

DIVISION 0 CONTRACTS AND CONDITIONS

1 2003/12/29

2 **SECTION 00020**
3 **INVITATION TO BID**

4
5 **RECEIPT OF BIDS**

6
7 Sealed bids for the construction of **Water Treatment Plant Expansion 2004** will be received by the City
8 of Kerrville office of the city clerk, City Hall, 800 Junction Highway, Kerrville, Texas until 3:00 P.M. local
9 time on **September 2, 2004** and shortly thereafter the bids will be opened publicly and read aloud in
10 Council Chambers at City Hall.

11
12 The date and time of opening the bids shall be clearly marked on the outside of the sealed envelope. No
13 bids will be accepted after 3:00 P.M. on the date of bid opening.

14
15 **GENERAL DESCRIPTION OF WORK**

16
17 In general, the Work includes the furnishing of the labor, materials and equipment and the construction of
18 the City of Kerrville Water Treatment Plant Expansion which includes the following as outlined in the
19 Drawings and Specifications:

- 20 1. The Membrane Building and installing the pre-purchased Zenon Environmental Inc. membrane
21 system;
22 2. Addition of a raw water pump to existing raw water pump station;
23 3. Addition of static mixer and water flow meter to existing raw water pipeline that supplies existing
24 water treatment plant; and
25 4. Sitework.

26
27 **TYPE OF BID**

28
29 Bid shall be on a lump sum basis for each of the Bid Items identified in the Bid Form.

30
31 **DOCUMENT EXAMINATION AND PROCUREMENTS**

32 The Bidding and Contract Documents may be examined at the following locations:

33
34 City of Kerrville
35 City Hall
36 800 Junction Highway
37 Kerrville, Texas 78028
38 Phone: (830) 792-8319
39 Fax: (830) 896-8793

40
41 HDR Engineering, Inc.
42 2211 South IH-35, Suite 300
43 Austin, Texas 78741
44 Phone: (512) 912-5100
45 Fax: (512) 912-5158

46
47 Contract Documents may be obtained from HDR by contacting Cari Harrington at Phone: (512) 912-5192
48 for a non-refundable charge of \$200.00 per set of half-size drawings and contract documents or \$50 per
49 CD, which is an electronic copy of the drawings and contract documents. Checks shall be made payable to
50 HDR Engineering, Inc. No partial sets of Contract Documents will be issued. Contract Documents will be
51 sent via two-day delivery from the date the non-refundable payment is received.

52
53 **BID SECURITY**

1 Bids must be accompanied by an acceptable bid security as outlined in Section 00100 - Instructions to
2 Bidders, payable to the City of Kerrville, Texas, equal to ten percent (10%) of the total bid amount.

3
4 **CONTRACT SECURITY**

5
6 The successful BIDDER will be required to furnish Performance and Payment Bonds as described in
7 Section 00700 - General Conditions.

8
9 **PREBID CONFERENCE**

10
11 A prebid conference will be held at 3:00 P.M. on August 19, 2004 at the City of Kerrville, Meeting Room
12 One of City Hall, 800 Junction Highway, Kerrville, Texas, 78028. Potential bidders are strongly
13 encouraged to attend and participate in the conference.

14
15 **CONTRACT TIME**

16
17 The Contract Time is defined in Section 00700 - General Conditions, and specified in Section 00500 -
18 Agreement.

19
20 **QUALIFICATION OF BIDDERS**

21
22 Requirements concerning the qualifications of BIDDERS are described in Section 00100 - Instructions to
23 Bidders.

24
25 **OWNER'S RIGHT TO REJECT BIDS**

26
27 In case of ambiguity, duplication, or obscurity in the bids, the City of Kerrville reserves the right to
28 construe the meaning thereof. The City of Kerrville further reserves the right to reject any or all bids and
29 waive any informalities and irregularities in the bids received.

30
31
32 CITY OF: Kerrville

Stephen P. Fine

Mayor

33
34 **END OF SECTION**

2 **SECTION 00100**
3 **INSTRUCTIONS TO BIDDERS**

4
5

6 **1. Defined Terms**

7
8 Terms used in these Instructions to Bidders, which are defined in Section 00700 - General Conditions, have
9 the meanings assigned to them in the General Conditions.

10
11 Certain additional terms used in these Instructions to Bidders have the meanings indicated below which are
12 applicable to both the singular and plural thereof.

13
14 1.1. **BIDDER**--one who submits a Bid directly to OWNER as distinct from a sub-bidder, who submits a
15 bid to a BIDDER.

16
17 1.2. **Issuing Office**--the office from which the Bidding Documents are to be issued and where the bidding
18 procedures are to be administered.

19
20 1.3. **Successful BIDDER**--the lowest, responsible and responsive BIDDER to whom OWNER (on the
21 basis of OWNER's evaluation as hereinafter provided) makes an award.

22
23 **2. Copies of Bidding Documents**

24
25 2.1. Complete sets of the Bidding Documents in the number and for the price stated in the Advertisement
26 or Invitation to Bid may be obtained from the Issuing Office.

27
28 2.2. Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor
29 ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete
30 sets of Bidding Documents.

31
32 2.3. OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so
33 only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

34
35 **3. Qualifications of BIDDERS**

36
37 To demonstrate qualifications to perform the Work, each BIDDER must be prepared to submit within five
38 (5) days after Bid opening, upon OWNER's request, detailed written evidence in addition to that required in
39 Section 00303, Bidders Questionnaire, such as financial data, previous experience, present commitments,
40 and other such data as may be called for below (or elsewhere in the Contract Documents). Each Bid must
41 contain evidence of BIDDER's qualification to do business in the state where the Project is located or
42 covenant to obtain such qualification prior to award of the contract.

43
44 **4. Examination of Contract Documents and Site**

45
46 4.1. It is the responsibility of each BIDDER before submitting a Bid to:

47
48 4.1.1. Examine thoroughly the Contract Documents and other related data identified in the Bidding
49 Documents (including "technical data" referred to in Paragraph 4.2. below).

50
51 4.1.2. Visit the site to become familiar with and satisfy BIDDER as to the general, local and site conditions
52 that may affect cost, progress, performance or furnishing of the Work. Contact Grant Terry, Water
53 Production Superintendent, at (830) 257-4668 to make arrangements for obtaining access to the site.

54

1 4.1.3. Consider federal, state and local Laws and Regulations that may affect cost, progress, performance
2 or furnishing of the Work.

3
4 4.1.4. Study and carefully correlate BIDDER's knowledge and observations with the Contract Documents
5 and such other related data.

6
7 4.1.5. Promptly notify ENGINEER of all conflicts, errors, ambiguities or discrepancies in or between the
8 Contract Documents and such other related documents.

9
10 When conflicts, errors, ambiguities or discrepancies are discovered in or between Contract Documents
11 and/or other related documents, and when said conflicts, etc., have not been resolved through the
12 interpretations by ENGINEER as described in Paragraph 6., BIDDER shall include in the Bid the greater
13 quantity or better quality of Work, or compliance with the more stringent requirement resulting in a greater
14 cost. Such greater cost shall be included in the Bid.

15
16 4.2. Reference is made to the Supplementary Conditions for identification of:

17
18 4.2.1. Those reports of explorations and tests of subsurface conditions at or contiguous to the site which
19 have been utilized by ENGINEER in preparation of the Contract Documents. BIDDER may rely upon the
20 general accuracy of the "technical data" contained in such reports but not upon other data, interpretations,
21 opinions or information contained in such reports or otherwise relating to the subsurface conditions at the
22 site, nor upon the completeness thereof for the purposes of bidding or construction.

23
24 4.2.2. Those drawings of physical conditions in or relating to existing surface and subsurface structures
25 (except Underground Facilities) which are at or contiguous to the site that have been utilized by
26 ENGINEER in preparation of the Contract Documents. BIDDER may rely upon the general accuracy of
27 the "technical data" contained in such drawings but not upon other data, interpretations, opinions or
28 information shown or indicated in such drawings or otherwise relating to such structures, nor upon the
29 completeness thereof for the purposes of bidding or construction.

30
31 4.2.3. A report on subsurface exploration is bound into the Bidding Documents in Section 00220 for the
32 BIDDER's convenience. The report is not part of the Contract Documents, but the "technical data"
33 contained therein upon which BIDDER is entitled to rely as provided in Paragraph 4.02. of the General
34 Conditions has been identified and established in Paragraph SC-4.02 of the Supplementary Conditions.
35 BIDDER is responsible for any interpretation or conclusion drawn from any "technical data" or any such
36 data, interpretations, opinions or information.

37
38 4.3. Before submitting Bid, each BIDDER will be responsible to obtain such additional or supplementary
39 examinations, investigations, explorations, tests, studies and data concerning conditions (surface,
40 subsurface and Underground Facilities) at or contiguous to the site or otherwise, which may affect cost,
41 progress, performance or furnishing of the Work or which relate to any aspect of the means, methods,
42 techniques, sequences or procedures of construction to be employed by BIDDER and safety precautions
43 and programs incident thereto or which BIDDER deems necessary to determine its Bid for performing and
44 furnishing the Work in accordance with the time, price and other terms and conditions of the Contract
45 Documents.

46
47 4.4. On request, OWNER will provide each BIDDER access to the site to conduct such examinations,
48 investigations, explorations, tests and studies as each BIDDER deems necessary for submission of a Bid.
49 BIDDER must fill all holes and clean up and restore the site to its former conditions upon completion of
50 such explorations, investigations, tests and studies.

51
52 4.5. Reference is made to Section 00805 – Supplementary Conditions, Paragraph 7.01, for the
53 identification of the general nature of Work that is to be performed at the site by OWNER or others (such
54 as utilities and other prime CONTRACTORS) that relates to the Work for which a Bid is to be submitted.
55 On request, OWNER will provide to each BIDDER for examination access to or copies of Contract
56 Documents (other than portions thereof related to price) for such Work.

