

City of Shreveport, Louisiana
Department of Water and Sewerage



**Replacement of Influent Screw Pumps
NORTH REGIONAL WASTEWATER TREATMENT PLANT**

SPECIFICATIONS AND CONTRACT DOCUMENTS

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PART I GENERAL PROVISIONS

SECTION 100

DEFINITIONS AND ABBREVIATIONS

100.1 TERMS. Unless otherwise stated, the words "direct," "required," "permitted," "ordered," "instructed," "designated," "considered," "necessary," "prescribed," "approved," "acceptable," "satisfactory," or words of like import, refer to actions, expressions and prerogatives of the Engineer.

100.2 DEFINITIONS.

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

Advertisement. A public announcement inviting bids containing the location and description of the work, time and place of opening bids.

Asbestos. Any material that contains more than one percent asbestos or is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

As-Built Drawings. Annotated Drawings, which have been revised to reflect any changes during construction including unforeseen site conditions.

Bid. The offer of a responsible and responsive Bidder that was submitted to the Department on the Bid Forms, in accordance with the Bidding Documents. The bid shall be binding after expiration of the 48 hour waiting period.

Bidder. The individual or entity who submits a Bid directly to City.

Bidding Documents. The Invitation For Bid (IFB), Special Conditions for Streets/Drainage and Water/Sewer, the Bid Forms with any supplements, Standard Specifications for Infrastructure Improvements, Standard Plans, Drawings, Technical Specifications, and the proposed Contract Documents (including all Addenda).

Bid Forms. Louisiana Uniform Public Works Bid Forms and Bid Bond Form as developed by the Office of Facility Planning and Control.

Change Order. Any contract modification that includes an alteration, deviation, addition, or omission to the Contract, which authorizes an adjustment in the Contract Amount, Contract Time, or an addition, deletion, or revision of the Work.

City. The City of Shreveport, Louisiana for whom the work is being performed.

City Engineer. The Department Head of the Department of Engineering and Environmental Services.

Claim. A demand or assertion by City or Contractor seeking an adjustment of Contract Amount or Contract Time, or both, or other relief with respect to the terms of the Contract.

Closed Specification. A product specified to the exclusion of all other products of apparent equal quality and utility

Conformed Documents. An assembly of Contract Documents with the Contractor's completed Bid Forms, Bonds, Certificates of Insurance, and other forms furnished with the Bidding Documents; executed Contract; addenda and revised drawings and specifications incorporating changes made by addenda.

Contract. The entire and integrated written agreement between the City and the Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or Contracts whether written or oral.

Contract Bond. The approved form of security, executed by the Contractor and its surety of sureties, guaranteeing complete execution of the contract and all supplemental Contracts pertaining thereto and the payment of all legal debts pertaining to the construction of the project.

Contract Documents. Those items so designated in the Contract. Only printed or hard copies of the items listed in the Contract are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

Contract Item (Pay Item). A specific unit of work for which a price is provided in the Contract.

Contract Amount. The moneys payable by City to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Contract subject to the provisions of Section 101 in the case of Unit Price Work.

Contract Time. The number of days or dates stated in the Contract to achieve Milestones, if any, and complete the Work so that it meets the requirements of completion as evidenced by written recommendation of the Engineer.

Contractor. The individual or entity with whom City has entered into the Contract.

Controlling Item of Work. An item of work that should be in progress at the time, essential to the orderly completion of the work within the time limit specified, in accordance with the Contractor's approved progress schedule.

Department. The term shall mean "Department of Public Works," "Department of Water and Sewerage," "Department of Engineering and Environmental Services (EES)" or its authorized representative.

Drawings. The part of the Contract Documents prepared or approved by the Engineer which shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

Effective Date of the Contract. The date indicated in the Contract on which it becomes effective, but if no such date is indicated, it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.

Engineer. The City Engineer of the Department of Engineering and Environmental Services (EES) or their authorized representative.

Equipment. All machinery, equipment, tools and apparatus necessary for acceptable completion of the work.

Extra Work. An item of Work not provided for in the Contract as awarded but found essential to the satisfactory completion of the Contract within its intended scope.

Field Order. A written order issued by the Engineer and signed by the Contractor which requires minor changes in the Work but which does not involve a change in the Contract Amount or the Contract Time.

Final Acceptance. After receipt of a clear lien certificate, Final Acceptance will be approved by the City and a letter of Final Acceptance will be issued to the Contractor and retainage will be paid.

Final Completion. A letter of Final Completion will be issued by the City to the Contractor when all contract work has been completed, the final inspection has been performed and no incomplete or unsatisfactory work is outstanding. Accrual of Contract Time ends and time for the maintenance bond begins when Final Completion has been achieved.

Final Inspection. Contractor will notify the City in writing that the work is ready for final inspection. The Contractor's notice will be signed by the Engineer at least 10 days prior to the final inspection. The final inspection uncovers any work that is incomplete or unsatisfactory, The Engineer will give the Contractor written instruction for correction.

General Requirements. Technical Specifications for certain administrative requirements and procedural matters.

Hazardous Environmental Condition. The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.

Hazardous Waste. The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

Holiday or Legal Holiday. Any calendar day observed or authorized by the City as a non-working holiday.

Incidental Work. Work required by the contract for which no direct payment is provided.

Inspector. An individual authorized to inspect all Work and materials.

Intent to Award. The written notice by City to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, City will sign and deliver the Contract.

Laboratory. A testing laboratory approved by the City.

Laws and Regulations. Any and all applicable laws, rules, regulations, ordinances, codes, and other of any and all governmental bodies, agencies, authorizes, and courts having jurisdiction.

Liens. Changes, security interests, or encumbrances upon Project funds, real property, or personal property.

Load Bearing Area. Any area that supports vehicular traffic or high bearing loads; whether the area is paved, unpaved, gravel, green space, sidewalk, street, driveway, highway, etc. This area extends to a minimum of three feet from the edge of said load bearing area.

Manual of Uniform Traffic Control Devices (MUTCD). The manual adopted by the City for a uniform system of traffic control devices used on public roadways.

Materials. Any substances used in the Work.

Milestones. A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Final Completion all the Work.

Notice to Proceed. A written notice given by City to Contractor fixing the date on which the Contract Time will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

Open Specification. A product specified by a particular brand, make, or manufacturer only to convey the general style, type, character, and quality of the product desired.

PCBs. Polychlorinated biphenyls.

Parish. Parish of Caddo, Louisiana.

Pay Estimate. Documentation prepared by the Engineer from daily reports listing quantities of Contract Items and percentages of work items in the schedule of values completed during each working day.

Petroleum. Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste.

Plans. Drawings.

Profile Grade. The trace of a vertical plane intercepting the top surface of the original or proposed surface grade usually along the centerline of the roadbed, pipeline or channel.

Progress Schedule. A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Time.

Project. The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

Project Engineer. An authorized representative of the Engineer who is in charge of the project.

Proposal. The written offer of the Bidder to perform the contemplated Work and furnish the necessary materials, when made out and submitted on the prescribed Bid Forms, properly signed and guaranteed.

Proposal Guaranty. Certified check, cashier's check, money order, or Bidder's surety bond executed by a bona fide surety company, accompanying the Bid as a guaranty that the Bidder, if awarded the Contract, will enter into a Contract with the City for the performance of the Work.

Qualified Products List. Lists maintained by the Department's materials and testing section for products which do not lend themselves to the preparation of meaningful specifications, or for which repetitive full testing is too time consuming or expensive to be practical for routine project control.

Quality Control/Quality Assurance (QC/QA). The program used jointly by the Contractor and the Department to monitor Material Selections and production and Project construction to ensure that the product continuously and uniformly conforms to the Plans and

Specifications. Quality Assurance is the process used by the Department to inspect, sample and test, and accept the Contractor's work.

Radioactive Material. Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

Reference Specifications. Bulletins, standards, rules, methods of analysis or test, codes and specifications of other agencies, engineering societies, or industrial associations referred to in those specifications. All such references specified herein, refer to the latest edition thereof, unless otherwise specified, including any amendments thereto which are in effect and published at the time of advertising for bids.

Resident Project Representative. The authorized representative of Engineer who may be assigned to the Site or any part thereof.

Louisiana R.S. Louisiana Revised Statutes

Roadbed. The graded portion of a street or highway within top and side slopes, prepared as a foundation for pavement structure and shoulders.

Roadside. A general term denoting the area adjoining the outer edge of the Roadbed within the right of way. Extensive areas between the Roadways of a divided street or highway may also be considered roadside.

Roadway. That portion of the right of way included between the outside lines or slopes, gutters, or side ditches, including also the appurtenant structures, and all slopes, ditches, channels, waterways, etc., necessary to proper drainage and protection.

Samples. Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which established that standards by which such portion of the Work will be judged.

Schedule of Submittals. A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

Schedule of Values. A schedule, prepared and maintained by Contractor, allocating portions of the Contract Amount to various portions of the Work and used as the basis for reviewing Contractor's Pay Estimate.

Sewer. Any conduit intended for the reception and carrying of domestic sewage and industrial waste.

Shop Drawings. All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

Site. Lands or areas indicated in the Contract Documents as being furnished by City upon which the Work is to be performed, including right-of-way and servitudes for access thereto, and such other lands furnished by City which are designated for the use of Contractor.

Special Provisions. Specific clauses setting forth conditions or requirements peculiar to the Work, and that modify or supplement the standard and reference specifications.

Specialty Item. An item indicated in the Contract Documents which is not normally associated with the primary type of construction included in the Contract Documents and

requires highly specialized knowledge, abilities or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the Contract.

Technical Specifications. That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

Specifications. This term includes the standard specifications and specifications included herein by reference.

Standard Plans. A set of details developed by the City as a guide to fabricating or constructing various structures.

Standard Drawings. Drawings of structures or devices referred to on the Plans or in Specifications by title and/or an index number.

Standard Work Week. The standard work week for contract time on a calendar day basis is Monday through Friday, excluding Holidays, and the standard working hours are between 7:00 am and 4:30 pm. The standard work week for contract time on a working day basis is Monday through Friday, excluding Holidays, and the standard working hours are between 7:30 am and 4:30 pm.

State. The State of Louisiana.

Stockpiled Materials. Materials used for constructing City projects that are located on or near the Project Site or other approved location.

Storm Drain. Any conduit intended for the reception and carrying of storm water and surface water, street wash and other wash waters, or drainage, but excludes sewage and industrial waste; also called "storm sewer". Also may include open channel type of storm drain.

Street. Any road, highway, parkway, freeway, alley, walk, or way, including all area within the right-of-way.

Structures. Bridges, culverts, catch basins, junction boxes, retaining walls, cribbing, manholes, endwalls, buildings, sewers, water mains, service pipes, underdrains, foundation drains and other similar features encountered in the Work.

Subcontractor. Any individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site. Any individual, partnership, corporation, limited liability company, or any other legal entity shall not be considered to be a subcontractor if it is a subsidiary which is wholly owned or majority owned by the Contractor, or an affiliate of the Contractor or affiliated or otherwise controlled by the Contractor or the principals of the Contractor such that a true and independent subcontractor-contractor relationship reached by bidding or arms-length negotiation does not result therefrom.

Subgrade. The top surface of a Roadbed upon which the pavement Structure and shoulders are constructed.

Substantial Completion. When Work (or a specified part thereof) has progressed to the point where, in the opinion of the City as evidenced by the City's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

Substructure. The portion of the Structure below the bearings of simple and continuous spans,

skew backs or arches and tops of footings of rigid frames, including back walls, and wing walls.

Successful Bidder. The Bidder submitting a responsive and responsible Bid to whom City makes an award.

Superintendent. The agent of the Contractor on the Work at all times, with capability and authority as required by the Contract Documents.

Supplier. A manufacturer, fabricator, supplier, distributor, material man, or vendor having direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

Surety. The bondsman, party or parties who may guarantee the fulfillment of the Contract by bond.

Underground Facilities. All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other controls systems.

Unit Price Work. Work to be paid for on the basis of unit prices.

Utility. Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, owned, operated, or maintained in or across a public right-of-way or private easement. The word "utility" used herein, shall mean either the owner of the utility or the utility itself, whichever is applicable.

Work. The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

Working Day. A calendar day during which construction operations could proceed for a major part of a shift, normally excluding Saturday, Sunday and City observed Holidays.

Work Change Directive. A Change Order authorizing an addition, deletion, or revision of the Work, but not an adjustment in Contract Amount or Contract Time. A Work Change Directive is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequent Change Order following negotiations by the parties as to its effect, if any, on the Contract Amount or Contract Time.

100.3 TERMINOLOGY.

The words and terms discussed herein are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

- a. **Intent of Certain Terms or Adjectives:** The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating

otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to any provision of the Contract Documents.

- b. **Day:** The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- c. **Defective:** The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents; or
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by City at Substantial Completion).
- d. **Furnish, Install, Perform, Provide:**
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- e. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

100.4 ABBREVIATIONS.

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ABS	Acrylonitrile - butadiene - styrene
ACI	American Concrete Institute
AGC	Associated General Contractors of America
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society

AWWA	American Water Works Association
C	Degree on Celsius temperature scale
CC	Center to Center
CF	Cubic Foot
CM	Centimeter
CMP	Corrugated Metal Pipe
COE	Corps of Engineers
CRSI	Concrete Reinforcing Steel Institute
Cu.	Cubic
CWT	Hundred Weight
Deg	Degree or degrees
DEQ	Louisiana Department of Environmental Quality
Dia	Diameter
DOS	Department of Operational Services
DOTD	Louisiana Department of Transportation and Development, Office of Highway
E	East
EPA	Environmental Protection Agency
F	Degree on Fahrenheit Temperature Scale
FAA	Federal Aviation Association
Fed. Spec.	Federal Specification
Ft.	Foot or feet
Ga.	Gallon
Galv	Galvanized
ICC	Interstate Commerce Commission
IMSA	International Municipal Signal Association
IPCEA	International Power Cable Engineers Association
ITE	Institute of Traffic Engineers
Kg.	Kilogram
L	Liter
L.S.	Lump Sum
T	Thousand
Max.	Maximum
Min.	Minimum
ml.	Milliliter
mm	Millimeter
MUTCD	Manual of Uniform Traffic Control Devices
N	North or Newton
NA	Not Applicable
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
OD	Outside diameter
OSHA	Occupational Safety and Health Administration
Pa	Pascal
psi	Pounds per square inch
PVC	Polyvinyl chloride
RCP	Reinforced Concrete Pipe
RMA	Rubber Manufacturers Association
S	South
SDR	Standard thermoplastic pipe dimension ratio (ratio of pipe O.D. to minimum wall thickness)
Sq.	Square
SSPC	Steel Structures Painting Council
T	Ton
UL	Underwriters Laboratories, Inc.

3/18/2020

USDA	United States Department of
Agriculture W	West
XCU	Explosion, collapse, underground obstacles
Yd.	Yard(s)

END OF SECTION 100

SECTION 101

BIDDING REQUIREMENTS

101.1 **SITE CONDITIONS.** Logs of test holes, ground water levels, and any accompanying soil, geological, or seismic reports as furnished by the Engineer are furnished for general information only. The field conditions so set forth shall not constitute a representation or warranty, expressed, or implied that such conditions exist. Bidders shall make their own investigations and form their own estimates of the site conditions, both above and below ground.

101.2 **QUANTITIES AND UNIT PRICES.** The quantities for which unit prices are indicated in the proposal do not constitute a warranty nor guarantee by the Engineer that the quantities so indicated are the actual quantities required for the work under the contract. The Engineer reserves the right to increase or decrease the quantities of work and materials under unit price pay items as outlined in Section 105 hereof, provided that said increase or decrease does not materially change the intent of the basic contract.

101.2.1 **Approximate Quantities.** The quantities appearing in the bid schedule are approximate only and will be used for the purpose of comparison of bids and the summation of the prices bid will determine the required amount of the proposal guaranty and the contract bond.

101.2.2 **Changes in Estimated Quantities.** Scheduled quantities of work to be done and materials to be furnished may each be increased, diminished, or omitted as herein provided, without in any way invalidating the prices bid.

101.2.3 **Actual Quantities.** Payment to the Contractor will be made only for the actual quantities of work performed and accepted, or materials furnished in accordance with the contract.

101.2.4 **Unit Prices or Lump Sum Pay Items.** Work will be paid for in accordance with the unit prices or lump sum pay items appearing in the proposal and contract. In the event no unit price nor lump sum pay item is provided for any specific item or work, material or equipment required under the contract, it will be considered as having been included by the Contractor in the prices bid for the pay items appearing in the proposal and contract. Unit Prices or Lump Sum Prices shall include all costs for labor, material, supplies, transportation, appurtenances, incidentals and equipment whether owned, leased or rented that is required to complete the work in accordance with the Contract Documents.

Estimated quantities, if listed on drawings for any structure or item of work, are for the convenience of the Contractor. Such estimated quantities shall not be construed as pay items and the Engineer assumes no responsibility for their accuracy.

101.2.5 **Special Limitations.** Bid prices submitted will be limited to one hundredth of a cent or more. If prices are submitted, carried to amounts less than one hundredth of a cent, the amount will be truncated and only that portion of the amount one hundredth of a cent or greater will be used. Quantities will be measured only to the nearest one hundredth of a unit. Extension amount calculations will be rounded off to the wholecent.

101.3 **MATERIAL GUARANTY.** The successful bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the construction of the work together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and fitness for the work.

END OF SECTION 101

SECTION 102

AWARD AND EXECUTION OF CONTRACT

102.1 CONSIDERATION OF PROPOSALS. After the Bids are opened and read, they will be compared on the basis of the sum of the base bid and any alternates accepted. The results of such comparisons will be available to the public.

The right is reserved to reject any or all Bids, or to advertise for new Bids if, in the judgment of the awarding authority, the best interests of the City will be promoted thereby.

102.2 AWARD OF CONTRACT. The award of a contract, if it will be awarded, will be made within 45 calendar days after the opening of Bids to the lowest responsible and responsive Bidder. The Successful Bidder will be notified of the Intent to Award.

102.2.1 Ordinance No. 114 or 1990. In accordance with this ordinance, the following applies:

1. On every contract to which the City is a party and for which written specifications are prepared, the specification shall include the requirement that before the contract is awarded, the Contractor shall pay all taxes, licenses, fees, and other charge which are outstanding and due to the City.
2. No contract to which the City is a party shall be awarded to any person who has not paid all taxes, licenses, fees and other charges which are outstanding and due the City.

102.2.2 Submittal of Additional Information. The apparent low Bidder shall submit additional information to the City within 10 days after the bid opening. This information shall include, but is not limited to, a complete list of proposed Subcontractors, with the dollar amount and percentage of labor to be performed by each Subcontractor. List shall include the dollar amount and percentage of labor to be performed by Contractor. Total of all percentages must equal 100 percent.

102.3 CANCELLATION OF AWARD. The City reserves the right to cancel the award of any contract at any time before the execution of said contract by all parties without any liability against the City.

102.4 RETURN OF PROPOSAL GUARANTY. All proposal guaranties of unsuccessful bidders will be returned to them within 15 days after the opening of the bids. The retained proposal guaranty of the successful bidder will be returned after a satisfactory bond has been furnished and the contract has been executed.

102.5 CONTRACT BOND. Prior to the execution of the contract, the Contractor shall file with the City, a surety bond, on a form provided or approved by the City, in the amount and for the purposes noted below, duly executed by a responsible corporate surety authorized to issue such bonds in the State of Louisiana. The Contractor shall pay all premiums and costs thereof and incidental thereto. The bond must be signed by both the Contractor and surety, and the bond shall be in the sum of not less than 100% of the contract price to assure the claims of material men supplying materials to him, and of mechanics and laborers employed by him on the work required under these specifications and to assure the faithful performance of the contract.

The bond shall be so conditioned as to assure the faithful performance by the Contractor of all work under said contract within the time limit prescribed in a manner that is satisfactory and acceptable to the City; that all materials and workmanship supplied by him will be free from original or developed defects; and that should original or developed defects or failures appear prior to the date of acceptance of the work by the City, the Contractor shall at his own expense make good such defects and failures and make

all replacements and adjustments required, within a reasonable time after being notified by the Department to do so, and to the approval of the City. This bond shall be maintained by the Contractor in full force and effect during the performance of the work of the Contractor, and until the date of acceptance of the work by the City, and until all claims for materials and labor are paid, subject to local ordinances and lien laws of the State of Louisiana.

Should any surety of sureties upon said bond or any of them become insufficient, the Contractor shall renew said bond with good and sufficient sureties within ten days after receiving notice from the City.

102.6 EXECUTION AND APPROVAL OF CONTRACT. The Contract shall be signed by the Successful Bidder and returned, together with the contract bond, within 15 days after the contract has been sent to the Successful Bidder. If the contract is not executed by the City within 60 days after Intent to, the Successful Bidder shall have the right to withdraw its bid without penalty. No contract shall be considered as effective until it has been fully executed by all of the parties thereto.

102.7 FAILURE TO EXECUTE CONTRACT. Failure to execute the contract and return acceptable bond within fifteen 15 days after the Contract has been sent to the Successful Bidder may be cause for cancellation of the Intent to Award and forfeiture of the proposal guaranty which shall become the property of the City, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible and responsive Bidder or the Project may be re-advertised and constructed under Contract, as the City may decide.

102.8 FAILURE TO ISSUE NOTICE TO PROCEED. Should the Notice to Proceed not be issued within 30 days after the execution of the Contract, the Contractor may at any time thereafter demand cancellation of the Contract prior to issuance of Notice to Proceed.

102.9 PRELIMINARY MATTERS.

102.9.1 Evidence of Insurance: Before any Work is started, Contractor shall deliver to the City, with copies to each additional insured identified in the Contract Documents, certifications of insurance (and other evidence of insurance which the City or any additional insured may reasonably request) which Contractor is required to purchase and maintain.

102.9.2 Commencement of Contract Time; Notice to Proceed: The Contract Time will commence to run on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after execution of the Contract. In no event will the Contract Time commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after execution of the Contract, whichever date is earlier.

102.9.3 Starting the Work: Contractor shall start to perform the Work on the date when the Contract Time commences to run.

102.9.4 Preliminary Schedules: Within 10 days after the Effective Date of the Contract (unless otherwise specified in the General Requirements), Contractor shall submit to City for timely review:

1. a Baseline Construction Schedule and Narrative Report as specified in Technical Specification Section 4310 Construction Scheduling;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes unit and lump sum items, quantities and prices of items which, when added together, equal the Contract Amount; and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

102.9.5 Preconstruction Conference: When scheduled by the City a conference attended by City, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the preliminary schedules, procedures for handling Shop Drawings and other submittals, processing Pay Estimates, and maintaining required records.

At this conference City and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

102.9.6 Initial Acceptance of Schedules: At least 10 days before submission of the first Pay Estimate a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Technical Specification Section 4310 Construction Scheduling and Technical Specification Section 4370 Schedule of Values. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Time. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Amount to component parts of the Work.

END OF SECTION 102

SECTION 103

SCOPE OF WORK

103.1 INTENT OF CONTRACT. The intent of the contract is to provide for performance and completion of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the Work in accordance with the plans, project specifications and terms of the contract. When an item in the contract contains a choice to be made by the Contractor, the Contractor shall indicate the choice to the Engineer in writing. When the project specifications reference or require the use of "manufacturer's recommendations or specifications," the Contractor shall provide the Engineer with a current copy of these recommendations or specifications.

103.2 ALTERATION OF THE CONTRACT. Without invalidating the Contract, City may, at any time or from time to time, order addition, deletion, or revision of Work by a Change Order or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided). Pay Items affected by such additions, deletions, or revisions shall be performed in accordance with the requirements of the Contract Documents, and payment will be made at the same unit prices as other parts of the Work, except as provided in Section 105.

When the City orders deletion of Work because of untimely or unsatisfactory performance by the Contractor, the City may perform the Work and back charge the actual cost of performing the Work. The Contractor shall cooperate with the City or its contractors during performance of the Work.

City may order addition, deletion, or revision of Work and authorize adjustments to the Contract Amount and/or Contract Time in a formal Change Order. Engineer may order addition, deletion, or revision of Work, but may not authorize adjustments to the Contract Amount or Contract Time, in a Work Change Directive. A Work Change Directive is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequent Change Order following negotiations by the parties as to its effect, if any, on the Contract Amount or Contract Time.

Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract or the Contract Time and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer may order changes in details, including changes in materials, processes, and sequences.

These minor variations and changes in details may be accomplished by a Field Order and will be binding on City and also on Contractor, who shall perform the Work involved promptly. If City or Contractor believes that a Field Order justifies an adjustment in the Contract Amount or Contract Time, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Section 105.

The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

- a. Field Order
- b. Engineer's approval of a Shop Drawing or Sample (subject to provisions of Section 104)
- c. Engineer's written interpretation or clarification

Alterations to the contract as provided for by this section shall not invalidate the contract nor release the surety, and the Contractor agrees to accept the Work as altered, as if it had been part of the original contract. The Contractor shall notify the surety of any alterations to the contract. Alterations of the

contract shall not involve work beyond the termini of the proposed work except as necessary to satisfactorily complete the project. Approval of all plan changes is subject to the approval and concurrence from the appropriate funding source. No plan change will be assumed to be approved until the signed and approved plan change is returned to the originator.

103.3 MAINTENANCE OF TRAFFIC. Contractor shall furnish, erect, and maintain traffic control in accordance with the plans and MUTCD. This includes furnishing, erecting, and maintaining barricades, warning signs and delineators, and providing flaggers, pilot cars and other traffic control. The Contractor shall keep the portion of the project being used by public traffic, whether through or local traffic, in such condition that traffic (including mail delivery) will be adequately accommodated. The Contractor shall also provide and maintain in a safe condition all temporary approaches or crossings, intersections with roads, streets, businesses, parking lots, residences, garages and farms. Traffic control will be paid for at the unit price and lump sum items included in the contract. Payment will include all labor, materials, equipment, supplies, and incidentals required to complete the work per Section 1306. If no pay items for traffic control exist, costs for traffic control will be included in other unit and lump sum pay items.

103.4 FINAL CLEANING UP. Before final completion, the right-of-way, borrow and local material sources, and areas occupied by the Contractor in connection with the work shall be cleaned of rubbish, excess materials, temporary structures, haul roads and equipment. All parts of the work, including property adjacent to the right-of-way, which have been damaged or rendered unsightly during the work shall be left in satisfactory condition and when required, the right-of-way shall be mowed in accordance with City maintenance standards, all at no direct pay.

103.5 GUARANTEES. The Contractor guarantees, by signing the contract, mechanical and electrical equipment, apparatus, materials and workmanship provided under the contract for a period of two years after substantial completion on projects not involving federal funds and six months after final completion on 28 Federal-Aid Projects. Instruction sheets that are required to be furnished by the manufacturer for materials, supplies, and operation shall be delivered by the Contractor to the Engineer prior to final completion of the project, with the following written warranties and guarantees:

1. The manufacturer's standard warranty for each piece of mechanical and electrical equipment or apparatus furnished under the contract.
2. The Contractor's guarantee that, during the guarantee period, necessary repair or replacement of the warranted equipment or apparatus will be made by the Contractor at no direct pay.
3. The Contractor's guarantee for satisfactory operation of the mechanical and electrical systems furnished and constructed under the contract for the guarantee period.
4. The Contractor's guarantee per Specification Section 4700.

103.6 DIFFERING SITE CONDITIONS, SUSPENSIONS OF WORK, AND SIGNIFICANT CHANGES IN THE CHARACTER OF THE WORK.

A. Differing Site Conditions:

1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

2. Upon written notification, the Engineer will investigate the conditions and if he determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The Engineer will notify the Contractor of his determination whether or not an adjustment of the contract is warranted.
3. No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.
4. The presence of ground water does not constitute differing site conditions. The Contractor should expect to encounter ground water during normal excavation operations.

B. Suspensions of Work Ordered by the Engineer.

1. If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary or inherent to the construction industry) and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
2. Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The Engineer will notify the Contractor of his determination whether or not an adjustment of the contract is warranted.
3. No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.
4. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract.

C. Significant Changes in the Character of Work.

1. The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered.
2. If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

- a. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or;
- b. When a major item of work, as defined elsewhere in the contract, is increased, or decreased, in excess of 25 percent of the contract quantity as awarded. Any adjustment in unit price will be made on only that portion of the major item exceeding the 25 percent increase, or, in the case of a decrease of the item by 25 percent or more, the remaining portion will be adjusted.
- c. Where conflicts exist between these requirements and other sections of the specifications, these requirements will govern.

103.7 Reports. The following reports of explorations and tests of subsurface conditions at or adjacent to the site are available to the contractor for review.

Contractor may utilize the technical data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor, but such reports are not Contract Documents. Contractor may not make any claim against the City or the Engineer with respect to:

- a. The completeness of such reports for the Contractor's purposes, including but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor, and safety precautions and programs incident thereto; or
- b. Other data, interpretations, opinions, and information contained in such reports; or
- c. Any Contractor interpretation of or conclusion drawing from any technical data or any such other data, interpretations, opinions, or information.

END OF SECTION 103

SECTION 104

CONTROL OF WORK

104.1 AUTHORITY OF THE ENGINEER. The Engineer will decide the following: all questions which arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions which arise as to the interpretation of the plans and specifications; and all questions as to the acceptable fulfillment of the contract on the part of the Contractor. The Engineer will have the authority to suspend the work wholly or in part due to failure to carry out provisions of the contract; failure to carry out orders; for such periods as deemed necessary due to unsuitable weather; for conditions considered unsuitable for the prosecution of the work or for any other condition or reason deemed to be in the public interest.

All orders to suspend the work shall be in writing and shall include the specific reasons for the suspension. The order to resume work shall also be in writing

Engineer will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws or Regulations applicable to the furnishing or performance of the Work. Engineer will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the contract documents.

104.2 PLANS AND SPECIFICATIONS.

104.2.1 General. The Contractor will be supplied without charge five (5) sets of contract documents. The Contractor shall keep at the work site a copy of the plans and specifications and shop drawings to which the Engineer shall have access at all times.

If the Engineer finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications but that reasonably acceptable work has been produced, he shall make a determination if the work will be accepted and remain in place. In this event, the Engineer will document the basis of acceptance by contract modification which will provide for an appropriate adjustment in the contract price for such work or materials as the Engineer deems necessary.

If the Engineer finds the materials furnished, work performed, or the finished product is not in reasonably close conformity with the plans and specifications and has resulted in an inferior or unsatisfactory product, the work or materials shall be removed and replaced or otherwise corrected by, and at the expense of, the Contractor.

While it is believed that much of the information pertaining to conditions which may affect the cost of the proposed work will be shown on the plans or indicated in the specifications, the City does not warrant the completeness or accuracy of such information. It is the Contractor's responsibility to ascertain the existence of any conditions affecting the cost of the work which would have been disclosed by reasonable examination of the site.

Existing improvements visible at the job site, for which no specific disposition is made on the plans, but which could reasonably be assumed to interfere with the satisfactory completion of the improvements contemplated by the plans, shall be removed and disposed of by the Contractor upon written approval of the Engineer.

Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer

before proceeding with any Work affected thereby.

If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Section 105.

Contractor shall not be liable to City for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

104.2.2 Resolving Discrepancies.

Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

- a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

Any conflict, error, ambiguity, or discrepancy within the Contract Documents shall be resolved with the following order of precedence, with the first document having the highest order. The document higher in order of precedence shall govern.

1. Change Orders
2. Work Change Directives
3. Field Orders
4. Technical Specifications
5. Drawings
6. Special Provisions
7. General Requirements
8. Standard Specifications
9. Reference Specifications

104.2.3 Shop Drawings and Samples.

Contractor shall submit Shop Drawings and Samples to Engineer for review and acceptance in accordance with the accepted Schedule of Submittals. Each submittal will be identified as specified in the General Requirements. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and acceptance of the pertinent submittal will be at the sole expense and responsibility of Contractor.

104.2.3.1 Shop Drawings.

- a. Submit electronic copy as specified in Technical Specification Section 4300 Submittals.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions,

specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the purposes as intended in the Contract Documents.

104.2.3.2 Samples.

- a. Submit number of Samples specified in Technical Specification Section 4300 Submittals or as required by the engineer.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which it is intended and other data as Engineer may require to enable Engineer to review the submittal for the purposes as intended in the Contract Documents.

104.2.3.3 Submittal Requirements.

Before submitting each Shop Drawing or Sample, Contractor shall have:

- a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
- b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
- d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

Each submittal shall bear a stamp or specific written certification and comply with Technical Specification Section 4300 Submittals.

With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

104.2.3.4 Engineer's Review.

Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of

Subsection 104.2.3.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the Submittal Procedures.

104.2.3.5 Resubmittal Procedures.

Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

104.3 COOPERATION BY CONTRACTOR. The Contractor shall give the work the constant attention necessary to facilitate the progress thereof, and shall cooperate with the Engineer, his inspectors and other Contractors to successfully complete the Work.

The Contractor shall have on the work at all times, as his agent, a competent superintendent capable of reading and understanding the plans and specifications and experienced in the type of work being performed, who shall receive instructions from the Engineer or his authorized representatives. The superintendent shall have authority to execute orders or directions of the Engineer without delay and to promptly supply such materials, equipment, tools, labor and incidentals as required. Such superintendence shall be furnished regardless of the amount of work sublet. The Superintendent shall furnish telephone contact information and be available by telephone 24 hours each day for response to the City Engineer in emergency situations within a two (2) hour time frame. Failure to respond to an emergency situation within a reasonable time will result in the City correcting the situation and withholding the cost of equipment, material and labor required to remedy the emergency situation from the Contractor's monthly payment.

The Contractor shall certify to the Engineer, by written notice, the names of persons authorized to sign for the company in all matters pertaining to the changing of plans, force account or extra work, contract time charges and other fiscal documents. No work shall commence on the project until the Contractor has complied with this requirement. Such written notice shall also be furnished whenever a person so designated is removed and replaced on the project. Work shall not proceed until the name and information of the person replacing the person removed or replaced has been submitted, by written notice, to the Engineer.

104.4 COOPERATION BETWEEN CONTRACTORS. The City reserves the right at any time to contract for and perform additional work on or near the work covered by the contract. When separate contracts are let within the limits of one project or multiple projects whose limits overlap, each Contractor shall conduct his work so as not to hinder the progress of the work being performed by other Contractors. Contractors working on the same project shall cooperate and coordinate with each other.

Each Contractor shall assume all liability, financial or otherwise, in connection with his contract and shall indemnify the City from all damages or claims that may arise because of inconvenience, delay or loss experienced by him because of the presence and operations of other Contractors working within the limits of the same project or multiple projects whose limits overlap. The Contractor shall arrange his work and shall place and dispose of the materials being used so as not to interfere with the operations of the other Contractors within the limits of the same project or multiple projects whose limits overlap. He shall join his work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

104.5 CONSTRUCTION LAYOUT.

104.5.1 General. Contractor shall provide field engineering services as specified in Technical Specification Section 4050 Survey Controls.

104.5.2 Reference Points. City shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior

written approval of City. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

104.5.3 Highways and Bridges. The provisions of this subsection are in addition to those specified in the General Requirements and apply to Work for roadway and bridge construction. Contractor shall employ sufficient qualified surveying or engineering personnel experienced in layout and construction of highways and bridges to correctly establish and keep complete and comprehensive notebook records of all lines and grades necessary from initial layout to final acceptance. The Contractor will be liable for the accuracy of the initial layout and all subsequent alignment and elevations and shall, at his own expense, rebuild, repair or make good any portion of the Work found to be incorrectly positioned either horizontally or vertically at any time before final acceptance. The Contractor shall compute and provide template grades to the Engineer as soon as possible in order to obtain pipe lengths in an orderly manner. This Work shall include, but is not limited to, staking for the relocation of utilities, all staking for the complete construction of the Project and any miscellaneous information required by the project Engineer. Numbered notebooks or electronic submittals of survey data in a format acceptable to the City for recording of all lines and grades will be provided by the City and shall be properly indexed and cross referenced by the Contractor before return to the Engineer for submittal with the final estimate.

104.6 DUTIES OF THE INSPECTOR. Inspectors employed by the City will be authorized to inspect all work done and materials furnished. Such inspection may extend to all or any part of the work and to the preparation, fabrication or manufacture of the materials to be used. The inspector will not be authorized to alter or waive the provisions of the contract. The inspector will not be authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor; however, the inspector shall have the authority to reject work or materials until any question at issue can be referred to and decided by the Engineer.

104.7 INSPECTION OF WORK. All material and each part or detail of the work shall be subject to inspection by the Engineer. The Engineer shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection. If the Engineer requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; however, should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed, will be at the Contractor's expense. Any work done or materials used without supervision or inspection by an authorized City representative may be ordered removed and replaced at the Contractor's expense.

When any unit of government or political subdivision or any railroad corporation is to pay a portion of the cost of the work covered by the contract, its respective representatives shall have the right to inspect the work. Such inspection shall in no sense make any unit of government or political subdivision or any railroad corporation a party to the contract and shall in no way interfere with the rights of either party thereunder. The City is responsible for the agreement fees associated with said unit of government or railroad corporation.

104.8 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK. All work which does not conform to the requirements of the contract will be considered as unacceptable, unless otherwise determined acceptable under the provisions in Subsection 104.2. Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness or any other cause, found to exist prior to substantial completion of the work shall be removed and replaced in an acceptable manner.

No work shall be done without lines and grades having been given by the Engineer. Work done contrary to the Contract Documents, work done beyond the lines shown on the plans, or as given except as herein specified or any extra work done without authority will be considered as unauthorized and will not be paid

for under the provisions of the contract. Work so done may be ordered removed and/or replaced at the Contractor's expense.

Upon failure of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this Subsection, the Engineer will have authority to cause unacceptable work to be remedied or removed and replaced and unauthorized work to be removed and to deduct the costs from payments due or to become due the Contractor.

104.9 LOAD RESTRICTIONS. The Contractor and his subcontractors and suppliers shall comply with all legal load restrictions in the hauling of materials or equipment and on completed bridge structures, bases and pavements within the limits of the project. A permit or special permit will not relieve the Contractor of liability for damage resulting from moving of material or equipment. In no case shall the legal load limits be exceeded unless permitted in writing by the recognized legal authority having jurisdiction over the completed bridge structures, bases and pavements.

The operation of equipment on the project of such weight or height or so loaded as to cause damage or overstress to structures or the roadway or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. The Contractor shall be responsible for all damage done by his hauling equipment.

104.10 MAINTENANCE DURING CONSTRUCTION. The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted daily with adequate equipment and forces to keep the roadway or structures in satisfactory condition at all times. In the case of a contract for the placing of a course on a previously constructed course or subgrade, the Contractor shall maintain the previous course or subgrade during all construction operations.

104.11 FAILURE TO MAINTAIN ROADWAY OR STRUCTURE. If the Contractor fails to comply with Subsection 104.10, the Engineer will immediately notify the Contractor in writing of such noncompliance. If the Contractor fails to remedy the condition within 24 hours after receipt of the written notice, the Engineer may immediately remedy the condition, and the cost thereof will be deducted from payments for the work. When the condition requires more immediate remedy due to hazard to life, health and property, the Engineer may immediately remedy the condition and the costs thereof will be deducted from payments for the work.

Except as provided elsewhere in these specifications, all cost of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various pay items and the Contractor will not be paid an additional amount for such work.

104.12 PROJECT MEETING. Contractor shall arrange for all appropriate representatives of Contractor, Subcontractors, and Suppliers to prepare for and attend meetings specified in Technical Specification Section 4200 Project Meetings. Contractor shall provide documents and information as appropriate to the agenda.

END OF SECTION 104

SECTION 105

CHANGES IN WORK

105.1 CHANGES REQUESTED BY THE CONTRACTOR.

105.1.1 General. Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer.

Changes in the plans and specifications, requested in writing by the Contractor, which do not materially affect the work and which are not detrimental to the work or to the interests of the City, may be granted by the Department to facilitate the work, when approved in writing by the Engineer.

105.1.2 Change Requested by the Contractor. If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the City. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

105.2 CHANGES INITIATED BY THE CITY.

105.2.1 General. The City may change the plans, specifications, character of the work, or quantity of work provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the total contract price. Should it become necessary to exceed this limitation, the change shall be by written supplemental agreement between the Contractor and the City.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating acceptance.

105.2.2 Payment for Changes Initiated by the City

105.2.2.1 Contract Unit Prices. If a change is ordered in an item of work covered by a contract unit price, and such change does not involve a substantial change in the character of the work from that shown on the plans or included in the specifications, an adjustment in payment will be made based upon the increase or decrease in quantity and the contract unit price. In the case of such an increase or decrease in a major bid item, the use of this basis for the adjustment of payment will be limited to that portion of the change which, together with all previous changes to that item, is not in excess of 25 percent of the total cost of such item based on the original quantity and contract unit price.

If a change is ordered in an item of work covered by a contract unit price and such change does involve a substantial change in the character of the work from that shown on the plans or included in the specifications, an adjustment in payment will be made in accordance with Subsection 105.2.2.3.

Should any contract item be deleted in its entirety, payment will be made only for actual costs incurred prior to notification of such deletion.

105.2.2.2 Stipulated Unit Prices. Stipulated unit prices are those established by the City in the contract documents, as distinguished from contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of contract changes.

105.2.2.3 Agreed Prices. Adjustments in payments for changes other than those set forth in Subsection 105.2.2.1 and 105.2.2.2 will be determined by agreement between the Contractor and the City. If unable to reach an agreement, the City may direct the Contractor to proceed on the basis of Extra Work in accordance with Subsection 105.3.

105.3 EXTRA WORK.

105.3.1 General. New or unforeseen work will be classed as "extra work" when the Engineer determines that it is not covered by contract unit prices or stipulated unit prices.

105.3.2 Payment.

105.3.2.1 General. When the price for the extra work cannot be agreed upon, the City will pay for the extra work based on the accumulation of costs as provided in Subsection 105.4.

105.3.2.2 Daily Reports by Contractor.

- a. **General.** At the close of each working day, the Contractor shall submit a daily report to the Engineer, on forms approved by the City, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized. An attempt shall be made to reconcile the report daily, and it shall be signed by the Engineer and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through the prime Contractor.
- b. **Labor.** The report shall show names of workers, classification, and hours worked.
- c. **Material.** The report shall describe and list quantities of materials used.
- d. **Equipment.** The report shall show type of equipment, size, identification number, and hours of operation including loading and transportation, if applicable.
- e. **Other Services and Expenditures.** Other services and expenditures shall be described in such detail as the City may require.

105.3.2.3 Basis for Establishing Costs.

- a. **Labor.** The costs of labor will be the actual cost for wages prevailing locally for each craft or type of workers at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.
- b. **Materials.** The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the job site in the quantities involved plus sales tax, freight and delivery.

The City reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the work. No markup shall be applied to any material provided by the City.

- c. **Tool and Equipment Rental.** No payment will be made for the use of tools which no specific allowance is herein provided.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors at the time the work is performed. The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the extra work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the City than holding it at the work site, it shall be returned, unless the Contractor elects to keep it at the work site at no expense to the City.

- d. Invoices. Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the City may establish the cost of the item invoiced at the lowest price which was current at the time of the report.

105.3.2.3 Markup.

- a. Work by Prime Contractor. The following percentage shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits.

Labor	20
Materials	15
*Equipment Rental	15
Other Items and Expenditures	15

****Rental rates must be agreed on prior to any work.***

To the sum of the costs and markups provided for in this Subsection, 6 percent shall be added as compensation for bond and liability insurance and tax. No allowance for general superintendents and small tools shall be made.

- b. Work by Subcontractor. When all or any part of the extra work is performed by any of the Contractor's subcontractors, the markups established in paragraph (a) above shall be applied to the subcontractor's actual cost of such work, to which a markup of 10 percent on less than \$50,000 and 5 percent on more than \$50,000 on the subcontracted portion of the extra work may be added by the prime Contractor.

When the labor markup percentage of "burden", which is submitted on change orders, exceeds 35% (thirty-five percent), the Contractor is required to document in full as to the actual cost of the burden.

105.4 CHANGED CONDITIONS. Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, immediately upon their discovery and before they are disturbed:

- a. Subsurface or latent physical conditions differing materially from those represented in the contract; and
- b. Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character being performed.

The Engineer will promptly investigate conditions when notified or any conditions discovered by him/her which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the work, a

change order will be issued adjusting the compensation for such portion of the work in accordance with Subsection 105.2.2. If the Engineer determines that conditions of which he/she has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so advised in writing. Should the Contractor disagree with such determination, he may submit a notice of potential claim to the Engineer, as provided in Subsection 105.5.

If the Engineer determines that the conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, may be granted an extension of time subject to the provisions of Subsection 110.7.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

105.5 DISPUTE RESOLUTION. If unable to reach an agreement on changes in Work, the City may direct the Contractor to proceed with the disputed Work. Direction to proceed with the disputed Work shall not to be construed as proceeding under extra work provisions, the Contractor shall keep and furnish records of disputed Work in accordance with Subsection 105.3.

All Claims shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by City or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer promptly (but in no event later than 15 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the claimant. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer by the Contractor within 30 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Amount or Contract Time shall be prepared in accordance with the provisions of Section 105.5. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part;
2. approve the Claim; or
3. notify that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied. Engineer's written action or denial pursuant to this subsection will be final and binding upon City and Contractor, unless within 30 days of such action or denial City or Contractor:

1. agrees to submit the Claim to another dispute resolution process; or
2. gives written notice of the intent to submit the Claim to a court of competent jurisdiction.

No Claim for an adjustment in Contract Amount or Contract Time will be valid if not submitted in accordance with this subsection.

105.6 VALUE ENGINEERING PROPOSALS. This provision is to share with the Contractor only the cost savings generated on this contract as a result of a Value Engineering (VE) Proposal(s) offered by the Contractor and approved by the City. Any time savings resulting from a VE Proposal will be considered at the completion of the project as an incentive to the Contractor, provided the contract contains an incentive clause for early completion of the work and the Contractor has not met the incentive limit in the contract. A time only reduction will not be considered as a VE Proposal. The purpose of the VE Proposal is to encourage the use of the Contractor's ingenuity and experience in arriving at alternative construction methods which will reduce the overall construction cost. After award of the contract, the successful bidder will be permitted to submit to the Engineer, written VE Proposals, for modifying the plans, specifications, or other requirements of the contract for the purpose of reducing the total cost of construction.

The VE Proposal shall not impair, in any manner, the essential functions and characteristics of the project, including but not limited to safety, service life, reliability, economy of operation, ease of maintenance, desired appearance, traffic flow during construction, or necessary standardized features. The VE Proposal shall be specifically identified by the Contractor as a cost reduction proposal. VE Proposals will be considered by the City in the same manner as plan changes.

The Contractor has the option of submitting a conceptual VE Proposal to the City for review prior to making formal submission. However, the Contractor may submit the formal VE Proposal directly. The conceptual VE Proposal shall provide the following minimum information:

1. A description of the proposal.
2. A listing of work items affected by the proposed change, including any change in contract time and/or traffic maintenance.
3. An initial estimate of the net cost savings which the change is expected to generate. The Contractor may proceed to the formal VE Proposal upon the City's approval of the conceptual VE Proposal. The City is not obligated to approve the Contractor's formal VE Proposal, even if the conceptual VE Proposal is initially considered acceptable. As a minimum, the following information shall be submitted by the Contractor with the formal VE Proposal:
 - a. A statement that the proposal is submitted as a VE Proposal.
 - b. A description of the difference between the existing contract requirements and the proposed change(s), and the comparative advantages and disadvantages of each, including effects on service life, economy of operations, ease of maintenance, desired appearance, necessary standardized features, reliability, traffic flow during construction, safety, and contract time.
 - c. Complete plans, specifications, and calculations showing proposed revisions relative to the original contract features and requirements. All plans and Engineering calculations shall bear the signature and seal of a professional Engineer licensed to practice in the State of Louisiana.
 - d. Detailed estimates of the cost to the City for performing the work under the existing contract and under the VE Proposal, including a listing of contract items affected by the proposal, and quantity variations attributable thereto with the related costs.
 - e. An assessment of any effects that adoption of the VE Proposal could have on other costs to the City, including future maintenance and operation.
 - f. A statement of the latest time or date that any agreement adopting the VE Proposal must be executed in order to obtain the maximum cost reduction during the

remainder of the contract and the reasoning for this time schedule. This date must allow the City time for review and processing of a plan change. Should the City find insufficient time is available for review and processing, it may reject the VE Proposal on such basis. If the City fails to respond to the VE Proposal by the date or time specified, the Contractor shall consider the proposal rejected and shall have no claim against the City.

- g. A statement of the effect that adoption of the VE Proposal will have on the time for completion of the contract.
- h. A description of any previous use or testing of the final VE Proposal on another City project or elsewhere and the conditions and results therewith. If the final VE Proposal was previously submitted on another City project, indicate the date, the project, and the action taken by the City.

The provisions of this Subsection shall not be construed to require the City to consider any VE Proposal which may be submitted. The City reserves the right to reject any and all VE Proposals. The bidders are cautioned not to base any bid prices on the anticipated approval of a VE Proposal and to recognize that the proposal may be rejected. In the event of rejection, the Contractor will be required to complete the contract at the contract bid prices. Proposed changes in basic configuration and design of a bridge, hydraulic capacity of drainage facilities, type or minimum thickness of pavements, or changes in grade or alignment which do not meet the geometric standards of the project as conceived, will not be considered as acceptable VE Proposals. If the City is already considering certain revisions to the contract or has approved certain changes in the contract for general use which are subsequently incorporated in a VE Proposal, the City will reject the Contractor's proposal and may proceed without obligation to the Contractor.

The City will not be liable to the Contractor for failure to act upon or accept any VE Proposal nor for any delays to the work attributable to any such proposal. The Contractor may withdraw, in whole or in part, any VE Proposal not accepted by the City within the period specified in the proposal. The decision of the City as to the acceptance or rejection of VE Proposals shall be final and shall not be subject to claim for additional compensation.

The Contractor will be notified in writing of the City's decision to accept or reject each VE Proposal submitted under these provisions. If a VE Proposal is accepted, the necessary contract modifications will be implemented by execution of a plan change, which will provide for equitable price adjustments giving the Contractor and the City equal shares in the resulting net savings. Until a VE Proposal is effected by such contract modification, the Contractor shall perform the work in accordance with the terms of the existing contract. The net cost savings to be shared shall be determined as the difference in costs between the original contract costs for the involved work items and the actual final costs to the City occurring as a result of the proposed change. Only those work items directly affected by the plan change will be considered in making the final determination of net cost savings.

Subsequent plan changes affecting the modified work items but not related to the VE Proposal, will be excluded from such determination. In reviewing the VE Proposal, the City reserves the right to reject the proposal if, in its judgment, the proposed net cost savings do not represent a reasonable measure of the value of the work to be performed or deleted. All costs incurred by the Contractor in developing the VE Proposal shall be borne by the Contractor. The plan change implementing the necessary contract modifications shall include a pay item for and a lump sum estimate of the approximate net cost savings anticipated as a result of the VE Proposal, and a proportionate amount thereof shall be included in partial payment estimates as the work on the modified contract items is performed. The Contractor's 50 percent share of the net cost savings shall constitute full compensation for implementing all changes pursuant to the agreement. Any time savings for early completion of the project resulting from the VE Proposal will be considered upon completion of the project as an incentive to the Contractor provided the contract contains an incentive clause for early completion of the work and the Contractor has not met the incentive limit in the contract.

The City reserves the right to include in the agreement any conditions it deems appropriate for consideration, approval, and implementation of the VE Proposal. The City also reserves the right to require the Contractor to share in the City's costs of investigating a VE Proposal submitted by the Contractor as a condition of considering such proposal. The City will have the option to perform the investigation in-house or by consultants. When such a condition is imposed, the Contractor shall indicate his acceptance in writing, and such acceptance shall constitute full authority for the City to deduct amounts payable to the City from any monies due or that may become due to the Contractor under the contract.

The City reserves the right to adopt a VE Proposal for general use when it determines that said proposal is suitable for application to other contracts. When an accepted VE Proposal is adopted for general use, only the Contractor who first submitted such proposal will be eligible for compensation pursuant to this Subsection, and in that case, only as to those contracts awarded to him prior to submission of the accepted proposal. VE Proposals identical or similar to previously submitted proposals will be eligible for consideration and compensation under these provisions if the identical or similar previously submitted proposals were not adopted for general application to other City contracts. Subject to the provisions contained herein, the State or any other public agency shall have the right to use all or any part of any submitted VE Proposal without obligation or compensation of any kind to the Contractor.

Any changed conditions arising as a result of the acceptance of a VE Proposal will not be considered as the basis for any claim for additional compensation.

END OF SECTION 105

SECTION 106

CONTROL OF MATERIALS

106.1 SOURCE OF SUPPLY AND QUALITY. The materials used on the work shall meet all quality requirements of the contract. In order to expedite the inspection and testing of materials, the Contractor shall notify the Engineer of the proposed sources of materials prior to delivery. At the option of the Engineer, materials may be approved at the source of supply before delivery is started. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources or make necessary changes to provide acceptable materials.

106.2 FURNISHING OF MATERIALS. The Contractor shall furnish all materials required to complete the work, except those specified to be furnished by the City.

Material furnished by the City will be delivered or made available to the Contractor at the points specified in the Special Provisions.

The cost of handling and placing all materials after they are delivered to the Contractor shall be considered as included in the contract price for the item in connection with which they are used.

The Contractor will be held responsible for all material delivered to the Contractor, and deductions will be made from any monies due the Contractor to make good any shortages and deficiencies, from any cause whatsoever, and for any damage which may occur after such delivery and for any demurrage charges.

106.3 SUBSTITUTES AND "OR-EQUIVALENTS".

Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a certain brand, make, or manufacturer, or by using a definite specification, these are used only to describe the general style, type, character, and quality of the product desired. The Contractor is not restricted to the specific brand, make, manufacturer, or specification named, and equivalent products may be acceptable. Unless the specification or description contains or is followed by words reading that "no like item, no equivalent item, no or-equal item, or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

106.3.1 "Or-Equivalent" Items. If in the sole discretion of Engineer an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equivalent" item, in which case review and approval of the proposed item may be accomplished without compliance with some or all of the requirements for approval of proposed substitute items in Section 106.3.2. For the purposes of this Subsection, a proposed item of material or equipment will be considered functionally equivalent to an item so named if:

- A. in the exercise of reasonable judgment Engineer determines that:
 1. it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 2. it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 3. it is equal in spare parts availability, ease of maintenance, and other considerations;

- B. Contractor certifies that, if approved and incorporated into the Work:
1. there will be no increase in cost to the City or increase in Contract Time; and
 2. it will conform substantially to the detailed requirements of the item named in the Contract Documents.
 3. it has a proven record of performance and availability of responsive service.

106.3.2 Substitute Items. If in the sole discretion of Engineer an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Subsection 106.3.1, it will be considered a proposed substitute item. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor. The requirements for review by Engineer will be as set forth in Subsection 106.3.1 as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1. shall certify that the proposed substitute item will:
 - a. perform adequately the functions and achieve the results called for by the general design,
 - b. be similar in substance to that specified, and
 - c. be suited to the same use as that specified;
2. will state:
 - a. the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion and Final Completion on time,
 - b. whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with City for other work on the Project) to adapt the design to the proposed substitute item, and
 - c. whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
3. will identify:
 - a. all variations of the proposed substitute item from that specified, and
 - b. available engineering, sales, maintenance, repair, and replacement services; and
4. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

106.3.3 Substitute Construction Methods or Procedures. If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of

construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute method or procedure proposed is an acceptable substitute to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Subsection 106.3.2.

