

Contract Documents for

ADDISON POND IMPROVEMENTS



**Town of Addison
Engineering Department
Bid No. 95-15**

March 1995

Prepared by:

 **Carter - Burgess**

Consultants in Engineering, Architecture,
Planning and the Environment

7950 Elmbrook, Suite 250
Dallas, Texas 75247

C&B No. 94315001D

SECTION 00020 - INVITATION TO BIDDERS

PART I. - GENERAL

1.01 INVITATION TO BID

- A. Sealed proposals addressed to Clyde Johnson, Purchasing Manager, Finance Building, 5350 Belt Line Road, Addison, Texas, will be received until 2:30 p.m., March 20, 1995, to furnish all labor and materials and perform all work for the following project:

CONSTRUCTION OF ADDISON POND IMPROVEMENTS, ADDISON, TEXAS, Bid #95-15.

- B. Opening: Public opening at 2:30 p.m., March 20, 1995.
- C. Type of Bidding and Classes of Work: Single bid to be received to include all erosion control and gabion improvement work.
- D. Bid Bond Requirements

Bidders are required to submit a cashier's or certified check issued by a bank satisfactory to the Town of Addison, or a Bid Bond (with proper Power of Attorney) from a surety licensed to do business in the State of Texas, payable without recourse to the Town of Addison, or an irrevocable letter of credit in an amount not less than five percent (5%) of the total amount of the base bid submitted to insure that the successful bidder will enter into a contract and execute all necessary bonds within ten (10) days after notice of award of the contract to him. The bid security must be included in the bid envelope along with the bid sheet for the bid to be considered.

- E. Payment and Performance Bond Requirements After Acceptance of Successful Bidder

The successful bidder will be required to furnish Payment and Performance bonds from a surety licensed to do business in the State of Texas in the amount of one hundred (100%) percent of the greatest amount bid. These bonds, along with proper insurance papers, will be incorporated as part of the final contract documents and will remain in effect until the completion and acceptance of the project.

- F. Bidding Expenses

The City is not responsible for any costs associated in the preparation of the bid from any vendor. Also, should a vendor bid an alternate, any test costs to prove equality of product will be at the expense of the vendor, not the Town of Addison.

G. Bid Envelope

Bid envelopes will be sealed and marked with bid number and opening time on the outside bottom left corner to avoid the opening of any bid before the prescribed time.

1.02 AVAILABILITY OF DOCUMENTS

A. Contract Documents may be examined, without charge, at:

- | | |
|---|---|
| 1. Carter & Burgess, Inc.
7950 Elmbrook, Suite 250
Dallas, Texas 75247
(214) 638-0145 | 3. Dodge Reports
(C.F.W. Dodge Company)
8828 N. Stemmons
Dallas, Texas 75247 |
| 2. Town of Addison
Parks & Lesiure Services Dept
16801 Westgrove Road
Addison, Texas 75001
(214) 450-2851 | 4. Texas Contractor
2510 National Dr.
Dallas, TX 75042
(214) 271-2693 |

B. Contract Documents may be obtained at:

1. Two sets of plans, specifications and bid documents may be secured from the Clyde Johnson, Purchasing Manager, Finance Building, 5350 Belt Line Road, Addison, Texas at no charge. The Contractor will be required to record his name, address, phone number and fax number. The Contractor may purchase additional sets if necessary.

C. Refer to Section 00100 - Instructions to Bidders for bidding requirements and information.

END OF SECTION

SECTION 00100 - INSTRUCTIONS TO BIDDERS

1.01 PROPOSAL FORMS

- A. The Bidder's proposal must be submitted in duplicate on the printed form furnished with these instructions. The blank spaces in the proposal shall be filled in for each item for which a quantity is given as may be required by the proposal for a completed work, and the Bidder shall state the price for which he proposes to do each item of work. Each page of the proposal shall be signed in ink by the person or persons making or authorized to make a bid.
- B. The legal status of the Bidder, that is, as a corporation, partnership, or individual, must be stated in the proposal. A corporation Bidder must name the state in which the organization is chartered.
- C. If the proposal is made by an individual, his post office address shall be given. Bids which are not signed by the individuals making them shall have attached thereto a power of attorney evidencing authority to sign the bid in the name of the person for whom it is signed.
- D. If the proposal is made by a firm or partnership, the name and post office address of the managing member of the firm or partnership shall be given or the bid may be signed by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the bid a power of attorney evidencing authority to sign the bid, executed by the members of the firm or partners.
- E. Proposals which are signed for a corporation shall have the correct corporate name thereof, its post office address and the signature of the president or other authorized officer of the corporation, manually written below the corporate name following the word "By____."

1.02 PROVISION CONCERNING ESCALATOR CLAUSES

Proposals containing any condition which provides for changes in the stated bid prices due to increase or decrease in the costs of materials, labor, or other items required for this project, will be rejected and returned to the Bidder without being considered.

1.03 SUBSTITUTIONS

It is the intent of these specifications to indicate specific product descriptions for which bids are to be received. Bids shall be based on the use of specified products and materials unless the Bidder has obtained prior written approval from the Engineer to offer a substitute considered equal to or of superior quality to the items specified. Written requests for approval of substitutes shall be submitted to the Engineer less than

ten (10) days prior to bid date. Prospective bidders shall be notified no less than seven days prior to bid date of any substitutes approved by the Engineer. Bids based on the use of approved substitutes shall be accompanied by written modification outlining in detail the substitutes proposed. If use of substitutes requires changes or modifications of the Construction Documents, the Contractor will reimburse the Engineer for the cost of such changes.

1.04 EXAMINATIONS OF PLANS, SPECIFICATIONS, AND PROJECT WORK SITE

Before submitting a bid, the Contractor shall carefully examine the proposal, plans, specifications, and all contract documents. He shall examine the site of work and satisfy himself as to the conditions which will be encountered relating to the character, quality and quantity of work to be performed and materials to be furnished. Bidders are particularly required to examine, and are responsible for, all subsurface or underground conditions that may be encountered during the progress of the work. The bid shall cover all expenses and disbursements in connection with subsurface work. The submission of a bid shall be conclusive evidence that the Bidder has complied with these requirements and that no submission for extra compensation will be presented with regard to the nature or amount of work to be done.

1.05 INTERPRETATION OF PLANS AND SPECIFICATIONS

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other related documents, or finds discrepancies in or omissions from the plans and/or specifications, he may submit to Carter & Burgess, Inc., 7950 Elmbrook Drive, Suite 250, Dallas, Texas 75247, (214) 638-0145, attention David Reitz, A.S.L.A., a written request for an interpretation or correction thereof. The person submitting the request will be solely responsible for its prompt delivery no less than ten (10) days prior to bid date. Any interpretation or correction of the Contract Documents will be made by an addendum duly issued, and a copy of such addendum will be mailed to all persons known to the Owner or Engineer have received a set of such documents. The Owner or the Engineer not be responsible for any other explanations or interpretations of the Contract Documents. Addenda shall become an integral part of the contract and shall be reflected in the bids submitted.

1.06 QUALIFICATIONS OF BIDDERS

The Bidder shall submit with his proposal such evidence as the Owner may require to establish his financial responsibility, experience and possession of such equipment as may be needed to prosecute the work in an expeditious, safe and satisfactory manner. The required information to be submitted shall consist of, but shall not necessarily be limited to, the following:

A. Current Project Experience.

A list of all projects presently under construction by the Bidder including approximate cost and completion date shall be submitted with proposal.

B. Past Project Experience

It is very important that the Bidder submit a list of comparable gabion project work which has been completed within the previous 10 years including cost, completion date, and references for each project. The Bidder shall list a minimum of six (6) local gabion projects of similar size and scope which have been completed within the last two (2) years. Failure to do so may result in disqualification of the Bidder.

C. Equipment

The Bidder shall provide a list of equipment which will be used on this project.

The Bidder shall demonstrate that he has adequate equipment to complete this project properly and expeditiously and shall state what additional equipment, if any, that he must rent as may be required to complete this project.

D. Financial

Each Bidder shall be prepared to submit upon request of the Owner a balanced financial statement with no evidence of threatening losses as evidenced by an audited certified financial statement (current within last six (6) months of bid date).

E. Technical Experience

The Bidder shall demonstrate to the satisfaction of the Owner that he has the technical experience to properly complete this project.

By acceptance of the bidder's qualifications and an award of a contract to the bidder based on such information, the owner makes no representation or warranty that the bidder is in fact qualified, financially responsible or capable of prosecuting the work in an expeditious, safe and satisfactory manner.

1.07 SUBCONTRACTORS AND SUPPLIERS

The Bidder shall submit with his proposal a list of subcontractors and suppliers he proposes to use in the Project construction.

The Owner reserves the right to reject any subcontractors and suppliers who are determined to be unqualified or unsatisfactory to complete the designated work.

1.08 PROPOSAL GUARANTY

Each Bidder shall submit with his proposal a cashier's or certified check or a bidder's bond in the sum of five percent (5%) of the amount bid; and if the bid is based upon alternates, such bid deposit or bidder's bond must be at least five percent (5%) of the highest amount for which the Bidder offers to do all or any of the work bid upon. If the bidder's bond is submitted, it shall be executed by the Bidder and by a corporate surety. It shall be payable to the Owner and shall be conditioned that if the Bidder is awarded the contract, the Bidder will, within ten (10) days after written notice of award of the Contract, enter into a contract with the Owner. Such bidder's bond shall expressly provide that if the Bidder is unable or fails to execute the contract or is unable or fails to furnish the Performance and Payment Bonds, the principal and surety shall be liable to the Owner for the full amount of such bidder's bond as damages to be suffered by the Owner.

1.09 DELIVERY OF PROPOSAL

Each completed proposal shall be placed, together with the Proposal Guaranty, in a sealed envelope so marked as to indicate its contents. When submitted by mail, this envelope shall be placed in another envelope which shall also be sealed and addressed as indicated in the Invitation to Bidders. Proposals will be received on or before the hour and date set for the opening thereof and must be in the hands of the Owner by that time.

1.10 REVISION OF PROPOSAL

A Bidder may change a bid price entered in a proposal before it is submitted by changing the price and initialing the revision with ink. In cases where the proposal has been submitted, a Bidder may change a bid price in his proposal provided his request to do so is submitted in writing and is in the hands of the Owner prior to the time set for the opening of proposals.

1.11 WITHDRAWAL OF PROPOSAL

Any proposal may be withdrawn by the Bidder by written request prior to but not after the time affixed for the opening of bids. A request by telephone or telegraph for withdrawal of a proposal will not be considered. The withdrawal of a bid will not prejudice the right of a Bidder to file a new bid.

1.12 REJECTION OF PROPOSALS

Proposals may be rejected if they show alterations of form, additions not called for, conditional bids, incomplete bids, erasures or irregularities of any kind. The Owner reserves the right to waive any irregularities in the bids as received and to reject any and all proposals without qualification(s). More than one proposal from an individual, firm or partnership, corporation or association, under the same or different

names, will not be considered. Reasonable grounds for believing that a Bidder is interested in more than one such proposal may cause the rejection of all proposals in which said Bidder is interested. Proposals in which prices are obviously unbalanced may be rejected.

1.13 TIME OF AWARD

The award of the contract will be made within sixty (60) days after the opening of the proposals. If the award cannot be made within the prescribed time, the time limit may be extended for one or more 30- day intervals by mutual written consent of the Owner and the lowest responsible Bidder or Bidders concerned.

1.14 RETURN OF BID GUARANTY

The bid guaranty of all except the lowest Bidder will be returned within thirty (30) calendar days after the opening of bids. The proposal guaranty of the lowest Bidder will be returned within forty-eight (48) hours after contract bond and insurance policies required by these documents have been approved by the Owner, and notice to proceed has been given to the successful Bidder.

1.15 EXECUTION OF CONTRACT AND BONDS

Within ten (10) days after written notification of award of the contract, the Bidder shall execute and furnish to the Owner four (4) original signed contracts with a performance bond, and a payment bond, each in the full amount of the contract price, executed by a surety company or surety companies authorized to execute surety bonds under and in accordance with the laws of the State of Texas, and a Certificate of Insurance.

The performance bond and payment bond are to be furnished as a guaranty of the faithful performance of the work and for the protection of the claimants for labor and materials.

1.16 FAILURE TO EXECUTE CONTRACT AND BONDS

Should the Bidder to whom the contract is awarded refuse or neglect to execute and file the contract and bonds within ten (10) days after written notification of the award of the contract, the proposal guaranty filed with the bid shall become the property of the Owner, not as a penalty, but as liquidated damages.

1.17 NOTICE TO PROCEED

Upon the execution of bonds and contract the Owner will issue a written Notice to Proceed to the Contractor requesting that he proceed with the construction, and the Contractor shall commence work within five (5) days after the date of Notice to Proceed.

1.18 CONSTRUCTION SCHEDULE

Within two (2) days of receipt of Notice to Proceed from the Owner, the Contractor shall submit a detailed Progress and Schedule Chart as required in Section 01350 - Progress Schedule to the Owner and Engineer for review. This chart will be used to assure completion of the job within the number of total days specified in the proposal.

The project site will be available for inspection without being accompanied by the Owner or Engineer.

1.19 SALES TAX

This project will be exempt from sales tax on all applicable materials.

1.20 TESTING LABORATORIES

The Bidder is directed to Section 01440 - Testing and Laboratory Control regarding quality control and testing of materials.

1.21 SUBSTITUTIONS

Bidders wishing to offer substitutions to products specified are directed to Section 01630 - Product Options, Equal Materials and Substitutions.

1.22 TOWN OF ADDISON CODES AND STANDARDS

It is the intent of the drawings and specifications to be in full conformance with all Town of Addison Codes and Requirements for construction. Where a conflict exists in the drawings or specifications with Town of Addison Standards, the Town of Addison Standards, Codes and Requirements shall take precedence. The Bidder is encouraged to review said Codes and to be familiar with the requirements prior to bid.

1.23 CONSTRUCTION DOCUMENTS

The Owner will provide the contractor with ten (10) sets of Construction Documents upon award of the Contract and issuance of Notice to Proceed. Should the Contractor require additional sets, the Engineer forward the originals of the Drawings and Specifications to the printer of the Contractor's choice for reproduction of additional Construction Documents at the Contractor's Expense.

1.24 RESOLUTION OF DISPUTES

The parties hereby covenant and agree that in the event of any controversy, dispute, or claim of whatever nature arising out of, in connection with or in relation to the interpretation, performance or breach of this agreement, including but not limited to any claims based on contract, tort or statute before filing a lawsuit the parties agree to submit the matter to Alternative Dispute Resolution pursuant to the laws of the State of Texas. The parties shall select a third party arbitrator

or mediator from the current list of neutrals on file with the Alternative Dispute Resolution Administrator of the Dallas County District Courts. All forms of Alternative Dispute Resolution may be used except binding arbitration. The proceedings shall be conducted in accordance with the laws of the State of Texas.

1.25 NON DISCRIMINATION POLICY

It is the policy of the Town of Addison to afford all people an equal opportunity to bid on any contract being let by the Town.

The Town of Addison has a policy that prohibits discrimination against any person because of race, color, sex or national origin, in the award or performance of any contract.

The Town of Addison will require its employees, agents, and contractors to adhere to this policy.

END OF SECTION

SECTION 00300 - BID PROPOSAL

BID PROPOSAL FOR THE CONSTRUCTION OF
ADDISON POND IMPROVEMENTS
TOWN OF ADDISON, TEXAS

BID # 95-15

Bid of _____ Date _____
(Name of Firm)

TO: Clyde Johnson, Town of Addison
Purchasing Manager
Finance Building
5350 Belt Line Road
Addison, Texas 75001

FOR: The Construction of Addison Pond Improvements
Town of Addison, Texas

The undersigned, as Bidder, declares that the only person or parties interested in this proposal as principals are those named herein, that his proposal is made without collusion with any other person, firm, or corporation, that he has carefully examined the Contract Documents including the form of Contract, Invitation to Bidders, Instructions to Bidders, Specifications, and the Drawings therein referred to and has carefully examined the locations, conditions and classes of materials, of the proposed work, and agrees that he will provide all the necessary labor, machinery, tools, equipment, apparatus and other items incidental to construction, and will do all the work and furnish all the materials called for in the Contract Documents in the manner prescribed therein.

It is understood that the work will be completed within the time provided in the specifications (see Section 00800, 1.06) and that additional requirements for completing certain portions of the work, which are shown on the Drawings, will be met.

It is understood and agreed that the Bid Security accompanying this proposal will be returned to the Bidder, unless in case of the acceptance of the proposal the Bidder shall fail to execute a contract and file a Performance Bond and a Payment Bond within ten days after its acceptance, in which case the Bid Security shall become the property of the Owner and shall be considered as payment for damages caused by delay and other inconveniences suffered by the Owner because of such failure of the Bidder.

The undersigned proposes and agrees to perform all work of whatever nature required, in strict accordance with the Contract Documents and within the time specified, for the following sum of prices, to wit:

To: DAMION

FR: CLYDE

**ADDISON POND IMPROVEMENTS
BID SCHEDULE
BASE BID**

*THE TOWN OF ADDISON WILL ACCEPT COMPUTER PRINT-OUTS OF THIS BID FORM.
COMPUTER BID FORM MUST BE IN THE EXACT ORDER OF THIS BID FORM TO BE ACCEPTED

Item No.	Est. Quant.	Unit	Description of Item With Price Written in Words	Unit Price	Amount
1.	1	LS	ACCESS PROVISIONS including plant removal/replacement fence removal, temporary fencing, etc. Complete in Place for <u>TWELVE THOUSAND THREE HUNDRED EIGHTY</u> Dollars and <u>-0-</u> Cents Per LS	\$ <u>12,380⁰⁰</u>	\$ <u>12,380⁰⁰</u>
2.	1	LS	DEWATERING of pond and necessary pumping during project duration. Complete in Place for <u>TWELVE THOUSAND EIGHT HUNDRED NINETY THREE</u> Dollars and <u>-0-</u> Cents Per LS	\$ <u>12,893⁰⁰</u>	\$ <u>12,893⁰⁰</u>
3.	1	LS	EXCAVATION AND SILT REMOVAL from site. Complete in Place for <u>SEVEN THOUSAND FIVE HUNDRED</u> Dollars and <u>-0-</u> Cents Per LS	\$ <u>7,500⁰⁰</u>	\$ <u>7,500⁰⁰</u>
4.	182	CY	GABION WALL including baskets, mattresses, rock, etc. Complete in Place for <u>ONE HUNDRED FIFTY</u> Dollars and <u>-0-</u> Cents Per CY	\$ <u>150⁰⁰</u>	\$ <u>27,300⁰⁰</u>

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**ADDISON POND IMPROVEMENTS
BID SCHEDULE
BASE BID**

*THE TOWN OF ADDISON WILL ACCEPT COMPUTER PRINT-OUTS OF THIS BID FORM.
COMPUTER BID FORM MUST BE IN THE EXACT ORDER OF THIS BID FORM TO BE ACCEPTED

Item No.	Est. Quan.	Unit	Description of Item With Price Written in Words	Unit Price	Amount
5.	16	CY	CONTINUOUS CONCRETE BEAM. Complete in Place for <u>THREE HUNDRED</u> Dollars and Cents Per CY	<u>\$300⁰⁰</u>	<u>\$ 4,800⁰⁰</u>
6.	270	LF	STEEL ROD ANCHORING BARS. Complete in Place for <u>NINETY</u> Dollars and <u>-0-</u> Cents Per LF	<u>\$ 90⁰⁰</u>	<u>\$ 24,300⁰⁰</u>
7.	1	LS	BOULDER PLACEMENT along top of gabion wall and mortaring. Complete in Place for <u>FIVE HUNDRED</u> Dollars and <u>-0-</u> Cents Per LS	<u>\$ 500⁰⁰</u>	<u>\$ 500⁰⁰</u>
TOTAL BASE BID					<u>\$ 89,675⁰⁰</u>

(Unit prices are to shown in both words and figures. In case of a discrepancy, the unit price in words will govern. Prices listed above are the only compensation to be made. All items of work required to complete the work as shown in the plans and as specified which are not listed as a pay item in this proposal are considered subsidiary to the items listed and the cost of the subsidiary work should be included therein.)

