

## SECTION 5 CONTROL OF WORK AND MATERIALS

**5-1 AUTHORITY OF ENGINEER** - The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work; all questions which may arise as to the interpretation of the Plans and Specifications; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor; and all questions as to compensation. The Engineer's decision shall be final and he shall have authority to enforce and make effective such decisions and orders which the Contractor fails to carry out promptly.

**5-2 ASSIGNMENT** - The performance of the Contract may not be assigned, except upon the written consent of the Engineer. Consent will not be given to any proposed assignment, which would relieve the original Contractor or its surety of their responsibilities under the Contract nor will the Engineer consent to any assignment of a part of the work under the Contract.

### **5-3 NOT USED**

**5-4 PRECEDENCE OF CONTRACT DOCUMENTS** - In the event of any conflict in the provisions thereof, the terms of said documents shall control, each over the other, in the following order:

- 1) Permits from other agencies as required.
- 2) Contract Change Orders
- 3) Approved Revisions to the Plans
- 4) Addenda
- 5) Special Provisions
- 6) Bid Proposal (for the purpose of ascertaining units for payment of Contract Price only)
- 7) Technical Provisions of the Standard Specifications
- 8) General Provisions of the Standard Specifications
- 9) Reference Specifications
- 10) Project Drawings
- 11) Standard Plans

The plans, specifications and other Contract Documents will govern the work. Anything in the specifications and not on the plans, or on the plans and not in the specifications, shall be as though shown or mentioned in both. Reference specifications and standard plans are a part of the Contract Documents.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.

**5-5 INTERPRETATION AND FAMILIARITY WITH CONTRACT PLANS AND SPECIFICATIONS** - The Contract Plans furnished consist of general drawings and show such details as are necessary to convey the intended design of the construction contemplated. All authorized alterations affecting the requirements and information given on the Contract Plans shall be in writing.

Shop drawings or plans for any work not included in plans furnished by the Engineer, shall be approved by the Engineer before any work involving these plans is performed.

The Contractor shall keep at the work site a copy of the Plans and Specifications, including addenda and change orders, to which the Engineer shall have access at all times.

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 as part of the work at no additional cost to City or left in place and protected by the Contractor, at the direction of the Engineer.

It is the responsibility of the Contractor to be so thoroughly familiar with all aspects of the project, including the work of its own forces and all subcontractors, that the following matters shall be called to the prompt attention of the Engineer before an error is made on the job:

1. Errors and omissions in the drawings, Contract Plans or Special Provisions,
2. Work on the drawings, Contract Plans or Special Provisions which, if so constructed would result in confusion or interference with other work or the work of other trades, including the location of fixtures and equipment;

3. The need to coordinate work of the various sections of the Special Provisions to assure orderly sequence of installation of construction elements with the provisions for accommodating items to be installed later;
4. The need to take field measurements, verify field conditions and compare these with other information known to the Contractor and to the Contract Documents before beginning activities.

The Contractor shall, upon discovering any error, inconsistency, omission or conflict in the plans or specifications, immediately call it to the attention of the Engineer.

#### **5-6 SHOP DRAWINGS AND SUBMITTALS**

**5-6.1 Shop Drawings** - When shop drawings or other details are necessary to adequately control the work or are required by the Contract Documents, or requested by the Engineer; they shall be prepared in accordance with current modern engineering/architectural practice and at the Contractor's expense. Drawings shall be of a size and scale to show clearly all necessary details and shall be transmitted by letter to the Engineer for review or correction at least ten (10) working days before such drawings will be required for commencing the work.

Materials shall not be furnished or fabricated nor any work done for which drawings are required, before the City has reviewed and approved the drawings. Any work or fabrication prior to City approval shall be at the Contractor's sole risk.

Review and approval of drawings by the Engineer shall not relieve the Contractor from the responsibility of deviations from the Contract Documents unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal submitted with the drawings. The Contractor shall be responsible for the correctness of the drawings, for shop fits and field connections, and for the results obtained by use of such drawings.

The Engineer's review and approval is a general review for compliance with the Contract Documents only, and does not constitute a detailed check of dimensions, quantities, materials, or fabrication processes. This review shall not relieve the Contractor, subcontractor, or vendor from conforming to all aspects of the Contract Documents, and neither the Engineer nor the City shall be held responsible for any errors or omissions by reason of such review.

**5-6.2 Submittals** – Contractor shall provide all submittals required by the Specifications in sufficient time to allow at least ten (10) working days for the Engineer's review and approval in advance of planned incorporation of the subject products or materials into the Work. Said products and materials shall not be used in the Work until the Engineer has issued a written acceptance of their submittal.