106.3.4 Engineer's Evaluation. Engineer will be allowed fourteen (14) calendar days to evaluate each proposal or submittal made pursuant to Subsections 106.3.2 and 106.3.3. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

106.3.5 Special Guarantee. City may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

106.3.6 Engineer's Cost Reimbursement. Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Subsections 106.3.1, 106.3.2 and 106.3.3. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse City for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse City for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with City) resulting from the acceptance of each proposed substitute.

106.3.7 Contractor's Expense. Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

106.4 MATERIALS AND WORKMANSHIP. All materials, parts and equipment furnished by the Contractor shall be new, high grade, and free from defects and imperfections unless otherwise hereinafter specified or written approval is given under Article 106.5. Workmanship shall be in accord with the best standard practices. Both materials and workmanship shall be subject to the approval of the Engineer.

All materials and workmanship not conforming to the requirements of the Contract Documents shall be considered as defective and will be rejected. Defective material whether in place or not, shall be removed immediately from the site of the work by the Contractor at the Contractor's expense when so directed by the Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used until approval in writing has been given by the Engineer.

In the event any defect in material or workmanship is of a minor nature and the Engineer determines that it is not of such consequence as to result in a dangerous or undesirable condition, or that the removal of such work would create a dangerous or undesirable condition, the Engineer shall have the right to retain such work and make such deductions in the payment therefore as it determines reasonable and in the public interest. Such determination by the Engineer shall be final.

106.5 USE OF MATERIALS FOUND ON THE WORK. NOT APPLICABLE

106.6 TESTS OF MATERIALS. Except as may otherwise be provided in specific instances, all testing that may be required by the City to determine the quality, fitness and suitability of such materials shall be performed at the direction and upon the order of the Engineer, and at no expense to the Contractor, except as provided in Subsection 106.3. Where tests prove that such materials do not meet the specified requirements, and retests are required for this reason, the cost for such retests shall be borne by the Contractor. Samples of materials may be secured and tested whenever considered necessary by the Engineer. In certain cases where the Contractor is required to provide and bear the expense of such testing, the specifications or drawings will be definitely so stated.

The Contractor, at the Contractor's own expense, shall deliver the materials for testing at the time and to the place designated by the Engineer.

106.7 INSPECTION AT SOURCE. If the volume of work, construction progress, and other considerations warrant, the Engineer may undertake the inspection of material or plant equipment at the source, but it is understood that no obligation is assumed to inspect materials in this manner. Such inspection will be undertaken solely as a matter of convenience to the Contractor and producers. Further, the following conditions must be met:

1. The cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials or plant equipment is assured;
2. The representative of the Engineer shall have free entry at all times to such parts of the plant as may concern the manufacture or production of the materials or equipment ordered;
3. The cost of tests or inspections made at plants or sources located outside the territorial limits of Caddo Parish shall be borne by the Contractor or producer.

106.8 LIST OF MATERIALS AND EQUIPMENT. If required by the Engineer, within thirty days after signing the contract, the Contractor shall submit to the Engineer 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 promised delivery date on each item. Any subsequent changes in the list of equipment and materials, manufacturer's type, quantity or delivery dates shall be promptly brought to the attention of the Engineer. Shipping notices shall be furnished to the Engineer in adequate time prior to delivery so that provisions for inspection on receipt can be made.

106.9 STORAGE OF MATERIALS. All materials shall be stored and protected as specified in Technical Specification Section 4600 Delivery, Storage, and Handling. Materials shall be so stored as to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the Work. Stored materials shall be located so as to facilitate their prompt inspection. Approved portions of the Site may be used for storage purposes and for the placing of the Contractor's plant and equipment, but any additional space required therefore must be provided by the Contractor at no additional cost to the City. Private property shall not be used for storage purposes without written permission of the owner and lessee., copies of such written permission shall be furnished to the Engineer. All storage sites shall be restored to their original condition or to the satisfaction of the property owner or lessee by the Contractor at no additional cost to the City. This shall not apply to the stripping and storing of topsoil or to other material salvaged from the work.

106.10 HANDLING MATERIALS. All materials shall be transported and handled as specified in Technical Specification Section 4600 Delivery, Storage, and Handling. All materials shall be handled in such a manner as to preserve their quality and fitness for the work. Aggregate materials shall be transported from the storage site to the work site in tight vehicles so constructed as to prevent loss or segregation of

materials after loading and measuring in order that there be no inconsistencies in the quantities of materials intended for incorporation in the Work as loaded and the quantities as actually received at the place of operations.

106.11 UNACCEPTABLE MATERIALS. All materials not conforming to the requirements of the Contract Documents shall be considered as unacceptable and all such materials will be rejected and shall be removed immediately from the site of the work unless otherwise instructed by the Engineer. No rejected material, the defects of which have been corrected, shall be used until approval has been given.

END OF SECTION 106

SECTION 107

GOVERNMENTAL REGULATIONS

107.1 GENERAL. It is the Contractor's responsibility to be fully apprised of all Federal, State and local laws, ordinances and regulations, and all orders and decrees of bodies of tribunals having any jurisdiction or authority, which affect those engaged or employed on the work or which affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, bylaws, ordinances, codes, regulations, orders and decrees. The Contractor shall indemnify the state and its representatives against any claim or liability arising from the violation of any such law, bylaw, ordinance code, regulation, order or decree, whether by the Contractor or the Contractor's employees.

107.1.1 Plant Quarantine Regulations. Soil and any soil-moving equipment operating in regulated areas will be subject to plant quarantine regulations. In general, these regulations provide for the cleaning of soil from equipment before it is moved from regulated areas to prevent the spread of harmful agricultural pests from areas quarantined by the State or U.S. Department of Agriculture. Complete information may be secured by contacting the appropriate district office of the USDA Plant Protection Division.

107.2 LAWS AND REGULATIONS. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, Engineer shall not be responsible for monitoring Contractor's compliance with any Laws or Regulations.

If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of their obligations regarding reporting and resolving discrepancies.

Changes in Laws or Regulations not known at the time of opening of Bids having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Time. If City and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Section 105, Changes in Work.

END OF SECTION 107

SECTION 108

CONTRACTOR'S RESPONSIBILITIES

108.1 PROJECT SITE MAINTENANCE.

108.1.1 Cleanup and Dust Control. Perform cleanup and dust control as specified in Technical Specification Section 4562 Dust Control and Technical Specification Section 4710 Cleaning.

108.1.2 Air Pollution Control. The Contractor shall not discharge smoke, dust, or any other air contaminants into the atmosphere in such quantity that will violate the regulations of any legally constituted authority.

108.2 TEMPORARY FACILITIES.

108.2.1 Temporary Light, Power, and Water. The Contractor shall at its own expense furnish, install, maintain, and remove all temporary light, power, and water, including piping, wiring, lamps, and other equipment, necessary for the work. The Contractor shall not draw water from any fire hydrant, except to extinguish a fire, without first obtaining permission from the water agency concerned.

108.2.2 Sanitation. The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the work. These accommodations shall be maintained in a neat and sanitary condition. They shall also comply with all applicable laws, ordinances, and regulations pertaining to the public health and sanitation of dwellings and camps.

Sewage flows shall not be interrupted. Should the Contractor disrupt existing sewer facilities, sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches or be covered by backfill.

108.2.3 Field Office. The Contractor shall provide and maintain field office(s) as specified in Technical Specification Section 4500, Temporary Facilities.

108.3 PUBLIC CONVENIENCE AND SAFETY

108.3.1 Traffic and Access. The Contractor shall be familiar with the Shreveport Ordinances concerning Traffic Control and the current MUTCD.

The Contractor's operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all times. Unless otherwise authorized, traffic shall be permitted to pass through the work, or an approved detour shall be provided.

The Contractor shall provide and maintain safe and adequate pedestrian and vehicular access to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, hospitals, and establishments of a similar nature. Access to these facilities shall be continuous and unobstructed unless otherwise approved by the Engineer. The Contractor shall also maintain safe and adequate pedestrian zones and public transportation stops, as well as pedestrian crossings of the work at intervals not exceeding 300 feet, unless otherwise approved by the Engineer.

The Contractor shall maintain vehicular access to residential driveways to the property line (or servitude line), except during active construction activities. Vehicular access shall be reinstated prior to the Contractor leaving the work site at the end of the day. If backfill has been completed to such extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access at no additional pay.

The Contractor shall cooperate with the various parties involved in the delivery of mail, water meter reading, and the collection and removal of trash and garbage to maintain existing schedules for these

services.

Grading operations, roadway excavation and fill construction shall be conducted by the Contractor in a manner to provide a reasonably satisfactory surface for traffic. When rough grading is completed, the roadbed surface shall be brought to a smooth, even condition that is satisfactory for traffic.

Unless otherwise authorized, work shall be performed in only one-half of the roadway at one time. One-half shall be kept open and unobstructed until the opposite side is ready for use. If only one-half of a street is being improved, the other half shall be conditioned and maintained as a detour.

The Contractor shall provide temporary fencing or reinstate existing fencing at the end of each work day.

The Contractor shall include in his bid all costs for the above requirements.

108.3.2 Storage of Equipment and Materials in Public Streets. Construction materials may not be stored in streets, roads, or highways for more than 5 days after unloading. All materials or equipment not installed or used in the construction within 5 days after unloading shall be stored elsewhere by the Contractor at its expense unless the Contractor is authorized additional storage time.

Construction equipment shall neither be stored at the work site before its actual use on the work, nor for more than 5 days after it is no longer needed on the work. Time necessary for repair or assembly of equipment may be authorized by the Engineer. Excavated material, except that which is to be used as backfill in the adjacent trench, may not be stored in public streets, roads, or highways unless otherwise permitted. After placing backfill, all excess material shall be removed immediately from the site.

108.3.3 Street Closures, Detours, Barricades. The contractor shall be familiar with the MUTCD. Work of this project shall be in accordance with all applicable city ordinances. The Contractor shall comply with all applicable State, Parish and City requirements for closure of streets. The Contractor shall provide barriers, guards, lights, signs, temporary bridges, flagpersons and watchpersons, advising the public of detours and construction hazards. The Contractor shall also be responsible for compliance with additional public safety requirements which may arise during construction. The Contractor shall furnish and install, and upon completion of the work, promptly remove all signs and warning devices.

A Maintenance of Traffic Plan consisting of a Barricade Plan and/or Traffic Control Plan is required for temporary closure of any street, alley or other public thoroughfare. A Barricade Plan applies to a specific application such as a temporary lane closure, and may be utilized for situations with a duration of less than one week. Whenever Standard Plans are utilized for Barricade Plans, submit a Maintenance of Traffic Plan which identifies the specific Standard Plan proposed for each location and the duration of the Barricade Plan at each location. A Traffic Control Plan is required for all detours and all other situations with a duration of one week or more. Traffic Control Plans included in the Drawings are intended for use with an anticipated sequence of Work and shall be used as a guideline. Submit a Maintenance of Traffic Plan which identifies proposed adjustments to the Traffic Control Plan and durations of temporary signs and barricades at each location.

Proper maintenance of traffic is critical to the safety of any worksite. Work shall not begin in a project area until traffic control has been installed in accordance with the Maintenance of Traffic Plan or Traffic Control Plan and has been accepted by the Engineer. Contractor shall maintain traffic control and make adjustments as work progresses in accordance with the plans, Shreveport Ordinance and MUTCD until roadways and pedestrian access are reopened for the same use as prior to the start of work.

The Contractor shall notify at least 48 hours in advance of closing, or partially closing, or of reopening, any street, alley, or other public thoroughfare, the Police, Fire, Traffic and Engineering, Sportran, Caddo Parish School Board, and Departments of jurisdictional agencies involved and comply with their requirements. Deviations must first be approved in writing by the Engineer.

The Contractor will be held responsible for all damage to the work due to the failure of barricades, signs, lights and watchmen to protect it, and whenever evidence is found of any such damage, the Engineer may order the damaged portion immediately removed and replaced by the Contractor at his own expense.

The Contractor's responsibility for the maintenance of barricades, signs, and lights and for providing watchmen shall not cease until the work of the contract has been completed and accepted.

Should the Contractor provide inadequate traffic control or fail to maintain traffic control; Engineer can stop work and direct a third party to install traffic control. Contractor will not be granted any time extension for delays caused by not installing proper traffic control. Costs incurred by the City for the installation and maintenance of adequate traffic control including engineering, traffic control devices and third-party support will be back charged to the Contractor that failed to provide or maintain adequate traffic control.

108.3.4 Truck Bed Covers. Trucks or other conveyances hauling loose materials, including hot-mix bituminous materials, on public streets, highways, or detours shall be of an approved type, and if required by the Engineer, shall be covered in such manner as to prevent such materials from dropping, lifting, leaking, or otherwise escaping therefrom. Covering for trucks or other conveyances hauling loose materials as herein provided shall be securely fastened so as to prevent said covering or load from becoming loose, detached, or in any manner a hazard to public traffic. No vehicle in violation of this provision will be permitted to operate. When required by the Engineer, truck bed covers of an approved type shall be used on all trucks hauling hot-mix bituminous materials to prevent heat loss or moisture infiltration.

108.3.5 Use of Explosives. Explosives may be used only when authorized in writing by the Engineer, or otherwise stated in the Special Provisions. Explosives shall be handled, used, and stored in accordance with all applicable regulations.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims arising from blasting operations.

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

108.3.7 Emergencies. In emergencies affecting the safety or protection of the public or persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by the Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

108.4 PATENT FEES OR ROYALTIES. Contractor shall pay all license fees and royalties and assume all costs incidental to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of City, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the City in the Contract Documents.

To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless City and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

108.5 ADVERTISING. The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval. Commercial advertising matter

shall not be attached to or painted on the surfaces of buildings, fences, canopies, or barricades.

108.6 USE OF LANDS.

108.6.1 General. For the performance of the contract, the Contractor will be permitted to occupy such portions of streets, alleys, or public places or other rights of way or servitude as provided by local ordinances, as shown on the plans, or as permitted. A reasonable amount of tools, materials, and equipment for construction purposes may be stored in such spaces. The storage of such materials shall not inconvenience occupants of adjoining property. Other contractors performing work for the City may, for all purposes required by their contracts, enter upon the work and premises used by the Contractor, and the Contractor shall give them all reasonable facilities and assistance for the completion of adjoining work. Any additional grounds desired by the Contractor for his use shall be provided by him at his own expense. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless City and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against City, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work

108.6.2 Work in State Highway Right-of-Ways. When the Work intersects or encroaches upon State Highway rights-of-way, Contractor shall obtain permission from Louisiana Department of Transportation and Development (LADOTD) with regard to methods of construction, materials, and safeguards. LADOTD may provide special details of construction and detailed specifications for Contractor's use in performance of the Work within State Highway rights-of-way.

108.6.3 Work in Servitude Over Private Property. Where the work passes over or through private property the City will provide such right-of-way by servitude agreements. The servitude agreements will provide for the temporary use of immediately adjacent property for construction purposes. The Contractor shall notify the owner of the adjacent property not less than 48 hours in advance of any work on said property and shall arrange for access and entry. Where fences must be removed either for construction purposes or for access, they shall immediately be reconstructed or replaced. The Contractor shall provide adequate gates as necessary to contain or restrict domestic farm animals within their proper areas during the life of this contract and shall provide reasonably safe and convenient means of access where and when required. Unless designated for removal in the Contract Documents, the Contractor shall not injure, cut or remove trees or shrubs without the written approval of the proper authority.

108.6.4 Preservation and Restoration of Property. The Contractor shall protect all public and private property insofar as it may be endangered by his operations and he shall take every reasonable precaution to avoid damage to such property.

Public or private improvements or facilities within the right-of-way not designated for removal, but visibly evident or correctly shown on the plans, which are damaged or injured, directly or indirectly, by or on account of any act, omission, or neglect of the Contractor in the execution of the work, shall be restored by the Contractor at its expense to a condition substantially equivalent to that existing before such damage or injury occurred, by repairing, rebuilding, or otherwise affecting restoration thereof. However, if restoration is not feasible, a reasonable settlement shall be reached with the owner of the damaged property.

The Contractor shall not trespass on public or private property without permission to do so and shall at all times take proper precautions to protect public and private property from damage.

Where paving and landscaping are removed in order to complete the Work, and when Contract Items for replacement of paving and landscaping are included in the Bid Forms, payment for restoration of those features will be made as specified.

Other Contract Items not included in the Bid Forms are considered to be included in the unit or lump sum prices for other pay items for the Work. The Contractor shall restore any public, private, or City-owned property disturbed or damaged as a direct or indirect result of construction operations to a condition equivalent to the pre-existing condition at no additional cost to the City.

Restoration shall be completed within time limits specified in Section 4560 Restoration of Property.

108.6.5 Availability of Lands. City shall furnish the Site. City shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. City will obtain in a timely manner and pay for servitudes for permanent structures or permanent changes in existing facilities. Upon reasonable written request, City shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and City's interest therein as necessary for giving notice of or filing a construction lien against such lands in accordance with applicable Laws and Regulations. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

108.7 RAILWAY-HIGHWAY PROVISIONS. All work performed by the contractor in a railway right-of-way shall be in accordance with the requirements of the appropriate Railway authority.

1. The Contractor shall coordinate with the Railway duly designated representative as required for work on the Railway's premises.
2. During the progress of work on or about the Railway's tracks or premises, the Contractor shall maintain contact and liaison with the Railway's officers or representatives for purposes of ascertaining the time of passage of trains at the work in order to clear the Railway's tracks and facilities of people, equipment and obstructions in order to allow free flow of railway traffic. The Contractor shall perform work on the Railway's premises without materially interfering with the Railway's tracks, structures and facilities or operations, or the operations of the Railway's tenants or licensees. Also, the Contractor shall not materially interfere with communication and signal lines upon said premises, except under arrangement effected between the Contractor and the Railway. The Contractor shall protect the Railway's property and avoid accidents. The Contractor shall keep the Railway's track and roadbed free of earth, rock, construction materials, debris and obstructions. The Contractor shall immobilize equipment parked near the Railway's track, when such equipment is unattended, to prevent its movement by unauthorized persons.
3. The Contractor shall, before entering upon the Railway's right-of-way for performance of any construction work, or work preparatory thereto, secure permission from the Railway's representative for the occupancy and use of the Railway's right-of-way outside the limits of the highway servitude area and shall confer with the Railway relative to requirements for railway clearances, operation and general safety regulations.
4. The Railway's representative will at all times have jurisdiction over the safety of railway operations. The decision of the Railway's representative as to procedures which may affect the safety of railway operations shall be final. The Contractor shall be governed by such decision.
5. Should any damage occur to railway property, as a result of the Contractor's unauthorized or negligent operations, and the Railway deems it necessary to repair such damage or perform work for the protection of its property, the required materials, labor and

equipment shall be furnished by the Railway. The Contractor shall reimburse the Railway for any costs incurred.

6. If the Contractor requires access across the Railway's right-of-way and tracks at any location which is not an existing permanent type of open public railway-highway crossing in or incident to the construction of the project, the Contractor shall contact the Railway and request access across said right-of-way and tracks and execute a license agreement with the Railway. The Contractor shall reimburse the Railway for the cost of providing and removing any temporary at-grade and grade-separated structure access crossing, including warning devices, watchmen expense or other costs which the Railway deems necessary for protection of Railway property and operations. The type of temporary crossing required shall be determined by the Railway. The Contractor shall not cross the Railway's right-of-way and tracks with vehicles or equipment except at existing open public road crossings or at such crossings established pursuant to this paragraph. The foregoing requirements include new grade crossings which will become part of the finished highway being constructed under the contract. The Contractor shall comply with the requirements for insurance contained under Heading (n) hereinafter during operations hereunder. The Contractor shall cooperate with the Railway during all phases of the work including providing sufficient advance notice for project completion in order for the Railway to remove the temporary grade crossing and perform final grade crossing improvements under the agreement with the City prior to final acceptance.
7. Any engineering, inspection, training, flagging and watcher service required by the Railway for the safety of Railway operations because of work being performed by the Contractor or in connection therewith, shall be provided by the Railway and the cost thereof shall be reimbursed to the Railway, by the Contractor, on the basis of the Railway's bills, to be rendered monthly. The Contractor will be reimbursed, by the City, for the actual incurred cost for such services. The Contractor shall furnish documentation of railway invoices and evidence of payment before reimbursement. When it is determined that railroad services and/or crossings are no longer in the best interest of the City, the Contractor will be issued written notification that no further reimbursement will be made by the City for railroad services. Work done or services provided for the Contractor's convenience will not be reimbursed by the City. The Contractor shall notify the Railway when Railway services are required. Notification shall be in a manner acceptable to the Railway with sufficient time for the Railway to provide services without impacting project schedule.
8. The Contractor will be required to reimburse the Railway monthly for the cost of all services performed by the Railway for the Contractor and furnish the City satisfactory evidence that the Railway has acknowledged receipt of payment before final acceptance.
9. During construction of piers or other supports or structures adjacent to any track, or of drainage pipe, underground utility or structure under or adjacent to any track of the Railway, the Contractor shall make adequate provisions against sliding, shifting, sinking or in any way disturbing the railway embankment and track adjacent to said piers, supports, structures, drainage pipe, underground utilities or structures due to construction operations by driving temporary sheeting or by other means satisfactory to the City and Railway.
10. Before commencing work on any pier or structure adjacent to any track, or on any structure and parts thereof which carry Railway facilities, the Contractor shall coordinate with the Railway and Engineer to develop a submittal including sheeting, shoring, bracing and false work details for protection of the Railway's track and embankment. as required by the Railway. The submittal shall include, if needed, shop drawings or other Contractor's detailed plans for structures and parts thereof which will carry Railway facilities; proposed methods of construction and supporting data, including design computations, soil descriptions and other pertinent information. After review by the Engineer, the required number of sets of the above submittal including plans, shop drawings and details bearing the appropriate registered Engineer seals, with supporting data and documents, shall be forwarded to the

Railway for approval. Prior to beginning work on a Railway right-of-way, the shop drawings and details, with supporting data and documents, shall be approved by the Railway.

11. The Contractor shall notify the Railway's representative in writing as specified in the license agreement or permit in advance of the proposed time of the beginning of construction of piers, supports or structures adjacent to the track or of drainage pipe, utilities or structure under or adjacent to the track.
12. Contractor shall maintain all temporary clearances as required by the Railway during construction.
13. Unless otherwise specified by special provisions, the Contractor shall provide insurance of the following kinds and amounts:
 - a. Regular Contractor's Public Liability and Property Damage Insurance, including automobile, issued in the name of the Contractor shall be written to furnish protection to the Contractor respecting operations in performing work covered by the contract in regard to the liability with respect to bodily injury to or death of persons, and injury to or destruction of property, which may be suffered by persons other than the Contractor's employees as a result of operations in connection with construction of highway projects located wholly or partly within railroad right-of-way.
 - b. When a Contractor sublets a part of the work on any project to a subcontractor, the Contractor shall be required to secure insurance protection in the Contractor's own behalf under Contractor's Public Liability and Property Damage Insurance policies to cover any liability imposed on the Contractor by law for damages due to bodily injury to or death of persons and injury to or destruction of property as a result of work undertaken by such subcontractors. In addition, the Contractor shall provide for, and on behalf of, any such subcontractors protection to cover like liability imposed upon the latter as a result of their operations by means of separate and individual Contractor's Public Liability and Property Damage policies. As an alternative, each subcontractor shall provide satisfactory insurance as described herein on the subcontractor's own behalf to cover the sub Contractor's individual operations.
 - c. Railroad Protective Liability Insurance shall be purchased on behalf of the Railway by the Contractor. The standards for Railroad Protective Liability Insurance shall be in accordance with provisions of the Federal-Aid Policy Guide (FAPG) Part 646 as amended. The limits of liability for the kinds of insurance required above shall be as follows:

NORMAL COVERAGE (other than AMTRAK)

(1), (2) and (3)

Combined Single Limit for Bodily Injury Liability, Property Damage
Liability and Physical Damage to:
Property - \$2,000,000 per occurrence
Aggregate Limit - \$6,000,000 for the term of the policy

AMTRAK COVERAGE

(1), (2) and (3)

Combined Single Limit for Bodily Injury Liability, Property Damage
Liability and Physical Damage to:
Property - \$5,000,000 per occurrence
Aggregate Limit - \$12,000,000 for the term of the policy

The name of the Railway and the ratio of the estimated cost of operations within the Railway's property to the total estimated project cost, expressed by percent, will be specified in the project specifications. No direct payment will be made for providing the required insurance coverages by the Contractor. The Contractor shall furnish to the Railway the Railroad Protective Policy and certificates evidencing the other insurance coverage required above. The Railroad Protective Insurance Policy and all insurance certificates shall be approved by the Railway before any work may be started on the Railway's property by the Contractor or subcontractors. In addition, the Contractor shall furnish evidence of commitment by the insurance company to notify the Railway and the Engineer in writing of any material change, expiration or cancellation of the policy not less than 30 calendar days before such change, expiration or cancellation is effective. The insurance specified shall be kept in force until final acceptance of the contract.

14. The Contractor shall indemnify the Railway, its officers and employees from all suits, actions or claims brought because of injuries or damages sustained by any person or property due to operations of the Contractor; due to negligence in safeguarding the work; or use of unacceptable materials in constructing the work; or any negligent act, omission or misconduct of the Contractor; or claims or amounts recovered from infringements of patent, trademark or copyright.
15. Upon completion of the work, the Contractor shall, within 10 calendar days, remove from within the limits of the Railway's right-of-way all machinery, equipment, surplus materials, false work, rubbish or temporary buildings of said Contractor, and restore the Railway's premises substantially to their former condition satisfactory to the Railway's representative. Should the Contractor fail to make such removal and restoration within 10 calendar days, the Railway shall have the right to make such removal or restoration. The expense incurred shall be chargeable to the project on the Railway's force account statement and the City will reimburse the Railway for such work. The amount will be deducted from payments due the Contractor.
16. All costs incurred under this subsection shall be included in the contract prices of other pay items. Prior to final acceptance of the project, the Contractor shall secure a Certificate of Release from the railroad company and furnish same to the City stating that the Contractor has satisfactorily restored the Railway's premises and has completed payments for all railway services performed for the Contractor's account, and that the Railway waives all claims for damages due to the Contractor's operations within railway right-of-way under the contract. If the Contractor is unable to secure a Certificate of Release from the Railway, the Contractor shall submit an executed Contractor's Affidavit, to the Engineer.

108.8 RESPONSIBILITY FOR DAMAGE CLAIMS.

108.8.1 General. The Contractor and his surety shall indemnify and save harmless the City and all its officers, agents and employees from all suits, actions, or claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or

property, by or from the said Contractor or his employees or by or in consequence of any neglect in safeguarding the work, or through the use of unacceptable materials in constructing the work or by or on account of any act or omission, neglect, or misconduct of the said Contractor or by or on account of any claims or amounts recovered by any infringement of patent, trademark, or copyrights or from any claims or amounts arising or recovered under the workmen's Compensation Law or any other law, ordinance, order or decree, and so much of the money due the said Contractor under and by virtue of his contract, as shall be considered necessary by the City, may be retained or in case no money is due, his surety shall be considered liable until such suit or suits, action or actions, claim or claims, for injuries or damages as aforesaid shall have been settled and satisfactory evidence to that effect furnished to the City, and the Contractor shall defend any and all suits arising out of any such claim and pay all costs and expenses in connection therewith including reasonable attorney fees.

108.8.2 Contractor's Responsibility. Until written notification of substantial completion of the project by the Engineer, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part thereof by the action of the elements, or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before substantial completion and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to Acts of God, of the public enemy or of governmental authorities.

108.8.3 Personal Liability of Public Officials. In carrying out the provisions contained herein or in exercising any power or authority granted to him by this Contract, there shall be no personal liability upon the Engineer, or his authorized assistants or representatives or any official acting for the City, it being understood that in such matters they act as the agents of the City.

108.8.4 No Waiver of Legal Rights. Inspection by the Engineer or by any of his duly authorized representative, any order, measurement, or certificate by the Engineer; any order by the City for the payment of money any payment for or acceptance of any work or any extension of time; or any possession taken by the City, shall not operate as a waiver of any provision of the contract; or any power therein reserved to the City or of any right of damages therein provided. Any waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

The City reserves the right to correct any error that may be discovered in any estimate that may have been paid, and to adjust the same to meet the requirements of the contract and specifications. The City reserves the right to claim and recover, by process of law, sums as may be sufficient to correct any error or make good any deficit in the work resulting from such error, dishonesty, or collusion upon conclusive proof of collusion or dishonesty between the Contractor or his agents and the Engineer or his assistants discovered in the work after final payment has been made.

108.8.5 Indemnification. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, defend, and hold harmless the City, its agents, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

In any and all claims against City, or any of its officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or

other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts. The indemnification obligations of Contractor under Subsection 108.8.5 shall not extend to the liability of City or any of its officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

108.9 FINAL CLEANING UP. Before final acceptance, the Site, borrow and local material sources and all areas occupied by the Contractor in connection with the Work shall be cleaned of all rubbish, excess materials, temporary structural, haul roads and equipment; and all parts of the Work, including private property adjacent to the Site, which have been damaged or rendered unsightly during the Work shall be left in a neat and presentable condition acceptable to the Engineer, and if required, the Site shall be mowed; all at no additional cost to the City.

At the time of final acceptance, structures entirely constructed under the Project shall be free of rodents, insects, vermin and pests. Extermination work, if necessary, shall be arranged and paid for by the Contractor as part of the Work, and completed within the Contract Time. Extermination work shall be performed by a licensed agency in accordance with requirements of governing authorities. The Contractor shall be liable for injury to persons or property and responsible for the elimination of offensive odors resulting from extermination operations.

108.10 ARCHAEOLOGICAL AND HISTORICAL FINDINGS. If the Contractor encounters cultural artifacts or archaeological or historical sites, operations shall be discontinued. The Engineer will contact the proper authorities in order that an appropriate assessment may be made to determine the disposition thereof and necessary actions relative to the site. When directed, the Contractor shall excavate the site to preserve the artifacts encountered. Such excavation will be paid for as extra work, including an appropriate adjustment in contract time. Borrow and muck disposal areas furnished by the Contractor will be subject to such assessment prior to use.

108.11 OVERTIME. is time worked outside of a Standard Work Week. Overtime requires written authorization from the Engineer. The Contractor must initiate the process by submitting an Overtime Authorization Request for the Engineer's authorization at least 48 hours in advance of starting overtime work. Submit a specific description of anticipated work activities planned for each week during which overtime is planned to be worked. If overtime is authorized, the actual work activities shall be limited to the planned work activities for that week and the Contractor shall reimburse the City all costs associated with inspector working overtime at \$ 150/hour.

108.12 SAFETY PROGRAMS AND RESPONSIBILITIES.

108.12.1 Safety and Protection. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

Contractor shall comply with the applicable requirements of City's safety programs, if any. Contractor shall inform Engineer of the specific requirements of Contractor's safety program with which City's and Engineer's employees and representatives must comply while at the Site.

All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Engineer or anyone employed by the Engineer or its subconsultants, or anyone for whose acts the City or Engineer and its subconsultants may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by the Contractor or any, Subcontractor or Supplier).

Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and City has issued a Final Completion notice to Contractor.

108.12.2 Safety Representative. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

108.12.3 Hazard Communication Programs. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations. Contractor shall provide copies of material safety data sheets to the City Risk Management office.

108.13 CONTRACTOR SIGN.

Provide and maintain Contractor Sign(s) as specified in Technical Specification Section 4580 Project Identification Signs.

108.14 NOT USED.

108.15 PERMITS. Unless otherwise provided in the Special Provisions, Contractor shall obtain and pay for all construction permits and licenses. City shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Contract. City shall pay all charges of utility owners for connections for providing permanent service to the Work.

END OF SECTION 108

SECTION 109

UTILITIES

109.1 GENERAL.

Utilities for the purposes of these specifications include, but not be limited to: tracks, overhead or underground wires, street lighting and traffic signals, fire alarm systems, pipe lines (water, sewer, oil, force main, gas, and storm), conduits, cables, ducts, transmission lines, structures and appurtenances owned, operated, or maintained by the City, Public Utilities, Private Parties, Special Utility Districts, businesses and individuals solely for their own use or use of their tenants.

When known, locations of surface and subsurface utilities and structures are shown on the plans for the convenience of the Contractor. The City does not guarantee that all such items are shown, nor does it assume responsibility for failure to show any structure or utility on the plans or to depict them in the exact location horizontally or vertically. Such failure shall not be cause for claims for extra compensation for extra work or for increasing the pay quantities. However, if an obstruction or utility is encountered that is not shown on the plans or is inaccurately shown on the plans which necessitates changes in lines or grades, or requires the building of special works, not otherwise shown in the plans and proposal, then a case for extra work may exist and the Engineer may authorize it.

The City shall make available to the Contractor, upon request, all TV video records that it may have on existing sewer lines that are affected by the project. With regard to existing utility systems, the plan, profile and "As-built" drawings that the Engineer, local utilities, or other agencies of government or private firms may furnish are for the Contractor's general information to show approximate depths, sizes, locations and elevations. The accuracy of these documents, relative to the actual location and sizes of underground utilities, cannot be guaranteed, since it is a recognized fact that underground piping is known to deflect, to settle, to become disjointed or displaced, and to slightly shift or migrate from its originally installed position, etc., and maintenance crews may modify or alter utilities without revising the existing drawings. Consequently, the Contractor is responsible for conducting an independent examination to determine the actual dimensions, sizes, depths, etc., of existing in ground utilities.

Test pits, for the purpose of locating underground utilities or structures in advance of the construction, shall be excavated and backfilled by the Contractor. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Engineer. Test pits shall not be paid for separately. Costs for test pits shall be included in the price bid for other items. Test pits are at Contractor's option and expense. The Contractor's decision not to examine and determine the accuracy of drawings furnished by the City or by others is at the Contractor's sole risk. The contractor shall have no cause for additional compensation or time due to failure to verify the actual conditions and dimensions of underground facilities.

109.2 UTILITIES IN PUBLIC RIGHT-OF-WAY.

With the exceptions of water and sewer systems owned by the City and facilities specified in Section 109.4.6, the removal, adjusting, relocation or replacement of utility structures or facilities within the public right-of-way which, in the opinion of the Engineer, may be necessary for construction of the Work, shall be performed by the respective owners of the utilities at their expense.

City owned utilities including water services, water mains, sewers, sewer services and force mains that need to be adjusted or relocated shall be temporarily or permanently disconnected, adjusted or relocated are considered part of the Contractor's work. If no pay item is included for the disconnection, relocation or adjustment; all labor, material, equipment, appurtenances and supplies to perform the relocations and adjustments shall be included in the unit price or lump sum price for pay item requiring the utility to be relocated or adjusted.

While it is the respective utility owner's responsibility to perform any work and bear any expense involved in relocations and adjustments called for on the plans or designated by the Engineer, it shall be the Contractor's responsibility to protect and maintain those utilities which, in the opinion of the Engineer, do not need to be disturbed in order to accomplish the Work required by the contract.

109.3 NOTIFICATION OF PUBLIC AND PRIVATE UTILITIES. Prior to the advertisement of the Project for bidding, the City and the known utility owners affected by the Work in public rights-of-way will exchange information which provides, on the part of the utility, the location of all known facilities within the right-of-way and the avoidance of these utilities by the design of the Work by the City, where feasible. The City will not be responsible for the accuracy of the locations so designated by the utility owner. Service connections may or may not be shown.

When the Project is advertised for bidding, the Engineer will notify known owners of utilities affected and provide them with plans of the improvements. This notification will generally allow sufficient time for the removal, adjustment, relocation or replacement of facilities prior to the commencement of construction. When, in the opinion of the Engineer, extensive work on the part of the utility owner necessitates more time than normal notification would allow, sufficient time, as determined by the Engineer, shall be given to perform the work, either through prior notification or through a delay in the commencement of the project work. Utility work which, in the opinion of the Engineer, may be done more feasibly in conjunction with the construction work, may be allowed, and the scheduling of such work shall be approved by the Engineer, and the cooperation of the Contractor is required.

In the event of conflict these specifications and Louisiana R.S., the Louisiana R.S. shall govern.

109.4 COOPERATION BETWEEN CONTRACTOR AND UTILITIES.

109.4.1 General. When the Work Order is received, the Contractor shall notify Louisiana One Call and the owners of utilities affected of the approximate date upon which he will begin work and shall submit a progress schedule of the proposed work. This shall be deemed sufficient notice if the project progresses according to the progress schedule submitted with the notification. If changes in the schedule of work occur, the Contractor shall apprise both the owner of the utility affected and the Engineer so that adjustments in the work schedule of the utility can be made. The Contractor shall be responsible for damages to the utility facilities and construction delays resulting from failure to notify the utility and the Engineer of changes in procedure or location. In order to avoid misunderstanding, the Contractor and the utility representatives on the job should establish a close working relationship.

109.4.2 Abandoned Utilities. Utilities, shown on the plans to be abandoned, which interfere with construction shall be removed by the Contractor and, if so designated, will be paid for as provided in Section 302. If no provision is made for payment, the removal shall be considered incidental and the cost of such removal shall be included in the price bid for other items. If noted on the plans or in the Special Provisions or if directed by the Engineer a utility owner may salvage his abandoned facilities. The arrangements for such salvage between the utility owner and the Contractor must be approved by the Engineer. The condition of the area of salvage must be no worse after the salvage operation than it was prior to the salvaging as determined by the Engineer. The Engineer shall require the utility owner to make repairs to the area of salvage if, in his opinion, the area is not in a good condition as it existed just prior to the salvage operation. In the salvage operation, the Contractor shall not be responsible for the work of the utility.

109.4.3 Utilities Not Within Working Limits. The protection and preservation of utility facilities which are located within the right of way, but outside the normal limits of construction, as determined by the Engineer, shall be the responsibility of the Contractor. The Contractor shall be responsible for all damage to utilities which are due to his negligence.

109.4.4 Utilities To Be Adjusted. The owners of utility facilities which require relocation, removal, adjustment or replacement shall, if possible and feasible, perform this work prior to the commencement of the Contractor's work. Where utility work must be done in conjunction with the Contractor's work on the project or in conjunction with the work of other utilities, arrangements for when, how, and where the

operation is to proceed shall be worked out among the parties concerned. If disputes arise, the Engineer shall decide the course of action to be taken.

109.4.5 Utilities Conflicting With Operations. Those utility facilities which do not conflict with the improvement, but which are obstructions to the operations required for installation or which present unusual difficulty due to their close proximity to the area of the operation shall be located with certainty by the owners of the utility prior to the arrival of the Contractor's operation which would be hindered by the utility facility. The Contractor is required to preserve the utility facility in place without damage and shall be responsible for damages sustained, if the utility owner has located the facility by exposing it to the view of the Contractor or has otherwise shown the Contractor, with certainty, the location of the facility. Any other arrangements that the Contractor may make with a utility owner as a substitute for the requirements of this section shall require the approval of the Engineer, in writing.

109.4.6 Utilities to be Relocated or Adjusted Under A Contract Item. Those facilities owned by Public or Private Utilities which by reason of right of way or other agreements, rental to the City or other reasons, which require adjustment or relocation and are to be paid for under a contract item, shall have the adjustment or relocation work done on them by the utility owner. ; unless indicated differently elsewhere in the Contract Documents. The work done for relocation or adjustment of utilities owned by the City paid for under a contract item shall be performed by the Contractor.

The price bid for these items is set by the City and is based on preliminary estimates. The actual amount paid to the Contractor will be the amount of the invoice submitted by another contractor to the Contractor, or the amount of an invoice prepared by the Contractor, any of which must be substantiated by cost figures and which shall be approved by the Engineer.

109.4.7 Unknown Utilities. If, during the progress of the Contractor's work, underground utility structures or lines are found which were not indicated on the plans or if shown on the plans are in locations materially different from that shown, the City shall endeavor to discover the owner of the disclosed utility and have the owner perform any relocation or adjustment work necessary, however, if the owner cannot be immediately determined or if the Engineer decides that adjustment is necessary immediately, the Engineer may order the Contractor to perform the necessary work and pay him as prescribed in Section 105.

109.4.8 Mislocated Utilities. The owner of a utility shall be wholly responsible for the proper location of his facilities which are affected by construction work performed according to these specifications. Improperly located or mislocated facilities which are damaged during construction shall be the responsibility of the utility, providing notification according to Section 109.3 has been given.

109.5 WORK BY UTILITIES. All excavation and backfill work done by owners of utilities on projects for the City shall be performed to the same standard as required of the Contractor for the installation of similar items. Except for work performed by the utility owner under Section 109.4.2, it shall be the responsibility of the Contractor to inform the Engineer if the utility owner does not use a suitable backfill material or achieve an adequate compaction in his operation.

109.6 UNDERGROUND FACILITIES AT OTHER WORK SITES

The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to Sites other than public rights-of-way is based on information and data furnished to Engineer by the owners of such Underground Facilities, including City, or by others.

1. Engineer and City shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Amount, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;

- c. coordination of the Work with the owners of such Underground Facilities, including City, during construction; and
- d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work

If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith, identify the owner of such Underground Facility and give written notice to that owner and to Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Amount or Contract Time, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If City and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Amount or Contract Time, City or Contractor may make a Claim therefor as provided in Section 105, Changes in Work.

END OF SECTION 109

SECTION 110

PROSECUTION AND PROGRESS OF WORK (MODIFIED)

110.0 CONTROLLING ITEM OF WORK.

The controlling item of work will be established by a Construction Progress Schedule developed by the Contractor and reviewed by the Engineer. Progress Meetings will be scheduled as specified in Technical Specification Section 4200 Project Meetings. At these meetings, the Contractor will provide a progress update indicating whether or not the project is on, behind, or ahead of schedule. An updated construction progress schedule will be submitted at the Progress Meeting that incorporates any approved changes in schedule and overall contract time. If the project is behind schedule a recovery plan to get the project back on schedule shall be submitted for review by the Engineer. The Engineer will notify the Contractor if it does not believe the recovery schedule will result in meeting the contract time within seven (7) calendar days. Failure of the Engineer and City to respond within the designated response time or at all does not relieve the Contractor of his responsibility to complete the contract within the contract time.

110.1 SUBLETTING OF CONTRACT.

Contractor shall not employ any Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, against whom City may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

Prior to entry into any binding subcontract or purchase order, furnish an informational submittal identifying proposed Subcontractors, along with their Louisiana Contractors License Number and the expiration date if applicable. The initial submittal shall include Subcontractors identified on FSC Form 2 submitted prior to execution of the Contract. Proposed Subcontractors shall be deemed acceptable to the Engineer unless a substantive, reasonable objection is raised within 7 days. Refer to Section 40 – Fair Share Requirements, 4.0 Addition/Replacement of Subcontractors After Submission for additional requirements. The Contractor shall maintain adequate records at all times to show compliance with the licensure requirements of all subcontracts and Subcontractors.

If no objection is raised, the Contractor will be permitted to sublet a portion of the work but shall be required to pay at least 51 percent of wages paid under the contract to workmen, mechanics or labors who are employed directly by the Contractor's own organization. Any items designated in the contract as "Specialty Items" may be performed by subcontract, and the cost of any such Specialty Items so performed by subcontract may be deducted from the total cost before computing the amount of work required to be performed by the Contractor with his own organization. No subcontracts or transfer of contract shall serve to relieve the Contractor of its liability under the contract and bonds.

A Subcontractor shall not subcontract any portion of its authorized work.

Contractor shall be fully responsible to City and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

- a. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between City or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
- b. shall create any obligation on the part of City or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of City and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on any property insurance required in the Special Provisions, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against City, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

110.2 NOTICE TO PROCEED. The written "Notice to Proceed" will stipulate the date on which the Contract Time will commence to begin and on which the Contract shall start to perform its obligations under the Contract Documents.

110.3 CONSTRUCTION PROGRESS SCHEDULE Provide a Construction Progress Schedule in accordance with requirements of Technical Specification Section 4310 Construction Schedule.

110.4 PROSECUTION OF WORK.

110.4.1 General. The Contractor shall provide sufficient materials, equipment and labor to guarantee completion of the project in accordance with the plans and specifications within the contract time. If the completed work on any contract is behind the approved progress schedule, the Contractor shall take immediate steps to restore satisfactory progress.

Each item of construction shall be prosecuted to completion without delay and in no instance shall the Contractor transfer his equipment or forces from uncompleted construction without prior notice to, and approval of, the Engineer. If the prosecution of the work is discontinued for an extended period of time, the Contractor shall give the Engineer written notice at least 48 hours before resuming operations.

110.4.2 Disqualification. The Contractor's progress will be reviewed every two weeks and determined monthly at the time of each partial pay estimate. Progress will be based on the total amount earned by the Contractor as reflected by the partial pay estimate. Contractor's progress will be compared to the expected amount earned based on the construction progress schedule and schedule of values submitted at the start of the project. If the Contractor's progress is more than 10% behind the expected amount earned, he will be notified that he will be subject to disqualification if his progress becomes delinquent by more than the percentages specified hereinafter, and such additional notification will be made as the Engineer deems necessary concerning the progress delinquency of the Contractor.

Prior to the elapsing of 25% of the contract time, the Contractor will be disqualified if his progress on any contract, is more than 20% behind the expected amount earned. After 70% of the contract time has elapsed, the Contractor will be disqualified if his progress on any contract is more than 15% behind the expected amount earned.

During the period of disqualification, the Contractor will not be permitted to bid on future contracts nor will he be approved as a subcontractor on future contracts until all work on the contract has been satisfactorily completed or the progress has recovered to within 10% of the construction progress schedule and expected amount earned.

110.5 LIMITATION OF OPERATIONS. The Contractor shall conduct the work at all times in such manner and sequence as will assure the least interference with traffic. He shall have due regard to the location of detours and to the provisions for handling traffic. He shall not open up work to the prejudice or detriment of work already started, and the Engineer may require the Contractor to finish a section on which work is in progress before work is started on any additional sections if the opening of such section is essential to public convenience.

110.6 CHARACTER OF WORKMEN; METHODS AND EQUIPMENT. The Contractor shall at all times employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by these specifications.

110.6.1 Personnel. All workmen shall have sufficient skill and experience to perform properly the work assigned to them. Workmen engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who, in the opinion of the Engineer, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Engineer, be removed forthwith by the Contractor or subcontractor employing such person and shall not again be employed in any portion of the work without the approval of the Engineer. Should the Contractor fail to remove such a person or fail to furnish suitable and sufficient personnel for proper prosecution of the work, the Engineer may suspend the work by written notice until such orders are complied with.

110.6.2 Methods and Equipment. All equipment proposed for use on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the project shall be such that no damage to the roadway, adjacent property or other highways will result from its use.

When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the contract work in conformity with the requirements of the contract.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer. If the Contractor desires to use a method or type of equipment other than specified in the contract, he may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be responsible for producing construction work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove the deficient work and replace it with work of specified quality or take such other corrective action as the Engineer directs. No change will be made in basis of payment for the construction items involved or in contract time as a result of authorizing a change in methods or equipment under these provisions.

110.7 DETERMINATION AND EXTENSION OF CONTRACT TIME. The number of days or the dates stated in the Agreement to: achieve Milestones; if any; achieve Final Completion; and complete the Work so that it is ready for final payment excluding retainage will be known as the Contract Time. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of the applicable jurisdiction, such day will

be omitted from the computation.

110.7.1 Working Day Basis. When the contract time is on a working day basis, the Engineer will furnish the Contractor a monthly statement showing the number of days charged to the contract for the preceding month and the number of days specified for completion of the contract.

The Contractor will be allowed 10 days in which to file a written protest setting forth in what respect said monthly statement is incorrect, otherwise the statement shall be deemed to have been accepted by the Contractor as correct.

If a protest is filed by the Contractor, the City shall conduct such reviews and investigations as required to rule on the protest within 30 days from the date the statement is furnished the Contractor. The number of days charged as listed, or revised within the above allotted time, shall become final at the end of this 30-day period, subject to change only through legal action.

When the Contract Time is on a Working Day basis, time will be charged for each day the Contractor can perform Work with his normal work force for 75 percent of the day or 6 hours in any 8-hour shift. The work force that is actively engaged in prosecuting Work will be considered as the "normal workforce".

A calendar day, with the exceptions stated herein, on which weather and other conditions not under control of the Contractor will permit construction operations to proceed for at least 5 continuous hours of the day with the normal working force engaged in performing the Work is considered a Working Day. No working days will be charged for the days listed below, except as specified in the subsequent paragraph.

- a. Saturdays and Sundays
- b. City-recognized holidays that are defined as regular legal holidays or special holidays that may be proclaimed by the Mayor or fixed by the City Council
- c. Days on which delays, attributable solely to the Department or other governmental agencies, prevent the Contractor from proceeding with the Work in effect at the time of delay
- d. Days on which delays are attributable to the direct effect of strikes, riots, or civil commotions.

If the Contractor performs Work which requires Engineering layout, supervisions, or inspection on Saturday, Sunday, or a City-recognized holiday, a Working Day will be charged regardless of the size of the working force or the number of hours worked. Any work done in connection with the continuing of curing, loading of test piles, watering of sod, etc. as required by the specifications is excluded from the work defined in this subsection, and a Working Day will not be charged if that is the only work performed.

110.7.2 Calendar Day Basis. When the contract time is on a calendar day basis, it shall consist of the number of calendar days stated in the contract beginning with the effective date of the Engineer's order to commence work, including all Saturdays, Sundays, holidays and non-work days. All calendar days elapsing between the effective dates of any written orders by the Engineer to suspend work and to resume work for suspensions not the fault of the Contractor shall be excluded.

When the contract completion time is a fixed calendar date, it shall be the date on which all Work on the Project is complete. The number of days for performance allowed in the contract as awarded is based on the original quantities and includes the time necessary to procure material, equipment and an adequate labor force to complete the work properly. If satisfactory fulfillment of the contract requires performance of work in greater quantities than those set forth in the proposal, the contract time allowed for performance shall be increased on a basis commensurate with the amount and difficulty of the added work.

If the Contractor finds it impossible, for reasons beyond his control, to complete the work within the contract time as specified or as extended in accordance with the provisions of this Subsection, he may, at any time prior to the expiration of the contract time as extended, make written request to the Engineer for an extension of time setting forth therein the reasons which he believes justify granting his request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he may extend the time for completion in such amount as conditions justify. The extended time for completion shall be in full force and effect as though it were the original time for completion. When final acceptance has been made by the Engineer as prescribed in Subsection 111.8.

110.8 LIQUIDATED DAMAGES. Refer to “Special Conditions of the Invitation for Bid” documents for clarification on how Liquidated Damages will be administered. ~~For each calendar day or work day, as specified, that any work shall remain uncompleted after the contract time specified for the completion of the work required by the contract, the Contractor shall pay the City two thousand dollars (\$2,000) not as penalty, but as liquidated damages until project is substantially complete. Once project has reached substantial completion, but not final completion liquidated damages shall be reduced to five hundred dollars (\$500) for each calendar day or work day as specified. The amount of liquidated damages shall be deducted from any money due the Contractor or that becomes due the Contractor for work performed after the Final Completion Date. Due account shall be taken of any adjustment of the contract time for completion of the work granted under the provisions of Subsection 110.7.~~

~~Permitting the Contractor to continue the work after expiration of the contract time or extended contract time will in no way operate as a waiver on the part of the City of any of its rights under the contract. The City may waive such portions of the liquidated damages as may accrue after the work is in condition for safe and convenient use by the traveling public.~~

~~Contractor further acknowledges and agrees that in the event any provisions in any of the Contract Documents conflict with the provisions of this paragraph or otherwise provide for damages resulting from Contractor's delay, the provisions of this paragraph shall control, and such conflicting provisions and any Contract Documents shall not constitute, and shall not be construed as, a basis by which to render the provisions of this paragraph unenforceable.~~

~~The amount of liquidated damages will be deducted from any money due the Contractor under this contract, and the Contractor and his surety shall be liable for any liquidated damages in excess of amounts due or to become due to the Contractor.~~

110.9 TERMINATION FOR CAUSE. The occurrence of any one or more of the following events will justify termination for cause:

- a. Contractor's failure to begin the Work within the time specified in the Notice to Proceed;
- b. Contractor's failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Construction Progress Schedule;
- c. Contractor's unsuitable performance of the Work, neglect, refusal to remove materials, or refusal to correct any new Work rejected as unacceptable;
- d. Contractor's failure to complete the project within the Contract Time;
- e. Contractor's failure to resume Work which has been discontinued within a reasonable amount of time after receiving notice to do so;
- f. Contractor becomes insolvent, is declared bankrupt, or commits any act of bankruptcy or insolvency;
- g. Contractor allows any final judgment to stand against him unsatisfied for a period of 10 days;

- h. Contractor makes an assignment for the benefit of creditors;
- i. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
- j. Contractor's repeated disregard of the authority of Engineer; or
- k. Contractor's violation in any substantial way of any provisions of the Contract Documents.

If one or more of the events identified in the preceding paragraph occur, City may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

- a. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
- b. incorporate in the Work all materials and equipment stored at the Site or for which City has paid Contractor but which are stored elsewhere; and
- c. complete the Work as City may deem expedient.

If City proceeds with termination as described in the preceding paragraph, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by City arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to City. Such claims, costs, losses, and damages incurred by City will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, City shall not be required to obtain the lowest price for the Work performed.

Notwithstanding the preceding paragraphs, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

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

If and to the extent that Contractor has provided a performance bond, the termination procedures of that bond shall supersede the provisions of this subsection.

110.10 TERMINATION OF CONTRACTOR'S RESPONSIBILITY. The contract will be considered complete when all work has been satisfactorily completed including restoration, the final inspection made and the work accepted by the chief Engineer. The Contractor will then be released from further obligation except as set forth in his contract bond, and except as provided in Subsection 108.9.2.

110.11 TERMINATION FOR CONVENIENCE. Upon seven days written notice to Contractor and Engineer, the City will terminate the Contract or portion thereof when the Contractor is prevented from proceeding with the Work as a direct result of an Executive Order of the President with respect to the prosecution of war or in the interest of national defense, or by court order. Upon seven days written notice to Contractor and Engineer, City may, without cause and without prejudice to any other right or remedy of City, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

- a. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
- b. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
- c. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
- d. reasonable expenses directly attributable to termination.

Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination. Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at the actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the Engineer. Termination of a contract or a portion thereof shall not relieve the Contractor of his responsibilities for the completed work, nor shall it relieve his surety of its obligation for and concerning any just claim arising out of the work performed.

110.12 COMPLETION.

110.12.1 Substantial Completion. When the construction as specified in the contract is substantially complete, the Contractor shall notify the City Engineer in writing that the work will be ready for inspection on a definite date which shall be stated in such notice. The notice shall bear the signed concurrence of the Engineer having charge of inspection and construction and shall be given at least ten (10) days prior to the date stated for the inspection. If the City determines that the work is as represented, it will make arrangements to have the substantial completion inspection commenced on the date stated in such notice, or as soon thereafter as practical. If the project is found to be substantially complete, the Engineer will notify the Contractor and will issue a certificate of Substantial Completion. Said certificate shall be dated as of the date of the inspection. If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the Engineer will notify the Contractor in writing of the completion as of the date of final inspection.

110.12.2 Partial Utilization. Prior to Final Completion of all the Work, City may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which City, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

- a. City at any time may request Contractor in writing to permit City to use or occupy any such part of the Work which City believes is substantially complete and ready for its intended use. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, City, and Engineer will follow the procedures of Subsection 110.12 for that part of the Work.

