before the first (1st) day of each month, in accordance with the work schedule, to the Engineer who shall check all items for pay within ten (10) calendar days and submit for payment as he recommends to the Owner for payment. The work for each item submitted for payment must be completed in accordance with the plans and specifications and invoiced according to the unit prices or approved percentages of Lump Sum Priced Contracts in accordance with the Bidder's Proposal. Ten percent (10%) will be retained on all partial pay estimates for projects less than \$500,000.00 in cost and five percent (5%) for projects greater than \$500,000.00 in cost for construction in accordance with these plans and specifications. If all items are completed in accordance with these plans and specifications, a substantial completion shall be recorded with the Clerk of Court in the Parish where work was performed and a five percent (5%) retainage shall be withheld at that time. The remaining five percent (5%) will be paid within forty-five (45) calendar days after final acceptance of the job by the Engineer and provided all liens and other encumbrances have been shown in writing free and clear to the satisfaction of the Owner. The Contractor shall warrant this project in writing against all defective materials and workmanship, hereinafter, for a period of one (1) year from the time of acceptance of the job by the Engineer.

XIII. LIENS

If at any time there shall be evidence of any lien of claims for which the Owner might become liable and which is chargeable to the Contractor, the Owner shall have the right to retain out of any payment then due or thereafter to become due, an amount sufficient for completed indemnifications against such lien or claim. In the event the Owner has already paid to the Contractor all sums due under this contract or the balance remaining unpaid is insufficient to protect the Owner, the Contractor and his surety shall be liable to the Owner for any loss so sustained.

XIV. HOLD HARMLESS AGREEMENT

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 of expense is attributable to bodily injury, sickness, diseases, 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 by be liable.

GENERAL ENGINEERING CONDITIONS

PART – DEFINITION OF TERMS

A. GENERAL:

Whenever in these Specifications, Addenda, Proposal, Contract and Bond, the following terms are used, the intent and meaning shall be interpreted as follows.

B. THE OWNER:

The Owner shall be as defined in Special Provisions hereof.

C. THE ENGINEER:

The Engineers shall be as defined in Special Provisions hereof.

D. RESIDENT ENGINEER:

An employee of the Engineers who may be placed in the field to represent the Engineers.

E. THE BIDDER:

Any qualified individual, firm or corporation submitting a proposal for the equipment specified herein, acting directly or through an agent.

F. THE CONTRACTOR:

The agency selected by the Owner and to whom Contract is awarded by said Owner.

G. THE SUBCONTRACTOR:

Any construction agency selected by the Contractor and approved by the Engineers to handle any phase of the contract work.

H. SURETY:

The licensed corporate body which is bound with and for the Contractor and which is primarily liable and responsible for payment of all obligations pertaining to and for the acceptable performance of the work required by the Contract.

I. LABORATORY:

Any testing laboratory designated or approved by the Engineers to perform tests on materials entering the work.

J. PROPOSAL:

The written offer of the bidder to perform the contemplated work and furnish the necessary materials when made out on the prescribed form and properly signed and guaranteed.

K. BID SECURITY:

The security designated in the "Proposal Form" to be furnished by the Bidder as a guarantee of good faith to enter into a Contract with the Owner, if the contract is awarded to him.

L. PLANS:

The plans, cross-sections, working drawings and supplemental drawings, or exact reproductions thereof, approved by the Engineers, which show the location, character, dimensions, and details of the work to be done, and which are to be considered as a part of the Contract supplementary to these Specifications.

M. SPECIFICATIONS:

The direction, provisions and requirements contained herein setting out or relating to the method and manner of performing the work or to the quantities and qualities of material and labor to be furnished under this Contract.

N. CONTRACT:

The written agreement between the Owner and the Contractor covering the performance of the work and the furnishing of labor, materials, tools, equipment, incidentals and service necessary for the completion of the same. The Contract shall be mutually understood to include "Plans", "Specifications", "Addenda", "Alternates", "Proposal", and "Performance Bond", also any and all "Change Orders", which are required to completed the construction of the work in a satisfactory and acceptable manner.

O. CHANGE ORDERS:

A written agreement between the Owner and the Contractor, with the approval of the Engineers, which when duly executed becomes part of the Contract. Change Orders may either increase or decrease the work to be performed under the Contract.

P. PERFORMANCE BOND:

The approved form of security furnished by the Contractor and his surety as a guarantee of the proper performance of the work and payment for all materials or other obligations contracted by him in the prosecution thereof.