Any work shown on the plans to be installed "per manufacturer's specifications, recommendation, or direction" requires a submittal. All materials specified by manufacturer's name, model number, or product code, and their approved equals, also require a submittal. Contractor shall submit one copy of a submittal for the Engineer's review and file, plus any additional copies that he wishes to be returned for his records. Each copy shall identify the product name, model, option, and any other necessary identifier. Submittals shall include product source, specifications, certifications, bulletins, and similar literature in sufficient details to demonstrate that the product is in compliance with the Specifications.

**5-7 CONSTRUCTION STAKING** - Such stakes or marks will be set by the Contractor as the Engineer determines to be necessary to establish basic control lines and grades required for the completion of the work.

Unless otherwise specified in the Special Provisions, basic initial horizontal and vertical control points will be established by the Engineer at no cost to the Contractor. These points shall be used as datum for the work. All additional survey, layout, and measurement work shall be the Contractor's responsibility. The Engineer will provide paint markings for limits of spot pavement repairs and patching in the field.

The Contractor shall deliver written notice at least five (5) working days prior to the time when he will require the services of the Engineer for setting initial control points.

The Contractor shall preserve all initial control points, permanent survey monuments, benchmarks or boundary markers, in their proper places until authorized to remove and reset them by the Engineer. All expenses incurred in resetting such survey controls shall be paid by the Contractor.

All construction surveys and measurements, stakes and marks and all such related work necessary to prosecute the project except such initial basic control survey furnished by the Engineer, shall be the Contractor's responsibility and the costs thereof included in the various Contract items of work. Such construction surveys shall be performed only under supervision of properly experienced and licensed persons and be sufficiently extensive, in the opinion of the Engineer, to assure compliance with the plans and specifications.

**5-8 SUPERINTENDENCE** - At all times during the progress of the work, the Contractor shall have an authorized representative or agent present at the construction site who shall have complete authority to represent and to act for the Contractor. The Contractor's representative may not be a subcontractor or an employee of the subcontractor.

Before initial work is begun on the Contract, the Contractor shall file with the Engineer, addresses and telephone numbers where the superintendent can be reached during all hours, including nights and weekends, when the work is not in progress. The Contractor's authorized representative shall: Supervise the work crews and subcontractors; coordinate all construction activities and operations including but not limited to traffic control, work by others (including utility companies) and public notifications. Lack of supervision shall be cause to suspend the work as provided for in Section 8-3 of these General Provisions.

When such superintendence is not provided as required, the Engineer has the discretion to allow Work to proceed in the interest of timely progress. In such cases, the City may assess the Contractor for the lack of said superintendence. The assessment shall be based on and the currently adopted billing rate for city engineering staff, plus a twenty (20) percent markup for administration, multiplied by the number of hours that superintendence has not been provided. The assessment will be deducted from any payments due to the Contractor.

Whenever the Contractor or his authorized representative is not present on any particular part of the work where it may be desired to give direction, orders may be given by the Engineer, which shall be received and obeyed by whoever may have charge of the particular work in reference to which the orders are given.

Full compensation for conforming to the requirements of this provision shall be considered included in the Contract prices paid for the various items of work and no additional compensation shall be allowed therefor.

**5-9 DEFECTIVE AND UNAUTHORIZED WORK** - All materials, parts and equipment furnished by the Contractor in the work shall be new, high grade, and free from defects. Used or secondhand materials, parts and equipment may be used only if permitted by the Special Provisions. Recycled materials may be used if they are high grade and free of defects and conform to the project specifications. Workmanship shall be in accordance with generally accepted standards. All material and workmanship shall be subject to the Engineer's approval.

Materials and workmanship not conforming to the requirements of the Contract Documents shall be considered defective and will be subject to rejection. When directed by the Engineer, defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at his expense.

Any work done beyond the limits of Work, lines and grades shown on any approved plans or established by the Engineer, or any extra work done without written authority, will be considered as unauthorized and will not be paid for.

Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this article, the Engineer shall have authority to cause defective or unauthorized work to be remedied, or removed and replaced, and to deduct the costs thereof from any monies due or to become due the Contractor. Costs to be deducted shall include twenty-(20) percent markup for engineering and administration by the City.

**5-10 CHARACTER OF WORKMEN** - If any subcontractor or any person of any rank employed by the Contractor who appears to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged from the site immediately by the Contractor upon written direction of the Engineer, and such person or subcontractor shall not again be employed on the work. Disorderly and improper conduct shall be considered to include the lack of professionalism, use of foul language, consumption of alcohol, drugs, or illegal substances during working hours within the area of work, taking an uncooperative or generally obstructionist attitude or action toward directions by the Engineer to prosecute the Work.