- b. Contractor at any time may notify City and Engineer in writing that Contractor considers any such part of the Work substantially complete and ready for its intended use and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
- c. Within a reasonable time after either such request, City, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify City and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Subsection 110.12 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

110.12.3 Final Completion. When the construction necessary to address deficient or incomplete work identified in the substantial completion inspection has been completed, the Contractor shall notify the City Engineer in writing that the work will be ready for final inspection on a definite date which shall be stated in such notice. The notice shall bear the signed concurrence of the Engineer having charge of inspection and construction and shall be given at least ten (10) days prior to the date stated for final inspection. If the City determines that the work is as represented, it will make arrangements to have final inspection commenced on the date stated in such notice, or as soon thereafter as practical. That inspection shall constitute the final inspection. If the project is found to be complete, the Engineer will notify the Contractor and will issue a certificate of Final Completion. Said certificate shall be dated as of the date of final inspection. If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the Engineer will notify the Contractor in writing of the completion as of the date of final inspection.

110.12.4 Contractor May Stop Work or Terminate.

If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by City or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) City fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to City and Engineer, and provided City or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from City payment on the same terms as provided in Section 110.11.

In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or City has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to City and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this subsection are not intended to preclude Contractor from making a Claim under Section 105 for an adjustment in Contract Price or Contract Time nor otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this subsection.

END OF SECTION 110

SECTION III

MEASUREMENT AND PAYMENT

III.1 MEASUREMENT OF QUANTITIES. All work completed under the contract will be measured by the Engineer according to United States standard measure. The Engineer shall be the judge as to the accuracy of any measurements or any approximations made in lieu of accurate determinations and his decisions shall be binding upon both parties.

When specified, pay quantities will be the design lengths, volumes, areas or weights as specified in the contract plans with adjustments thereto based on actual lengths, volumes, areas and weights measured in the field. Unless otherwise specified, longitudinal measurements for area computations will be made horizontally. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the Engineer.

A station when used as a definition or term of measurement will be 100 linear feet. Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.

All items which are measured by the linear foot, such as water lines, sewer, pipe culverts, underdrains, etc., will be measured parallel to the base or foundation upon which such structures are placed, unless otherwise specified. In computing volumes of excavation, the average end area method or other acceptable methods will be used. The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be measured in decimal fractions of inches.

The term "ton" will mean the short ton consisting of 2,000 pounds. All materials which are measured or proportioned by weight shall be weighed on accurate, approved scales by competent, qualified Personnel at locations designated by the Engineer. If material shipped by rail, the car weight may be accepted provided the actual weight of material only will be paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty at such times as the Engineer directs, and each truck shall bear a plainly legible identification mark.

Materials specified to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and shall be measured therein at the point of delivery. Vehicles may be of any size or type acceptable to the Engineer, provided the body of the vehicle is of such shape that the actual volume or capacity may be readily and accurately determined. All vehicles shall be loaded to at least a predetermined permanently fixed mark, which defines a known volume or capacity, upon arrival at the point of delivery. No vehicle will be approved unless its capacity, or the volume below the predetermined permanently fixed mark, is in multiples of 0.5 cubic yard except that when tail-gate spreader-boxes are used to place aggregate materials under Section 104.9, Load Restrictions, the volume of the spreader-box will be added to the volume of the vehicle.

Whenever possible and unless otherwise specified, pay quantities will be the designed volumes, areas or weights as specified in the contract plans and adjustments thereto. Asphaltic materials will be measured by the gallon or ton.

Net certified scale weights or weights based on certified volumes in the case of shipments by rail, truck or other transport will be used as a basis of measurement, subject to correction when material has been lost in transit, wasted or otherwise not incorporated in the work. When asphaltic materials are shipped by truck or transport, net certified weights or volume, subject to correction for loss or foaming, may be used for computing quantities.

Portland cement will be measured by the barrel, ton or hundred-weight (CWT). The term barrel will mean 376 pounds of cement. Timber will be measured by the thousand feet board measure (MFBM) incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

The term "lump sum" when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

Rental of equipment will be measured by the time in hours of actual working time and necessary traveling time of the equipment within the limits of the project unless special equipment has been ordered by the Engineer in connection with force account work in which case travel time and transportation to the project will be measured. If equipment has been ordered held on the job on a standby basis by the Engineer, half time rates for the equipment will be paid.

When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

If conversion is necessary from United States standard units to International System of Units (SI units) or from SI units to U.S. standard units the guidelines, terminology, conversion factors and rules for rounding in the Standard Metric Practice Guide, AASHTO Designation: R 1 will be used.

111.2 SCOPE OF PAYMENT. The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all labor, equipment, materials, appurtenances, supplies and incidentals for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage or expense arising out of the nature of the work or the prosecution thereof, subject to the Provisions of Subsection 108.9.

If the "Basis of Payment" clause in the specifications relating to any unit price in the bid schedule requires that the said unit price cover and be considered compensation for certain work or material essential to the item, this same work or material will not also be measured or paid for under any other pay item.

A back charge is a billing for Work performed or costs incurred by the City that should have been performed or incurred by the Contractor. The City may back charge the Contractor by deducting the actual costs from compensation earned for Work completed in accordance with requirements of the Contract Documents.

111.3 COMPENSATION FOR ALTERED QUANTITIES. When accepted quantities of work vary from the quantities in the bid schedule, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract unit prices for the accepted quantities of work done. No allowance, except as provided in Subsection 105.2, will be made for any increased expense, loss of expected reimbursement or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursements therefore or from any other cause.

111.4 EXTRA WORK. Extra work shall be performed in accordance with the requirements of Section 105.3. Payment for Extra Work will be made as authorized in a Work Change Directive or Change Order.

111.5 PARTIAL PAYMENTS. Provided work is prosecuted in accordance with the provisions of the contract and with such progress as satisfactory to the City and Engineer, the Contractor will make or cause to be made, the first pay estimate within two calendar months from the date indicated to begin work in the "Notice to Proceed." The cutoff date for each successive pay estimate will be the end of each month thereafter until completion of the contract. Each pay estimate will be an approximation of the value of the work performed up to and including the date the estimate is made. The amount of said estimate, after deducting retainage and all previous payments, shall be due and payable to the Contractor. The pay estimates will be approximate and all pay estimates and payments shall be subject to corrections in the estimate rendered following discovery of any error in any previous estimates.

Should any defective work or material be discovered or should a reasonable doubt arise as to the integrity of any part of the work completed previous to the final acceptance and payment, there will be deducted from the first estimate rendered after the discovery of such defective or questioned work an amount equal in value to the defective or questioned work, and this work will not be included in a subsequent estimate until the defects have been remedied or the causes for doubt removed.

The payment of the pay estimate shall not be taken as an admission that the work is done or that its quality is satisfactory nor as a release of the Contractor from the responsibility for any portion thereof, but the whole work and all particulars relating thereto shall be subject to revision and adjustment by the Engineer at the time of final acceptance and final payment.

111.6 ELIMINATED ITEMS. Should any items contained in the proposal be found unnecessary for the proper completion of the work, the Engineer may, upon written order to the Contractor, eliminate such items from the contract and such action shall in no way invalidate the contract. When a Contractor is notified of the elimination of items, he will be reimbursed for actual authorized work done and all costs incurred, including mobilization of materials prior to said notification.

111.7 PAYMENT FOR STOCKPILED OR STORED MATERIAL.

111.7.1 General. Payment for stockpiled or stored material will be considered only for materials anticipated to be stored for periods in excess of 90 calendar days. When approved, advance payments may be made for fabricated or natural materials that are to be incorporated in the project when stockpiled materials are stored on the project or in a dedicated stockpile at an approved site outside the limits of the project within the State of Louisiana. Payments shall be limited to durable materials described herein and shall represent a significant portion of the project cost. Perishable articles and small warehouse items are not included. These materials shall meet the requirements of the specifications. Payment for stockpiled or stored materials will not constitute acceptance. It shall be the Contractor's responsibility to protect the material from damage while in storage.

Payment for materials stored outside the State of Louisiana will be considered, subject to approval of the City Engineer. This will generally be limited to adjacent states, except in cases where it will be in the best interest of the City to pay for these materials. If payment for stockpiled materials outside the State will affect the bid price for an item, the contractor shall submit a written request to the City Engineer prior to bidding.

Payment may be made for the invoice price for the materials, which shall not exceed 85 percent of the contract price for the items where the materials are to be incorporated. For fabricated materials purchased from commercial sources and delivered to approved storage, partial payment may be the invoice price plus freight and taxes. The quantity of material for payment will not exceed the total estimated quantity required to complete the project. The amounts advanced on stockpiled or stored materials will be recovered by the City through deductions made on payments as the materials are incorporated in the work.

Partial payment for stockpiled and/or stored materials shall be requested by the Contractor in writing and the following documents shall be furnished:

1. A copy of the invoices from supplier or manufacturer verifying the cost and quantity of material.
2. If storage is on private property, a copy of the lease or agreement granting the Department right of entry to property.

Within 30 calendar days after payment by the City, the Contractor shall submit a certified copy of invoices from the supplier for each item for which payment has been made. All such invoices submitted shall state the amount received by the supplier as payment in full for the materials. If this certification of

payment is not presented within the 30-day period, the advanced payment will be deducted from future progress payments. Title and ownership of materials for which advancements have been made by the City shall not vest in the City until such materials are incorporated in the work and the work accepted by the City. The making of advancements by the City shall not release the Contractor from the responsibility for any portion thereof.

III.7.2 Fabricated or Manufactured Materials. Fabricated or manufactured materials may include but is not limited to the following: Structural steel, fabricated structural steel items, steel piling; reinforcing steel; valves, electrical equipment; mechanical equipment; precast concrete items (valves, vaults, manholes, etc.); structural timber; timber piling; fencing and guard rail materials; fabricated sign structures and sign panels.

III.7.3 Other Material. These materials will normally be large quantities of natural or manufactured aggregate. The Contractor's request for payment of stockpiled natural material shall give a detailed description of the material, its intended use and location of the site. This material will be inspected and approved after placement in stockpiles on the project. Approval of the stockpiled material will be in writing.

III.8 ACCEPTANCE AND FINAL PAYMENT. Upon completion of the work, the Engineer will execute a certificate of final completion that the whole work provided for in the contract has been completed and accepted under the terms and conditions of the contract and said certificate of final completion will be recorded in the office of the Clerk of Court, Caddo Parish, Louisiana.

The City Engineer will issue the Contractor a letter of final acceptance, and the entire balance found to be due the Contractor, including all retained percentages, will be paid to the Contractor after the City has:

1. Satisfied itself that the quantities shown on the final estimate are correct,
2. The Contractor has complied with all requirements in Technical Specification Section 4700 Contract Closeout,
3. The Contractor has submitted to the City a "lien-free certificate" from the Clerk of Court, Caddo Parish, Louisiana, to the effect that there are no claims or liens recorded against the said contract. The date of said "lien-free certificate" shall not be prior to the expiration of 45 days after the certificate of final completion was recorded by the Contractor with the Clerk of Court, and
4. If the contract is for a paving assessment project, final payment will be made when the City Council of the City of Shreveport, in legal and regular session convened, approves and accepts the work of the Contractor and authorizes final payment.

Payment of the final estimate shall not operate to release the Contractor or his sureties from liability for any fraud in construction, or in obtaining progress payments, or in payment for materials, labor or other supplies or services incidental to the work, or for any and all claims for damages, loss or injury sustained by any persons through the fault, negligence or conduct of the said Contractor or any of his employees.

END OF SECTION III

END OF PART I

PART 12

MISCELLANEOUS
CONSTRUCTION

SECTION 1202

MOBILIZATION

1202.1 DESCRIPTION. This work consists of preparatory work and operations, including those necessary for movement of personnel, equipment, supplies and incidentals to the project site; the establishment of offices, buildings and other facilities necessary for work on the project; the cost of bonds and any required insurance; and other preconstruction expenses necessary for start of the work, excluding the cost of construction materials.

1202.2 BASIS OF PAYMENT.

- a. When the contract does not include a pay item for mobilization, no direct payment will be made for mobilization.
- b. When the contract contains a pay item for mobilization, payment will be made at the contract lump sum price, subject to the following provisions:

Partial payments for mobilization will be made in accordance with the following schedule up to a maximum of 10 percent of the original total contract amount, including this item, and payment of any remaining amount will be made upon completion of all work under the contract.

<u>PERCENT OF TOTAL CONTRACT AMOUNT EARNED</u>	<u>ALLOWABLE PERCENT OF THE LUMP SUM PRICE FOR THE ITEM</u>
1st Partial Estimate	25
10	50
25	75
50	100

Completion of the following work is required for payment of the first 25 percent of the lump sum price. No partial payment of Mobilization will be made until the first 25 percent is earned.

- 1. Providing an acceptable Baseline Schedule as specified in Section 4310 Construction Scheduling
- 2. Providing acceptable preconstruction photographs and video recordings as specified in Section 4322 Photographic Documentation
- 3. Providing all Contractor Signs in place as specified in Section 4580 Project Identification Signs
- 4. Providing all Maintenance of Traffic Plans as specified in Sections 103 Scope of Work and 4300 Submittals

Payment will be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
1202(1)	Mobilization	Lump Sum

END OF SECTION 1202

PART 40

GENERAL REQUIREMENTS

SECTION 4010
SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION OF WORK

- A. The work of this Contract is located at
North Regional WWTP, Russell Road, Shreveport, Louisiana

1.02 SCOPE OF WORK

- A. Furnish all labor, materials, equipment and incidentals required to furnish and install new influent screw pumps. Pumps 1 and 3 are operational and must remain in operation until two of the new pumps are operational. Owner has temporary bypass pumps and hoses in place for use as needed.

- B. Base Bid: Replacement of Influent Screw Pumps 4, 5 and 6.
 - 1. Submittals
 - a. Prepare submittals to include dimensional drawings, catalog cuts of drives, gear boxes, bearings, lubrication system, motors and coating systems, and installation instructions.

 - 2. Demolition
 - a. Remove existing catwalk (easternmost), lights and grease Zerks (mounted on the catwalk) and safely store for reinstallation.
 - b. Remove all grease, oil and electrical connections from the pumps.
 - c. Remove existing screw pump assemblies (auger, housing, gear boxes, motors) from structure.
 - d. Pump ends are to be disposed of off site by the contractor. Operable motors and gear boxes may be salvaged by the owner, and those not salvaged shall be disposed of off site by the contractor.
 - e. Check existing anchors for integrity and reset/replace as required.

 - 3. Installation of New Screw Pumps
 - a. Set new pumps into place in strict accordance with manufacturer's instructions and Section 460526 of these specifications..
 - b. Reconnect electrical power to each pump using new conductors from each pump disconnect switch panel. Replace any damaged conduits.
 - c. Install new auto-lubrication systems and provide new oil lines and control conductors and flex conduits.
 - d. Check alignment and rotation of pumps.
 - e. Replace catwalk and lights. Install new grease Zerks and grease lines for the new screw pumps.

 - 4. Start-up/Commissioning

- a. Start-up each new pump in strict accordance with the manufacturer's instructions.
- b. Check for proper operation of each pump and auto-lubrication system.
- c. Provide the City with a commissioning report documenting the start-up/commissioning process and the final operating conditions for each pump.

C. Additive Alternate 1

Additive Alternate No. 1 shall include the following additional work:

- I. Remove and Replace Influent Screw Pump 2
 - a. This item shall be the additional cost to furnish and install a fourth screw pump to replace existing Screw Pump 2.
 - b. The work shall be as described in the summary for the Base Bid.
 - c. The work shall be performed at the same time as the Base Bid work.

CI. Additive Alternate 2

Additive Alternate No. 1 shall include the following additional work:

- I. Remove and Replace Influent Screw Pump 3
 - a. This item shall be the additional cost to furnish and install a fifth screw pump to replace existing Screw Pump 3.
 - b. The work shall be as described in the summary for the Base Bid.
 - c. The work shall be performed at the same time as the Base Bid work.

E. Additive Alternate 3

Additive Alternate No. 1 shall include the following additional work:

- I. Remove and Replace Influent Screw Pump 1
 - a. This item shall be the additional cost to furnish and install a sixth screw pump to replace existing Screw Pump 1.
 - b. The work shall be as described in the summary for the Base Bid.
 - c. The work shall be performed at the same time as the Base Bid work.

1.03 WORK BY OTHERS

NONE

1.04 CONTRACTOR'S USE OF PREMISES

- A. The location of the influent pump structure adjacent to the main entrance of the plant will make coordination with existing plant operations necessary.
- B. Only Pumps 1 and 3 are operational at present, and must be kept operational until at least two new pumps are installed and operational. The City will provide and operate adequate temporary bypass pumping equipment for the duration of this

work.

- C. Contractor shall limit the use of the designated work site for its Work and for storage to allow for access by plant staff of other adjacent process components.
Contractor shall assume full responsibility for security of all its subcontractors materials and equipment stored on the site. The designated storage area will require a temporary culvert prior to use.
- D. If directed by the Engineer, move any stored items which interfere with operations of City or other contractors.
- E. Obtain and pay for use of additional storage or work areas if needed to perform the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 4025

MEASUREMENT AND PAYMENT

PART I GENERAL

1.01 SCOPE

- A. This Section includes requirements for the measurement and payment of various elements of the Work which are not already specified in the Standard Specifications.

1.02 MISCELLANEOUS CONSTRUCTION ITEMS

- A. Miscellaneous Construction Items, if indicated in the Bid Form, is considered a provisional amount to be used only if needed. Miscellaneous Construction Items are exclusive of work indicated in the Contract Documents for which payment is included under other items in the Bid Form. No work may be performed under Miscellaneous Construction Items without prior written approval of the City Engineer.
- B. Prior to final payment, the original amount provided for Miscellaneous Construction Items will be adjusted to actual costs by deductive Change Order, adjusting the Contract Amount, accordingly.
- C. The Contractor shall make no claim, nor receive any compensation, for anticipated profits, loss of profit, damages, or any extra payment due to any unexpended portion of the Miscellaneous Construction Items.
- D. Work authorized by the City under Miscellaneous Construction Items may be performed as a lump sum (negotiated before the fact), unit prices (when applicable), or time and material. For work performed under time and material, Contractor shall submit detailed verification (breakdown) of all costs, subject to the approval of the Engineer.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 CONTRACT ITEMS

- A. BID ITEM NO. 1 REPLACE INFLUENT SCREW PUMPS 4, 5, & 6 INCLUDING MOTORS, DRIVES
AND AUTOMATIC OILERS

- I. Measurement and Payment

- This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials to replace pump, motor drive and oiler system as indicated in the Contract Documents.

B. BID ITEM NO. 2 REPLACE ELECTRICAL DISCONNECT MOUNTING POSTS WITH NEW STAINLESS STEEL FABRICATIONS (FOR ALL 6 PUMPS & OILER CONTROL PANEL)

I. Measurement and Payment

This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials to replace the disconnect mounting posts as indicated in the Contract Documents.

C. BID ITEM NO. 3 CLEAN THE INFLUENT PUMP EFFLUENT CHAMBER

I. Measurement and Payment

This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials to clean and remove debris from the entire effluent chamber, from the pumps to the slide gates as indicated in the Contract Documents.

D. BID ITEM NO. 4 MISCELLANEOUS CONSTRUCTION ITEMS

I. Measurement and Payment

This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials for miscellaneous construction items as indicated in the Contract Documents.

E. BID ITEM NO. 1202(1) MOBILIZATION

I. Measurement and Payment

See Section 1202 for payment for this lump sum item.

F. BID ITEM NO. 4310 (1) CONSTRUCTION SCHEDULE SUBMITTAL PROGRESS

I. Measurement and Payment

See Section 4310 for payment for this lump sum.

G. BID ITEM NO. 4720 (1) AS-BUILT DRAWINGS

I. Measurement and Payment

See Section 4720 for payment for this lump sum.

H. BID ITEM NO. A 1.1 REPLACE INFLUENT SCREW PUMP #2, INCLUDING MOTOR, DRIVE
AND AUTOMATIC OILER SYSTEM

I. Measurement and Payment

This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials to replace screw pump 2s equipment as indicated in the Contract Documents.

I. BID ITEM NO. A 2.1 SCREW PUMP #3

1. Measurement and Payment

This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials to replace screw pump 3s equipment as indicated in the Contract Documents.

J. BID ITEM NO. A 1.1 SCREW PUMP #1

1. Measurement and Payment

This item shall be measured on a lump sum basis and payment shall be the contract price per lump sum. Contract bid price shall be full compensation for labor, equipment and materials to replace screw pump 1s equipment as indicated in the Contract Documents.

END OF SECTION 4025

SECTION 4026

PAY ESTIMATES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Pay Estimates will be prepared by the Contractor and submitted to the Engineer for review and acceptance. Supporting documentation and other items shall also be provided by the Contractor.
- B. Unit Price Work will be measured for payment as specified in Standard Specification Section 111.
- C. Stockpiled or Stored Material will be measured for payment as specified in Standard Specification Section 111. Refer to Standard Specification Section 111.7 for minimum storage period, maximum percentage of contract price, and other requirements.
- D. The accepted Schedule of Values, specified in Technical Specifications Section 4370, will be used as the basis of payment for Contract Items measured by lump sum.

1.02 PREPARATION OF PAY ESTIMATES

- A. Weekly quantity reports will be prepared by the Contractor each week, listing quantities of Unit Price Work and percentages of work items in the Schedule of Values completed each week. Each weekly report will be signed by Engineer and Contractor, to acknowledge agreement on completed Work every week. .
- B. The cutoff date for pay estimates is the last day of each month. The Contractor will prepare the Pay Estimate based on a summary of completed work items recorded on the agreed to weekly reports each month.

1.03 DOCUMENTATION ASSOCIATED WITH PARTIAL PAYMENTS

- A. Prepare and furnish additional documentation to coincide with each partial payment. The value of each item of required documentation on a monthly basis, established in the approved Schedule of Values or in respective Contract Items, will be included in partial payments whenever the respective item is provided in a timely manner.
- B. After receipt of the first partial payment and prior to receipt of subsequent payments, certify in writing that all subcontractors and suppliers have been paid for work and materials from previous partial payments received (less any retainage) by the Contractor.
- C. On a monthly basis, furnish a completed Monthly Subcontractor Payment and Utilization Report – FSC Form 5 for first-tier and second-tier subcontractors.
- D. Furnish an updated construction schedule as required in Technical Specification Section 4310.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 4026

SECTION 4035

CHANGE ORDER PROCEDURES

PART I GENERAL

I.01 REQUIREMENTS INCLUDED

- A. Promptly implement change order procedures.
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time-and-material/ force account basis.
 - 3. Provide full documentation to Engineer on request.
 - 4. Upload documentation of written changes in work to Unifier.
- B. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the Work.
 - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work.
- C. City will designate in writing the persons who are authorized to sign Field Orders, Miscellaneous Construction Authorizations, Work Change Directives, and Change Orders.

I.02 RELATED REQUIREMENTS

- A. Standard Specification Section 100 Definitions and Abbreviations
- B. Standard Specification Section 103 Scope of Work
- C. Standard Specification Section 105 Changes in Work.

I.03 FIELD ORDER

- A. Engineer may issue a Field Order for Contractor to proceed with a minor change which does not involve a change in Contract Amount or Contract Time.
- B. Field Order will describe interpretations or clarifications of Contract Documents, order minor changes in the work, and/or memorialize trade-off agreements. Field Order will describe changes in the Work, both additions and deletions, with attachments as necessary to define details of the change.

I.04 CONTRACT CHANGE REQUEST

- A. City may initiate changes to plans, specifications, character of work, or quantity of work by submitting a Change Proposal Request to Contractor. Request will include:
 - 1. Detailed description of the Change, Products and location of the change in the project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change and a specific statement as to whether overtime work is, or is not, authorized.
 - 4. A specific period of time during which the requested price will be considered valid.

5. Such request is for information only and is not an instruction to execute the changes, nor to stop work in progress.
- B. Contractor may initiate changes in specified methods of construction and changes to plans and specifications which do not materially affect the Work, and which can be made at a reduction in cost or at no additional cost to the City, by submitting a written Change Proposal to the Engineer, containing:
1. Description of the proposed changes.
 2. Statement of the reason for making the changes.
 3. Statement of the effect on the Contract Amount and the Contract Time.
 4. Documentation supporting any change in Contract Amount or Contract Time, as appropriate.

I.05 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal and for each unit price which has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.
- B. On request, provide additional data to support time and cost computations
1. Labor required.
 2. Equipment required.
 3. Products required.
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 4. Taxes, insurance and bonds.
 5. Credit for work deleted from Contract, similarly documented.
 6. Overhead and profit.
 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs and for work done on a time-and-material/force account basis, with documentation as required in Standard Specification Section 105.3.2 Payment.
- D. Document requests for Substitutions for Products as specified in Section 4630.

I.06 AUTHORIZATION OF CONTRACT CHANGES

- A. City may authorize changes or extra work that involves changes to Contract Price or Contract Time with a Miscellaneous Construction Authorization, a Work Change Directive, or a formal Change Order.
- B. City may issue a Miscellaneous Construction Authorization to authorize changes or extra work with payment from the Miscellaneous Construction Items, if indicated on the Bid Form, and changes to Contract Time. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change. It will designate the amount of payment and any change in Contract Time. A Miscellaneous Construction Authorization does not change the Contract Amount or the Contract Time. Authorized changes to Contract Time will be included in a subsequent Change Order.

- C. City may issue a Work Change Directive for Contractor to proceed with a change for subsequent inclusion in a Change Order, either with or without initiating a change by first submitting a Change Proposal Request. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change and will designate the method of determining any change in the Contract Amount and any change in Contract Time. A Work Change Directive does not change the Contract Amount or the Contract Time. Changes to the Contract Amount and the Contract Time will be included in a subsequent Change Order.
- D. A formal Change Order is the only document that can change the Contract Amount and the Contract Time. City may issue a Change Order to change the Contract Time as authorized in a Miscellaneous Construction Authorization, to change the Contract Amount and Contract Time as designated in a Work Change Directive, and to authorize extra work and changes initiated by the City.

1.07 METHODS OF COMPENSATION FOR CHANGES

- A. Content of Lump Sum/Fixed Price changes will be based on
 - 1. Engineer's Change Proposal Request and Contractor's responsive Change Proposal as mutually agreed between City and Contractor
 - 2. Contractor's Change Proposal, as recommended by the Engineer
- B. Content of Unit Price changes will be based on
 - 1. Engineer's definition of the scope of the changes
 - 2. Contractor's Change Proposal, as recommended by the Engineer
 - 3. Survey of completed Work
- C. Unit Prices will be those stated in the Contract or those mutually agreed upon between the City and the Contractor.
- D. When the price for changes or extra work cannot be agreed upon, City will issue a Work Change Directive directing Contractor to proceed on the basis of time and materials/force account.
- E. At the end of each day, submit itemized accounting and supporting data as provided in Standard Specification Section 105.3.2.2. Engineer will determine the allowable cost of such work.

1.08 ALLOWABLE COSTS FOR CHANGES

- A. Allowable labor costs consist of payroll costs in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the City and the Contractor. Such employees shall include superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by the Contractor, whether at the Site or in the Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedules of job classifications, are excluded from allowable labor costs. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expense

of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, may be included in the above to the extent authorized by the City.

- B. Allowable material costs consist of the cost of materials furnished and incorporated into the work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to the Contractor. All trade discounts, rebates, and refunds and returns from sale of surplus materials shall accrue to the City, and the Contractor shall make provisions so that they may be obtained.
- C. Allowable labor costs for Subcontractors are the same as specified for the Contractor.
- D. Allowable equipment costs for owned or rented equipment shall be paid by the following conditions.
 - 1. Allowable rates for owned equipment shall be the estimated cost reimbursement rates included within the original bid prices. If the Contractor's established original bid rates are not available, the allowable rates shall not exceed those shown in the Rental Rate Guide Book for Construction Equipment (Blue Book) Volumes 1, 2, or 3 as applicable. If Blue Book rates are used, reimbursement will not be made for owned service trucks or other support equipment and vehicles, since their costs are normally included in equipment operating costs.
 - 2. Owned pickups, if directly used in the performance of extra work, are eligible for reimbursement at the flat rate of \$50.00 per day. If used by a superintendent or used primarily for transportation of employees, their costs are included in overhead and separate reimbursements will not be made.
 - 3. Payment for owned equipment will be made for the actual hours used in the extra work. Payment will not be made for time lost for breakdowns, repairs, or time after equipment is no longer needed for the extra work. If equipment is used intermittently while dedicated to the extra work, payment will be made for the duration that the equipment is dedicated to the extra work, but not more than 8 hours per day. While actually working during second and third shift work, payment will be made at one half the Blue Book ownership costs plus the estimated hourly operating costs. No reimbursement will be made while not actually working.
 - 4. If ordered held available for extra work, idled owned equipment will be paid for at an hourly standby rate computed as one half of the agreed working rate per hour, excluding operating costs. Reimbursement for standby will not be paid when the equipment would normally be idle, such as Saturdays, Sundays, holidays, days when weather conditions prevent working, during breakdowns or servicing, or when the equipment has actually worked or been paid for 8 or more hours in the day or 40 or more hours in the week. No payment will be made for equipment downtime other than for time specifically ordered for extra work by the City.
 - 5. Rental rates for rented or leased equipment shall be as paid by the Contractor. The allowable reimbursement for rented equipment shall be the agreed invoice cost. The invoice shall be marked "PAID" and initialed or signed by the Contractor. Allowable reimbursement for operating costs shall be as agreed between the City and Contractor.

1.09 ALLOWABLE MARKUP FOR CHANGES

- A. The Contractor's fee for overhead and profit (markup) for changes shall be a fee based on the markup provided in Standard Specification Section 105.3.2.3.

1.10 CHANGE OF CONTRACT TIME

- A. The Contract Time may only be changed by a Change Order. Changes to Contract Time identified in a Miscellaneous Construction Authorization or a Work Change Directive is evidence that City and Contractor expect that the change will be incorporated into a subsequently issued Change Order.
- B. Where Contractor is prevented from completing any part of the Work within the Contract Time due to delay beyond control of the Contractor, the Contract Time will be extended in an amount equal to the time lost due to such delay.
- C. If anyone for whom the City is responsible delays, disrupts, or interferes with the performance or progress of the Work, then the Contractor will be entitled to an equitable adjustment in the Contract Amount or the Contract Time or both. The Contractor's entitlement to an adjustment is conditioned on such adjustment being essential to the Contractor's ability to complete the Work within the Contract Time.
- D. If the Contractor is delayed in performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under control of the City, or other causes not the fault of and beyond control of City and Contractor, then the Contractor will be entitled to an equitable adjustment in Contract Time, if such adjustment is essential to the Contractor's ability to complete the Work within the Contract Time. Such an adjustment shall be the Contractor' sole and exclusive remedy for the delays described in this paragraph.
- E. For the purpose of this specification, a delay extends the duration of critical path. With any request for changes to Contract Time, the Contractor shall furnish the Engineer with sufficient documented evidence of the impact of a delay to the critical path. Documentation shall include identifying work activities affected by the delay, demonstrating that the affected work activities are critical path activities, and the impact to the critical path.
- F. With any request for changes to Contract Time for delays related to abnormal weather conditions, the Contractor shall furnish the Engineer with sufficient documented evidence to demonstrate the difference between normal and abnormal weather conditions for the Project location.

I.11 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values to record each change as a separate item of work, and to record the adjusted Contract Amount.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.
 - I. Revise subschedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in As-Built Drawings.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 4035

SECTION 4038

REQUESTS FOR INFORMATION

PART I GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

- A. This Section specifies the general methods and requirements of Requests for Information (RFIs).

1.02 REQUESTS FOR INFORMATION

- A. When the Contractor believes that additional information or clarification of a contract requirement is needed, they may initiate an RFI.
- B. The RFI process shall be limited to the clarification of technical and/or administrative matters. While the response to an RFI might lead to a change in the contract scope, cost or time, RFIs are not a substitute to the notification requirements stipulated in the Contract Documents.
- C. A response to an RFI is not an authorization to perform any additional work that would require a change order or written amendment to the contract. If the Contractor believes the response an RFI requires a change to the Contract, Contractor shall promptly provide written notice to the Engineer in accordance with the General Provisions.
- D. RFIs are not a substitute for the Submittals process specified elsewhere.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.01 ORIGATION

- A. The Contactor shall originate RFIs in the PMIS. Subcontractors and suppliers shall use the form appended to this section for submitting an RFI to the Contractor for subsequent origination of the RFI in the PMIS. RFIs submitted directly to the Engineer by subcontractors or suppliers will not be accepted.
 - 1. RFIs are autonumbered in the PMIS. In the event that an answered RFI results in a follow-up inquiry, a new RFI must be originated and the RFI's may be linked.
 - 2. Enter a short description of the question as the Title. For Reference Documents, include Specification Section(s), Drawing(s), or Submittal ID for which information is requested.
 - 3. Attach drawings, sketches, photographs or other relevant information.
 - 4. Indicate the date by which the Contractor requests a reply.
 - 5. Enter the question. If the question concerns an interpretation of the Contract Documents, enter the Contractor's interpretation.
 - 6. The Contractor will select the Workflow Actions "SUBMIT" and "SEND" to transmit the RFI to the Engineer.

3.02 PROCESSING

- A. Contractor shall utilize the PMIS to submit all RFIs to the Engineer for processing.
- B. All RFIs will be reviewed and answered by the Engineer.

- C. The Engineer will generally respond to RFIs within seven calendar days of receipt in PMIS – depending on the complexity of the inquiry.
- D. The RFI Log will be maintained in the PMIS, including the Status, Creation Date, and Due Date.

3.03 RESPONSES

- A. If the RFI contains sufficient clarity, the Engineer will insert a response and “SUBMIT FOR ACKNOWLEDGEMENT”. The Contractor shall “CLOSE” the RFI to indicate receipt.
- B. If the RFI does not contain sufficient clarity, the Engineer may request additional information from the Contractor.
- C. If the Contractor does not agree with the answer from a RFI, then the Contractor shall create a new RFI and link it to the original RFI.

END OF SECTION 4038

(RFI Form for Subcontractors and Vendors follows)



Request for Information for Subcontractors & Vendors

RFI Title:	RFI No.: <i>Assigned by PMIS</i>	
Project:	Date Response Required by:	
Project No.:	Date Submitted:	
Reference Documents		
Submittal ID:	Drawing No:	
Specification Section:	Other:	
Attachments:		
<u>QUESTION:</u>		
Contract Interpretation or Proposed Solution		
Cost Impact? Y/ N	Cost Impact Notes:	
Estimated Cost:		
Schedule Impact? Y/N	Sched Impact Notes:	
Est Impact (Days):		
Submitted By:		Date:
Company:		

Submit form to Contractor for entry into PMIS



SECTION 4200

PROJECT MEETINGS

PART I GENERAL

I.01 REQUIREMENTS INCLUDED

- A. The Engineer will schedule and administer pre-construction meeting, periodic progress meetings and specially called meetings throughout progress of the Work.
 - 1. Prepare agenda for meetings.
 - 2. Make physical arrangements for meetings.
 - 3. Preside at meetings.
 - 4. Record the minutes; include significant proceedings and decisions.
 - 5. Meeting minutes must be uploaded into Unifier within 2 working days after each meeting
 - 6. Reproduce and distribute copies of minutes within 5 working days after each meeting.
 - a. To participants in the meeting.
 - b. To parties affected by decisions made at the meeting.
- B. Representatives of Contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. Attend meetings to ascertain that work is expedited consistent with Contract Documents and construction schedules.

I.02 PRE-CONSTRUCTION MEETING

- A. Attend a preconstruction meeting.
- B. Location: A central site, convenient for all parties, designated by the Engineer.
- C. Attendance
 - 1. Engineer and his/her professional consultants.
 - 2. Resident Project Representative.
 - 3. Contractor.
 - 4. Major Subcontractors.
 - 5. Major suppliers.
 - 6. Utilities
 - 7. Others as appropriate.
- D. Suggested Agenda Items
 - 1. Introduction of key project personnel

2. Lines of communication/procedures
3. Preconstruction submittal requirements
4. Key contract dates
5. Correspondence routing and distribution
6. Payment procedures
7. Submittal and shop drawing procedures
8. Project progress meetings
9. Project progress reports
10. City requirements and special project procedures
11. RPR duties, responsibilities, and limitations of authority
12. Permits and coordination with local building officials
13. Safety procedures
14. QM procedures
15. Construction work schedule (days, hours, holidays, overtime)
16. Control of work requirements
17. Fair Share reporting requirements (Form 5)
18. Material storage requirements
19. Contractor's staging area
20. Field Offices
21. Coordination with utilities
22. Homeowner/business notification and citizen complaints
23. Construction photographs and record drawings
24. Testing laboratory procedures
25. Conformed documents

I.03 PROGRESS MEETINGS

- A. Attend construction progress meetings every two weeks and periodic meetings at regular intervals determined by the Engineer.
- B. Attend called meetings as required by progress of the Work.
- C. Location of the meetings: Project field office of Contractor or Engineer, or City Hall, or another location identified by the Engineer.
- D. Attendance
 - I. Engineer and his/her professional consultants as needed.

2. Subcontractors as appropriate to the agenda.
 3. Suppliers as appropriate to the agenda.
 4. Others as appropriate.
- E. Suggested Agenda Items
1. Review, approval of minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Submittals
 4. RFI's
 5. Field Orders, Work Change Directives, Change Orders
 6. Field observations, problems and conflicts.
 7. Current Construction Schedule.
 8. Progress, schedule, during succeeding work period.
 9. Coordination of work activities.
- F. Attend progress meetings and study previous meeting minutes and current agenda items, in order to be prepared to discuss pertinent topics such as deliveries of materials and equipment, progress of the Work, etc.
- G. Provide a current submittal log at each progress meeting.
- H. Provide a 4-week look-ahead schedule of anticipated working days and hours for the Engineer's use in planning work by the Resident Project Representative.
- I. Provide an updated and accurate project schedule of work to be performed in the next 30 days. Remittance of partial pay estimates are dependent on submittal and approval of an updated monthly construction progress schedule.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION 4200

SECTION 4300

SUBMITTALS

PART I GENERAL

1.01 SCOPE OF WORK

- A. This Section includes the requirements for compiling, processing and transmitting submittals required for execution of the project.
- B. Submittals are categorized into two types: Action Submittals and Informational Submittals, as follows:
 - I. Action Submittal: Written and graphic information submitted by the Contractor that requires the Engineer's approval. The following are examples of action submittals:
 - a. Shop drawings (including working drawings and product data).
 - b. Samples.
 - c. Operation & maintenance manuals.
 - d. Site Usage Plan (Contractor's staging - including trailer siting and material laydown area).
 - e. Schedule of values Pay Estimate format.
 - f. Construction Schedule.
 - g. Outage Requests.
 - h. Vendor Training Outlines/Plans.
 - i. As-Built Drawings.
 - j. Warranties and Bonds.
 - k. Contract Close-out documents.

2. Informational Submittal: Information submitted by the Contractor that does not require the Engineer's approval. The following are examples of informational submittals:
 - a. Shop Drawing Schedule.
 - b. Statements of Qualifications.
 - c. Health and Safety Plans.
 - d. Construction Photography and Videography.
 - e. Work Plans.
 - f. Maintenance of Traffic Plans.
 - g. Proposed Testing Procedures.
 - h. Test Records and Reports.
 - i. Test and Start-Up Reports.
 - j. Certifications.
 - k. Record Shop Drawings.
 - l. Submittals required by laws, regulations and governing agencies.
 - m. Submittals required by funding agencies.
 - n. Other requirements found within the specifications.

I.02 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor shall prepare and submit, at no additional cost to the City, submittals and details of structural and reinforcing steel, equipment, materials, electrical controls, architectural fabrications, pipe, pipe joints, special pipe sections, valves, pumps, mix designs, design/build documents, and other appurtenances, as required in the technical specifications.

All submittals and supporting data, catalogs, schedules, etc., shall be submitted as the instruments of the Contractor, who shall be responsible for their accuracy, completeness, and coordination. Such responsibility shall not be delegated, in whole or in part, to subcontractors or suppliers. These submittals may be prepared by the Contractor, subcontractors, or suppliers, but the Contractor shall ascertain that submittals meet all of the requirements of the Contract Documents, while conforming to structural, space, and access conditions at the point of installation. Designation of work "by others," if shown in submittals, shall mean that the Work will be the responsibility of the Contractor rather than the subcontractor or supplier who prepared the submittals. The Contractor shall ensure that there is no conflict with other submittals and notify the Engineer in each case where its submittal may affect the work of another Contractor of the City. The Contractor shall ensure coordination of submittals among the related crafts and subcontractors.

Submittals shall be prepared in such form that data can be identified with the applicable specification paragraph. The data shall clearly demonstrate compliance with the Contract Documents and shall relate to the specific equipment or piece of work to be furnished.

Where manufacturer's standard drawings and catalog sheets are employed, they shall be marked clearly to show what portion of the data is applicable to this project.

B. Transmittal Procedures:

All submittals shall be transmitted via email to Clean Water Shreveport at admin@cleanwatershreveportla.com

C. Submittal Registry:

The Contractor will submit a submittal registry listing all proposed submittals for the project to the City at, or before the pre-construction meeting. The submittal registry will include, but not limited to; technical shop drawings, samples, project baseline schedule and monthly updates, schedules, schedule of values, permit requirements, test results and certifications, operations and maintenance manuals, shutdown/outage requests, vendor training outline/plans, warranties and bonds, record drawings, and spare parts. After review and approval of the submittal registry, the City will load the list of submittals onto the PMIS.

The Submittal registry list will have the following information:

1. Submittal Number – The submittal number will be made up of a six digit number, a period, and the two digit number (XXXXXX.XX). The first six digit number is the applicable specification section. The two digit number after the period is the sequential number for each item to be submitted under each specification section, in chronological order submitted, starting at .01.
2. Submittal Description – A description of what the submittal contains, or a list of items included in the submittal.
3. Vendor Name – Name of manufacturer, vendor, or subcontractor supplying the item in the submittal.
4. Substitution – Indicate if the item being submitted is a substitution from the specified product or vendor.
5. Submittal Date – Indicate the anticipated date for transmitting the submittal to the City.
6. Example:

Submittal #	Description	Vendor	Substitution	Date
221005.01	Ball Valves	Milwaukee	No	03/24/15

D. All submittals shall be clearly identified as follows:

1. Date of Submission.

2. Project Number.
 3. Project Name.
 4. Contractor Identification.
 - a. Contractor.
 - b. Vendor or Supplier
 - c. Manufacturer.
 5. Identification of the Product.
 6. Reference to Contract Drawing.
 7. Reference to specification section number, page and paragraph(s).
 8. Reference to Contract Item number.
 9. Reference to applicable standards, such as ASTM or Federal Standards numbers.
 10. Indication of Contractor's approval.
 11. Contractor's Certification statement.
 12. Identification of deviations from the Contract Documents, if any.
 13. Reference to previous submittal (for resubmittals).
- E. Submittals shall be clear and legible, and of sufficient size for legibility and clarity of the presented data.
- F. Variances
1. Notify the Engineer in writing, at the time of submittal, of any deviations in the submittals from the requirements of the Contract Documents.
 2. Notify the Engineer in writing, at the time of re-submittal (resubmission), of all deviations from previous submissions of that particular shop drawing, except those deviations which are the specific result of prior comments from the Engineer.
- G. Action Submittals.
1. Shop Drawings
 - a. Shop drawings may include, but are not necessarily limited to, custom prepared data such as fabrication and erection/installation (working) drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, valve schedules, wiring diagrams, coordination drawings, equipment inspection and test reports, and performance curves and certifications, as applicable to the work.
 - b. Contractor shall verify all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data, and coordinate each item with other related shop drawings and the Contract requirements.
 - c. All details on shop drawings shall clearly show the relation of the various parts to the main members and lines of the structure and where correct fabrication of the

work depends upon field measurements, such measurements shall be made and noted on the drawings before being submitted.

- d. All shop drawings submitted by subcontractors and vendors shall be reviewed by the Contractor. Contractor shall confirm, materials, dimensions, catalog numbers, technical data and performance criteria; and shall coordinate with other related shop drawings and the Contract requirements. In addition, Contractor shall confirm existing field conditions and dimensions and confirm that the submittal is coordinated and compatible with existing conditions. Submittals directly from subcontractors or vendors will not be accepted by the Engineer.
 - e. The Contractor is responsible for the accuracy of the subcontractor's or vendor's submittal; and, for their submission in a timely manner to support the requirements of the Contractor's construction schedule. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractor or vendor to correct, before submission to the Engineer. All shop drawings shall be approved by the Contractor.
 - f. Delays to construction due to the untimely submission of submittals will constitute inexcusable delays, for which Contractor shall not be eligible for additional cost nor additional contract time. Inexcusable delays consist of any delay within the Contractor's control.
2. Working Drawings
- a. Detailed installation drawings (sewers, equipment, piping, electrical conduits and controls, HVAC work, and plumbing, etc.) shall be prepared and submitted for review and approval by the Engineer prior to installing such work. Installation drawings shall be to-scale and shall be fully dimensioned.
 - b. Piping working drawings shall show the laying dimensions of all pipes, fittings, valves, as well as the equipment to which it is being connected. In addition, all pipe supports shall be shown.
 - c. Equipment working drawings shall show all equipment dimensions, anchor bolts, support pads, piping connections and electrical connections. In addition, show clearances required around such equipment for maintenance of the equipment.
 - d. Electrical working drawings shall show conduits, junction boxes, disconnects, control devices, lighting fixtures, support details, control panels, lighting and power panels, and Motor Control Centers. Coordinate all locations with the Contract Documents and the Contractor's other working drawings.
3. Product Data: Product data include, but are not limited to, the manufacturer's standard prepared data for manufactured products (catalog data), such as the product specifications, installation instructions, availability of colors and patterns, rough-in diagrams and templates, product photographs (or diagrams), wiring diagrams, performance curves, quality control inspection and reports, certifications of compliance (as specified or otherwise required), mill reports, product operating and maintenance instructions, recommended spare parts and product warranties, as applicable.
4. Samples.
- a. Furnish, samples required by the Contract Documents for the Engineer's approval. Samples shall be delivered to the Engineer as specified or directed.

Materials or equipment for which samples are required shall not be used in the work unless and until approved by the Engineer.

- b. Samples specified in individual Specification Sections, include, but are not limited to: physical examples of the work (such as sections of manufactured or fabricated work), small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and other specified units of work.
 - c. Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify any Contract Requirements.
 - d. Approved samples not destroyed in testing shall be sent to the Engineer or stored at the site of the work. Approved samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in work shall match the approved samples. Samples which fail testing or are not approved will be returned to the Contractor at his expense, if so requested at time of submission.
5. Contractor's Certification.
- a. Each shop drawing, working drawings, product data, and sample shall have affixed to it the following Certification Statement:

"Certification Statement: by this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements."
 - b. Shop drawings, working drawings, and product data sheets 11-in x 17-in and smaller shall be bound together in an orderly fashion and bear the above Certification Statement on the cover sheet. The transmittal cover sheet for each identified shop drawing shall fully describe the packaged data and include a listing of all items within the package.
6. Project work, materials, fabrication, and installation shall conform to approved shop drawings (including working drawings and product data) and applicable samples.
7. No portion of the work requiring a shop drawing (including working drawings and product data) or sample shall be started, nor shall any materials be fabricated or installed before approval of such item. Procurement, fabrication, delivery or installation of products or materials that do not conform to approved shop drawings shall be at the Contractor's risk. Furthermore, such products or materials delivered or installed without approved shop drawings, or in non-conformance with the approved shop drawings will not be eligible for progress payment until such time as the product or material is approved or brought into compliance with approved shop drawings. Engineer will not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
8. Operation and Maintenance Data: Operation and maintenance data shall be submitted in assembled manuals as specified. Such manuals shall include detailed instructions for City personnel on safe operation procedures, controls, start-up, shut-down, emergency procedures, storage, protection, lubrication, testing, trouble-shooting, adjustments, repair procedures, and other maintenance requirements.

9. Schedule of Values: On projects consisting of lump sums (in whole or in part) submit a proposed schedule of values providing a breakdown of lump sum items into reasonably small components – generally desegregated by building, area, and/or discipline. The purpose of the schedule of values is for processing partial payment applications. If requested by the Engineer, provide sufficient substantiation for all or some items as necessary to determine the proposed schedule of values is a reasonable representation of the true cost breakdown of the Work. The schedule of values shall not be unbalanced to achieve early payment or over-payment in excess of the value of work or any other inequitable distribution of the costs. If, in the opinion of the Engineer, the schedule of values is unbalanced, Contractor shall reallocate components to achieve a balanced schedule acceptable to Engineer.
10. Site Usage: Submit a proposed site staging plan, including but not limited to the location of office trailers, storage trailers and material laydown. Such plan shall be a graphic presentation (drawing) of the proposed locations; and, shall include on-site traffic modifications, and temporary utilities, as may be applicable.

H. Informational Submittals

1. Shop Drawing Schedule: Prepare and submit a schedule indicating when shop drawings are required to be submitted to support the as-planned construction schedule. The submittal schedule shall allow sufficient time for preparation and submittal, review and approval, and fabrication and delivery to support the construction schedule.
2. Construction Schedule: Prepare and submit construction schedules and monthly status reports as specified.
3. Statements of Qualifications: Provide evidence of qualification, certification, or registration, as required in the Contract Documents, to verify qualifications of licensed land surveyor, professional engineer, materials testing laboratory, specialty subcontractor, technical specialist, consultant, specialty installer, and other professionals.
4. Health and Safety Plans: Prepare and submit a general company Health and Safety Plan (HASP) modified or supplemented to include job-specific considerations;
5. Work Plans: Prepare and submit copies of all work plans needed to demonstrate to the Engineer that Contractor has adequately thought-out the means and methods of construction and their interface with existing facilities.
6. Maintenance of Traffic Plans: Prepare maintenance of traffic plans where and when required by the Contract Documents and by local ordinances or regulations. If Contractor is not already knowledgeable about local ordinances and regulations regarding maintenance of traffic requirements, become familiar with such requirements and include all costs for preparation and submittal of traffic management plans and all associated costs for permits and fees to implement the traffic management plan, in the bid amount. In addition, unless a supplemental payment provision is provided in the bid form, include the cost of police attendance, when required.
7. Outage Requests: Provide sufficient notification of any outages required (electrical, flow processes, etc.) as may be required to tie-in new work into existing facilities.

Unless specified otherwise elsewhere, a minimum of seven calendar days' notice shall be provided.

8. Test Records and Reports: Provide copies of all test records and reports as specified in the various technical specifications.
9. Vendor Training Outlines/Plans: At least two weeks before scheduled training of City personnel, provide lesson plans for vendor training in accordance with the specification for O&M manuals.
10. Test and Start-up Reports: Manufacturer shall perform all pre-start-up installation inspection, calibrations, alignments, and performance testing as specified in the respective Specification Section. Provide copies of all such test and start-up reports.
12. Certifications.
 - a. Provide various certifications as required by the specifications. Such certifications shall be signed by an officer (of the firm) or other individual authorized to sign documents on behalf of that entity.
 - b. Certifications may include, but are not limited to:
 - i. Welding certifications and welders qualifications
 - ii. Certifications of Installation, Testing and Training for all equipment
 - iii. Material Testing reports furnished by an independent testing firm
 - iv. Certifications from manufacturer(s) for specified factory testing
 - v. Certifications required to indicate compliance with any sustainability or LEEDS accreditation requirements indicated in the Contract Documents
13. As-Built Drawings: No later than Final Completion, submit a record of all changes during construction— in accordance with specification on As-Built Drawings.
14. Warranties and Bonds: Assemble a booklet or binder of all warranties and bonds as specified in the various technical specifications and in accordance with the specification on Warranties and Bonds and provide two originals to the Engineer.
15. Contract Close-Out Documents Submit Contract documentation as indicated in the specification for Contract Closeout.

PART 2 PRODUCTS (NOT USED).

PART 3 EXECUTION.

3.01 SUBMITTAL SCHEDULE.

- A. Provide an initial submittal schedule for review by the Engineer. Incorporate comments from Engineer into a revised submittal schedule.
- B. Maintain the submittal schedule and provide sufficient copies for review by Engineer. An up-to-date submittal schedule shall be provided at each project progress meeting.

3.02 TRANSMITTALS

- A. Prepare separate transmittal sheets for each submittal. Each transmittal sheet shall include at least the following: the Contractor's name and address, Engineer's name, project name, project number, submittal number, description of submittal and number of copies submitted.
- B. Submittals shall be transmitted or delivered directly to the office of the Engineer, as indicated in the Contact Documents or as otherwise directed by the Engineer.
- C. Provide copies of transmittals forms or cover letters (without attachments) directly to the Resident Project Representative.

3.03 PROCEDURES

- A. Action Submittals
 - I. Contractor's Responsibilities
 - a. Coordination of Submittal Times: Prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work of other related Sections, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required). Coordinate with other submittals, testing, purchasing, fabrication, delivery and similar sequenced activities. Extensions to the Contract Time will not be approved for the Contractor's failure to transmit submittals sufficiently in advance of the Work.
 - b. The submittals of all shop drawings (including working drawings and product data) shall be sufficiently in advance of construction requirements to allow for possible need of re-submittals, including the specified review time for the Engineer.
 - c. Engineer will be allowed a reasonable time within which to evaluate each submittal for shop drawings and O&M manuals that require review by more than one engineering discipline. Resubmittals will be subject to the same review.

- d. Submittals of operation and maintenance data shall be provided within 30 days of approval of the related shop drawing(s).
- e. Before submission to the Engineer, review shop drawings as follows:
 - i. make corrections and add field measurements, as required
 - ii. use any color for its notations except red (reserved for the Engineer's notations) and black (to be able to distinguish notations on black and white documents)
 - iii. identify and describe each and every deviation or variation from Contract documents or from previous submissions, except those specifically resulting from a comment from the Engineer on a previous submission
 - iv. include the required Contractor's Certification statement
 - v. provide field measurements (as needed)
 - vi. coordinate with other submittals
 - vii. indicate relationships to other features of the Work
 - viii. highlight information applicable to the Work and/or delete information not applicable to the Work
- f. If Contractor considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, provide written notice thereof to the Engineer immediately; and do not release for manufacture before such notice has been received by the Engineer.
- g. When the shop drawings have been completed to the satisfaction of the Engineer, carry out the construction in accordance therewith; and make no further changes therein except upon written instructions from the Engineer.

2. Engineer's Responsibilities

- a. Engineer will not review shop drawings (including working drawings and product data) that do not include the Contractor's approval stamp and required certification statement. Such submittals will be returned to the Contractor, without action, for correction.

- b. Partial shop drawings (including working drawings and product data) will not be reviewed. If, in the opinion of the Engineer, a submittal is incomplete, that submittal will be returned to the Contractor for completion. Such submittals may be returned with comments from Engineer indicating the deficiencies requiring correction.
 - c. If shop drawings (including working drawings and product data) meet the submittal requirements, Engineer will forward copies to appropriate reviewer(s). Otherwise, noncompliant submittals will be returned to the Contractor without action - with the Engineer retaining one copy.
 - d. Submittals which are transmitted in accordance with the specified requirements will be reviewed by the Engineer within 10 days. The time for review will commence upon receipt of submittal by Engineer.
3. Review of Shop Drawings (Including Working Drawings and Product Data) and Samples
- a. The review of shop drawings, working drawings, data and samples will be for general conformance with the design concept and Contract Documents. They shall not be construed:
 - i. as permitting any departure from the Contract requirements
 - ii. as relieving the Contractor of responsibility for any errors, including details, dimensions, and materials
 - iii. as approving departures from details furnished by the Engineer, except as otherwise provided herein
 - b. The Contractor remains responsible for details and accuracy, for coordinating the work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.
 - c. If the shop drawings (including working drawings and product data) or samples as submitted describe variations and indicate a deviation from the Contract requirements that, in the opinion of the Engineer are in the interest of the City and are so minor as not to involve a change in Contract Price or Contract Time, the Engineer may return the reviewed drawings without noting an exception.
 - d. Only the Engineer will utilize the color "RED" in marking submittals.
 - e. Shop drawings will be returned to the Contractor with one of the following codes.
 - i. "APPROVED" – This code is assigned when there are no notations or comments on the submittal. When returned under this code the Contractor may release the material for manufacture.
 - ii. "APPROVED AS NOTED" - This code is assigned when a confirmation of the notations and comments IS NOT required. The Contractor

may release the material for manufacture; however, all notations and comments must be incorporated into the final product.