END OF SECTION

CRAIG OLDEN, INC., a Texas corporation

BY: 
Craig Olden, President

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00300-3

SECTION 0500

STANDARD AGREEMENT

AGREEMENT

STATE OF TEXAS

COUNTY OF DALLAS

THIS AGREEMENT is made and entered into this 3rd day of April, 1995, by and between the Town of Addison, of the County of Dallas and State of Texas, acting through its City Manager, duly authorized so to do, Party of the First Part, hereinafter termed the OWNER, and Craig Olden, Inc., of the City of Little Elm, County of Denton, State of Texas, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by the OWNER, the said CONTRACTOR hereby agrees with the said OWNER to commence and complete construction of certain improvements as follows:

Addison Pond Improvements

and all extra work in connection therewith, under the terms as stated in the General and Specific Conditions of the AGREEMENT; and at his own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto and in accordance with the Advertisement for Bids, Instructions to Bidders, General Provisions, Special Provisions, Plans, and other drawings and printed or written explanatory matter thereof, and the Technical Specifications and Addenda thereto, as prepared by the OWNER, each of which has been identified by the endorsement of the CONTRACTOR and the OWNER thereon, together with the CONTRACTOR's written Proposal and the General Provisions, all of which are made a part hereof and collectively evidence and constitute the entire AGREEMENT.

The CONTRACTOR hereby agrees to commence work within five (5) calendar days after the date of written notice to do so shall have been given to him, and to complete the work within twenty-eight (28) calendar days after the Notice to Proceed., subject to such extensions of time as are provided by the General Provisions.

The OWNER agrees to pay the CONTRACTOR \$89,673.00 in current funds for the performance of the Contract in accordance with the Proposal submitted thereof, subject to additions and deductions, as provided in the General Provisions, and to make payments of account thereof as provided therein.

IN WITNESS WHEREOF, the parties of these presents have executed this AGREEMENT in the year and day first above written.

TOWN OF ADDISON
(OWNER)

By: Ron Whitehead
Ron Whitehead, City Manager

ATTEST:

C. Moran ✓
Carmen Moran, City Secretary

Craig Olden, Inc.
(CONTRACTOR)

By: [Signature]
its President

ATTEST:

By: Dorothy D. Herd

The following to be executed if the CONTRACTOR is a corporation:

I, DOROTHY D. HERD, certify that I am the secretary of the corporation named as CONTRACTOR herein; that CRAIG OLDEN, who signed this Contract on behalf of the CONTRACTOR is the President (official title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Signed: Dorothy D. Herd

Corporate Seal

SECTION 00600 - FORMS, BONDS AND CERTIFICATES

PART I. - GENERAL

Drawings, Standard General conditions of Contract, Supplementary Conditions and Division-1 specification sections, apply to work for this section.

1.01 NOTICE

The following blank spaces in the Contract and Bonds are not to be filled in by the bidder at the time of submitting his bid. The bond forms and other miscellaneous forms are submitted at this time to familiarize the bidder with the forms of the Contract and Bonds which the successful bidder will be required to execute.

1.02 PERFORMANCE BOND FORM

The Performance Bond shall be executed on the standard form adopted by the Owner.

1.03 MAINTENANCE BOND FORM

Maintenance Bond shall be executed on the standard form adopted by the Owner.

1.04 PAYMENT BOND FORM

The Payment Bond shall be executed on a standard form Statutory Payment Bond, State of Texas for Public Work under the McGregor Act.

1.05 CERTIFICATE OF INSURANCE

Execute the enclosed certificates and attach documentation from the insurer.

1.06 SUBSTITUTION REQUEST

Execute the enclosed Substitution Request form for each item for which substitutions is requested. Submit the request in accordance with Section 01630 - Product Options, Equal Materials and Substitutions.

1.07 APPLICATION FOR PAYMENT

Use the enclosed application form for all payment requests. Provide supportive information and documentation as requested by the Owner and Consultant.

1.08 CONTRACTOR'S QUALIFICATION STATEMENT

The enclosed A/A Form A305 and Submit with Bid.

1.09 CERTIFICATES OF DISCREPANCIES

Use the enclosed form, Page 00600-20, in accordance with SECTION 00100-3, Item 1.04.

1.10 Workers Compensation Requirements

A. Definitions

Certificate of Coverage - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Worker's Compensation Commission (the "TWCC"), or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the Project - includes the time from the beginning of the work on the project until the Contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in Section 406.096 of the Texas Labor Code) includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery or portable toilets.

- B. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreement, which meets the statutory requirements of Texas Labor Code, 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of coverage to the Owner prior to being awarded the contract.
- D. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Owner, showing that the coverage has been extended.

- E. The Contractor shall obtain from each person providing services on the project, and provide to the Owner:
- (1) a certificate of coverage, prior to that person beginning work on the project, so that the Owner will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - (2) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The Contractor shall retain all required certificates of coverage on file for the duration of the project and for one year thereafter.
- G. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the TWCC, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify current coverage and report failure to provide coverage.
- I. The Contractor shall contractually require each person with whom it contracts to provide services on a project to:
- (1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code 401.011(44) for all its employees providing services on the project, for the duration of the project;
 - (2) provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 - (3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 - (4) Obtain from each other person with whom it contracts, and provide to the Contractor:

- (a) a certificate of coverage, prior to the other person beginning work on the project; and
 - (b) a new certificate of coverage showing extension of the coverage period, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- (5) retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
 - (6) notify the Owner in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
 - (7) contractually require each other person with whom it contracts to perform as required by paragraphs (1) - (7), with the certificate or coverage to be provided to the person for whom they are providing services.
- J. By signing this contractor or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the project will be covered by the workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes any payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of self-insured, with the TWCC's Division of Self-Insured Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- K. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Owner to declare the contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Owner.

The following is the form of notice to worker's compensation coverage prescribed by the TWCC. Pursuant to Section 110.110(d)(7), this notice must be printed with a title in at 30-point bold type, and text in at least 19-point normal type, and shall be in both English and Spanish and any other language common to the worker population.

REQUIRED WORKER'S COMPENSATION COVERAGE

"The law requires that each person working on this site or providing services related to this construction project must be covered by workers' compensation insurance. This includes persons providing, hauling, or delivering equipment or materials, or providing labor or transportation or other service related to the project, regardless of the identity of their employer or status of an employee.

"Call the Texas Workers' Compensation Commission at (512) 440-3789 to receive further information on the legal requirement for coverage, to verify whether your employer has provided the required coverage, or to report an employer's failure to provide coverage."

This required notice should not be attached to the contract. Instead, upon request, the contractor should be provided with a copy of Section 110.110 and Figure 2 thereto.

Please note that Section 110.110 of Chapter 28 of the Texas Administration Code requires that the governmental entity retain the certificates of coverage provided by the contractor for the duration of the project and for the three years thereafter.

1.11 INDEX OF ENCLOSED FORMS

A.	Bid Bond	00600
B.	Performance Bond	00600
C.	Maintenance Bond	00600
D.	Payment Bond	00600
E.	Substitution Request	00600
F.	Applications for Payment	00600
G.	Contractor's Qualification Statement	00600
H.	Certificate of Discrepancies	00600

PART 1. - PRODUCTS

Not Applicable

PART 2. - EXECUTION

Not Applicable

END OF SECTION

PERFORMANCE BOND

STATE OF TEXAS

COUNTY OF DALLAS

Date Bond Executed: APRIL 5, 1995

PRINCIPAL: CRAIG OLDEN, INC.

SURETY: FIRST INDEMNITY OF AMERICA INSURANCE COMPANY

PENAL SUM OF BOND (express in words and figures): _____
EIGHTY NINE THOUSAND SIX HUNDRED SEVENTY THREE AND 00/100

DATE OF CONTRACT: MARCH 30, 1995

JOB DESCRIPTION: ADDISON POND IMPROVEMENTS

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held firmly bound unto the Town of Addison, Texas, hereinafter called the OWNER, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas the PRINCIPAL entered into a certain Contract with the OWNER, numbered and dated as shown above and attached hereto;

NOW THEREFORE, if the PRINCIPAL shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extension thereof that may be granted by the OWNER, with or without notice to the SURETY, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications of said SURETY being hereby waived, then this obligation to be void, otherwise in full force and virtue.

1:33PM

CRAIG OLDEI

214 234 2664

P. 17

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the same and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

SEAL

CRAIG OLDEI, INC.
CONTRACTOR

By: [Signature]

Address:

P.O. BOX 1150
LITTLE ELM, TX 75068

WITNESS

[Signature: Dorothy D. Herd]

SEAL

FIRST INDEMNITY OF AMERICA INSURANCE CO.
SURETY

By: [Signature: Karen Woodland]

KAREN WOODLAND, ATTORNEY-IN-FACT

ATTEST:

[Signature: Michel Charette]

Address:

1160 PARSIPPANY BLVD.
PARSIPPANY, NJ 07054

(Surety to Attach Power of Attorney)

CERTIFICATE TO CORPORATE PRINCIPAL

I, DOROTHY D. HERD, certify that I am the secretary of the corporation named as PRINCIPAL in the within bond that CRAIG OLDEI who signed the said bond on behalf of the PRINCIPAL, is the PRESIDENT of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and on behalf of said corporation by authority of its governing body.

[Signature: Dorothy D. Herd]
(Corporate Seal)

PAYMENT BOND BOND NO. TX00148

STATE OF TEXAS

COUNTY OF DALLAS

Date Bond Executed: April 5, 1995

PRINCIPAL: CRAIG OLDEN, INC.

SURETY: FIRST INDEMNITY OF AMERICA INSURANCE COMPANY

PENAL SUM OF BOND (express in words and figures): EIGHTY NINE
THOUSAND SIX HUNDRED SEVENTY THREE AND 00/100

DATE OF CONTRACT: March 30, 1995

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held firmly bound unto the Town of Addison, Texas, hereinafter called the OWNER, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas the PRINCIPAL entered into a certain Contract with the OWNER, numbered and dated as shown above and attached hereto;

NOW THEREFORE, if the PRINCIPAL shall promptly make payment to all persons supplying labor and materials in the prosecution of the work provided for in said Contract, and any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then this obligation to be void, otherwise to remain in full force and virtue.

WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

SEAL

CRAIG OLDEN, INC.
CONTRACTOR

WITNESS

Dorothy D. Herd

By: *[Signature]*

Address:
P.O. BOX 1150
LITTLE ELM, TX 75068

SEAL

Michel Charlett

FIRST INDEMNITY OF AMERICA INSURANCE CO.
SURETY

By: *Karen Woodland*
KAREN WOODLAND, ATTORNEY-IN-FACT

Address:
1160 PARSIPPANY BLVD.
PARSIPPANY, NJ 07054

(See Attach Power of Attorney)

CERTIFICATE AS TO CORPORATE PRINCIPAL
DOROTHY D. HERD, certify that I am the secretary of the corporation named as PRINCIPAL in the within bond that CRAIG OLDEN, who signed the said bond on behalf of the PRINCIPAL, is the PRESIDENT of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and behalf of said corporation by authority of its governing body.

Dorothy D. Herd
(Corporate Seal)



FIRST INDEMNITY OF AMERICA INSURANCE COMPANY

1160 Parsippany Boulevard

Parsippany, New Jersey 07054

Telephone - (201) 402-1200

BOND NO. TX00148

POWER OF ATTORNEY

Know All Men By These Presents: That First Indemnity of America Insurance Company, a Corporation of the State of New Jersey does hereby appoint KAREN WOODLAND its true and lawful Attorney-in-Fact: to make, execute, sign, acknowledge, affix the Company Seal to, deliver any and all surety bonds, undertakings, recognizances, and other contracts of indemnity and writings obligatory in the nature of a bond, for and on behalf of said Company and as an act and deed of said Company.

IN WITNESS WHEREOF, First Indemnity of America Insurance Company of the State of New Jersey has executed these presents this 10th day of October 1994.





Patrick J. Lynch, President

STATE OF NEW JERSEY)
COUNTY OF MORRIS) ss:

On this 10th day of October, 1994, before me came the above named officer of First Indemnity of America Insurance Company of New Jersey, to me personally known to be the individual and officer described herein, and acknowledge that he executed the foregoing instrument and affixed the seal of said corporation thereto by authority of this office.




Frances A. Frazzani
Notary Public State of
New Jersey
Term Expires May 10, 1997

CERTIFICATE

Excerpts of Resolutions (Article V, Paragraph 5, of the By-Laws of said Company) adopted by the Board of Directors of the First Indemnity of America Insurance Company of the State of New Jersey, October 19, 1992.

RESOLVED, that the President, or any one of the Vice-Presidents specially authorized to do so by the Board of Directors, or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Attorneys-in-Fact as the business of the company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and release and assignment of judgements, decrees, mortgages and instruments in the nature of mortgages, and also all other instruments and documents which the business of the Company may require and to affix the Seal of the Company thereto.

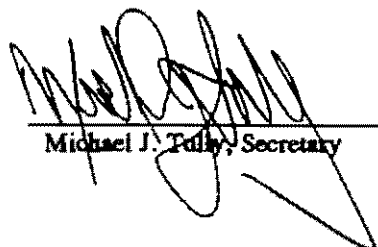
RESOLVED, that the signatures and attestations of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating to the Power of Attorney by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company with respect to any bond, undertaking, recognizances or other contract of indemnity or writing obligatory in the nature thereof.

I, Michael J. Tully, Secretary of First Indemnity of America Insurance Company of New Jersey, do hereby certify that the foregoing excerpts of the Resolution adopted by the Board of Directors of the Corporation and the Powers of Attorney issued pursuant thereto, are true and correct and that both the Resolution and the Powers of Attorney are in full force and effect. IN WITNESS WHEREOF, I have herewith set my hand and affixed the seal of said Corporation this 5th day of April, 1995.

THE OBLIGATION OF THIS POWER OF ATTORNEY SHALL NOT EXCEED EIGHTY NINE THOUSAND SIX HUNDRED SEVENTY THREE AND 00/100 DOLLARS (\$89,673.00), FOR THIS BOND NO. TX00148.

BOND NO. TX00148




Michael J. Tully, Secretary



FIRST INDEMNITY OF AMERICA INSURANCE COMPANY

1160 Parsippany Boulevard Parsippany, New Jersey 07054
Telephone - (201) 402-1200

BOND NO. TX00148

STATEMENT OF FINANCIAL CONDITION AS OF DECEMBER 31, 1993

BONDS.....	\$764,478.00
PREFERRED STOCKS.....	\$523,399.00
COMMON STOCKS.....	\$2,230,410.00
MORTGAGE LOANS.....	\$2,048,532.00
REAL ESTATE.....	\$373,694.00
CASH ON DEPOSIT.....	\$353,579.00
PREMIUMS IN COURSE OF COLLECTION (UNDER 90 DAYS)	\$1,979,802.00
INTEREST AND DIVIDENDS RECEIVABLE.....	\$18,657.00
U.S. TREASURY BILLS.....	\$12,361,776.00
REINSURANCE RECOVERABLE ON LOSS PAYMENTS.....	\$946,684.00
RECEIVABLE FROM PARENT, SUBSIDIARIES & AFFILIATES....	\$682,090.00
FEDERAL INCOME TAX RECOVERABLE.....	\$300,000.00
CONTRACT MONEY RECEIVABLE.....	\$944,691.00
REINSURANCE ASSUMED RECEIVABLE.....	\$838,237.00

TOTAL ADMITTED ASSETS..... \$24,366,029.00

RESERVE FOR LOSSES AND LOSS EXPENSES.....	\$7,094,911.00
UNEARNED PREMIUMS.....	\$6,071,913.00
PAYABLE FOR SECURITIES.....	\$311,923.00
PROVISION FOR UNAUTHORIZED REINSURANCE.....	\$604,020.00
FUNDS HELD UNDER REINSURANCE TREATIES.....	\$86,439.00
AMOUNTS WITHHELD OR RETAINED FOR ACCOUNT OF OTHERS...	\$277,601.00
ACCRUED EXPENSES.....	\$45,712.00

TOTAL LIABILITIES..... \$14,492,519.00

CAPITAL STOCK, PAID UP.....	\$1,251,000.00
GROSS PAID IN AND CONTRIBUTED SURPLUS	\$1,198,931.00
UNASSIGNED FUNDS (SURPLUS).....	\$7,423,579.00
SURPLUS AS REGARDS POLICYHOLDERS.....	\$9,873,510.00

TOTAL LIABILITIES AND SURPLUS..... \$24,366,029.00

I, John P. Teevan, Jr., Treasurer of First Indemnity of America Insurance Company, do hereby certify that the foregoing statement is a correct exhibit of the assets and surplus of the said company, on the 31st day of December, 1993, according to the best of my information, knowledge, and belief.

STATE OF NEW JERSEY)
COUNTY OF MORRIS) ss:



John P. Teevan Jr.
John P. Teevan, Jr.
Treasurer

Subscribed and sworn to, before me, a Notary Public of the State of New Jersey in the Township of Parsippany - Troy Hills, this 1st day of March, 1994.

BOND NO. TX00148



Frances A. Frazzane
Frances A. Frazzane, Notary Public
My Commission Expires May 10, 1997

ACORD. CERTIFICATE OF INSURANCE

DATE (MM/DD/YY)
4/03/95

ISSUER Sedgwick James of TX, Inc.
3811 Turtle Creek Blvd.
Phone: (214)651-4000
Dallas, TX 75219-4419

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY A	Wausau Underwriters Ins. Co.
COMPANY B	Texas Workers Comp Ins Fund
COMPANY C	Fidelity & Casualty Co. of NY
COMPANY D	

INSURED

45-65

Craig Olden, Inc.
P. O. Box 1500
Little Elm TX 75068-1500

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> OWNER'S & CONT PROT	162503113196	10/31/94	10/31/95	GENERAL AGGREGATE \$ 200000 PRODUCTS-COMP/OP AGG \$ 100000 PERSONAL & ADV INJURY \$ 100000 EACH OCCURRENCE \$ 100000 FIRE DAMAGE (Any one fire) \$ 5000 MED EXP (Any one person) \$ 500
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	162500132244	10/31/94	10/31/95	COMBINED SINGLE LIMIT \$ 100000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$ AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EACH ACCIDENT \$ AGGREGATE \$
	EXCESS LIABILITY <input checked="" type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM	CPU001912	10/31/94	10/31/95	EACH OCCURRENCE \$ 500000 AGGREGATE \$ 500000 RETENTION 2500 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/PARTNERS/EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL OTHER	TSF10487602	10/31/94	10/31/95	<input checked="" type="checkbox"/> STATUTORY LIMITS EACH ACCIDENT \$ 50000 DISEASE - POLICY LIMIT \$ 100000 DISEASE - EACH EMPLOYEE \$ 50000

RECEIVED
APR 05 1995
TOWN OF ADDISON
PURCHASING DIVISION

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

E: ADDISON POND

CERTIFICATE HOLDER

TOWN OF ADDISON
ATTN: CLYDE JOHNSON
P. O. BOX 144
ADDISON, TX 75001

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Fred Rigo





AIA Document A305

Contractor's Qualification Statement

1986 EDITION

This form is approved and recommended by The American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by the AIA or AGC.

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO:

ADDRESS:

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

Corporation

Partnership

Individual

Joint Venture

Other

NAME OF PROJECT (if applicable):

TYPE OF WORK (file separate form for each Classification of Work):

_____ General Construction

_____ Plumbing

_____ Other _____

(please specify)

_____ HVAC

_____ Electrical

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1. ORGANIZATION

- 1.1 How many years has your organization been in business as a Contractor?