Q. THE WORK:

All work specified herein or indicated on the Plans as the contemplated improvement, covered by the Contract.

R. WORK ORDER:

A written notice from the Owner notifying the Contractor to begin the prosecution of the work.

S. A.A.S.H.O.:

Association of State Highway Officials.

T. A.C.I.:

American Concrete Institute

U. A.I.S.C.:

American Institute of Steel Construction

V. A.G.A.:

American Gas Association

W. A.I.S.I.:

American Iron and Steel Institute

X. A.P.I.:

American Petroleum Institute

Y. A.R.E.A.:

American Railroad Engineering Association

Z. A.S.A.:

American Standards Association

AA. A.S.C.E.:

American Society of Civil Engineers

BB. A.S.M.E.:

American Society of Mechanical Engineers

CC. A.S.T.M.:

American Society of Testing Materials

DD. A.W.W.A.:

American Water Works Association

EE. C.T.I.:

Cooling Tower Institute

FF. D.E.M.A.:

Diesel Engines Manufacturers Association

GG. D.E.M.A. STANDARD PRACTICES:

The Standard Practices for Stationary Diesel and Gas Engines of the D.E.M.A.
(Latest Edition).

HH. H.E.I.:

Heat Exchange Institute

II. I.E.E.E.:

Institute of Electronic and Electrical Engineers

JJ. I.P.C.:

Institute of Printed Circuitry

KK. I.S.A.:

Instrument Society of America

LL. M.S.S.:

Manufacturers Standardization Society of the Valve and Fitting Industry

MM. N.B.F.U.:

National Board of Fire Underwriters

NN. N.E.M.A.:

National Electrical Manufacturers Association

OO. N.E.S.C.:

National Electrical Safety Code

PP. N.R.M.A.:

National Ready-Mix Association

QQ. P.C.I.:

Prestressed Concrete Institute

GENERAL ENGINEERING CONDITIONS

PART II – INSTRUCTIONS TO BIDDERS

A. QUALIFICATIONS OF BIDDERS:

Bidders must be capable of performing the various items of work bid upon. They may be required after bidding to furnish a satisfactory statement covering experience in similar work, a list of machinery, plant organizations and other equipment available for the proposed work, and such statement of their financial resources as may be deemed necessary.

B. PROPOSALS:

Proposals shall be made out on forms provided by C. J. Savoie Consulting Engineers and shall be enclosed in an envelope endorsed "Proposals", addressed to Owner and delivered in person or mailed to reach address prior to opening of bids.

C. INTERPRETATION OF DOCUMENTS:

If any person who contemplates submitting a bid for the proposed contract is in doubt as to the meaning of any part of the Plans, Specifications or other proposed Contract Documents, he may submit to the Engineers a written request for an interpretation thereof not less than five (5) days prior to the day of opening bids. Interpretation of the proposed documents will be made only by Addenda issued before bidding, a copy of such Addenda will be mailed or delivered to each person receiving a set of such Contract Documents.

D. EXAMINATION OF SITE, DRAWINGS, ETC:

Each bidder shall visit the site of the proposed work and shall fully acquaint himself with conditions relating to construction and labor so that he may fully understand the facilities, difficulties and restrictions attending the execution of the work under this Contract. Bidders shall thoroughly examine and be familiar with the Plans and Specifications.

The failure or omission of any bidder to examine Plans, Specifications and General Contract Documents or to visit the site and acquaint himself with conditions there existing, shall in no way relieve the bidder from any obligation with respect to his bid or to the Contract. The submission of a bid shall be taken as a prima facie evidence of compliance with this section.

E. ADDENDA:

Any addenda, details or supplemental drawings issued during the preparation of bids shall be included in the proposal, and shall become part of the Contract Documents. Subcontractors shall be taken as prima facie evidence of compliance with this section.

F. BID SECURITY:

Bid security shall be as stated in the Advertisement for Bidders.

G. BID PRICE:

The price bid shall cover furnishing of all materials, tools, labor, transportation, local, State and Federal taxes, Old Age Benefit, Social Security, services and equipment necessary to construct the work in full conformity with Plans and Specifications, Addenda and Contract Document.

GENERAL ENGINEERING CONDITIONS

PART III – SCOPE OF THE WORK

A. ADDITIONAL WORK OR CHANGES:

Without invalidating the Contract, the Owner may make reasonable changes by altering, adding to, or deducting from the work, the Contract Price being adjusted accordingly. No claim for extra work or materials shall be allowed and no alteration of or deduction from the work shall be made unless same is ordered in writing by the Owner.