The Engineer's direction to discharge workmen under this provision is final. Contractor shall not make claims of, and shall not be entitled to compensation for, inconvenience, increase in overhead, loss of production or profit, or time delay of any kind as a result of workmen being discharged under this provision.

**5-11 CITY FURNISHED MATERIALS** - Materials, if furnished by the City, will be made available as designated in the Special Provisions. The cost of loading, unloading, hauling and handling and placing City-furnished materials shall be considered as included in the bid price for the Contract item involving such City-furnished material.

Contractor shall inspect and assure himself of the amount and soundness of such materials and acknowledge written receipt for them.

The Contractor will be held responsible for all materials furnished to him, and he shall pay all shipping, delivery and storage charges. City-furnished materials lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the City for the cost of replacing City-furnished materials and such costs may be deducted from any monies due or to become due the Contractor.

**5-12 CONSTRUCTION STAGING/STORAGE OF MATERIALS** - Securing a legal staging area outside the roadway serving the public shall be the sole responsibility of the Contractor. Long-term staging for construction materials and equipment is not allowed in front of a business anywhere within the City.

Employee parking by the Contractor and his subcontractors is not allowed in spaces fronting or serving a business during hours of business. All existing parking spaces shall remain safe and open for public use if they are not directly in the area of actively on-going construction activity. Staging of equipment and materials anywhere on the street is only allowed within the project limits and only when authorized by the Engineer in advance. Such staging areas shall be protected by barricades with light flashers and delineated with caution tape. Contractor's attention is directed to Section 6-10, "Public Convenience and Safety," and Section 6-12.2, "Public Parking," of these General Provisions regarding notifications.

The Special Provisions may specify staging sites on public land when available for use under certain conditions. Otherwise, Contractor's proposed staging site shall be approved by the Engineer, and the Contractor shall submit proof of an agreement for said staging area with private property owner(s). Upon acceptance of proposed site by Engineer, Contractor shall obtain a temporary land use permit from the City of Lafayette Planning Division for use of subject site for staging. Adjudication of a land use permit application is a separate process governed by the Lafayette Municipal Code and not part of this Contract, and City does not guarantee the granting of such a permit as part of this Contract. Contractor shall hold a valid permit prior to mobilization. Staging areas visible to passers-by from a public street shall be enclosed with a temporary privacy fence not less than 6' tall. The fence shall be such that the materials and equipment and the Contractor's activities within are substantially concealed from passers-by from a public street. The fence shall be in a condition such that it is not construed as visual blight in the opinion of the Engineer. Streets, sidewalks, and gutters adjoining or adjacent to staging areas shall be swept free of construction dust and debris at the end of each work day. If Contractor fails to comply, City has the sole discretion, but not the obligation, to complete the sweeping at Contractor's expense. Said work shall be charged to the Contractor at the currently published rate for Public Works personnel with a minimum charge of two hours.

Materials shall be stored in such a manner as to insure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, materials shall be placed on platforms or other hard, clean surfaces and covered when directed. Materials shall be stored so as to facilitate inspection. If necessary to protect the public, the material shall be suitably fenced.

Full compensation for construction staging and furnishing storage sites as may be necessary or required by the Contractor shall be considered as included in the various Contract bid items and no additional compensation will be allowed therefor.

**5-13 TRADE NAMES AND ALTERNATIVES** - It is the intent of these specifications to permit the Contractor to supply any of the materials specified or offer an equivalent. The use of recycled materials is encouraged. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words "or approved equal". A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment, which he considers to be equivalent to that indicated. Requests for substitutions of equivalent materials and data substantiating said request shall be made in ample time to permit approval without delaying the work.

The Contractor shall, at his expense, furnish data concerning items offered by him as equivalent to those specified. He shall have the material tested, at no expense to the City, as required by the Engineer. Test shall determine that the quality,

strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, uniformity, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. His findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is found to be not equal to the specified material, the Contractor shall furnish and install the specified material.

In the event an item is specified for purposes of matching, aesthetics, maintenance, interfacing or other reason based on similarity or compatibility with existing or planned facilities, there may be no acceptable substitute.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this subsection.

Cost of any redesign necessitated by the substitution shall be borne by the Contractor.

**5-14 SAMPLES AND TESTS** - Sampling and testing shall be at the sole discretion of the Engineer. The City is not obligated to perform sampling and testing. A decision not to sample or test by the City shall not relieve the Contractor from his responsibility for the quality and workmanship of the contract work and to fully comply with all provisions of the contract.