- 1.2 How many years has your organization been in business under its present business name?
 - 1.2.1 Under what other or former names has your organization operated?

- 1.3 If your organization is a corporation, answer the following:
 - 1.3.1 Date of incorporation:
 - 1.3.2 State of incorporation:
 - 1.3.3 President's name:
 - 1.3.4 Vice-president's name(s):

 - 1.3.5 Secretary's name:
 - 1.3.6 Treasurer's name:

- 1.4 If your organization is a partnership, answer the following:
 - 1.4.1 Date of organization:
 - 1.4.2 Type of partnership (if applicable):
 - 1.4.3 Name(s) of general partner(s):

- 1.5 If your organization is individually owned, answer the following:
 - 1.5.1 Date of organization:
 - 1.5.2 Name of owner:

1.6 If the form of your organization is other than those listed above, describe it and name the principals:

2. LICENSING

2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

2.2 List jurisdictions in which your organization's partnership or trade name is filed.

3. EXPERIENCE

3.1 List the categories of work that your organization normally performs with its own forces.

3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.)

3.2.1 Has your organization ever failed to complete any work awarded to it?

3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?

3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.)

3.4 On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.

3.4.1 State total worth of work in progress and under contract:

3.5 On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

3.5.1 State average annual amount of construction work performed during the past five years:

3.6 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

4. REFERENCES

4.1 Trade References:

4.2 Bank References

4.3 Surety:

4.3.1 Name of bonding company:

4.3.2 Name and address of agent:

5. FINANCING

5.1 Financial Statement.

5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);

Net Fixed Assets;

Other Assets;

Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes);

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

5.1.2 Name and address of firm preparing attached financial statement, and date thereof.

5.1.3 Is the attached financial statement for the identical organization named on page one?

5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidiary).

5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

6. SIGNATURE

6.1 Dated at _____ this _____ day of _____ 19____

Name of Organization:

By:

Title:

6.2

I, _____ being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this _____ day of _____ 19____

Notary Public:

My Commission Expires:



CAUTION: You should use an original AIA document which has this caution printed in red. An original assures that changes will not be obscured as may occur when documents are reproduced.

CERTIFICATE OF DISCREPANCIES

Project No.: 94315001 Date: _____

Project: Addison Pond Improvements

Location: Addison, Texas

To: David Reitz
Carter & Burgess, Inc.
7950 Elmbrook Drive, Suite 250
Dallas, Texas 75247

This is to certify that _____
(Firm Name)

has reviewed their Contract Documents for the referenced project. We have become familiar with the needs and installation requirements for

(Materials to be Supplied)

and find the following discrepancies:

1. _____

2. _____

3. _____

(Attach Additional Sheets if Required)

We recommend the following corrective actions:

1. _____

2. _____

3. _____

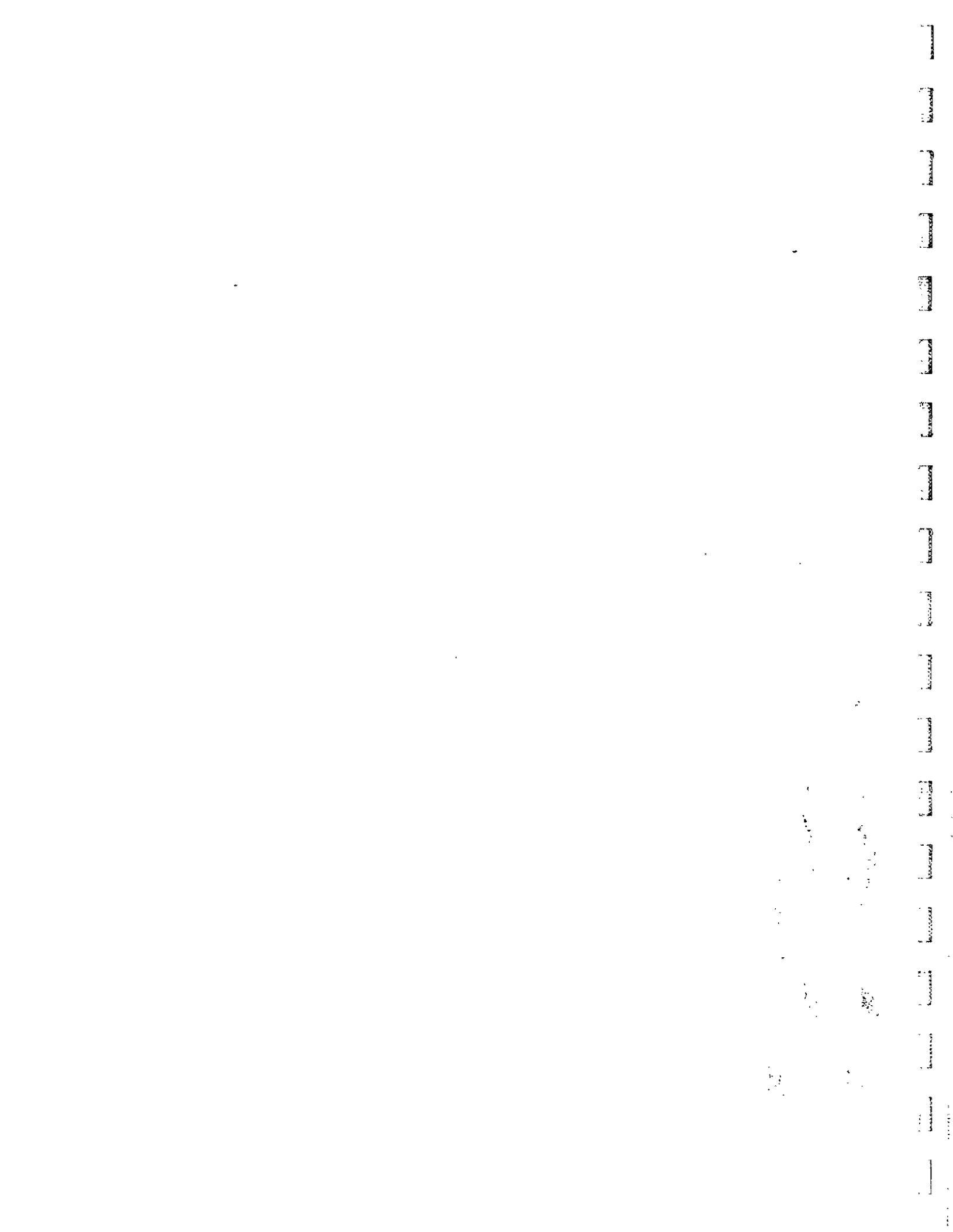
(Attach Additional Sheets if Required)

- Notes:
- * Be specific as to location and type of discrepancies and recommend solutions.
 - * Use "NA" if there is no discrepancies of which you are aware.
 - * Application for Payment will be withheld or modified for noncompliance with submittal of the Certificate of Discrepancies.

Submitted by: _____

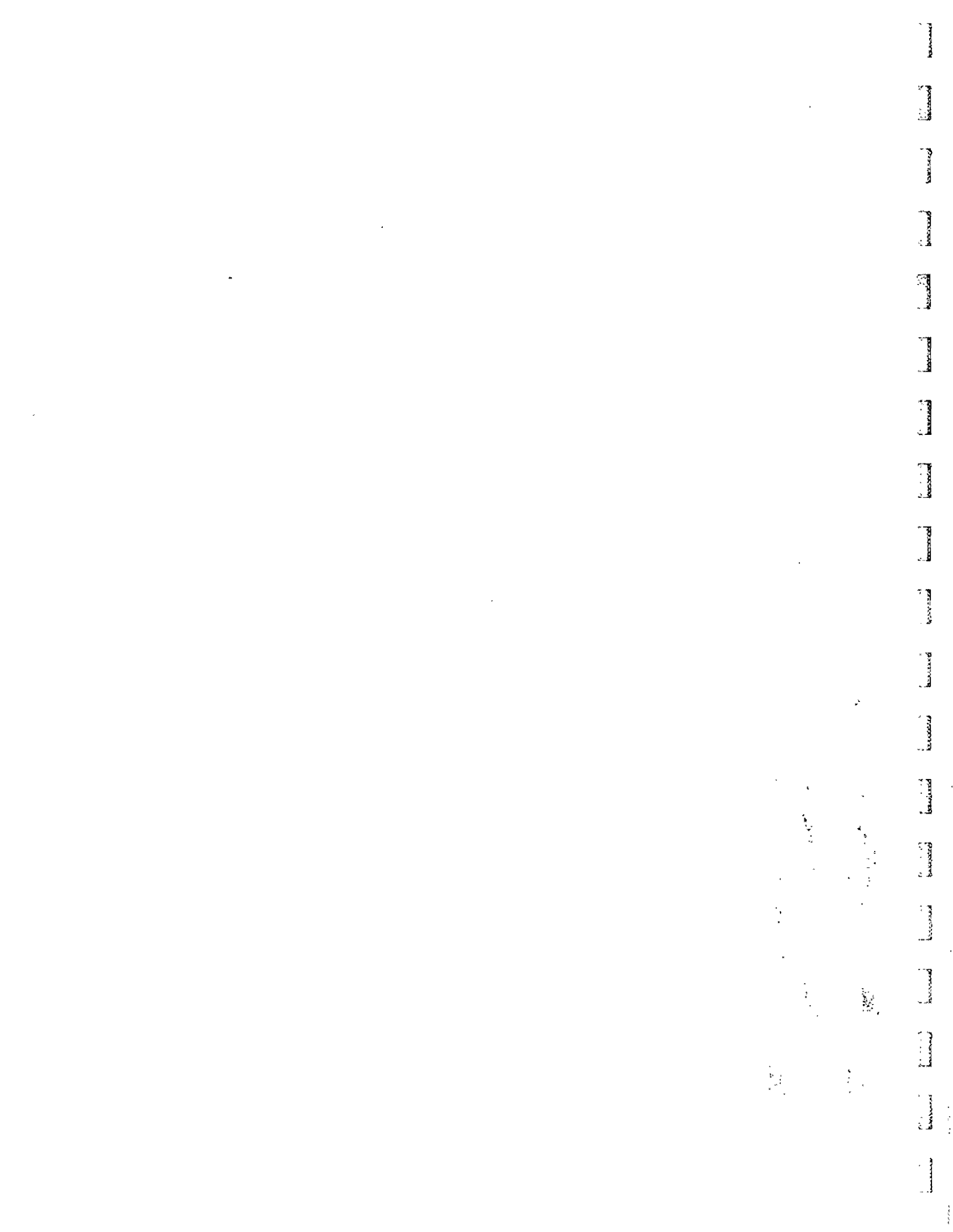
Firm

Signed by: _____



SECTION 00700

**STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT**



**STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT**

Prepared by
Engineers Joint Contract Documents Committee

and

Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

CONSTRUCTION SPECIFICATIONS INSTITUTE

This document has been approved and endorsed by

The Associated General  Contractors of America

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1990 Editions). Their provisions are interrelated and a change in one may necessitate a change in the others. Comments concerning their usage are contained in the Commentary on Agreements for Engineering Services and Contract Documents (No. 1910-9) (1986 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1990 Edition). When bidding is involved, the Standard Form of Instructions to Bidders (No. 1910-12) (1990 Edition) may be used.

© 1990 National Society of Professional Engineers
1420 King Street, Alexandria, VA 22314

American Consulting Engineers Council
1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers
345 East 47th Street, New York, NY 10017

Construction Specifications Institute
601 Madison St., Alexandria, VA 22314

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GENERAL CONDITIONS

ARTICLE I—DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

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

1.2. *Agreement*—The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3. *Application for Payment*—The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

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

1.5. *Bid*—The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.6. *Bidding Documents*—The advertisement or invitation to Bid, instructions to bidders, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.7. *Bidding Requirements*—The advertisement or invitation to Bid, instructions to bidders, and the Bid form.

1.8. *Bonds*—Performance and Payment bonds and other instruments of security.

1.9. *Change Order*—A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.10. *Contract Documents*—The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agree-

ment, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and ENGINEER's written interpretations and clarifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to paragraphs 6.26 and 6.27 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.

1.11. *Contract Price*—The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

1.12. *Contract Times*—The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13.

1.13. *CONTRACTOR*—The person, firm or corporation with whom OWNER has entered into the Agreement.

1.14. *defective*—An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

1.15. *Drawings*—The drawings which show the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.

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

1.17. *ENGINEER*—The person, firm or corporation named as such in the Agreement.

1.18. *ENGINEER's Consultant*—A person, firm or corporation having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.19. *Field Order*—A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.

1.20. *General Requirements*—Sections of Division I of the Specifications.

1.21. *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.

1.22. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.23. *Liens*—Liens, charges, security interests or encumbrances upon real property or personal property.

1.24. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.25. *Notice of Award*—The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.26. *Notice to Proceed*—A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.27. *OWNER*—The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

1.28. *Partial Utilization*—Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.29. *PCBs*—Polychlorinated biphenyls.

1.30. *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 Wastes and crude oils.

1.31. *Project*—The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.32. *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.

1.33. *Resident Project Representative*—The authorized representative of ENGINEER who may be assigned to the site or any part thereof.

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

1.35. *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.

1.36. *Specifications*—Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

1.37. *Subcontractor*—An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.38. *Substantial Completion*—The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER'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; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.39. *Supplementary Conditions*—The part of the Contract Documents which amends or supplements these General Conditions.

1.40. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.41. *Underground Facilities*—All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

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

1.43. *Work*—The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

1.44. *Work Change Directive*—A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.23. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph 10.2.

1.45. *Written Amendment*—A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

ARTICLE 2—PRELIMINARY MATTERS

Delivery of Bonds:

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2. OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Times; Notice to Proceed:

2.3. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. In no event will the

Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

Starting the Work:

2.4. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

Before Starting Construction:

2.5. Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless CONTRACTOR knew or reasonably should have known thereof.

2.6. Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.6.1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.6.2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;

2.6.3. a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.7. Before any Work at the site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with paragraphs 5.4, 5.6 and 5.7.

Preconstruction Conference:

2.8. Within twenty days after the Contract Times start to run, but before any Work at the site is started, a conference

attended by 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 schedules referred to in paragraph 2.6, procedures for handling Shop Drawings and other submittals, processing Applications for Payment and maintaining required records.

Initially Acceptable Schedules:

2.9. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment 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 paragraph 2.6. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until the schedules are submitted to and acceptable to ENGINEER as provided below. The progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on ENGINEER responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor. CONTRACTOR's schedule of Shop Drawing and Sample submissions will be acceptable to ENGINEER as providing 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.

**ARTICLE 3—CONTRACT DOCUMENTS: INTENT,
AMENDING, REUSE**

Intent:

3.1. The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifi-

cations and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 9.4.

3.3. Reference to Standards and Specifications of Technical Societies: Reporting and Resolving Discrepancies:

3.3.1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

3.3.2. 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 any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, CONTRACTOR shall report it to ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.23) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

3.3.3. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, 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:

3.3.3.1. the provisions of any such standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

3.3.3.2. the provisions of any such 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).

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, ENGINEER or any of ENGINEER's Consultants, agents or employees any duty or authority to supervise or direct the furnishing or

performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents.

3.4. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed 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 shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13 or any other provision of the Contract Documents.

Amending and Supplementing Contract Documents:

3.5. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.5.1. a formal Written Amendment.

3.5.2. a Change Order (pursuant to paragraph 10.4), or

3.5.3. a Work Change Directive (pursuant to paragraph 10.1).

3.6. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

3.6.1. a Field Order (pursuant to paragraph 9.5),

3.6.2. ENGINEER's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27), or

3.6.3. ENGINEER's written interpretation or clarification (pursuant to paragraph 9.4).

Reuse of Documents:

3.7. CONTRACTOR, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER (i) shall not have or acquire any title to or ownership rights in any

of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

**ARTICLE 4—AVAILABILITY OF LANDS;
SUBSURFACE AND PHYSICAL
CONDITIONS; REFERENCE POINTS**

Availability of Lands:

4.1. OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a correct statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's lien against such lands in accordance with applicable Laws and Regulations. OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR and OWNER are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in OWNER's furnishing these lands, rights-of-way or easements, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.2. Subsurface and Physical Conditions:

4.2.1. *Reports and Drawings:* Reference is made to the Supplementary Conditions for identification of:

4.2.1.1. *Subsurface Conditions:* Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents; and

4.2.1.2. *Physical Conditions:* Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by ENGINEER in preparing the Contract Documents.

4.2.2. Limited Reliance by CONTRACTOR Authorized: Technical Data: CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

4.2.2.1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or

4.2.2.2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.2.3. Notice of Differing Subsurface or Physical Conditions: If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:

4.2.3.1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is materially inaccurate, or

4.2.3.2. is of such a nature as to require a change in the Contract Documents, or

4.2.3.3. differs materially from that shown or indicated in the Contract Documents, or

4.2.3.4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then

CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.23), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

4.2.4. ENGINEER's Review: ENGINEER will promptly review the pertinent conditions, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

4.2.5. Possible Contract Documents Change: If ENGINEER concludes that a change in the Contract Documents is required as a result of a condition that meets one or more of the categories in paragraph 4.2.3., a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of such change.

4.2.6. Possible Price and Times Adjustments: An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in CONTRACTOR's cost of, or time required for performance of, the Work; subject, however, to the following:

4.2.6.1. such condition must meet any one or more of the categories described in paragraphs 4.2.3.1 through 4.2.3.4, inclusive;

4.2.6.2. a change in the Contract Documents pursuant to paragraph 4.2.5 will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment;

4.2.6.3. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.10 and 11.9; and

4.2.6.4. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Times if:

4.2.6.4.1. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or

4.2.6.4.2. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

4.2.6.4.3. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.2.3.

If OWNER and CONTRACTOR are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.3. Physical Conditions—Underground Facilities:

4.3.1. **Shown or Indicated:** The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on

information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

4.3.1.1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

4.3.1.2. The cost of all of the following will be included in the Contract Price and CONTRACTOR shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

4.3.2. *Not Shown or Indicated:* If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated 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 (except in an emergency as required by paragraph 6.23), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and 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 of the 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 as provided in Article 10 to reflect and document such consequences. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated 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 OWNER and CONTRACTOR are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages incurred or sustained by CONTRACTOR on or in connection with any other project or anticipated project.

Reference Points:

4.4. OWNER 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 shall make no changes or relocations

without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point 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 by professionally qualified personnel.

4.5. Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material:

4.5.1. OWNER shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. OWNER shall not be responsible for any such materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.5.2. CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.23), and (ii) notify OWNER and ENGINEER (and thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefor as provided in Articles 11 and 12.

4.5.3. If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefor as provided in Articles 11 and 12. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

4.5.4. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's

Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) 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, and (ii) nothing in this subparagraph 4.5.4 shall obligate OWNER to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.

4.5.5. The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

ARTICLE 5—BONDS AND INSURANCE

Performance, Payment and Other Bonds:

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

5.2. If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within ten days thereafter substitute another Bond and surety, both of which must be acceptable to OWNER.

5.3. Licensed Sureties and Insurers; Certificates of Insurance:

5.3.1. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance

companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain in accordance with paragraph 5.4. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain in accordance with paragraphs 5.6 and 5.7 hereof.

CONTRACTOR's Liability Insurance:

5.4. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

5.4.1. claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.4.2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.4.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.4.4. claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5.4.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

5.4.6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 5.4 to be purchased and maintained shall:

5.4.7. with respect to insurance required by paragraphs 5.4.3 through 5.4.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers and employees of all such additional insureds;

5.4.8. include the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

5.4.9. include completed operations insurance:

5.4.10. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.12, 6.16 and 6.31 through 6.33;

5.4.11. contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.3.2 will so provide);

5.4.12. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 13.12; and

5.4.13. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

OWNER's Liability Insurance:

5.5. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.4, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insur-

ance upon the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

5.6.1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

5.6.2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework and Work in transit and shall insure against at least the following perils fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;

5.6.3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

5.6.4. cover materials and equipment stored at the site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and

5.6.5. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.