1. "APPROVED AS NOTED/CONFIRM" - This combination of codes is assigned when a written confirmation of the notations and comments is required. The Contractor may release the material for manufacture; however, all notations and comments must be incorporated into the final product. Written confirmation shall specifically address each notation and comment. Confirmation shall be furnished to the Engineer within [15] days of the date of the Engineer's transmittal requiring the confirmation.
2. "APPROVED AS NOTED/RESUBMIT" - This combination of codes is assigned when a written confirmation of the notations and comments is required and are extensive enough to require a resubmittal of the entire package. This resubmittal is to address all comments, omissions and non-conforming items that were noted. Resubmittal shall be furnished to the Engineer within [30] days of the date of the Engineer's transmittal requiring the resubmittal.
3. "NOT APPROVED" – This code is assigned when the submittal does not meet the intent of the contract documents. The Contractor must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor.
4. "COMMENTS ATTACHED" – This code is assigned where there are comments attached to the returned submittal, which provide additional information to aid the Contractor.
5. "RECEIPT ACKNOWLEDGED (Not subject to Engineer's Review or Approval)" – This code is assigned to acknowledge receipt of a submittal that is not subject to the Engineer's review and approval, and is being filed for informational purposes only. This code is generally used in acknowledging receipt of means and methods of construction work plans, field conformance test reports, and health and safety plans.
 - f. Repetitive Reviews: Shop drawings, O&M manuals and other submittals will be reviewed no more than [2] times at the City's expense. All subsequent reviews will be performed at the Contractor's expense. Reimburse the City for all costs invoiced by Engineer for the [third] and subsequent reviews.
 - g. Electronic Transmission: Action Submittals shall be transmitted by electronic means, meeting the following conditions:
 - i. The above-specified transmittal form is included.
 - ii. All other requirements specified above have been met including, but not limited to, coordination by the Contractor, review and approval by the Contactor, and the Contractor's Certification.
 - iii. The submittal contains no pages or sheets larger than 11 x 17 inches.

- iv. With the exception of the transmittal sheet, the entire submittal is included in a single file.
- v. The electronic files are PDF format (with printing enabled).

B. Informational Submittals

1. Contractor's Responsibilities

- a. Number of copies: Submit [one] [copy] [copies], unless otherwise indicated in individual Specification sections

2. Engineer's Responsibilities

- a. The Engineer will review each informational submittal within 10 days. If the informational submittal complies with the Contract requirements, Engineer will file for the project record. Engineer may elect not to respond to Contractor regarding informational submittals meeting the Contract requirements.
- b. If an informational submittal does not comply with the Contract requirements, Engineer will respond accordingly to the Contractor within 10 days. Thereafter, the Contractor shall perform the required corrective action, including retesting, if needed, until the submittal, in the opinion of the Engineer, is in conformance with the Contract Documents.

3. Electronic Transmission

- a. Informational submittals shall be transmitted by electronic means meeting all of the following conditions:
 - i. The above-specified transmittal form is included.
 - ii. The submittal contains no pages or sheets larger than 11 x 17 inches.
 - iii. With the exception of the transmittal sheet, the entire submittal is included in a single file.
 - iv. The electronic files are PDF format (with printing enabled).

- v. For Submittals that require certification, corporate seal, or professional embossment (i.e., P.E.s, Surveyors, etc.) transmit two hard-copy originals to the Engineer.

END OF SECTION

SECTION 4310

CONSTRUCTION SCHEDULING

PART I GENERAL

I.01 REQUIREMENTS INCLUDED

- A. The Contractor shall prepare and submit to the Engineer for review, a schedule that clearly shows the sequence and interdependencies of activities required for complete performance of the work required for this project, showing the order in which the Contractor and his Subcontractors propose to carry on the Work, and the dates upon which he proposes to start and complete the entire scope of work, including the dates for submittals and approval of samples and shop drawings, and the procurement of materials, plant, and equipment. The construction schedule shall consist of a critical path method (CPM) network presented in a time-scaled graphic (print-out).
- B. The construction schedule shall, in general, determine the order in which the Work is to proceed. The Engineer shall review the Contractor's approach to meet the specific requirements.
- C. The Contractor will be responsible for coordinating his own schedule as well as construction activities of others directed by his Subcontractors. The schedule shall include activities to be performed by Subcontractors and will demonstrate the coordination of their work. The contractor will maintain the overall project construction schedule, of which the Sub-contractor's construction schedule will be a part.
- D. The Contractor shall furnish sufficient forces, construction equipment as may be necessary to complete the Work in accordance with the submitted schedule.
- E. The Contractor shall designate the individual or an authorized representative who shall be responsible for development and maintenance of the schedule and reports. This individual or representative of the Contractor shall have direct project control and complete authority for updating and maintaining the Contractor's schedule.
- F. Contract Time on a Working Day Basis or a Calendar Day Basis extends from the date of Notice to Proceed through the date of Final Completion. All Work, including activities such as testing, startup, training, 30-day performance tests, O&M Manuals, warranties, As-Built Drawings, etc. must be completed within the Contract Time. All Work shall be identified in the baseline schedule to be completed within the Contract Time.
- G. If the latest version of Oracle Primavera P6 or Microsoft Project are not being used, Contractor will submit the qualifications of the scheduling software being proposed as an alternative. Engineer will review the alternative for use on the project.

I.02 CONTENT OF SCHEDULES

- A. The schedule shall be organized by Work Breakdown Structure (WBS)
- B. Each Construction Activity's duration will be no more than four weeks. Level of Effort (LOE) and procurement activities may have durations that are longer.
- C. Specifically identify activities for the following list of structures or items, in addition to other structures or items as necessary.
 - 1. Site clearing.
 - 2. Site utilities.
 - 3. Foundation work.
 - 4. Structural framing.
 - 5. Material installations.
 - 6. Finishings.
 - 7. Instrumentation.
 - 8. Painting.
 - 9. Training.
 - 10. Testing.
 - 11. Startup.
 - 12. Receipt of spare parts.
 - 13. Restoration.
- D. Include and explain the approach to allow for adverse weather interruptions that are normal for the project location. Normal weather shall mean seasonally average weather conditions, as recorded by NOAA.
- E. The default calendar used shall be an 8 hour day 5 days a week (40 hour week) including City Holidays. Alternative calendars will be only used after explained and accepted by the Engineer.
- F. Include plan for all long lead items and materials.

I.03 FORMAT OF SCHEDULES

- A. Prepare CPM schedules in the form of a Time Scale Logic Diagram (TSLD) including the following:

1. Show each activity within each WBS or item.
 2. Include columns of information for:
 - a. Activity ID.
 - b. Activity Description.
 - c. Original Duration.
 - d. Early Start and Finish.
 - e. Late Start and Finish.
 - f. Total Float.
 3. Include a horizontal time scale: At minimum, by year and month from the start of Contract Time.
 4. Use no font smaller than 10 points.
 5. Sheet size: 11 inches x 17 inches., 1 sided, color
- B. TSLD should be sorted by WBS, Item, and Early Start

I.04 SUBMITTAL TYPES DEFINED:

- A. Interim Schedule showing the planned activities for the first 60 days of the project will be submitted and discussed at the Pre-Construction Meeting.
- B. Preliminary Baseline Schedule will be submitted within [14 days] after notice-to-proceed (NTP). The Engineer will review and comment within [2 weeks] for incorporation in Baseline Submittal.
- C. Accepted Baseline (also known as “as-planned”) CPM schedule will incorporate the Engineer review comments and be submitted within [2 weeks] of receipt of those comments.
- D. Once the Baseline Schedule has been submitted and approved, revised monthly progress schedules and updated monthly narrative reports including graphics, reports, and narratives, will be submitted.

I.05 SUBMITTAL REQUIREMENTS

- A. The Narrative Report shall consist of a written report providing an overview of the schedule, specific to each submittal. The Narrative Reports for developmental submittals, e.g. Interim and Preliminary, shall describe the Contractor’s approach to executing the Work. The updated Narrative Reports provided with Monthly Status Reports shall include the items specified in Paragraph 1.06.
- B. The Narrative for the Baseline Schedule shall:
 1. Explain key activities and assumptions on which the schedule is based.
 2. Describe the Critical Path.
 3. Discuss key deliveries that might adversely affect the project schedule.
 4. Explain the Contractor’s approach to adverse weather interruptions.

5. Time constraints should be kept to a minimum and the use of any time constraints must be explained why they were used or required.
- C. The following reports are required for Baseline Submittal, with both hardcopy and PDF required to be submitted to the Engineer.
1. [Activity – a report listing all activities, sorted only by Activity ID].
 2. [Early Start – a report listing all activities, sorted only by Early Start date].
 3. [Total Float – a report listing all activities, sorted by Total Float (ascending from low to high)].
 4. [Predecessor/Successor – a report of all activities, sorted by Activity ID that lists the predecessor and successor activities for each activity.]

I.06 PROGRESS REVISIONS

- A. The construction schedule shall be kept up-to-date and the current updated schedule shall be submitted to the Engineer monthly. If the Contractor fails to submit the required updated schedule by the 10th day of the month, the Engineer may withhold a portion of payment until such time as the Contractor submits the required updated schedule.
- B. Include the Physical Percent Complete – the Contractor's estimated physical percent complete for each activity as of the data date for the respective report.
- C. Each month, indicate progress of each activity to data date of submission.
- D. Show changes occurring since previous submission of schedule:
1. Major changes in scope.
 2. Activities modified since previous submission.
 3. Revised projections of progress and completion.
 4. Other identifiable changes.
- E. Provide an updated Narrative Report with each monthly status report describing:
1. Any changes to the critical path subsequent to the previous status report
 2. Any changes to the CPM relationships
 3. Loss or gain in the Total Float, with explanation of the main cause of such loss or gain (Variance Report)
 4. Problem areas, anticipated delays, and the impact on the schedule.
 5. Remedial actions or recovery steps that will be employed to arrest and/or recover from delays
 6. Schedule presentation of Look Back over update period and Look Ahead to next 2 update cycles.
 7. Schedule report showing variance to Baseline.
 8. Provide a list of all activities added, deleted, or modified since the last update

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 RESPONSIBILITY FOR SCHEDULE COMPLIANCE

- A. The Contractor agrees that whenever it becomes apparent from the current monthly schedule that delays to the critical path have resulted, and hence, that the contract completion date will not be met or when so directed by the Engineer, he will take some or all of the following actions at no additional cost to the City, submitting to the Engineer for approval, a written statement of the steps he intends to take to remove or arrest the delay to the critical path in the approved schedule.
1. Increased construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of the Engineer, any delays to critical path or construction completion.
 2. Increase the number of working hours per shift, shifts per working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate, in the judgment of the Engineer, any delays to critical path or construction completion.
 3. Reschedule activities to achieve maximum practical concurrency of accomplishment of activities, and comply with the revised schedule to eliminate delays to the Critical Path and construction completion date.

3.02 ADJUSTMENT OF CONTRACT SCHEDULE AND COMPLETION TIME

- A. If the Contractor desires to make changes which affect the approved schedule, he shall notify the Engineer in writing stating what changes are proposed and the reason for the change. If the Engineer takes no exception to these changes, the Contractor shall revise, without additional cost to the City, all of the affected portion of the schedule.
- B. The contract completion time will be adjusted only for causes specified in this contract. In the event the Contractor requests an extension of any contract completion date, he shall furnish such justification and supporting evidence as the Engineer may deem necessary for a determination as to whether the Contractor is entitled to an extension of time under the provisions of this contract. Engineer will, after receipt of such justification and supporting evidence make findings of fact and will advise the Contractor in writing thereof. If the Engineer finds that the Contractor is entitled to any extension of any contract completion date under the provisions of this contract, the Engineer's determination as to the total number of days extension shall be based upon the currently approved schedule and on all data relevant to the extension. Such data shall be included in the next monthly updating of the schedule. The Contractor acknowledges and agrees that actual delays in activities which, according to the schedule, do not affect any contract completion date shown by the critical path in the schedule do not have any effect on the contract completion date or dates, and therefore, will not be the basis for a change therein.
- C. From time to time, it may be necessary for the contract schedule and/or completion time to be adjusted to reflect the effects of job conditions, weather, technical difficulties, strikes, unavoidable delays on the part of the City or its representatives, and other unforeseeable conditions which may indicate schedule adjustments and/or completion time extension. Under such conditions, the Contractor shall reschedule the work and/or contract completion time to reflect the changed conditions, and shall revise its schedule accordingly. It is specifically pointed out that the use of available float time in the schedule may be used by the City, as well as by the Contractor. Float time is defined as the amount of time between the early start date, and the late start date, or the early finish date and the late

late finish date, of any of the activities in the schedule.

- D. Total Float in the approved CPM network is for the mutual benefit of the Project, i.e. either the City or the Contractor may take advantage of available Total Float. Therefore, without obligation to extend either the overall completion date or any intermediate completion dates set out in the schedule, the City may initiate changes to the Work that absorb float time. Contractor- initiated changes that reduce the project total float time identified in the approved schedule may be accomplished with the Engineer's concurrence.

3.03 COORDINATING SCHEDULES WITH OTHER CONTRACT SCHEDULES

- A. Where work is to be performed under this contract concurrently with and/or contingent upon work performed on the same facilities or area under other contracts, the Contractor's schedule shall be coordinated with the schedules of the other contracts. The Contractor shall obtain the schedules of the other appropriate contracts from the Engineer for the preparation and updating of his schedule and shall make the necessary changes in his schedule when indicated by changes in corresponding schedules.

3.04 CONSTRUCTION SCHEDULE SUBMITTAL PROGRESS MEASUREMENT AND PAYMENT

- A. A lump sum allowance has been included in the Contract Documents for payment of construction schedule submittals. Payment will be prorated on a monthly basis based on Contractor's compliance with the requirements of Section 4310. Approved payment amount will be based on progress of Contractor's approved monthly Construction Schedule submittals that are completed to the satisfaction of the Engineer. Payment percentage for pay item 4310(1) shall not exceed the percentage value of work completed on the pay request. Engineer may withhold payment for this pay item in the event the Contractor is not completing and submitting construction schedules in accordance with Section 4310. Contractor cannot recoup monies withheld from prior months due to noncompliance with Section 4310.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
4310(1)	Construction Schedule Submittal Progress	Lump Sum (LS)

END OF SECTION 4310

SECTION 4370

SCHEDULE OF VALUES

PART I GENERAL

I.01 REQUIREMENTS INCLUDED.

- A. Submit a Schedule of Values allocated to the various portions of the Work, as specified in Section 4300.
- B. Upon request of the Engineer, support the values with data which will substantiate their correctness.
- C. The accepted Schedule of Values shall be used only as the basis for the Contractor's Pay Estimates.

I.02 FORM AND CONTENT OF SCHEDULE OF VALUES.

- A. Submit Schedule of Values in PMIS in a format acceptable to the City.. Contractor's standard forms and automated printout will be considered for approval by the Engineer upon Contractor's request: if approved these standard forms and automated printouts shall be uploaded in PMIS. Identify schedule with:
 - 1. Title of Project and location.
 - 2. Project number.
 - 3. Name and Address of Contractor.
 - 4. Contract designation.
 - 5. Date of submission.
- B. Schedule shall list the installed value of the component parts of the Work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. For each major line item list sub-values of major products or operations under the item.
- D. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
- E. The sum of all values listed in the schedule shall equal the total Contract Amount.

PART 2 PRODUCTS (NOT USED).

PART 3 EXECUTION (NOT USED).

END OF SECTION 4370

SECTION 4400
QUALITY CONTROL

PART I GENERAL

I.01 SCOPE OF WORK.

- A. This Section includes requirements of a general nature related to the Contractor's responsibility for quality control involving inspections, tests, certifications, and reports. Refer to Section 4410 Testing and Testing Laboratory Services for additional requirements related to quality control.
- B. Unless otherwise indicated in the Specifications, only new materials shall be incorporated in the Work. All materials furnished by the Contractor to be incorporated in the Work shall be subject to the inspection and approval of the Engineer. No material shall be processed for, or delivered to the Site without prior approval by the Engineer.

I.02 INSPECTIONS.

- A. The Engineer shall have the right to inspect all materials at all stages of collection and processing, and shall be allowed access to the site and to the Contractor's and supplier's facilities to conduct such inspections. Onsite work shall be subject to continuous inspection. Inspection by the Engineer shall not release the Contractor from responsibility or liability with respect to material.
- B. When local codes or laws require approval and inspection of the work by other agencies or organizations the Contractor shall obtain such approval and submit one signed original and three copies of the approval to the City.

I.03 QUALITY ASSURANCE – CONTROL OF INSTALLATION.

- A. The Contractor shall monitor quality control over suppliers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. The Contractor shall comply with manufacturers' instructions, including each step in sequence.
- C. The Contractor shall examine the areas and conditions where Work is to be performed and notify the Engineer of conditions detrimental to the proper and timely completion of the Work. The Contractor shall not proceed with the Work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Engineer.
- D. The Contractor shall request clarification from Engineer if manufacturers' instructions conflict with Contract Documents, and shall not proceed with the affected Work before receiving clarification.
- E. The Contractor shall comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- F. Work shall be performed by persons qualified to produce workmanship of specified quality.

1.04 REFERENCES.

- A. The Contractor shall comply with the reference specifications and standards at a minimum.
- B. For products or workmanship specified by association, trade, or other consensus standards, the Contractor shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- C. The Contractor shall be familiar with applicable standards, and shall obtain copies of these standards where required by product specification sections.
- D. The contractual relationship, duties, and responsibilities of the parties in Contract shall not be altered from the Contract Documents by mention or influence otherwise in any reference document.

1.05 INSPECTING AND PHYSICAL TESTING LABORATORY SERVICES.

- A. Laboratory will be provided by the City as specified in Section 4410.

1.06 REPORTS.

- A. The Contractor may, in lieu of the specified tests and at the option of the Engineer, submit for review a Certificate of Compliance in the form of a letter from the manufacturer. The Certificate shall state the following:
 - 1. Manufacturer has performed all required tests.
 - 2. Materials supplied meet all test requirements.
 - 3. Tests were performed within six months of submittal of the Certificate.
 - 4. Materials that were tested are the same type, quality, manufacture, and make as those specified.
 - 5. Include identification of the materials.

PART 2 PRODUCTS (NOT USED).

PART 3 EXECUTION (NOT USED).

END OF SECTION

SECTION 4465

TESTING AND STARTUP

PART I GENERAL.

I.01 SCOPE OF WORK.

- A. Provide a competent field services technician of the manufacturers of all materials furnished under the technical Specifications to supervise installation, adjustment, initial operation and testing, performance testing, final acceptance testing and startup of the materials.
- B. Perform specified field performance tests, final acceptance tests and startup services.

I.02 SUBMITTALS.

- A. Submit name, address and resume of proposed field service technicians at least 10 days in advance of the need for such services.
- B. Submit, in accordance with Section, detailed testing procedures for shop tests, field performance tests and final acceptance tests as specified in the various equipment sections. Submittals shall include the following:
 - 1. Test procedures shall be submitted at least 10 days in advance of the proposed test dates and shall include at least the following information:
 - a. Name, classification, model and serial number of equipment to be tested, including reference to specifications by section number and title.
 - b. Schedule of proposed dates and times for testing.
 - c. Summary of needs for power, lighting, chemical, water, sludge, gas, etc., and identification of who will provide them.
 - d. Outline specific assignment of the responsibilities of the Contractor and manufacturers' factory representatives or field service personnel.
 - e. Detailed description of step-by-step testing requirements, with reference to appropriate standardized testing procedures and laboratory analyses by established technical organizations (e.g., ASTM, WPCF Standard Methods, etc).
 - f. Samples of forms to be used to collect and record test data and to present tabulated test results.
 - 2. Copies of test reports upon completion of specified shop, performance and acceptance tests. Test reports shall incorporate the information provided in the test procedures submittals and modified to reflect actual conduct of the tests and the following additional information:
 - a. Copy of all test data sheets and results of lab analyses.
 - b. Summary comparison of specified test and performance requirements vs. actual test results.

- c. If actual test results fail to meet specified test and performance requirements, describe action to be taken prior to re-testing the materials.
3. Copies of the manufacturer's field service technician's report summarizing the results of his/her initial inspection, operation, adjustment and pre-tests. The report shall include detailed descriptions and tabulations of the points inspected, tests and adjustments made, quantitative results obtained, suggestions for precautions to be taken for proper maintenance, and the material supplier's Certificate of Installation in the format attached to the end of this section.

I.03 QUALITY ASSURANCE.

- A. Field service technicians shall be competent and experienced in the proper installation, adjustment, operation, testing and startup of the materials and systems being installed.
- B. Manufacturers' sales and marketing personnel will not be accepted as field service technicians unless they can prove their qualifications.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 PRELIMINARY REQUIREMENTS.

- A. After installation of the materials has been completed and the materials are presumably ready for operation, and before the materials are operated by others, the manufacturer's field service technician shall inspect, operate, test and adjust the materials. The inspection shall include at least the following points where applicable:
 1. Soundness (without crack or otherwise damaged parts).
 2. Completeness in all details, as specified and required.
 3. Correctness of setting, alignment and relative arrangement of various parts.
 4. Adequacy and correctness of packing, sealing and lubricants.
- B. The operation, testing and adjustment shall be as necessary to prove that the materials have been left in proper condition for satisfactory operation under the conditions specified.
- C. Upon completion of this work, the manufacturer's field service technician shall submit a signed report of the results of his/her inspection, operation, adjustments and tests.

3.02 WITNESS REQUIREMENTS.

- A. Shop tests or factory tests may be witnessed by the Engineer, as required by various specifications.
- B. Field performance and acceptance tests shall be performed in the presence of the Engineer.

3.03 STARTUP OF FACILITIES AND SYSTEMS.

- A. General Requirements.
 1. Successfully execute the step-by-step procedure of startup, normal operation, shutdown, and performance demonstration specified herein.
 2. The startup and performance demonstration shall be successfully executed prior to Final Completion of the facility or system.

3. All performance tests and inspections shall be scheduled with the Engineer at least 10 working days in advance or as otherwise specified. All performance tests and inspections shall be conducted during the work week of Monday through Friday, unless otherwise specified.

B. Preparation for Startup.

1. Upon completion of the facility or system, all channels, basins and tanks shall be cleaned and hydraulically tested for leaks, cracks, and defects in accordance with Section 4480. Potable water facilities and systems shall also be disinfected in accordance with AWWA C653.
2. All mechanical and electrical materials shall be checked to ensure that they are in good working order and properly connected. Preliminary run-ins of the various pumps, compressors, and other remaining materials shall be made. All systems shall be cleaned and purged as necessary. All sumps, tanks, basins, chambers, pump wells and pipelines which are hydraulically checked or tested shall be drained and returned to their original condition once the water testing is complete.
3. All instruments and controls shall be calibrated through their full range. All other adjustments required for proper operation of all instrumentation and control equipment shall be made.
4. Perform all other tasks needed for preparing and conditioning the facility or system for proper operation.
5. No testing or operation shall commence until the Engineer has verified that all specified safety equipment has been installed and is in good working order.
6. No testing or equipment operation shall take place until the Engineer has verified that all lubricants, tools, maintenance materials, spare parts and approved operation and maintenance manuals have been furnished as specified.

C. Facility and System Startup.

1. Startup period shall not begin until all systems and materials have been tested as specified and are ready for operation. The City shall receive spare parts, safety equipment, tools and maintenance materials, lubricants, approved operation and maintenance data and the specified operation and maintenance instruction prior to the startup. All specified valve tagging shall also be complete prior to this startup.
2. Demonstrate a seven consecutive, 24 hour day period of successful operation of the facility or system as a prerequisite of Final Completion.
3. In the event of failure to demonstrate satisfactory performance of the facility on the first or any subsequent attempt, all necessary alterations, adjustments, repairs and replacements shall be made. When the facility is again ready for operation, it shall be brought on line and a new test shall be started. This procedure shall be repeated as often as necessary until the facility has operated continuously to the satisfaction of the Engineer, for the specified duration.
4. The City will furnish all operating personnel (other than vendor's or subcontractor's service personnel) needed to operate the facility or system during the final test period; however, said personnel will perform their duties under Contractor's direct supervision. Until performance tests are completed and units and systems are accepted by the City as complete, the Contractor shall be fully responsible for the operation and maintenance of all new facilities and systems.

5. The City will provide all necessary chemicals and electricity. However, the Contractor shall provide all necessary personnel of the various construction trades, i.e., electricians, plumbers, etc, and field service personnel of the major equipment suppliers on an 8 hour per day basis at the facilities and on a 24 hour per day basis locally during the startup period. Major suppliers may include, but not be limited to, the following:
 - a. Instrumentation and Control Materials
 - b. Disinfection Materials
 - c. Chemical Feed and Chemical Storage Systems
 - d. All Pumping Materials
 - e. Boilers and Associated Control Systems
 - f. Generator Materials
 - g. HVAC
 - h. Air Blowers and Compressors
 - i. Sedimentation Basin and Clarification Materials
 - j. Intake Screens or other screening devices
 - k. Grit Removal Systems
 - l. Filtration Materials
 - m. Mixing Materials
 - n. Dewatering/Thickening Materials
 - o. Conveyance Systems
6. Do not, at any time, allow the facility or system to be operated in a manner which subjects materials to conditions that are more severe than the maximum allowable operating conditions for which the materials were designed.

MATERIAL SUPPLIER'S CERTIFICATE OF INSTALLATION

Owner - CITY OF SHREVEPORT

Project _____

Contract No. _____

MATERIAL SPECIFICATION SECTION _____

MATERIAL DESCRIPTION _____

I _____, Authorized representative of
(Print Name)

Manufacturer's _____

hereby CERTIFY that _____
(Print material name and model with serial no.)

_____ installed for the subject project has (have) been installed in a satisfactory manner, has (have) been tested and adjusted, and is (are) ready for final acceptance testing and operation on:

Date _____

Time _____

CERTIFIED BY: _____
(Signature of Manufacturer's Representative)

Date: _____

END OF SECTION

PART 3 EXECUTION

3.01 SANITARY FACILITIES

- A. Provide self-contained, single occupant toilet units of the chemical, aerated recirculation,

3.02 CONSTRUCTION AIDS

- A. Provide temporary elevators, hoists, cranes, scaffolding and platforms as necessary to perform the Work. Provide temporary stairs where ladders are not adequate. Protect permanent stairs from damage from construction operations.

3.03 VEHICLE ACCESS AND PARKING

- A. Provide temporary access roads, parking areas, traffic control devices and staging areas as approved by the Engineer.

3.04 WASTE MANAGEMENT

- A. Provide separate covered dumpster of adequate size for construction debris. Empty dumpsters on a regular basis and as directed by the Engineer. Dumpsters shall not exceed their capacities at any times.

3.05 REMOVAL AND RESTORATION

- A. Remove each temporary facility complete when need for its service has ended and as approved by the Engineer. Coordinate removal of temporary facilities with authorities having jurisdiction.

SECTION 4600

DELIVERY, STORAGE AND HANDLING

PART I GENERAL

I.01 SCOPE OF WORK

- A. This Section specifies the general requirements for the delivery, handling, storage and protection for all items required in the construction of the Work. Specific requirements, if any, are specified with the related item.

I.02 TRANSPORTATION AND DELIVERY

- A. Transport and handle items in accordance with manufacturer's instructions.
- B. Schedule delivery to reduce long term on-site storage prior to installation and/or operation. Under no circumstances shall materials be delivered to the site more than 6 months prior to installation without written authorization from the Engineer.
- C. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged or sensitive to deterioration.
- D. Deliver products to the Site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.
- E. All items delivered to the Site shall be unloaded and placed in a manner which will not hamper the Contractor's normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.
- F. Provide necessary equipment and personnel to unload all items delivered to the Site.
- G. Promptly inspect shipment to assure that products comply with requirements, quantities are correct and items are undamaged. For items furnished by others (i.e., City, other Contractors), perform inspection in the presence of the Engineer. Notify Engineer verbally, and in writing, of any problems.
- H. If any item has been damaged, such damage shall be repaired at no additional cost to the City.

I.03 STORAGE AND PROTECTION

- A. Store and protect products in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instruction shall be studied by the Contractor and reviewed with the Engineer. Carefully follow storage instructions and maintain written documentation of compliance. Arrange storage to permit access for inspection.
- B. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

- C. Cement and lime shall be stored under a roof and off the ground and shall be kept completely dry at all times. All structural, miscellaneous and reinforcing steel shall be stored off the ground or otherwise to prevent accumulations of dirt or grease and in a position to prevent accumulations of standing water and to minimize rusting. If, in the opinion of the Engineer, there is excessive rust formed on reinforcing steel, it shall not be used. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent accumulations of dirt, standing water, staining, chipping or cracking. Brick, block and similar masonry products shall be handled and stored in a manner to reduce breakage, cracking and spalling to a minimum.

- D. All mechanical and electrical materials subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a weathertight building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Engineer. Building shall be provided with adequate ventilation to prevent condensation. Maintain temperature and humidity within range required by manufacturer.
 - 1. All materials shall be stored fully lubricated with oil, grease and other lubricants unless otherwise instructed by the manufacturer.
 - 2. Moving parts shall be rotated a minimum of once weekly to ensure proper lubrication and to avoid metal-to-metal "welding". Upon installation of the materials, the Contractor shall start the materials, at least half load, once weekly for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
 - 3. Lubricants shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment at the time of acceptance.
 - 4. Prior to acceptance of the materials, the Contractor shall have the manufacturer inspect the equipment and certify that its condition has not been detrimentally affected by the long storage period. Such certifications by the manufacturer shall be deemed to mean that the equipment is judged by the manufacturer to be in a condition equal to that of equipment that has been shipped, installed, tested and accepted in a minimum time period. As such, the manufacturer will guaranty the equipment equally in both instances. If such a certification is not given, the equipment shall be judged to be defective. It shall be removed and replaced at the Contractor's expense.

- E. All paint and other coating products shall be stored in areas protected from the weather. Follow all storage requirements set forth by the paint and coating manufacturers.

END OF SECTION

SECTION 4700
CONTRACT CLOSEOUT

PART I GENERAL

I.01 SCOPE OF WORK

- T** A. This Section specifies administrative, verification and procedural requirements for project closeout, including but not limited to:
1. Final cleaning (Section 4710).
 2. As-Built Construction Schedule (Section 4310).
 3. Final cleaning (Section 4710).
 4. As-Built Drawings (Section 4720).
 5. Warranties, guarantees, and bonds (Section 4740).
 6. Spare parts and maintenance materials (as specified).
 7. Reconciliation of final accounting and summary change order.
 8. Final releases or waivers buildings, wells, utilities and railroads.
 9. Letter of Final Completion.
 10. Final Acceptance and Payment.

RELATED WORK

- I.02** A. Completion (Standard Specification Section 110.12).
- B. Acceptance and Final Payment (Standard Specification Section 111.8).

I.03 FINAL COMPLETION

- A. Complete all Work, correct all deficiencies, and furnish all deliverables as specified, prior to Final Completion. The following list is not intended to be comprehensive, but includes examples of services and documentation which are part of the Work.
1. Field services by material suppliers and manufacturers
 2. Initial operation and testing, performance testing, final acceptance testing
 3. Startup and performance demonstration
 4. Operating and maintenance instructions and manuals

5. Vendor training/instructions to City personnel
 6. Online training services
 7. Spare parts and maintenance materials
 8. As- Built Drawings
 9. As-Built Construction Schedule
 10. Warranties, guarantees, and bonds
 11. Final cleaning and site restoration
 12. Removal of project signs, temporary traffic control devices, and temporary facilities
 13. Establish permanent erosion control and remove temporary erosion control items
- B. Furnish submittals to Engineer that are required by governing or other authorities having applicable jurisdiction including but not limited to permit close out information, certificates of occupancy, etc.
 - C. When the Contractor determines that the Work is complete, it shall notify the City Engineer in writing that the Work will be ready for final inspection on a definite date. The notice shall bear the signed concurrence of the Engineer having charge of inspection and construction and shall be given at least 10 days prior to the date stated for final inspection. If the City determines that the Work is as represented, it will make arrangements to have final inspection commenced on the date stated or as soon thereafter as practical.
 - D. If the final inspection discloses any Work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction. Upon correction of the Work, another inspection will be made, and will constitute the final inspection if the Work has been satisfactorily completed.
 - E. When the Work is found to be complete, the City will notify the Contractor and issue a Letter of Final Completion. The Contractor shall record the Letter of Final Completion with the Clerk of Court in Caddo Parish no later than 45 days after the date of Final Completion. The recording date begins the "45 day lien free period" which is the last 45 days during which anyone may file a lien against the contract.
 - F. The date of Final Completion is the end of accrual of Contract Time and Liquidated Damages. The following date is the beginning of time for warranties, guarantees, and the maintenance and repair period.

1.04 FINAL ACCEPTANCE AND PAYMENT

- A. If necessary to reconcile estimated and actual quantities of Contract Items, the City will prepare and execute a summary change order.
- B. Contractor shall furnish all releases or waivers on buildings, wells, utilities, and railroads, as well as any maintenance bonds, certificates from the Health Department, tracings, brochures, or other items required by the Contract before Final Payment.

- C. The City will acknowledge Final Acceptance of the Work and make final payment to the Contractor within 45 days following receipt of a clear lien certificate.
- D. For a paving assessment project, the City Council must approve and accept the Work and authorize final payment.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 4710

CLEANING

PART 1 GENERAL.

1.01 SCOPE OF WORK.

- A. Maintain the Site clean and free from rubbish and debris, including existing rubbish and debris identified in the Contract Documents to be removed. Execute cleaning of components of the Work during construction until final completion of the Project. No direct payment will be made for Work specified in this Section.

1.02 DISPOSAL AND CLEANING.

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

PART 2 PRODUCTS.

2.01 MATERIALS.

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by manufacturer of the cleaning material.
- D. Earth dams will not be permitted at catch basin openings, local depressions, or elsewhere, except in time of emergency. Temporary dams of sand bags, asphaltic concrete, or other acceptable material may be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the Site as soon as their use is no longer necessary.

PART 3 EXECUTION.

3.01 PRIOR TO CONSTRUCTION.

- A. Remove all existing waste material, rubbish and windblown debris identified in the contract documents from the work site prior to construction.

3.02 DURING CONSTRUCTION.

- A. Execute periodic cleaning to keep the Work, the Site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the Site.
- D. Remove materials and equipment from the Site as soon as they are no longer necessary.

- E. Clean (power wash) and remove grit and debris from screw pump effluent chamber, from pump outs to slide gates.

3.03 DUST CONTROL.

- A. Clean interior spaces prior to start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-constructed surfaces.

3.04 FINAL CLEANING.

- A. Employ skilled workmen for final cleaning.
- B. Prior to final completion or City occupancy, conduct an inspection of sight-exposed interior and exterior surfaces and all Work areas, to verify that the entire Work is clean.

END OF SECTION 4710

SECTION 4720
AS-BUILT DRAWINGS

PART I GENERAL.

I.01 SCOPE.

- A. The Contractor shall keep and maintain, at the job site, a copy of the Drawings, marked up and annotated to indicate all changes made during the course of a project, as specified herein.
- B. The Contractor shall keep and maintain, at the job site, a copy of Point-to-Point Wiring Diagrams for control systems, marked up and annotated to indicate all changes made during the course of a project, as specified herein.

I.02 REQUIREMENTS INCLUDED.

- A. Contractor shall maintain an as-built copy of the following documents, marked up to indicate all changes made during the course of a project:
 - I. Drawings
- B. Measure and record coordinates representing the horizontal and vertical locations of all buried pressure pipelines 4 inches in diameter or larger. Measure horizontal and vertical locations of all fittings, valves, manholes and changes in horizontal direction and record the coordinates that these locations represent.

F. AS-BUILT DRAWINGS

1. The Contractor shall annotate (mark-up) the Drawings to indicate all project conditions, locations, configurations, and any other changes or deviations that vary from the original Drawings. This requirement includes, but is not limited to, buried or concealed construction, and utility features that are revealed during the course of construction. Special attention shall be given to recording the locations (horizontal and vertical) and material of all buried utilities that are encountered during construction – whether or not they were indicated on the Drawings. The as-built information added to the drawings may be supplemented by detailed sketches, if necessary, clearly indicating, the Work, as constructed.
2. These annotated Drawings constitute the Contractor's As-Built Drawings and are actual representations of as-built conditions, including all revisions made necessary by change orders, design modifications, requests for information and field orders.
3. As-Built Drawings shall be accessible to the Engineer at all times during the construction period.

PART 2 PRODUCTS (NOT USED).

PART 3 EXECUTION.

3.01 MAINTENANCE OF AS-BUILT DRAWINGS.

- A. Store As-Built Drawings in Contractor's field office apart from documents used for construction. Provide files and racks for storage of the As-Built Drawings.
- B. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- C. Make documents available for inspection by the Engineer at all times.

3.02 MARKING METHOD.

- A. Use the color Red (indelible ink) to record information on the Drawings.
- B. Label each document "AS-BUILT" in neat large printed letters.
- C. Unless otherwise specified elsewhere, notations shall be affixed to hardcopies of documents.
- D. Record information contemporaneously with construction progress.
- E. Legibly mark drawings with as-built information:
 1. Elevations and dimensions of structures and structural elements.
 2. All underground utilities (piping and electrical), structures, and appurtenances
 - a. Changes to existing structure, piping and appurtenance locations.
 - b. Record horizontal and vertical locations of underground structures, piping, utilities and appurtenances, referenced to permanent surface improvements.

- c. Record actual installed pipe material, class, size, joint type, etc
- d. Record specific locations of buried pressure pipelines 4 inches in diameter or larger and corners of new, major structures in tabular form. Reference each specific location on the annotated Drawings.

3.03 AS-BUILT INFORMATION COMPILATION.

- A. Do not conceal any work until the required information is acquired.

- B. Items to be recorded include, but are not limited to:
 - 1. Location of internal utilities and appurtenances concealed in the construction – referenced to visible and accessible features.
 - 2. Field changes of dimensions and/or details
 - 3. Changes made by Field Order or Change Order
 - 4. Clarifications made from RFI's
 - 5. Details not indicated on the original Drawings

3.04 SUBMITTAL.

- A. Prior to Final Completion of the Work, the Contractor shall finalize and deliver a complete set of As-Built Drawings to the Engineer conforming to the construction records of the Contractor. The set of drawings shall consist of corrected and annotated drawings showing the recorded location(s) of the Work. As-Built Drawings shall be in the form of a set of prints with annotations carefully and neatly superimposed on the drawings in red.
- B. The information submitted by the Contractor into the As-Built Drawings will be assumed to be correct. The Contractor shall be responsible for the accuracy of such information, and shall bear the costs resulting from the correction of incorrect data.
- C. Delivery of As-Built Drawings to the Engineer will be a prerequisite to Final Completion.

3.05 As-Built Drawings Measurement and Payment.

- A. The Contractor shall submit Final As-Built Documents per the 1.02 Requirements included in this Section.

- B. A lump sum allowance has been included in the Contract Documents for payment of As-Built Drawings. Payment for As-Built Drawings will be made on a monthly basis based on the percentage of work substantially completed by the Contractor and accepted by the Engineer. As-Built Drawings must be submitted within 30 days for work that has been determined to be substantially complete. Engineer may withhold payment for pay item 4720(1) in the event the Contractor is not completing and submitting As-Built Drawings within 30 calendar days after substantial completion in accordance with Section 4720. Contractor cannot recoup monies withheld from prior months invoices due to noncompliance with Section 4720 and/or submittal of as-built drawings more than 30 days after work is substantially complete.

<u>Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
4720(1)	As-Built Drawings	Lump Sum (LS)

END OF SECTION 4720

SECTION 4730
OPERATION AND
MAINTENANCE DATA AND
TRAINING

PART I GENERAL

I.01 SCOPE OF WORK

- A. This Section includes procedural requirements for compiling and submitting operation and maintenance data, and vendor training and instructions to City personnel.

- B. Provide customized online operation and maintenance training for the following items or systems.
 - 1. New screw pumps, motors & drives.
 - 2. New automatic oilers.

I.02 OPERATING MANUALS

- A. Provide specific operation and maintenance instructions for all electrical, mechanical, instrumentation & controls items furnished under various technical specifications. Furnish separate manuals for each item, or each Section number.

- B. Prepare separate transmittal sheets for each manual. Each transmittal sheet shall include at least the following information: Contractor's name and address, City of Shreveport, project name, project number, submittal number, description of submittal and number of copies transmitted.

- C. Furnish [3] hard copies of each manual using the following materials.
 - 1. Binders
 - a. Commercial quality three ring binders with durable and cleanable plastic covers
 - b. Maximum ring width capacity: 3 inches
 - c. When multiple binders are used, correlate the data into related consistent groupings/volumes.

 - 2. Identification: Identify each volume on the cover and spine with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". Include the following:
 - a. Title of Project.
 - b. Identify the general subject matter covered in the manual.

- c Identify structure(s) and/or location(s), of the item provided.
 - d Specification Section number.
3. 20 lb. loose leaf paper, with hole reinforcement
 4. Page size: 8-1/2 inch by 11 inch
 5. Provide heavy-duty fly leaves (section separators), matching the table of contents, for each separate product, each piece of operating equipment, and organizational sections of the manual
 6. Provide reinforced punched binder tab; bind in with text
 7. Reduce larger drawings and fold to the size of text pages – but not larger than 11 inches X 17 inches – or provide a suitable clear plastic pocket (with drawing identification) for each such folded drawing.
- D. Provide [2] electronic copies of each manual. Unless otherwise approved by the Engineer, O&M manuals may not be transmitted by electronic means other than USB flash drive. Electronic O&M manuals shall meet the following conditions:
1. The specified transmittal form is included
 2. With the exception of the transmittal sheet, the entire submittal is included in a single file.
 3. Files are Portable Document Format (PDF) – with printing function enabled.
 4. **All scanned manufacturer's O&M manuals must be quality checked after scanning to ensure the pages are not crooked and all information is legible.**
 5. The electronic copy of the O&M Manual must be identical in organization, format, and content to the hard copies of the manual.
 6. The electronic O&M manual must be bookmarked identically to the paper manual table of contents to allow quick access to information. Electronic submittals that require extensive scrolling will not be accepted. The document must be indexed and searchable.
- E. Contents:
1. A table of contents/Index, divided into section reflective of the major components provided.
 2. Specific description of each system and components
 3. Name, address, telephone number(s) and e-mail address(es) of vendor(s) and local service representative(s)
 4. Specific on-site operating instructions (including starting and stopping procedures)
 5. Safety considerations
 6. Project specific operational procedures and recommended log sheet(s).
 7. Project specific maintenance procedures

8. Manufacturer's operating and maintenance instructions – specific to the project
 9. Copy of each wiring diagram
 10. Copy of approved shop drawing(s) and Contractor's coordination/layout drawing(s)
 11. List of spare parts and recommended quantities
 12. Product Data: Mark each sheet to clearly identify specific products and component parts and data applicable to installation. Delete inapplicable information.
 13. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams
 14. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified.
 15. Warranties and Bonds, if required
- F. Manuals for Systems – in addition to the requirements listed above, provide the following information for each system:
1. Overview of system and description of unit or system and component parts. Identify function, normal operating characteristics and limiting conditions. Include legible performance curves, with engineering data and tests and complete nomenclature and commercial number of replaceable parts.
 2. Panelboard circuit directories including electrical service characteristics, controls and communications and color-coded wiring diagrams as installed.
 3. Operating procedures: include start-up, break-in and routine normal operating instructions and sequences; regulation, control, stopping, shut-down and emergency instructions; and summer, winter and any special operating instructions.
 4. Maintenance Requirements
 - a. Procedures and guides for trouble-shooting; disassembly, repair, and reassembly instructions
 - b. Alignment, adjusting, balancing and checking instructions
 - c. Servicing and lubrication schedule and list of recommended lubricants
 - d. Manufacturer's printed operation and maintenance instructions
 - e. Sequence of operation by instrumentation and controls manufacturer
 - f. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance
 5. Control diagrams by controls manufacturer as installed (as-built)
 6. Contractor's coordination drawings, with color coded piping diagrams, as installed (asbuilt)

7. Charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams. Include equipment and instrument tag numbers on diagrams.
8. List of original manufacturer's spare parts and recommended quantities to be maintained in storage
9. Test and balancing reports, as required
10. Additional Requirements as specified in individual product specification
11. Design data for systems engineered by the Contractor or its Suppliers

PART 2 PRODUCTS NOT USED

PART 3 EXECUTION

3.01 SUBMITTAL SCHEDULE

- A. A. Furnish preliminary copies of each manual to the Engineer, no later than [60] days following approval of the respective shop drawings. Provide final copies of each completed manual prior to shipping.
- B. The Engineer will review Operation and Maintenance manuals submittals for operating equipment for conformance with the requirements of the applicable specification Section. The review will generally be based on the O&M Manual Review Checklist appended to this Section.
- C. If during test and start-up of equipment, any changes were made to the equipment, provide two hard copies of as-built drawings or any other amendments for insertion, by the Contractor, in the previously transmitted final manuals. In addition, provide one revised electronic version including the as-built drawings and any other amendments. The manuals shall be completed, including updates, if any, within 30 days of start-up and testing of the facility.

O&M Manual Review Checklist

Submittal No.: _____
Manufacturer: _____

Project No.: _____

Item Submitted: _____ Specification Section: _____ Date of Submittal: _____

General Data

1. Are the area representative's name, address, e-mail address and telephone number included?
2. Is the nameplate data for each component included?
3. Are all associated components related to the specific equipment included?
4. Is non-pertinent data crossed out or deleted?
5. Are drawings neatly folded and/or inserted into packets?
6. Are all pages properly aligned and scanned legibly?
7. Is the .PDF document bookmarked according to the table of contents?

Operations and Maintenance Data

8. Is an overview description of the equipment and/or process included?
9. Does the description include the practical theory of operation?
10. Does each equipment component include specific details (design characteristics, operating parameters, control descriptions, and selector switch positions and functions)?
11. Are alarm and shutdown conditions specific to the equipment provided on this project clearly identified? Does it describe possible causes and recommended remedies?
12. Are step procedures for starting, stopping, and troubleshooting specific to the equipment provided included?
13. Is a list of operational parameters to monitor and record specific to the equipment provided included?
14. Is a proposed operating log sheet specific to the equipment provided included?
15. Is a spare parts inventory list included for each component?
16. Is a lubrication schedule for each component specific to the equipment provided included - or does it clearly state "No Lubrication Required"?
17. Is a maintenance schedule for each component specific to the equipment provided included?
- 18.. Is a copy of the warranty information included?

Review Comments

Is the submittal fully approved (yes/no)? _____

If not, the following points of rejection must be addressed and require resubmittal by the Contractor:

Item No.

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11. _____
12. _____
13. _____
14. _____
15. _____

Reviewed By _____

Date: _____

Legend

1 = OK

2 = Not Adequate

3 = Not Included

Note: This submittal has been reviewed for compliance with the Contract Documents.

CITY ACKNOWLEDGEMENT OF MANUFACTURER'S INSTRUCTION

CITY OF SHREVEPORT PROJECT :

SPECIFICATION SECTION _____

SUBJECT DESCRIPTION _____

TRAINING DATES AND TIMES _____

TRAINING PROVIDED BY

Name _____

Company _____

Contact Information _____

CITY ACKNOWLEDGEMENT

The City of Shreveport acknowledges receipt of training and instruction as recommended by the manufacturer(s) for the subject items.

City Representative (Sign, Print Name and Title)

Date _____

SECTION 4740

WARRANTIES AND BONDS

PART I GENERAL.

I.01 SCOPE OF WORK

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.

I.02 SUBMITTALS.

- A. Submit written warranties to the City prior to the date fixed by the City for Final Completion. If the Certificate of Final Completion designates a commencement date for warranties other than the date of Final Completion for the work, or a designated portion of the work, submit written warranties upon request of the Engineer.
- B. When a designated portion of the work is completed and occupied or used by the City, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the City within 15 days of completion of that designated portion of the Work.
- C. When a special warranty is required to be executed by the Contractor, or the Contractor
- D. Refer to the General Provisions, Special Conditions for Streets/Drainage and Water/Sewer and individual Technical Specification Sections for specific content requirements, and particular requirements for submittal of special warranties and bonds.
- E. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents and sized to receive 8-1/2in by 11-in paper.

- F. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Contract Documents, with each item identified with the number and title of the Section in which specified and the name of the product or work item.
- G. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of the installer, supplier and manufacturer.
- H. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the project title or name and the name, address and telephone number of the Contractor.
- I. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.
- J. Schedule of Special Warranties
 - I. General Provision 103.5- Guarantees
- K. Maintenance Bond: Furnish a two-year 10 percent maintenance bond as required in Special Conditions for Streets/Storm Drainage and Water/Sewer 5.4.

I.03 WARRANTY REQUIREMENT.

- A. Related Damages and Losses: When correcting warranted work that has failed, remove and replace other work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted work.
- B. Reinstatement of Warranty: When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the City has benefited from use of the work through a portion of its anticipated useful service life.
- D. City's Recourse: Written warranties made to the City are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise

available under the law, nor shall warranty periods be interpreted as limitations on time in which the City can enforce such other duties, obligations, rights, or remedies.

- E. Rejection of Warranties: The City reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- F. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the work that incorporates the products, nor does it relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the Contractor.

1.04 DEFINITIONS.

- A. Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the City.
- B. Special Warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the City.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

TECHNICAL
SPECIFICATIONS

DIVISION 9
FINISHES

SECTION 099600

HIGH PERFORMANCE COATINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coating systems for wastewater treatment processing facilities.

1.2 REFERENCES

- A. .ASTM F 1869 - Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.
- B. ASTM D 16 - Terminology Relating to Paint, Varnish, Lacquer, and Related Products.
- C. ASTM D 4263 - Indicating Moisture in Concrete by the Plastic Sheet Method.
- D. International Concrete Repair Institute (ICRI) Guideline No. 03732 - Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays.
- E. SSPC-SP 1 - Solvent Cleaning.
- F. SSPC-SP 2 - Hand Tool Cleaning.
- G. SSPC-SP 3 - Power Tool Cleaning.
- H. SSPC-SP 5/NACE 1 - White Metal Blast Cleaning.
- I. SSPC-SP 6/NACE 3 - Commercial Blast Cleaning.
- J. SSPC-SP 10/NACE 2 - Near-White Metal Blast Cleaning.
- K. SSPC-SP 13/NACE 6 - Surface Preparation of Concrete.

1.3 DEFINITIONS

- A. Definitions of Painting Terms: ASTM D 16, unless otherwise specified.
- B. Dry Film Thickness (DFT): Thickness of a coat of paint in fully cured state measured in mils (1/1000 inch).

1.4 SUBMITTALS

- A. Comply with Section 01300 - Submittals.
- B. Product Data: Submit manufacturer's product data for each coating, including generic description, complete technical data, surface preparation, and application instructions.

- C. Color Samples: Submit manufacturer's color samples showing full range of standard colors.
- D. Manufacturer's Quality Assurance: Submit manufacturer's certification that coatings comply with specified requirements and are suitable for intended application.
- E. Applicator's Quality Assurance: Submit list of a minimum of 5 completed projects of similar size and complexity to this Work. Include for each project
 1. Project name and location.
 2. Name of owner.
 3. Name of contractor.
 4. Name of engineer.
 5. Name of coating manufacturer.
 6. Approximate area of coatings applied.
 7. Date of completion.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 1. Specialize in manufacture of coatings with a minimum of 10 years successful experience.
 2. Able to demonstrate successful performance on comparable projects.
 3. Single Source Responsibility: Coatings and coating application accessories shall be products of a single manufacturer.
- B. Applicator's Qualifications:
 1. Experienced in application of specified coatings for a minimum of 5 years on projects of similar size and complexity to this Work.
 2. Applicator's Personnel: Employ persons trained for application of specified coatings.
- C. Mock-Ups: Prepare 10 foot x 10 foot mock-up for each coating system specified using same materials, tools, equipment, and procedures intended for actual surface preparation and application. Obtain Engineer's approval of mock-ups. Retain mock-ups to establish intended standards by which coating systems will be judged.
- D. Preapplication Meeting: Convene a preapplication meeting two [2] weeks before start of application of coating systems. Require attendance of parties directly affecting work of this section, including Contractor, Engineer, applicator, and manufacturer's representative. Review the following:
 1. Environmental requirements.
 2. Protection of surfaces not scheduled to be coated.
 3. Surface preparation.
 4. Application.
 5. Disinfection.
 6. Repair.
 7. Field quality control.
 8. Cleaning.
 9. Protection of coating systems.
 10. One-year inspection.
 11. Coordination with other work.

1.6 DELIVERY, STORAGE, AND HANDLING

Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying:

1. Coating or material name.
2. Manufacturer.
3. Color name and number.
4. Batch or lot number.
5. Date of manufacture.
6. Mixing and thinning instructions.

B. Storage:

1. Store materials in a clean dry area and within temperature range in accordance with manufacturer's instructions.
2. Keep containers sealed until ready for use.
3. Do not use materials beyond manufacturer's shelf life limits.

C. Handling: Protect materials during handling and application to prevent damage or contamination.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Weather:

1. Air and Surface Temperatures: Prepare surfaces and apply and cure coatings within air and surface temperature range in accordance with manufacturer's instructions.
2. Surface Temperature: Minimum of 5 degrees F (3 degrees C) above dew point.
3. Relative Humidity: Prepare surfaces and apply and cure coatings within relative humidity range in accordance with manufacturer's instructions.
4. Precipitation: Do not prepare surfaces or apply coatings in rain, snow, fog, or mist.
5. Wind: Do not spray coatings if wind velocity is above manufacturer's limit.

B. Ventilation: Provide ventilation during coating evaporation stage in confined or enclosed areas in accordance with AWWA D 102.

C. Dust and Contaminants:

1. Schedule coating work to avoid excessive dust and airborne contaminants.
2. Protect work areas from excessive dust and airborne contaminants during coating application and curing.

PART2 PRODUCTS

2.1 MANUFACTURERS

- A. Tnemec Company Incorporated, or prior approved equal. Bidders, desiring to use coatings other than those specified, shall submit their proposal in writing to the engineer a minimum of 7 days prior to bid date. Substitutions, which decrease the film thickness, the number of coats applied, change the generic type of coating or fail to meet the performance criteria of the specifies materials will not be approved .

2.2 ACCESSORIES

A. Coating Application Accessories:

1. Accessories required for application of specified coatings in accordance with manufacturer's instructions, including thinners.
2. Products of coating manufacturer.

PART3 EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions under which coating systems are to be applied. Notify Engineer of areas or conditions not acceptable. Do not begin surface preparation or application until unacceptable areas or conditions have been corrected.