Before incorporating materials in the work, the Contractor shall submit samples, as the Engineer may require, at no cost to the City. The Contractor, at his own expense, shall deliver materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing shall be by the City at no expense to the Contractor. Contractor shall however bear all costs initial and otherwise of materials or services proposed for substitution. If a test shows that the materials or work in question fails to meet the Specifications, retests shall be taken after the Contractor takes corrective measures. Retests shall be repeated until a passing test is obtained. All costs incurred by the City in retesting shall be deducted from the money due to the Contractor. When required by the Engineer, the Contractor shall furnish at no cost to the City the manufacturer's Certificate of Compliance and other documents which state that tests of quality have been passed.

The Contractor shall notify the City in writing at least fifteen-(15) calendar days in advance, of his intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material. The Contractor shall notify the City at least twenty-four (24) hours in advance of readiness of any completed work for testing.

**5-15 INSPECTION** - All work and materials are subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon on the workday preceding the working day inspection is required. Unless otherwise authorized, work shall be done only in the presence of the Engineer or his authorized representatives. Any work done without proper inspection will be subject to rejection. The Engineer and his authorized representatives shall at all times have access to the work during its construction at shops and yards as well as the project site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with the Contract Documents. Inspection of the work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

No portion of any work or installed materials shall be covered or concealed in any manner whatsoever without first obtaining an inspection. The cost of uncovering and replacing work and materials not inspected shall be borne by the Contractor.

Overtime construction work performed at the option of, or for the convenience of, the Contractor will be inspected by the City at Contractor's expense and will be deducted from any monies due or to become due to him. For any such overtime beyond the regular 8-hour day and for any time worked on Saturday, Sunday, or holidays, the charges will be at cost plus a twenty (20) percent markup for administration.

There will be no charge for the inspection of overtime work ordered by the Engineer.

Projects financed in whole or in part with County, State or Federal funds shall be subject to inspection at all times by the agency involved.

**Final Inspection:** Upon completion of the work the Contractor shall request the Engineer to perform a "Final Inspection". The Engineer will schedule the inspection at the earliest possible date and invite the Contractor to attend. During the Final Inspection the Engineer will note all defects, unacceptable work, incomplete work and other outstanding items. Following the final inspection the Engineer will provide the Contractor with a written list (Punch List) of all defects, unacceptable work,

incomplete work and other outstanding items noted during the Final Inspection. Providing the Contractor with a "Punch List" does not preclude the City from adding additional items, which may be discovered prior to final payment.

Provided the Engineer finds the "Punch List" to be minor in nature, the Engineer's may suspend the counting of working days for the purpose of computing Contract Liquidated Damages. The Engineer may continue to suspend, at the Engineer's option, charges for liquidated damages provided the Contractor diligently works to complete and/or correct all deficiencies identified in the "Punch List"

Suspension of the count of working days for the purpose of computing Liquidated Damages is solely at the discretion of the Engineer, is not a decision subject to a protest or claim by the Contractor, and does not waive the City's right to charge the Contractor for additional costs to the City for inspection and administration of work beyond the required completion date.

**5-16 SUGGESTIONS TO THE CONTRACTOR** - Any plan or method of work suggested but not specified by the Engineer or Designated Authority to the Contractor, whether followed or ignored by the Contractor, in whole or in part, shall be at the risk and responsibility of the Contractor. The City, Engineer or Designated Authority shall not be responsible therefor.

**5-17 FOREIGN MATERIALS** - If Contractor elects to use any item processed, manufactured or assembled outside the United States, it shall be his responsibility to ensure timely delivery of the material to the Project site. Contractor shall not be entitled to an extension of Contract time for acts or events that occur outside the United States, including the passing of United States customs. If testing of materials is determined to be required by the Engineer, Contractor shall arrange at his sole expense for such tests that the City is not equipped to perform.

**5-18 FINAL CLEAN UP** - Before final inspection of the work, the Contractor shall clean the construction area, material sites, and all ground occupied by him in connection with the work, of all rubbish, excess materials, form lumber, etc. All parts of the work shall be left in a neat and presentable condition.

**5-19 REUSE AND RECYCLING** - Contract requires the Contractor to divert at least fifty-percent (50%) of waste materials from landfills, unless otherwise specified in the Special Provisions. To demonstrate compliance, prior to the start of any demolition or removal work, Contractor shall submit to the Engineer a completed "Waste Assessment Form" provided in the Appendix to these Standard Specifications. Upon completion of all Work, Contractor shall submit to the Engineer a completed "Waste Assessment Summary Report Form" also provided in the Appendix. Supporting documentation such as receipts and weight tags shall be provided for all jobsite construction and demolition materials that have been recycled or reused off site or disposed of in a landfill.

Final release of Contract Retention shall not be made until Contactor achieves full compliance of this provision. Failure to meet the fifty-percent (50%) diversion requirement shall result in the forfeiture of 40% of the Contract Retention.