5.7. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

5.8. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by OWNER in accordance with paragraphs 5.6 and 5.7 will contain a provision or endorsement that the coverage afforded will not be cancelled or materially changed or renewal refused until at least thirty days' prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.11.

5.9. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount, will be borne by CONTRACTOR. Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.10. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraphs 5.6 or 5.7, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.11. *Waiver of Rights:*

5.11.1. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraphs 5.6 and 5.7 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

5.11.2. In addition, OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them, for:

5.11.2.1. loss due to business interruption, loss of use or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of or resulting from fire or other peril, whether or not insured by OWNER; and

5.11.2.2. loss or damage to the completed Project or part thereof caused by, arising out of or resulting from fire or other insured peril covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.10, after substantial completion pursuant to paragraph 14.8 or after final payment pursuant to paragraph 14.13.

Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in this paragraph 5.11.2 shall contain provisions to the effect that in the event of payment of any such loss, damage or consequential loss the insurers will have no rights of recovery against any of CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them.

Receipt and Application of Insurance Proceeds

5.12. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

Acceptance of Bonds and Insurance; Option to Replace:

5.14. If either party (OWNER or CONTRACTOR) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.7. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was

required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

Partial Utilization—Property Insurance:

5.15. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6—CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

6.1. CONTRACTOR shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment:

6.3. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and

CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.

6.4. Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

Progress Schedule:

6.6. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.9 as it may be adjusted from time to time as provided below:

6.6.1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.9) proposed adjustments in the progress schedule that will change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.7. Substitutes and "Or-Equal" Items:

6.7.1. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be accepted by ENGINEER under the following circumstances:

6.7.1.1. *"Or-Equal"*: If in ENGINEER's sole discretion 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-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

6.7.1.2. *Substitute Items*: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under subparagraph 6.7.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the ENGINEER will include the following as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall first make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute.

6.7.1.3. *CONTRACTOR's Expense*: All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense.

6.7.2. *Substitute Construction Methods or Procedures*: If a specific means, method, technique, sequence or procedure of

construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.7.1.2.

6.7.3. *Engineer's Evaluation*: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.2 and 6.7.2. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitutes proposed or submitted by CONTRACTOR pursuant to paragraphs 6.7.1.2 and 6.7.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER accepts a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute item.

Concerning Subcontractors, Suppliers and Others:

6.8.1. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

6.8.2. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials or equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's or ENGINEER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute, the Contract Price will be adjusted by the difference in the cost occasioned by such

substitution and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject *defective Work*.

6.9.1. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.9.2. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the ENGINEER through CONTRACTOR.

6.10. 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.

6.11. 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 OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.6 or 5.7, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils 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.

Patent Fees and Royalties:

6.12. CONTRACTOR shall pay all license fees and royalties and assume all costs incident 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 OWNER or ENGINEER 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 OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from 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.

Permits:

6.13. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER 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 Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

Laws and Regulations:

6.14.1. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.14.2. 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 caused by, arising out of or resulting therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.3.2.

Taxes:

6.15. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of

the Project which are applicable during the performance of the Work.

Use of Premises:

6.16. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises 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. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

6.17. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18. 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.

Record Documents:

6.19. CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of

the Work, these record documents, Samples and Shop Drawings will be delivered to ENGINEER for OWNER.

Safety and Protection:

6.20. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1. all persons on the Work site or who may be affected by the Work;

6.20.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3. 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 of any public body having jurisdiction for safety of persons or property or to protect them 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 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. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish 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 OWNER or ENGINEER or ENGINEER's Consultant or anyone employed by any of them or anyone for whose acts any of them 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 person or organization directly or indirectly employed by any of them). 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 ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Safety Representative:

6.21. 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.

Hazard Communication Programs:

6.22. 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.

Emergencies:

6.23. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, 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. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.

6.24. Shop Drawings and Samples:

6.24.1. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see paragraph 2.9). All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The 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 materials and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.26.

6.24.2. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.26. The numbers of each Sample to be submitted will be as specified in the Specifications.

6.25. Submittal Procedures:

6.25.1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

6.25.1.1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto,

6.25.1.2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and

6.25.1.2. all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have 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.

6.25.2. Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR'S review and approval of that submittal.

6.25.3. At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

6.26. ENGINEER will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by ENGINEER as required by paragraph 2.9. 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. 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.

6.27. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract

Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.25.1.

6.28. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by ENGINEER as required by paragraph 2.9, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

Continuing the Work:

6.29. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.30. CONTRACTOR's General Warranty and Guarantee:

6.30.1. CONTRACTOR warrants and guarantees to OWNER, ENGINEER and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be *defective*. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

6.30.1.1. abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or

6.30.1.2. normal wear and tear under normal usage.

6.30.2. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

6.30.2.1. observations by ENGINEER;

6.30.2.2. recommendation of any progress or final payment by ENGINEER;

6.30.2.3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

6.30.2.4. use or occupancy of the Work or any part thereof by OWNER;

6.30.2.5. any acceptance by OWNER or any failure to do so;

6.30.2.6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13;

6.30.2.7. any inspection, test or approval by others; or

6.30.2.8. any correction of *defective* Work by OWNER.

Indemnification:

6.31. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants 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) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) 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, and (ii) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.

6.32. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.31 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 person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.33. The indemnification obligations of CONTRACTOR under paragraph 6.31 shall not extend to the liability of ENGINEER and ENGINEER's Consultants, officers, directors, employees or agents caused by the professional negligence, errors or omissions of any of them.

Survival of Obligations:

6.34. All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with

the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

ARTICLE 7—OTHER WORK

Related Work at Site:

7.1. OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to CONTRACTOR prior to starting any such other work, and (ii) CONTRACTOR may make a claim therefor as provided in Articles 11 and 12 if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the amount or extent thereof.

7.2. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure so to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in such other work.

Coordination:

7.4. If OWNER contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:

7.4.1. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;

7.4.2. the specific matters to be covered by such authority and responsibility will be itemized; and

7.4.3. the extent of such authority and responsibilities will be provided.

Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

ARTICLE 8—OWNER'S RESPONSIBILITIES

8.1. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.3. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.4 and 14.13.

8.4. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents.

8.5. OWNER's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.10.

8.6. OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.7. OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.8. In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

8.9. The OWNER shall not supervise, direct or have control or authority over, nor 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 and Regulations applicable to the furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

8.10. OWNER'S responsibility in respect of undisclosed Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.

8.11. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9—ENGINEER'S STATUS DURING CONSTRUCTION

OWNER's Representative:

9.1. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

Visits to Site:

9.2. ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. ENGINEER's visits and on-site observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.13, and particularly, but without limitation, during or as a result of ENGINEER's on-site visits or

observations of CONTRACTOR's Work 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 and Regulations applicable to the furnishing or performance of the Work.

Project Representative:

9.3. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more continuous observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

Clarifications and Interpretations:

9.4. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or Article 12.

Authorized Variations in Work:

9.5. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR who shall perform the Work involved promptly. If OWNER or CONTRACTOR believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or 12.

Rejecting Defective Work:

9.6. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or

that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Shop Drawings, Change Orders and Payments:

9.7. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraphs 6.24 through 6.28 inclusive.

9.8. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

9.9. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

Determinations for Unit Prices:

9.10. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other and to ENGINEER written notice of intention to appeal from ENGINEER's decision and: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in Exhibit GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to ENGINEER's decision, unless otherwise agreed in writing by OWNER and CONTRACTOR. Such appeal will not be subject to the procedures of paragraph 9.11.

Decisions on Disputes:

9.11. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant

to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days after the start of such occurrence or event unless ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to ENGINEER and the claimant within thirty days after receipt of the claimant's last submittal (unless ENGINEER allows additional time). ENGINEER will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. ENGINEER's written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR unless: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in EXHIBIT GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claim, dispute or other matter in accordance with applicable Laws and Regulations within sixty days of the date of such decision, unless otherwise agreed in writing by OWNER and CONTRACTOR.

9.12. When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 or 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.15) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to Article 16.

9.13. Limitations on ENGINEER's Authority and Responsibilities:

9.13.1. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by ENGINEER shall create, impose or give rise to any duty owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them.

9.13.2. 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 and 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.

9.13.3. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.13.4. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and Other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.13.5. The limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to ENGINEER's Consultants, Resident Project Representative and assistants.

ARTICLE 10—CHANGES IN THE WORK

10.1. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. Such additions, deletions or revisions will be authorized by a Written Amendment, 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).

10.2. If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefor as provided in Article 11 or Article 12.

10.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of an emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

10.4.1. changes in the Work which are (i) ordered by OWNER pursuant to paragraph 10.1, (ii) required because of acceptance of *defective* Work under paragraph 13.13 or correcting *defective* Work under paragraph 13.14, or (iii) agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11;

provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.29.

10.5. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

ARTICLE 11—CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at CONTRACTOR's expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after the start of such occurrence or event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will

be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1 through 11.9.3, inclusive);

11.3.2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2);

11.3.3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 11.6).

Cost of the Work:

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. 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 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 expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the

cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed or furnished by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof—all in accordance with the terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.5. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1 or specifically covered by paragraph 11.4.4—all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. a mutually acceptable fixed fee; or

11.6.2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

11.6.2.1. for costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR's fee shall be fifteen percent;

11.6.2.2. for costs incurred under paragraph 11.4.3, the CONTRACTOR's fee shall be five percent;

11.6.2.3. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 11.4.1, 11.4.2, 11.4.3 and 11.6.2 is that the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of fifteen percent of the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

11.6.2.4. no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.5. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

11.6.2.6. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 11.6.2.1 through 11.6.2.5, inclusive.

11.7. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

Cash Allowances:

11.8. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be furnished and performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

11.8.1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

11.8.2. CONTRACTOR's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances and no demand for additional payment on account of any of the foregoing will be valid.

Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.9. *Unit Price Work:*

11.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with paragraph 9.10.

11.9.2. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

11.9.3. OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11 if:

11.9.3.1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

11.9.3.2. there is no corresponding adjustment with respect to any other item of Work; and

11.9.3.3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result

of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

*See attached Supplementary Information

ARTICLE 12—CHANGE OF CONTRACT TIMES

12.1. The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1.

12.2. All time limits stated in the Contract Documents are of the essence of the Agreement.

12.3. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.4. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii)

delays beyond the control of both parties including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

**ARTICLE 13—TESTS AND INSPECTIONS:
CORRECTION, REMOVAL OR
ACCEPTANCE OF DEFECTIVE WORK**

13.1. *Notice of Defects:* Prompt notice of all defective Work of which OWNER or ENGINEER have actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

Tests and Inspections:

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

13.4.1. for inspections, tests or approvals covered by paragraph 13.5 below;

13.4.2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and

13.4.3. as otherwise specifically provided in the Contract Documents.

13.5. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection, or

approval. CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

13.6. If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

13.7. Uncovering Work as provided in paragraph 13.6 shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

OWNER May Stop the Work:

13.10. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work

shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

Correction or Removal of Defective Work:

13.11. If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all *defective* Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with Work that is not *defective*. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.12. Correction Period:

13.12.1. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be *defective*, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) correct such *defective* Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not *defective*, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the *defective* Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

13.12.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

13.12.3. Where *defective* Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of *defective* Work, OWNER (and, prior to ENGINEER's recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall

pay all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such *defective* Work (such costs to be approved by ENGINEER as to reasonableness). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct *defective* Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors and ENGINEER and ENGINEER's Consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's *defective* Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14—PAYMENTS TO CONTRACTOR AND COMPLETION

Schedule of Values:

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and

will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment:

14.2. At least twenty days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

CONTRACTOR's Warranty of Title:

14.3. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

14.4. ENGINEER will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

14.5.1. the Work has progressed to the point indicated.

14.5.2. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10, and to any other qualifications stated in the recommendation), and

14.5.3. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.6. ENGINEER's recommendation of any payment, including final payment, shall not mean that ENGINEER is 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 and Regulations applicable to the furnishing or performance of Work, or for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents.

14.7. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.5. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.7.1. the Work is *defective*, or completed Work has been damaged requiring correction or replacement.

14.7.2. the Contract Price has been reduced by Written Amendment or Change Order.

14.7.3. OWNER has been required to correct *defective* Work or complete Work in accordance with paragraph 13.14, or

14.7.4. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.4 inclusive.

OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

14.7.5. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work.

14.7.6. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens.

14.7.7. there are other items entitling OWNER to a set-off against the amount recommended, or

14.7.8. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive;

but OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

Substantial Completion:

14.8. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within fourteen days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said fourteen days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform

ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

Partial Utilization:

14.10. Use by OWNER at OWNER's option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, 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 OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 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.

14.10.2. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.15 in respect of property insurance.

Final Inspection:

14.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all

particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

Final Application for Payment:

14.12. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.4.13, (ii) consent of the surety, if any, to final payment, and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu of such releases or waivers of Liens and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) all payrolls, material and equipment bills and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.13. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after the presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance and with ENGINEER's recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to

CONTRACTOR.

14.14. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Waiver of Claims:

14.15. The making and acceptance of final payment will constitute:

14.15.1. a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

14.15.2. a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15—SUSPENSION OF WORK AND TERMINATION

OWNER May Suspend Work:

15.1. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

OWNER May Terminate:

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if CONTRACTOR persistently fails 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 progress schedule established under paragraph 2.9 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction:

15.2.2. if CONTRACTOR disregards the authority of ENGINEER; or

15.2.4. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents:

OWNER may, after giving CONTRACTOR (and the surety, if any,) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, 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), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by OWNER arising out of or resulting from 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 OWNER. Such claims, costs, losses and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and when so approved by ENGINEER incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

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

15.4. Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

15.4.1. for 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;

15.4.2. for 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;

15.4.3. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and

15.4.4. for 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.

CONTRACTOR May Stop Work or Terminate:

15.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty days after it is submitted or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within thirty days after it is submitted, or OWNER has failed for thirty days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may upon seven days' written notice to OWNER and ENGINEER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude CONTRACTOR from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

ARTICLE 16—DISPUTE RESOLUTION

If and to the extent that OWNER and CONTRACTOR have agreed on the method and procedure for resolving disputes between them that may arise under this Agreement, such dispute resolution method and procedure, if any, shall be as set forth in Exhibit GC-A, "Dispute Resolution Agreement," to be attached hereto and made a part hereof. If no such agreement on the method and procedure for resolving such disputes has been reached, and subject to the provisions of paragraphs 9.10, 9.11, and 9.12, OWNER and CONTRACTOR may exercise

such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17—MISCELLANEOUS

Giving Notice:

17.1. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Times:

17.2.1. 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 any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.2.2. A calendar day of twenty-four hours measured from midnight to the next midnight will constitute a day.

Notice of Claim:

17.3. Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or

act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

Cumulative Remedies:

17.4. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.12, 6.16, 6.30, 6.31, 6.32, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

Professional Fees and Court Costs Included:

17.5. Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

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**EXHIBIT GC-A to General Conditions of the
Agreement Between OWNER and CON-
TRACTOR Dated _____
For use with EJCDC No. 1910-8 (1990 ed.)**

DISPUTE RESOLUTION AGREEMENT

OWNER and CONTRACTOR hereby agree that Article 16 of the General Conditions to the Agreement between OWNER and CONTRACTOR is amended to include the following agreement of the parties:

16.1. All claims, disputes and other matters in question between OWNER and CONTRACTOR arising out of or relating to the Contract Documents or the breach thereof (except for claims which have been waived by the making or acceptance of final payment as provided by paragraph 14.15) will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining, subject to the limitations of this Article 16. This agreement so to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith as provided in this Article 16 will be specifically enforceable under the prevailing law of any court having jurisdiction.

16.2. No demand for arbitration of any claim, dispute or other matter that is required to be referred to ENGINEER initially for decision in accordance with paragraph 9.11 will be made until the earlier of (a) the date on which ENGINEER has rendered a written decision or (b) the thirty-first day after the parties have presented their evidence to ENGINEER if a written decision has not been rendered by ENGINEER before that date. No demand for arbitration of any such claim, dispute or other matter will be made later than thirty days after the date on which ENGINEER has rendered a written decision in respect thereof in accordance with paragraph 9.11; and the failure to demand arbitration within said thirty days' period will result in ENGINEER's decision being final and binding upon OWNER and CONTRACTOR. If ENGINEER renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede the arbitration proceedings, except where the decision is acceptable to the parties concerned. No demand for arbitration of any written decision of ENGINEER rendered in accordance with paragraph 9.10 will be made later than ten days after the party making such demand has delivered written notice of intention to appeal as provided in paragraph 9.10.

16.3. Notice of the demand for arbitration will be filed in writing with the other party to the Agreement and with the

American Arbitration Association, and a copy will be sent to ENGINEER for information. The demand for arbitration will be made within the thirty-day or ten-day period specified in paragraph 16.2 as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

16.4. Except as provided in paragraph 16.5 below, no arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity (including ENGINEER, ENGINEER's Consultant and the officers, directors, agents, employees or consultants of any of them) who is not a party to this contract unless:

16.4.1. the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration, and

16.4.2. such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and

16.4.3. the written consent of the other person or entity sought to be included and of OWNER and CONTRACTOR has been obtained for such inclusion, which consent shall make specific reference to this paragraph; but no such consent shall constitute consent to arbitration of any dispute not specifically described in such consent or to arbitration with any party not specifically identified in such consent.

16.5. Notwithstanding paragraph 16.4 if a claim, dispute or other matter in question between OWNER and CONTRACTOR involves the Work of a Subcontractor, either OWNER or CONTRACTOR may join such Subcontractor as a party to the arbitration between OWNER and CONTRACTOR hereunder. CONTRACTOR shall include in all subcontracts required by paragraph 6.11 a specific provision whereby the Subcontractor consents to being joined in an arbitration between OWNER and CONTRACTOR involving the Work of such Subcontractor. Nothing in this paragraph 16.5 nor in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of Subcontractor and against OWNER, ENGINEER or ENGINEER's Consultants that does not otherwise exist.

16.6. The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.

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16.7. OWNER and CONTRACTOR agree that they shall first submit any and all unsettled claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents or the breach thereof ("disputes"), to mediation by The American Arbitration Association under the Construction Industry Mediation Rules of the American Arbitration Association prior to either of them initiating against the other a demand for arbitration pursuant to paragraphs 16.1 through 16.6, unless delay in initiating arbitra-

tion would irrevocably prejudice one of the parties. The respective thirty and ten day time limits within which to file a demand for arbitration as provided in paragraphs 16.2 and 16.3 above shall be suspended with respect to a dispute submitted to mediation within those same applicable time limits and shall remain suspended until ten days after the termination of the mediation. The mediator of any dispute submitted to mediation under this Agreement shall not serve as arbitrator of such dispute unless otherwise agreed.

SUPPLEMENTARY INFORMATION FOR ARTICLE II OF SECTION 700 STANDARD
GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

11.10 SUPPLEMENTARY INFORMATION

- 11.10.1 Limit of any change order will be 25% of total contract price.
- 11.10.2 Change orders will only be executed for a change in scope of services.
- 11.10.3 No change order can be executed by Contractor until approved by th City Manager. For change orders less than \$15,000, the City Manager has final authority of approval and processing. Change orders in excess of \$15,000 must be approved by the Town Council.

SECTION 00800 - SPECIAL CONDITIONS

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

- A. The Standard General Conditions of the Construction Contract prepared by the Engineers Joint Contract Documents Committee, 1983 Edition, Articles 1 through 17 inclusive, is a part of this Contract and is referred to in the Contract Documents as "General Conditions" or "General Conditions of the Contract".

1.02 SPECIAL CONDITIONS

These Special Conditions modify (change, delete, add to) the General Conditions. Where a part of the General Conditions is modified, the unaltered portion of that part shall remain in effect.

1.03 OWNER AND ENGINEER

Add the following definitions to Section 1 of the General Conditions.

