

PART 1

SECTION 5. CONTROL OF THE 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 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. His 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 his 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 Subcontracting - The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control.

No subcontractor will be recognized as such, and all persons, engaged in the work of construction will be considered as employees of the contractor and he will be responsible for their work, which shall be subject to the provisions of the contract and specifications.

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) Supplemental Agreements
- 3) Contract Change Orders
- 4) Approved Revisions to the Plans
- 5) Addenda
- 6) Proposal Packet
- 7) Special Provisions
- 8) Reference Specifications
- 9) Project Plans
- 10) Technical Provisions
- 11) Standard Plans
- 12) General Provisions

The plans, specifications and other Contract Documents will govern the work. The Contract Documents are intended to be complementary and cooperative and to describe and provide for a complete project. 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 Plans and Working Drawings - The contract plans furnished consist of general drawings and show such details as are necessary to give a comprehensive idea of the construction contemplated. All authorized alterations affecting the requirements and information given on the contract plans shall be in writing.

Working drawings or plans for any structure not included in plans furnished by the Engineer shall be approved by the Engineer before any work involving these plans is performed, unless approval is waived in writing by the Engineer.

It is mutually agreed, however, that approval by the Engineer of the Contractor's working plans does not relieve the Contractor of any responsibility for accuracy of dimension and details, and that the Contractor shall be responsible for agreement and conformity of his working plans with approved plans and specifications.

Full compensation for furnishing all working drawings shall be considered as included in the price bid for the contract items of work to which such drawings relate and no additional compensation will be allowed therefore. Contractor shall keep at the worksite a copy of the Plans and Specifications, including addenda and change orders, to which the Engineer shall have access at all times.

The Plans, Specifications and other Contract Documents will govern the work. The Contract Documents are intended to be complementary and cooperative and to describe and provide for a complete project. 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.

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 careful 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 as part of the work at no additional cost to City.

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

5-6 Shop Drawings - When shop drawings or other details are necessary to adequately control the work or are requested 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 may be required, before review of the drawings.

When first submitted by the Contractor each drawing shall be a good quality transparency, accompanied by five prints. If reviewed without change or correction, three such copies will be returned to the Contractor. If extensive additions or corrections are required, the Engineer will return one marked-up copy to the Contractor together with the transparency, for correction and resubmission. Approved transparencies will be retained by the Engineer.

Review and approval of drawings by the Engineer shall not relieve the Contractor from the responsibility for errors or omissions in the drawings or from 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.

Such review and approval is a general review only, for compliance with the Contract Documents, 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 with 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.

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

The Contractor shall deliver at least 2 working days' notice in writing when he will require the services of the Engineer for laying out any portion of the work.

Basic 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 considered as included in the various Contract items of work unless a separate bid item is provided for "Construction Surveys" in the Bidder's Proposal.

The Contractor shall keep the Engineer informed of the times and places at which he wishes to do work, so that horizontal and vertical control points may be established and any checking deemed necessary by the Engineer may be done with minimum inconvenience to the City and Contractor.

The Contractor shall preserve all such stakes and marks set for lines, grades, or measurements of the work, or permanent survey monuments, bench marks or boundary markers, in their proper places until authorized to remove them by the Engineer. All expenses incurred in replacing stakes and marks that have been removed without proper authority shall be paid by the Contractor. Such expenses will be deducted from any monies due or to become due 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 therefore 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 Superintendent - 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. Before initial work is begun on the contract, the Contractor and his superintendent shall file with the Engineer, addresses and telephone numbers where they can be reached during all hours, including nights and weekends, when the work is not in progress.

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 will be given by the Engineer, which shall be received and obeyed by the

superintendent or foreman who may have charge of the particular work in reference to which the orders are given.

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. Workmanship shall be in accord with the generally accepted standards.

Materials 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. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at his expense, when so directed by the Engineer.

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 work to be remedied, or removed and replaced, and unauthorized work to be removed, 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 person 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.

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 price bid 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 same.

The Contractor will be held responsible for all materials furnished to him, and he shall pay all damage 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

material and such costs may be deducted from any monies due or to become due the Contractor.

5-12 Storage of Materials - 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 Engineers materials shall be placed on platforms or other hard clean surfaces and covered when directed. Materials shall be stored so as to facilitate inspection and if necessary to protect the public or the material shall be suitably fenced.

Unless otherwise designated in the Special Provisions, locations and arrangements for storage sites for materials and equipment outside the right-of-way or limits of work, shall be selected and maintained by the Contractor at his expense. Full compensation for furnishing such storage sites as may be necessary or required by the Contractor shall be considered as included in the prices bid and no additional compensation will be allowed therefore.

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 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 materials, process, or equipment is indicated by patents proprietary or brand names 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 "approved equal." A listing of materials is not intended to be comprehensive or in order of preference. The Contractor may offer any materials 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 as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, services 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 approval 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 matching, aesthetic, 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 - Before incorporation in the work, the Contractor shall submit samples of materials, 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 at no expense to the Contractor. Contractor shall however bear all costs initial and otherwise of materials or services proposed for substitution. Any retesting shall be at the Contractor's expense. 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 and 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.

5-15 Inspection - All work and materials are subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before 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.

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.

Whenever the work provided for and contemplated by the contract shall have been satisfactorily completed and the final cleaning up performed, the Contractor shall request in writing a final inspection. The City Engineer and/or his authorized representative will make the final inspection. Any deficiencies encountered shall be corrected and re-inspected.

5-16 Suggestions to the Contractor - Any plan or method of work suggested by the Engineer or Designated Authority to the Contractor but not specified or required if adopted, followed, or ignored by the Contractor in whole or part, shall be at the risk and responsibility of the Contractor and the City Engineer or Designated Authority shall not be responsible therefore.

5-17 Foreign Materials - Section 6-1.08 of the State Standard Specifications shall apply to any processed, manufactured or assembled outside the United States.