1
2 4.6. The submission of a Bid will constitute an incontrovertible representation by BIDDER (i) that
3 BIDDER has complied with every requirement of this Article 4, (ii) that without exception the Bid is
4 premised upon performing and furnishing the Work required by the Contract Documents and applying the
5 specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown
6 or indicated or expressly required by the Contract Documents, (iii) that BIDDER has given ENGINEER
7 written notice of all conflicts, errors, ambiguities and discrepancies in the Contract Documents and the
8 written resolutions thereof by ENGINEER are acceptable to BIDDER, and when said conflicts, etc., have
9 not been resolved through the interpretations by ENGINEER as described in Paragraph 6., BIDDER has
10 included in the Bid the greater quantity or better quality of Work, or compliance with the more stringent
11 requirement resulting in a greater cost, and (iv) that the Contract Documents are generally sufficient to
12 indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
13

14 4.7. The provisions of 4.1. through 4.6., inclusive, do not apply to Asbestos, Polychlorinated biphenyls
15 (PCBs), Petroleum, Hazardous Waste or Radioactive Material covered by Paragraph 4.06. of the General
16 Conditions.
17

18 **5. Availability of Lands for Work, Etc**

19
20 5.1. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto
21 and other lands designated for use by CONTRACTOR in performing the Work are identified in the
22 Contract Documents. All additional lands and access thereto required for temporary construction facilities,
23 construction equipment or storage of materials and equipment to be incorporated in the Work are to be
24 obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in
25 existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Contract
26 Documents.
27

28 **6. Interpretations and Addenda**

29
30 6.1. All questions about the meaning or intent of the Bidding Documents are to be directed to ENGINEER
31 in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such
32 questions will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having
33 received the Bidding Documents. Questions received less than seven (7) calendar days prior to the date for
34 opening of Bids may not be answered. Only questions answered by formal written Addenda will be
35 binding. Oral and other interpretations or clarifications will be without legal effect.
36

37 Address questions to:

38
39 HDR Engineering, Inc.
40 2211 S. IH-35, Suite 300
41 Austin, Texas 78741
42 Attn: Mark Graves, P.E.
43 Fax: (512) 912-5179
44

45 6.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or
46 ENGINEER.
47

48 **7. Bid Security**

49
50 7.1. Each Bid must be accompanied by Bid security made payable to OWNER in an amount of ten (10)
51 percent of BIDDER's maximum Bid price and in the form of a certified or bank check or a Bid Bond,
52 issued by a surety meeting the requirements of paragraph 5.01A. of the General Conditions.
53

1 7.2. The Bid security of Successful BIDDER will be retained until such BIDDER has executed the
2 Agreement, furnished the required contract security and certificates of insurance and met the other
3 conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful BIDDER
4 fails to execute and deliver the Agreement and furnish the required contract security and certificates of
5 insurance within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid
6 security of that BIDDER will be forfeited. The Bid security of other BIDDERS whom OWNER believes
7 to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the 7th
8 day after the Effective Date of the Agreement or the 61st day (time period for award plus one day) after the
9 Bid opening, whereupon Bid security furnished by such BIDDERS will be returned. Bid security with Bids
10 which are not competitive will be returned within seven (7) days after the Bid opening.

11 12 **8. Contract Times**

13
14 The number of days within which, or the dates by which, the Work is to be substantially completed and
15 also completed and ready for final payment are set forth in the Agreement or incorporated therein by
16 reference to the attached Bid form.

17 18 **9. Liquidated Damages**

19
20 Provisions for liquidated damages, if any, are set forth in the Agreement.

21 22 **10. Substitute and "Or-Equal" Items**

23
24 The Contract, if awarded, will be on the basis of materials and equipment described in the drawings or
25 specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever
26 it is indicated in the drawings or specified in the Specifications that a "substitute" or "or-equal" item of
27 material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER,
28 application for such acceptance will not be considered by ENGINEER until after the Effective Date of the
29 Agreement. The procedure for submission of any such application by CONTRACTOR and consideration
30 by ENGINEER is set forth in Paragraphs 6.05A, 6.05B and 6.05C of the General Conditions and may be
31 supplemented in the General Requirements.

32 33 **11. Subcontractors, Suppliers and Others**

34 35 11.1. List Subcontractors in Bid.

36
37 BIDDER shall list on the Bid form in the place provided the name, address, and description of Work of
38 each Subcontractor to whom BIDDER proposes to subcontract portions of the Work in excess of 20 percent
39 of the total amount of Bid.

40
41
42 11.1. No CONTRACTOR shall be required to employ any Subcontractor, Supplier, other person or
43 organization against whom CONTRACTOR has reasonable objection.

44 45 **12. Bid Form**

46
47 12.1. The Bid form is included with the Bidding Documents; additional copies may be obtained from
48 ENGINEER (or the Issuing Office).

49
50 12.2. All blanks on the Bid form must be completed by printing in black ink or by typewriter.

51
52 12.3. Bids by corporations must be executed in the corporate name by the president or a vice-president (or
53 other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be
54 affixed and attested by the secretary or an assistant secretary. The corporate address and state of
55 incorporation must be shown below the signature.

56

1 12.4. Bids by partnerships must be executed in the partnership name and signed by a partner, whose title
2 must appear under the signature and the official address of the partnership must be shown below the
3 signature.

4
5 12.5. All names must be typed or printed in black ink below the signature.

6
7 12.6. The Bid shall contain an acknowledgement of receipt of all Addenda (the numbers and dates of
8 which must be filled in on the Bid form).

9
10 12.7. The address and telephone number for communications regarding the Bid must be shown.

11
12 12.8. Evidence of authority to conduct business as an out-of-state corporation in the state where the Work
13 is to be performed shall be provided in accordance with Paragraph 3 above. State CONTRACTOR
14 license number, if any must also be shown.

15
16 12.9. For cash allowances named in the Contract Documents, see GC-11.02.

17
18 **13. Submission of Bids**

19
20 Bids shall be submitted on the prescribed Bid form, contained in the Bidding Documents, at the time and
21 place indicated in the Advertisement or Invitation to Bid, addressed to the City of Kerrville, 800 Junction
22 Highway, Kerrville, Texas, 78028, and shall be enclosed in an opaque sealed envelope, marked with the
23 Project title (Water Treatment Plant Expansion 2004), and the name and address of BIDDER, and
24 accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other
25 delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID
26 ENCLOSED" on the face of it.

27
28 **14. Modification and Withdrawal of Bids**

29
30 14.1. Bids may be modified or withdrawn by an appropriate document duly executed in the manner that a
31 Bid must be executed and delivered to the place where Bids are to be submitted at any time prior to the
32 opening of Bids.

33
34 14.2. If, within 24 HRS after Bids are opened, any BIDDER files a duly signed, written notice with
35 OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a
36 material and substantial mistake in the preparation of its Bid, that BIDDER may withdraw its Bid and the
37 Bid security will be returned. Thereafter, that BIDDER will be disqualified from further bidding on the
38 Work to be provided under the Contract Documents.

39
40 **15. Opening of Bids**

41
42 Bids will be opened and (unless obviously non-responsive) read aloud publicly at at the place where Bids
43 are to be submitted. An abstract of the amounts of the Bids will be made available to BIDDERS the day
44 after the opening of Bids.

45
46 **16. Bids to Remain Subject to Acceptance**

47
48 All Bids will remain subject to acceptance for the time period specified for Notice of Award and execution
49 and delivery of Agreement and required Contract security and certificate of insurance by Successful
50 Bidder. OWNER may, at OWNER's sole discretion, release any Bid and return the Bid security prior to
51 that date.

52
53 **17. Award of Contract**

1 17.1. OWNER reserves the right to reject any or all Bids, including without limitation the rights to reject
2 any or all nonconforming, nonresponsive, unbalanced or conditional Bids and to reject the Bid of any
3 BIDDER if OWNER believes that it would not be in the best interest of the Project to make an award to
4 that BIDDER, whether because the Bid is not responsive or the BIDDER is unqualified or of doubtful
5 financial ability or fails to meet any other pertinent standard or criteria established by OWNER. OWNER
6 also reserves the right to waive all informalities not involving price, time or changes in the Work and to
7 negotiate contract terms with the Successful BIDDER. Discrepancies between the multiplication of
8 units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the
9 indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the
10 correct sum. Discrepancies between words and figures will be resolved in favor of the words.

11
12 Any or all bids will be rejected if OWNER has reason to believe that collusion exists among the BIDDERS.

13
14 17.2. In evaluating Bids, OWNER will consider the qualifications of BIDDERS, whether or not the Bids
15 comply with the prescribed requirements, and such alternates, unit prices and other data, as may be
16 requested in the Bid form or prior to the Notice of Award.

17
18 17.3. OWNER may consider the qualifications and experience of Subcontractors, Suppliers, and other
19 persons and organizations proposed for those portions of the Work as to which the identity of
20 Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the
21 Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements,
22 performance data and guarantees of major items of materials and equipment proposed for incorporation in
23 the Work when such data is required to be submitted prior to the Notice of Award.

24
25 17.4. OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of
26 any Bid and to establish the responsibility, qualifications and financial ability of BIDDERS, proposed
27 Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in
28 accordance with the Contract Documents to OWNER's satisfaction within the prescribed time.

29
30 17.5. If the contract is to be awarded, it will be awarded to lowest BIDDER whose evaluation by OWNER
31 indicates to OWNER that the award will be in the best interests of the Project.

32
33 17.6. If the contract is to be awarded, OWNER will give Successful BIDDER a Notice of Award within 60
34 days after the day of the Bid opening. No other act of OWNER or others will constitute acceptance
35 of a Bid.

36 37 **18. Contract Security**

38
39 Paragraph 5.01. of the General Conditions and the Supplementary Conditions set forth OWNER's
40 requirements as to performance and payment Bonds. When the Successful BIDDER delivers the executed
41 Agreement to OWNER, it must be accompanied by the required performance and payment Bonds.

42 43 **19. Signing of Agreement**

44
45 When OWNER gives a Notice of Award to the Successful BIDDER, it will be accompanied by the
46 required number of unsigned counterparts of the Agreement. Within 15 days thereafter CONTRACTOR
47 shall sign and deliver the required number of counterparts of the Agreement to OWNER with the required
48 Bonds and certificates of insurance. Within 10 days thereafter OWNER shall deliver one fully signed
49 counterpart to CONTRACTOR.

50 51 **20. Prebid Conference**

1 A prebid conference will be held as described in Section 00020 – Invitation to Bid. Representatives of
2 OWNER and ENGINEER will be present to discuss the Project. BIDDERS are encouraged to attend and
3 participate in the conference. ENGINEER will transmit to all prospective BIDDERS of record such
4 Addenda as ENGINEER considers necessary in response to questions arising at the conference. Oral
5 statements may not be relied upon and will not be binding or legally effective.
6

7 20. Contracts to be Assigned.

8

9 OWNER has executed contracts with Zenon Environmental, Oakville, Ontario, Canada for furnishing the
10 membranes and associated equipment to be installed by the CONTRACTOR.
11

12 The materials and equipment provided for in these contracts are to be furnished and delivered to the Project
13 site for offloading, storing and installation by CONTRACTOR. The contracts will be assigned by OWNER
14 to CONTRACTOR. Identification of the materials and equipment and the procedures to be followed
15 appear in Paragraph SC-6.03.C of the Supplementary Conditions.
16

17 BIDDERS may examine the Contract Documents for this contract at the Engineer's Office.
18

19 24. Major Materials.

20

21 24.1. Indicate Name of Suppliers in Bid.