- A. Owner. Where the work "Owner" is used in the Contract Documents, it shall be understood as referring to the Engineering Department, Town of Addison.
- B. Engineer. Where the work "Engineer" is used in the Contract Documents, it shall be understood as referring to Carter & Burgess, Inc., 7950 Elmbrook Drive, Suite 250, Dallas, Texas 75247, 214/638-0145, Consultant to the Owner.

1.04 BONDS AND INSURANCE

- A. Prior to execution of the Agreement by the Owner, the successful Bidder shall submit proof on standard forms that he is covered by insurance as required by Article 5 of the Standard General Conditions of the Construction Contract. The minimum amounts of insurance shall be as follows:

Workmen's Compensation Insurance - Statutory Requirements

Employer Liability - \$100,000 each accident
\$100,000 disease each employee
\$500,000 disease policy limit

Automobile Liability Insurance with limits of:

Bodily Injury - \$250,000 each person
\$500,000 each occurrence
Property Damage - \$600,000 each occurrence

Automobile liability and property damage in the foregoing amounts will be required as blanket coverage on trucks and automobiles owned by the Contractor or any subcontractor, or operated in connection with the work regardless of ownership.

Comprehensive General Liability endorsed to include blanket contractual coverage:

General Aggregate	- \$1,000,000
Products - Components/Operations Aggregate	- \$1,000,000
Personal and Advertising Injury	- \$ 600,000
Each Occurrence	- \$ 600,000
Fire Damage (any one fire)	- \$ 50,000
Medical Expense (any one person)	- \$ 5,000

B. Owner's Liability Insurance

1. Delete paragraph 5.5 of the General Conditions in its entirety and substitute: The Contractor shall effect, maintain and pay for all Owner's Liability Insurance as required below until final acceptance of the work. Certificates of Insurance acceptable to the Owner shall be filed with the Owner prior to commencement of work. These certificates shall contain a provision that coverages afforded under the policies will not be canceled until at least 30 days prior written notice has been given to the Owner.

a. Bodily Injury - Per person/per occurrence
\$600,000/\$1,000,000

C. Property Insurance

1. Paragraph 5.6 of the General Conditions is revised to read that the Contractor shall purchase property insurance upon the work, rather than the Owner, and said property insurance shall also include coverage for flood damage. Except for these revisions, paragraph will read with no other revisions.
2. If this insurance is written with a stipulated amount deductible under the terms of this policy, the Contractor shall pay the difference attributable to such deduction in any payments made by the insurance carrier on claims paid by this insurance.
3. The Contractor shall file the original and one certified copy of all policies with the Owner before exposure to loss may occur. If the Owner is damaged by the failure of the Contractor to maintain such insurance and do so notify the Owner, then the Contractor shall bear all reasonable costs properly attributable thereto.

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4. Contractor shall effect, maintain, and pay for an Umbrella Liability Insurance in the amount of \$1,000,000.00 covering excess of the under-lying policies and possible uninsured exposure.

1.05 ACTION AND APPROVAL BY ENGINEER

- A. Wherever the words "Directed", "Required", "Permitted", "Designated", "Considered Necessary", "Prescribed", or words of like import are used in the Contract Documents, it shall be understood that they are intended to refer to action by the Engineer and, similarly, the words "Approval", "Acceptable", "Satisfactory", or words of like import shall mean approval by the Engineer.
- B. Whenever in the Contract Documents, the terms or descriptions of various qualities relative to finish, workmanship, or other qualities of similar kind cannot, because of their nature, be specifically and briefly described and are customarily described in general terms, the Engineer be the final judge as to whether or not the workmanship so described is being performed in compliance with his interpretation of the meaning of such words, terms or clauses.

1.06 COMPLETION TIME

All work included in this contract shall be completed within 28 calendar days from the Owner's issuance of Notice-to-Proceed.

1.07 LIQUIDATED DAMAGES

The Contractor agrees that time is of the essence in this Contract and that the Owner will be damaged if there is delay in completion of the work provided in this Contract beyond the time provided. The parties agree that the amount of damage which will be incurred by the Owner as a result of any such delay is difficult to estimate, and that from the viewpoint of the parties as of the date of the execution of this Contract, the amount of liquidated damages hereinafter specified is reasonable. It is furthermore specifically agreed by the parties that this provision for the payment of time specified, is a bona fide attempt by the parties to estimate as well as they are able the amount of damages which the Owner will actually incur as a result of any such delay and that the requirements for payment of liquidated damages is not intended as a penalty. The parties further agree that it is in the best interest of both parties that the amount of liquidated damages be specified herein rather than that the parties should be faced with the problem of determining actual damages in the event of any such delay. On the basis of the foregoing, the parties agree that for each day of delay beyond the



dates agreed upon for the completion of each individual item of work herein specified and contracted for (after due allowance for such extension of time as it provided for in the General Conditions of Agreement), the Contractor shall pay to the Owner as liquidated damages in the sum of \$250.00 per day, which sum may be permanently withheld by the Owner from the Contractor's total compensations provided in this contract.

1.08 EXISTING UNDERGROUND FACILITIES

The Contractor shall immediately report to the Owner or Engineer any underground facilities which he discovers. It shall be the Contractor's responsibility to determine the true location and depth of all underground facilities if their preservation is necessary to the existing Owner of said facility.

1.09 EXISTING STRUCTURES

The Owner assumes no responsibility for failure to show any or all of known surface and subsurface structures on the Drawings, or to show them in their exact location. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or requires the building of special work, provisions for which are not made in the Drawings or Specifications, in which case the provisions of these Contract Documents for extra work shall apply.

1.10 DUST CONTROL

The Contractor shall sprinkle areas under construction, haul routes and detours as required to maintain sufficient moisture content in the surface layer for dust control.

1.11 USE OF EXPLOSIVES

The use of explosives will not be permitted.

1.12 CLEANUP

Upon completion and before making application for acceptance of the work, the Contractor shall clean all streets, borrow pits and all ground occupied by him in connection with the work, of all rubbish, excess materials, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition deemed satisfactory to the Owner.

Special cleanup conditions will be specified in the technical specifications.

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1.13 SAFETY

The Contractor shall be responsible for the safety of himself, his employees, and other persons, as well as for the protection of the safety of the improvements being erected and the property of himself or any other person, as a result of his operation. All work shall be done in accordance with the Occupational Safety and Health Administration, Safety and Health Regulations of the United States Government for construction and all other applicable state and local government regulations.

1.14 ACCIDENTS

- A. The Contractor shall provide, at the site, such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the Work.
- B. The Contractor shall promptly report in writing to the Owner all accidents whatsoever arising out of, or in connection with the performance of the work whether on or adjacent to the site which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death, serious injury, or serious damage is caused, the accident then shall be reported immediately by telephone or messenger.

1.15 WAGE RATES

All employees of the Contractor on the work to be performed under this Contractor shall be paid the prevailing wage scale in this locality for work of a similar character.

1.16 CONSTRUCTION STAKING

The Contractor shall provide all construction stakes necessary for the facilities to be constructed under this contract.

No direct compensations will be paid to the Contractor for the construction staking of the facilities included in this project. It is understood that the cost of the construction staking is included in the unit price bid for the items in the Proposal.

1.17 CONTRACTOR COST BREAKDOWN

- A. Immediately after being awarded a contractor for the work, the Contractor shall furnish the Owner with a breakdown of its lump sum bid items suitable for use in the preparation of progress estimates for the job. Such a breakdown shall tabulate quantities and the unit prices to be applied for the various features of the work and shall be in sufficient detail as to permit its use in preparation of progress estimates. The cost breakdown shall not be unbalanced.
- B. Progress payment for materials on hand and equipment delivered for installation as a part of the work will be based on invoices.

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C. The Owner will not approve a progress estimate for payment until a satisfactory cost breakdown for the project has been submitted by the Contractor.

1.18 EQUAL OPPORTUNITY CLAUSE

"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, religion, color, sex or national origin. The Contractor will take affirmative action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection of 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 the nondiscrimination clause.

"(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

"(3) 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, as amended (3CFR 169 (1974)), and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

"(4) The Contractor will comply with all provisions of Executive Order No. 11246, as amended, and of the rules, regulations and relevant orders of the Secretary of Labor.

"(5) The Contractor will furnish all information and reports required by Executive Order No. 11246, as amended, and by the rules, regulations and order 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.

"(6) 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

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authorized in Executive Order No. 11246, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246, as amended or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

"(7) The Contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempt by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246, as amended, 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 the contracting agency may direct 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 becomes involved in, or is threatened with, litigation to protect the interest of the United States.

1.19 PROTECTION OF TREES

No tree shall be removed without the express written permission from the Owner or his authorized representative. Any tree that is destroyed shall be replaced at the Contractor's expense.

Any tree of a specimen type that cannot be replaced in type and quality, or because of size, will be considered a value loss, and such trees will be assigned a net value of \$1,000. The Owner will submit an itemized statement for such tree loss and may charge same against the Contractor's pay estimates, and withhold payment for all damaged or destroyed trees until replacement.

1.20 STORAGE OF MATERIAL

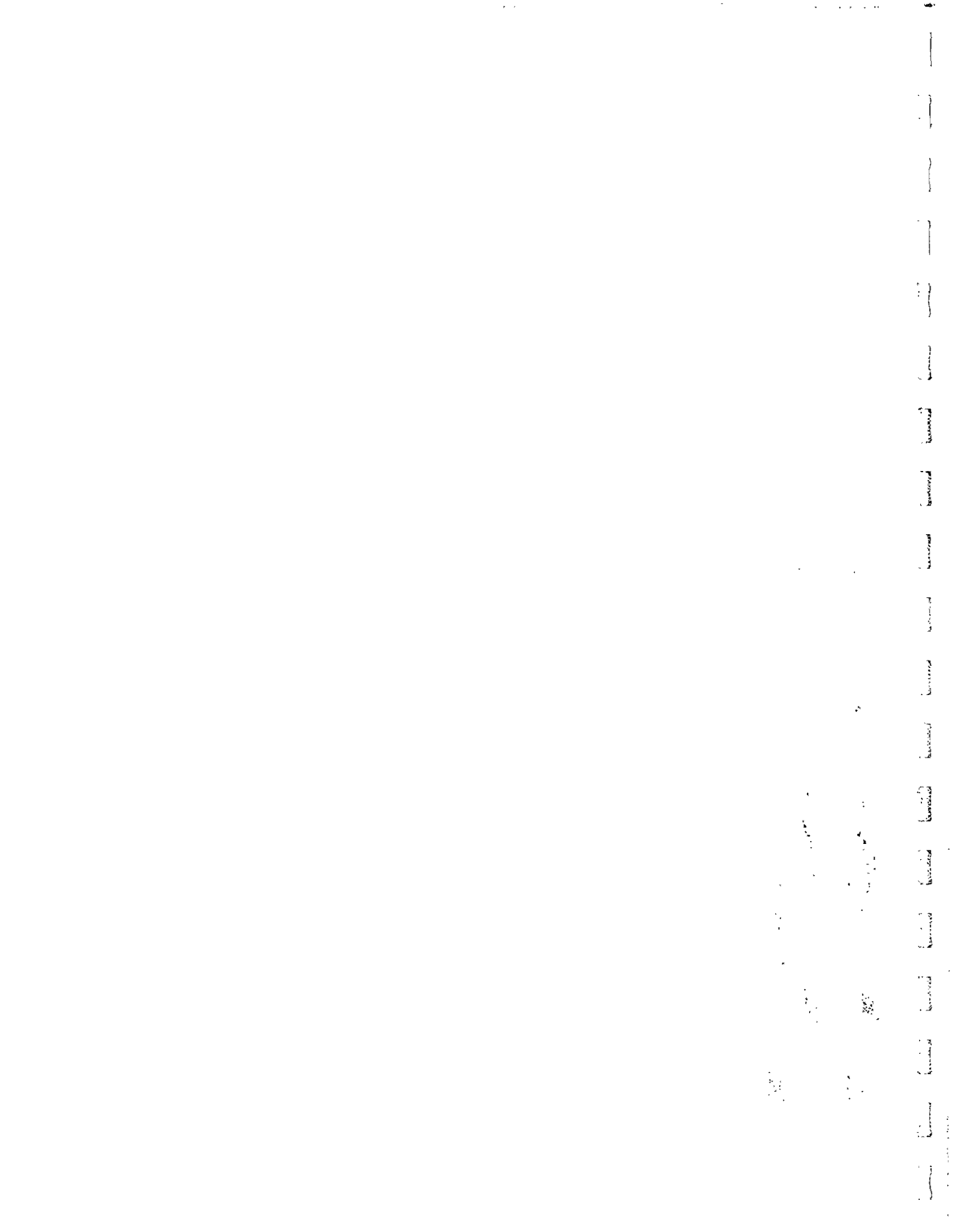
The Contractor shall at all times carefully and properly protect all materials of every description, both before and after being used in the work, and provide any enclosing or special protection from the weather deemed necessary by the Engineer without additional cost. Partial payments will not relieve the Contractor of any of his responsibility in this regard. Contractor shall not store or stage materials in areas which are not approved by the Owner.

1.21 UNIT PRICES

A change in the length or height of the gabion wall shall not be cause for a change in the unit prices bid for any bid item.

The Owner will pay for the actual amount of each bid item installed.

END OF SECTION



SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

Addison Pond Improvements, Addison, Texas, including dewatering of pond, construction of gabion wall, boulder placement and miscellaneous related items.

1.02 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for work, ingress and egress of personnel, and deliveries to areas indicated on the Drawings.
- B. Conform to Town of Addison's rules and regulations regarding use of the project site.

1.03 OWNER FURNISHED PRODUCTS

These products shall include all items which are purchased separately by the Owner, and to be installed as part of the Contractor's work.

A. Owner Responsibilities:

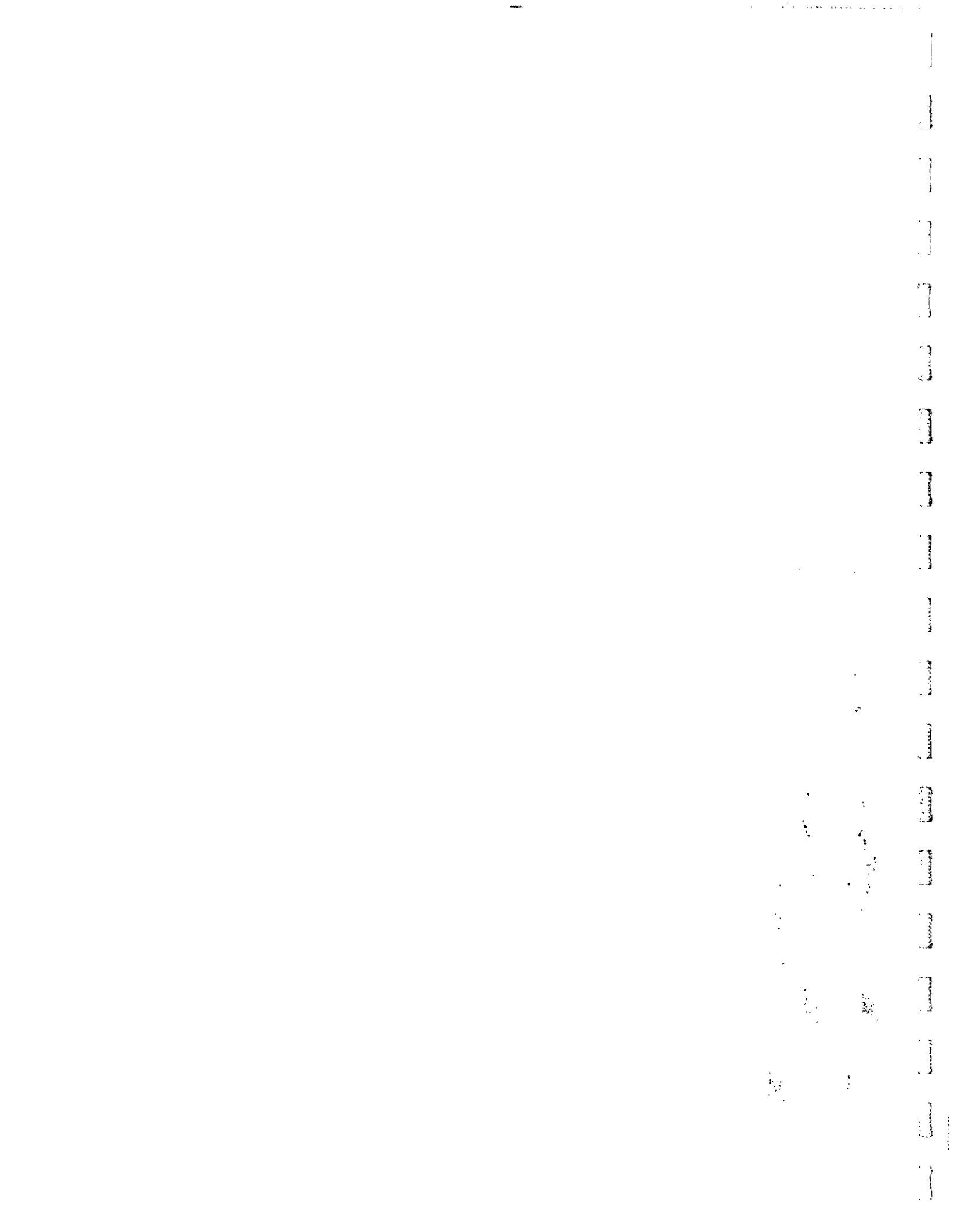
Make arrangements for delivery of shop drawings, manufacturer's instructions, and delivery of materials to Contractor.

B. Contractor Responsibilities:

Cooperate with Owner as to receiving, handling, storage and protection of Owner-furnished equipment and materials.

1.04 CONTRACT DOCUMENTS

- A. The full intent, meaning and spirit of these Contract Documents is to provide a complete, finished, and fully operational park facility.
- B. The drawings show diagrammatically the work to be performed, and are not intended to show every incidental part, fitting and member required for a complete project. These incidental parts, fittings and members shall be required as part of the Contract.



- C. The specifications establish the quality of materials and workmanship to be performed. They are not intended to describe every step or member in the process of construction. Procedures, craftsmanship and materials of high quality shall be employed where not specifically called for in these specifications.

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SECTION 01025 - MEASUREMENT AND BASIS OF PAYMENT

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

This section governs the basis of compensation for construction of Addison Pond Improvements, Addison, Texas.

1.02 GENERAL

A. It is not the intent of the bid schedule or this Section to itemize each and every item required for this project. Items required for project completion and not specifically included in the bid schedule will be included with the items to which they are considered subsidiary.

B. The various items in the proposal and bid schedule will be paid for by the unit or lump sum price. These prices shall be full compensation for furnishing all materials, equipment, labor, tools, power, transportation, temporary facilities, incidentals, permits, superintendence, overhead and profit required to complete the construction of the various items of the project listed in the bid schedule and as itemized below.

1.03 UNIT PRICES AND LUMP SUM BID AMOUNTS

Where in the BID FORM a "Unit Price" or "Lump Sum Bid Amount" is set forth, it shall include the furnishing by the Contractor of all labor, tools, materials, machinery, appliances, plant and equipment appurtenant to and necessary for, the construction in every detail and the completion in a first class, workmanlike manner of all work to be done under these specifications. The "Unit Price" or "Lump Sum Bid Amount" shall also include all permanent protection of overhead expense, bond, insurance, patent fees, royalties, risk due to the elements, delay, profit, injuries, damages, claims and all other items not specifically mentioned that may be required to construct fully each item of the work complete in place.

1.04 "PER EACH" BID ITEMS

These items will be paid for individually as a complete, properly functioning element. These items will include incidentals and appurtenances required to provide each bid item.

END OF SECTION

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SECTION 01027 - APPLICATION FOR PAYMENT

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

Application for monthly progress payments are in accordance with the Standard General Conditions.