3.2 PROTECTION OF SURFACES NOT SCHEDULED TO BE COATED

- A. Protect surrounding areas and surfaces not scheduled to be coated from damage during surface preparation and application of coatings.
- B. Immediately remove coatings that fall on surrounding areas and surfaces not scheduled to be coated.

3.3 SURFACE PREPARATION

A. General

1. Prepare all surfaces in accordance with manufacturer's instructions.
2. If the specified surface preparation varies from the manufacturer's recommendation, the more stringent method shall be employed.
3. All surfaces shall be clean and dry prior to coating.
4. All surfaces that are not to be coated shall be properly protected during surface preparation and coating installation.

B. Abrasive Blasting

1. All blasted surfaces shall be cleaned and primed the same day. Surfaces shall be re-cleaned if any rust forms or if the surface becomes contaminated prior to priming.

3.4 APPLICATION

- A. Apply coatings in accordance with manufacturer's instructions.
- B. Mix and thin coatings, including multi-component materials, in accordance with manufacturer's instructions.
- C. Keep containers closed when not in use to avoid contamination.
- D. Do not use mixed coatings beyond pot life limits.

- E. Use application equipment, tools, pressure settings, and techniques in accordance with manufacturer's instructions.
- F. Uniformly apply coatings at spreading rate required to achieve specified OFT.
- G. Apply coatings to be free of film characteristics or defects that would adversely affect performance or appearance of coating systems.
- H. Stripe paint with brush critical locations on steel such as welds, corners, and edges using specified primer.

3.5 REPAIR

- A. Materials and Surfaces Not Scheduled To Be Coated: Repair or replace damaged materials and surfaces not scheduled to be coated.
- B. Damaged Coatings: Touch-up or repair damaged coatings. Touch-up of minor damage shall be acceptable where result is not visibly different from adjacent surfaces. Recoat entire surface where touch-up result is visibly different, either in sheen, texture, or color.
- C. Coating Defects: Repair in accordance with manufacturer's instructions coatings that exhibit film characteristics or defects that would adversely affect performance or appearance of coating systems.

3.6 FIELD QUALITY CONTROL

- A. Inspector's Services:
 1. Verify coatings and other materials are as specified.
 2. Verify surface preparation and application are as specified.
 3. Verify OFT of each coat and total DFT of each coating system are as specified using wet film and dry film gauges.
 4. Coating Defects: Check coatings for film characteristics or defects that would adversely affect performance or appearance of coating systems.
 - a. Check for holidays on interior steel immersion surfaces using holiday detector.
 5. Report:
 - a. Submit written reports describing inspections made and actions taken to correct nonconforming work.
 - b. Report nonconforming work not corrected.
 - c. Submit copies of report to Engineer and Contractor.
- B. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance and guidance for surface preparation and application of coating systems.

3.7 Finish Schedule

- A. Carbon Steel
 1. NonSubmerged Surfaces & Submerged Surfaces (Screw Pump Exterior Housing & Mounts)
Surface Preparation:
 Abrasive Blast in accordance with SSPC-SP10 Near White Blast Coating

Coating System:

1st Coat Tnemec Series 90G-1K97 Tneme-Zinc 2.5-3.5 dry mils (Stop Applied)

2nd Coat Tnemec Series 66 HB Epoxoline at 5.0-6.0 dry mils

3rd Coat Tnemec Series 1094 Endura-Shield 2.5-3.0 dry mils

3.8 CLEANING

- A. Remove temporary coverings and protection of surrounding areas and surfaces.

END OF SECTION

END OF SECTION

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DIVISION 46

WATER & WASTEWATER

EQUIPMENT

SECTION 460500
COMMON WORK RESULTS FOR WATER AND WASTEWATER EQUIPMENT

PART 1 GENERAL

1.01 APPLICABILITY

- A. Requirements of this section apply to other sections of Division 46.
- B. Some requirements of this section are specified only in this section; these apply to other sections of Division 46 whether specifically cross-referenced or not.
- C. Some requirements of this section amplify requirements of other sections of Division 46; these also apply to those sections unless a requirement of this section and another section cannot both be met; in that case, comply with the requirement of the other section.

1.02 RELATED REQUIREMENTS

- A. Section 460526 - Screw Pumps.

1.03 DEFINITIONS

- A. Buried: Equipment, piping, and structures are in contact with earth or which would be in contact with earth without the protection specified.
- B. Corrosive Atmosphere Zone: Where raw sewage runs in open channels; surfaces subject to corrosive atmosphere include floors, walls, ceilings, structural members, and inside and outside of equipment housings.
- C. Hazardous Atmosphere Zone: Chlorine gas storage and handling and spaces where explosion hazard exists.
- D. Indoor Dry Zone: Enclosed spaces not connecting to open liquid surfaces, not subject to water vapor emissions, and not anticipating more than occasional, accidental water-based liquid contact; the following are considered "Indoor, Dry":
 - 1. Administration areas, offices, laboratories.
 - 2. Mechanical rooms and utility tunnels meeting this definition.
 - 3. Electrical rooms.
- E. Outdoors: Exposed to the outdoor ambient environment, whether under cover or not.
- F. Splash Zone: Surfaces less than 12 inches (305 mm) above normal liquid level in process tanks and channels.
- G. Submerged Zone: Below the surface of the liquid or solids process stream.

1.04 REFERENCE STANDARDS

- A. 29 CFR 1910 - Occupational Safety and Health Standards; Current Edition.
- B. ABMA STD 9 - Load Ratings and Fatigue Life for Ball Bearings; 2015 (Reaffirmed 2020).
- C. ABMA STD 11 - Load Ratings and Fatigue Life for Roller Bearings; 2014 (Reaffirmed 2020).
- D. ASME B31.1 - Power Piping; 2022.
- E. ANSI A1264.1 - Safety Requirements for Workplace Walking/Working Surfaces and Their Access; Workplace, Floor, Wall and Roof Openings; Stairs and Guardrail/Handrail Systems; 2017.
- F. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
- G. ASTM A47/A47M - Standard Specification for Ferritic Malleable Iron Castings; 1999, with Editorial Revision (2022).
- H. ASTM A48/A48M - Standard Specification for Gray Iron Castings; 2022.
- I. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- J. IEEE/ASTM SI 10 - American National Standard for Metric Practice; 2016, with Errata (2017).

- K. IEEE C37.13 - IEEE Standard for Low-Voltage AC Power Circuit Breakers Used in Enclosures; 2015.
- L. IEEE C57.13 - IEEE Standard Requirements for Instrument Transformers; 2016.
- M. NEMA EN 10250 - Enclosures for Electrical Equipment (1000 Volts Maximum); 2024.
- N. NEMA ICS 1 - Industrial Control and Systems General Requirements; 2022.
- O. NEMA ICS 2 - Industrial Control and Systems Controllers, Contactors and Overload Relays Rated 600 Volts; 2008 (Reaffirmed 2020).
- P. NEMA ICS 4 - Application Guideline for Terminal Blocks; 2015.
- Q. NEMA IA 10039 - Control Circuit and Pilot Devices; 2025.
- R. NEMA IA 10030 - Industrial Control and Systems: Enclosures; 2024.
- S. NEMA MG 00001 - Motors and Generators; 2024.
- T. NEMA ST 20 - Dry Type Transformers for General Applications; 2021.
- U. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- V. SSPC-SP 6 - Commercial Blast Cleaning; 2007.
- W. UL 508 - Industrial Control Equipment; Current Edition, Including All Revisions.

1.05 ADMINISTRATIVE REQUIREMENTS

1.06 SUBMITTALS - GENERAL

- A. See Section 4300, for submittal procedures.
- B. See Section 4310, for scheduling of some submittals.

1.07 TEMPORARY WATER

- A. Water Source: Municipal water, from fire hydrant.
- B. Provide hoses, temporary pipes, ditches, and other items as required to properly dispose of water without damage to adjacent properties.
- C. Dispose of or discharge temporary water in accordance with applicable regulations.

PART 2 PRODUCTS

2.01 GENERAL EQUIPMENT REQUIREMENTS

- A. Unless otherwise indicated, provide products that are new and unused.
- B. Where components serve the same function and are the same size, provide identical units from same manufacturer.
- C. Provide components of a specific type by the same manufacturer.
- D. Operating Equipment: For equipment that is electrically, hydraulically, or pneumatically operated, or has moving parts or electronic components, provide products that:
 1. Are standard products of a manufacturer regularly engaged in manufacture of such products.
 2. Essentially duplicate items that have been in satisfactory use for at least 2 years.
 3. Is capable of operating in outdoor ambient temperature range anticipated at project site, unless located in a climate-controlled space or enclosure.
- E. Provide necessary accessories, fittings, interconnections, services, and adjustments required for complete and operable system.

2.02 EQUIPMENT WITH MOVING PARTS

- A. Protection from Moving Parts: Locate and guard belts, chains, pulleys, gears, projecting setscrews, keys, couplings, and other rotating and moving parts in accordance with OSHA requirements.
 1. Make guards removable or so arranged as to allow access for maintenance.

2. A lockable housing without openings is considered a sufficient guard.
- B. Lubrication: Provide adequate means of lubrication for moving parts subject to wear.
 1. Unless otherwise indicated, provide lubrication by either grease or oil.
 2. Grease Lubrication: Provide grease fittings; if grease fitting is not easily accessible, provide grease tubing to a convenient location.
 3. Oil Lubrication: Provide oil reservoirs of liberal size with opening for filling, overflow opening at proper location to prevent overfilling, and drain opening at the lowest point; vent reservoirs to prevent pressure build-up.
 4. Provide equipment that is fully lubricated at Startup.
- C. Bearings: Provide bearings complying with ABMA STD 9 or ABMA STD 11 as applicable to type of bearing.
 1. Life Expectancy: Theoretical L-10 life expectancy.
 2. Relief Ports: Provide to prevent build-up of pressure that might damage bearings or seals.
- D. Locate drives, lubrication, and bearings that are accessible from walkways at or above ground level.

2.03 ELECTRICALLY OPERATED EQUIPMENT

- A. Provide electrical components necessary for proper functioning of equipment, including but not limited to, motors, motor starters, manual and automatic devices, electrical disconnecting means, conduit and raceways, and power and control wiring.
- B. Electrical Components: As follows, unless otherwise indicated.
- C. Electric Motors: Provide motors complying with, and selected in accordance with, NEMA MG 00001; designed for continuous duty unless otherwise indicated; with following characteristics unless otherwise indicated:
 1. Capacity and Power Rating: Sufficient to drive equipment at specified capacity without exceeding nameplate current, power, or rating, or starting characteristics or temperature limits, and non-overloading under any conditions under which driven equipment must function.
 2. Service Factor: 1.15, minimum.
 3. Electrical Characteristics: As indicated.
 4. Motor Enclosures: Totally enclosed fan-cooled.
 5. Type: Squirrel-cage induction.
 6. Induction Motors: Design B with normal torque and low starting current.
 7. Insulation: Class B or F.
 8. Windings: Nonhygroscopic, epoxy coated.
 9. Bearings: Steel ball bearings, shielded.
 10. Bearing Lubrication: Moisture resistant grease; lubricant changeable without disassembly of motor or housing by externally located easily accessible grease fittings and purge plugs.
 11. Interchangeability: Motors of same size, rating, mounting, and other characteristics interchangeable.
 12. Compatibility: Select motors for compatibility with their controllers and the equipment driven.
- D. Motor Controls: NEMA ICS 1, NEMA ICS 2, NEMA ICS 4, and UL 508.
- E. Motor Starters: Magnetic motor starter with thermal overload protection in each phase, short circuit protection, and other features required for the specified control function.
 1. Overload Protective Devices: Thermal inverse-time-limit type giving adequate protection to motor windings, with manual-reset type pushbutton.
 2. For Manual Operation: Provide Start-Stop pushbutton in enclosure cover.
 3. For Automatic Operation: Provide Hand-Off-Automatic selector switch in enclosure cover.
- F. Control Circuit and Pilot Devices: NEMA IA 10039.

- G. Instrument and Control Transformers: Comply with IEEE C57.13 and NEMA ST 20.
- H. Circuit Breakers: Thermal magnetic type, complying with IEEE C37.13.
 - 1. Main Circuit Breaker: External handle mechanism, with positive locking device, mounted outside enclosure to permit operation of breaker from outside enclosure.
 - 2. Main Circuit Breaker Capacity: Maximum of 150 percent of electrical load.
 - 3. Branch Circuit Breakers: E-frame bolt-on type mounted on interior bus bar.
 - a. Provide a branch circuit breaker for each drive motor, control circuit, heating device, and receptacle.
 - b. Provide spaces for additional circuit breakers where indicated.
- I. Wiring:
 - 1. Control Circuits: No.14 gauge (1.8 mm) stranded, 2/64 inch (1 mm) insulation, machine-tool wire with ring tongue compression type lugs.
 - 2. Circuit Breaker and Power Circuits: Wire of necessary gauge, minimum size No.12 gauge (2.5 mm) with wire lugs.
 - 3. Provide number tags on each end of wires.
 - 4. Secure wires with either plastic ties or wiring duct, or both.
 - 5. Secure wires going to components mounted on enclosure door in a cable-like bundle strapped to door and enclosure with sufficient slack to allow easy operation of door.
 - 6. Terminate circuits requiring field connection on panel terminals.

2.04 ENCLOSURES FOR ELECTRICAL, ELECTRONIC, AND INSTRUMENTATION DEVICES

- A. Enclosures: NEMA IA 10030 and NEMA EN 10250 of types specified.
 - 1. Corrosive Atmosphere Zone: Type 4X, stainless steel; painted steel not permitted.
 - 2. Outdoors: Type 4.
 - 3. Mechanical Equipment Rooms: Type 1.
 - 4. Indoor Dry Zone: Type 1, unless otherwise indicated.
 - 5. Doors: Single, continuously hinged exterior door with print pocket, 3-point latching mechanism and key lock; single, continuously hinged interior door.
 - 6. Finish: Manufacturer's standard, unless otherwise indicated; repair or refinish damaged surfaces using original type finish.
 - 7. Factory-install control components in enclosure, fully wired and tested.
 - 8. Mount copy of external wiring connections and circuit breaker index print to inside of door.
- B. Grounding: Provide solid copper ground bus or equivalent, securely anchored to enclosure so as to effectively ground entire structure.
 - 1. Provide clamp-type terminals sized large enough to carry maximum expected current on ground bus for grounding cables.
 - 2. Where a definite circuit ground is required, provide a single wire not less than #10 AWG running independently to ground bus and fastened to ground bus with bolted terminal lug.
 - 3. Ground cases of instruments, relays and other devices through the steel structure of enclosure unless otherwise indicated.
 - 4. Grounding Wire: Insulated wiring having continuous rated current of not less than the circuit fuse rating.
 - 5. Solidly ground the grounding terminals of power receptacles to enclosure.

2.05 LANGUAGE AND UNITS OF MEASURE

- A. Language: Use English language for forms of identification and human-machine interfaces (HMIs).
- B. Units of Measure:
 - 1. Use the same units of measure in each device measuring or displaying the same characteristic.
 - 2. Metric Units of Measure: As defined in IEEE/ASTM SI 10, American National Standard for Metric Practice.

2.06 IDENTIFICATION OF EQUIPMENT, PIPING, AND ENCLOSURES

- A. Plant Item Identification Scheme (Plant ID): Identify each item of equipment, device, and enclosure using a unique alphanumeric identifier and use the same identifier in each submittal and other documentation.
- B. Plant Item Nameplates: For each item of equipment, device, and enclosure, provide a nameplate permanently secured in a prominent, easily readable location.
 - 1. Include Plant ID number and the generic name of the item.
 - a. Enclosures: Include both enclosure ID and internal device ID; where a single enclosure contains more than one device, show both enclosure ID and device IDs on outside nameplate with separate nameplates inside identifying each device.
 - b. Motor Starters: Include both starter ID and name and ID of device controlled by starter.
 - 2. Lettering: At least one inch (25 mm) high letters in color contrasting with background.
 - 3. Nameplate Material: Engraved multicolor laminated plastic.
 - 4. Attachment: Where exposed to weather or humid environment, use epoxy adhesive, other permanent adhesive, or screw attachment; other locations, permanent self-adhesive.
- C. Manufacturer Nameplates: For each valve, item of equipment, and device, provide a nameplate permanently secured in a conspicuous location.
 - 1. Nameplate Information: Manufacturer's name and address, type or style, model or serial number, and catalog number.
 - 2. Nameplate Material: Same as Plant Item nameplates, or stainless steel or other corrosion-resistant material; information cast integrally need not be repeated on nameplate; manufacturer's original nameplates may be used provided they are in an easily readable location.
- D. Piping Identification: Identify piping by its contents and flow direction every 20 feet (6100 mm) of straight run.
 - 1. Provide additional identification at branch connections, inlets and outlets of equipment, upstream of valves, and within 3 feet (305 mm) of entrance to or exit from basins, foundation walls, and similar barriers.
 - 2. Identify contents by color coding and lettering in contrasting color.
 - 3. Lettering: At least 1 inch (25 mm) high; on horizontal piping, orient lettering horizontally; on vertical piping, orient lettering so it is readable when you tilt your head to the left.
 - 4. Identify flow by large arrows.
 - 5. For contents identification, use either painted stenciled lettering or self-adhesive plastic tape pre-printed with supplemental attachment by plastic tape banding around pipe; for small diameter piping use any method that will provide durable, easily readable identification.

2.07 METALS AND CONSTRUCTION MATERIALS USED IN EQUIPMENT

- A. Stainless Steel: Type 304, Type 304L, Type 316, or Type 316L, unless otherwise indicated.
- B. Steel Plates, Shapes, and Bars: ASTM A36/A36M and as specified in Section 051200.
- C. Galvanized Steel Assemblies: Design to be field assembled using bolts without any welding.
- D. Malleable Iron: ASTM A47/A47M, grade No. 32510, minimum.
- E. Cast Iron: ASTM A48/A48M Class 30, minimum.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify dimensions in the field before starting this work.
- B. Notify Architect of conditions that could prevent successful execution of the work.

3.02 EQUIPMENT INSTALLATION

- A. Install in accordance with manufacturer's instructions and recommendations.
- B. Equipment Bases: Unless otherwise indicated, provide concrete bases for equipment; furnish anchor bolts for proper placement in concrete.
- C. Wiring Work: Comply with NFPA 70; use rigid metal conduit and fittings, except liquid tight flexible steel conduit may be used for short connections to motors and their controllers.
- D. Adjust or replace units not complying with requirements; replace factory sealed devices, rather than adjusting.
- E. Provide dielectric isolation where dissimilar metals are used for connection or support.
- F. Regardless of whether indicated on drawings or not, provide equipment installed in piping with manual valves for shutoff, equalization, purging, and calibration.

3.03 WELDING

- A. Protect adjacent construction, equipment, and vegetation from damage due to welding operations.
- B. Use welders and procedures qualified as specified under QUALITY ASSURANCE article.
- C. If possible, perform welding procedure qualifying tests on project site; notify Architect at least 24 hours in advance of tests.
- D. Weld piping and structural members in accordance with AWS D1.1/D1.1M.
- E. Apply welder's assigned symbol near each weld as permanent record.

3.04 PENETRATIONS THROUGH BUILDING CONSTRUCTION

- A. General:
 - 1. Make penetrations and mounting holes in exterior construction watertight.
 - 2. Make holes with proper equipment.
 - 3. Use sealing materials compatible with existing construction.
- B. Concrete Walls: For new construction provide steel pipe sleeves embedded in concrete.
 - 1. Existing Concrete: Rotary drilled holes may be provided in lieu of sleeves.
 - 2. Above Grade Applications In Nonsubmerged Areas: Sleeves hot-dipped galvanized after fabrication.
 - 3. Buried, Submerged, and Splash Zones: Sleeves prefinished on surfaces with coal tar epoxy polyamide coating specified in this section.

3.05 FIELD QUALITY CONTROL

- A. See other specification sections for requirements.

3.06 STARTUP - SEE SECTION 4465

3.07 CLEANING AND PROTECTION

- A. Clean equipment and unit process surfaces of dirt, dust, debris, and other foreign matter.
- B. Protect equipment from damage by construction activities.

END OF SECTION

SECTION 460526 -- SCREW PUMPS

PART 1 GENERAL

1.01. Summary

- A. The contractor shall furnish, install, and place in satisfactory operating condition, enclosed screw pump assemblies and appurtenances as shown on the Drawings, Specification and Table 1: Pump Design Parameters (see 1.03 System Description below). This specification intends to ensure that the equipment provided is designed to meet the specified performance requirements and be accommodated within the available space.
- B. The new screw pump equipment is to be manufactured in the U.S. and provided by a single manufacturer.
- C. All work shall be in accordance with standard trade practices and to manufacturer's recommendations.
- D. General Conditions, Supplementary Conditions, and General Requirements Sections apply to work of this Section.

1.02. References

- A. American Institute of Steel Construction (AISC)
- B. American Society of Testing and Materials (ASTM)
- C. American Society of Civil Engineers (ASCE)
- D. American Welding Society (AWS)
- E. Steel Structures Painting Council (SSPC)
- F. Occupational Safety and Health Administration (OSHA)

1.03. System Description

- A. Each screw pump shall be furnished complete with continuously welded screw pump barrel and flights, splash guards, lip seals, upper and lower bearing assemblies, gear reducer, V-belts and sheaves, drive motor, automatic lower bearing oil lubrication system, and all necessary anchorage parts.

- B. Each screw pump is designed based on the below parameters.

Table 1: Pump Design Parameters

S.No.	Properties	Values	Unit
1.	Number of Screw Pumps	three (3)	quantity
2.	Screw Pump Capacity	4,600	GPM
3.	Pool-to-Apex Lift	26.50	ft
4.	Screw Pump Efficiency	85	%
5.	Screw Pump Diameter	48	in
6.	Number of Flights	Two	quantity
7.	Flight Thickness (min.)	3/16	in
8.	Maximum Rotational Speed	52	RPM
9.	Required Rotational Speed	51.7	RPM
10.	Motor Type	TEFC, horizontal Design B, Foot-mounted	-
11.	Motor Size	60	HP
12.	Motor Voltage	460	Volts
13.	Motor Phase	3	ph
14.	Motor Frequency	60	Hz
15.	Angle of Inclination	38°	Degrees
16.	Flight Material of Construction	Carbon Steel (Std)	-
17.	Screw Pump Body Material of Construction	Carbon Steel (Std)	-
18.	Anchor Bolt Material of Construction	304 Stainless Steel (Std)	-
19.	Gear Reducer Type	Base-Mounted (Std) Concentric-Shaft (Std)	-

1.04. Pre- Bid Submittals

- A. Unless named in the specifications, all equipment manufacturers bidding on this Section equipment shall submit to the engineer not less than fourteen (14) days prior to the bid date a complete pre-qualification package. The pre-qualification package shall include but not be limited to the following:
- B. List of twenty (20) U.S. installations of similar type equipment comparable to the units specified.
- C. The term "installations" shall mean individual projects/contracts. Multiple equipment units for a project will be considered as one (1) installation

toward meeting the experience requirements. Installations shall be only those in the United States (fifty states).

- D. The installation shall include, but not be limited to, the following:
- E. Name and location of installation,
- F. Name of person in direct responsible charge for the equipment,
- H. Address and phone number of person in direct responsible charge for the equipment,
- I. Month and year the equipment was placed in operation, and
- J. Brief description of equipment.
- K. A complete set of drawings, specifications, catalog cut sheets, and detailed descriptive material. This information shall identify all mechanical and performance requirements stipulated on the drawings and in the specification.
- L. Both structural and mechanical screw pump calculations.
- M. The calculations shall clearly indicate the following design parameters:
- N. Brake horsepower at the maximum capacity and lift and radial bearing load and thrust bearing load at the maximum capacity and lift.
- O. These design calculations shall be certified by the manufacturer.
- P. Detailed information shall be submitted for all items such as hardware, motors, reducers, and bearings.
- Q. List showing materials of construction of all components.
- R. Manufacturer's recommended spare parts.
- S. Information on equipment field erection requirements including total weight of assembled components and weight of each sub-assembly.
- T. A maintenance schedule showing the required maintenance, frequency of maintenance, lubricants and other items required at each regular preventative maintenance period, including all buy-out items.
- U. Process equipment electrical requirements and schematic diagrams.
- V. Complete list of deviations from the drawings and specifications.

1.05. Quality Assurance

- A. In order to assure uniform quality, ease of maintenance and minimal parts storage, it is the intent of these Specifications that all equipment called for under this Section shall be supplied by a single manufacturer. Evoqua Water Technologies, LLC. has been used as the basis of this specification. Products of other companies meeting the above specifications, in all regards, will be considered acceptable.
- B. The equipment manufacturer and contractor shall assume responsibility for proper installation and functioning of the equipment.
- C. The Contract Documents represent the minimum acceptable standards for the screw pump equipment for this project. All equipment shall conform fully in every respect to the requirements of the respective parts and sections of the drawings and specifications. If not named, equipment that is a "standard product" with that manufacturer shall be modified, redesigned from the standard mode, and shall be furnished with special features, accessories, materials of construction or finishes as may be necessary to conform to the quality mandated by the technical and performance requirements of the specifications.
- D. Prior to the ordering and fabrication of the pump, the Contractor shall provide a final submittal containing the same information as specified in Paragraph 1.04.

PART 2 PRODUCTS

2.01. Manufacturer

- A. The screw pump assemblies shall include all necessary equipment and appurtenances as manufactured by Evoqua or approved equal.
- B. The screw pump body manufacturing, including all flight manufacturing, shall be performed in the manufacturer's own facility. No outsourcing of pump body manufacturing is allowed.

2.02. General

- A. The screw pump(s) shall be of the enclosed type, with the flights and cylinder forming a one-piece integral unit.

- B. Flights shall be continuously welded to the cylinder throughout their entire length.
- C. To eliminate air binding of the screw pump under widely fluctuating flows and inlet level conditions, the screw pumps shall be of open center design. Designs utilizing a solid shaft or torque tube extending over 33 percent of the full length of the screw pump, with such shaft welded to the inner periphery of the flights, shall not be considered.
- D. Under load, enclosed type screw pumps are subjected to dynamic stresses due to their structural geometry, particularly around the discharge area of the screw pump where the motor torque is transferred to the screw pump itself. Since these stresses will change based on the specific project requirements, a finite element analysis (FEA) shall be performed to ensure that the stresses throughout the screw pump barrel, flights, and drive shaft are below the allowable stress levels unless an FEA has been previously performed on a comparable, i.e., length, diameter, and incline, screw pump.
- E. Allowable stress levels are defined as the maximum mean and alternating stress levels for existing screw pumps of similar design operating in the field for more than five years with no stress related problems.
- F. The screw pump manufacturer shall be required to submit this FEA stress data prior to fabrication of the screw pump.

2.03. Screw Pump Cylinder

- A. Refer Table 1 for minimum diameter of screw pump and angle of inclination (nominal) from the horizontal.
- B. Each screw pump shall consist of not more than two conical helix (helicoid) flights continually welded to an external steel cylinder.
- C. Longitudinal and circumferential welds of the screw pump cylinder shall be continuous and watertight.
- D. A steel shaft shall be welded to the delivery end of the screw pump to provide both support and drive capability.
- E. A non-contact lip seal shall be provided at the discharge end of the screw pump cylinder to prevent backflow or leakage down the outside of the screw pump cylinder.

2.04. Lower Bearing Assembly

- A. The lower bearing assembly used to support the lower end of the screw pump shall be located above the high-water level in the inlet chamber.
- B. The lower bearings shall be a self-aligning, roller type, mounted on a spherical supporting structure in such manner as to allow the necessary self-alignment in all planes.
- C. The bearing surface of the screw pump cylinder shall be a removable heat-treated, forged steel wear ring having a Brinell hardness between 321 and 363.
- D. Each lower roller shall be heat-treated steel having a Brinell hardness between 321 and 363.
- E. Each lower roller shall be supported on a stationary shaft by two sealed, grease-lubricated bearings designed for a B-10 life of 100,000 hours, based on full load conditions.
- F. Fittings and extension tubing shall be provided to allow manual lubrication of the sealed, grease-lubricated bearings of each lower roller at a conveniently accessible location.
- G. A non-contact lip seal shall be provided on the upper side of the lower bearing assembly to prevent intrusion of contamination.
- H. All lower bearing assemblies shall be interchangeable with like items on screw pumps of the same diameter and lift.
- I. All lower bearing assemblies shall be designed to be readily replaceable without removing the screw pump cylinder from the lift station.

2.05. Automatic Lubrication for Lower Bearing Assembly

- A. An adjustable, automatic oil lubrication system (GRACO G3 MAX GEN 2, Model 96G562 or equal) with a minimum 4.2-gallon aluminum oil reservoir, gear pump, motor, controller, stainless steel distribution manifold, nylon tubing and fittings shall be furnished in order to provide a lubricating oil film to 2 points on the forged wear ring.
- B. The automatic oil system shall have both a low oil level switch (located in the oil reservoir) and an explosion-proof cycle switch (located on the distribution manifold) to ensure proper operation.

- C. The oil lubrication system shall introduce the oil at the wear ring to the lower roller interface and to the top of the wear ring by connection to the wear ring guard with visual indication of operation.
- D. The oil lubrication system shall be capable of monitoring the oil flow within four feet from the wear ring to lower interface. Visual indication on top of wear ring guard.
- E. The lubrication pumps shall receive 110-volt power from the existing oil pump control panels.
- F. The cycle switch shall provide positive flow indication (to the controller) for both the lower roller interface connection and the connection at the top of the wear ring guard.
- G. The cycle switch shall be explosion proof design.
- H. The low oil level switch shall provide low level indication to others.
- J. A gravity fed back-up system shall be supplied to work in conjunction with the automatic oil feed system.
- K. The gravity drip back-up system shall include a minimum (1) gallon oil reservoir, stainless steel ball valve, adjustable needle valve, sight gauge, explosion proof solenoid valve, nylon tubing and fittings suitable for connection to the screw pump.
- L. The gravity back-up system shall be configured so that if the automatic system goes into fault, the back-up system shall engage and provide an oil film to the wear ring via an inlet port on the top of the lower bearing guard.

2.06. Upper Bearing Assembly

- A. The upper bearing shall be a self-aligning design of the thrust spherical roller type.
- B. The upper bearing shall be designed to take the entire thrust load of the screw pump and a proportional share of the radial load.
- C. The upper bearing shall be designed for a minimum B-10 life of 100,000 hours at full design load.
- D. Lubrication of the upper bearing shall be by an oil reservoir built into the upper bearing housing. A grease-lubricated upper bearing consisting of split

housing fitted with dual bearings (one for thrust and one for radial load) shall not be allowed due to the limited self-alignment capability of that design.

- E. The upper bearing housing shall be furnished with an oil level sight gauge.
- F. All upper bearing assemblies shall be interchangeable with like items on screw pumps of the same diameter and lift.
- G. All upper bearing assemblies shall be designed to be readily replaceable without removing the screw pump cylinder from the lift station.

2.07. Drive Assembly

- A. The screw pump shall be driven through a totally enclosed gear reducer having anti-friction bearings throughout, utilizing automatic splash lubrication (permanently lubricated bearings, or an oil pump where splash lubrication is ineffective).
- B. The gear reducer shall be manufactured and rated in accordance with A.G.M.A. standards.
- C. The gear reducer shall be designed with a minimum 1.5 service factor based on the motor horsepower.
- D. Connection of the screw pump drive shaft to the gear reducer output shaft shall be made through a shock absorbing, vibration-damping flexible coupling, similar to Dodge Para-Flex or equal.
- E. The drive line shall include an anti-reverse rotation backstop as a safety feature to prevent reverse rotation of the screw pump during unit shutdown or inadvertent power cutoff.

2.08. Motor

- A. The screw pump shall be driven by a motor totally enclosed, fan-cooled NEMA frame electric motor suitable for installation in an inclined position. For details refer to Table 1.
- B. Power transmission from motor to speed reducer shall be through a V-belt drive.
- C. Suitable belt guards shall be provided to protect operating personnel from accidental contact with either the belt or the sheaves.

2.09. Protective Coatings

- A. The interior of the enclosed screw pump shall be near-white blasted (SSPC-SP10) prior to fabrication and completely flow coated with two coats Tnemec Series 46-465 H.B. Tnemecol Coal Tar Epoxy at 8-mils minimum dry film thickness per coat (DFT), color black.
- B. All fabricated carbon steel or cast-iron components for submerged and non-submerged service shall be near-white blasted (SSPC-SP10) and prime coated with Tnemec-zinc Series 90G-1K97 at 2.5 to 3.5-mils minimum DFT.
- C. Electric motors, speed reducers, and other self-contained or enclosed components shall be supplied with the manufacturer's standard finish coating.
- D. Rust preventative compound shall be applied to all machined, polished, and non-ferrous surfaces that are not to be painted.
- E. Finish coats shall be applied in the field by the contractor, unless noted otherwise.

2.10. Quality Control

- A. Because of the critical service of the screw pump and its expected long service life, it is mandatory that certain quality control procedures be followed during the manufacturing process. The screw pump manufacturer shall perform, as a minimum, the following procedures and shall provide certification, at the time of shipment, that these have been performed.
- B. Magnetic Particle Inspection at Highest Stress Points
- C. Drive shaft area where flange joins shaft, if applicable.
- D. Cylinder drive end, first 180° welds joining flight to shaft and first flight-to-flight butt weld.
- E. Screw Pump cylinder all external circumferential and longitudinal welds shall be made with automatic submerged arc equipment to assure the required weld penetration and integrity. If manual welding is used on the external circumferential and longitudinal welds, these manual weld areas shall be magnetic particle inspected.
- F. Stub shaft area where stub joins shaft
- G. Brinell Hardness
- H. Lower Bearing Wear Ring: 321 - 363 BHN

- I. Lower Bearing Rollers: 321 - 363 BHN

2.11. Anchorage

- A. The contractor shall furnish all anchor bolts of ample size and strength required to securely anchor each item of equipment.
- B. Anchor bolts, hex nuts, and washers shall be 304 stainless-steel unless noted otherwise.
- C. Anchor bolts shall be an adhesive, epoxy style. Expansion-type anchors shall not be acceptable.
- D. Anchor bolts shall be set by the contractor.
- E. Equipment shall be placed on the foundations, leveled, shimmed, bolted down, and grouted with a non-shrinking grout by the contractor.

PART 3 EXECUTION

3.01. Field Preparation and Painting

- A. The contractor shall touch up all shipping damage to paint as soon as the equipment arrives on the job site.
- B. Prior to the assembly, all stainless-steel bolts and nut threads shall be coated with a non-seizing compound by the contractor.

3.02. Manufacturer's Service Engineer

- A. The manufacturer shall schedule a minimum one (1) trip(s) to the project site for a total duration of three (3) days on-site time per screw pump for start-up assistance, inspection of installed equipment for proper operation, and to perform equipment operation training.
- B. The manufacturer shall maintain a staff of qualified service representatives at a facility located in the United States. The representatives shall be full-time employees of the manufacturer that fabricates the screw pump. Employees of a company representing the manufacturer or re-selling another manufacturer's equipment do not qualify.

3.03. Manufacturer's Installation (If Applicable)

- A. The screw pump system (Section 1.03.A) shall be installed by the manufacturer's employed field service staff.
- B. The field installation shall include coordination and scheduling with the contractor.
- C. Service and scope shall include the following:
- D. Provide required cranes, lifts, or forklifts,
- E. Removal of existing screw pump(s), if applicable,
- F. Installation of the new screw pump system(s), and
- G. Installation of all anchorage and grouting as required.
- H. All field installation personnel are to be employed on a full-time basis by the screw pump manufacturer.

3.04. Operator Training

- A. Operator training for owner's personnel shall be provided after the screw pump system is operational.
- B. Training shall take place while the screw pump manufacturer's representative is at the job site for equipment inspection.
- C. The training shall be a minimum of 4 hours.

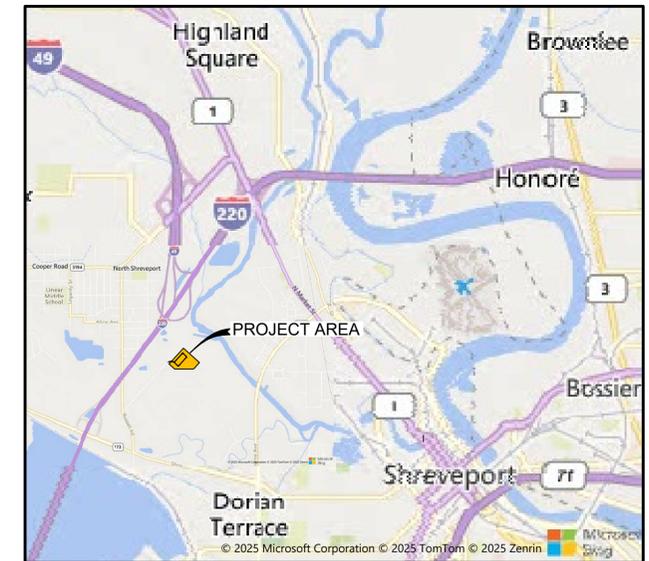
PART 4 WARRANTY

4.01. Warranty

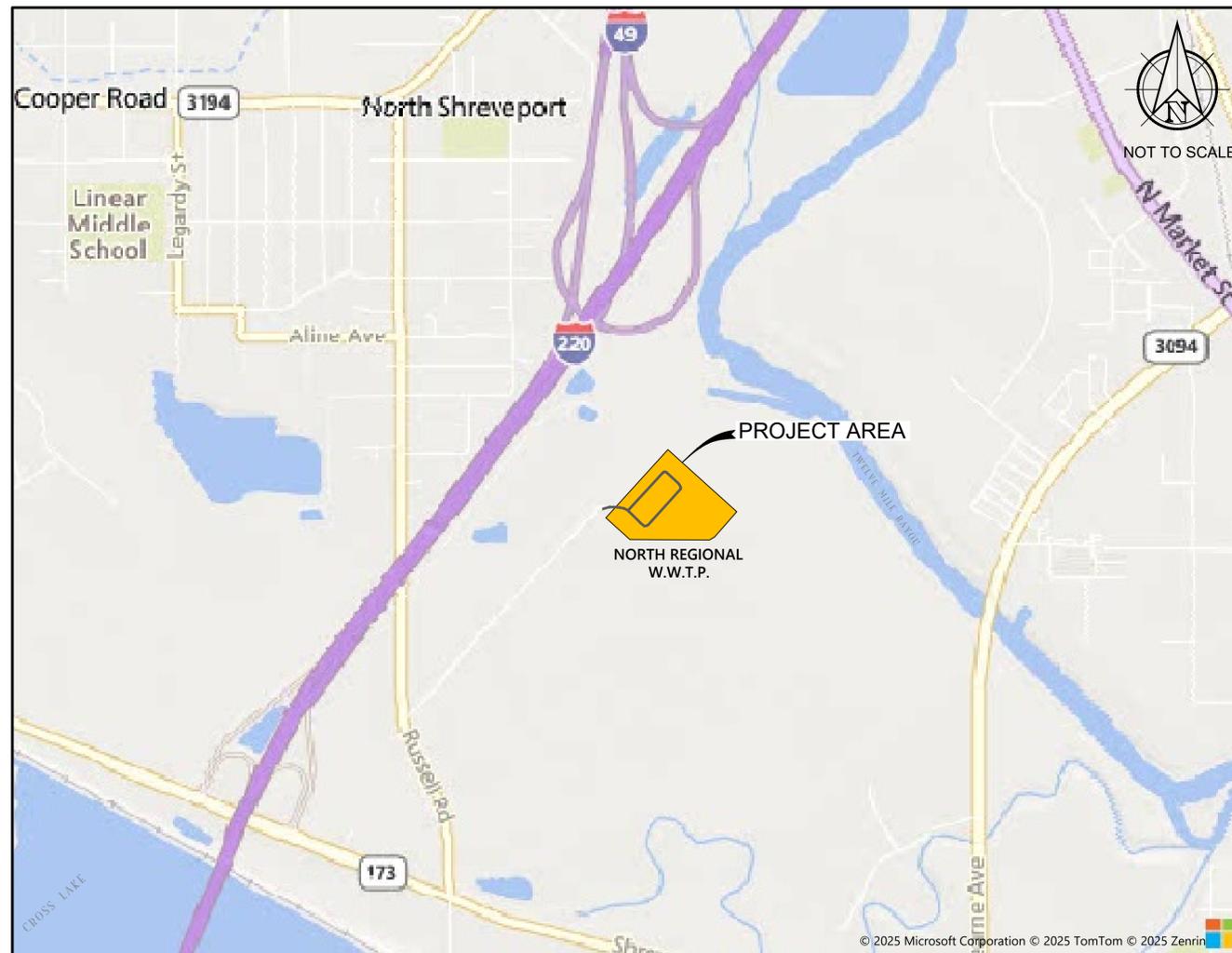
A. Seller shall furnish its standard warranty against defects in material and workmanship for all Equipment provided by Seller under this Section. The Seller shall warrant the Equipment, or any components thereof, through the earlier of: (i) eighteen (18) months from delivery of the Equipment or (ii) twelve (12) months from initial operation of the Equipment.

CITY OF SHREVEPORT, CADDO PARISH, LOUISIANA
DEPARTMENT OF WATER & SEWERAGE

NORTH REGIONAL W.W.T.P. REPLACEMENT OF INFLUENT SCREW PUMPS



VICINITY MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE



SHEET INDEX:

- 1.....TITLE SHEET
- 2.....GENERAL NOTES
- 3.....SITE PLAN
- 4.....DEMOLITION PLAN
- 5-6.....SCREW PUMPS REPLACEMENT
- 7.....ONE-LINE ELECTRICAL SCHEMATIC
& SCREW PUMP DISCONNECT
MOUNTING DETAILS
- 8.....PHOTO REFERENCES

TYPE OF CONSTRUCTION:

REMOVAL AND REPLACEMENT/ REHABILITATION
OF COMPONENTS OF INFLUENT SCREW PUMPS
AT THE NORTH REGIONAL WASTE WATER
TREATMENT PLANT IN SHREVEPORT, LA.

NO.	DATE	BY	REVISION


CITY OF SHREVEPORT
NORTH REGIONAL
WASTEWATER TREATMENT PLANT
 CADDO PARISH, LOUISIANA
TITLE SHEET

TOM ARCENEUX
MAYOR

CITY COUNCIL:
 DISTRICT A - TABATHA TAYLOR
 DISTRICT B - GARY BROOKS
 DISTRICT C - JIM TALIAFERRO
 DISTRICT D - GRAYSON BOUCHER
 DISTRICT E - DR. ALAN JACKSON, JR.
 DISTRICT F - JAMES GREEN
 DISTRICT G - URSULA BOWMAN

BRANDON SNEAD
INTERIM DIRECTOR OF WATER AND SEWERAGE

SUBMITTED BY:
D.B. GRAFF, PE, PLS
PROJECT ENGINEER - CGS ENGINEERING, INC.



**COATHREN, GRAFF,
SMOAK ENG., INC.**
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 FIRM LICENSE - LA 2636
 AL 7531 • TX 1754



DRAWN: DKJ	ENG: DBG
SCALE: NONE	PROJECT: 20103
DATE: JANUARY 2026	
SHEET NO.:	

GENERAL NOTES

1. The City of Shreveport has on file a copy of the O & M Manual for the existing Influent Screw Pumps. The manual contains shop drawings, assembly drawings, specifications and other proprietary documents that are available for the Bidder's / Contractor's review.
2. All necessary electrical work shall be in accordance with Section 460500 of the specifications and the International Electrical Code and other pertinent codes.
3. All salvaged materials are to be turned over to the owner upon removal.
4. The Contractor shall furnish one complete set of construction drawings appropriately marked up to reflect actual "Record Drawings" elevations, dimensions, locations, etc. at the completion of the work.
5. No actual location/ topographic survey was conducted for this project. All horizontal and vertical dimensions/ elevations were obtained from Record Drawings. All measurements shall be confirmed by the contractor prior to the preparation of any shop drawings.
6. In accordance with generally accepted construction practices, the Contractor alone will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not limited to normal working hours.
7. It is the intent of the plans and specifications to describe the necessary equipment and work procedures. Failure of the plans and specifications to include any necessary component or work procedure to obtain a complete and workable system shall in no way limit the Contractor's responsibility to furnish and install such necessary items for a complete and workable system.
8. The Contractor shall provide all temporary utilities such as electricity and water necessary to test and complete his various work tasks.
9. All areas disturbed during construction will be properly backfilled, graded and replaced to original or better condition.
10. Where applicable, Contractor shall comply with City of Shreveport Standard Specifications for Infrastructure Improvements. (2021 Edition).
11. Submittals are required for all equipment and materials.
12. Equipment shall be installed as per Manufacture's instructions. Deviations shall be coordinated with the Engineer.
13. The Contractor shall field verify all existing utilities prior to construction. The Contractor shall be responsible for the replacement or repair of all private & public utilities damaged during construction. Locations of existing underground utilities are shown based on best possible information and have not been independently verified by the engineer.
14. Contractor shall coordinate job site access and schedule with City Project Representative prior to construction.
15. The Contractor shall contact the Engineer immediately concerning any conflicts arising during construction of any improvements shown on these drawings.
16. All site access shall be maintained throughout the course of construction.
17. Owner has right of refusal for any faulty or substandard work done the Contractor. All work is subject to final inspection by the City of Shreveport and Project Engineer.
18. The Contractor shall personally inspect the premises to determine the conditions under which the work is to be done and the kind and amount of materials to be removed. The Contractor will accept the premises as found.
19. The City will provide and operate adequate temporary by-pass pumping equipment for the duration of this project. To minimize the use of bypass pumps the contractor shall perform work in a sequence that will allow for the continued use of existing Pump 1 until such time as at least one new pump has been made operational.

REVISION

BY

DATE

NO.

CITY OF SHREVEPORT
NORTH REGIONAL
WASTEWATER TREATMENT PLANT
CADDO PARISH, LOUISIANA

GENERAL NOTES

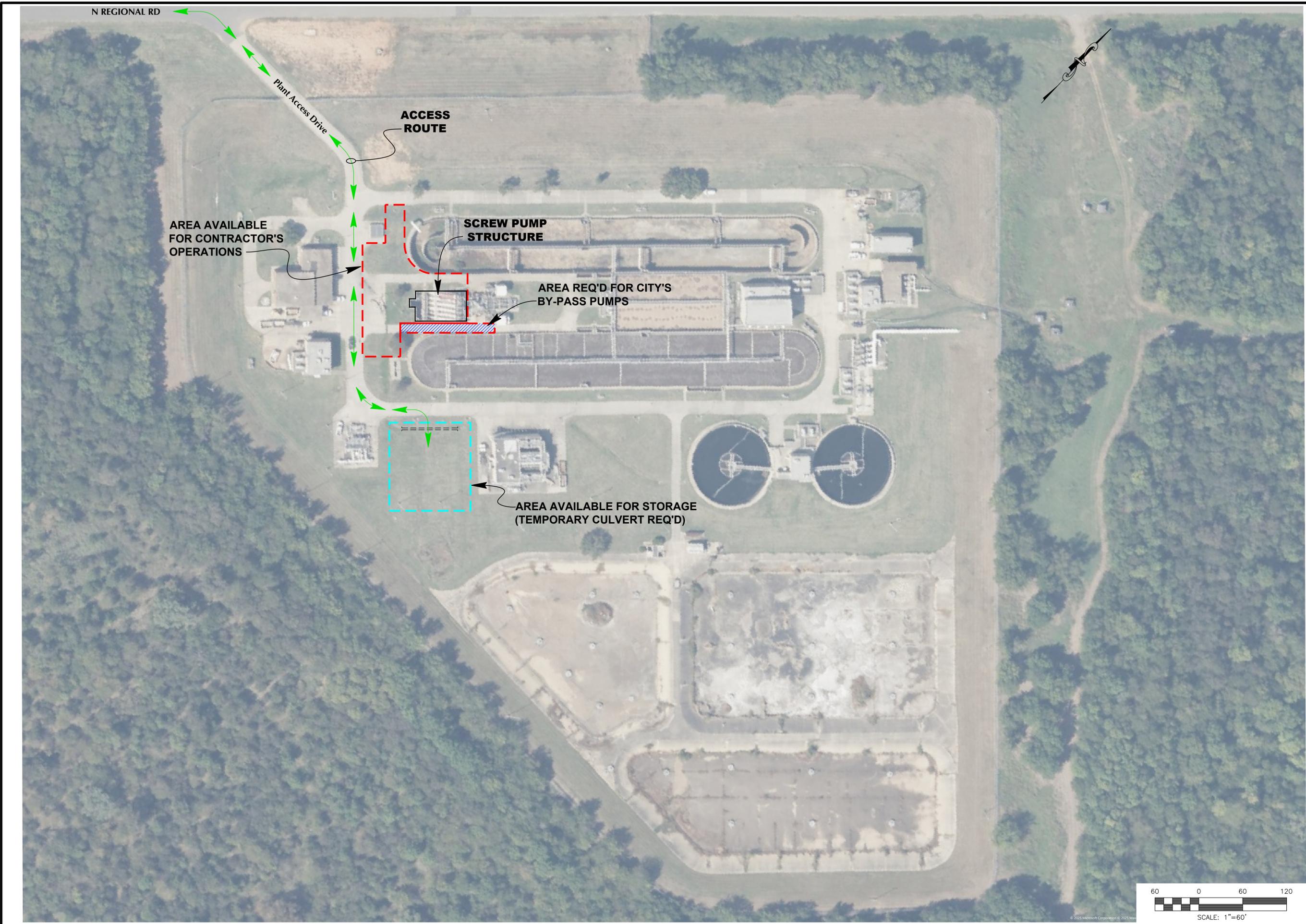


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AL 7531 ~ TX 1754



DRAWN: DKJ ENG: DBG
SCALE: NONE PROJECT: 20103
DATE: JANUARY 2026

SHEET NO.: **2**



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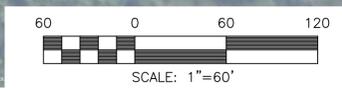
CITY OF SHREVEPORT
NORTH REGIONAL
WASTEWATER TREATMENT PLANT
 CADDO PARISH, LOUISIANA
SITE PLAN



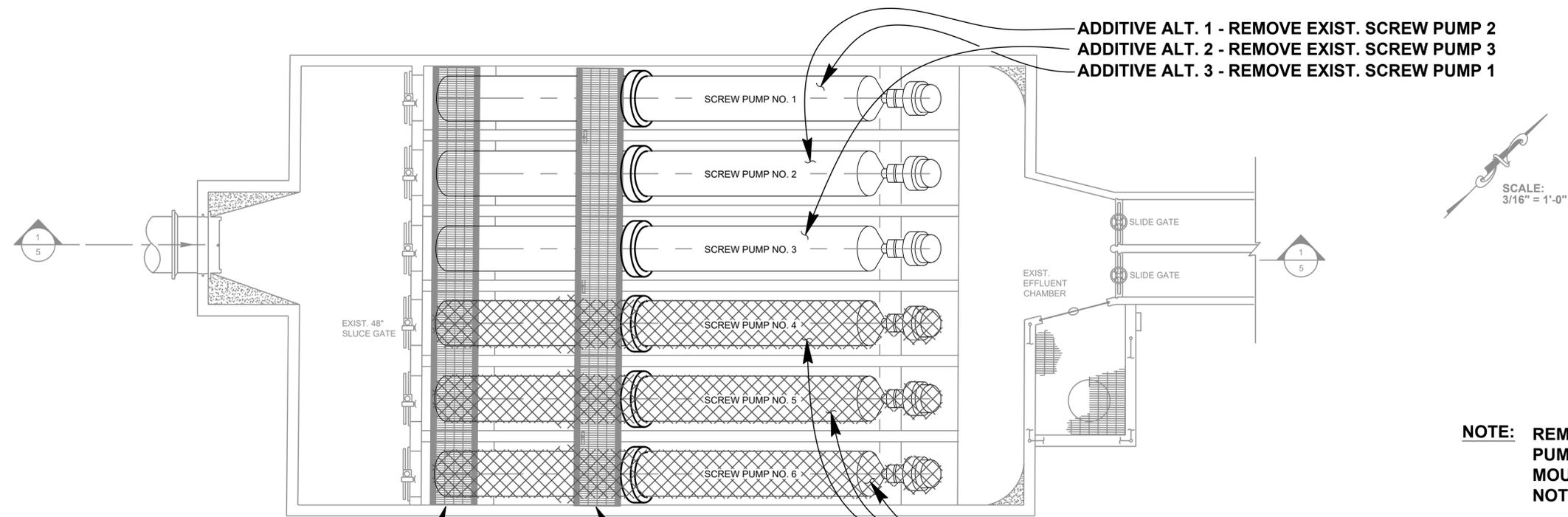
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01/06/2026
 D. B. GRAFF, P.E.