22 This Project has certain equipment that is designated as "major equipment" and special rules apply for
23 naming on the Bid form the Supplier of this equipment. Said equipment is identified and the qualified
24 Suppliers are listed in individual specification sections.
25

26 24.1.1. BIDDER shall circle on the Schedule of Acceptable Major Equipment Suppliers (which schedule is
27 part of the Bid form) the name of the Supplier that BIDDER has selected to provide each of the items of
28 Major Equipment listed. The name of only one Supplier for each type of major equipment listed shall be so
29 indicated.
30

31 24.1.2. OWNER may consider the Bid to be irregular and subject to rejection if BIDDER: (i) fails to
32 identify a Supplier for each type of major equipment listed or (ii) identifies more than one approved
33 Supplier for one or more types of major equipment so listed.
34

35 24.1.3. If BIDDER fails to identify a Supplier of a particular item of major equipment from those listed,
36 OWNER has the sole right to select one of the Suppliers so listed.
37

38 24.1.4. If BIDDER identifies more than one Supplier of a particular item of major equipment from those
39 listed, OWNER has the sole right to select one of the Suppliers so listed.
40

41 24.2. Prequalification of Suppliers of Major Equipment

42

43 Suppliers of major equipment who are listed in the applicable individual specification section and the Bid
44 Form are considered to be prequalified and need no further qualifications.
45

46 If a Supplier of major equipment wishes to be considered for inclusion in the list of qualified Suppliers of
47 major equipment, Supplier shall present a complete qualification submittal to ENGINEER concerning the
48 offered equipment. Submittal must be received for evaluation by ENGINEER not less than 14 calendar
49 days before the receipt of Bids. Submittals received after this time will be returned to sender without
50 consideration.
51

52 Suppliers not listed in the individual specification sections who wish to qualify must include in the
53 qualifications submittal the information listed below. Failure to submit the information listed below may
54 result in the submittal being declared unresponsive and the equipment being rejected.
55

56 REQUIRED INFORMATION

- 1
2 i. Submittal cover letter stating equipment identified by type and tag number will perform the same
3 function, is of comparable quality, substance, design and efficiency, and will fit in the space
4 limitations of the structure. Submit cover letter on manufacturer's letterhead and signed by an
5 authorized representative of the manufacturer.
6
7 ii. Attach to the cover letter a matching outline of the "PART 2 - PRODUCTS" portion of the
8 applicable specification section (2.01, 2.01 A, 2.01 A.1., etc.). If the proposed equipment fully
9 meets the information contained in that paragraph, label said paragraph "Full Compliance." If
10 deviations exist, discuss each deviation in full including complete definition of deviation, full
11 technical justification of deviation, and cost impacts of the deviation.
12
13 iii. Name, address and telephone number of nearest manufacturer's sales and service representative.
14
15 iv. All data necessary to evaluate the equipment for the intended installation. Edit general catalog cuts
16 and specifications by the manufacturer to be representative of equipment specifically applicable to
17 the Project.
18
19 v. List of similar operating installations using equipment similar in size and function. Include with each
20 installation:
21
22 - Name and telephone number of OWNER's contact.
23 - Name and telephone number of design engineer firm and contact person.
24 - Date of equipment startup.
25

26 After the established cutoff time, ENGINEER will evaluate the offered alternate equipment on the basis of
27 the information provided. Then, on the basis of ENGINEER's opinion, ENGINEER will recommend
28 equipment to OWNER. Equipment considered equal will be included by Addendum.
29
30

31 **21. Sales and Use Taxes**

32
33 OWNER is exempt from Texas State Sales and Use Taxes on materials and equipment to be incorporated
34 in the Work. Said taxes shall not be included in the Contract Price. Refer to the Supplementary Conditions
35 SC-6.10 for additional information.
36
37

38 **22. Retainage**

39
40 Provisions concerning retainage are set forth in the Agreement, Section 00500.
41

42 **22. Prevailing Wage Rates**

43
44 Contractor shall comply with State of Texas laws regarding wages paid for work on this Project, see
45 Section 00830.
46

47 **END OF SECTION**

1
2

SECTION 00220
SUBSURFACE EXPLORATION REPORT

GEOTECHNICAL INVESTIGATION
KERRVILLE WATER TREATMENT
PLANT ADDITION
MEMBRANE SYSTEM BUILDING

KERRVILLE, TEXAS

APRIL 2004

GEOTECHNICAL INVESTIGATION
KERRVILLE WATER TREATMENT PLANT ADDITION
MEMBRANE SYSTEM BUILDING
KERRVILLE, TEXAS

Project No. 40019

Geotechnical Investigation

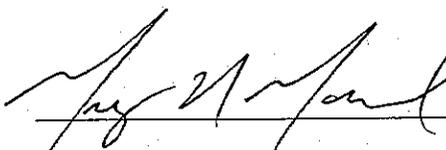
KERRVILLE WATER TREATMENT PLANT ADDITION MEMBRANE SYSTEM BUILDING KERRVILLE, TEXAS

Prepared for

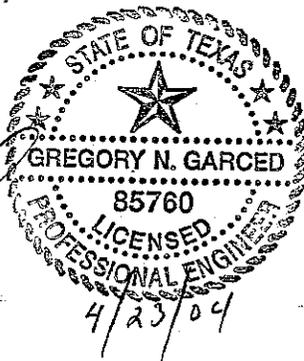
HDR Engineering, Inc.
Austin, Texas 78741

April 2004

Prepared by:



Greg N. Garced, P.E.
Project Engineer



Reviewed by:
Robert C. Davis, Ph. D., P.E.
Senior Geotechnical Engineer

Kleinfelder
Austin, Texas



Project 40019

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**IMPORTANT INFORMATION ABOUT YOUR
GEO TECHNICAL ENGINEERING REPORT** iii

1.0 INTRODUCTION

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APPENDICES

Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one—not even you*—should apply the report for any purpose or project except the one originally contemplated.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions *only* at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an *opinion* about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject To Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the

report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce such risks, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations", many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Rely on Your Geotechnical Engineer for Additional Assistance

Membership in ASFE exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

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GEOTECHNICAL INVESTIGATION
KERRVILLE WATER TREATMENT PLANT ADDITION
MEMBRANE SYSTEM BUILDING
KERRVILLE, TEXAS

1.0 INTRODUCTION

1.1 GENERAL

The project involves the design and construction of a new Membrane System Building. The project site is situated at the existing Water Treatment facility located off of Guadalupe Street, adjacent to the Guadalupe River in Kerrville, Texas. The planned building will be a two-story concrete frame structure approximately 2,000 square feet plan area. The first floor will have 12-foot high concrete walls and will house a 50,000 gallon fiberglass tank and a 10 foot deep tank approximately 240 square feet in plan area. The tanks are to be constructed at the Finished Floor Elevation (FFE). In conversations with Mr. Will Pierce, the structural engineer for the project, the preferred system for the planned structure is a mat foundation system.

The purpose of this investigation has been to:

- Explore the subsurface materials and conditions present at selected, truck accessible site locations by core drilling and sampling;
- Perform laboratory tests to classify the soils and evaluate the strength and volume change characteristics of the subsurface materials; and
- Analyze the results of field and laboratory tests to provide limited and specific geotechnical design and construction criteria for the proposed building.

1.2 SUBSURFACE EXPLORATION

Subsurface materials were explored by a drilling a total of 2 borings in the planned building area to a depth approximately 40 feet below the existing grade. The borings were laid out in the field by Kleinfelder personnel based on the site plan provided by the client. Borehole locations were staked in the field based on approximate measurements taken from existing site features. It is our understanding that after receiving the initial boring locations, the boring locations were adjusted. However, this information was not received prior to commencing field operations. Therefore the borings were completed at the original locations, approximately 10 to 15 feet north of the revised boring locations. The borehole locations and elevations

should be considered accurate only to the degree implied by the method of measurement. All the boreholes should be considered to be in the vicinity of their intended positions. All boreholes were backfilled with soil cuttings from the drilling operations upon completion of the field activities.

The approximate boring locations are shown on Plate I in Appendix A. If precise location and elevation data are desired, then a registered professional land surveyor should be retained to locate the borings and determine their ground surface elevations. The drilling procedures for the core borings are summarized in Table 1.1.

TABLE 1.1: DRILLING PROCEDURES	
<i>Material Type</i>	<i>Drilling Procedure</i>
Fine-Grained Soils	Continuous sampling using hydraulically advanced 3-inch diameter, steel push-tube samplers
Coarse Sands Gravels	Split barrel sampling, in conjunction with the Standard Penetration Test (SPT)
Rock-Like Materials	Continuous coring using an NX-size double walled core barrel equipped with a diamond or carbide cutting bit.

All samples of the subsurface materials were extruded from the samplers in the field, classified visually, and labeled as to location and depth. Push-tube samples were wrapped in plastic sheeting to minimize moisture changes. Disturbed samples were placed in plastic bags. All samples were arranged in core boxes and transported to the laboratory for further analysis. During the field operations, the borings were observed for subsurface water prior to using drilling fluid while advancing the holes. These observations are noted at the bottom of the boring logs and are discussed in subsequent sections of this report. The core borings were filled and plugged upon completion.

1.3 FIELD TESTS

Hand penetrometer tests were generally conducted on push-tube samples obtained from the borings during drilling operations. Relative in-situ strength and consistency of the subsurface materials were investigated by Standard Penetration Tests (SPT) when testable push-tube or core barrel samples could not be obtained. The tests were conducted in substantial compliance with the requirements of ASTM D 1586-84. The results of the field testing are shown on the Log of Boring sheets under the "Test Results" column.

1.4 LABORATORY TESTS

All samples of subsurface materials from the borings were visually examined and classified in the laboratory. Liquid and plastic limit tests and No. 200-mesh sieve tests were performed on selected samples to establish index properties and grain size characteristics, and to properly classify the soils according to the Unified Soil Classification System. The results of these tests expressed as Liquid Limit, Plasticity Index, and percent passing the 200-mesh sieve (fines) are summarized on Plate 2 in Appendix B.

Strength properties of the soils were evaluated through the use of unconfined compression tests on selected core samples. The results of these tests are summarized on Plate 2, in Appendix B, and on the boring logs, in Appendix A, under the "Test Results" column where they are preceded with the letter "q".

The rock-like materials were qualitatively evaluated using the Rock Quality Designation (RQD) system, which is a standard method for rating drill core quality⁽¹⁾. The RQD values are shown on the boring logs in the column containing the symbol (RQD). RQD is defined as the sum of the lengths of pieces of rock core greater than or equal to four inches in a core run, divided by the total length of that core run. RQD is expressed as a percentage and categorized according to the following Table 1.2.

RQD	Rock Quality
less than 25	very poor
25 – 50	poor
50 – 75	fair
75 – 90	good
90 – 100	excellent

The percent recovery (REC) is simply the total length of material recovered in a specific core run interval divided by the total length of the core run.

2.0 SUBSURFACE MATERIALS AND CONDITIONS

2.1 SITE GEOLOGY

The site under investigation is located south of the Guadalupe River. Based on observations of the samples recovered from the borings and on review of geologic maps and literature of the Kerrville area,⁽¹⁾ it is our interpretation that the primary geologic materials recovered consist primarily of Low Terrace Deposits. The Low Terrace Deposits are generally comprised of some alluvium, gravel, sand, silt and clay and organic matter.

2.2 SUBSURFACE STRATIGRAPHY AND MATERIAL CHARACTERISTICS

Subsurface conditions were evaluated by drilling borings within the planned limits of construction. Our generalization of the subsurface stratigraphy within the project limits, as interpreted from the data obtained during our field exploration activities and laboratory program, is as follows:

<u>Stratum</u>	<u>Range in Depth, feet*</u>	<u>Stratum Description and Classification</u>
I	0 – 13	CLAY (CH/CL): Dark brown to brown varying from fat to lean, sandy stiff to very stiff.
II	11 – 27	SANDY GRAVEL & GRAVELY SAND: (GW/SW): Tan, slightly clayey with some sandy clay, medium dense to very dense.
III	27 – 36	SHALE & SHALY CLAY; Dark gray with some limestone layers, hard.
IV	35 – 40	LIMESTONE and SHALEY LIMESTONE; Light gray with some gray shale layers and lenses

* The stratum thickness and depths to the strata interface are approximate. Our measurements are referenced from ground surface at the time of our drilling activities. Subsurface conditions may vary between boring locations.