1.02 DATE OF APPLICATIONS

The day of each month that the application for payment is submitted will be determined at the pre-construction conference.

1.03 FORM

Submit applications for payment on the Standard AIA document G702, Application for Payment. Provide 5 copies with each submittal.

1.04 SCHEDULE OF VALUES

The Contract Price Breakdown is the basis for applications for payment.

END OF SECTION

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SECTION 01040 - COORDINATION

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

Coordination with Owner, sub-contractors, and between the various trades and crafts shall be the responsibility of the Contractor.

1.02 SUB-CONTRACTORS AND VARIOUS TRADES

- A. Consult jointly with sub-contractors and various trades to establish schedules to the benefit of those involved.
- B. Provide whatever supervision and communication necessary to facilitate close adherence to schedules.
- C. Provide whatever supervision and communication necessary to facilitate close cooperation and coordination of sub-contractors and various trades one with the other.
- D. Subcontractors shall address all questions and concerns to the General Contractor. The Owner and Consultant are not required to respond to questions or comments which are brought forth by parties other than the General Contractor.
- E. Coordinate all activity and schedules with the Owner that effect the private residence.

END OF SECTION

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SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

Meetings of principals involved in project.

1.02 PRE-CONSTRUCTION MEETING

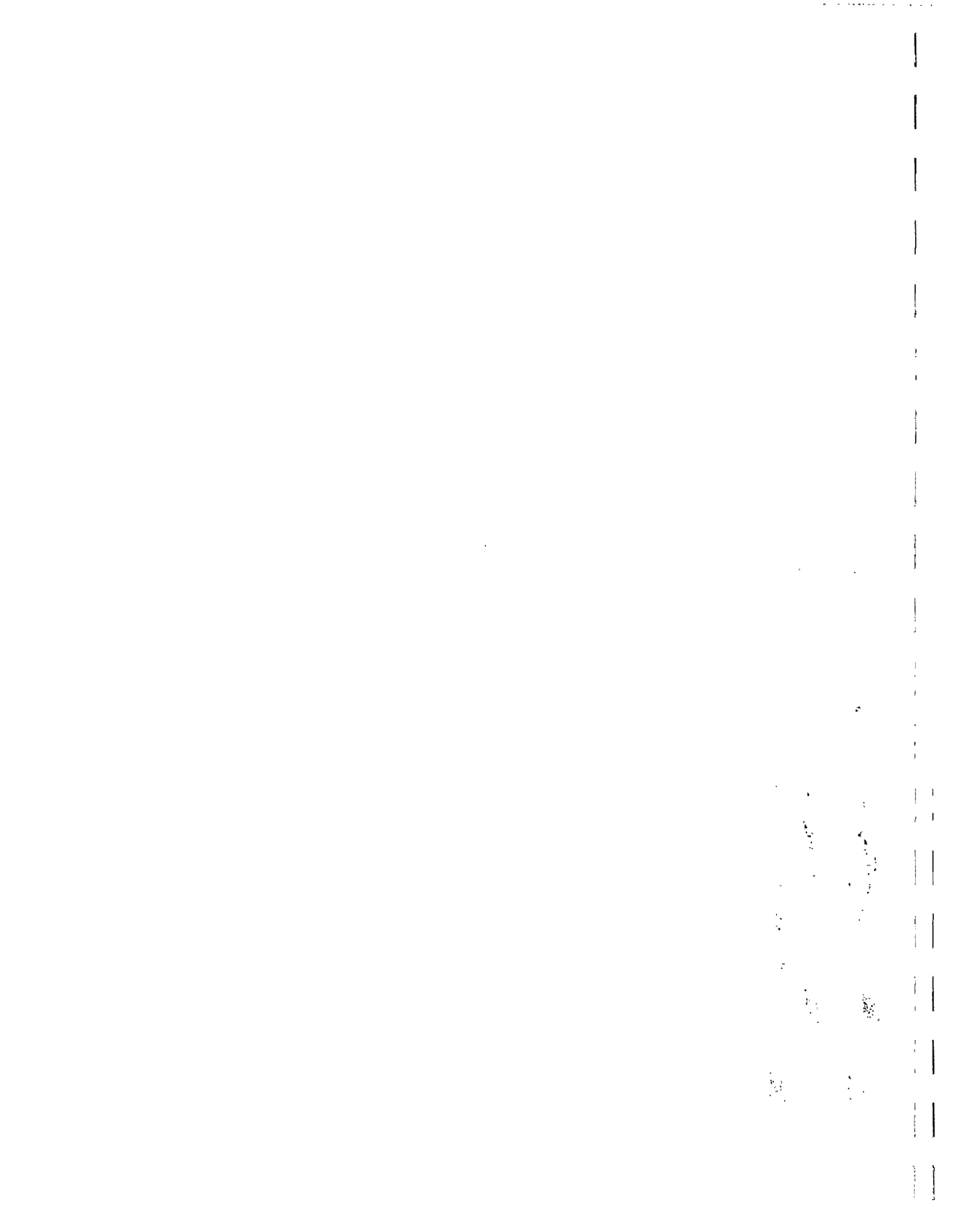
A. Owner will schedule meeting and provide meeting place.

B. Attendance: The following are expected to attend:

1. Owner or Owner's Representative.
2. Contractor's General Superintendent, Project Superintendent and Project Coordinator.

C. Agenda Items:

1. List of major subcontractors and suppliers.
2. Tentative construction schedule.
3. Critical work sequencing.
4. Major equipment deliveries.
5. Designation of responsible personnel.
6. Procedures and processing of field decisions, proposal requests, submittals, color coordination, change orders, and applications for payment.
7. Adequacy of distribution of Contract Documents.
8. Procedures for maintaining Record Documents.
9. Use of Premises: Office, work, storage, staging areas; Owner's requirements.
10. Construction facilities, controls and construction aids.
11. Temporary utilities.
12. Safety and first-aid procedures.
13. Security procedures.



10. Review proposed changes for effect on construction schedule, on completion date, and effect on other contracts of project.
11. Other business.

1.04 MINUTES OF MEETINGS

Contractor shall take notes at pre-construction and progress meetings and distribute them to those concerned in the form of minutes within 7 calendar days after meeting. These minutes will be reviewed by all parties and revised by the Contractor if necessary, prior to filing.

END OF SECTION

SECTION 01300 - ADMINISTRATIVE SUBMITTALS

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

1.01 DESCRIPTION

Within 10 days after receipt of notification of selection, submit 3 copies of the following:

- A. List of Subcontractors
- B. List of Materials
- C. Schedule of Values

Refer to Section 00100-6.

1.02 FORM

Lists and schedules shall be tabulated in accordance with specification sections.

1.03 SUBCONTRACTORS

Name, address, phone number, and locations of operations.

1.04 LIST OF MATERIALS

- A. Name of Material or Equipment - Catalog Designation or Model Number
- B. Manufacturer - Name and Address
- C. Supplier - Name and Address

1.05 SCHEDULE OF VALUES

- A. Identify each line with proportion of contract sum shown as materials and labor.
- B. Itemize General Provision, Special Provision and Division 1 items, including bonds, insurance, field supervision and temporary facilities.
- C. Schedule of Values shall be the basis for Applications for Payment.

PART 2 - PRODUCTS

(Not applicable).

PART 3 - EXECUTION

(Not applicable).

END OF SECTION

SECTION 01340 - SHOP DRAWINGS

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

Shop drawings, product data and sample submittal requirements.

1.02 RELATED WORK DESCRIBED ELSEWHERE

A. SECTION 01300 - ADMINISTRATIVE SUBMITTALS.

1.03 GENERAL REQUIREMENTS

A. Submittal procedures and requirements are specified in the General Conditions, Articles 6.23 through 6.28, inclusive. Procedures will be finalized with Contractor at pre-construction conference.

B. Submittal data will indicate which specification section and paragraph applies to that data.

C. No work shall be fabricated or any product shipped to project site prior to Owner's approval of submittal.

D. Submittal data is required on all specified items including those furnished exactly as specified.

E. Refer to individual specification sections for required submittal data.

F. Contractor shall maintain a permanent file of all approved submittals on project site.

1.04 IDENTIFICATION OF SUBMITTAL

Submittals shall be identified as follows:

1. Name of contractor, subcontractor, or material supplier originating submittal.
2. Name and location of project.
3. Submittal number.
4. Index of items submitted.
5. Identification of each material or item of equipment.
6. Date of submittal.

6. Date of submittal.

7. Contractor's certification.

1.05 NUMBER OF SUBMITTALS

A. For submittals requiring blue line prints, a sepia or other reproducible along with 2 blue line copies shall be submitted for approval. The reproducible with Owner notations will be returned to the Contractor whereby he may take whatever steps necessary to make proper distribution of approved drawings.

B. Submit 5 sets of brochures or manufacturer's published data.

1.06 TIME OF SUBMITTALS

The Owner will process submittals promptly and return them as soon as possible. For lengthier and more complex submittals, however, the Contractor shall allow a minimum of 5 working days for review.

END OF SECTION

SECTION 01350 - PROGRESS SCHEDULE

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION

- A. Progress and Schedule Bar Chart consisting of time scaled figures to monitor progress of the work.

1.02 SUBMITTALS

- A. Submit 2 copies each to the Owner within two days of receiving the Notice to Proceed. Owner will request revisions, if necessary, and return to Contractor with suggested revisions.
- B. Upon final approval by Owner, copies of the Project Schedule shall be distributed as follows:
1. 2 copies of each to Owner.
 2. 1 copy to principal subcontractors and vendors.
 3. 1 copy to others affected by schedule.
 4. Copies posted in Temporary Field Office.
- C. As revisions are made during construction, distribute up-to-date issues to the same entities and make postings accordingly.
- D. Under no circumstances will construction operations begin other than initial mobilization until the progress schedule, in its entirety, is approved.

1.03 PROJECT SCHEDULE

- A. Activities shown on the schedule shall be as follows:
1. Each individual construction activity.
 2. Submittal of shop drawings product data, and samples for approval.
 3. Approval of submittals.
 4. Delivery time for materials and equipment requiring long lead time.
 5. Times anticipated for tying-in of existing services. (Note: This does not serve as an official request to the Owner as described in SECTION 01040 - COORDINATION, and each individual request for an outage shall be submitted in writing 2 weeks prior to the anticipated outage, as described herein.

B. Schedule Format:

1. Single sheet of paper not exceeding 32" x 48".
2. Time scale at top and bottom of page with time units shown in calendar weeks.

C. Each activity shall be represented by a horizontal line or arrow, as follows:

1. Each line clearly and briefly described.
2. Estimated duration.
3. Line or arrow shall be drawn to the length as dictated by the time scale to indicate the activity's duration.
4. Each activity shall be placed at its proper calendar location as determined by the time scale.
5. Float time shall be shown in its proper time scale for each non-critical activity.
6. Critical activities shall be illustrated or accented, thereby easily distinguished from non-critical activities.
7. Milestones or intermediate completion dates shall be clearly shown.
8. Final completion date on initial schedule shall coincide with time of completion agreed upon and indicated in the Contract Documents.

D. The duration of each activity shall be shown in calendar days and shall include Saturdays, Sundays, holidays and anticipated days lost due to inclement weather.

1.04 MONTHLY UPDATED SUBMITTALS

A. Submit 2 copies of Project Schedule, each to Owner, not later than the 5th day of each month, illustrating the following:

1. Markings to show actual completed work above or below estimated work.
2. Critical path activities marked to distinguish from non-critical activities.

1.05 SCHEDULE REVISIONS

- A. Revise and resubmit the schedule for approval in accordance with Paragraph 1.04, in the event any of the following occur:
 - 1. The previously approved schedule changes.
 - 2. The approved schedule is extended in excess of 14 calendar days.
 - 3. Issued change orders cause changes in the actual work which affect the duration or actual start or finish date of activities to the extent that the approved schedule is changed or extended in excess of 14 calendar days.
- B. Provide written description of each change to the schedule, including reason for the change and how it affects the schedule.
- C. Revisions to the schedule, including those generated by change orders, shall be made at no cost to the Owner.

1.06 FLOAT

- A. Contract Time shall be the Time of Completion as indicated in the Contract, plus any time extensions granted after award of contract.
- B. Float shall be the Contract Time less the Duration of the Schedule for critical activities, or the amount of time non-critical activities can be delayed without causing the Contract Time to be exceeded.
- C. The Owner shall receive the benefit of float. Contract Time Extensions will not be granted unless a change order or delay causes either of the following:
 - 1. An increase in the duration of the critical activities.
 - 2. The available float of a non-critical activity is consumed causing the activity to become critical and thereby altering the project schedule.
- D. Time extensions shall be limited to the duration of the critical activities less the Contract Time.

END OF SECTION

SECTION 01440 - TESTING AND LABORATORY CONTROL

PART 1 - GENERAL

Drawings, Standard General conditions of Contract, Special Conditions and Division-1 specification sections, apply to work of this section.

1.01 DESCRIPTION

- A. Inspection, Testing, and Control: An independent testing laboratory selected and paid by the Contractor will perform the professional laboratory services described herein. The independent testing laboratory shall be accepted by the Owner.
- B. Codes: Testing laboratory shall perform required inspections and tests in accordance with Building Code, Local Authorities, State Regulations and the specifications of ASTM and other respective technical societies.

1.02 WORK INCLUDED

Testing services may include, but are not limited to the following:

- A. Field Density Tests
- B. Moisture Content of Existing Subgrade
- C. Gradation Analyses
- D. Keeping Inspection and testing Logs of Specified Inspections and Tests.
- E. Submitting to Engineer, Contractor, and Owner, certificates, records and reports of inspections and tests.

1.03 RESPONSIBILITY OF CONTRACTOR

- A. Deliver to laboratory adequate quantities of representative sample of materials proposed for use which are required to be tested.
- B. Advise laboratory sufficiently in advance of construction operations to allow laboratory to complete any required check-tests and assign personnel for field inspection and testing as specified. Should cancellation or delayment of Testing Services be required after notification to laboratory has been given, Contractor shall be responsible for making such arrangements.

1.04 AUTHORITY AND DUTIES OF LABORATORY PERSONNEL

- A. Laboratory personnel shall inspect and/or test materials, assemblies, specimens, and work performed including methods and techniques as specified and report results to the Owner and Owner's Representative.
- B. Should it appear that the material furnished or work performed by the Contractor fails to meet requirements of Contract Documents, testing laboratory shall direct the attention of the Contractor and the Owner to such failure or infringement immediately.
- C. Testing laboratory personnel are not authorized to revoke, alter, relax, enlarge, or release any requirement of the Contract Documents, or to approve or to accept any portion of work.

PART 2 - PRODUCTS

N/A

PART 3 - EXECUTION

N/A

END OF SECTION

SECTION 01500 - CONSTRUCTION FACILITIES

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 specification sections, apply to work of this section.

1.01 POWER AND LIGHT

The Contractor shall obtain and have installed a temporary electrical power service line to a point convenient for and available to all trades, including mechanical and other contractors. The cost of current used shall be paid by the Contractor, and he may apportion the charge among the trades using the current in a manner agreed upon.

1.02 SANITARY FACILITIES

The General Contractor may provide one or more toilet buildings for the use of all persons employed on the job. He shall post notices, take such precautions as may be necessary, remove any refuse deposited in or about the buildings, and maintain the premises in a sanitary condition.

1.03 WATER

The Contractor shall be responsible for obtaining temporary water from the Town of Addison. All costs for temporary water connections, water usage fees, etc., shall be paid by the Contractor.

1.04 TRAFFIC CONTROL AND SAFETY

The Contractor shall be responsible for all traffic control and safety during construction. The Contractor shall meet all City requirements or public safety, barriers, and traffic control. The Contractor shall coordinate with the Town of Addison during necessary street control.

1.05 PROTECTION OF THE PUBLIC

The Contractor shall at all times conduct the work in such a manner as to ensure the least possible obstruction to public traffic and protect the safety of the public. Public safety and convenience and provisions therefore made necessary by the work shall be the direct responsibility of the Contractor and shall be performed at his entire expense.

Materials placed on the site, or materials excavated and the construction materials or equipment used, shall be located so as to cause as little obstruction to the public as possible.

The Owner reserves the right to remedy any neglect on the part of the Contractor as regards to public convenience and safety which may come to its attention. The cost of such work done or material furnished by the Owner shall be deducted from monies due or to become due to the Contractor.

SECTION 01605 - WARRANTIES AND MAINTENANCE

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Special Conditions and Division-1 specification sections, apply to work of this section.

1.01 DESCRIPTION

Warranties (guarantees), maintenance, service.

1.02 WARRANTIES (GUARANTEES)

Provide a written warranty and guarantee of all work against defects in materials, equipment, or workmanship for a period of one year from the date of final acceptance. Also provide any additional warranties and guarantees of work items and components as specified in individual sections of these specifications. Final acceptance date will be indicated in a written format by the Owner.

1.03 ROAD MAINTENANCE

- A. The Contractor shall perform preventive maintenance during construction period to include all labor, materials and equipment necessary to maintain the pavement base and surface in a condition equal to its condition at the start of construction.
- B. This does not include items that are the result of normal use, floods, acts of God, or Owner abuse.
- C. Protect and maintain all existing roadways, until final acceptance of project by Owner. Roads that have areas which have been damaged will be repaired in a manner acceptable to the Owner prior to final acceptance.

PART 2 - PRODUCTS

N/A

PART 3 - EXECUTION

3.01 WARRANTIES

All product warranties and/or guarantees provided by the subcontractors, suppliers and/or manufacturers for the specific items, such as irrigation controller, lighting fixtures, site furniture, etc. will be completed entirely by the contractor. The Owner's name is Town of Addison. Show all model numbers, serial numbers, date installed or accepted as required to complete the warranty/guarantee forms.

END OF SECTION

1.06 LIFTING AND HOISTING

The Contractor shall supply all hoists, lifts, cranes, towers, etc., as required for the handling of the various materials. Installation of all equipment shall meet all applicable safety requirements.

1.07 PARKING

All construction personnel parking shall be located in areas authorized by the Owner. Do not park vehicles or equipment under the dripline of existing trees or on property unapproved by Owner.

1.08 BARRICADES

The Contractor shall erect and maintain sufficient barricades to protect adjacent structures, paving, lawns, etc., from damage by construction vehicles and operations. Barricades must also be erected where required to prevent injury to the public.

1.09 FIRE PROTECTION

It shall be the responsibility of the Contractor to provide fire and emergency access at all times during construction. The Contractor shall also be responsible for compliance with all requirements of the local fire official for fire safety during the progress of the work.

1.10 TRENCH SAFETY

Provide shoring or safety slopes for trenches or excavations exceeding five (5) feet in depth. Comply with the requirements of the Texas Trench Safety Law, Article 601B, Vernon's Texas Civil Statutes.

END OF SECTION

SECTION 01710 - CLEANING

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

1.01 DESCRIPTION

Cleaning during period of construction and at completion of the work.

1.02 DISPOSAL REQUIREMENTS

Conduct cleaning and disposal operation 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. Comply with manufacturer's recommendations.

PART 3 - EXECUTION

3.01 DURING CONSTRUCTION

- A. The site and adjacent properties shall be kept free from accumulations of waste materials, rubbish, and wind blown 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 daily and dispose at a legal disposal area away from the site.

3.02 DUST CONTROL

Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

3.04 FINAL CLEANING

- A. Employ skilled workmen for final cleaning
- B. See Section 01705 - Project Closeout.

END OF SECTION

1. Clean exposed exterior and interior hard-surface finishes, to a dirt-free condition, free of dust, stains, films and similar noticeable transparent materials.
2. Clean project site (yard and grounds), including landscape development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petrochemical spills and other foreign deposits. Rake grounds which are neither planted nor paved, to a smooth even-textured surface.
3. Clean all concrete surfaces, removing dirt, repairing deep scratches and removing graffiti.

END OF SECTION

SECTION 01705 - PROJECT CLOSEOUT

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

1.01 DESCRIPTION OF REQUIREMENTS

Closeout is hereby defined to include general requirements near end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 16. Time of closeout is directly related to "Substantial Completion", and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this Section.