Where changes ordered by the Owner involve a monetary consideration, the Contract shall be adjusted by negotiation with the terms of said negotiation being expressed in a supplemental agreement of CHANGE ORDER signed by the Owner, the Contractor and the Engineer.

If the Owner and the Contractor are unable to reach an agreement as to the monetary consideration of the Contract addition, the Engineers may order the Contractor to do such work on a force account or cost plus basis.

For force account or cost plus work, the Contractor shall be paid the actual reasonable cost of labor and materials entering permanently into the work, plus not to exceed fifteen percent (15%) to cover overhead and profit. The Contractor shall furnish itemized weekly statements to the Resident Engineer of the cost of all such work, together with original receipted bills for all materials used and freight charges used and vouchers for labor and equipment engaged therein.

B. CHANGES, INCREASE OR DIMINUTION:

The Owner shall have the right to increase or decrease the amount of work to be done under the Contract at any time or times during the life of the Contract provided that the total increase or diminution does not exceed twenty percent (20%) of the original Contract Price. The total increase or decrease may be applied to any one (1) item or to any number of items, or any item or items may be entirely eliminated. No allowances will be made for real or supposed loss of anticipated profits on account of such increases or diminution.

C. MAINTENANCE OR WORK:

The Contractor shall maintain the work during construction and until the work is finally accepted.

All cost of maintenance work during construction and before the work is finally accepted shall be included in the bid prices quoted for the work; the Contractor will not be paid any additional amount for maintenance work.

D FINAL CLEANING-UP:

Upon completion of the work, all excess materials, temporary structures and debris resulting from construction shall be removed from the limits of the project, and the completed work left in a neat and presentable condition throughout. All property, both public and private, which has been damaged during the prosecution of the work, shall be restored in an acceptable manner. Materials cleared from the project may not be deposited on the property adjacent thereto unless such disposal is approved by the Engineers. All keys shall be tagged and turned over to the Owner.

E. GUARANTEE:

All work as herein specified and/or as indicated on the Plans shall be guaranteed against defects in materials and workmanship for a period of one (1) year, unless otherwise noted, from the date of final acceptance of the work. The Contractor shall, within a reasonable time after receipt of written notice thereof, make good any defects in materials or workmanship which may develop during said one-year period, and any damage to other work caused by such defects or the repairing of same, at his own expense and without cost to the Owner.

GENERAL ENGINEERING CONDITIONS

PART IV – CONTROL OF THE WORK

A. AUTHORITY OR OWNER AND ENGINEERS:

The Engineers, or their authorized representative, shall decide any and all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work and shall decide all questions which arise as to the interpretation of the Plans and Specifications, and all questions as to the acceptable completion of the project.

The decision of the Engineers, or their authorized representative, shall be final and binding on all technical questions concerning the execution of the work and interpretation of the Plans and Specifications.

The Owner, or its authorized representative, shall have authority to suspend operations at any time when the work, in Owner's opinion, is not being carried out in conformity with the Plans and Specifications.

B. AUTHORITY AND DUTIES OF THE RESIDENT ENGINEER:

The Resident Engineer will be authorized to inspect all work done and materials furnished. Such inspections may extend to all or to any part of the work and to the preparation or manufacture of the materials to be used.

He may be stationed on the work to report to the Engineers as to the progress of the work and the manner in which it is being performed, to call attention whenever it appears that materials furnished or work performed fails to fulfill requirement of the Specifications. The Resident Engineer will not be authorized to revoke, alter, enlarge, or release any requirement of these Specifications, nor to approve or accept any portion of the work, nor will he be authorized to issue instructions contrary to the Plans and Specifications. He will in no case act as foreman nor will he interfere with management of the work.

C. INSPECTIONS:

The Engineers and authorized representatives, thereof shall be given every facility for ascertaining whether or not the work performed and materials used are in accordance with the requirements and intent of the Plans and Specifications.

Failure of the Engineers or authorized representatives during the progress of the work to discover or reject materials or work not in accordance with the Plans, Specifications and the Contract Documents, shall not be considered an acceptance thereof or a waiver of defects therein; and payment to the Contractor or partial or entire occupancy by the Owner shall not be construed to be an acceptance of the work or materials which are not strictly in accordance with the Plans, Specifications or Contract Documents.