The above descriptions are general and range in depths are approximate because boundaries between different stratum are seldom clear and abrupt in the field. In addition, the lines separating major strata types on the Log of Boring sheets do not necessarily represent distinct lines of demarcation for the various strata. Detailed boring logs, presenting the stratum descriptions, types of sampling used, laboratory test data, and additional field data, are presented in Appendix A. The Symbol Key Sheet, which defines the terms and descriptive symbols used on each boring log, is also presented in this Appendix.

2.3 SUBSURFACE WATER

The borings were completed using the dry auger and rock coring drilling techniques. Subsurface water was observed during drilling operations in both borings. However, these groundwater conditions are based on short-term field observations which generally do not permit an accurate evaluation of the groundwater levels. The following groundwater conditions were observed:

Boring No.	Depth to Subsurface Water* (feet)
B-1	20
B-2	19

* The subsurface water depths are based on measurements referenced from ground surface at the time of our drilling activities. Borings were completed using coring drilling techniques; water readings may be affected by drilling fluid used for this drilling method.

The boreholes were backfilled upon completion of our groundwater measurements. Specific information concerning subsurface water is noted on each boring log presented in Appendix A of this report.

We should note subsurface water levels are influenced by seasonal and climatic conditions and the water levels of the nearby river. Variations in these conditions generally result in fluctuations in the elevation of the groundwater level over time. The foundation contractor should check the subsurface water conditions just prior to foundation excavation activities.

3.0 FOUNDATION DESIGN CRITERIA

3.1 DESIGN CONSIDERATIONS

We understand that the planned building will be a two-story concrete frame structure approximately 2,000 square feet plan area. The first floor will have 12-foot high concrete walls and will house a 50,000 gallon fiberglass tank and a 10 foot deep tank approximately 240 square feet in plan area. The tanks are to be constructed at the Finished Floor Elevation (FFE). Based on the conversations with the structural engineer the preferred foundation for the building is a mat foundation system

3.2 EXPANSIVE SOIL CONSIDERATIONS

One critical consideration for design of foundations in the central Texas area is the management of the high plasticity clay soils. The potential magnitude of these movements has been estimated using the Potential Vertical Rise (PVR) approach as originally developed by Chester McDowell⁽³⁾. His method is based on empirical correlation using Atterberg Limits test data, and as such should only be considered as providing estimates of potential movements and not precise prediction of the movements that may occur. The surficial clay soils at this site exhibit a high potential to experience volume changes as the result of moisture variation. Based on the soil stratigraphy observed, completed laboratory testing and estimated final grade, a PVR ranging from 2 to 2½ inches is estimated across the building pad. This estimated PVR is above the value of one (1) inch that most structural engineers consider acceptable for a shallow foundation system, grade supported floor slab or stiffened beam and slab foundation. It should be recognized that these PVR estimates are not exact numbers, but only indications of the order of magnitude of potential soil induced shrink/swell movement.

3.3 REDUCTION OF SOIL MOVEMENTS

We have provided the following building subgrade preparation methods that are intended to reduce the magnitude of soil movements beneath grade supported structures at this site to about one (1) inch. If a more or less stringent PVR value is desired, we should be notified in writing so we can reevaluate our recommendations as necessary.

- Strip vegetation and loose topsoil from the building area.
- Excavate to an elevation equal to four (4) feet below existing grade and remove soil from the building area.

- Proofroll, overexcavate and replace soft yielding zones in the building area. If weak or soft areas are evidenced during proofrolling operations, the soil in the subject area should be removed to expose competent subgrade soils in both the horizontal and vertical limits. The excavated soils, provided they are not contaminated with deleterious materials, or clean imported fill soils can be used to restore grade at these isolated areas; any imported fill should meet the requirements for select fill. Fill should be placed in loose lifts of about eight (8) inches and moisture adjusted between optimum and plus four (+4) percentage points of the optimum moisture content.
- After proofrolling, scarify and moisture condition the top eight (8) inches of the exposed subgrade soil between optimum and plus four (+4) percentage points of the optimum moisture content. Compact the subgrade to at least 95 percent of the maximum dry density determined in accordance with ASTM D 698.
- Select fill meeting the requirements noted in Section 4.2 "Select Fill" should then be placed in the building area to the bottom elevation of the proposed mat or slab foundation. The select fill should be placed in compacted lifts not to exceed six (6) inches in thickness. The select fill should be moisture conditioned between minus two (-2) and plus three (+3) percentage points of the optimum moisture content and then compacted to at least 98 percent of the maximum dry density determined in accordance with ASTM D 698.

3.4 STRUCTURAL LOAD SUPPORT

Structural loads for the proposed building may be supported by shallow foundations consisting of spread footings, strip footings, monolithic slab and grade beam or mat foundation bearing on the select fill. As an alternative for moderate to high loads, concentrated column loads or wall loads may be transferred to the Shale or Limestone layer through the use of drilled piers. However, due to caving sands and gravels and groundwater levels encountered during the drilling program construction of a drilled pier foundation would require temporary steel casing and would be difficult to construct. Therefore, we have not included drilled pier recommendations in this report.

3.4.1 Shallow Foundations

Shallow foundations bearing entirely on the SELECT FILL material may utilize an allowable bearing capacity of 3,000 pounds per square foot (psf) which includes a factor of safety of 3 against a shear punching failure of the underlying soil. A Modulus of Subgrade Reaction, k , of 200 pounds per cubic inch (pci) may be utilized for the design of floor slabs or mat foundations bearing on select fill as specified in Section 4.2 of this report. The stated value assumes at least 24 inches of select fill below the foundation element and the site preparations specified above and in the preceding sections are followed. The excavation methods should carefully be implemented to limit disturbance of the native stratum. Prior to placement of the reinforcing steel within the foundation locations, the compaction of the bearing surface should be verified. Compacted should be at least 98% of the ASTM D 698 maximum dry density at -2%

to +3% of the optimum moisture content for the select fill. We recommend that all footings or grade beams extend a minimum of 18 inches below final grade. This recommendation is to reduce surface water migration below the foundation elements and develop proper end bearing and is not based on structural considerations.

Post construction settlements for shallow foundations should be less than one-half ($\frac{1}{2}$) inch, provided that the site is prepared in accordance with the recommendations contained in this report. Settlement response of the foundation system will be influenced more by the quality of construction than by soil-structure interaction.

3.4.2 Foundation Construction Criteria

The following construction criteria and general guidance should be observed during foundation construction:

1. The foundation construction should be observed by the Geotechnical Engineer or his representative in order to determine that the proper bearing material has been reached in accordance with the recommendations given herein.
2. The foundation excavations should be checked for size and cleaned of loose material prior to the placement of concrete. Precautions should be taken during the placement of reinforcement and concrete to prevent the loose excavated material from falling into the excavation.
3. Prior to the placement of concrete, water should be removed from the foundation excavations.
4. Concrete should be placed promptly after the excavations are completed, cleaned, and observed. Under no circumstances should a pier shaft be drilled that cannot be filled with concrete before the end of the work day.
5. The reinforcement steel cage placed in the excavation should be designed from the standpoint of meeting two requirements: (1) the structural requirements for the imposed loads; and (2) stability requirements during the placement of concrete.

3.5 Interior Floor System

As discussed in Section 3.2, the interior floor slabs will be subjected to potential vertical rise movements associated with high plasticity clay soils. Settlements due to the applied loads should primarily be elastic and occur during and shortly after construction. The magnitude of settlements will likely be influenced more by the quality of construction than the anticipated loads. As noted previously, a Modulus of Subgrade Reaction, (k_s), of 200 pounds per cubic inch (pci) may be utilized for the design of floor slabs and mat foundations bearing on select fill as specified in Section 4.2 of this report.

The need for a vapor barrier, and where to place it, should be determined by the architect based on the proposed floor treatment, building function, concrete properties, placement techniques, and the construction schedule. When moisture barriers are used, precautions should be taken during the initial floor slab concrete curing period to reduce differential curing and possible curling of the slabs.

4.0 FOUNDATION CONSTRUCTION RECOMMENDATIONS

4.1 SITE PREPARATION, GRADING, AND DRAINAGE CONSIDERATIONS

All surficial vegetation and root systems should be removed beneath planned building areas prior to construction. The exposed surface should be proof-rolled with any soft or weak areas removed and replaced with compacted fill. If any deleterious fill material is exposed below the required excavation depth, it should be completely removed. It is important to provide proper grading and drainage around the foundation to not only prevent ponding of water but also to quickly remove the water to limit infiltration. As a general guideline, we suggest the following criteria be used for perimeter drainage:

1. The building pad should be elevated from the exterior finished grade to assist in draining the surface water away from the building.
2. Where possible extend paved surfaces up to the building line to serve as a barrier to soil moisture evaporation and infiltration. These surfaces should slope away from the building.
3. Outlets for gutter systems should discharge water either into storm drains or onto paved surfaces which quickly remove the water from the area.
4. In those areas where grassed ditches must be used to direct surface water away from the building area, the ditch must be designed hydraulically to accommodate the volume of water. In addition, the ditch centerline should be located well away from the foundation, preferably at least 10 feet, and should be provided with a minimum slope of 1 percent. The slope from the building to the ditch should be at least 10 percent.
5. Area drains connected to storm drains and/or concrete lined ditches may also be considered to facilitate drainage where other measures are insufficient to handle and quickly remove surface water.

4.2 SELECT FILL MATERIAL

Select fill material should be a non-expansive, well-graded soil with sufficient binder material for compaction purposes. Select fill should meet the requirements of 1993 TxDOT Item 247, Type A, Grade 3 or better. If another source of select fill is desired, the following specification may be used as a guide:

Maximum Aggregate.....	3 inches
Percent Retained on #4 Sieve.....	25 - 50
Percent Retained on #40 Sieve.....	50 - 75
Plasticity Index	8 - 18
Non-Organic	

All select fill should be moisture conditioned between minus two (-2) and plus three (+3) percentage points of the optimum moisture content, and then compacted to at least 98 percent of maximum dry density determined in accordance with ASTM D 698-91. All select fill material should be placed on prepared surfaces in lifts not to exceed eight (8) inches loose measure, with compacted thickness not to exceed six (6) inches, with each lift tested for compliance prior to the addition of subsequent lifts. We recommend the placement and compaction of fill material be observed, monitored, and tested by Kleinfelder.

5.0 DESIGN REVIEW

Kleinfelder was provided with preliminary site plans and design information. The recommendations contained in this report are based on this information. We should be consulted of any changes so that we may re-evaluate our recommendations. We also should be given the opportunity to review construction documents to affirm that our recommendations have been interpreted correctly. We can not be responsible for misinterpretations if not given the opportunity to review aspects of the project that are based on the contents of this report. Such a review is considered additional services.

6.0 LIMITATIONS OF THIS INVESTIGATION

The services described in this report were performed consistent with generally accepted geotechnical engineering principles and practices. No other warranty, express or implied, is made. This report is solely for the use and information of the client and their designated agents unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for design purposes, locations, time frames, and project parameters indicated. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

The conclusions and recommendations in this report are invalid if:

- The assumed design loads change.
- The structures are relocated.
- The report is used for adjacent or other property or buildings.
- Grades, groundwater levels, or both, change between the issuance of this report and construction.
- Any other change is implemented that materially alters the project from that proposed when this report was prepared.