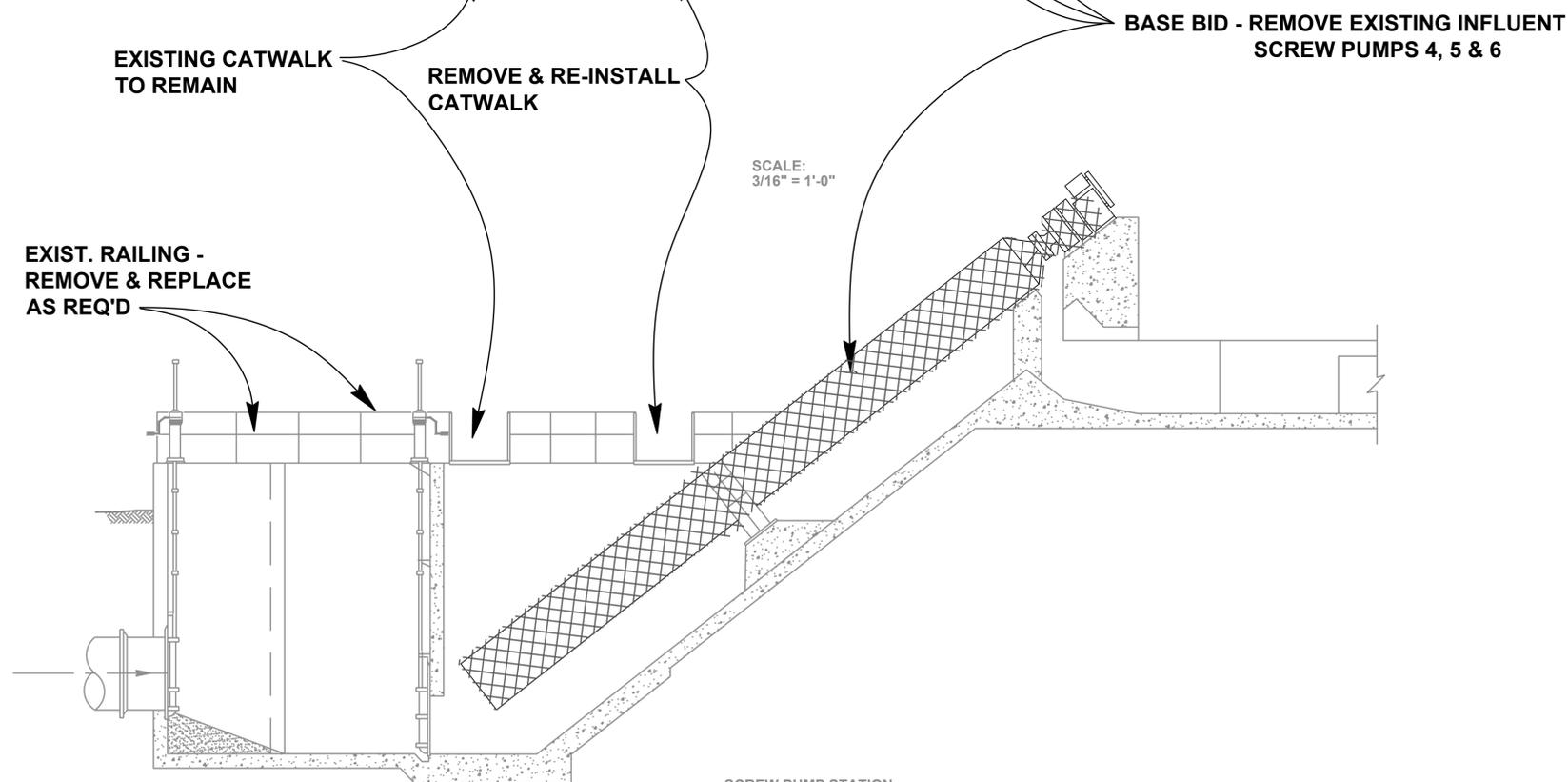
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DKJ	DBG
SCALE:	PROJECT:
AS NOTED	20103
DATE:	JANUARY 2026
SHEET NO.:	3



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NOTE: REMOVAL OF EXIST. PUMP DISCONNECT MOUNTING POSTS NOT SHOWN



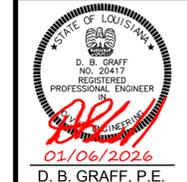
SCREW PUMP STATION
SECTION 1
6

NO.	DATE	BY	REVISION

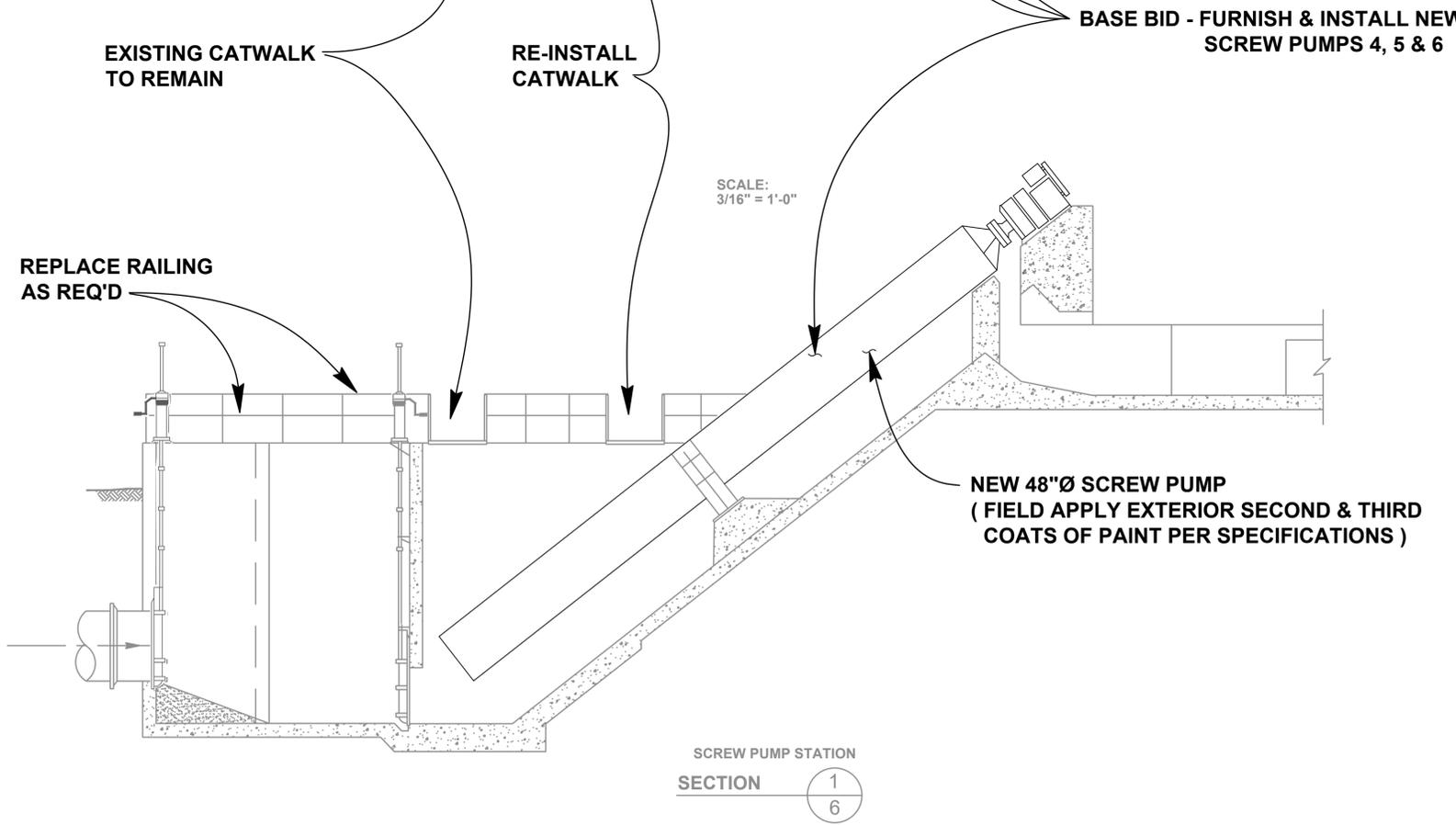
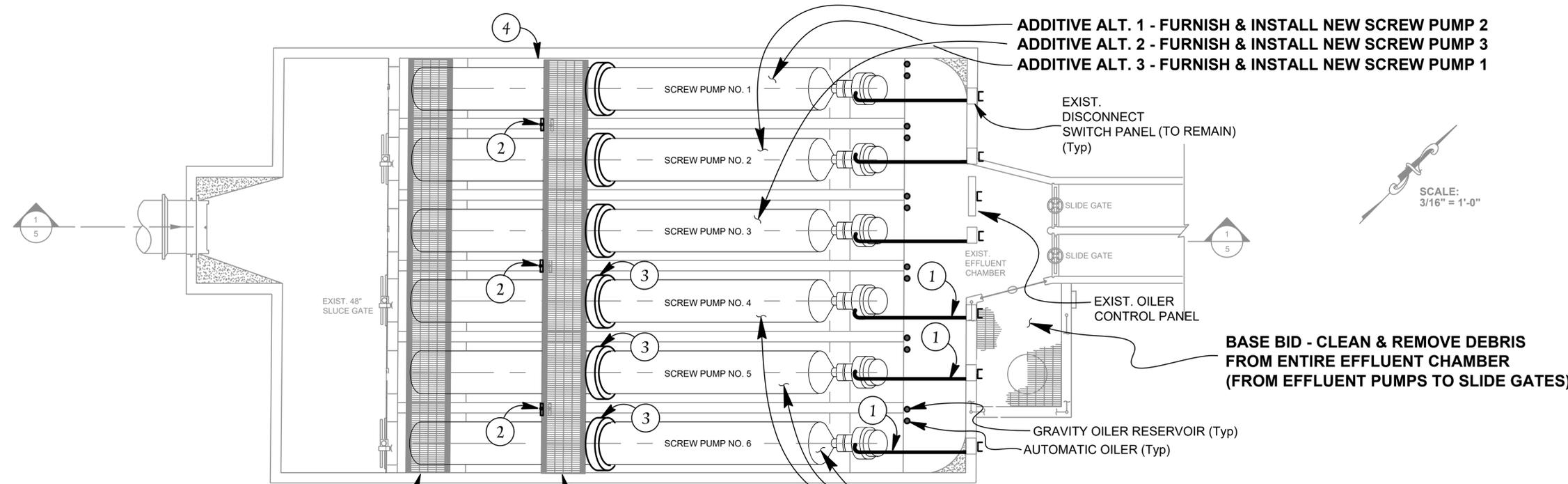
**CITY OF SHREVEPORT
NORTH REGIONAL
WASTEWATER TREATMENT PLANT
CADDO PARISH, LOUISIANA
SCREW PUMPS DEMOLITION PLAN**



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SMOAK ENG., INC.**
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 SANITARY • STRUCTURAL
 MECHANICAL • ELECTRICAL
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SCALE: NONE	PROJECT: 20103
DATE: JANUARY 2026	
SHEET NO.:	



BASE BID - CLEAN & REMOVE DEBRIS FROM ENTIRE EFFLUENT CHAMBER (FROM EFFLUENT PUMPS TO SLIDE GATES)

BASE BID - FURNISH & INSTALL NEW SCREW PUMPS 4, 5 & 6

- ① REPLACE FLEX CONDUIT & RUN NEW CONDUCTORS FROM PUMPS TO PUMP DISCONNECTS.
- ② REPLACE GREASE ZERKS & GREASE LINES FROM CATWALK TO EACH PUMP LOWER BEARING.
- ③ FURNISH & INSTALL NEW AUTO-LUBRICATION SYSTEM FOR EACH NEW PUMP. PROVIDE NEW FLEX CONDUIT FROM EXIST. EMT TO EACH SOLENOID CONTROL. PROVIDE NEW CONDULETS & FITTINGS.
- ④ RECONNECT LIGHTING CIRCUIT TO CATWALK UPON RESETTING OF CATWALK.

NO.	DATE	BY	REVISION

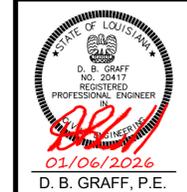
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NORTH REGIONAL
WASTEWATER TREATMENT PLANT
CADDOPARISH, LOUISIANA**

SCREW PUMPS REPLACEMENT

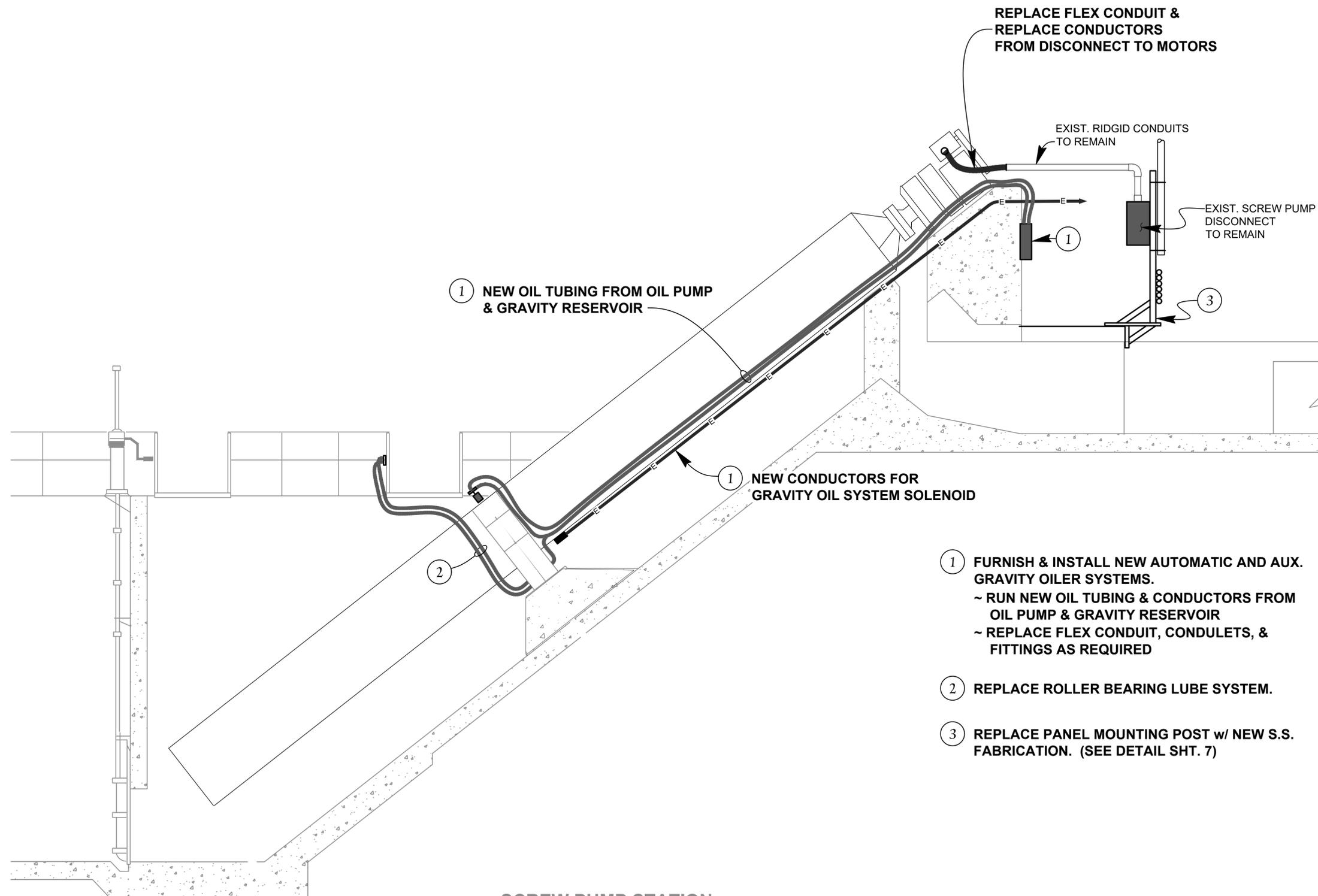


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DRAWN:	ENG:
DKJ	DBG
SCALE:	PROJECT:
AS NOTED	20103
DATE:	JANUARY 2026
SHEET NO.:	5



SCREW PUMP STATION

SECTION 1
6

- 1 FURNISH & INSTALL NEW AUTOMATIC AND AUX. GRAVITY OILER SYSTEMS.
~ RUN NEW OIL TUBING & CONDUCTORS FROM OIL PUMP & GRAVITY RESERVOIR
~ REPLACE FLEX CONDUIT, CONDULETS, & FITTINGS AS REQUIRED
- 2 REPLACE ROLLER BEARING LUBE SYSTEM.
- 3 REPLACE PANEL MOUNTING POST w/ NEW S.S. FABRICATION. (SEE DETAIL SHT. 7)

NO.	DATE	BY	REVISION

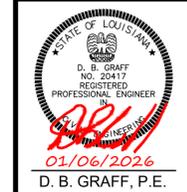
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CADDO PARISH, LOUISIANA

SCREW PUMPS REPLACEMENT

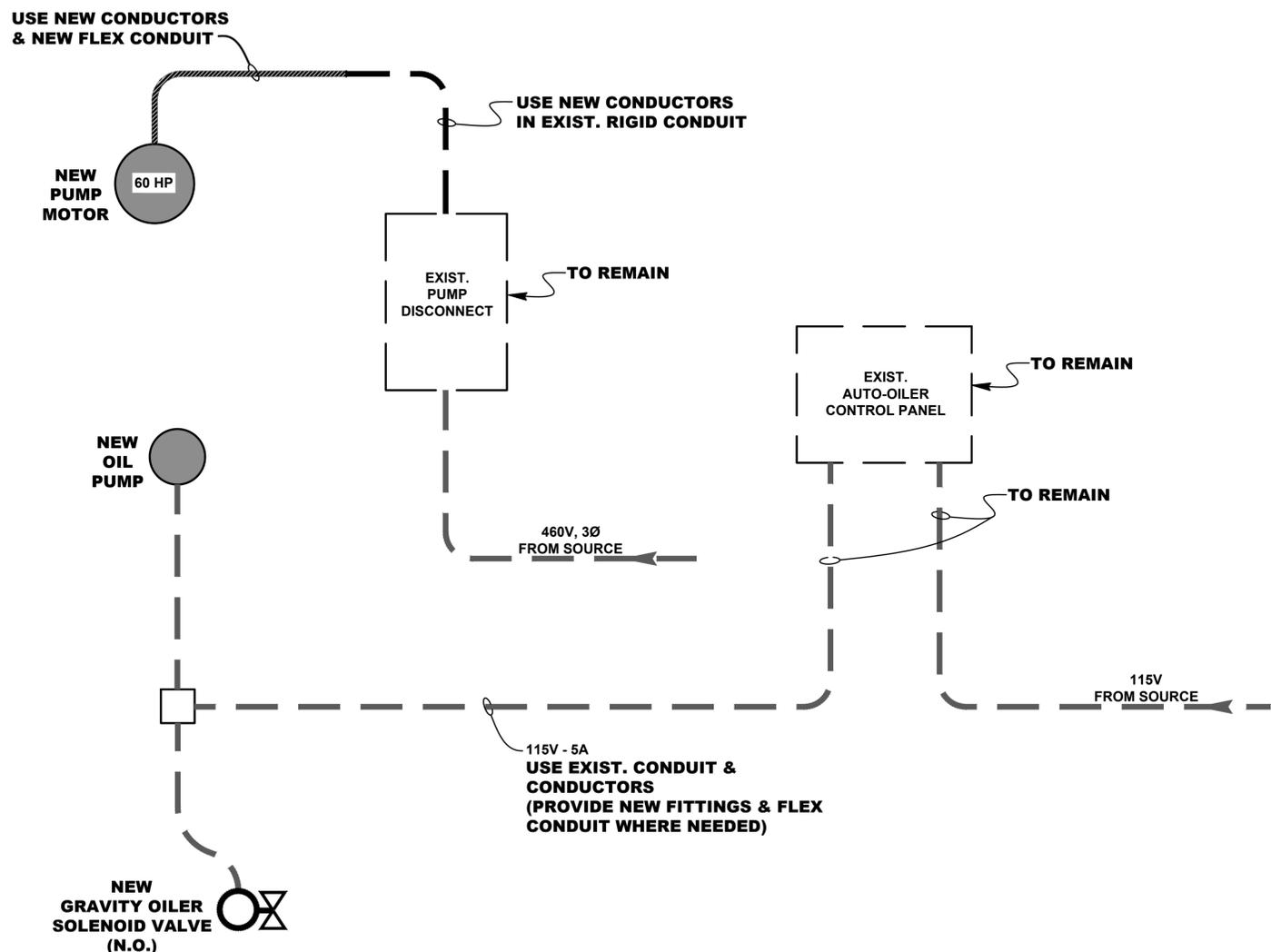


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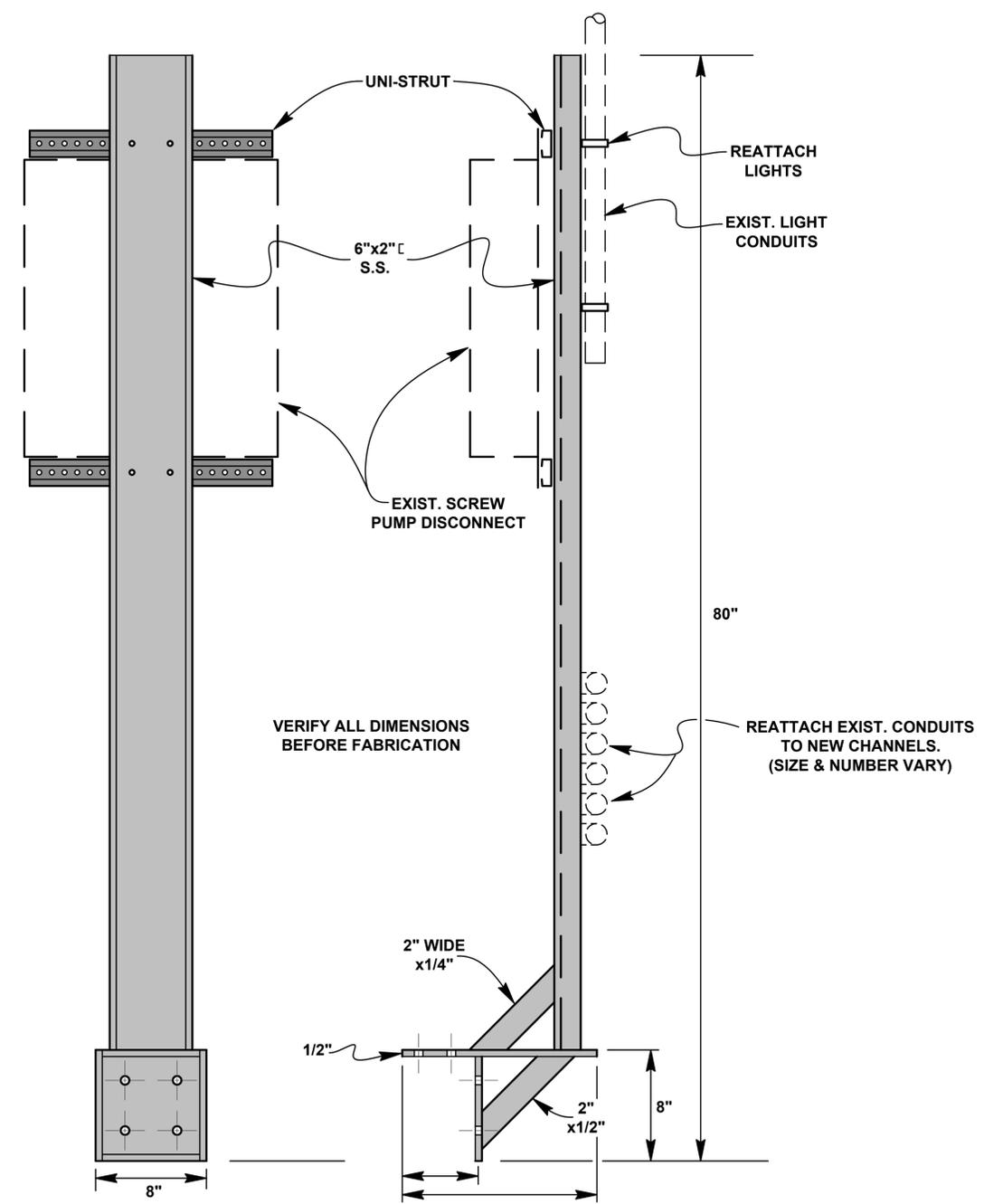
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DRAWN: DKJ	ENG: DBG
SCALE: AS NOTED	PROJECT: 20103
DATE: JANUARY 2026	
SHEET NO.: 6	



ONE-LINE ELECTRICAL SCHEMATIC (TYPICAL)



PUMP DISCONNECT MOUNTING DETAIL

1 REQUIRED FOR EACH PUMP DISCONNECT

1 REQUIRED FOR OILER CONTROL PANEL

NO.	DATE	BY	REVISION

CITY OF SHREVEPORT
 NORTH REGIONAL
 WASTEWATER TREATMENT PLANT
 CADDO PARISH, LOUISIANA

ONE-LINE ELECTRICAL SCHEMATIC & PUMP DISCONNECT MOUNTING DETAIL



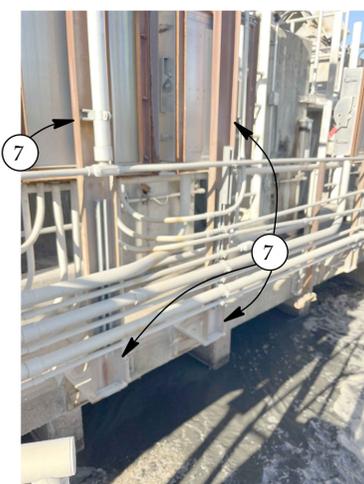
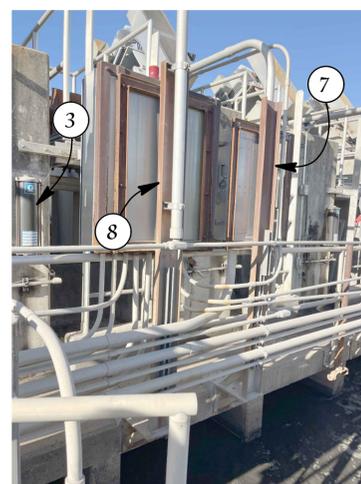
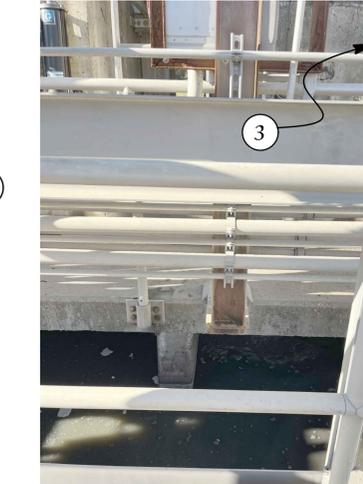
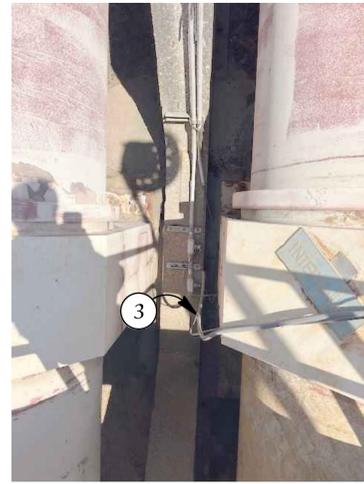
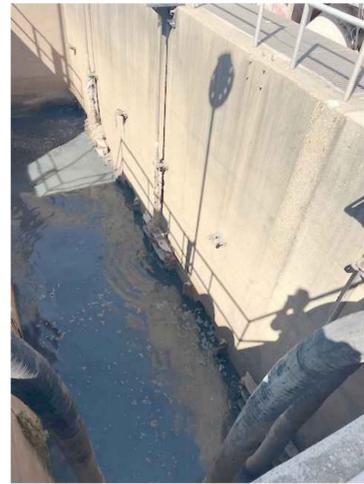
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STATE OF LOUISIANA
 D. B. GRAFF
 NO. 20417
 REGISTERED PROFESSIONAL ENGINEER
 IN
 ELECTRICAL ENGINEERING

01/06/2026
 D. B. GRAFF, P.E.

DRAWN: DKJ	ENG: DBG
SCALE: NONE	PROJECT: 20103
DATE: JANUARY 2026	
SHEET NO.:	



- ① REPLACE FLEX CONDUIT & RUN NEW CONDUCTORS FROM PUMPS TO PUMP DISCONNECTS.
- ② REPLACE GREASE ZERKS & GREASE LINES FROM CATWALK TO EACH PUMP LOWER BEARING.
- ③ FURNISH & INSTALL NEW AUTO-LUBRICATION SYSTEM FOR EACH NEW PUMP. PROVIDE NEW FLEX CONDUIT FROM EXIST. EMT TO EACH SOLENOID CONTROL.

- ④ RECONNECT LIGHTING CIRCUIT TO CATWALK UPON RESETTING OF CATWALK.
- ⑤ CATWALK TO BE REMOVED & REINSTALLED TO FACILITATE PUMP REMOVAL & REPLACEMENT.
- ⑥ CATWALK TO REMAIN.

- ⑦ REPLACE PUMP DISCONNECT MOUNTS WITH NEW S.S. FABRICATIONS ON ALL 6 PUMPS (BASE BID).
- ⑧ REPLACE AUTO-OILER CONTROL PANEL MOUNT WITH S.S. FABRICATIONS (BASE BID).

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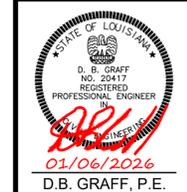
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CADDO PARISH, LOUISIANA**

PHOTO REFERENCES



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DRAWN: DKJ	ENG: DBG
SCALE: NONE	PROJECT: 20103
DATE: JANUARY 2026	
SHEET NO.: 8	

EXHIBIT A

WATER INFRASTRUCTURE FINANCING AND INNOVATION ACT (WIFIA) PROGRAM REQUIREMENTS

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REQUIRED CLAUSES FOR CONTRACT DOCUMENTS

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Age Discrimination Act, Section 504 of the Rehabilitation Act, Title VI of the Civil Rights Act of 1964, and Section 13 of the Clean Water Act

Equal Employment Opportunity

REQUIRED CLAUSES FOR CONTRACT DOCUMENTS

American Iron and Steel (AIS) Requirement.

The Contractor acknowledges to and for the benefit of the City of Shreveport (“Purchaser”) and the United States Environmental Protection Agency (“EPA”) that it understands the goods and services under this Agreement are being funded with monies made available by the Water Infrastructure Finance and Innovation Act program of the EPA that has statutory requirements commonly known as “American Iron and Steel” that requires all of the iron and steel products used in the project to be produced in the United States (“American Iron and Steel Requirement”) including iron and steel products provided by the Contractor pursuant to this Agreement. The Contractor hereby represents, warrants and covenants to and for the benefit of the Purchaser and the EPA that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the EPA. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or the EPA to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Purchaser or the EPA resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the EPA or any damages owed to the EPA by the Purchaser). While the Contractor has no direct contractual privity with the EPA, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the EPA is a third- party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the EPA.

For additional information including published waivers, please see the EPA website:
<https://www.epa.gov/cwsrf/state-revolving-fund-american-iron-and-steel-ais-requirement>

Build America, Buy America (Effective May 14, 2022).

The Contractor acknowledges to and for the benefit of the City of Shreveport (“Purchaser”) and the United States Environmental Protection Agency (“EPA”) that it understands the goods and services under this Agreement are being funded with federal monies made available by the Water Infrastructure Finance and Innovation Act program of EPA that have statutory requirements commonly known as “Build America, Buy America;” that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States (“Build America, Buy America Requirements”) including iron and steel, manufactured products, and construction materials provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a

manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Purchaser or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

For additional information, please see the EPA website:

<https://www.epa.gov/baba/build-america-buy-america-baba-overview>

Labor Laws and Standards.

Contract provisions and related matters.

- a. *Required contract clauses.* The Agency head will cause or require the contracting officer to require the contracting officer to insert in full, or (for contracts covered by the Federal Acquisition Regulation (48 CFR chapter 1)) by reference, in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the laws referenced by § 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, Provided, That such modifications are first approved by the Department of Labor):
 1. *Minimum wages* —
 - i. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist

between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of this section, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(v) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph (a)(4) of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (a)(1)(iii) of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

ii. *Frequently recurring classifications.*

- A. In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph (a)(1)(iii) of this section, provided that:
 - 1. The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;
 - 2. The classification is used in the area by the construction industry; and
 - 3. The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.
- B. The Administrator will establish wage rates for such classifications in accordance with paragraph (a)(1)(iii)(A)(3) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

iii. *Conformance.*

- A. The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

1. The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 2. The classification is used in the area by the construction industry; and
 3. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- B. The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.
- C. If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- D. In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- E. The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs (a)(1)(iii)(C) and (D) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph (a)(1)(iii)(C) or (D) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- iv. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- v. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under

a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis- Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

vi. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. *Withholding* —

i. *Withholding requirements.* The [write in name of Federal agency or the recipient of Federal assistance] may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in paragraph (a) of this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work (or otherwise working in construction or development of the project under a development statute) all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph (a)(3)(iv) of this section, the [Agency] may on its own initiative and after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

ii. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph (a)(2)(i) or (b)(3)(i) of this section, or both, over claims to those funds by:

- A. A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- B. A contracting agency for its procurement costs;
- C. A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- D. A contractor's assignee(s);
- E. A contractor's successor(s); or

- F. A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.
3. *Records and certified payrolls* —
- i. *Basic record requirements* —
 - A. *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.
 - B. *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.
 - C. *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph (a)(1)(v) of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.
 - D. *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.
 - ii. *Certified payroll requirements* —
 - A. *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the EPA if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the certified payrolls to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the EPA. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work

on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

- B. *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph (a)(3)(i)(B) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the sponsoring government agency (or the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records).
- C. *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:
1. That the certified payroll for the payroll period contains the information required to be provided under paragraph (a)(3)(ii) of this section, the appropriate information and basic records are being maintained under paragraph (a)(3)(i) of this section, and such information and records are correct and complete;
 2. That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and
 3. That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.
- D. *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(C) of this section.

- E. *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.
 - F. *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.
 - G. *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.
- iii. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.
 - iv. *Required disclosures and access* —
 - A. *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs (a)(3)(i) through (iii) of this section, and any other documents that the [write the name of the agency] or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the [write the name of the agency] or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.
 - B. *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine

the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

- C. *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the EPA if the agency is a party to the contract, or to the Wage and Hour Division of the Department of Labor. If the Federal agency is not such a party to the contract, the contractor, subcontractor, or both, must, upon request, provide the full Social Security number and last known address, telephone number, and email address of each covered worker to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the EPA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. *Apprentices and equal employment opportunity —*

i. *Apprentices —*

- A. *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- B. *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.
- C. *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph (a)(4)(i)(D) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not

registered or otherwise employed as stated in paragraph (a)(4)(i)(A) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

- D. *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.
 - ii. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- 5. *Compliance with Copeland Act requirements.* The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- 6. *Subcontracts.* The contractor or subcontractor must insert in any subcontracts the clauses contained in paragraphs (a)(1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the EPA may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate.
- 7. *Contract termination: debarment.* A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 8. *Compliance with Davis-Bacon and Related Act requirements.* All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- 9. *Disputes concerning labor standards.* Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
- 10. *Certification of eligibility.*

- i. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).
 - ii. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).
 - iii. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.
- 11. *Anti-retaliation.* It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:
 - i. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;
 - ii. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;
 - iii. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or
 - iv. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.
- b. *Contract Work Hours and Safety Standards Act (CWHSSA).* The Agency Head must cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1) through (5) of this section in full, or (for contracts covered by the Federal Acquisition Regulation) by reference, in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses must be inserted in addition to the clauses required by paragraph (a) of this section or 29 CFR 4.6. As used in this paragraph (b), the terms "laborers and mechanics" include watchpersons and guards.
 - 1. *Overtime requirements.* No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 - 2. *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the

sum of \$32 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1).

3. *Withholding for unpaid wages and liquidated damages* —
 - i. *Withholding process.* The [write in the name of the Federal agency or the recipient of Federal assistance] may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this paragraph (b) on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.
 - ii. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph (a)(2)(i) or (b)(3)(i) of this section, or both, over claims to those funds by:
 - A. A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
 - B. A contracting agency for its reprocurement costs;
 - C. A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
 - D. A contractor's assignee(s);
 - E. A contractor's successor(s); or
 - F. A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.
4. *Subcontracts.* The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (b)(1) through (5) of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (5). In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.
5. *Anti-retaliation.*

- i. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for: Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
 - ii. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
 - iii. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or
 - iv. Informing any other person about their rights under CWHSSA or this part.
- c. *CWHSSA required records clause.* In addition to the clauses contained in paragraph (b) of this section, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other laws referenced by § 5.1, the Agency Head must cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor must maintain regular payrolls and other basic records during the course of the work and must preserve them for a period of 3 years after all the work on the prime contract is completed for all laborers and mechanics, including guards and watchpersons, working on the contract. Such records must contain the name; last known address, telephone number, and email address; and social security number of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid; daily and weekly number of hours actually worked; deductions made; and actual wages paid. Further, the Agency Head must cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph must be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview workers during working hours on the job.
- d. *Incorporation of contract clauses and wage determinations by reference.* Although agencies are required to insert the contract clauses set forth in this section, along with appropriate wage determinations, in full into covered contracts, and contractors and subcontractors are required to insert them in any lower-tier subcontracts, the incorporation by reference of the required contract clauses and appropriate wage determinations will be given the same force and effect as if they were inserted in full text.
- e. *Incorporation by operation of law.* The contract clauses set forth in this section (or their equivalent under the Federal Acquisition Regulation), along with the correct wage determinations, will be considered to be a part of every prime contract required by the applicable statutes referenced by § 5.1 to include such clauses, and will be effective by operation of law, whether or not they are included or incorporated by reference into such contract, unless the Administrator grants a variance, tolerance, or exemption from the application of this paragraph. Where the clauses and applicable

wage determinations are effective by operation of law under this paragraph, the prime contractor must be compensated for any resulting increase in wages in accordance with applicable law.

Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment (Effective August 13, 2020). The John S. McCain National Defense Authorization Act for Fiscal Year 2019 (P.L. 115-232), at Section 889, prohibits EPA financial assistance recipients, including WIFIA borrowers, from expending loan funds to procure or obtain; extend or renew a contract to procure or obtain; or enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in the Act, “covered telecommunications equipment or services” means:

- a) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
- b) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- c) Telecommunications or video surveillance services provided by such entities or using such equipment.
- d) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- e) The Act does not prohibit:
- f) Procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements.
- g) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

Debarment and Suspension. Contractor certifies that it will not knowingly enter into a contract with anyone who is ineligible under the 2 CFR part 180 and part 1532 (per Executive Order 12549, 51 FR 6370, February 21, 1986) or who is prohibited under Section 306 of the Clean Air Act or Section 508 of the Clean Water Act to participate in the [Project]. Suspension and debarment information can be accessed at <http://www.sam.gov>. Contractor represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its subcontracts under this Agreement.

Federal Lobbying Restrictions (31 U.S.C 1352). Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for USEPA in 40 CFR Part 34, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition. Upon award of this contract, Contractor shall complete and submit to the City the certification and disclosure forms in Appendix A and Appendix B to 40 CFR Part 34 (Link for Appendix

A: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-B/part-34/appendix-Appendix%20A%20to%20Part%2034>, Link for Appendix B: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-B/part-34/appendix-Appendix%20B%20to%20Part%2034>). Contractor shall also require all subcontractors and suppliers of any tier awarded a subcontract over \$100,000 to similarly complete and submit the certification and disclosure forms pursuant to the process set forth in 40 CFR 34.110.

CIVIL RIGHTS OBLIGATIONS. Contractor shall comply with the following federal non-discrimination requirements:

- a. Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, and national origin, including limited English proficiency (LEP). (42 U.S.C 2000D, *et. seq*)
<https://www.govinfo.gov/content/pkg/USCODE-2008-title42/html/USCODE-2008-title42-chap21-subchapV.htm>
- b. Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities. (29 U.S.C. 794, supplemented by EO 11914, 41 FR 17871, April 29, 1976 and EO 11250, 30 FR 13003, October 13, 1965)
<https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center/statutes/section-504-rehabilitation-act-of-1973>
- c. The Age Discrimination Act of 1975, which prohibits age discrimination. (42 U.S.C 6101 *et. seq*)
<https://www.dol.gov/agencies/oasam/regulatory/statutes/age-discrimination-act>
- d. Section 13 of the Federal Water Pollution Control Act Amendments of 1972, which prohibits discrimination on the basis of sex.
<https://www.govinfo.gov/content/pkg/USCODE-2021-title33/pdf/USCODE-2021-title33-chap26-subchapl-sec1251.pdf>
- e. 40 CFR Part 7, as it relates to the foregoing.
<https://www.govinfo.gov/content/pkg/CFR-2014-title40-vol1/pdf/CFR-2014-title40-vol1-part7.pdf>

Equal Employment Opportunity (EEO).

Executive Order 14173, Ending Illegal Discrimination and Restoring Merit-Based Opportunity, revokes Executive Order 11246, Equal Employment Opportunity. However, the Department of Labor issued regulations implementing certain sections of the EO 11246 at 41 CFR part 60. Until DOL revokes these regulations, they remain effective law and compliance is required. Note that the required contract language references the revoked EO 11246 in several places. Though the language is required, any mention of EO 11246 can be disregarded.

The Contractor shall comply with Executive Order 11246, entitled 'Equal Employment Opportunity,' as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR Part 60). (EO 11246, 30 FR 12319, September 28, 1965)

Contractor's compliance with Executive order 11246 shall be based on implementation of the Equal Opportunity Clause, and specific affirmative active obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4. During the performance of this contract, the contractor agrees as follows:

- 1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- 2) The contractor will, in all solicitations or advancements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- 4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 5) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- 6) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- 7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 8) The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of

Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States. [Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966–1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230, EO 13665 of April 8, 2014, 79 FR 20749, EO 13672 of July 21, 2014, 79 FR 42971]

Standard Federal Equal Employment Opportunity Construction Contract Specifications. (41 CFR 60-4.3)

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

contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

- 5) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- 7) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The

Contractor shall provide notice of these programs to the sources compiled under 7b above.

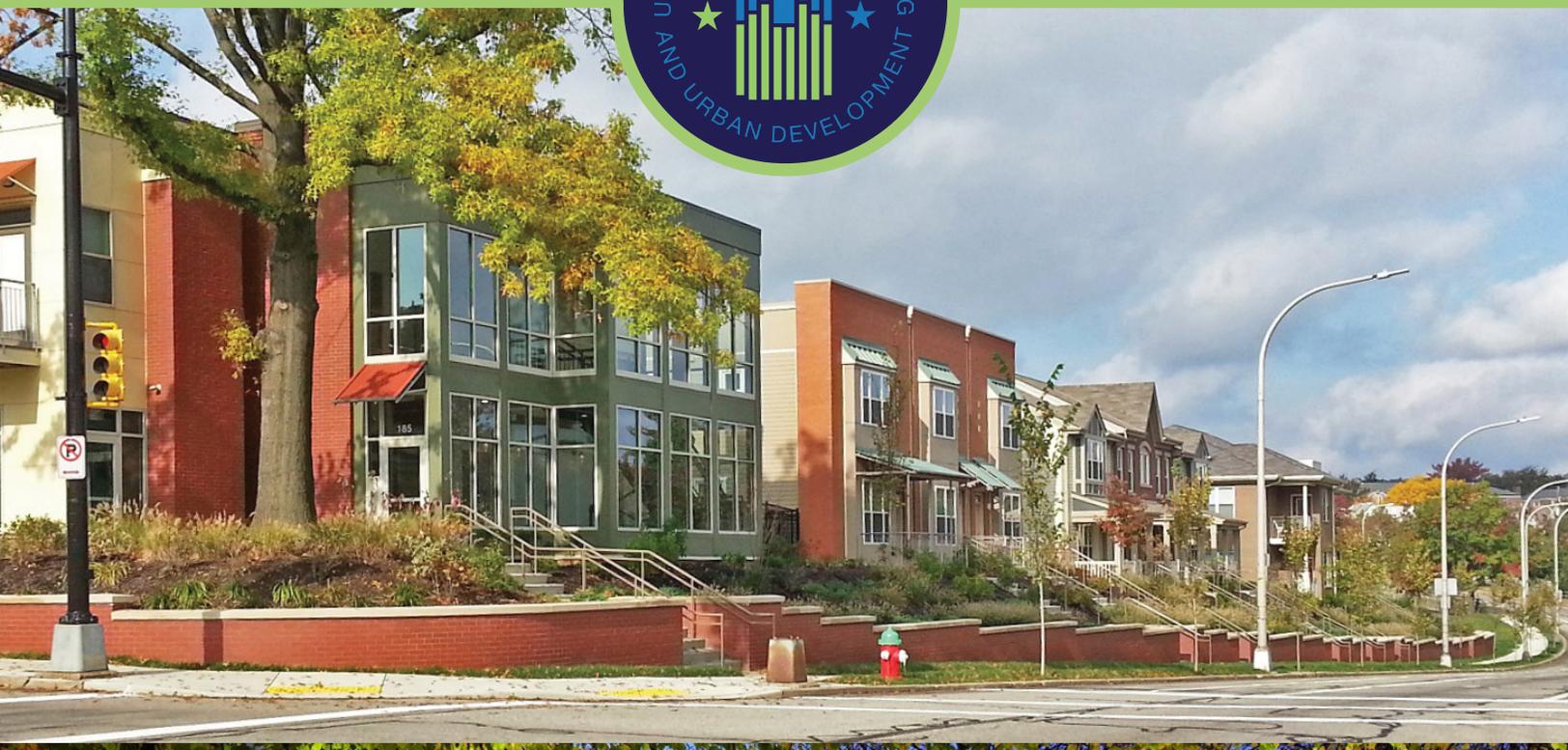
- f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
- l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n) Ensure that all facilities and company activities are non-segregated except that separate or single- user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

- p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 8) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9) A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 10) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.
- 11) The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12) The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
- 13) The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- 14) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

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

Segregated Facilities. (41 CFR 60-1.8) The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensuring that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. This obligation extends to all contracts containing the equal opportunity clause regardless of the amount of the contract. The term "facilities," as used in this section, means waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, wash rooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees; Provided, That separate or single-user restrooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

NOTE: The following 54 pages are the "Davis-Bacon and Labor Standards: Agency/Contractor Guide" and "Contractor Guide Addendum" guides from the U.S. Department of Housing and Urban Development (August 2022).



DAVIS-BACON AND LABOR STANDARDS AGENCY/CONTRACTOR GUIDE

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INTRODUCTION

This Guide has been developed as part of HUD’s communications strategy with its approximately 5,000 client agencies, and contractors performing work on construction projects that are assisted by the U.S. Department of Housing and Urban Development and subject to Davis-Bacon prevailing wage requirements. This Guide does not address contractor requirements involved in direct Federal contracting where HUD or another Federal agency enters into a procurement contract. While the guidance contained in this Guide is generally applicable to any Davis-Bacon-covered project, specific questions pertaining to direct Federal contracts should be addressed to the Contracting Officer who signed the contract for the Federal agency.

This Guide has been designed to help agencies develop organizational and administrative policies that will enable them to meet labor standards contractual responsibilities in the administration of HUD-assisted programs as efficiently as possible. It is also useful as a training tool and a ready reference for compliance staff. Further, it may be used by contractors to provide further background. While this Guide is intended to address numerous situations, it was not written to cover every possible labor standards issue. If there is a labor standards issue not addressed in this Guide, please contact your local HUD Labor Standards Specialist (LSS). Throughout this Guide, the acronym “LCA” or “LCAs” shall mean state, tribal, and local agencies.

This Guide also provides information to assist with Davis-Bacon labor standards compliance. HUD’s Office of Davis-Bacon and Labor Standards worked with the U.S. Department of Labor’s Wage and Hour Division to ensure that the labor standards provisions required to be incorporated in Davis-Bacon contracts and the specifics of complying with them represent the latest information. The U.S. Department of Labor (DOL) has general administrative oversight of all Federal contracting agencies, such as HUD, which administer the day-to-day responsibilities of enforcing Davis-Bacon provisions in construction contracts they either fund or assist in funding.

This Guide contains five main chapters. The first chapter includes basic DBA definitions that affect every Davis-Bacon-covered project. The second chapter lists the responsibilities of state, tribal, and local contracting agencies that administer HUD programs. The third chapter includes the laws and regulations associated with Federal labor standards administration and enforcement. The fourth chapter describes LCA flexibility for labor standards responsibilities. The fifth and final chapter discusses payroll compliance reviews and corrections.

Finally, not all HUD construction projects are covered by Davis-Bacon wage rates. For the purpose of this Guide, we are assuming that a determination has already been made that Davis-Bacon wage rates are applicable. If you need assistance in determining whether Davis-Bacon wage rates apply to a project or if you need other related technical assistance, please contact the HUD Labor Standards Field staff for your area. If you do not know which staff to contact, a list of Labor Standards field offices with their geographic areas, telephone numbers and email addresses are located on HUD’s Home Page at the address below.

RESOURCE

Visit the Office of Davis Bacon and Labor Standards online:
www.hud.gov/program_offices/davis_bacon_and_labor_standards



KEY LABOR STANDARDS OBJECTIVES OF THE GUIDE

The Office of Davis-Bacon and Labor Standards has identified five Key Labor Standards Objectives—the basics of what must be accomplished in order to protect workers’ rights. We also identified all the policies, procedures, and paperwork at our disposal—what we do ourselves and what we impose on contractors. HUD eliminated superfluous requirements and will not institute policies, procedures, or paperwork that is not required by statute or regulation, or that does not contribute to one or more of the Key Objectives.

Apply Davis-Bacon requirements properly

Make certain that labor standards, including Davis-Bacon prevailing wage rates, are applied where required. Ensure that any exemptions or exceptions are identified.

Through education and advice, support contractor compliance with labor standards

Provide basic training and technical support to contractors to ensure that they understand their obligations under prevailing wage and reporting requirements.

Monitor contractor performance

Perform reviews of certified payroll submissions and other information to help ensure contractor compliance with labor standards provisions and the payment of prevailing wages to workers.

Investigate probable violations and complaints of underpayment

Thoroughly explore any evidence of violations, especially allegations of underpayment.

Pursue debarment and other available sanctions against repeat labor standards violators

Carry out a zero tolerance policy toward contractors who violate prevailing wage laws.

RESOURCE

Program technical guidance

For interpretations of program requirements or handbooks and instructions on the use of forms:

Housing Programs - See our [Contact List](#) for help.



BASIC DBA DEFINITIONS

There are several compliance principles, definitions, and interpretations that affect every Davis-Bacon-covered project.

Responsibilities of employers

All employers (contractors, subcontractors, and any lower-tier subcontractors) are required to pay all laborers and mechanics employed or working on the site of the work unconditionally and not less often than once per week the full amount of wages and bona fide fringe benefits computed at rates not less than those contained in the wage decision. Employers must prepare, certify, and submit weekly payroll reports reflecting all the laborers and mechanics (employees) engaged in construction on the site of the work. Employers may also be required to submit related documentation in order to demonstrate compliance.

Responsibilities of the principal (prime) contractor

The principal contractor (also referred to as the “prime contractor”) is responsible for the full compliance of all employers (itself, subcontractors, and any lower-tier subcontractors) with the labor standards provisions applicable to the project.

Prime contractor

The principal contractor.

Subcontractor

All subcontractors and lower-tier subcontractors.

Employer

Any contractor, subcontractor, or lower-tier subcontractor that has engaged the services of laborers or mechanics on the project.

To make this Guide easier to understand, the term “prime contractor” will mean the principal contractor; “subcontractor” will mean all subcontractors including lower-tier subcontractors; and the term “employer” will mean all contractors as a group, including the prime contractor and any subcontractors and lower-tier subcontractors.

Laborers and mechanics

Those individuals whose duties are manual or physical in nature, including workers who are performing the work of a trade (e.g., electrician). “Laborers” and “mechanics” include apprentices, trainees, helpers, and, for contracts subject to the Contract Work Hours and Safety Standards Act (CWHSSA), watchmen and guards.

Working foremen

Foremen or supervisors that perform construction work and devote more than 20% of their time as a laborer or mechanic are treated, for labor standards purposes, as “laborers” or “mechanics” for their time spent working as a laborer or mechanic.

Exclusions

Persons whose duties are primarily administrative, managerial, or clerical are not laborers or mechanics.

Employee

Every person who performs the work of a laborer or mechanic is “employed” regardless of any contractual relationship that may be alleged to exist between a contractor or subcontractor and such person.

Working subcontractors

Persons who perform the work of laborers or mechanics and who represent themselves to be owners of businesses, sole proprietors, or self-employed are not exempt from prevailing wage requirements. These laborers and mechanics are “employed” and are entitled to the prevailing wage for the type of work they perform, and must be reported on the payroll report for their craft, hours of work, and wages paid. For additional information, see LR-96-01, Labor Standards for Self-Employed Laborers and Mechanics.



Administrative allowances

HUD permits administrative allowances concerning payroll reporting and certification requirements relating to the following:

- Owners of Businesses Working with Their Crew
- Owner/Operators of Power Equipment
- Owner/Operators of Trucks

Apprentice

A person employed and individually registered in a bona fide apprenticeship program. Bona fide programs are those that have been registered with DOL, Employment and Training Administration, Office of Apprenticeship, or with a DOL-recognized State Apprenticeship Agency (SAA). (Note that an SAA must also partner with a State Apprenticeship Council (SAC). The SAC must consist of an equal number of representatives of employer and employee organizations.)

Probationary apprentice

A person in the first 90 days of probationary employment as an apprentice in a bona fide apprenticeship program but who has not yet been formally registered in such program may be considered an “apprentice” provided that DOL or SAC has certified that such person is eligible for probationary employment as an apprentice.

Pre-apprentice

A person who is employed as a “pre-apprentice”—that is, in a preparatory position which may result in registration in an apprenticeship program—is not considered to be an “apprentice.”

Trainee

A person registered and receiving on-the-job training in a construction occupation pursuant to a training program approved in advance by the Office of Apprenticeship Training.

Prevailing wages or wage rates

Davis-Bacon prevailing wage rates generally appear as a basic hourly rate plus fringe benefits, if any. “Prevailing wage” is made up of two interchangeable components: the basic hourly wage, and fringe benefits. The total of the basic hourly wage and fringe benefits comprises the “prevailing wage” obligation. This obligation may be met by any combination of cash wages and creditable “bona fide” fringe benefits provided by the employer. For example:

The Davis-Bacon wage decision requires:

Basic Hourly Rate	\$10.00
Fringe Benefits	\$1.00
Total Prevailing Wage	\$11.00

Employers may comply by paying:

1. \$11.00 in cash wages;
2. \$10.00 plus \$1.00 in bona fide fringe benefits; or
3. Any combination of wages and benefits that totals \$11.00 per hour.



Piece rate/piece work employees

Employees whose earnings are calculated by the amount of work produced (rather than hours worked) must receive no less than the applicable DBRA/MWD (Davis-Bacon and Related Acts/Maintenance Wage Determination) wage rate based upon the hours of work performed. The employer must divide the piece rate earnings by the actual hours worked to determine the “effective” hourly rate. The effective hourly rate must be calculated for each week’s earnings and must be no less than the applicable prevailing wage rate. It does not matter whether the effective hourly rate changes from week to week as long as the result is at least as much as the prevailing wage rate. If the effective hourly rate is less than the applicable prevailing wage rate, the employee must be compensated at the prevailing wage rate for all hours worked.

Fringe benefits

Fringe benefits may include:

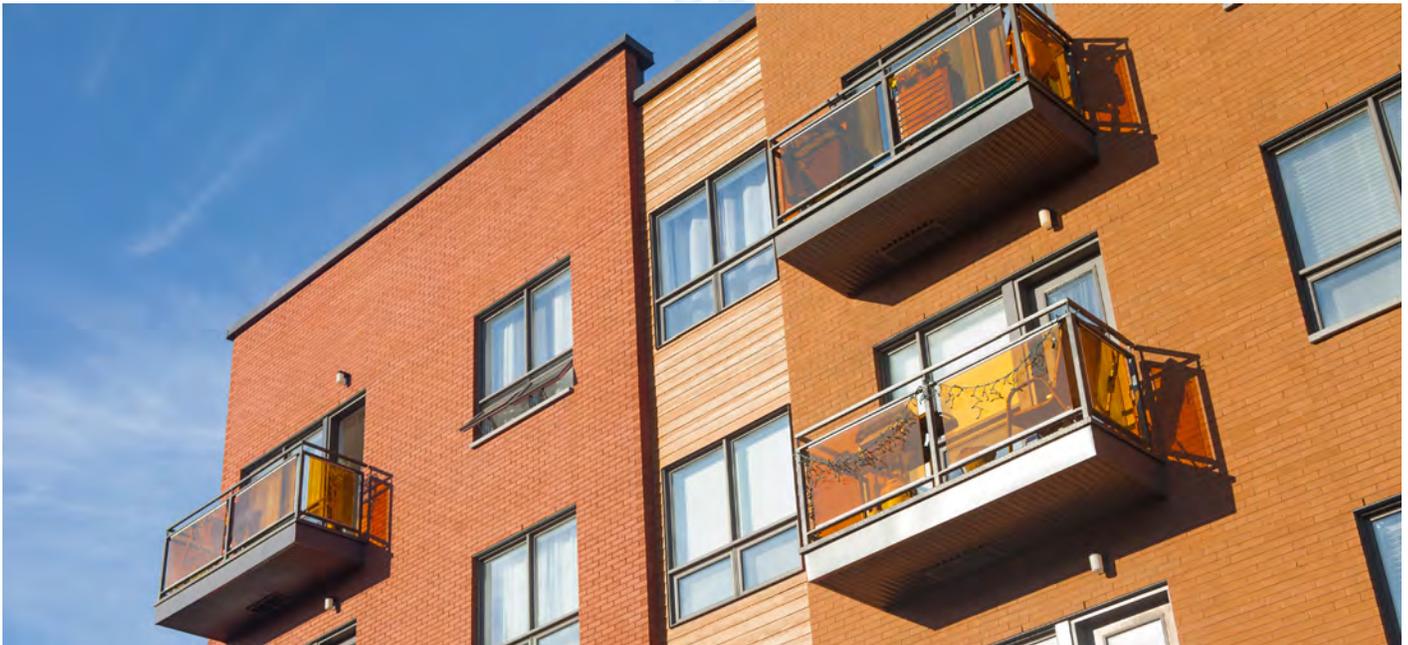
- Sick, vacation, or holiday pay;
- Costs to defray expenses of apprenticeship or similar programs;
- Medical or hospital care;
- Supplemental unemployment benefits;
- Life insurance;
- Pensions on retirement or death;
- Compensation for injuries or illness resulting from occupational activity;
- Other bona fide fringe benefits; or
- Insurance to provide any of the above.