Moreover, the undertaking of inspections by the Engineers or authorized representatives thereof shall not be construed as supervision of actual construction nor make the Engineers or their authorized representatives responsible for providing a safe place of safe conditions for the performance of work under the Contract by the Contractor, or Contractor's employees or those of Suppliers or Subcontractors, or for access, visits, use work, travel or occupancy by any persons and the Contractor agrees to indemnify and hold the Owner harmless from all claims for damages for personal injury (including accidental death) and property damage which may arise from any operations under this contract, including claims by employees of the Contractor or of any Subcontractor or Supplier.

D. NOTICE AND SERVICE THEREOF:

Any notice to the Contractor from the Owner relating to any part of this contract shall be in writing, shall be considered delivered and the service thereof completed when said notice is posted, by registered mail, to the said Contractor or his authorized representative on the work.

E. DEFECTIVE WORK:

All work which has been rejected shall be satisfactory remedied, or else removed and replaced in an acceptable manner by the Contractor, and no additional compensation shall be allowed for such correction, removal or replacement.

F. COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS:

The Plans, the Specifications, the Special Provisions and all supplementary documents are essential parts of this Contract. They are intended to be complementary, to describe and provide for a complete work. A requirement occurring in one as binding as though occurring in all. In case of a discrepancy, figured dimensions, unless obviously incorrect, shall govern over scaled dimensions; Specifications shall govern over Plans and Special Provisions shall govern over both Plans and General Conditions. The Contractor shall take no advantage of any error or omission of dimensions in the Plans or of any discrepancy between Plans and Specifications. The Engineer will make such corrections and supply such omitted dimensions as may be necessary and its interpretation shall be final.

G. SHOP DRAWINGS:

The Contractor and Subcontractor shall furnish all shop drawings required by the Plans and Specifications or requested by the Engineers. Shop drawings shall be submitted for approval in six (6) copies, two (2) copies of which will be returned, approved or corrected. Approval of shop drawings by the Engineers shall not relieve the Contractor or Subcontractor from responsibility for errors or omission therein, and the Contractor shall be fully responsible for furnishing materials, devices, and layouts of proper dimensions, size, quantity, quality, and performance characteristics to efficiently perform the requirements and intent of the Contract Documents.

GENERAL ENGINEERING CONDITIONS

PART V – CONTROL OF MATERIALS

A. MANUFACTURED ARTICLES:

Wherever in these Specifications certain equipment, materials or manufactured products are called for or described, such are specified to establish a standard of quality and it will be so called for, and that the Contractor's proposal, if accepted, will constitute a contractual obligation to furnish the specified equipment, materials or articles.

If Contractors bid on substitute materials or offer alternate bids, they must state with their bid a complete description of the proposed substitution, and the difference in cost, if any, between the proposed substitution and the material or article include in the based bid as standard. The determination as to whether or not such substitution shall rest solely with the Owner and the Engineers.

All substitutions submitted, shall be on a "turn-key" basis. In other words, any proposed substitution shall include the cost of any necessary building changes, piping change, electrical and other changes in the product for a complete installation as shown or set up in the base bid.

B. SOURCE OF SUPPLY AND QUALITY OF MATERIALS:

The source of supply of each of the materials shall be approved by the Engineers before the delivery is started. Representative preliminary samples of the character and quantity prescribed shall be submitted by the Contractor or producer for examination and testing. Only materials tested and found to conform to the requirements of these Specifications and approved by the Engineers shall be used in the work. All materials proposed to be used may be inspected or tested at any time during their preparation and use. If, after trial, it is found that sources of supply which have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources.

No material, which after approval, has in any way become unfit for use shall be used in the work. Stored material even though approved before being stored shall be inspected prior to use in the work and shall meet the requirements of the Specifications at the time of its use.

C. LIST OF MATERIAL AND EQUIPMENT:

Within thirty (30) days after the signing of the Contract, the Contractor shall submit to the Engineers, in duplicate, a list of all materials and equipment ordered for the project, the manufacturers or agents from whom ordered, catalog and type number, quantity ordered, and the promised delivery date on each item. Any subsequent changes in list of materials, manufacturer's type, quantity or delivery dates shall be promptly brought to the attention of the Engineers.

D. STORAGE OF MATERIALS:

Materials shall be stored so as to insure the preservation of their fitness for the work, and in a manner that leaves the material accessible to inspectors. Storage shall not interfere with the prosecution of the work or with public travel.