The boring logs do not provide a warranty of the conditions that may exist at the entire site. The extent and nature of subsurface materials and groundwater variations may not become evident until construction begins. Variations in soil conditions between borings could possibly exist between or beyond the points of exploration or groundwater elevations may change, both of which may require additional studies, consultation, and possible design revisions. Any person associated with this project who observes conditions or features of the site or surrounding areas that are different from those described in this report should report them immediately to us for consideration and evaluation.

The scope of this investigation does not include specific activities and investigations designed to reveal whether a solid waste landfill or environmental hazards exist upon the subject land tract other than what may be determined through incidental encounter in the soil borings. Such investigations designed for this

specific purpose are described and required by TNRCC rules (30 TAC 330.961-330.963) in accordance with HB 2537 (1993). The scope of this investigation does not include environmental evaluations of surface and subsurface conditions, and the lack of that information in this report does not indicate an absence of potential environmental problems.

This report was prepared solely for the use of the client, and their designated agents and should be reviewed in its entirety.

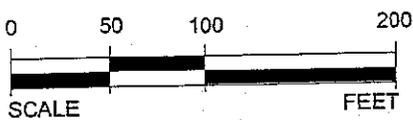
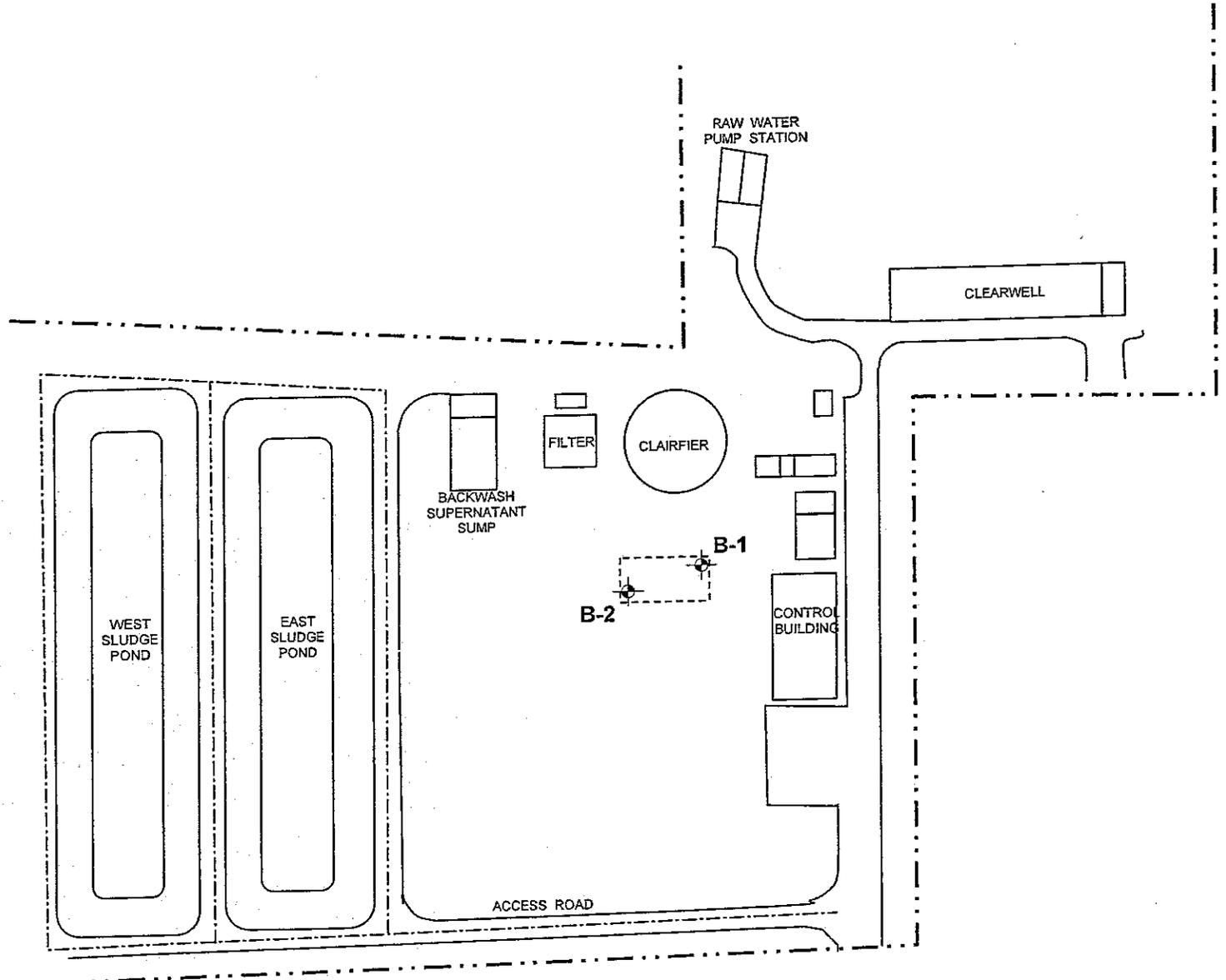
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- (2) Geologic Atlas of Texas, Llano Sheet, Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas, 1981.
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APPENDIX A

WATER TREATMENT PLANT EXPANSION
KERRVILLE, TEXAS

BORING LOCATION PLAN



EXPLANATION OF SYMBOLS AND TERMS USED ON LOGS OF BORINGS

DEPTH FEET	SYMBOL	SAMPLE	TEST RESULTS	MATERIAL DESCRIPTION	ROCK CORE REC./RQD%	ELEV. 523.5'	DEPTH
5	(SEE SYMBOLS BELOW)			INTACT PUSH TUBE SAMPLE			
				DISTURBED PUSH TUBE SAMPLE			
				SPLIT SPOON SAMPLE	10 MINUTE GROUNDWATER OBSERVATION.....		
				DISTURBED AUGER OR WASH SAMPLE			
				NO SAMPLE			
				p3.0 POCKET PENETROMETER (tsf)	INITIAL GROUNDWATER OBSERVATION.....		
				LL 27 LIQUID LIMIT			
				PI 12 PLASTICITY INDEX			
				F 59% PERCENT FINES (PASSING NO. 200 SIEVE)			
				N35 STANDARD PENETRATION RESISTANCE			
			ROCK CORE SAMPLE (4"+ LONG, WRAPPED)				
			ROCK CORE SAMPLE (<4" LONG, UNWRAPPED)		93/23		
			q169 UNCONFINED COMPRESSION (tsf)				
			T100/2.5" TEXAS CONE PENETRATION				

TYPICAL SOIL AND ROCK SYMBOLS (USCS CLASSIFICATION)

Lean Clay (CL)	Poorly-Graded Sand (SP)	Severely Weathered Limestone
Fat Clay (CH)	Well-Graded Sand (SW)	Weathered Limestone
Silt (ML)	Poorly-Graded Gravel (GP)	Limestone
Elastic Silt (MH)	Well-Graded Gravel (GW)	Marly Limestone
Silty Sand (SM)	Clayey Gravel (GC)	Base Material
Clayey Sand (SC)	Silty Gravel (GM)	Fill Material

DEGREE OF WEATHERING

- Unweathered..... Rock in its natural state without visible sign of decomposition or discoloration.
- Weathered..... Complete discoloration with zones of slightly decomposed rock
- Severely Weathered..... Complete discoloration and decomposition, approaching soil texture and appearance

SOIL STRUCTURE

- Calcareous..... Containing calcium carbonate
- Slickensided..... The presence of planes of weakness having a slick and glossy appearance
- Interbedded..... Alternating layers of varying material

The Log of Boring is a representation of the subsurface materials at the specific boring location within the depth explored. The transition between strata may be gradual and variations in material types and depths between borings can be expected. Water level observations represent those conditions at the time of exploration and may vary with time and location on the site.

LOG OF BORING

Project: Water Treatment Plant Expansion

Project No.: 40019

Location: Kerrville, Texas

Date: 3-16-04

Type: Core

Boring No.: B-1

DEPTH FEET	SYMBOL	SAMPLE	TEST RESULTS	MATERIAL DESCRIPTION	ROCK CORE REC / RQD %	DEPTH	DEPTH
5		p 2.0 LL 47 PI 30 F 70%		LEAN CLAY (CL); dark brown with some coarse sand and gravel			
		p 4.5+	q 2.9	- brown with some sand at 4 feet			
		p 3.5 LL 45 PI 28 F 72%					
		p 3.0				8	
10		p 4.5+	q 2.2	CLAY (CH); brown with scattered fine gravel and sand			
15		N 12		SANDY CLAY to CLAYEY SAND (CL/SC); tan, with trace to some fine gravel		12.5	
				- tan with some gravel at 18.5 feet			
20		N 54					
						22	
25		N 80/S*		SANDY GRAVEL (GS); tan, clayey with stone fragments			

LOG OF BORING 40019.GPJ TETCO_AU.GDT 4/22/04

LOG OF BORING

Project: Water Treatment Plant Expansion
 Project No.: 40019
 Location: Kerrville, Texas

Date: 3-16-04

Type: Core

Boring No.: B-1

DEPTH FEET	SYMBOL	SAMPLE	TEST RESULTS	MATERIAL DESCRIPTION	ROCK CORE REC / RQD %	DEPTH	DEPTH
27				SANDY GRAVEL (GS); tan, clayey with stone fragments <i>(Continued)</i>		27	
30				SHALE to SHALY CLAY; dark gray	100/33	30.5	
		N 50/0.5"					
			q 104	- limestone to weathered gray claystone at 30.5 to 32 feet	100/93	32	
35				LIMESTONE; light gray with some gray shaly clay layers and lenses		35	
			q 16	- softer, more clayey at 38 feet	100/65		
40				Total Depth of Boring = 40.0 Feet		40	
45				Boring was advanced to 29.0 feet below the ground surface prior to using drilling fluid and groundwater was encountered at the 20.0 foot depth.			
50							

LOG OF BORING 40019.GPJ TETCO_AU.GDT 4/22/04

LOG OF BORING

Project: Water Treatment Plant Expansion
 Project No.: 40019
 Location: Kerrville, Texas

Date: 3-16-04

Type: Core

Boring No.: B-2

DEPTH FEET	SYMBOL	SAMPLE	TEST RESULTS	MATERIAL DESCRIPTION	ROCK CORE REC / RQD %	DEPTH	DEPTH
0 - 13		•	q 1.3 LL 53 PI 35 F 63%	CLAY (CH); dark brown to brown with some sand and traces of gravel - with some coarse gravels and occasional gravel layers below 4 feet			
13 - 15		⊗	N 19	GRAVELLY SAND (SG); light tan, fine to medium coarse		13	
15 - 20		⊗	N 48	SANDY GRAVEL (GS); tan, angular, slightly clayey		18.5	
20 - 25		⊗	N 50/4"				