MORE INFO

In addition, fringe benefits may reflect the rate of costs to the employer that may be reasonably anticipated in providing bona fide fringe benefits pursuant to an enforceable commitment to carry out a financially responsible program.

MORE INFO

Fringe benefits do not include employer contributions or payments required by other federal, state, or local law, such as FICA (Federal Insurance Contributions Act), workers’ compensation, or unemployment compensation.



Overtime

Overtime (O/T) hours are defined as all hours worked in excess of 40 hours in any workweek. Where governed by Federal labor standards, O/T hours shall be compensated at not less than one and one-half times the regular rate of basic pay plus the straight-time (S/T) rate of any required fringe benefits.

Deductions

The employer may make payroll deductions as permitted by DOL regulations in 29 CFR Part 3. These regulations prohibit the employer from requiring employees to “kick back” any of their earnings. Deductions may include employee obligations for income taxes, Social Security payments, insurance premiums, retirement contributions, savings accounts, and any other legally permissible deduction authorized by the employee. Deductions may also be made for payments on judgments and other financial obligations legally imposed against the employee (which will require documentation).

Site of work

The “site of work” is limited to the physical place or places where the construction called for in the contract will remain when work on it has been completed. “Site of work” includes other adjacent or nearby properties used by the contractor/subcontractor in the construction of the project (e.g., fabrication sites) provided they are dedicated exclusively

or nearly so to the performance of the contract or project, and are so located in proximity to the actual construction location that it would be reasonable to include them.

Proper designation of trade

Each laborer and mechanic shall be classified in accordance with the work classifications listed on the wage decision and the actual type of work they perform and shall be paid the appropriate wage rate and fringe benefits for the classification regardless of their level of skill. In other words, if someone is performing carpentry work on the project, they must be paid no less than the wage rate on the wage decision for carpenters even if they aren't considered by the employer to be fully trained as a carpenter. Remember, the only people who can be paid less than the rate for their craft are apprentices and trainees registered in approved programs.

Split classification

Laborers and mechanics that perform work in more than one classification may be compensated at the rate specified for each classification provided that the employer maintains time records that accurately set forth the time spent in each classification in which the work was performed. If accurate time records are not maintained, the employee shall be compensated at the highest of all wage rates for the classifications in which work was performed.





LCA RESPONSIBILITIES

State, tribal, and local contracting agencies (LCAs) that administer HUD programs agree to administer and enforce Davis-Bacon requirements as a condition for receiving HUD program assistance. LCAs have the following responsibilities:

1. Designate appropriate staff (e.g., a Contract Administrator) before the start of construction to ensure compliance with all applicable labor standards requirements and to act for and in liaison with HUD. Provide the name(s) of the staff to the appropriate HUD Field Office of Davis-Bacon and Labor Standards.
2. Establish a construction contract management system that meets the standards of 2 CFR Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
3. Ensure that all bid documents, contracts, and subcontracts contain the applicable Davis-Bacon wage decision and Federal labor standards provisions.
4. Ensure that no contract is awarded to a contractor that is ineligible (e.g., debarred) for Federally-assisted work.
5. Conduct on-site inspections including interviews with laborers and mechanics employed on the construction project. Ensure that the applicable Davis-Bacon wage decision, DOL's Davis-Bacon poster (Form WH-1321), and additional classifications are displayed at the job site.
6. Review certified payroll reports (CPRs) and related documentation. Identify any discrepancies and/or violations. Ensure that any needed corrections are made promptly, including the payment of wage restitution as needed, and the assessment and collection of liquidated damages, as appropriate.
7. Maintain full documentation of Federal labor standards administration and enforcement activities.
8. Refer potential criminal or complex enforcement actions to HUD, in addition to CWHSSA liquidated damages assessments for O/T violations and debarment recommendations.
9. Comply with all HUD requirements concerning statutory, program, and/or other requirements.
10. Prepare Federal labor standards enforcement reports as required in DOL regulations (29 CFR Part 5, § 5.7).



LAWS AND REGULATIONS

The Davis-Bacon Act (DBA)

The DBA, enacted in 1931, applies to contracts in excess of \$2,000 for construction, alteration, and/or repair of public buildings or public works, including painting and decorating, to which the United States or the District of Columbia is a party. This type of applicability is referred to as direct Davis-Bacon Act or DBA coverage. An example of DBA coverage is when HUD contracts directly for repairs to HUD-owned properties. HUD's Office of the Chief Procurement Officer manages these types of contracts. The DBA requires that the advertised specifications for such contracts contain a provision stating that the minimum wages to be paid to various classes of laborers and mechanics must be based upon the wages found to be prevailing by the Secretary of Labor.

Most HUD construction work is not covered by the DBA since HUD does not usually contract directly for construction work. Rather, Davis-Bacon wage rates apply to HUD programs because of prevailing wage requirements expressed in HUD "Related Acts" such as the U. S. Housing Act of 1937 and the Housing and Community Development Act of 1974, as amended. The Related Acts (referred to throughout this Guide as the Davis-Bacon and Related Acts or DBRA) are discussed further in Section 5.9.

The DBA includes provisions that:

1. Require the contractor or subcontractor to pay all mechanics and laborers at least once per week;
2. Prohibit contractors or subcontractors from taking deductions or rebates from wages earned by laborers and mechanics;
3. Require the contractor or subcontractor to pay Davis-Bacon wages to all laborers and mechanics employed on the site of the work regardless of their skill level, and regardless of any contractual relationship alleged to exist between the laborers and mechanics and the contractor or subcontractor;

4. Require the contractor or subcontractor to post the scale of wages to be paid (i.e., the applicable Davis-Bacon wage decision) in a prominent and accessible place at the work site;
5. Define prevailing wages to include fringe benefits;
6. Permit the withholding of payments due to the contractor on account of wage restitution that may be found due to the laborers and mechanics;
7. Permit the payment of wage restitution from amounts withheld from contract payments;
8. Permit the termination of the contract where it is found that any laborer or mechanic is underpaid; and
9. Permit the debarment of persons or firms found to have disregarded their obligations to employees and subcontractors.

The Contract Work Hours and Safety Standards Act (CWHSSA)

The CWHSSA applies to both direct federal contracts and to federally-assisted contracts where those contracts require or involve the employment of laborers and mechanics and where federal wage standards (e.g., Davis-Bacon or HUD-determined prevailing wage rates) are applicable. CWHSSA provisions apply to all laborers and mechanics, including watchmen and guards, employed by any contractor or subcontractor. CWHSSA also applies to maintenance laborers and mechanics employed by contractors or subcontractors engaged in the operation of Public Housing Agencies (PHA), Tribally Designated Housing Entities (TDHE), and Indian Housing Agencies (IHA) developments.

CWHSSA O/T provisions do not apply to laborers and mechanics employed directly by PHAs or IHAs. However, O/T provisions generally apply to these workers under the Fair Labor Standards Act (FLSA). HUD does not have authority to enforce FLSA violations. Refer complaints of FLSA violations to DOL, Wage and Hour Division.

CWHSSA provides that all O/T hours (defined as hours worked in excess of 40 during any workweek on the CWHSSA-covered project site) must be compensated at a rate not less than one and one-half times the regular basic rate of pay. Where CWHSSA O/T provisions are applicable, compensatory time in lieu of premium pay for O/T hours is not permissible. In the event of O/T violations, the CWHSSA renders the contractor liable to the underpaid workers for wage restitution and to the United States Government for liquidated damages computed per person per day at a rate that DOL publishes annually. It is a federal criminal misdemeanor to intentionally violate CWHSSA standards.

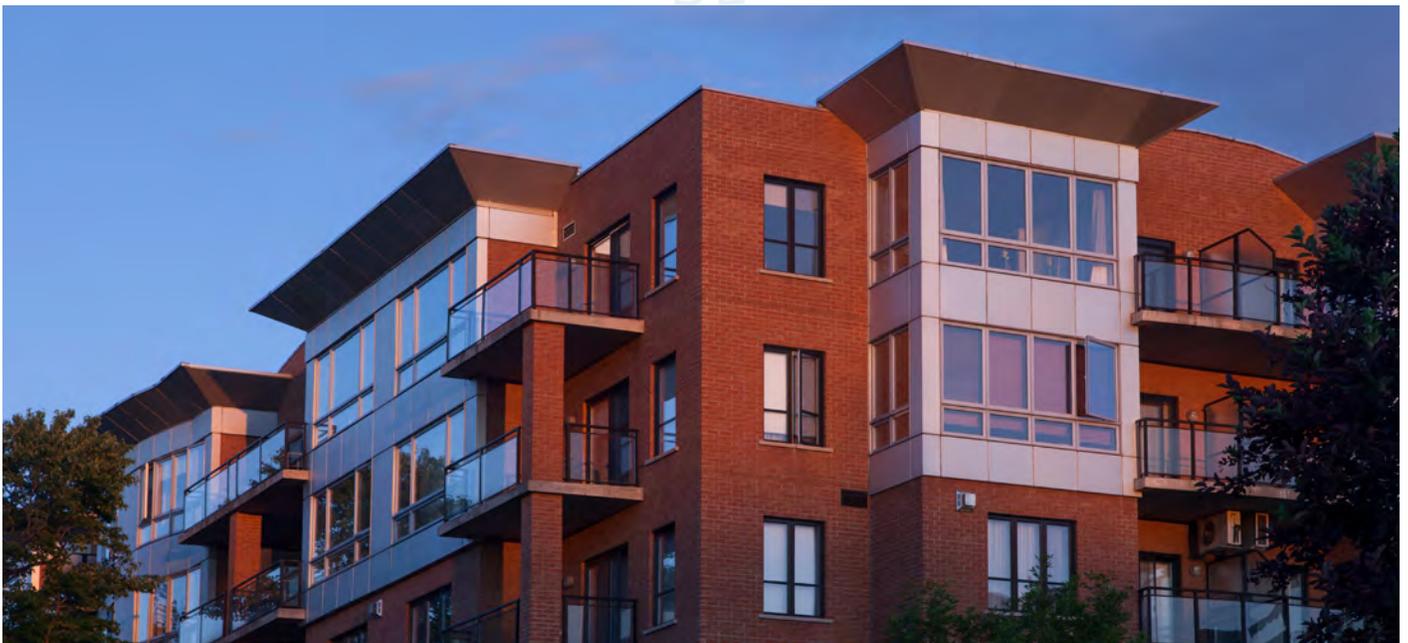
Exemptions:

- CWHSSA O/T provisions do not apply where the federal assistance is only in the nature of a loan guarantee or insurance.
- CWHSSA O/T provisions do not apply to prime contracts of \$100,000 or less.

RESOURCE

DOL posts current fines at:

<https://www.dol.gov/whd/govcontracts/cwhssa.htm#cmp>



The Copeland Act (Anti-Kickback Act)

The Copeland Act concerns three facets of prevailing wage compliance:

1. The “anti-kickback” provision prohibits contractors and subcontractors from inducing an employee working on a covered contract to give up any part of the compensation to which he or she is entitled. Violations are a criminal offense and are punishable by a \$5,000 fine or imprisonment up to five years, or both.
2. Associated DOL regulations restrict payroll deductions to those that are permissible without DOL approval as explained at 29 CFR § 3.5; deductions that require advance DOL approval are explained at 29 CFR § 3.6.
3. The Act requires the submission of weekly CPRs accompanied by a Statement of Compliance by all contractors and subcontractors engaged in such construction, prosecution, completion, or repair. The willful falsification of a CPR or statement of compliance may subject the employer to civil or criminal prosecution under § 1001 of Title 18 and § 3729 of Title 31 of the United States Code (USC), and may also be a cause for debarment.

Exemptions:

- Copeland Act CPR requirements are applicable only where Davis-Bacon (DBA or DBRA) prevailing wage provisions are applicable.
- Copeland Act anti-kickback provisions do not apply where the only federal assistance is a loan guarantee.



The Fair Labor Standards Act (FLSA)

The FLSA governs matters such as federal minimum wage rates and O/T. These standards are generally applicable to any labor performed and may be pre-empted by other (often more stringent) federal standards such as the DBRA prevailing wage requirements and CWHSSA O/T provisions. The authority to administer and enforce FLSA provisions resides solely with DOL.

Portal-to-Portal Act (PA)

The PA applies to the DBA and prevents the commencement of any court suit for unpaid S/T wages more than two years after performance of the work (three years in the case of willful violations), where permissible under the law. However, DOL's position is that the PA does not apply to administrative actions initiated through Administrative Law Judge (ALJ) hearing procedures; thus, the PA does not preclude corrective administrative action after two (or three) years.

The PA does not apply to federally-assisted (DBRA) projects. Instead, the various State statutes of limitations apply to such projects in private actions where they are judicially determined to be permissible under the law. The Federal six-year statute of limitations applies in government enforcement actions.

McNamara-O'Hara Service Contract Act (SCA)

The SCA governs maintenance and other service work and applies

when the Federal Government or the District of Columbia contracts directly for such services and the value of the contract exceeds \$2,500. SCA coverage in HUD programs is limited because HUD infrequently enters into direct contracts for services in the administration of its programs. By way of example, however, a contract for maintenance service at an HUD-owned multifamily property would be covered by the SCA. Like DBA contracts, SCA contracts are managed under the auspices of HUD's Office of the Chief Procurement Officer. SCA enforcement authority resides solely with DOL.

Davis-Bacon Regulations

DOL has published rules and instructions concerning Davis-Bacon and other labor laws in the Code of Federal Regulations (CFR). These regulations can be found in Title 29 CFR Parts 1, 3, 5, 6, and 7. Part 1 explains how DOL establishes and publishes DBA wage determinations (also referred to as wage decisions) and provides instructions on how to use the determinations. Part 3 describes Copeland Act requirements for payroll deductions and the submission of weekly CPRs. Part 5 covers the labor standards provisions that are in contracts relating to Davis-Bacon Act wage rates and the responsibilities of contractors and contracting agencies to administer and enforce the provisions. Part 6 provides for administrative proceedings enforcing Federal labor standards on construction and service contracts. Finally, Part 7 sets parameters for practice before the Administrative Review Board. These regulations are used as the basis for administering and enforcing the laws.

DOL Regulations are available online: www.ecfr.gov/current/title-29



Construction Contract Provisions and Labor Standards Administration

Labor standards administration involves the activities that take place primarily before construction begins. Administration sets the stage for the compliance activities that occur during the construction phase. The first and sometimes most difficult step is determining whether and to what extent Davis-Bacon wage standards apply to a particular contract or project. The Factors of Labor Standards Applicability (see Appendix II-6) should be helpful. Most HUD-assisted construction work is covered by Davis-Bacon, but there are some exceptions. The best and safest approach is to first assume that Davis-Bacon requirements will be applicable whenever the contract/project involves construction work valued in excess of \$2,000, then look more closely to see if there is any reason for non-coverage. Each contract subject to Davis-Bacon labor standards requirements must contain labor standards clauses and a Davis-Bacon wage decision. These documents are normally wound into the contract specifications.

The labor standards clauses

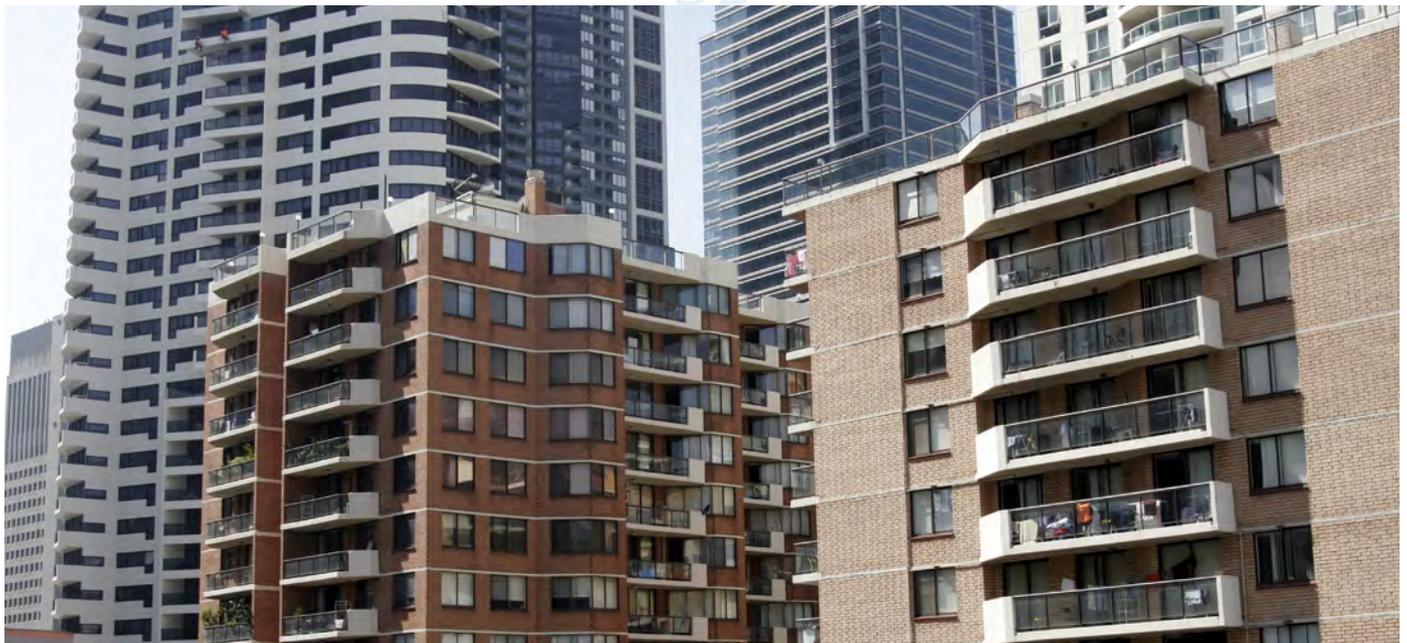
The contract for construction is the vehicle to ensure contractor compliance and Davis-Bacon wage enforcement. Therefore, the bid specifications and/or the contract for each project subject to Davis-Bacon wage rates must contain both a Davis-Bacon wage decision and labor standards clauses. The labor standards clauses describe the responsibilities of the contractor concerning Davis-Bacon wages and obligate the contractor to comply with the Davis-Bacon wage and reporting requirements and with the O/T provisions of the CWHSSA (applicable

only when the prime contract is valued at over \$100,000).

The labor standards clauses also provide for remedies in the event of violations, including the withholding of payments due to the contractor to ensure the payment of wages or liquidated damages that may be found due, and sanctions should violations occur. These contract clauses enable the contract administrator to enforce the Federal labor standards applicable to the project. HUD has standard forms that contain contract clauses. For example, the HUD-92554M, Supplementary Conditions Of The Contract for Construction, which is issued primarily for FHA (Federal Housing Administration) multifamily housing and other construction projects administered by HUD; the HUD-4010, Federal Labor Standards Provisions, which is used for CDBG (Community Development Block Grant) and HOME (HOME Investment Partnerships Program) projects; and the HUD-5370, General Conditions for Construction Contracts (construction contracts >\$150,000) or the HUD-5370-EZ, General Contract Conditions for Small Construction/Development Contracts (construction contracts >\$2,000 but ≤\$150,000) which are used for Public and Indian Housing projects. These should be wound into the contract specifications or incorporated by specific reference in the bid/contract documents (see Labor Relations Letter 96-03).

RESOURCE

A fillable version of this form is available online at HUDClips www.hud.gov/program_offices/administration/hudclips/forms
Contact the contract administrator monitoring the project for assistance with a Project Wage Rate.



Specific Davis-Bacon Related Act (statute) for the program involved

Related Acts are program statutes that contain provisions requiring compliance with the wages that the Secretary of Labor finds to be prevailing pursuant to the Davis-Bacon Act. These are commonly referred to as the Davis-Bacon and Related Acts or DBRA.

HUD Related Acts include (but are not limited to) the:

- National Housing Act;
- U. S. Housing Act of 1937;
- Housing and Community Development Act of 1974;
- National Affordable Housing Act of 1990; and
- Native American Housing Assistance and Self-determination Act of 1996, each as amended.

Many of the labor provisions in HUD Related Acts contain applicability thresholds based upon the number of dwelling units involved. Some thresholds are based upon the amount of HUD assistance or the use of HUD funds or assistance. In addition, most HUD Related Acts contain exemptions from prevailing wage coverage for bona-fide volunteers. It is important for DBLS and LCA staff to be familiar with the statutory provisions and how these are interpreted.

The labor provisions found in current HUD Related Acts are excerpted for reference in Appendix II-1 to this Guide. Applicability factors relating to specific HUD Related Acts are in Appendix II-6.

Labor Standards Letters

This special directives series is designed to provide current and thorough guidance on Davis-Bacon issues in HUD programs. Popular topics include Davis-Bacon applicability, and prevailing wage requirements concerning self-employed laborers and mechanics. Labor Standards Letters are available online at the Davis-Bacon and Labor Standards Library: www.hud.gov/program_offices/davis_bacon_and_labor_standards/olr_lrl

HUD Guides

These Guides complement the guidance and instructions provided in HUD Handbook 1344.1, Federal Labor Standards Compliance in HUD Programs. These Guides are also available at the Davis-Bacon and Labor Standards Library.

Davis-Bacon Wage Decisions

The term “wage decision” includes the original decision and any subsequent decisions that modify, supersede, correct, or otherwise change the provisions of the original decision. The term “wage decision” is used within this Guide to mean the Davis-Bacon wage decision. The terms “wage decision” and “wage determination” are used interchangeably. A wage decision is a schedule of construction work classifications, wage rates, and fringe benefits that represent the minimum rates that must be paid to workers employed in those classifications. Wage decisions are established for defined geographic areas, usually by county



or group of counties, and four general characters of construction work.

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RESOURCE

All current Davis Bacon wage decisions can be accessed online at no cost at www.sam.gov

Character of work

There are four basic categories (or characters) of wage decisions based on the type of construction. DOL established these categories and provides details of each one in All Agency Memoranda Nos. 130 and 131. DOL provides further guidance in All Agency Memorandum 236, Prevailing Wage Resource Book, and Field Operations Handbook, Chapter 15. The four categories include:

- 1. Residential:** Residential construction includes the construction, alteration, or repair of single-family houses or apartment buildings of no more than four stories in height. This typically includes all incidental items unless there is an established area practice to the contrary.

Incidental items are elements of a project whose function is to support the principal purpose and do not change the overall character of work. Examples of incidental items include sidewalks and handrails installed to support residential or building projects. While sidewalks intrinsically constitute “highway” construction, this element considered in conjunction with a residential or building project becomes incidental to the principal purpose of the construction and is subject to the same wage decision that applies to the principal purpose.



Character of work (continued)

- 2. **Building:** Building construction generally is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. This category includes buildings exceeding four stories in height that have housing units and buildings of four stories or less that do not have housing units. This category also includes incidental items such as grading, sidewalks, and utilities. Building examples include high-rise apartment buildings, nursing homes and convalescent facilities, community centers, fire stations, commercial buildings, parking garages, and dormitories.
- 3. **Highway:** Highway construction includes the construction, alteration, or repair of roads, streets, highways, alleys, parking areas, and other similar projects not incidental to the main category of construction, which is either residential or building for housing development projects.
- 4. **Heavy:** Heavy construction includes those projects that are not properly classified as “residential,” “building,” or “highway.” Some examples include antenna towers, canals, landscaping, drainage and irrigation projects, permanent erosion control, storm sewers, and storage tanks.

General wage decisions

Most Davis-Bacon wage decisions are general wage decisions. DOL usually publishes these annually and may modify or supersede them throughout the year. LCAs and HUD Labor Standard Specialists (LSS) may use general wage decisions without advance notice or approval from DOL. Most Davis-Bacon wage decisions are available as published

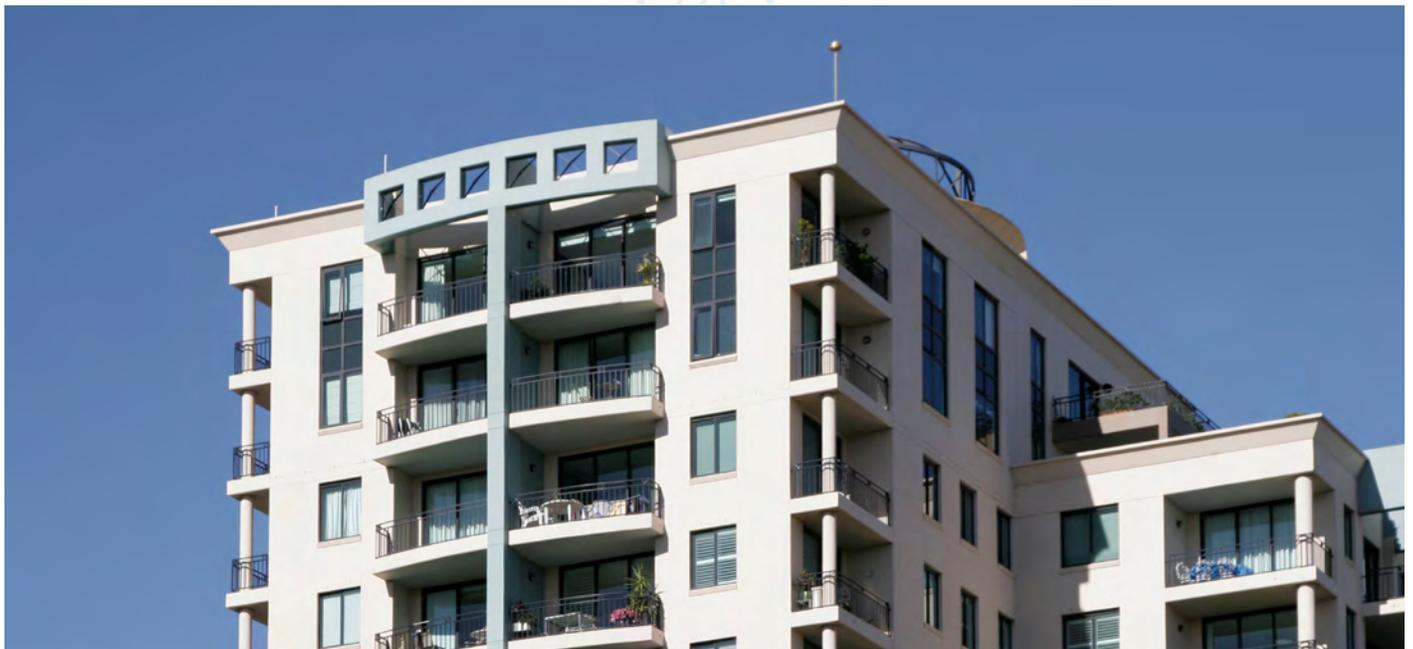
general wage decisions.

General wage decisions and project wage decisions may be modified from time to time to keep them current, correct errors, and for other purposes. Modifications may be limited to one or more particular work classifications and wage rates. Modifications are effective to a project if HUD or an LCA receives them, or if notice of the modification is published at www.sam.gov prior to the lock-in date. Modifications to a project wage decision expire on the same date as the original project wage decision. A modification to a general wage determination remains in effect until it is superseded by a subsequent modification, or the original general wage decision is superseded or cancelled.

Project wage decisions

If an appropriate wage decision (by location, character of work, or specific trade required) is not published in the general wage decisions, a project wage decision shall be requested from DOL. Project wage decisions are applicable only to the construction work specified on the request to DOL and listed on the front page of the wage decision. Project wage decisions are valid for 180 days from the date of original issuance by DOL. The issuance and expiration dates will be indicated on the front page of the wage decision. Like general wage decisions, project wage decisions may be modified.

A project wage decision may be applicable even though a general wage determination is published which covers the geographic location and character of work involved. For example: A project involves only roof replacement on a 4-story apartment building and the only classification needed for the entire contract is a roofer.



Project wage decisions (continued)

A general wage decision is published for residential construction in the county in which the project is located; however, the general wage decision does not include a roofer classification and wage rate. In this case, the general wage decision is not relevant to the roof replacement and a project wage decision may be requested from DOL.

RESOURCE

General wage decisions and modifications are available at www.sam.gov

This is the only online location endorsed by DOL. Project wage decisions must be requested on a case by case basis from DOL.

Project wage decisions, as needed

The LCA or LSS shall submit a completed SF-308, Request for Wage Determination And Response to Request, to the DOL National Office, allowing 30 days for receipt of the project wage decision from DOL.

Selecting the correct wage decision

The responsible contracting officer (also referred to as the contract administrator) selects and assigns wage decisions to specific contracts or projects. For HUD-administered projects (e.g., FHA-insured multifamily development), the responsible contracting officer is the LSS. In addition, the LSS provides technical support and oversight to LCAs

administering HUD programs in selecting and assigning appropriate wage decisions. Determining wage decisions is dependent upon the geographic location and the character of work (Residential, Building, Highway, and/or Heavy) assigned to the project.

A request for additional classification and wage rates may be made only after contract award. The request must originate with the contractor/ employer and must be submitted by the LCA to DOL.

MORE INFO

Conformances (additional classifications)

At times, the wage decision will not contain some of the work classification and wage rates that are needed for the construction work. In these cases, send a form SF 1444 to DOL at whd-cbaconformance_incoming@dol.gov



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RESOURCE

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Verify contractor eligibility

Once the LCA has selected the contractor to whom they wish to award the contract, the LCA must verify that the contractor is not ineligible (e.g., debarred) from participation in Federal programs. Only the eligibility of the prime contractor needs to be verified. The U.S. General Services Administration (GSA) maintains a list of ineligible contractors, which can be accessed online at www.sam.gov.

An additional classification and wage rate will be approved by DOL where:

1. The requested work classification is used in the area of the project by the construction industry;
2. The work that will be performed is not performed by a work classification already contained in the wage decision;
3. The proposed wage rate bears a reasonable relationship to the wage rates on the wage decision; and
4. The workers that will be employed in the requested work classification (if known) or the workers' representatives (if any) agree with the proposed wage rate.

Provide contractor training

The LCA must make certain that the contractor understands its responsibilities for Davis-Bacon compliance: The principal contractor is responsible for the full compliance of all employers (the contractor, subcontractors, and any lower-tier subcontractors) with the labor standards provisions applicable to the project. LCAs may also wish to provide formal training separate from the contracting process for contractors that are interested in performing work on HUD-assisted contracts and want to learn more about what is involved.





CONTRACTOR RESPONSIBILITIES

See Section 4 in the Contractor Addendum.

CONTRACT ADMINISTRATOR RESPONSIBILITIES

See Section 5 in the Contractor Addendum.

LCA FLEXIBILITY FOR LABOR STANDARDS RESPONSIBILITIES

While some aspects of labor standards administration are inflexible, such as which wage decision is applicable to a specific project, the following aspects are not. For these, HUD leaves the preference of how to achieve end results with the LCA.

LCAs may hold preconstruction conferences for labor standards purposes.

HUD acknowledges that there are many good reasons to hold a preconstruction conference (PCC), and these conferences are strongly encouraged in order to have the opportunity to discuss topics such as construction inspections, progress and contractor payment requirements, Section 3 employment and training, and other issues particular to the project. However, HUD has determined that the time and resources used to conduct and document PCCs for labor standards purposes do not yield measurably better results.

Many contractors have prior Davis-Bacon contract experience and have demonstrated successful performance. These contractors do not require the repetitive basic training that is provided at most PCCs. Contractors new to Davis-Bacon projects that understand the basic requirements and choose not to comply will likely not be persuaded to fully comply just because they attended a PCC.

LCAs may prepare Project Wage Rate Sheets

Some general wage decisions cover large areas (e.g., several counties or different characters of construction) and may contain wage rates that do not apply to the contract/project to which the wage decision applies. Such wage decisions can be difficult to decipher and confusing to contractors and subcontractors, and to the workers reviewing the wage decision to determine whether they are being paid correctly. For ease of reference for the LSS/LCA, the prime contractor and any subcontractors, and the workers, the LSS/LCA may prepare a form HUD-4720, Project Wage Rate Sheet, which should reflect the most commonly used work classifications and wage rates as contained in the wage decision applicable to the project. The Project Wage Rate Sheet should be prepared only after the wage decision has been “locked-in” by contract award or start of construction, as applicable. The Project Wage Rate Sheet does not replace the wage decision; it is only provided as a convenience. If there is a conflict between the Project Wage Rate Sheet and the wage decision, the wage decision prevails.

LCAs can prepare a Project Wage Rate Sheet for contracts using the onscreen fillable versions in either the HUD Forms or DBLS websites. HUD DBLS staff is available to provide assistance to LCAs in preparing Project Wage Rate Sheets. HUD strongly recommends incorporation of the full wage decision text into bid solicitations and contracts, either in hard copy or by specific reference.

LCAs may develop their own labor standards file system

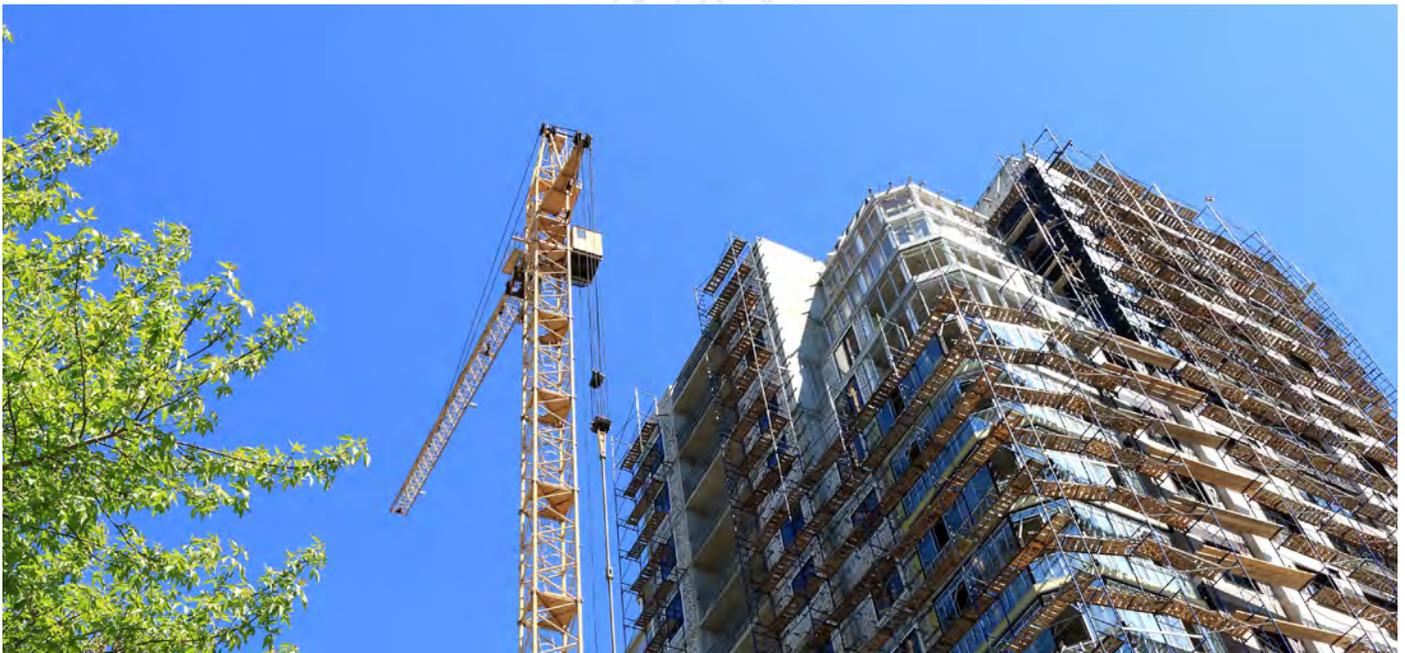
HUD believes that LCAs can best determine how to maintain their files provided that certain minimum requirements are met. The minimum requirements include compliance with DOL regulations that certified payrolls and basic records relating to the payrolls be preserved for no less than three years after completion of the project and the resolution of any enforcement actions that may carry over after completion. In addition, the files must be maintained in such a way that the LCA can utilize them to demonstrate its own compliance with its labor standards administration and enforcement responsibilities. For example, the LCA must, at HUD’s request, demonstrate how it has documented that the eligibility of the prime contractor was verified for each contract.

LCAs may target on-site interviews with laborers and mechanics

HUD is interested in using on-site interviews as a proactive enforcement tool rather than to meet a “representative sampling” quota. Instead of conducting interviews randomly for the sake of assembling a sample, LCAs are encouraged to target interviews to projects or groups of workers where violations are suspected or alleged. In this way, on-site interviews can be used to support a specific ongoing enforcement action. HUD realizes that this approach may mean that fewer on-site interviews may be conducted randomly; HUD considers targeting a far more efficient and effective means of utilizing on-site interview resources.

LCAS may limit payroll reviews to spot-checks and HUD-11 (Employee Interview Form) comparison

The goal: to detect falsification. HUD believes that serious violations involving underpaid workers and significant wage restitution may be overlooked because the contract administrator is overtasked with HUD-mandated payroll review minutiae. HUD recognizes that it is not possible to conduct payroll reviews in 100% of cases; therefore, it is not possible to identify and correct every discrepancy and underpayment. It is also the case that the violations disclosed behind falsified payrolls are much more egregious (both in terms of affected workers and the amount of underpayment) than violations that appear on the face of the payroll records. Accordingly, HUD has prioritized payroll reviews so that the objective is to detect falsification, and so that enforcement activities will yield the greatest impact. HUD has developed guidance on how to detect falsification through spot-checks and HUD-11 interview comparison. (See Willful Violations and Falsification Applicability in Appendix III-1.)



LCAS may limit payroll reviews to spot-checks and HUD-11 (Employee Interview Form) comparison (continued)

Routine payroll review results may be communicated to the prime contractor by telephone and documented with a record in the file. Many times, the types of deficiencies that come to the attention of the contract administrator can be handled more efficiently and just as effectively with good informal communication (e.g., a telephone call, email, etc.) with the employer/prime contractor rather than with formal letters. Examples of the types of issues that could easily be addressed informally—assuming the cooperation of both sides—include a missing payroll report or missing apprenticeship certificates, requests for employee authorizations for deductions, small underpayments that appear on the face of the payroll, and similar matters. With the prime contractor’s cooperation, these matters can be disposed of quickly with a telephone call and a brief note to the contract file documenting the call. If the employer/prime contractor does not respond appropriately to this type of communication, it may be necessary to resort to more formal means.

RESOURCE

The Department of Housing and Urban Development (HUD) one stop forms resource page.

www.hud.gov/program_offices/administration/hudclips/forms





FEDERAL LABOR STANDARDS COMPLIANCE CHECKLIST FOR DAVIS-BACON COVERED PROJECTS

RESOURCE

See LCA DBRA Checklist online at the link below:

https://www.hud.gov/program_offices/davis_bacon_and_labor_standards/OLRLibrary

REVIEWING PAYROLLS

See Section 7 in the Contractor Addendum.

REPORTING PAYROLLS

See Section 8 in the Contractor Addendum.

PAYROLL COMPLIANCE REVIEWS AND CORRECTIONS

Compliance reviews

The contract administrator or other inspector may visit the project site and interview some of the workers concerning their employment on the project. DOL may also independently conduct its own reviews (see 10.2.2 in the Contractor Addendum). In addition, the contract administrator will periodically review payrolls and related submissions, comparing the interview information to the payrolls, to ensure that the labor standards requirements have been met. Contractors will be notified by

the contract administrator if these reviews find any discrepancies or errors, and will be given instructions about what steps must be taken to correct any problems.

On-site interviews

Every employer (contractor, subcontractor, etc.) must make their employees available for interview at the job site with the contract administrator or other agency representative (or HUD or DOL representative). The interviews are confidential and the employees will be asked about the number of hours they work, the kind of work they perform, and their rate of pay. Every effort will be made to ensure that these interviews cause as little disruption as possible to the ongoing work. The interviewer will record the interview information, usually on a form HUD-11, Record of Employee Interview, and forward the interviews to the contract administrator. Completed HUD-11s must be compared to the corresponding contractor and subcontractor certified payrolls to test and verify the accuracy of the payroll information.

RESOURCE

HUD 11 forms are available online in English and in Spanish in a fillable format via the HUD Forms website (www.hud.gov/program_offices/administration/hudclips/forms) and at the DBLS website (www.hud.gov/program_offices/davis_bacon_and_labor_standards/olrform).

Project payroll reviews

The contract administrator will compare the information on the interview forms to the corresponding payrolls to ensure that the workers are properly listed on the payrolls for the days and hours worked on the job site, work classification, and rate of pay. The contract administrator will also review the payroll submissions to make certain that the payrolls are complete and signed, that employees are paid no less than the wage rate for the work classification shown, that apprentice and trainee certifications are submitted (where needed), that employee or other authorizations for other deductions are submitted (where needed), etc. Contract administrators should be particularly alert for indications of payroll falsification—misinformation on payrolls to conceal underpayments. Falsification on payrolls indicates that a contractor or subcontractor is aware of its obligations, is knowingly underpaying its employees, and is attempting to avoid detection of the violations. See Appendix III-1 for an explanation of willful violations and falsification indicators.

Typical payroll errors and required corrections

Contract administrators must ensure the full correction of all discrepancies disclosed during compliance monitoring conducted by the LCA, HUD, or DOL. This includes the collection of documentation to demonstrate that corrective measures have been successfully completed. They must:

1. **Examine and resolve probable violations and complaints of underpayment.** Contract administrators must explore probable violations—particularly those involving falsification of payrolls and complaints alleging underpayments. In addition to the HUD-11, Record of Employee Interview, HUD has developed a questionnaire form (HUD-4730) and a complaint intake form (HUD-4731) for HUD and LCA use. The forms are available in onscreen fillable formats at the HUD forms website and via the DBLS website;
2. **Refer complex issues and/or falsification cases to HUD or DOL.** Some issues may be more complex than LCAs are able to address. HUD encourages LCAs to consult with the LSS for their area to secure appropriate guidance and support. HUD has decided, in consultation with DOL, that it will refer to DOL cases involving falsification of payrolls or related documents for DOL investigation. HUD strongly suggests that LCAs employ this strategy for cases involving falsification;
3. **Take steps to ensure the full resolution of any monetary liability that has or may be imposed for labor standards reasons.** Contract administrators must take prompt action to ensure that funds will be available to satisfy any labor standards liability that may be imposed. Actions include the withholding of contract payments due to the contractor and requiring funding for an escrow account to guarantee the satisfaction of any restitution and/or liquidated damages assessment that may be pending at contract closeout;



Typical payroll errors and required corrections (continued)

4. **Recommend debarment against repeat violators.** HUD has implemented a zero tolerance policy against contractors who are repeat violators of Davis-Bacon labor standards. The first time an employer is found in violation, the employer is required to pay full restitution to all affected workers and to pay any CWHSSA liquidated damages (for O/T violations) that may be assessed. In addition, the employer must provide written assurance of future compliance. If the employer promptly completes these corrective actions, HUD will not object if the LCA does not recommend debarment against the employer unless there are extenuating circumstances that warrant debarment. If the employer is found in violation again, the LCA must require full correction of any underpayments and payment of CWHSSA liquidated damages assessed. A debarment recommendation made by the LCA against the employer is expected; and
5. **Prepare and submit enforcement reports.** In accordance with DOL regulations (29 CFR Part 5, § 5.7), the contract administrator must prepare and submit to HUD an enforcement report in any case where an employer (contractor or subcontractor) has underpaid its employees by \$1,000 or more or where there is reason to believe that the violations are aggravated or willful, and prepare and submit to HUD semi-annual enforcement reports concerning all Davis-Bacon labor standards administration and enforcement activities involving all HUD-assisted programs. Enforcement reports cover wage underpayments by contractors and subcontractors.

Note that enforcement reports concern only wage violations associated with projects or contracts subject to the labor standards provisions of the DBRA.

Employer-specific enforcement reports

These enforcement reports are used for three general purposes. First, to report to the Secretary of Labor on Davis-Bacon enforcement actions successfully completed in the field by all federal, state, and local agencies. Second, to refer to the Wage and Hour Administrator investigative findings that are in dispute (e.g., where the employer contests findings of underpayment made against it and requests a hearing to appeal the findings). Third, to make recommendations for debarment and other sanctions and for recommendations concerning liquidated damages computed for CWHSSA O/T violations. (See Labor Relations Letter LR-92-02 for additional guidance concerning employer-based enforcement reports.)

6. **Semi-Annual Enforcement Reports.** HUD is required to furnish to DOL semi-annual reports (SARs) concerning the volume of DBRA-covered activities and the compliance and enforcement of DBRA labor standards provisions in HUD programs. The reports are due to DOL by April 30 and October 31 of each calendar year and cover the periods of October 1 through March 31 and April 1 through September 30, respectively. (See DOL regulations at 29 CFR § 5.7(b) and All Agency Memorandum 189.)



Typical payroll errors and required corrections (continued)

To prepare the SAR, HQLS (Headquarters Office Davis-Bacon and Labor Standards) collects data from the LSIS (Labor Standards Information System) and from each RLSO (Regional Labor Standards Officer), and then submits the report to DOL, which accepts electronic submittals of the semi-annual reports in lieu of paper copies at SemiAnnualReport@DOL.gov. HUD collects the reports from its client agencies and compiles a comprehensive report to DOL covering all HUD-assisted Davis-Bacon construction activity. The report may be completed onscreen, saved, and attached to an email message for submission purposes.

RESOURCE

A copy of the Semi Annual Report form (HUD 4710) and instructions (HUD4710i) for LCAs and are available at HUDClips (www.hud.gov/program_offices/administration/hudclips/forms) and at the Davis Bacon and Labor Standards Forms page (www.hud.gov/program_offices/davis_bacon_and_labor_standards/olrform).

MORE INFO

States may report directly to DOL, as the state chooses. PHAs, IHAs, and TDHEs should send data for Davis Bacon projects only; data relating to HUD determined maintenance wage rate projects or projects subject to Tribally determined wage rates (for construction or maintenance work) should not be included.



Common errors

The following paragraphs describe common payroll errors and the corrective steps that must be taken.

Inadequate payroll information

If an alternate payroll format used by an employer (such as some computer payrolls) is inadequate (e.g., does not contain all the necessary information that would be on the optional form WH-347), the employer will be asked to resubmit the payrolls on an acceptable form.

Missing identification numbers

If the first payroll on which an employee appears does not contain the employee's individually identifying number, the employer will be asked to supply the missing information. This information can be reported on the next payroll submitted by the employer if the employer is still working on the project. Otherwise, the employer will be asked to submit a correction certified payroll.

Incomplete payrolls

If the information on the payroll is not complete, for example, if work classifications or rates of pay are missing, the employer will be asked to send a correction certified payroll.

Classifications

If the payrolls show work classifications that do not appear on the wage decision, the employer will be asked to reclassify the employees in accordance with the wage decision, or the employer may request an ad-

ditional classification and wage rate (see Section 9 in the Contractor Addendum). If reclassification results in underpayment (i.e., the wage rate reported on the payroll is less than the rate required for the new classification), the employer will be asked to pay wage restitution to all affected reclassified employees (see Section 10 in the Contractor Addendum for instructions about wage restitution).

Wage rates

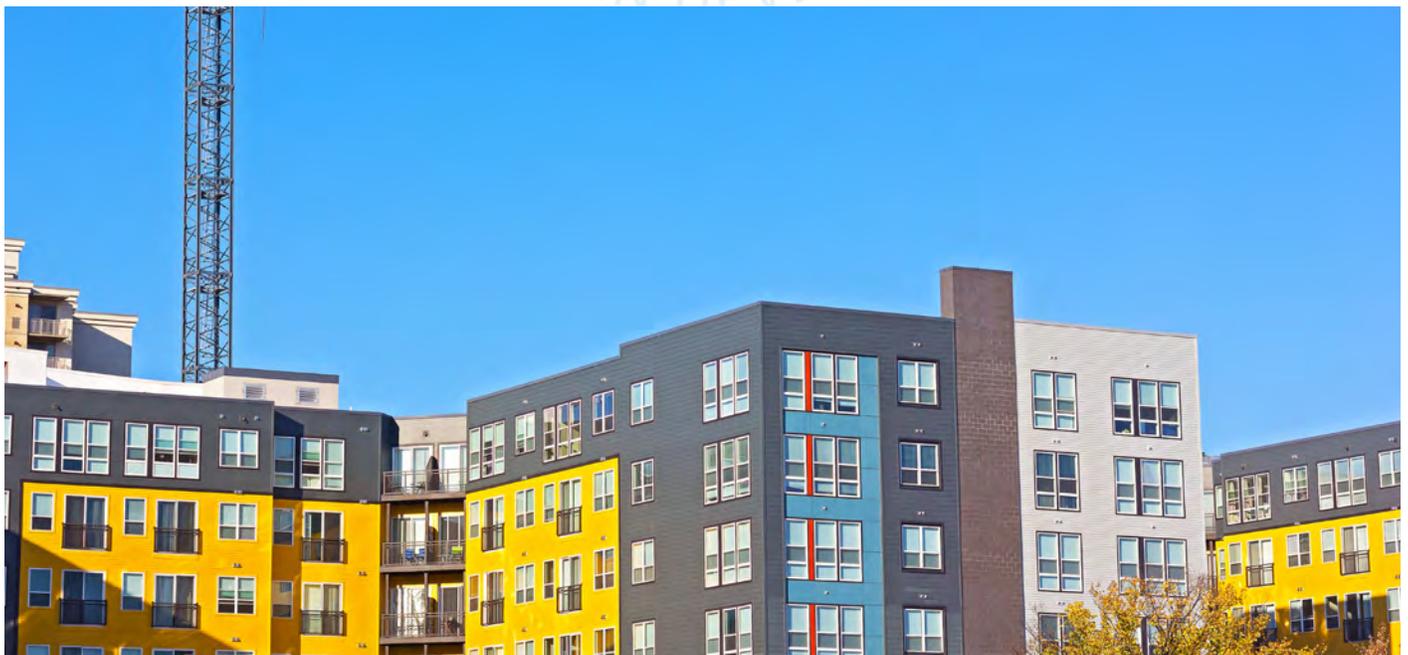
If the wage rates on the payroll are less than the wage rates on the wage decision for the work classifications reported, the employer will be asked to pay wage restitution to all affected employees.

Indications of falsification on payrolls

The greatest threat to construction workers entitled to a statutorily-mandated prevailing wage for their craft is from employers who know what is required, choose not to pay the required prevailing wage rates, and falsify CPRs to conceal the underpayments. Such willful violators see the workers' underpayment as their own gain and engage in deception to increase this gain. In addition, willful violators that successfully escape detection and are not required to pay prevailing wages will continue to bid on Davis-Bacon contracts until their violations are disclosed and administrative sanctions such as debarment are imposed.

Falsification indicators

HUD has prepared a list and explanation of four common falsification indicators that are detectable during payroll "spot-checks."



Information reported on payrolls that indicate falsification suggests willful, much more serious violations in terms of the amount of back wages that may be due and the number of employees affected.

Such cases most often warrant investigation, which can include on-site interviews, mailing questionnaires to employees, taking written statements or complaints, and other methods to gather and assess the facts of the case. See Appendix III-1 for an explanation of willful violations and falsification indicators.

Apprentices and trainees

If a copy of the employee’s registration or the approved program ratio and wage schedule are not submitted with the first payroll on which an apprentice or trainee appears, the employer will be asked to submit a copy of each apprentice’s or trainee’s registration and/or the approved program ratio and wage schedule. If the ratio of apprentices or trainees to journeymen on the payroll is greater than the ratio in the approved program, the employer will be asked to pay wage restitution to any excess apprentices or trainees. Also, any apprentice or trainee that is not registered in an approved program must receive the journeyman’s wage rate for the classification of work they performed.

Overtime

If the employees did not receive at least time and one-half for any O/T hours worked on the project, the following will occur:

1. If the project is subject to CWHSSA O/T requirements, the employer will be asked to pay wage restitution for all O/T hours worked on the project.

The employer may also be liable to the United States for liquidated damages computed at \$26 per day per violation, and indexed to increase annually. Or,

2. If the project is not subject to CWHSSA, the employer will be notified of the possible FLSA O/T violations.

Also, the contract administrator may refer the matter to DOL for further review.

Computations

If the payroll computations (hours worked times rate of pay) or extensions (deductions, net pay) show frequent errors, the employer will be asked to take greater care. Wage restitution may be required if underpayments resulted from the errors.

Deductions

If there are any “Other” deductions that are not identified, or if employee authorization isn’t provided, or if there is any unusual (very high, or large number) deduction activity, the employer will be asked to identify the deductions, provide employee authorization, or explain unusual deductions, as necessary.

HUD does not enforce or attempt to provide advice on employer obligations to make deductions from employee earnings for taxes or Social Security. However, HUD may refer to the IRS or other responsible agency copies of CPRs that show wages paid in gross amounts (i.e., without tax deduction) for its review and appropriate action.



Fringe benefits

If the wage decision contains fringe benefits but the payroll does not indicate how fringe benefits were paid (neither 4(a) nor 4(b) is marked on the Statement of Compliance), the employer may be asked to submit correction certified payrolls and will be required to pay wage restitution if underpayments occurred.

However, if the basic hourly rates for the employees are at least as much as the total wage rate on the wage decision (basic hourly rate plus the fringe benefit rate), no correction is necessary.

Signature

If the payroll Statement of Compliance is not signed or is missing, the employer will be asked to submit a signed Statement of Compliance for each payroll affected. If the Statement of Compliance is signed by a person who is not a principal of the firm and that person has not been authorized by principal to sign, the employer will be asked to provide an authorization or to resubmit the Statement(s) of Compliance bearing the signature of a principal or other authorized signatory.

On-site interview comparisons

If the comparison of on-site interviews to the payrolls indicates any discrepancies (e.g., the employee does not appear on the payroll for the date of the interview), the employer will be asked to submit a correction CPR.

Correction certified payroll

Any and all changes to data on a submitted payroll report must be re-

ported on a certified correction payroll. In no case will a payroll report be returned to the prime contractor or employer for revision.

Restitution for underpayment of wages

Where underpayments of wages have occurred, the employer will be required to pay wage restitution to the affected employees. Wage restitution must be paid promptly in the full amounts due, less permissible and authorized deductions. All wages paid to laborers and mechanics for work performed on the project, including wage restitution, must be reported on a CPR. If a violation of labor standards requirements results in an underpayment of wages to employees, the LCA should notify the prime contractor to either make wage restitution or direct its subcontractor to do so. Where restitution amounts are in excess of \$10 per worker, the employer must attest to wage restitution paid on a correction certified payroll.

Notification to the Employer/Prime contractor

The contract administrator will notify the employer and/or prime contractor in writing of any underpayments that are found during payroll or other reviews. The contract administrator will describe the underpayments and provide instructions for computing and documenting the restitution to be paid. The employer/prime contractor is allowed 30 days to correct the underpayments. Note that the prime contractor is responsible to the contract administrator for ensuring that restitution is paid. If the employer is a subcontractor, the subcontractor will usually make the computations and restitution payments and furnish the required documentation through the prime contractor.