E. TESTING OF MATERIALS:

The Engineers will appoint and the Contractor will pay for the services of a competent Testing Laboratory testing of recognized standing for the testing and control of materials entering into the construction of this project.

The Contractor shall furnish, without additional charge, samples of various materials, laboratory testing as required by the Engineers. The Contractor shall cooperate fully with Engineers and the Testing Laboratory in the making of the required tests.

F. DEFECTIVE MATERIALS:

All materials not conforming to the requirements of these Specifications shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work, unless otherwise permitted by this Engineer.

No rejected material, the defects of which have been subsequently corrected, shall be used until approval has been given. Upon failure on the part of the Contractor to forthwith comply with any order of the Engineers made under the provisions of this Article, the Owner shall have authority to remove and replace defective material and to deduct the cost of removal and replacement from any monies due or to become due to the Contractor under this Contract.

GENERAL ENGINEERING CONDITIONS

PART VI – LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC:

A. AUTOMOBILE LIABILITY INSURANCE:

Automobile Liability Insurance shall be in accordance with the "Special Conditions" section of these specifications.

B. PUBLIC SAFETY AND CONVENIENCE:

The Contractor shall at all times so conduct his work as to insure the least practicable obstruction to traffic. The convenience of the general public and the protection of persons and property shall be adequately provided for by the Contractor.

C. MAINTENANCE OF EXISTING TRAFFIC:

Suitable facilities shall be provided for maintaining public travel, and every effort shall be made to reduce any necessary inconvenience to said public travel to the minimum. Precautions shall be taken for the adequate protection of the public and the workmen during the prosecution of the work.

D. BARRICADES, DANGER SIGNS, ETC:

The Contractor shall provide, erect and maintain all necessary barricades, danger signals, and signs, provide a sufficient number of watchmen and take all necessary precautions for the protection of the work and workmen and for the safety of the public.

E. SANITARY CONDITIONS:

The Contractor shall provide and maintain in a neat, sanitary condition, such accommodations for the use of his employees as may be necessary to comply with the requirements and regulations of the State Department of Health and Hospitals in the State in which the work is being done or of other authorities having jurisdiction. He shall commit no public nuisance.

F. RIGHT-OF-WAY:

The Owner will furnish the Contractor with all necessary right-of-way for the prosecution of his work. The right-of-way herein referred to is understood to mean only the permission to use and pass through the location or space in any street or highway or through any public or private property in which the Contractor is to construct the work, and does not obligate the Owner to remove or change or be responsible for any structure for which the Contractor is obligated, or for any wires, lamps or other overhead, surface or underground construction which may interfere with the operation or movement of the Contractor's equipment.

The Contractor shall arrange for the removal of any structure or construction made necessary by the use of any machine or facility employed by him and shall be responsible for and costs of changing or moving such structures.

GENERAL ENGINEERING CONDITIONS

PART VII – PROSECUTION AND PROGRESS OF WORK

A. SUBCONTRACTING:

The Engineers shall have the right of approval or rejection of Subcontractors proposed for this work by the Contractor. If the Contractor sublets any part of this Contract, the Contractor shall be as fully responsible to the Owner for the acts and omissions of his Subcontractor and of the persons either directly or indirectly employed by his Subcontractor, as he is for the acts and omissions of persons directly employed by him.

B. ASSIGNMENT:

Neither party to the Contract shall assign or sublet his entire interest in this Contract without written consent of the other, nor shall the Contractor assign any monies due or to become due to him under this Contract, without previous written consent of the Owner.

C. COOPERATION WITH PUBLIC UTILITIES:

The Contractor shall be responsible for notifying all public utilities or other interested parties to make necessary adjustments of utility structures or appurtenances affected by the work.

The Contractor will be responsible for any damage done by him to any utility structure owned or controlled by any agency, public or private. He shall perform and carry on the work so as not to interfere with or damage utility structures mentioned herein or shown on the Plans or discovered during construction, which are to left within the limits of the work.

The Owner will not be responsible for any delay or inconvenience to the Contractor in carrying out the work resulting from the existence, removal or adjustment of any public utility. Additional costs incurred as a result thereof shall be the expense of the Contractor.

D. LABOR:

No aliens or foreign, unnaturalized laborers shall be employed on this work. Preference shall be given to local labor where available.

All labor, as well as mechanics, must be proficient in their respective trades as no mediocre work will be accepted.