1.02 SUBSTANTIAL COMPLETION

- A. Refer to Paragraph 5.15 of the General Conditions.
- B. Upon receipt of Contractor's request, the Owner will proceed with inspection. Following initial inspection, Owner will either prepare Certificate of Substantial Completion, or advise Contractor to do work which must be performed prior to issuance of certification; and repeat inspection when requested to assure that work has been substantially completed.

1.03 FINAL ACCEPTANCE

- A. Refer to Paragraph 5.14 of the General Conditions for Contractors' required written notification that the work is ready for final inspection. On or before the date of final inspection the Contractor will turn over to Owner the following Contract Close-Out Materials, which he will have accumulated and retained during the course of the project:
 - 1. All approved submittal data, two complete sets.
 - 2. Written project warranty, and all other equipment and materials warranties/guarantees as signed by all appropriate suppliers or manufacturer's, one set. Refer to Section 01605.
 - 3. One set of "Record" drawings and specifications showing conditions and dimensions of all construction which has been revised from that indicated by original construction documents.

Drawings are to also show routing of underground outside utilities or conduits, with actual dimensions and burial depth.

4. The above materials will be reviewed by the Owner for completion. Final Acceptance will not be approved until Contract Close-out materials are completed.
- B. Refer to individual Divisions 2 through 16 for specific work requirements. The requirements include, but are not limited to the following:
1. Submit Final Pay Voucher.
 2. Complete work items on Substantial Completion punch lists, if any.
 3. Complete final clean up requirement, including site dress up, touch-up painting, repairs, etc.
- C. Upon receipt of Contractor's written notice that the work has been completed the Owner will schedule an inspection with the Contractor and inspect the work. After the inspection the Owner will either approve Final Payment or prepare a punch list for the Contractor listing work items not completed and/or incorrect or obligations not fulfilled as required for final acceptance. If necessary the procedure will be repeated.

PART 2 - PRODUCTS

(Not applicable).

PART 3 - EXECUTION

3.01 CLOSE-OUT PROCEDURES

Arrange to meet with Owner's personnel, at project site, to provide basic instructions needed for proper operation and maintenance of constructed facilities.

3.02 FINAL CLEANING

Special cleaning for specific units of work is specified in sections of Division 2 through 16. General cleaning during progress of work is specified in General Conditions and as temporary service in "Temporary Facilities" Section of this Division. Provide final cleaning of the work, at time indicated, consisting of cleaning surface or unit of work to normal "clean" condition as accepted by the Owner. Comply the manufacturer's instruction for cleaning operations. The following are examples, but not by way of limitation, of cleaning levels required:

SECTION 01720 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Supplementary Conditions and Division 1 Specification Sections, apply to work of this section.

PART 2 - PRODUCTS

(Not applicable).

PART 3 - EXECUTION

3.01 PROJECT RECORD DOCUMENTS

Maintain at the site one record copy of the following:

- A. Drawings - Prints of drawings shall be clearly marked Record Prints.
- B. Specifications
- C. Addenda
- D. Change Orders and Written Instructions
- E. Field Orders and Written Instructions
- F. Submittals
 - 1. Shop Drawings
 - 2. Product Data
 - 3. Samples
 - 4. Field Test Reports

3.02 STORAGE AND MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store Record Documents and samples in Field Office apart from documents used for construction.
- B. Label documents other than drawing Record Documents and file documents and samples in accordance with Section number listings in Table of Contents of these specifications.

- C. Keep Record Documents and samples available for inspection by the Owner and/or Owner's Consultant.

3.03 DRAWINGS

Record actual construction of:

- A. Horizontal and vertical locations of underground or concealed utilities and apparatus referenced to permanent features visible at surface.
- B. Field changes or dimensions and detail.
- C. Changes made by Field Order or by Change Order.
- D. Details not on original drawings.

3.04 SPECIFICATIONS AND ADDENDA

Record in each section changes made by Addenda, Change Order, and Field Order.

3.05 SUBMITTALS

Prior to final inspection, deliver Record Documents to Owner.

3.06 OWNER INSPECTION OF PROJECT RECORD DOCUMENTS

Inspection by Owner shall be a minimum of once monthly. Owner's verification that documents are current shall be a requirement for issuance of Certificate of Payment.

END OF SECTION

SECTION 02050 - DEMOLITION

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Supplementary conditions and Division-1 Specification Sections, apply to work of this section.

1.01 DESCRIPTION

Refer to plans for items to be demolished.

1.02 REQUIREMENTS

- A. Standards: Unless they are modified or exceeded by the requirements of this Specification, conform to applicable parts of ANSI A 10.6 "Safety Requirements for Demolition."
- B. Schedule: Perform this work as required by the progress schedule for the project.

1.03 PROTECTION

- A. General: Construction temporary barricades, walks, passage-ways, and other items that are necessary to protect persons and property from hazard or damage due to construction operations, and as required by applicable regulations.

Design and construct such protective barriers and devices to have sufficient strength and of such materials as will accomplish their protective function.

- B. Site: Unless specified or directed otherwise, carefully protect existing walks, lawns, other buildings, and other work on site, whether specifically indicated on the Drawings or not.
- C. Trees and Shrubs: Protect trees and shrubs that are to remain in place from foliage, trunk and root damage that may result from construction operations. Do not park vehicles or equipment, nor store materials beneath the dripline of existing trees. Protect tree trunks as specified for those trees which are within 10' of existing trail.
- D. Streets and Sidewalks: Protect streets, sidewalks, curbs, and other improvements not designated for demolition, as necessary to prevent damage to them. Repair any damage caused by Contractor operations.
- E. Persons: Provide warning signs, hazard and service lights, and other devices as necessary for the protection of persons from injury due to construction operations and as required by applicable regulations.

- F. Remaining Structure: Take precautions not to damage existing structures which are to remain. Any damage caused by demolition operations is to be repaired by the Contractor without cost to the Owner.

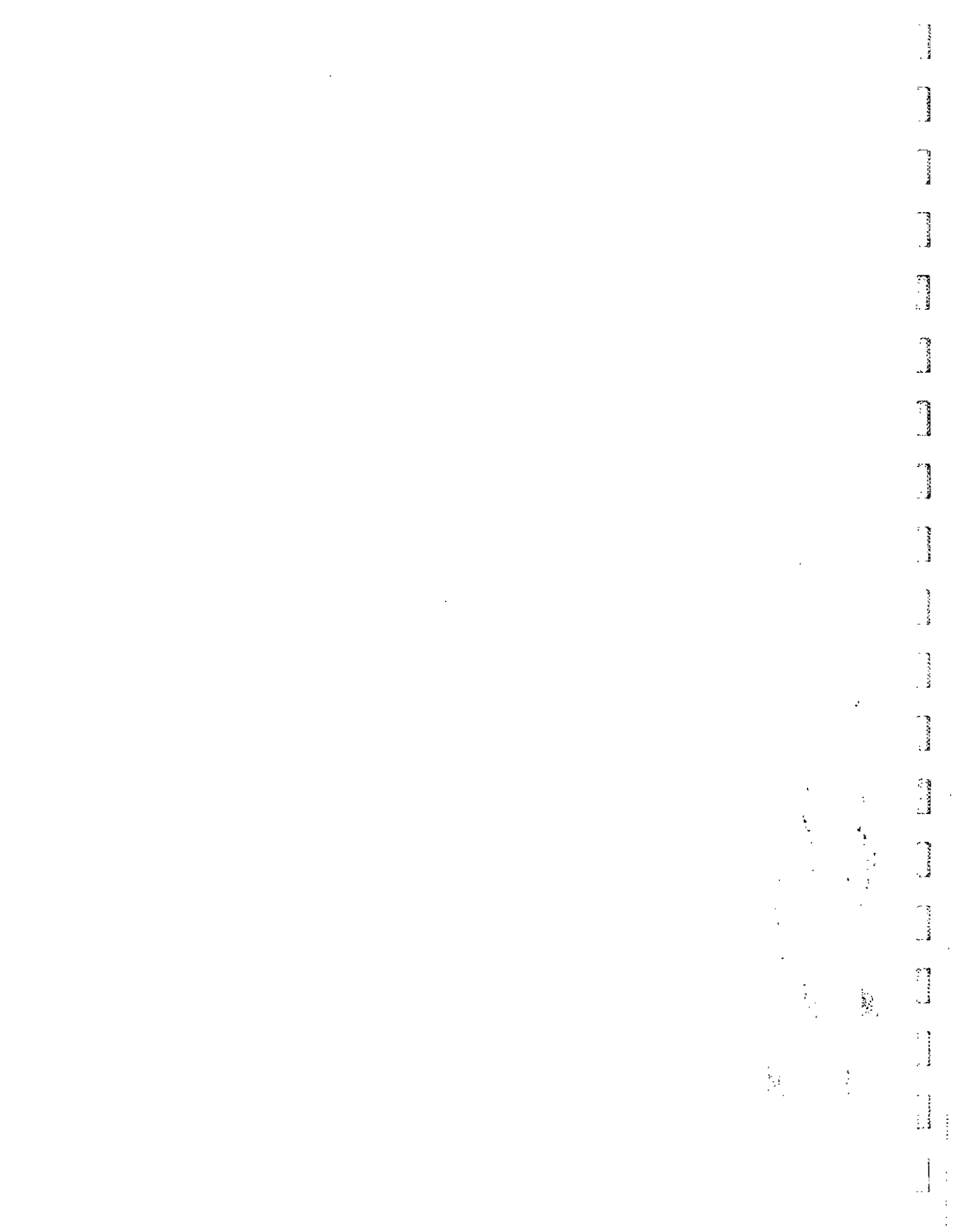
PART 2 - PRODUCTS

(Not applicable).

PART 3 - EXECUTION

- A. Utilities: Make arrangements and pay the costs for disconnecting, capping, and removing services to the satisfaction of the utility companies and the Owner.
- B. Method
1. General - Keep noise, dust and debris to a minimum.
- C. Scrap Materials: Material and debris resulting from demolition operations is the property of the contractor and shall be disposed of properly at a licensed municipal land fill, or as otherwise approved by the Owner. No sale of surplus materials shall be conducted on the site.
- D. Backfill: Subgrade areas may not be used for disposal of surplus material without specific written approval and then, only if placed by approved methods.

END OF SECTION



SECTION 02105 - PRESERVATION AND PROTECTION OF PLANT MATERIALS

PART 1 - GENERAL

Drawings, Standard General Conditions of Contract, Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

1.01 DESCRIPTION

Preservation and protection of plant materials within the project site.

1.02 PROTECTION OF PLANT MATERIALS

It is the intention of this specification that all plant material at this project site not specifically indicated on the plans for protection be protected and preserved. Take all necessary precautions to avoid damage or removal of trees, shrubs and other plant materials that are to remain following construction. Specimen trees and other plants within and closely adjacent to construction sites shall be adequately protected by the Contractor, according to plans and specifications. Additional protective measures may be installed by the Contractor at his option to preclude damage by his workmen and equipment.

PART 2 - PRODUCTS

2.01 PLANT PROTECTION DEVICES

Install protective devices in locations called for on the Drawings, subject to approval by the Owner, prior to beginning construction operations. Maintain protective devices in good order for the duration of the construction period. Additional protective devices or barriers, required by the Owner during the course of construction, will be added to the work by change order. Protective devices so added are to be installed immediately and shall be maintained in good condition until construction is concluded.

PART 3 - EXECUTION

3.01 EQUIPMENT AND MATERIAL STORAGE

Do not store, stack or place equipment, material, chemicals or supplies within 25' from edge of canopy of any plant materials that are to remain. Material storage areas will be designated and approved by the Owner as required. No disposal of material or chemical wastes will be permitted on the site unless specifically allowed by Owner.

3.02 REPARATION FOR DAMAGES

- A. Unwarranted damages to plant material shall be evaluated by a member of the Owner's staff and instructions issued for the necessary repairs. The Contractor shall accomplish the corrective work as ordered, or may, at his option, provide monetary reimbursement by change order reduction to the contract. The value established by the Owner will be final and shall be based on repairs by a qualified technician approved by the Owner. Plant material destroyed or removed by the Contractor or damaged beyond corrective repair will be evaluated and assessed as outlined above for reparable damage. In the event large irreplaceable plants are destroyed, the Owner will establish a fair value and may, at his discretion, require replacement by installation of several trees or other plants equaling the fair value of the tree(s) or plant(s) destroyed.
- B. The value of plant materials will be determined utilizing \$1,000.00 per tree.
- C. Plants considered to be of special value to the completed project area noted on the plans and their values cited. Noted plant values will supersede values obtained through the above-referenced formula calculation. Source for determination of value on plant materials: Shade Tree Evaluation - International Arborists Association.

3.03 PLANT PRUNING AND LIMB REMOVAL

Plant protection requirements cited above include authorized pruning and cutting of limbs and major roots. The Contractor is cautioned not to cut, prune or otherwise remove plant parts without prior approval and guidance by the Owner. Major limb removal which may be required by construction shall be approved prior to such removal and shall be accomplished by technicians trained and skilled in the work.

3.04 BURNING

Fires and/or burning are prohibited, unless approved and permitted through the Town of Addison.

END OF SECTION

SECTION 02272 - GABIONS

PART 1 - GENERAL

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

1.1 DESCRIPTION

- A. Gabion structures consist of rectangular, compartments, galvanized or galvanized and PVC coated, wire baskets filled with stone used to build earth retaining and erosion control structures such as: retaining walls, channel linings, slope protection, bridge revetments, headwalls for pipes, weirs, and flexible aprons.

PART 2 - PRODUCTS

- 2.1 Gabions shall be of the size and type called for on the plans, or as otherwise approved, or approved equal. Gabions shall consist of uniform, hexagonal-shaped wire mesh, woven in a double twist pattern with openings approximately 3-1/4" x 4-1/2". The mesh shall be fabricated in such a manner as to be non-raveling and to provide the required flexibility and strength.
- 2.2 Assembled gabions will form a rectangular structure with a minimum thickness of twelve inches (12"). The base, ends, and sides are to be either woven into a single unit, or one edge of these members connected to the base section of the unit in such a manner that the strength and flexibility at the point of connection is approximately equal to that of the mesh. The lid for revet or special gabions may be of separate construction. Where the length of the gabion exceeds its horizontal width, the gabion shall be divided into cells of approximately equal size by diaphragms, using mesh of the same type and gauge as the body of the gabion. The length of the cell shall not exceed its horizontal width. The diaphragm panels shall be secured in proper position on the base in such a manner that no additional tying is necessary. All perimeter edges of the wire mesh forming the body, ends and diaphragm panels shall have a heavier gauge wire woven into the edge of the mesh panel. All cut edges of the mesh panels forming the sides, and ends and diaphragms shall be securely attached to a heavier gauge selvedge wire by a minimum of two complete turns of the wire mesh around the selvedge wire.
- 2.3 All wire used in the construction of gabions, including tie wire, shall conform to: ASTM A8353-91 and ASTM A641. Minimum zinc coating shall be tested in accordance with ASTM A90-91. All testing of wire diameters shall be prior to fabrication. All wire baskets shall be gray PVC coated.
- A. PVC Wire used in the construction of gabions with a thickness of 12" or greater, shall meet the requirements of galvanized gabions and the following:

	Nominal Diameter	Weight of Zinc ozs./sq.ft.	Nominal PVC Coating Min.
Mesh Wire	0.1063"	0.80	.02165" Min.
Selvage Wire	0.1338"	0.85	.02165" Min.
Tie Wire	0.0866"	0.70	.02165" Min.
		ozs./sq.ft.	0.015"

Tie wire shall be supplied for securely fastening the gabions during all steps of assembly and construction. Tie wire shall be included with the gabions in sufficient quantity for tying all gabion baskets in accordance with the specifications. No other wire except of the type supplied with the gabions may be used.

Gabions furnished by a manufacturer shall be of uniform size and subject to dimension tolerance limits of $\pm 5\%$. the gabions shall be certified by a notarized, sworn affidavit of the manufacturer showing compliance with the specification requirements.

- B. Gabion Rock used to fill the gabions shall be hard, durable, well graded, in sizes as specified below for the particular application. Prior to placing the rock, samples shall be delivered to the site and shall be approved for gradation and appearance by the engineer.

Gabion Height	Application	Gradation
12", 18", 36"	Slope Protection Channel Linings Toe Walls	3" to 4-1/4"
12", 18", 36"	Retaining Walls, Drop Structures, Vertical exposed faces of other structures	3" to 6"

- C. Geotextile Fabric for use as a filter media, when specified on the plans, shall be placed along the gabion structure as shown in the plans. the fabric to be used shall be Mirafi 140N.
- D. Granular Filter Media, when specified on the plans, shall be placed to the limits as shown on the plans. Granular filter media shall consist of 1-1/2" crushed stone backfill.

PART 3 - EXECUTION

- 3.1 The gabions shall be placed in accordance with the size, type, and alignment as shown on the plans. PVC coated gabions shall be used in the areas as specified and shown on the plans. The placement of the gabions shall be in close conformity to the line and grade shown on the plans and cross-sections and shall be in strict accordance with these specifications.

A. Fabric Placement

After excavation to grade has been performed, the geotextile fabric, when specified on the plans, shall be in place to the limits as shown on the plans. Care shall be taken not to place the fabric exceeding the limits shown on the plans. adjacent pieces of filter fabric shall be overlapped a minimum of eighteen inches (18"). Fabric shall be secured, when necessary, by pins or other suitable means before placing the gabions. Excess fabric protruding past the finished gabions shall be cut off.

B. Gabion Assembly

Gabions are assembled by first unfolding the baskets on a hard, flat surface and stamping out all kinks. Fold up the front, back, and end panels and fasten the panels together with the projecting heavy gauge selvage wire by twisting the selvage wire around the selvage wire of the other panel two (2) complete turns. Fold the inner diaphragm panels up and secure in the same manner. Tie all edges of the diaphragms and end panels to the sides of the gabion by the tying method as specified below.

C. Tying Method

PROPER TYING OF THE GABIONS AT ALL STEPS IN THE ASSEMBLY AND CONSTRUCTION IS CRITICAL TO THE PERFORMANCE OF THE FINISHED GABION STRUCTURE.

1. Gabions must be tied in the specified manner at each step of construction:

- a. Initial assembly
- b. Tying to adjacent gabions along all contacting edges
- c. Tying of lid to sides
- d. Tying of lid to top of diaphragms
- e. Retying of the cut gabion

2. All tying of gabions shall be performed in the following manner: Cut a length of tie wire approximately five feet (5') long. Secure the tie wire onto the gabion at one end by looping and twisting the tie wire together. Then proceed tying with double loops (made at the same point) every five inches (5") apart. The basket pieces should be pulled tightly together during the tying operation. Secure the other end of the tie wire by again looping and twisting the tie wire around itself. No other wire except of the type supplied with the gabions may be used to tying the gabions.

D. Gabion Placement

After the gabions have been assembled, the gabions shall be then placed in position empty and shall be tied together in the specified manner, each to its neighbor along all contacting edges in order to form a continuous connecting structural unit. Gabions three feet (3') high and gabions of less height in a wall, that are to be placed in a straight row, are to be stretched in the following manner before being tied to the adjacent gabions: Tie together approximately one hundred feet (100') of gabions end to end. Fill one gabion cell on the end to hold the row in place or tie the end gabion cell to an existing already filled gabion. The row of gabions is then stretched with a come-a-long, or other suitable means until the row of gabions is stretched sufficiently to remove all kinks. DO NOT OVERSTRETCH. A frame or other suitable means shall be used to avoid deformation of the end cell when stretching the gabions. While maintaining tension, tie the row of gabions to its neighbor along all contacting edges in the specified manner. Gabions that are placed as a toe wall or on slopes or as a channel lining would not normally require stretching unless necessary to maintain alignment.