LOG OF BORING 40019.GPJ, TETCO, AUGUST 4/22/04

LOG OF BORING

Project: Water Treatment Plant Expansion

Project No.: 40019

Location: Kerrville, Texas

Date: 3-16-04

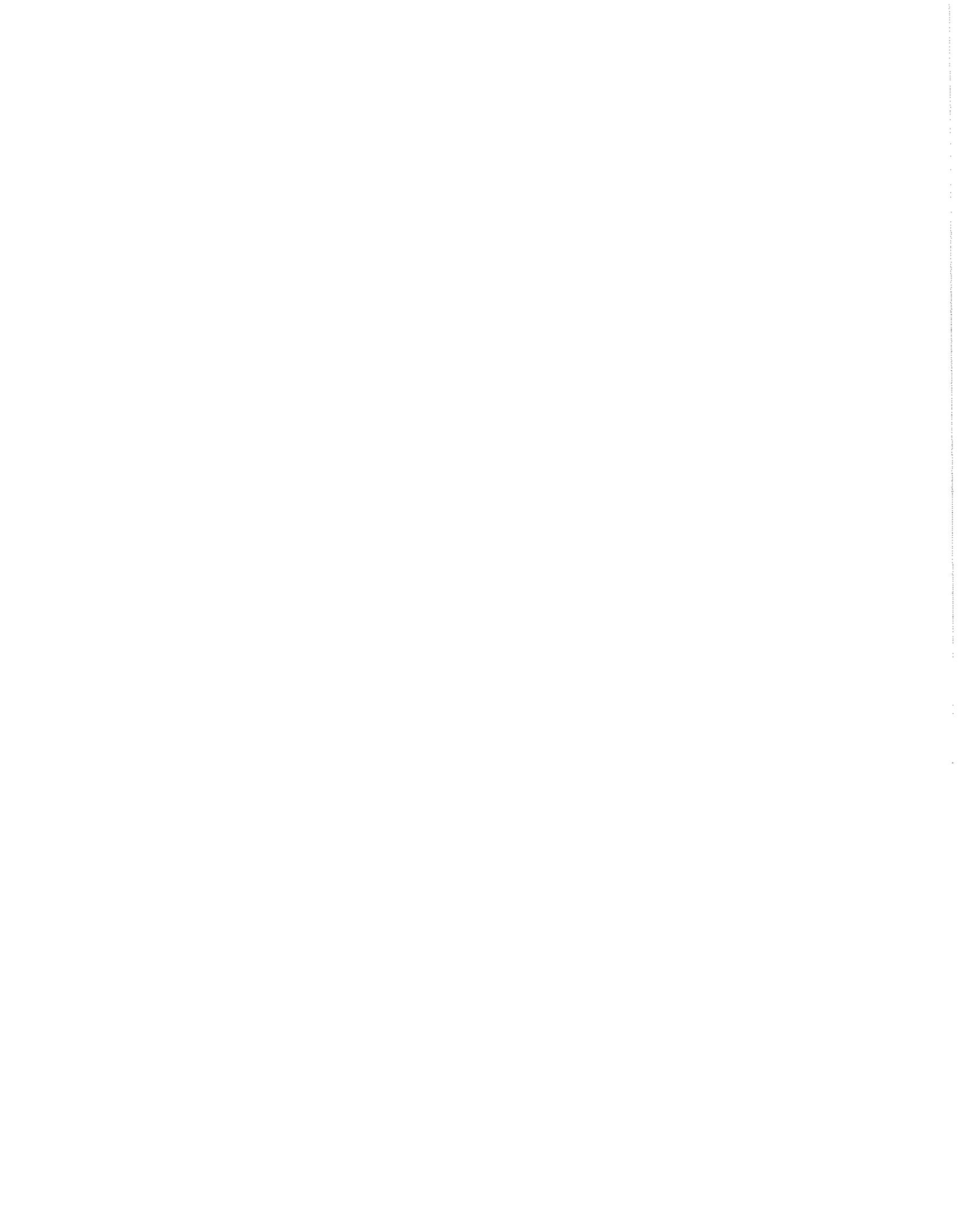
Type: Core

Boring No.: B-2

DEPTH FEET	SYMBOL	SAMPLE	TEST RESULTS	MATERIAL DESCRIPTION	ROCK CORE REC / RQD %	DEPTH	DEPTH
27.5				SANDY GRAVEL (GS); tan, angular, slightly clayey (Continued)		27.5	
29				LIMESTONE; light gray with some gray clay partings	80/50	29	
33		q77		SHALE to SHALY CLAY; dark gray			
35		q8		- gray calcareous clay / claystone layer at 33 feet	94/72	35.5	
36.5				LIMESTONE; light gray		36.5	
				Total Depth of Boring = 36.5 Feet			
				Boring was advanced to 26.5 feet below the ground surface prior to using drilling fluid and groundwater was encountered at the 19.0 foot depth.			

LOG OF BORING - 40019.GPJ TETCO_AU.GDT 4/22/04

APPENDIX B



**KERRVILLE WATER TREATMENT PLANT ADDITION
MEMBRANE SYSTEM BUILDING
KERRVILLE, TEXAS**

PROJECT NO. 40019

SUMMARY OF LABORATORY TEST RESULTS

<u>Boring Number</u>	<u>Sample Depth (ft.)</u>	<u>LL¹ (%)</u>	<u>PI² (%)</u>	<u>-200³ (%)</u>	<u>MC⁴ (%)</u>	<u>UDW⁵ (pcf)</u>	<u>Qu⁶ (tsf)</u>	<u>USCS⁷</u>	<u>Abbreviated Description</u>
B-1	0.0 - 2.0	47	30	70	21	--	--	CL	
	2.0 - 3.0	--	--	--	22	100	2.93	CL	
	4.0 - 6.0	45	28	72	20	--	--	CL	
	8.0 - 10.0	--	--	--	20	105	2.20	CL	
	30.4 - 32.1	--	--	--	--	--	104		
	36.9 - 37.9	--	--	--	--	--	16		
B-2	0.0 - 2.0	53	35	63	18	101	1.29	CH	FAT CLAY
	6.0 - 8.0	--	--	--	18	105	1.91		
	8.0 - 10.0	50	33	51	16	--	--	CH	
	29.8 - 30.8	--	--	--	--	--	77		
	33.0 - 34.5	--	--	--	--	--	8		

¹Liquid Limit

²Plasticity Index

³% Passing #200 Sieve

⁴Moisture Content

⁵Unit Dry Weight

⁶Unconfined Compressive Strength

⁷Unified Soil Classification

*Premature Failure on Existing Plane

1 2003/07/09

2 **SECTION 00301**

3 **BID FORM**

4 PROJECT IDENTIFICATION: **Water Treatment Plant Expansion 2004**

5 THIS BID IS SUBMITTED TO: **City of Kerrville, 800 Junction Highway, Kerrville, Texas, 78028,**
6 **herein after referred to as OWNER.**

7
8
9
10 **1. Enter Into Agreement**

11
12 The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with
13 OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or
14 indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in
15 accordance with the other terms and conditions of the Contract Documents.

16
17 **2. BIDDER Accepts**

18
19 BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions
20 to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will
21 remain subject to acceptance for 60 days after the day of Bid opening. BIDDER will sign and deliver the
22 required number of counterparts of the Agreement with the Bonds and other documents required by the
23 Bidding Requirements within 15 days after the date of OWNER's Notice of Award.

24
25 **3. BIDDER's Representations**

26
27 In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

- 28 a. BIDDER has examined and carefully studied the Bidding Documents and the following Addenda
29 receipt of all which is hereby acknowledged: (List Addenda by Number)

<u>ADDENDUM NO.</u>	<u>DATE</u>
_____	_____
_____	_____
_____	_____
_____	_____

- 30
31
32
33
34
35
36
37
- 38 b. BIDDER has visited the site and become familiar with and is satisfied as to the general, local and
39 site conditions that may affect cost, progress, performance and furnishing of the Work.
- 40
41 c. BIDDER is familiar with and is satisfied as to all federal, state and local Laws and Regulations
42 that may affect cost, progress, performance and furnishing of the Work.
- 43
44 d. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all
45 such additional or supplementary examinations, investigations, explorations, tests, studies and data
46 concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the
47 site or otherwise which may affect cost progress, performance or furnishing of the Work or which
48 relate to any aspect of the means, methods, techniques, sequences and procedures of construction
49 to be employed by BIDDER and safety precautions and programs incident thereto.
50

- e. BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.
- f. BIDDER is aware of the general nature of Work to be performed by OWNER and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- g. BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- h. BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- i. Where conflicts, errors, ambiguities or discrepancies have been discovered in or between Contract Documents and/or other related documents, and where said conflicts, etc., have not been resolved through the interpretations or clarifications by ENGINEER as described in the Instructions to Bidders, because of insufficient time or otherwise, BIDDER has included in the Bid the greater quantity or better quality of Work, or compliance with the more stringent requirement resulting in a greater cost.
- j. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER.

4. Bid Prices

BID ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
1	Mobilization	LS			\$
2	Trench Safety	LS			\$
3	Allowance – Membrane System				\$806,348.00
4	Demobilization	LS			\$
5	ALL OTHER WORK NOT INCLUDED IN OTHER BID ITEMS	LS			\$

TOTAL BID PRICE _____
 (use words) (\$ _____)
 (use figures)

1
2 **5. Completion**
3

4 BIDDER agrees that the Work will be substantially complete within 300 calendar days after the date when
5 the Contract Times commences to run as provided in Paragraph 2.03. of the General Conditions, and
6 completed and ready for final payment in accordance with Paragraph 14.07B of the General Conditions
7 within 360 calendar days after the date when the Contract Times commences to run.
8

9 BIDDER accepts the provisions of the Agreement as to liquidated damages in the event of failure to
10 complete the Work within the times specified in the Agreement.
11

12 **6. Attached Documents**
13

14 The following documents are attached to and made a condition of this Bid:
15

- 16 a. Required Bid Security in the form of _____.
17 b. A tabulation of subcontractors, suppliers and other persons and organizations required to be
18 identified in this Bid and performing Work greater than 20% of the Base Bid amount:
19

20 Electrical: _____
21

22 Plumbing: _____
23

24 Heating - Ventilating: _____
25

26 Mechanical: _____
27

28 Instrumentation/Control: _____
29

30 Other: _____
31

32 Other: _____
33

- 34 c. Section 00302, Vendor Compliance to State Law.
35 d. Section 00303, Bidder's Questionnaire.
36

37 **7. Major Equipment Items**
38

39 In connection with major items of equipment to be furnished and installed in this Project, BIDDER
40 expressly agrees to the following provisions:
41

42 a. That the Bid stated above includes the furnishing and installing of major equipment furnished by
43 the Supplier which BIDDER has selected from those suppliers listed in individual specification sections;
44 and BIDDER has circled the name of the selected Supplier in the Schedule of Major Equipment Suppliers
45 below. BIDDER shall furnish major equipment listed in the Schedule of Major Equipment Suppliers found
46 below.
47

48 b. That the installed price of the equipment includes the cost (if any) of changes in the structure,
49 buildings, piping, wiring, accessories, etc., necessary to accommodate the particular equipment proposed.
50

51 **SCHEDULE OF MAJOR EQUIPMENT SUPPLIERS**
52

53 (1) Section 11072 - Pumping Equipment: Vertical Turbine
54
55 _____

1 (Name of supplier selected)
2
3 (2) Section 11079 - Pumping Equipment: Chemical Metering Pumps
4

5 _____
6 (Name of supplier selected)
7
8 (3) Section 11947 – In-line Static Mixer
9

10 _____
11 (Name of supplier selected)
12
13 (4) Section 11949 – Mixers: Flocculator
14

15 _____
16 (Name of supplier selected)
17

18
19
20 **7. Address for Communications**

21
22 Communications concerning this Bid shall be addressed to the address of BIDDER indicated below:
23

Name _____
Address _____

Telephone _____
Fax _____

24
25 **8. Defined Terms.**

26
27 Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings
28 indicated in the General Conditions or Instructions.