Contractors must comply with all local ordinances and State laws regarding labor and mechanics in effect at the time of the signing of this Contract or passed during the construction of the work. The Contractor shall include in his bid and pay all Federal and State taxes or assessment on labor.

E. OWNER'S RIGHT TO OCCUPANCY:

The Owner, or any other person under authority and permission granted by the Owner, shall have the right to use, at any time, any and all portions of the work that have reached a stage of completion as to permit such occupancy, provided such occupancy does not hamper the Contractor or prevent the efficient completion of the Contract. The Contractor obligates himself to permit such use, and to use every effort to facilitate the Owner in the occupancy of such available and useful portions of the work.

F. MATERIAL FUNISHED BY OWNER:

The Owner reserves the right to furnish certain materials to the contractor for use in the consummation of this work. The Contractor shall give the Owner proper credit on the contract amount for such materials furnished. The credit given shall be based on the present market price of that material.

G. TIME OF COMPLETED WORK:

The work covered by the Plans, Specifications and Contract Documents must be completed sufficient for acceptance within the time specified in the Contract and/or Special Provisions hereof.

H. LIQUIDATED DAMAGES:

As time is of the essence in this Contract, should the Contractor fail to complete the work sufficient for acceptance by the Owner within the time specified, both parties to the Contract mutually agree that the Contractor shall pay the Owner, as acknowledged liquidated damages, an amount determined, affixed and agreed (as stipulated in the Contract and/or Special Provisions hereof) per calendar day that he is delinquent, which amount shall be reported by the Engineers and shall be deducted and withheld by the Owner from the balance due or to become due the Contractor under the terms of this Contract.

This provision for liquidated damages shall be effective between the parties ipso facto without necessity for demand or putting in default by any notice or other means than by the terms of this Contract, the Contractor hereby waiving any such other notice of default and specially acknowledging that Contractor shall be deemed to be in default by the mere act of his failure to complete the work within the time specified, or within any valid extension of such time hereunder.

I. EXTENSIONS OF TIME:

Extensions of time will be granted to the Contractor upon receipt of written request for such extensions, provided that such delays were occasioned by the Owner, by Acts of God (provided such Acts of God were not preceded by some fault of the Contractor without which the delay would not have occurred) or by causes entirely beyond the Contractor's control. In the event additional time is earned by the Contractor under the terms of this Agreement, or is granted by the Owner, such fact shall not be interpreted as a waiver of the full obligation on the part of the Contractor to complete the work within the extended time. Request for extension shall be made within five (5) days following the event occasioning the delay.

J. DELAYED CONSTRUCTION PAYMENT:

In addition to the liquidated damages provided for in Item H of this Section (and as stipulated in the Contract and/or Special Provisions thereof), and irrespective of whether liquidated damages are in fact assessed, should the Contractor fail to complete the work sufficient for acceptance by the Owner within the time specified, the Owner shall assess and deduct from any balance due or to become due the Contractor under the terms of this Contract the sum of One Thousand Two Hundred and No/100 (\$1,200.00) Dollars for each period of thirty (30) days or fraction thereof, commencing on the first day of the delinquency and terminating on the date of final acceptance by the Owner to the Engineers for supervisor services rendered during such delinquency period.

K. REMEDIAL WORK:

If, after final acceptance of the work, the Contractor shall be required to make good any defects in material or workmanship or to repair damage to other work, as provided in Section III, Item E, the Contractor shall pay to the Owner for the account of the Engineers a Supervisory Fee equal to One Thousand Two Hundred and No/100 (\$1,200.00) Dollars for each thirty (30) day period of fraction thereof commencing on the date of issuance by the Owner of a work order for such remedial work and terminating on the date of Owner's final acceptance of such work.

L. SUPERVISION AND GENERAL FOREMAN:

The Contractor shall employ and keep on the work at all times a competent general superintendent or foreman as his representative and, in the absence of the Contractor from work, instructions given or notices served on this superintendent shall be binding upon the Contractor.

All workmen employed in the performance for this Contract shall be skilled in their particular trades. No mediocre work shall be accepted or countenanced.

Any superintendent, foreman or workman employed on this project who disregards orders or instructions, does not perform this work in a proper, skillful and expeditious manner or is otherwise objectionable, shall be removed from the work and shall be replaced by a suitable superintendent, foreman or workman.

The Contractor shall personally see to it that all subcontract and divisions of the work are executed in proper and workmanlike manner on scheduled time, and with due and proper cooperation.