E. Filling the Gabions

IT IS CRITICAL TO THE PERFORMANCE OF THE FINISHED GABION STRUCTURE THAT THE GABIONS ARE FILLED TO THEIR MAXIMUM WITH THE VOIDS IN THE GABION MINIMIZED.

When the assembled empty gabion baskets have been installed and tied together, the gabions shall then be filled in the following manner:

1. The gabions may be filled by machine, but shall be filled in layers or lifts not exceeding twelve inches (12"). Care shall be taken when placing the rock into the gabions to insure that the gabions are not damaged or bent. Do not drop rock from a height greater than three feet (3'). Suitable sized and appropriate machinery will help prevent damage to the gabions during the filling operation. Edges of gabions and diaphragms may be protected when necessary by tying steel reinforcement to the edges of the gabions or other suitable guard mechanisms to prevent damage or deformation of the gabions.
2. After each twelve inch (12") layer of rock has been placed in the cell, sufficient manipulation of the rock shall be performed to minimize voids and result in a maximum density of the rock in the gabion.

NOTE: Retaining walls shall have a rock in vertical outside faces placed by hand with select large rock in order to achieve the best appearance. In retaining walls and other vertical surfaces, care shall be taken that the gabions when completed, do not bulge outward and that the rows are straight, level, and have square corners.

3. Gabions that are three feet (3') high, shall have a looped inner tie wire installed in each cell connecting the front and back faces and any unsupported face every twelve inches (12") of vertical height. Individual cells may not be filled more than twelve inches (12") above any adjacent cell unless looped inner tie wires run in both directions.
4. Each gabion shall be filled to its maximum, which is slightly higher than the sides, then the surface smoothly leveled minimizing the amount of voids. Horizontal top surfaces in high water velocity areas or impact areas such as weirs or culvert aprons shall have large select rock placed on the top layer with extra care taken to insure a maximum fill.

F. Closing the Gabions

After the rock has been leveled, the lids shall then be pried down and over with a bar or lid closing tool until the edge of the lid and the edge of the gabion are together. It should require a light stretching in order to bring the two gabion pieces together. The heavy projecting selvedge wire of the lid shall then be twisted around the heavy selvedge wire on the sides two (2) complete turns. The lid shall then be tied to the sides of the gabions shall also be tied together, each to its neighbor along all contacting edges of the adjacent gabions to insure the formation of a continuous, connecting structural unit. Special attention shall be given that all projecting sharp ends of wire are turned in on the completed gabion structure.

G. Cutting the Gabions

Gabions may be cut to form curves or bevels. Overlap the cut pieces and re-tie in the specified manner. Re-tying shall be in a manner so as to produce a closed cell when completed. Excess mesh wire shall be cut off or shall be tightly and neatly laced down. Care shall be taken that all projecting wire ends are turned inwards or cut off.

3.2 QUALITY CONTROL

Proper tying of the gabions during all steps of construction and the gabions being filled to their maximum density with a minimum amount of voids is critical to the performance of finished gabion structure. Therefore, compliance with the technical specifications shall be closely and thoroughly inspected. Any work not meeting the implied quality shall be rejected.

END OF SECTION

SECTION 02273 - POST-TENSIONED TIEBACK ANCHORS

PART 1 - GENERAL

Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

PART 2 - PRODUCTS

2.1 Tie Backs

- A. Tiebacks shall be constructed in accordance with these specifications and as shown on the plans.
- B. Complete tieback assemblies shall be as manufactured by Dywidag-Systems, International, USA, Inc. or approved equal.
- C. The steel tieback rods shall be #10, 60 ksi threadbar. The rod may be more than one section in length, the sections being coupled by threaded couplings of sufficient strength and thread engagement with the rod sections to transfer 100 percent of the ultimate strength of the tieback. Rods shall be protected from dirt, rust or deleterious substances. Rods with heavy corrosion or pitting shall not be used. Rods shall be stored and handled in such a manner so as to avoid corrosion or damage, including damage to the epoxy coating.
- D. Each tieback rod shall be capable of developing 95% of the guaranteed minimum ultimate tensile strength of the steel. The bearing plate shall be fabricated from 36 ksi steel and shall be capable of developing 95% of the guaranteed minimum ultimate tensile strength of the steel.

2.2 Plastic centralizers shall be used. The centralizer shall position the rod in the drill hole so a minimum of 1-5/8" of grout cover is provided. Centralizers shall be spaced on the tieback rod as shown on the plans.

2.3 Casing

- A. The casing for the unbonded length shall be 3" diameter schedule 40 PVC pipe.
- B. The lower end of the casing, which is to be filled with grease shall be sealed with the tape or other means subject to the approval of the Engineer shall be provided at the upper end of the casing.

2.4 A rotary auger type drill shall be used to drill the holes. Hole diameters shall be as shown on the plans. Holes shall be to the minimum depth as shown on the plans and shall penetrate a minimum depth into the

strata shown for the bonded length, whichever is greater. A log shall be kept in an approved format showing the depth of the hole, materials encountered, and other features.

PART 3 - EXECUTION

3.1 Grout

- A. The hole shall be grouted immediately upon completion of drilling. The hole shall be clean of loose material and shall not have standing or flowing water.
- B. The grout shall be pre-packaged high strength, non-shrink, non-metallic grout such as Burke, or approved equal. Mix water shall be clean, potable water. The water to cement ratio shall be in accordance with the manufacturer's instructions to produce a smooth, pumpable mix. The grouting equipment shall include a mixer capable of producing a grout free of lumps and undisbursed cement. The grouting equipment shall be sized to enable the rock anchor to be grouted in one continuous operation. Mixing and storage times shall not cause excessive temperature build-up in the grout. The mixer should be capable of continuously agitating the grout.
- C. The grout shall be pressure injected using a tremie tube from the bottom of the hole. The grout shall be placed after insertion of the rod. The quantity of the grout per hole shall be calculated and recorded in an approved format to insure that the minimum bonded length is achieved.

3.2 Tieback

- A. The tieback rod shall not be tested or post-tensioned until a minimum of three days has elapsed since grouting. Testing or post-tensioning shall not take place against the concrete beam until a minimum period of four days has elapsed, or the concrete strength has otherwise been determined to reach the plan strength.
- B. Prior to testing or post-tensioning of the tieback rods, grease shall be pressure injected into the annular space between the casing and the tieback rod. The grease shall be pressure injected through a tremie tube from the bottom of the unbonded length to the top of the casing. The grease shall be a lithium or sodium base, grade "0" viscosity, formulated to provide lubrication and prohibit corrosion. The chlorides, nitrates, and sulfides present in the grease shall not exceed the following limits:

Chlorides - 10 ppm Nitrates - 10ppm Sulfides - 10 ppm

3.3 Testing

- A. All testing and post-tensioning shall be performed with a hollow

core hydraulic jack having a pressure gauge calibrated and certified by an independent testing laboratory prior to beginning the testing.

- B. Performance Test: The first three rock anchor tiebacks constructed (and one every ten thereafter) shall be incrementally loaded to performance test capacity (1.5 times the service load) according to the Tieback Performance Test Schedule included at the end of this section of the specifications. During the load hold, the movements of the tieback shall be recorded at 0, 1, 2, 3, 4, 5, 7 and 10 minutes. If the change in movement between 1 and 10 minutes exceeds 0.04 inches (1 mm), then the movement shall be observed for a total of 60 minutes. The observation period begins when the jack begins to apply load to the tieback. The load shall be raised from the previous increment in less than 60 seconds, and the one minute reading is taken one minute after the jacking force begins to be applied. All data shall be reported in the format included in these specifications.
- C. Proof Test: The remaining 90 percent of the tieback rods shall be incrementally loaded to proof test capacity (1.25 times the service load) according to the Tieback Proof Test Schedule included at the end of this section of the specifications. The tieback rod shall be incrementally loaded and the elastic movement recorded at 0.25, 0.50, 0.75, 1.00, and 1.25 times the service load. The elastic movement shall be recorded every minute for 5 minutes at 1.25 times the service load. Movement of the proof test load between 1 and 5 minutes shall be less than 0.03 inches. If movement is greater than 0.03 inches during the 5 minute period, the load should be maintained until the creep rate can be determined. All data shall be recorded in the format included in these specifications.
- D. "Lock-Off" of the Tieback: After all test results have been recorded and the tieback has been successfully tested, the jack force shall be reduced to apply the service load to the rock anchor ("lock-off" load), the nut and washer secured to the concrete beam, and the jack removed. The service loads for the rock anchors are indicated on the plans.

10 MINUTE PERFORMANCE TEST
SAMPLE

Load increment	Ratio of load ($P_{DL} = \text{design load}$)	Load (tons)	Observation period (min)	Jack pressure (psi)	Movement (inches)	Remarks
0	0	0		0	0	
T_0	(1)	2		190	0.068	**
F_1	0.25 P_{DL}	13		1230	0.268	**
T_0		2		190	0.103	**
F_1	0.25 P_{DL}	13		1230	0.274	
F_2	0.50 P_{DL}	26		2460	0.553	**
T_0		2		190	0.124	**
F_1	0.25 P_{DL}	13		1230	0.289	
F_2	0.50 P_{DL}	26		2460	0.567	
F_3	0.75 P_{DL}	40		3780	0.960	*
T_0		2		190	0.153	**
F_1	0.25 P_{DL}	13		1230	0.283	
F_2	0.50 P_{DL}	26		2460	0.571	
F_3	0.75 P_{DL}	40		3780	0.872	
F_4	1.00 P_{DL}	53		5010	1.179	*
T_0		2		190	0.194	**
F_1	0.25 P_{DL}	13		1230	0.285	
F_2	0.50 P_{DL}	26		2460	0.574	
F_3	0.75 P_{DL}	40		3780	0.879	
F_4	1.00 P_{DL}	53		5010	1.185	
F_5	1.20 P_{DL}	63		5950	1.520	*
T_0		2		190	0.245	**
F_1	0.25 P_{DL}	13		1230	0.290	
F_2	0.50 P_{DL}	26		2460	0.579	
F_3	0.75 P_{DL}	40		3780	0.886	
F_4	1.00 P_{DL}	53		5010	1.197	
F_5	1.20 P_{DL}	63		5950	1.533	
F_6	1.33 P_{DL}	70.5	1	6660	1.750	*
F_6	1.33 P_{DL}		2		1.755	
F_6	1.33 P_{DL}		3		1.758	
F_6	1.33 P_{DL}		4		1.759	
F_6	1.33 P_{DL}		5		1.760	
F_6	1.33 P_{DL}		7		1.761	
F_6	1.33 P_{DL}	7	10	7	1.763	
F_5	1.20 P_{DL}	63			1.607	*
F_4	1.00 P_{DL}	53			1.401	*
Lock-off						

(1) T_0 is the alignment load. It is normally between 2 and 10 percent of the design load and it is maintained in order to keep the testing equipment aligned. The actual value of this load depends upon the type of tandem and the weight of the jack.

(2) 1 ton = 8.9 kN, 1 inch = 25.4 mm, 1 psi = 6.9 kPa.

* Total movement readings
** Residual anchor movement readings.

**60 MINUTE PERFORMANCE TEST
SAMPLE**

Load increment	Basis of load (P_{DL} = design load)	Load (tons)	Observation period (min)	Jack pressure (psi)	Movement (inches)	Remarks
0	0	0		0	0	
T_0	(1)	5		245	0	
F_1	0.25 P_{DL}	17.5		860	0.449	
T_0		5		245	0.131	
F_1	0.25 P_{DL}	17.5		960	0.426	
F_2	0.50 P_{DL}	31		1525	1.102	
T_0		5		245	0.203	
F_1	0.25 P_{DL}	17.5		860	0.435	
F_2	0.50 P_{DL}	31		1525	1.097	
F_3	0.75 P_{DL}	52		2555	1.761	
T_0		5		245	0.298	
F_1	0.25 P_{DL}	17.5		860	0.446	
F_2	0.50 P_{DL}	31		1525	1.101	
F_3	0.75 P_{DL}	52		2555	1.778	
F_4	1.00 P_{DL}	70		3440	2.622	
T_0		5		245	0.391	
F_1	0.25 P_{DL}	17.5		860	0.458	
F_2	0.50 P_{DL}	31		1525	1.123	
F_3	0.75 P_{DL}	52		2555	1.787	
F_4	1.00 P_{DL}	70		3440	2.631	
F_5	1.20 P_{DL}	84		4130	3.679	
T_0		5		245	0.762	
F_1	0.25 P_{DL}	17.5		860	0.962	
F_2	0.50 P_{DL}	31		1525	1.523	
F_3	0.75 P_{DL}	52		2555	2.007	
F_4	1.00 P_{DL}	70		3440	2.638	
F_5	1.20 P_{DL}	84		4130	3.689	
F_6	1.33 P_{DL}	92	1	4625	4.367	
F_6	1.33 P_{DL}		2		4.404	
F_6	1.33 P_{DL}		3		4.529	
F_6	1.33 P_{DL}		4		4.554	
F_6	1.33 P_{DL}		5		4.578	
F_6	1.33 P_{DL}		7		4.513	
F_6	1.33 P_{DL}		10		4.616	
F_6	1.33 P_{DL}		15		4.635	
F_6	1.33 P_{DL}		20		4.646	
F_6	1.33 P_{DL}		25		4.655	
F_6	1.33 P_{DL}		30		4.662	
F_6	1.33 P_{DL}		45		4.670	
F_6	1.33 P_{DL}		60		4.691	
F_5	1.20 P_{DL}	84		4130	4.632	
F_4	1.00 P_{DL}	70		3440	4.448	
Lock-off						

(1) T_0 is the alignment load. It is normally between 2 and 10 percent of the design load and it is maintained in order to keep the testing equipment aligned. The actual value of this load depends upon the type of tandem and the weight of the jack.

(2) 1 ton = 0.9 MP, 1 inch = 25.4 mm, 1 psi = 6.9 kPa

SECTION 03300 - CONCRETE

PART 1 - GENERAL

Furnish and place concrete of the type indicated on the Drawings in accordance with Town of Addison standards and the following requirements.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cement

1. Use cement conforming to ASTM C 150 Type I, unless authorized to use Type III.
2. Meet ASTM specifications for weight variations and length of storage. Use no caked cement. Deliver in bags for site-mixed concrete. Use only one brand of cement in any one structure.

B. Water. Furnish clean water, free from harmful amount of oils, acids, alkalis or other damaging substances.

C. Coarse Aggregate. Provide aggregates conforming to ASTM C 33. Unless otherwise specified, use standard size from No. 4 to 1-1/2 inch and modify only in accordance with the following. Supply aggregate not larger than 1/5 of the narrowest dimension between sides of forms, nor larger than 3/4 of minimum clear spacing between reinforcing bars.

D. Fine Aggregate. Provide fine aggregate meeting the requirements of ASTM C 33.

E. Air Entraining Admixtures. Use an air entraining admixture conforming with ASTM C 260. Air entrained shall be 4 percent.

F. Reinforcing Steel

1. Use new billet steel bars, Grade 60, conforming to ASTM A 615. Provide bars manufactured by the open hearth process. When placed in work, steel must be free from dirt, scale, rust, paint, oil, and other harmful materials.
2. Where shown use welded fabric meeting the requirements of ASTM A 82. Supply the gage and spacing shown, with longitudinal and transverse wires electrically welded together at points of intersection, using welds strong enough not to be broken during handling and placing. Weld and fabricate fabric sheets to meet the requirements of ASTM A 185.

3. Submit manufacturer's certificates giving properties of steel and supply specimens, free of cost, for testing when required.
- G. Ready Mix Concrete. Provide ready mix concrete meeting the requirements of ASTM C 94 and ACI 301.
- H. All concrete shall have a 28 day compressive strength of 3000 psi unless otherwise specified and shall be a 5 sack cement mix minimum. Slump shall be in accordance with Table 1. If concrete is conveyed by pumping or pneumatic equipment, take slump tests at discharge end. Minimum slump is waived for concrete used in sloping construction.

TABLE I

SLUMP FOR VARIOUS KINDS
OF CONSTRUCTION

Kind of Construction	Slump, (inches)*	
	Maximum	Minimum
Substructure Walls or Keys	5	3
Footing, Slabs, Walls	4	2
Concrete Slope Paving	2	1

* For Concrete to be Vibrated

2.2 QUALITY OF CONCRETE

- A. Field Tests. Test cylinders or beams will be made in numbers required to maintain a check on the strength of the concrete. Provide and maintain curing facilities as required in ASTM C 31. Moisture tests of aggregate will be made at sufficient intervals for accurate batching and proportioning.
- B. Applicable Standards. Meet ASTM standards for sampling and testing. Use ASTM C 42 for test cores.
- C. Tests on High Early Strength Cement. Apply normal Portland cement 7-day and 28-day tests and meet minimum strengths required at 3 or 7 days.
- D. Failure to Meet Specifications. Should 7-day or 3-day test strengths, as applicable for type of cement being used, fail to meet established strength standards, extended curing or resumed curing on those portions of structure represented by test specimens may be required. Should additional curing fail to give required strength, strengthening or replacement of portions of structure which fail to develop required strength could be required at no change in the contract sum.

- E. Slump. Slump of concrete, as determined by ASTM C 143, shall be two inches maximum and one inch minimum.

PART 3 - EXECUTION

3.1 CONSTRUCTION

Dress slopes and other areas to be protected to the line and grade indicated on the Drawings.

3.2 WORK CONDITIONS

- A. Timing. Mix concrete in quantities required for immediate use, and place concrete within 1 hour after start of mixing. Clock-stamp delivery ticket of all batches with time of mixing at ready-mix plant.
- B. Weather. When adverse weather conditions affect quality of concrete, postpone the work. Do not place concrete when the air temperature is at or below 40° F and falling. Concrete may be placed when temperature is at 35° and rising. Take temperature readings in the shade away from artificial heat. If authorized for placement during cold weather, place concrete in accordance with PCA Standard, Design and Control of Concrete Mixtures. Protect concrete from temperatures below 32° F until the concrete has cured for a minimum of 3 days at 70° F or 5 days at 50° F.

3.3 CONCRETE

- A. Concrete shall be placed in compliance with the details and to the dimensions indicated on the Drawings. Unless otherwise indicated by a note on the Drawings, reinforce concrete slope paving using bar reinforcement.
- B. The spacing of bar reinforcement shall not exceed 18 inches in each direction and the distance from the edge of concrete to the first parallel bar shall not exceed 6 inches.
- C. Bending. Bend reinforcing steel to required shapes while steel is cold. Excessive irregularities in bending will be cause for rejection. Detail bars in accordance with ACI 315-57.
- D. Splices. Splicing of bars will not be permitted without written approval. Approved bar bending schedules or placing drawings constitute written approval. Splice bars with a lap of 24 times the diameter of reinforcement but not less than 12 inches. Stagger splices or else locate at points of low tensile stress.
- E. Reinforcement shall be supported properly throughout the placement to maintain its position approximately equidistant from the top and bottom surface of the slab.

- F. Forms shall be used to shape the concrete to the required lines unless otherwise noted on the Drawings. The surfaces of construction joints shall be clean, rough, and surface dry when covered with fresh concrete or mortar. Cleaning shall consist of the removal of all laitance, loose or defective concrete, coatings, sand, sealing compound if used, and other foreign material. Chamfer all exposed concrete edges 1 inch except as otherwise noted on the Drawings.
- G. If the slopes and bottom of the areas to receive concrete are dry and not consolidated properly, the Owner may require the entire area to be sprinkled, or sprinkled and consolidated, to 95 percent of the density, as determined in accordance with ASTM D 698. All surfaces shall be moist when concrete is placed. Do not place concrete in standing or running water.
- H. After the concrete has been placed, compacted and shaped to comply with the dimensions indicated on the Drawings, and after it has set sufficiently to avoid slumping, finish surface with a wooden float to secure a reasonably smooth surface unless otherwise directed by the Owner.
- I. Concrete shall be cured for a minimum period of 4 days.

END OF SECTION