29
30 SUBMITTED on _____, 20____.

31
32 If BIDDER is:

33
34 An Individual

35
36 By _____ (SEAL)
37 (Individual's name)

38
39 doing business as _____

40
41 Business address: _____

42
43 A Partnership

44
45 By _____ (SEAL)

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(Firm name)

(General partner)

Business address: _____

A Corporation

By _____ (SEAL)

(Corporation name)

(State of incorporation)

By _____ (SEAL)

(Name of person authorized to sign)

(Title)

(Corporate Seal)

Attest _____

(Secretary)

Business address: _____

A Joint Venture

By _____ (SEAL)

(Name)

(Address)

By _____ (SEAL)

(Name)

(Address)

NOTE: Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.

END OF SECTION

BID BOND

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID

BID DUE DATE: _____

PROJECT (Brief Description Including Location):

BOND

BOND NUMBER: _____

DATE (Not later than Bid due date): _____

PENAL SUM: _____

(Words)

(Figures)

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)

(Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____

By: _____

Signature and Title

Signature and Title
(Attach Power of Attorney)

Attest: _____

Attest: _____

Signature and Title

Signature and Title

-
- Note: (1) Above addresses are to be used for giving required notice.
 (2) Any singular reference to Bidder, Surety, OWNER or other party shall be considered plural where applicable.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1. OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents, or

3.2. All Bids are rejected by OWNER, or

3.3. OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States

Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power or Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer or proposal as applicable.

1 99B19

2

SECTION 00302

3

VENDOR COMPLIANCE TO STATE LAW

4

5 The 1985 Session of the Texas Legislature passed House Bill 620 relative to the award of contracts to non-
6 resident bidders. This law provides that, in order to be awarded a contract as low bidder, non-resident
7 bidders (out of state contractors whose corporate officers or principal place of business are outside of the
8 state of Texas) bid projects for construction, improvements, supplies or services in Texas at an amount
9 lower than the lowest Texas resident by the same amount that a Texas resident bidder would be required to
10 underbid a non-resident bidder in order to obtain a comparable contract in the state in which the non-
11 resident's principal place of business is located. The appropriate blanks in Section A must be filled out by
12 all out-of-state or non-resident bidders in order for your bid to meet specifications. The failure of out-of-
13 state or non-resident contractors to do so will automatically disqualify that bidder. Resident bidders must
14 check the line in Section B.

15

- 16 A. Non-resident bidder in _____ (give state), our principal place of business, are
17 required to be _____ percent lower than resident bidders by state law.
- 18 Non-resident vendors in _____ (give state), our principal place of business, are
19 not required to underbid resident bidders.

20

- 21 B. Our principal place of business or corporate offices are in the State of Texas:

22

23 BIDDER:

 (Company Name) By _____
 (please print)

Address: _____ Signature: _____

 Title: _____
 (please print)

City State Zip

24

THIS FORM MUST BE RETURNED WITH YOUR PROPOSAL

25

END OF SECTION

2 **SECTION 00303**
3 **BIDDER'S QUESTIONNAIRE**

4
5 The following information is required for evaluation of the low Bidder's qualifications and experience.

6 **Complete this form and return it with your Proposal.**

7
8 1. Bidder Name: _____

9 2. Years in business under present business name: _____

10 3. Attach a list of similar projects completed in the past five years. Provide the name of Owner and
11 Engineer for each project and include the name and telephone number of the contact person for
12 each organization.

13 4. Attach a list of current projects. Provide the name of the Owner and Engineer for each project
14 and include the name and telephone number of the contact person for each organization. Indicate
15 the total value of each contract and the percentage of the work remaining.

16 5. Have you ever failed to complete any work awarded to you?
17 No _____ Yes _____ If yes, explain: _____
18 _____
19 _____

20 6. Have you ever received a Notice of Default from an Owner?
21 No _____ Yes _____ If yes, explain: _____
22 _____
23 _____

24 7. Are you presently involved in any litigation or lawsuits involving construction work of any type?
25 No _____ Yes _____ If yes, explain: _____
26 _____
27 _____

28 8. Identify the individuals you proposed to serve in the following functions and list the project and
29 contract value of the most recent project they served in the same capacity on:
30 Project Manager: _____
31 Previous Project: _____
32 Project Superintendent: _____
33 Previous Project: _____

34 9. Identify your principal bank: _____
35 Contact Person: _____ Phone: _____

36 10. Identify your bonding company/agent: _____
37 Contact Person: _____ Phone: _____

38 11. What percent of annual volume is in water treatment plant-related construction? _____

39 12. Has the company constructed a water treatment plant with low pressure membrane technology
40 within the past five years?

41 Yes _____ No _____. If yes, please provide information on project under Item 3 above.

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2
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4

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16

13. Volume of gross construction business during the last three years:

2002 \$ _____
2001 \$ _____
2000 \$ _____

14. Has the company received an OSHA citation during the most recent 12 months?

No _____ Yes _____ If yes, explain: _____

15. How many lost time accidents has the company had in the last year? _____

If any, describe accidents and amounts of time lost: _____

THIS FORM MUST BE RETURNED WITH YOUR PROPOSAL

END OF SECTION

1 2003/08/06

2 **SECTION 00500**
3 **AGREEMENT**

4 THIS AGREEMENT is dated as of the _____ day of _____ in the year 2004
5
6 by and between City of Kerrville, Texas, hereinafter called OWNER, and
7
8 _____, hereinafter called CONTRACTOR.
9

10 OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as
11 follows:
12

13 **Article 1. WORK**

14 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents.
15

16
17 The Project for which the Work under the Contract Documents may be the whole or only a part is generally
18 described as follows:
19

20 **Water Treatment Plant Expansion 2004**

21
22 **Article 2. ENGINEER**

23
24 The Project has been designed by HDR Engineering, Inc., 2211 South IH-35, Suite 300, Austin, Texas,
25 78741, who is hereinafter called ENGINEER and who is to act as OWNER's representative, assume all
26 duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract
27 Documents in connection with completion of the Work in accordance with the Contract Documents.
28

29 **Article 3. CONTRACT TIMES**

30
31 3.1. The Work will be substantially completed within 300 days after the date when the Contract Times
32 commence to run as provided in Paragraph 2.03. of the General Conditions, and completed and ready for
33 final payment in accordance with Paragraph 14.07B of the General Conditions within 360 days after the
34 date when the Contract Times commence to run.

35 3.2. Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this
36 Agreement and that OWNER will suffer financial loss if the Work is not completed within the times
37 specified in Paragraph 3.1. above, plus any extensions thereof allowed in accordance with Article 12 of the
38 General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual
39 loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such
40 proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty),
41 CONTRACTOR shall pay OWNER **Five Hundred dollars (\$500.00)** for each day that expires after the
42 time specified in Paragraph 3.1. for Substantial Completion until the Work is substantially complete. After
43 Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work
44 within the time specified in Paragraph 3.1. for completion and readiness for final payment or any proper
45 extension thereof granted by OWNER, CONTRACTOR shall pay OWNER **Five Hundred dollars**
46 **(\$500.00)** for each day that expires after the time specified in Paragraph 3.1. for completion and readiness
47 for final payment.
48

49 **Article 4. CONTRACT PRICE**

50
51 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract
52 Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph
53 4.1. below:
54

1 4.1. For all Work, a Lump Sum of:
2
3

4 _____ (use words)
5 (\$ _____)
6 (use figures)
7

8 All specific cash allowances are included in the above price and have been computed in accordance
9 with Paragraph 11.02 of the General Conditions.

10 A. TOTAL BID FOR ALL UNIT PRICES
11 _____
12

13 **Article 5. PAYMENT PROCEDURES**

14
15 CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General
16 Conditions. Applications for Payment will be processed by ENGINEER as provided in the General
17 Conditions.
18

19 5.1. Progress Payments; Retainage. OWNER shall make monthly progress payments on account of the
20 Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by
21 ENGINEER, during construction as provided in Paragraphs 5.1.1 and 5.1.2 below. All such
22 payments will be measured by the schedule of values established in Paragraph 2.05B.3 of the
23 General Conditions or, in the event there is no schedule of values, as provided in the General
24 Requirements.
25

26 5.1.1. Prior to Substantial Completion, progress payments will be made in an amount equal to the
27 percentage indicated below, but, in each case, less the aggregate of payments previously made
28 and less such amounts as accordance with Paragraphs 14.02B.5. and 14.02D.1. of the General
29 Conditions.
30

31 5.1.1.1. 95 percent of Work completed (with the balance being retainage).
32

33 5.1.1.2. 95 percent (with the balance being retainage) of materials and equipment not incorporated in
34 the Work (but delivered, suitably stored and accompanied by documentation satisfactory to
35 OWNER as provided in paragraph 14.02 of the General Conditions).
36

37 5.1.2. Upon Substantial Completion, in an amount sufficient to increase total payments to
38 CONTRACTOR to 95 percent of the Contract Price (with the balance being retainage), less
39 such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with
40 paragraph 14.02B. of the General Conditions.
41

42 5.2. Final Payment. Upon final completion and acceptance of the Work in accordance with Paragraph
43 14.07B. of the General Conditions, OWNER shall pay the remainder of the Contract Price as
44 recommended by ENGINEER as provided in said Paragraph 14.07B.
45

46 **Article 6. INTEREST**

47 All retainages from progress payments shall be withheld without liability for interest.
48
49

50 **Article 7. CONTRACTOR'S REPRESENTATIONS**

51
52 In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following
53 representations:
54

- 1 7.1. CONTRACTOR has thoroughly examined and carefully studied the Contract Documents (including
2 the Addenda listed in Paragraph 8.) and the other related data identified in the Bidding Documents
3 including "technical data."
4
- 5 7.2. CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local
6 and site conditions that may affect cost, progress, performance or furnishing of the Work.
7
- 8 7.3. CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and
9 Regulations that may affect cost, progress, performance or furnishing of the Work.
10
- 11 7.4. CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at
12 or contiguous to the site and all drawings of physical conditions in or relating to existing surface or
13 subsurface structures at or contiguous to the site (except Underground Facilities) which have been
14 identified in the Supplementary Conditions as provided in Paragraph 4.02A. of the General
15 Conditions.
16
- 17 CONTRACTOR accepts the determination set forth in Paragraph 4.02. of the Supplementary
18 Conditions of the extent of the "technical data" contained in such reports and drawings upon which
19 CONTRACTOR is entitled to rely as provided in Paragraph 4.02. of the General Conditions.
20
- 21 CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may
22 not be complete for CONTRACTOR's purposes.
23
- 24 CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the
25 accuracy or completeness of information and data shown or indicated in the Contract Documents
26 with respect to Underground Facilities at or contiguous to the site.
27
- 28 CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so)
29 all such additional supplementary examinations, investigations, explorations, tests, studies and data
30 concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or
31 otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to
32 any aspect of the means, methods, techniques, sequences and procedures of construction to be
33 employed by CONTRACTOR and safety precautions and programs incident thereto.
34
- 35 CONTRACTOR does not consider that any additional examinations, investigations, explorations,
36 tests, studies or data are necessary for the performance and furnishing of the Work at the Contract
37 Price, within the Contract Times and in accordance with the other terms and conditions of the
38 Contract Documents.
39
- 40 7.5. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at
41 the site that relates to the Work as indicated in the Contract Documents.
42
- 43 7.6. CONTRACTOR has correlated the information known to CONTRACTOR, information and
44 observations obtained from visits to the site, reports and drawings identified in the Contract
45 Documents and all additional examinations, investigations, explorations, tests, studies and data with
46 the Contract Documents.
47
- 48 7.7. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or
49 discrepancies in the Contract Documents and the written resolution thereof by ENGINEER through
50 issued addendum or addenda is acceptable to CONTRACTOR, and the Contract Documents are
51 generally sufficient to indicate and convey understanding of all terms and conditions for
52 performance and furnishing of the Work. When said conflicts, etc., have not been resolved through
53 interpretation or clarification by ENGINEER, because of insufficient time or otherwise,
54 CONTRACTOR has included in the Bid the greater quantity or better quality of Work, or
55 compliance with the more stringent requirement resulting in a greater cost; and said greater cost is
56 included in the Contract Price.