Notification to the Employer/Prime contractor (continued)

MORE INFO

The contract administrator may communicate directly with a subcontractor when the underpayments are plainly evident and the subcontractor is cooperative. It is best to work with the prime contractor when the issues are complex, when there are significant underpayments, and/or the subcontractor is not cooperative. In all cases, the subcontractor must ensure that the prime contractor receives a copy of the required documentation.

Computing wage restitution

Wage restitution is simply the difference between the wage rate paid to each affected employee and the wage rate required on the wage decision for all hours worked where underpayments occurred. The difference in the wage rates is called the adjustment rate. The adjustment rate times the number of hours involved equals the gross amount of restitution due. Alternatively, wage restitution may be computed by calculating the total amount of Davis-Bacon wages earned and subtracting the total amount of wages paid. The difference is the amount of back wages due.

Total hours worked times (x) adjustment rate (DB rate – rate paid)
= wage restitution due; or

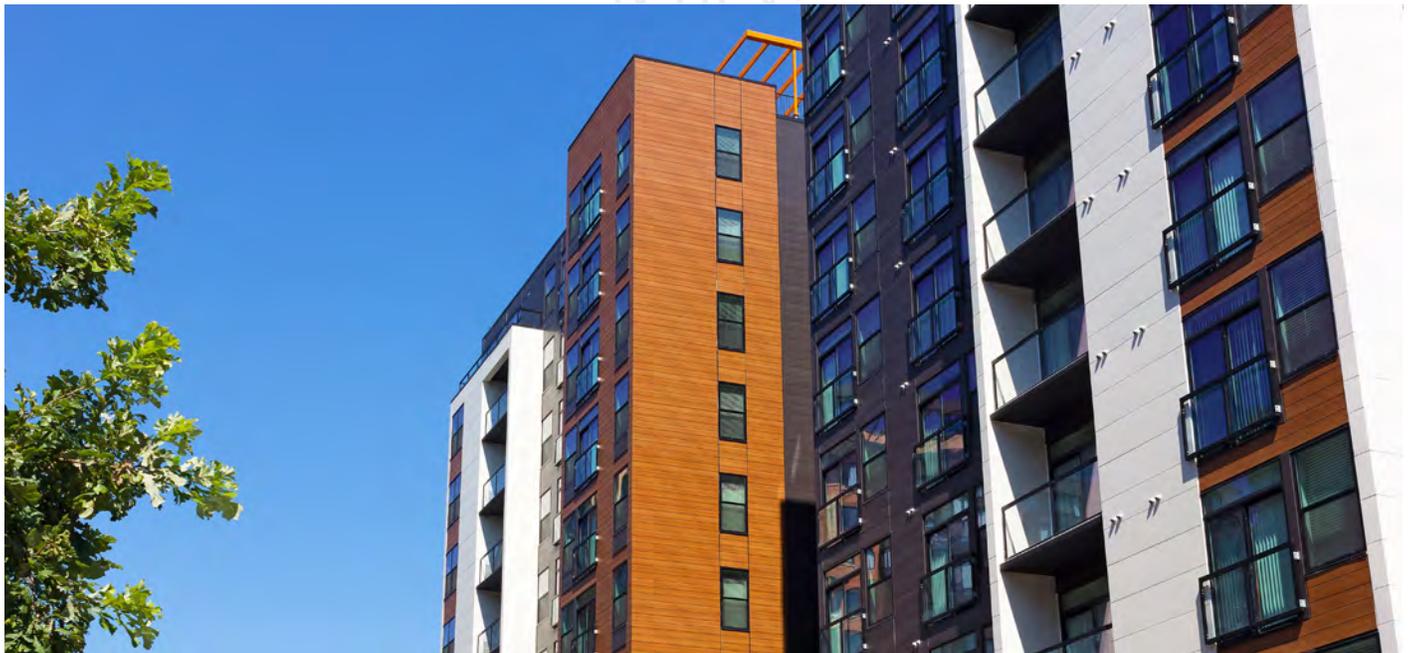
Total wages earned minus (-) total wages paid = wage restitution due.

Correction certified payrolls

The employer will be required to report the restitution paid on a correction certified payroll. The correction payroll will reflect the period for which restitution is due (e.g., Payrolls #1 through #6, or a beginning date and ending date). The correction payroll will list each employee to whom restitution is due and their work classification, the total number of work hours involved (daily hours are usually not applicable for wage restitution), the adjustment wage rate (the difference between the required wage rate and the wage rate paid), the gross amount of restitution due, deductions, and the net amount actually paid. A properly signed Statement of Compliance must accompany the correction payroll. HUD no longer requires the signature of the employee on the correction payroll to evidence employee receipt of restitution payment. In addition, except in the most extraordinary cases, HUD no longer requires employers to submit copies of restitution checks (certified, cashier's, canceled, or other) or employee-signed receipts or waivers.

MORE INFO

In the course of basic enforcement and corrections, the employer need only submit a correction CPR to evidence wage restitution paid. Other documentation such as copies of checks, copies of cancelled checks, receipts signed by the employees, employee signatures on the correction CPR, etc., is not required.



Review of correction CPR

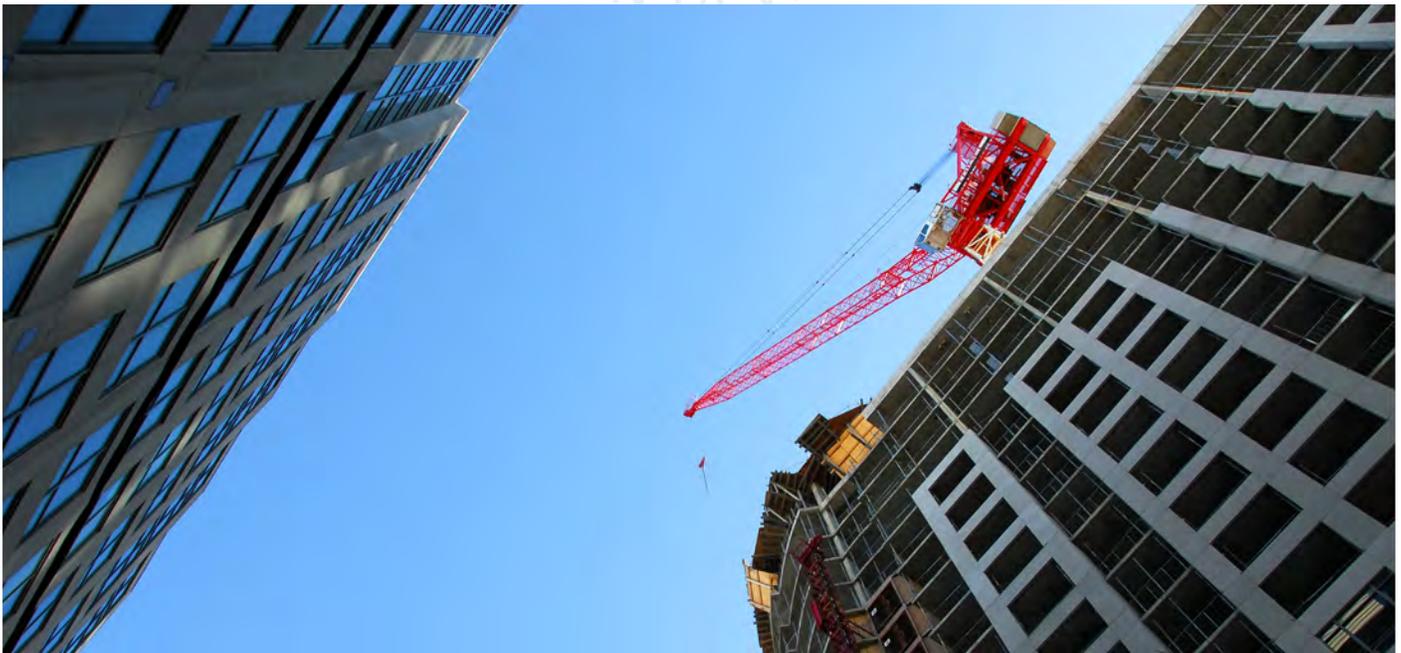
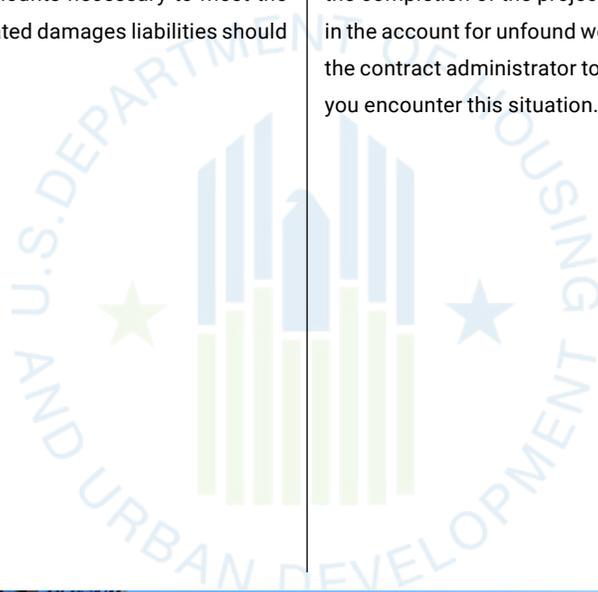
The contract administrator will review the correction certified payroll to ensure that full restitution was paid. The prime contractor shall be notified in writing of any discrepancies and will be required to make additional payments, if needed, documented on a correction certified payroll within 30 days.

Withholding payments due to the contractor

If wage violations are not corrected within 30 days after notification to the prime contractor, the LCA may cause the withholding of payments due to the contractor in the amount needed to ensure the full payment of restitution and, if applicable, liquidated damages computed for CWHSSA O/T violations. Only the amounts necessary to meet the potential back wage and CWHSSA liquidated damages liabilities should be withheld.

Unfound workers

Sometimes, wage restitution cannot be paid to an affected employee because, for example, the employee has moved and cannot be located. After wage restitution has been paid to all the workers who could be located, the employer must submit a list of any workers who could not be found and paid (i.e., unfound workers), providing their name, Social Security number, last known address, and the gross amount due. In such cases, at the end of the project the prime contractor will be required to place in a deposit or labor standards escrow account an amount equal to the total gross amount of restitution that could not be paid because the employee(s) could not be located. The contract administrator will continue attempts to locate the unfound workers for three years after the completion of the project. After three years, any amount remaining in the account for unfound workers will be credited and/or forwarded by the contract administrator to HUD. Contact the HUD LSS for your area if you encounter this situation.





ADDITIONAL WORK CLASSIFICATION AND WAGE RATES

See Section 9 in the Contractor Addendum.

SANCTIONS AND RESTITUTION

See Section 9 in the Contractor Addendum.

APPENDIX

- Appendix I-1 Reorganization Plan No. 14 of 1950
- Appendix I-2 Delegations of Authority
- Appendix I-3 Labor Standards Core Work Activities
- Appendix II-1 HUD Davis-Bacon Related Acts
- Appendix II-2 Davis-Bacon Act Copeland Anti-Kickback Act
- Appendix II-3 Contract Work Hours and Safety Standards Act
- Appendix II-4 Federal Labor Standards Coverage in Major HUD Programs
- Appendix II-5 Factors of Labor Standards Applicability
- Appendix III-1 HUD's Willful Violations and Falsification Applicability
- Appendix III-2 Sample Deposit Schedule
- Appendix III-3 Sample Tax Withholding Notice
- Appendix III-4 Unfound Worker Schedule
- Appendix III-5 Refund of Deposit Memorandum Template
- Appendix IV-1 Acronyms and Symbols



DAVIS-BACON AND LABOR STANDARDS CONTRACTOR GUIDE ADDENDUM

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INTRODUCTION

This Guide has been prepared for you as a contractor performing work on construction projects that are assisted by the Department of Housing and Urban Development and subject to Davis-Bacon prevailing wage requirements. This Guide does not address contractor requirements involved in direct Federal contracting where HUD or another Federal agency enters into a procurement contract. In this latter case, the Federal Acquisition Regulations (FAR) are applicable. While the guidance contained in this Guide is generally applicable to any Davis-Bacon covered project, specific questions pertaining to direct Federal contracts should be addressed to the Contracting Officer who signed the contract for the Federal agency.

Our objective here is to provide you with a guide that is simple and non-bureaucratic yet comprehensive, and will help you better understand and comply with Davis-Bacon labor standards. HUD's Office of Davis Bacon and Labor Standards worked closely with the Department of Labor's Wage and Hour Division to make sure that the labor standards provisions in your contract and the specifics of complying with them represent the latest information. It is the Department of Labor that has general administrative oversight of all Federal contracting agencies, such as HUD, which administer the day-to-day responsibilities of enforcing Davis-Bacon provisions in construction contracts that they either fund or assist in funding.

This Guide contains six main chapters. The first chapter includes the laws and regulations associated with Federal labor standards administration and enforcement. The second chapter lists the responsibilities of contractors and of state, tribal, and local contracting agencies that administer HUD programs. The third chapter lists wage basics, including wage decisions, wage classifications, and wage rates, to provide background for the rest of the Guide. The fourth chapter discusses reviewing and reporting payrolls. The fifth chapter delves into additional work classifications and wage rates. The sixth and final chapter discusses sanctions and restitution. For further background, the DBLS Agency Guide may be used as a reference.

Finally, not all HUD construction projects are covered by Davis-Bacon wage rates. For the purpose of this Guide, we are assuming that a determination has already been made that Davis-Bacon wage rates are applicable. Should you wish assistance in determining whether Davis-Bacon wage rates apply to a particular project or if you need other related technical assistance, please consult with the HUD Labor Standards Field staff for your area.

RESOURCE

Visit the Office of Davis Bacon and Labor Standards online:
www.hud.gov/program_offices/davis_bacon_and_labor_standards

BASIC DBA DEFINITIONS

See Section 3 in the Agency Guide.



LAWS AND REGULATIONS

The Davis-Bacon Act (DBA)

The Davis-Bacon Act (DBA) requires the payment of prevailing wage rates (determined by the U.S. Department of Labor) to all laborers and mechanics on Federal government and District of Columbia construction projects in excess of \$2,000. Construction includes alteration and/or repair, including painting and decorating, of public buildings or public works. Most HUD construction work is not covered by the DBA itself since HUD seldom contracts directly for construction services. Most often, if DB applies to a HUD project is it because of a labor provision contained in one of HUD's "Related Acts" (see 5.9 in the Agency Guide). The Related Acts are often referred to as the Davis-Bacon and Related Acts or DBRA.

The Contract Work Hours and Safety Standards Act (CWHSSA)

CWHSSA requires time and one-half pay for overtime (OT) hours (over 40 in any workweek) worked on a covered project. The CWHSSA applies to both direct federal contracts and to federally-assisted contracts where those contracts require or involve the employment of laborers and mechanics and where federal wage standards (e.g., Davis-Bacon or HUD-determined prevailing wage rates) are applicable. CWHSSA provisions apply to all laborers and mechanics, including watchmen and guards, employed by any contractor or subcontractor. CWHSSA also applies to maintenance laborers and mechanics employed by contractors or subcontractors engaged in the operation of Public Housing Agencies (PHA), Tribally Designated Housing Entities (TDHE), and Indian Housing Agencies (IHA) developments.

Exemptions:

CWHSSA O/T provisions do not apply where the federal assistance is only in the nature of a loan guarantee or insurance.

CWHSSA O/T provisions do not apply to prime contracts of \$100,000 or less.

The Copeland Act (Anti-Kickback Act)

The Copeland Act makes it a Federal crime for anyone to require any laborer or mechanic (employed on a Federal or Federally-assisted project) to kickback, (i.e., give up or pay back) any part of their wages. The Copeland Act requires every employer to submit weekly certified payroll reports, and regulates permissible payroll deductions.

The Fair Labor Standards Act (FLSA)

The FLSA governs matters such as federal minimum wage rates and O/T. These standards are generally applicable to any labor performed and may be pre-empted by other (often more stringent) federal standards such as the DBRA prevailing wage requirements and CWHSSA O/T provisions. The authority to administer and enforce FLSA provisions resides solely with DOL.

Davis-Bacon Regulations

DOL has published rules and instructions concerning Davis-Bacon and other labor laws in the Code of Federal Regulations (CFR). These regulations can be found in Title 29 CFR Parts 1, 3, 5, 6, and 7. Part 1 explains how DOL establishes and publishes DBA wage determinations (also referred to as wage decisions) and provides instructions on how to use the determinations. Part 3 describes Copeland Act requirements for payroll deductions and the submission of weekly CPRs. Part 5 covers the labor standards provisions that are in contracts relating to Davis-Bacon Act wage rates and the responsibilities of contractors and contracting agencies to administer and enforce the provisions. Part 6 provides for administrative proceedings enforcing Federal labor standards on construction and service contracts. Finally, Part 7 sets parameters for practice before the Administrative Review Board. These regulations are used as the basis for administering and enforcing the laws.

DOL Regulations are available online: www.ecfr.gov/current/title-29

Construction Contract Provisions and Labor Standards Administration

Labor standards administration involves the activities that take place primarily before construction begins. Administration sets the stage for the compliance activities that occur during the construction phase. The first and sometimes most difficult step is determining whether and to what extent Davis-Bacon wage standards apply to a particular contract or project. The Factors of Labor Standards Applicability (see Appendix II-6) should be helpful. Most HUD-assisted construction work is covered by Davis-Bacon, but there are some exceptions. The best and safest approach is to first assume that Davis-Bacon requirements will be applicable whenever the contract/project involves construction work valued in excess of \$2,000, then look more closely to see if there is any reason for non-coverage. Each contract subject to Davis-Bacon labor standards requirements must contain labor standards clauses and a Davis-Bacon wage decision. These documents are normally wound into the contract specifications.

The labor standards clauses

The contract for construction is the vehicle to ensure contractor compliance and Davis-Bacon wage enforcement. Therefore, the bid specifications and/or the contract for each project subject to Davis-Bacon wage rates must contain both a Davis-Bacon wage decision and labor standards clauses. The labor standards clauses describe the responsibilities of the contractor concerning Davis-Bacon wages and obligate the contractor to comply with the Davis-Bacon wage and reporting

requirements and with the O/T provisions of the CWHSSA (applicable only when the prime contract is valued at over \$100,000). The labor standards clauses also provide for remedies in the event of violations, including the withholding of payments due to the contractor to ensure the payment of wages or liquidated damages that may be found due, and sanctions should violations occur. These contract clauses enable the contract administrator to enforce the Federal labor standards applicable to the project. HUD has standard forms that contain contract clauses. For example, the HUD-92554M, Supplementary Conditions Of The Contract for Construction, which is issued primarily for FHA (Federal Housing Administration) multifamily housing and other construction projects administered by HUD; the HUD-4010, Federal Labor Standards Provisions, which is used for CDBG (Community Development and Block Grant) and HOME (HOME Investment Partnerships Program) projects; and the HUD-5370, General Conditions for Construction Contracts (construction contracts >\$150,000) or the HUD-5370-EZ, General Contract Conditions for Small Construction/Development Contracts (construction contracts >\$2,000 but ≤\$150,000) which are used for Public and Indian Housing projects. These should be wound into the contract specifications or incorporated by specific reference in the bid/contract documents (see Labor Relations Letter 96-03).



Davis-Bacon Wage Decisions

The term “wage decision” includes the original decision and any subsequent decisions that modify, supersede, correct, or otherwise change the provisions of the original decision. The term “wage decision” is used within this Guide to mean the Davis-Bacon wage decision. The terms “wage decision” and “wage determination” are used interchangeably. A wage decision is a schedule of construction work classifications, wage rates, and fringe benefits that represent the minimum rates that must be paid to workers employed in those classifications. Wage decisions are established for defined geographic areas, usually by county or group of counties, and four general characters of construction work.

RESOURCE

The Department of Housing and Urban Development (HUD) one stop forms resource page.

www.hud.gov/program_offices/administration/hudclips/forms

RESOURCE

All current Davis Bacon wage decisions can be accessed online at no cost at www.sam.gov





CONTRACTOR RESPONSIBILITIES

The principal contractor is responsible for the full compliance of all employers (the contractor, subcontractors, and any lower-tier subcontractors) with the labor standards provisions applicable to the project. Because of the contractual relationship between a prime contractor and their subcontractors, subcontractors generally should communicate with the contract administrator only through the prime contractor. (See Contract Administrator Responsibilities, below.)

CONTRACT ADMINISTRATOR RESPONSIBILITIES

The contract administrator is responsible for the proper administration and enforcement of the Federal labor standards provisions on contracts covered by Davis-Bacon requirements. This term is used to represent the person (or persons) who will provide labor standards advice and support to contractors and other project principals (e.g., owner, sponsor, architect), including providing the proper Davis-Bacon wage decision (see 6.1, The Wage Decision) and ensuring that the wage decision and contract clauses are incorporated into the contract for construction. The contract administrator also monitors labor standards compliance (see Section 12, Payroll Compliance Reviews and Corrections, in the Agency Guide) by conducting interviews with construction workers at the job site and reviewing payroll reports, and oversees any enforcement actions that may be required.

The contract administrator could be an employee or agent of HUD, or of a city or county or public housing agency. For HUD projects administered directly by HUD staff, usually FHA-insured multifamily projects, the contract administrator will be the HUD Labor Standards field staff. But many HUD-assisted projects are administered by local contracting agencies such as PHAs, TDHEs, and States, cities and counties under HUD's CDBG and HOME programs.

In these cases, the contract administrator will likely be local agency staff. In either case, the guidance for contractors remains essentially the same.

DOL also has a role in monitoring Davis-Bacon administration and enforcement. In addition, DOL has independent authority to conduct investigations. A DOL investigator or other DOL representative may visit Davis-Bacon construction sites to interview construction workers or review payroll information.

RESOURCE

Program technical guidance

For interpretations of program requirements or handbooks and instructions on the use of forms:

Housing Programs - See our [Contact List](#) for help.



WAGE BASICS

The Wage Decision

Davis-Bacon labor standards stipulate the wage payment requirements for skilled workers, operators, truck drivers, and laborers—for example: carpenters, electricians, plumbers, roofers, rollers, screeds, bulldozers, water wagons, dump trucks, and other construction work classifications that may be needed for the project. The Davis-Bacon wage decision that applies to the project contains a schedule of work classifications and wage rates that must be followed.

Remember, the wage decision is contained in the contract specifications along with the labor standards clauses. See 5.12 in the Agency Guide.

The work classifications and wage rates

A Davis-Bacon wage decision is simply a listing of different work classifications and the minimum wage rates that must be paid to anyone performing work in those classifications.

You'll want to make sure that the work classifications you need are contained in the wage decision, and make certain that you know exactly what wage rate(s) you will need to pay. Some wage decisions cover several counties and/or types of construction work (e.g., residential and commercial work) and can be lengthy and difficult to read. The contract administrator (HUD Labor Standards field staff or local agency staff) is available to assist with any trouble reading the wage decision or finding the applicable work classification(s).

To make reading lengthy wage decisions easier, a contract administrator may prepare a Project Wage Sheet (HUD-4720). This sheet is a one-page transcript that will show only the classifications and wage rates for a project. A blank copy of a Project Wage Rate Sheet is provided in the Appendix.

RESOURCE

A fillable version of this form is available online at HUDClips www.hud.gov/program_offices/administration/hudclips/forms. Contact the contract administrator monitoring the project for assistance with a Project Wage Rate.

Posting the wage decision, Davis-Bacon poster, and Additional Classifications wages

The prime contractor is responsible for posting a copy of the wage decision (or the Project Wage Rate Sheet), a copy of the DOL Davis-Bacon poster titled Employee Rights Under the Davis-Bacon Act (Form WH-1321), and Additional Classifications wages at the job site in a place that is easily accessible to all the construction workers employed on the project and where the wage decision and poster will not be destroyed by wind, rain, etc. The purpose of this posting is to provide information to the construction laborers and mechanics working on the project about their entitlement to the prevailing wage for their trade, and to advise them whom to contact (the contract administrator) if they have any questions or want to file a complaint.

RESOURCE

The Employee Rights Under the Davis Bacon Act poster replaces the Notice To All Employees. The new poster is available in English and Spanish online at: www.hud.gov/program_offices/davis_bacon_and_labor_standards/olrmk13.



REVIEWING PAYROLLS

Certified Payroll Reports (CPRs)

To demonstrate compliance with labor standards requirements, each employer shall prepare, certify, and submit payroll reports for each week to the sponsor, applicant, or owner for any contract work that is performed. See 29 CFR § 5.5(a)(3)(ii) for information on CPRs.

CPR format

Employers on an FHA project are required to use the HUD-authorized Electronic Payroll System (EPS) to submit CPR reports. If an approved electronic payroll reporting system is not being used by the LCA, the employer must ensure that all information from DOL Payroll Form WH-347 is included and that the LSS can reasonably interpret it. Form WH-347 is available online at www.dol.gov/whd/forms/wh347.pdf.

Submission requirements

Each employer shall submit payroll reports beginning with the first week such employer performs work on the site of the work. Employers shall submit reports promptly following the close of each such pay week.

“No Work” payrolls

Employers are not required to submit reports for weeks during which no work was performed at the site of work, provided that the payroll reports are numbered sequentially or that the employer has provided written notice that its work on the project has been suspended.

Weekly payroll certification

Each weekly payroll submitted shall be accompanied by a “Statement of Compliance” that bears the original signature of the owner, executive/corporate officer, or a designee authorized by the owner or officer. The signature must be in ink; pencil is not acceptable. Signature stamps, photocopies, and facsimiles are not acceptable. The employer may utilize the reverse side of the DOL Payroll Form WH-347 as its Statement of Compliance or another document that contains the same language prescribed on the reverse of the WH-347.

False Submissions

The falsification of any of the above certifications may subject the employer to civil or criminal prosecution under § 1001 of Title 18 and § 231 of Title 31 of the United States Code (USC).

Payroll Review and Submission

The prime contractor should review each subcontractor’s payroll reports for compliance prior to submitting the reports to the contract administrator. Remember, the prime contractor is responsible for the full compliance of all subcontractors on the contract and will be held accountable for any wage restitution that may be found due to any laborer or mechanic that is underpaid and for any liquidated damages that may be assessed for O/T violations. All the payroll reports for any project must be submitted to the contract administrator through the prime contractor.

An alert prime contractor that reviews subcontractor payroll submissions can detect any misunderstandings early, prevent costly underpayments, and protect itself from financial loss should underpayments occur.

Payroll Retention

Every contractor (including every subcontractor) must keep a complete set of their own payrolls and other basic records—such as employee addresses and full SSNs, time cards, tax records, evidence of fringe benefit payments—for a Davis-Bacon project for at least three years after the project is completed. The prime contractor must keep a complete set of all the payrolls for every contractor (including subcontractors) for at least three years after completion of the project.

Payroll Inspection

In addition to submitting payrolls to the contract administrator, every contractor (including subcontractors) must make their own copy of the payrolls and other basic records available for review or copying to any authorized representative from HUD or DOL.





REPORTING PAYROLLS

Completing a Payroll Report

Each employer shall maintain payroll records with respect to their own workforce employed at the site of the work. The prime contractor shall maintain such records relative to all laborers and mechanics working at the site of the work during the course of the construction work for at least three years following the completion of the work. Such records shall contain:

Project and contractor/subcontractor information

Each payroll must identify the contractor or subcontractor's name and address, the project name and number, and the week ending date. Week dates must be indicated in the spaces provided. Numbering payrolls is optional but strongly recommended.

Employee information

The name and an individually identifying 4-digit number for each laborer and mechanic. Employers must always maintain each employee's address and full Social Security number (SSN) during the construction of the project and for no less than three years following completion. This information must be made available to the prime contractor, HUD, and/or the LCA upon request.

Employers (prime contractors and subcontractors) must maintain the current address and full SSN for each employee and must provide this information upon request to the contracting agency or other authorized representative responsible for Federal labor standards compliance monitoring. Prime contractors may require a subcontractor to provide this information for the prime contractor's records. DOL has modified form WH-347, Payroll, to accommodate these reporting requirements.

Work classification

Each employee must be classified in accordance with the wage decision based on the type of work they perform.

Apprentices or trainees

The first payroll on which any apprentice or trainee appears must be accompanied by a copy of that apprentice's or trainee's registration in a registered or approved program. A copy of the portions of the registered or approved program pertaining to the wage rates and ratios shall also accompany the first payroll on which the first apprentice or trainee appears.

Split classifications

For an employee that worked in a split classification, make a separate entry for each classification of work performed, distributing the hours of work to each classification accordingly, and reflecting the rate of pay and gross earnings for each classification. Deductions and net pay may be based upon the total gross amount earned for all classifications.

Hours worked

The payroll should show only the regular and O/T hours worked on one particular project. The employer must show both the daily and total weekly hours for each employee. If an employee performs work at job sites other than the project for which the payroll is prepared, those "other job" hours should not be reported on the payroll. In these cases, employers should list the employee's name, classification, hours for this project only, the rate of pay and gross earnings for this project, and the gross earned for all projects. Deductions and net pay may be based upon the employee's total earnings (for all projects) for the week.

Rate of pay

Employers must show the basic hourly rate of pay for each employee for one particular project. If the wage decision includes a fringe benefit and the employer does not participate in approved fringe benefit programs, the employer must add the fringe benefit rate to the basic hourly rate of pay, and must list the O/T rate if O/T hours were worked.

Piece-work

For any piece-work employees, the employer must compute an effective hourly rate for each employee each week based upon the employee’s piece-work earnings for that week. To compute the effective hourly rate, divide the piece-work earnings by the total number of hours worked, including consideration for any O/T hours.

The effective hourly rate must be reflected on the certified payroll. This hourly rate may be no less than the wage rate (including fringe benefits, if any) on the wage decision for the classification of work performed. It does not matter that the effective hourly rate changes from week to week, only that the rate is no less than the rate on the wage decision for the classification of work performed.

Remember, the O/T rate is computed at one and one-half times the basic rate of pay plus any fringe benefits. For example, if the wage decision requires \$10/hour basic plus \$5/hour fringe benefits, the O/T rate would be: $(\$10 \times 1.5) + \$5 = \$20/\text{hour}$.

Gross wages earned

Show the gross amount of wages earned for work performed on a particular project. Note: Employees with work hours and earnings on other projects may show gross wages for a particular project over gross earnings from all projects (e.g., \$425.40/\$764.85) and base deductions and net pay on the “all projects” earnings.

Deductions

Show the amounts of any deductions from the gross earnings. “Other” deductions should be identified (e.g., Savings Account or Loan Repayment). Any voluntary deduction (i.e., not required by law or by an order of a proper authority) must be authorized in writing by the employee or provided for in a collective bargaining (union) agreement. A short note signed by the employee is all that is needed and should accompany the first payroll on which the other deduction appears. The note needs to show the type, amount, and frequency of the deduction. A new deduction authorization is required when any of the aforementioned items change.

MORE INFO

Only one employee authorization is needed for recurring (e.g., weekly) “other” deductions. Written employee authorization is not required for income tax and Social Security deductions.



Net pay

Show the net amount of wages paid.

Statement of Compliance

The Statement of Compliance is the certification. It is located on the reverse side of a standard payroll form (WH-347). Employers must be sure to complete the identifying information at the top, particularly if attaching the Statement of Compliance to an alternate payroll form such as a computer payroll. Also, the employer must check either 4(a) or 4(b) if the wage decision contains a fringe benefit. Checking 4(a) indicates that the employer is paying required fringe benefits to approved plans or programs; and 4(b) indicates that the employer is paying any required fringe benefit amounts directly to the employee by adding the fringe benefit rate to the basic hourly rate of pay. If the employer is paying a portion of the required fringe benefit to programs and the balance directly to the employee, the employer must explain those differences in box 4(c).

Signature

For paper payrolls submitted, the payroll is signed with an original signature in ink. The payroll must be signed by a principal of the firm (owner or officer such as the president, treasurer, or payroll administrator) or by an authorized agent (a person authorized by a principal in writing to sign the payroll reports). Signature authorization (for persons other than a principal) should be submitted with the first payroll signed by such an agent. For paper payrolls, signatures in pencil, signature stamps, Xerox copies, PDFs, and other facsimiles are not acceptable.

MORE INFO

Only one Statement of Compliance is required for each employer's weekly payroll no matter how many pages are needed to report the employee data.





ADDITIONAL WORK CLASSIFICATION AND WAGE RATES

After contract award, if it is determined that additional work classifications are required because the wage decision lacks all the necessary classifications and wage rates, the prime contractor and, if applicable, its subcontractors employing workers in such classifications shall request an additional work classification and propose a wage rate and fringe benefits for such classification on form SF-1444, Request for Authorization of Additional Classification and Rate. The contractor or subcontractor shall make its request for a final decision through the LSS or LCA, as appropriate, to DOL at whd-cbaconformance_incoming@dol.gov. The LSS/LCA shall assist the employer in preparing the request and, if necessary, provide guidance on the policies and procedures involved.

Note: Additional work classifications and wage rates may be requested only after the effective wage decision “lock-in” date. (See DOL Regulations at 29 CFR Part 5 § 5.5(a)(1)(ii).)

Additional Work Classification and Wage Rate Parameters

Signature

Additional work classifications must be signed by DBLS for FHA-insured projects managed by HUD and signed by the LCA contracting officer for projects managed by LCAs, then forwarded to DOL with the applicable wage decision where:

The requested work classification is used in the area of the project by the construction industry;

The work that will be performed by the requested work classification is not performed by a work classification that is already contained within the applicable wage decision;

The proposed wage rate for the requested work classification bears a reasonable relationship to the wage rates on the wage decision; and

The workers that will be employed in the requested work classification (if it is known who the workers are or will be) or the workers’ representatives agree with the proposed wage rate.

General guide

The wage rate and fringe benefits proposed for any classification must be in accordance with the guidance available in All Agency Memorandum 213. The proposed wage rate and fringe benefits should bear a reasonable relationship to the entirety of the rates within the relevant category. There are four basic categories: skilled crafts, laborers, truck drivers, and power equipment operators. Additional classifications proposed for power equipment operators must specify the type(s) of power equipment involved.

Making the Request

Although a request for additional work classification and wage rate may be prompted following an LSS/LCA review, the proposal must originate with the prime contractor/employer that will utilize the work classification. The prime contractor/employer must submit the request in writing. A basic request must identify the contract/project involved, the work classification requested, and the wage rate, including any bona fide fringe benefits proposed. In some cases, it may be necessary for the prime contractor/employer to describe the work that the requested work classification would perform. The prime contractor/employer should use form SF-1444, Request for Authorization of Additional Classification and Rate, to submit the request.

LSS/LCA Review of Request

The LSS/LCA will review the prime contractor/employer’s request to determine if it satisfies the approval criteria at 5.12.1.9.2. The LSS/LCA will contact the prime contractor/employer if clarification or additional information is needed to complete the review.

Signing the request, reporting to DOL

If the LSS/LCA review finds that the requested work classifications and wage rate/fringe benefits meet the criteria at 5.12.1.9.2, the LSS/LCA submits the completed SF-1444, related documentation, and the applicable wage decision to the DOL National Office for final decision using DOL’s dedicated email address:

whd-cbaconformance_incoming@dol.gov.

Disagreement with the request; referring for DOL decision

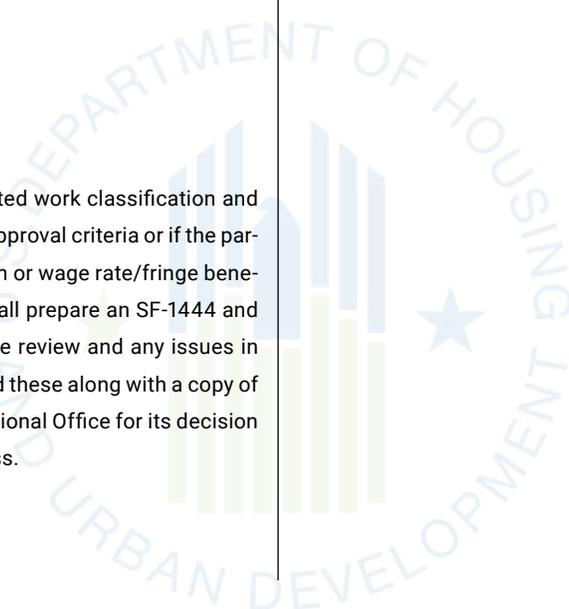
If the LSS/LCA review finds that the requested work classification and wage rate/fringe benefits fails to meet the approval criteria or if the parties do not agree on the proper classification or wage rate/fringe benefits for the work described, the LSS/LCA shall prepare an SF-1444 and a written report explaining the results of the review and any issues in dispute among the parties, and shall forward these along with a copy of the applicable wage decision to the DOL National Office for its decision using the same dedicated DOL email address.

DOL decision

DOL regulations permit 30 days for DOL to respond to the SF-1444. DOL will notify the LSS/LCA in writing of its decision.

DOL approval

When DOL approves the requested additional work classification and wage rate/fringe benefits, the LSS/LCA shall provide a copy of the DOL notice of approval to the prime contractor/employer with instructions that the additional work classification and wage rate/fringe benefits must be posted on the job site with the wage decision.



DOL disapproval

When DOL disapproves the requested work classification and wage rate/fringe benefits, DOL will notify the LSS/LCA in writing of the reasons why the request cannot be approved. DOL may also indicate what work classifications/wage rate/fringe benefits could be approved for the work involved if a modified request is submitted.

Notification to the prime contractor/employer

The LSS/LCA will notify the prime contractor/employer in writing of the results of the LSS/LCA review and/or DOL decision and provide a copy of the DOL notice.

Requests for DOL reconsideration

The LSS/LCA, the prime contractor/employer, or other interested parties may request reconsideration of the DOL decision on a requested additional work classification and wage rate/fringe benefits. Such requests must be made in writing accompanied by a full statement of the interested party's views and any supporting wage data or other pertinent information.





SANCTIONS AND RESTITUTION

Introduction

Even in the best of circumstances, things can go wrong. In a Davis-Bacon context, “things going wrong” usually means there’s a difference of opinion or a dispute about whether and to what extent underpayments have occurred. These disputes are usually between the contract administrator and one or more employers (the prime contractor and/or a subcontractor). The dispute may involve something simple such as an additional classification request that is pending before DOL, or something as significant as investigative findings following a complaint of underpayment. This chapter discusses some of the things you might expect, and what you can do to make your views known and to lessen any delays in resolving the problem or issue.

Administrative Review on Labor Standards Disputes

The labor standards clauses in the contract and DOL regulations provide for administrative review of issues where there is a difference of views between the contract administrator and any employer. The most common circumstances include:

Additional classifications and wage rates

Additional classification and wage rate requests are sometimes denied by DOL. An employer that is dissatisfied with the denial can request reconsideration by the DOL Wage and Hour Administrator. The employer may continue to pay the wage rate, as requested, until a final decision is rendered on the matter. When the final decision is known, the employer will be required to pay any additional wages that may be necessary to satisfy the wage rate that is established.

Reconsideration

DOL normally identifies the reasons for denial in its response to the request. Any interested person (e.g., the contract administrator, employer, or representatives of the employees) may request reconsideration of

the decision on the additional classification request.

The request for reconsideration must be made in writing and must thoroughly address the denial reasons identified by DOL. Employer requests for reconsideration should be made through the contract administrator but may be made directly to DOL. (See DOL Regulations 29 CFR § 1.8.) All requests initiated by or made through the contract administrator or HUD must be submitted through HQLS (Headquarters Office Davis-Bacon and Labor Standards).

Administrative Review Board

Any interested party may request a review of the Administrator’s decision on reconsideration by DOL’s Administrative Review Board. DOL regulations 29 CFR Part 7 explain the procedures for such reviews. (See also 29 CFR § 1.9.)

Findings of underpayment

Compliance reviews and other follow-up enforcement actions may result in findings of underpayment. The primary goal in every case and at every step in this process is to reach agreements about who may have been underpaid and how much wage restitution may be due, and to promptly deliver restitution to any underpaid workers. The contract administrator will usually work informally with employers to reach such agreements.

Rulings and interpretations unrelated to findings of underpayment

DOL is the authority for rulings and interpretations unrelated to findings of underpayments. This includes disputes concerning the prevailing wage rates as determined by DOL, DBRA applicability, character of work decisions, and interpretation and application of DOL regulations at 29 CFR Parts 1, 3, and 5. These and other such matters must be referred to the DOL Wage and Hour Administrator for their ruling and/or interpretation per 29 CFR § 5.13. Any request for a ruling or an interpretation from the DOL Administrator via DBLS must be submitted through HQLS with a copy to the local LSS.

Disputes concerning findings of underpayment

Underpayments usually occur when a contractor or subcontractor does not properly pay wages according to the approved wage determination and it has been identified as part of a Davis-Bacon and DBLS enforcement action. There may be other situations that also create underpayments, and they can originate from the employer, prime contractor, or any other interested party. Any underpayment decision by DBLS will include a formal decision letter with a Notice of Right to Appeal.

DOL review

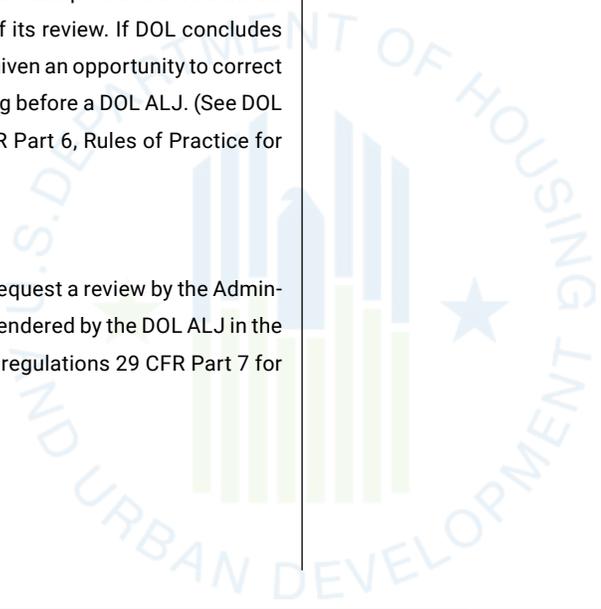
DOL will review the contract administrator’s report and the arguments against the findings presented in the hearing request. DOL may affirm or modify the findings based upon the materials presented. You will be notified in writing by DOL of the results of its review. If DOL concludes that violations have occurred, you will be given an opportunity to correct any underpayments or to request a hearing before a DOL ALJ. (See DOL Regulations 29 CFR § 5.11 (b) and 29 CFR Part 6, Rules of Practice for Administrative Proceedings.)

Administrative Review Board

Contractors and/or subcontractors may request a review by the Administrative Review Board of the decision(s) rendered by the DOL ALJ in the administrative hearing process. See DOL regulations 29 CFR Part 7 for more information about this proceeding.

Withholding

The contract administrator shall cause the withholding of payments due to the prime contractor to ensure the payment of wages that are believed to be due and unpaid (e.g., if wage underpayments or other violations are not corrected within 30 days after written notification to the prime contractor). DOL may also direct the withholding of contract payments for alleged wage underpayments. Withholding is serious and is not taken unless warranted. If withholding is deemed necessary, the contractor will be notified in writing. Only the amounts needed to meet the contractor’s (and/or subcontractors’) liability shall be withheld.



Deposits and Escrows

In some situations, certain labor standards issues are not or cannot be resolved in time to meet project closeout schedules. In order to permit a final closing/closeout to proceed while certain labor issues are outstanding, a deposit account (HUD-administered projects, e.g. multifamily housing-insured and grant programs) or an escrow account (LCA-administered projects, e.g., CDBG, HOME, HOPE VI (Housing Opportunities for People Everywhere)) may be established as a guarantee to ensure the payment of any wages that have been or may be found due to workers that were employed in the construction of the project. Deposit and escrow accounts may also hold fringe benefits payments that are due to plans or programs and/or liquidated damages that are assessed for violations of CWHSSA O/T provisions. The deposit or escrow account is controlled by the contract administrator. When a final decision is rendered, the contract administrator makes disbursements from the account in accordance with the decision. Deposit/escrow accounts are established for one or more of the following reasons:

MORE INFO

Remember, the prime contractor is responsible and will be held liable for any wage restitution that is due to any worker employed in the construction of the project, including workers employed by subcontractors and any lower-tier subcontractors. See 3.2, Responsibilities of the Principal Contractor, and 12.4, Restitution for Underpayment of Wages, in the Agency Guide.

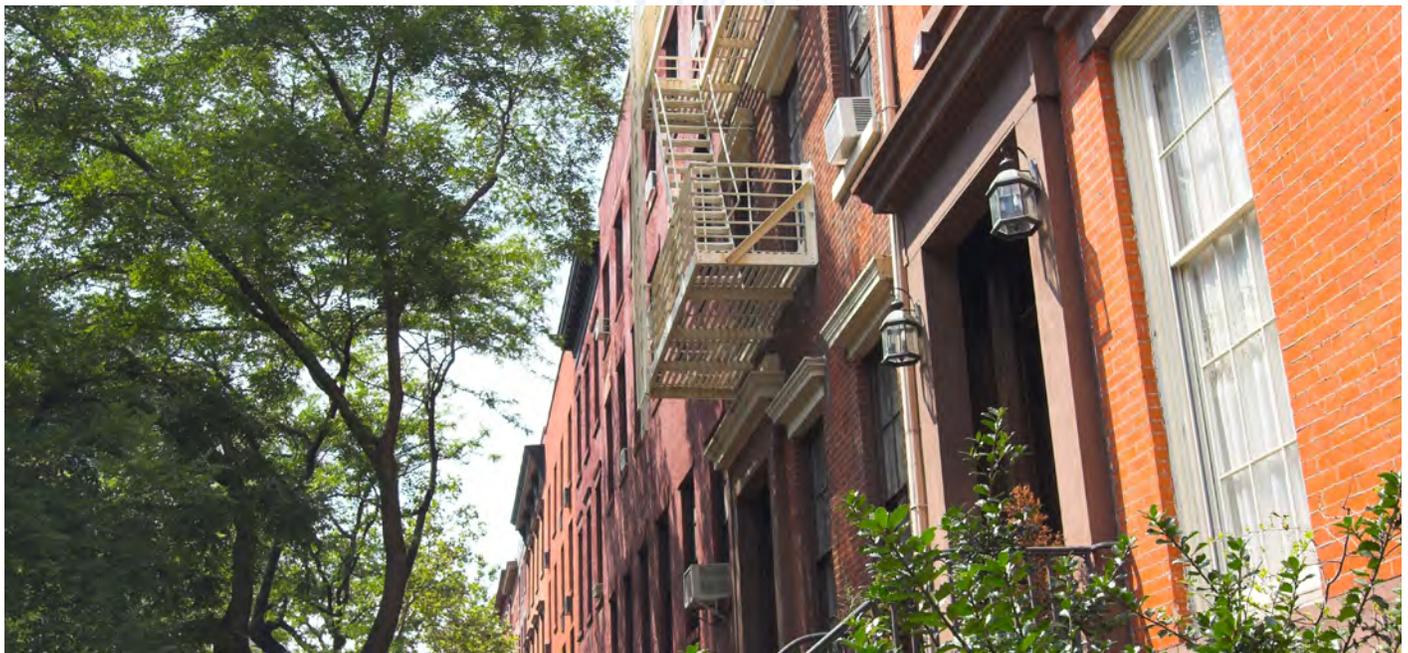
Where the parties have agreed to amounts of wage restitution that are due, but the employer hasn't furnished evidence yet that all the underpaid workers have received their back wages (e.g., unfound workers)

The amount of the deposit is equal to the total gross amount of restitution due to workers lacking payment evidence. As these workers are paid and proper documentation is provided to the contract administrator, amounts corresponding to the documented payments are returned to the depositor. Amounts for any workers who cannot be located are held in the deposit/escrow account for three years and disposed as described in Section 11.4.1 of this Guide;

Sometimes, wage restitution cannot be paid to an affected employee because, for example, the employee has moved and cannot be located. After wage restitution has been paid to all the workers who could be located, the employer must submit a list of any workers who could not be found and paid (unfound workers). See 12.4.6 in the Agency Guide for more information.

Where underpayments are suspected or alleged and an investigation has not yet been completed

The deposit is equal to the amount of wage restitution and any liquidated damages, if applicable, that are estimated to be due. If the final determination of wages due is less than the amount estimated and placed in the escrow account, the escrow will be reduced to the final amount and the difference will be returned to the depositor. If the parties agree to the investigative findings, the amounts due to the workers will be paid by the employer. As these workers are paid and proper



documentation is provided to the contract administrator, the gross amounts corresponding to the documented payments are returned to the depositor;

If the employer is unable to make the payments to the workers (e.g., lacks the funds necessary), the contract administrator may make disbursements directly to the workers in the net amounts calculated by the employer. The amounts withheld from the workers for tax deduction will be returned to the employer as payments to workers are made. The employer shall be responsible for reporting and transmitting withholdings to the appropriate agencies.

If the employer is not cooperating in the resolution, the contract administrator shall make disbursements to the workers in accordance with the schedule of wages due. Amounts for unfound workers will be retained as described in Section 13.4.6 in the Agency Guide.

If the parties do not agree and an administrative hearing is requested, the escrow will be maintained.

MORE INFO

Remember, if you have any questions or need assistance concerning labor standards requirements, help is always available. Contact the contract administrator for the project you're working on or the HUD Field Labor Standards staff in your area.

Where the parties are waiting for the outcome of an administrative hearing that has been or will be requested contesting a final determination of wages due

The deposit shall be equal to the amount of wage restitution and liquidated damages, if applicable, that have been determined due. Once a final decision is rendered, disbursements from the escrow account are made in accordance with the decision.

Administrative Sanctions

Contractors and/or subcontractors that violate the labor standards provisions may face administrative sanctions imposed by HUD and/or DOL.

DOL debarment

Contractors and/or subcontractors that are found by the Secretary of Labor to be in aggravated or willful violation of the labor standards provisions of the DBRA will be ineligible (debarred) to participate in any DBRA or Davis-Bacon Act contracts for up to three years. Debarment includes the contractor or subcontractor and any firm, corporation, partnership, or association in which the contractor or subcontractor has a substantial interest. Debarment proceedings can be recommended by the contract administrator or initiated by DOL. Debarment proceedings are described in DOL regulations 29 CFR § 5.12.

HUD sanctions

HUD sanctions may include Limited Denials of Participation (LDPs), debarments, and suspensions.



Limited Denial of Participation

HUD may issue to the employer an LDP, which prohibits the employer from further participation in HUD programs for a period of up to one year. The LDP is usually effective for the HUD program in which the violation occurred and for the geographic jurisdiction of the issuing HUD Office. HUD regulations concerning LDPs are found at 24 CFR §§ 24.700-24.714.

Debarment and suspensions

In certain circumstances, HUD may initiate its own debarment or suspension proceedings against a contractor and/or subcontractor in connection with improper actions regarding Davis-Bacon obligations. For example, HUD may initiate debarment where a contractor has been convicted for making false statements (such as false statements on certified payrolls or other prevailing wage certifications), or initiate suspension where a contractor has been indicted for making false statements. HUD regulations concerning debarment and suspension are found at 24 CFR Part 24.

Falsification of Certified Payroll Reports

Cases that involve certified payroll falsification may be referred to DOL for its investigation at the outset or referred to DOL for administrative review/hearings or other sanctions.

All referrals suggesting consideration for criminal prosecution must be submitted through the established hierarchy:



States may submit any such recommendation to DOL directly.

MORE INFO

Remember, if you have any questions or need assistance concerning labor standards requirements, help is always available. Contact the contract administrator for the project you're working on or the HUD Field Labor Standards staff in your area.



APPENDIX B

DAVIS-BACON ACT WAGE DETERMINATION FOR CADDO PARISH, LOUISIANA

"General Decision Number: LA20250002 07/04/2025

Superseded General Decision Number: LA20240002

State: Louisiana

Construction Type: Heavy

Counties: Acadia, Ascension, Bossier, Caddo, Calcasieu, East Baton Rouge, Lafayette, Lafourche, Livingston, Ouachita, Rapides, St Landry, St Martin, Terrebonne, Webster and West Baton Rouge Counties in Louisiana.

HEAVY CONSTRUCTION PROJECTS (includes flood control, water & sewer lines, and water wells; excludes elevated storage tanks, industrial construction-chemical processing, power plants, and refineries)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	01/24/2025
2	04/04/2025
3	05/02/2025
4	06/20/2025
5	07/04/2025

CARP1098-004 07/01/2024

ASCENSION, EAST BATON ROUGE, LIVINGSTON AND WEST BATON ROUGE PARISHES

	Rates	Fringes
CARPENTER (formbuilding/formsetting).....	\$ 32.59	11.06

CARP1098-014 07/01/2024

CALCASIEU PARISH

	Rates	Fringes
CARPENTER (formbuilding/formsetting).....	\$ 32.59	11.06

CARP1098-015 07/01/2024

ACADIA, LAFAYETTE, ST. LANDRY AND ST. MARTIN PARISHES

	Rates	Fringes
CARPENTER (formbuilding/formsetting).....	\$ 32.59	11.06

CARP1098-016 07/01/2024

BOSSIER, CADDO, OUACHITA, RAPIDES AND WEBSTER PARISHES

	Rates	Fringes
CARPENTER (formbuilding/formsetting).....	\$ 32.59	11.06

* CARP1846-008 07/01/2024

LAFOURCHE and TERREBONNE PARISHES

	Rates	Fringes
CARPENTER (formbuilding/formsetting).....	\$ 32.59	10.52

ELEC0130-009 12/02/2024

LAFOURCHE AND TERREBONNE PARISHES

	Rates	Fringes
ELECTRICIAN.....	\$ 35.00	16.03

ELEC0194-007 09/02/2024

BOSSIER, CADDO, and WEBSTER PARISHES

	Rates	Fringes
ELECTRICIAN.....	\$ 34.00	15.22

ELEC0446-007 09/01/2024

OUACHITA PARISH

	Rates	Fringes
ELECTRICIAN.....	\$ 28.95	1.75%+13.52

ELEC0576-006 03/01/2025

RAPIDES PARISH

	Rates	Fringes
ELECTRICIAN.....	\$ 29.00	4.25%+10.70

ELEC0861-006 09/01/2024

ACADIA, CALCASIEU, LAFAYETTE, AND ST. MARTIN PARISHES

	Rates	Fringes
ELECTRICIAN.....	\$ 31.98	4.34%+13.75

ELEC0995-006 01/01/2025

ASCENSION, EAST BATON ROUGE, LIVINGSTON, ST. LANDRY, AND WEST
BATON ROUGE PARISHES

	Rates	Fringes
ELECTRICIAN.....	\$ 29.47	13.50

* SULA2004-006 04/29/2004

	Rates	Fringes
CARPENTER (all other work).....	\$ 12.81 **	0.00
Cement Mason/Concrete Finisher...	\$ 13.77 **	0.00
Laborers		
Common.....	\$ 8.20 **	0.00
Pipelayer.....	\$ 9.45 **	0.00
Power Equipment Operators		
Backhoe/Excavator.....	\$ 13.01 **	0.00
Bulldozer.....	\$ 13.83 **	0.00
Crane.....	\$ 16.62 **	3.28
Dragline.....	\$ 15.16 **	0.00
Front End Loader.....	\$ 11.50 **	0.00
Motor Grader/Blade.....	\$ 11.75 **	0.00
Oiler.....	\$ 8.59 **	2.50
Trackhoe.....	\$ 12.64 **	0.00
Water Well Driller.....	\$ 11.91 **	2.44
Winch.....	\$ 11.38 **	0.00
Truck Driver, Dump.....	\$ 10.25 **	0.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.75) or 13658 (\$13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any

solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE:

UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative

Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"