1
2 7.8. CONTRACTOR accepts the provisions of the Agreement as to the assignment of the Contract for
3 furnishing Good and Special Services between the City of Kerrville and Zenon Environmental.
4

5 **Article 8. CONTRACT DOCUMENTS**
6

7 The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR
8 concerning the Work consist of the following:
9

- 10 8.1. This Agreement (pages 1 to _____, inclusive).
11
12 8.2. Exhibits to this Agreement (pages _____ to _____, inclusive).
13
14 8.3. Performance, Payment, and other Bonds, identified as exhibits _____ and consisting of _____ pages.
15
16 8.4. Notice to Proceed.
17
18 8.5. General Conditions (pages _____ to _____, inclusive).
19
20 8.6. Supplementary Conditions (pages _____ to _____, inclusive).
21
22 8.7. Specifications bearing the title _____ and consisting of 16 divisions along
23 with appendices, if included and _____ pages, as listed in table of contents thereof.
24
25
26 8.8. Drawings consisting of a cover sheet and sheets numbered _____ through _____, inclusive with each
27 sheet bearing the following general title:
28
29 Water Treatment Plant Expansion 2004
30
31 8.9. Addenda numbers _____ to _____, inclusive.
32
33 8.10. Zenon Environmental Agreement with the City of Kerrville for the purchase of the membrane system
34 and Tender Package.
35
36 8.11. CONTRACTOR's Bid (pages _____ to _____, inclusive) marked Exhibit _____.
37
38 8.12. Documentation submitted by CONTRACTOR prior to Notice of Award (pages _____ to _____
39 inclusive).
40
41 8.13. The following which may be delivered or issued after the Effective Date of the Agreement and are
42 not attached thereto:
43
44 All written amendments and other documents amending, modifying or supplementing the Contract
45 Documents pursuant to Paragraphs 3.04 of the General Conditions.
46
47 The documents listed in Paragraphs 8.2. et seq. above are attached to this Agreement (except as
48 expressly noted otherwise above).
49
50 There are no Contract Documents other than those listed above in this Article 8. The Contract
51 Documents may only be amended, modified or supplemented as provided in Paragraphs 3.04. of the
52 General Conditions.
53

54 **Article 9. MISCELLANEOUS**
55

1 9.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the
2 meanings indicated in the General Conditions.

3
4 9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be
5 binding on another party hereto without the written consent of the party sought to be bound; and,
6 specifically but without limitation, moneys that may become due and moneys that are due may not be
7 assigned without such consent (except to the extent that the effect of this restriction may be limited
8 by law), and unless specifically stated to the contrary in any written consent to an assignment, no
9 assignment will release or discharge the assignor from any duty or responsibility under the Contract
10 Documents.

11
12 9.3. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal
13 representatives to the other party hereto, its partners, successors, assigns and legal representatives in
14 respect to all covenants, agreements and obligations contained in the Contract Documents.

15
16 9.4. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or
17 Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and
18 binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be
19 reformed to replace such stricken provision or part thereof with a valid and enforceable provision that
20 comes as close as possible to expressing the intention of the stricken provision.

21
22 9.5. Other Provisions.

23
24 IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One
25 counterpart each has been delivered to OWNER, CONTRACTOR, and ENGINEER. All portions of the
26 Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or
27 identified by ENGINEER on their behalf.

28
29 This Agreement will be effective on _____, 2004 (which is the Effective Date of
30 the Agreement).

31
32 OWNER _____ CONTRACTOR _____

33
34 _____
35
36 By: _____ By: _____
37 [CORPORATE SEAL] [CORPORATE SEAL]

38
39 Attest _____ Attest _____

40
41 Address for giving notices: Address for giving notices:
42 _____
43 _____
44 _____
45 _____

46
47 Agent for service of process: Agent for service of process:
48 _____
49 _____

50
51 License No. _____

52
53 NOTE: If OWNER is a public body, attach evidence of authority to sign and resolution or other documents
54 authorizing execution of Agreement.

55
56 NOTE: If CONTRACTOR is a corporation, attach evidence of authority to sign.

END OF SECTION

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place
of Business):

OWNER (Name and Address):

CONTRACT

Date:
Amount:
Description (Name and Location):

BOND

Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

EJCDC No. 1910-28-B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.

3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with the CONTRACTOR:

1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.

5. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the

Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.

9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

15.3. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)

AGENCY or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place
of Business):

OWNER (Name and Address):

CONTRACT

Date:
Amount:
Description (Name and Location):

BOND

Date (Not earlier than Contract Date):
Amount:
Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____
Name and Title:

EJCDC No. 1910-28-A (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, and the American Institute of Architects.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.

2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.

3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:

3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right, if any, subsequently to declare a CONTRACTOR Default; and

3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and

3.3. The OWNER has agreed to pay the Balance of the Contract Price to:

3.3.1. The Surety in accordance with the terms of the Contract;

3.3.2. Another contractor selected pursuant to paragraph 4.3 to perform the Contract.

4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or

4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or

4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;

4.4.1. After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or

4.4.2. Deny liability in whole or in part and notify the OWNER citing reasons therefor.

5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered or the Surety has denied

liability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

6. After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional and delay costs resulting from the CONTRACTOR's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.

7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.

12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY--Name, Address and Telephone)
AGENT or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

CERTIFICATE OF INSURANCE (Workmen's Compensation & Liability)

This certificate of insurance neither affirmatively
nor negatively amends, extends, or alters the coverage
afforded by the policy(ies) listed on this certificate.

Project _____ Location _____
Owner _____ Address _____
Contractor (Insured) _____ Address _____

The undersigned hereby certifies that the following policies, subject to their terms, conditions and exclusions have been issued by the named companies to the above Insured and are presently in full force and effect:

A. WORKMEN'S COMPENSATION:

Policy No. _____ Expiration Date _____
Insurance Co. _____ Address _____
COVERAGE: Statutory Workmen's Compensation. Employers Liability Limit \$ _____ Each Accident.

Locations covered _____

B. COMPREHENSIVE GENERAL LIABILITY & PROPERTY DAMAGE:

Policy No. _____ Expiration Date _____
Insurance Co. _____ Address _____

LIMITS:

Bodily Injury, including Personal Injury.

\$ _____ Each Person
\$ _____ Each Occurrence
\$ _____ Aggregate

Property Damage \$ _____ Each Occurrence
\$ _____ Aggregate
Other _____

COVERAGE PROVIDED (Check Applicable Squares):

	Yes	No	Property Damage Liability Includes:	Yes	No
Premises Operations	<input type="checkbox"/>	<input type="checkbox"/>	Damage due to blasting (explosion)	<input type="checkbox"/>	<input type="checkbox"/>
Subcontractor Operations	<input type="checkbox"/>	<input type="checkbox"/>	Damage due to collapse	<input type="checkbox"/>	<input type="checkbox"/>
Personal Injury	<input type="checkbox"/>	<input type="checkbox"/>	Damage to underground facilities	<input type="checkbox"/>	<input type="checkbox"/>
Completed Operations	<input type="checkbox"/>	<input type="checkbox"/>	Broad Form Property Damage:	<input type="checkbox"/>	<input type="checkbox"/>
Contractual Liability (Per Spec)	<input type="checkbox"/>	<input type="checkbox"/>	Operations of Contractor	<input type="checkbox"/>	<input type="checkbox"/>
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	Contractual	<input type="checkbox"/>	<input type="checkbox"/>

C. COMPREHENSIVE AUTOMOBILE LIABILITY & PROPERTY DAMAGE:

Policy No. _____ Expiration Date _____
Insurance Co. _____ Address _____

LIMITS:

Bodily Injury \$ _____ Each Person
\$ _____ Each Occurrence
Property Damage \$ _____ Each Occurrence
Other _____

COVERAGE PROVIDED - for operation of all owned, non-owned and hired vehicles.

D. UMBRELLA EXCESS LIABILITY:

Policy No. _____ Expiration Date _____
Insurance Co. _____ Address _____

LIMITS: Single Limit Bodily Injury and Property Damage \$ _____ Each Occurrence.

COVERAGE PROVIDED - Applies in excess of the coverages listed above for Employer's Liability, Comprehensive General, Automotive and Property Damage Coverage.

The undersigned further certifies that in the event of cancellation or any material change in any of the above policies, thirty (30) days prior written notice of such cancellation or change shall be delivered by registered or certified mail to the above Owner.

NAME OF AGENCY _____ Address _____
Date _____ By _____

Authorized Insurance Representative
(Signature required)

Specified minimums

A. COMPREHENSIVE GENERAL LIABILITY:

Bodily Injury: (Inc. Personal Injury) \$ _____ each person/\$ _____ each occurrence.
Property Damage: \$ _____ each occurrence/\$ _____ aggregate.

B. COMPREHENSIVE AUTOMOBILE LIABILITY:

Bodily Injury: \$ _____ each person/\$ _____ each occurrence.
Property Damage: \$ _____ each occurrence.

1
2

SECTION 00700
GENERAL CONDITIONS

NOTE: These EJDC Documents have been modified as indicated herein. A ~~strike-out~~ indicates that language has been deleted from the EJDC General Conditions. An underline indicates that the language has been added to EJDC General Conditions.

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By

[INSERT LOGOS]

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

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

This document has been approved and endorsed by

The Associated General [seal] Contractors of America

Construction Specifications Institute

[seal]

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1996 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJDC User's Guide (No. 1910-50). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1996 Edition).

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American Society of Civil Engineers
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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in these General Conditions or in other Contract Documents, the terms listed below have the meanings indicated which are applicable to both the singular and plural thereof. Said terms are generally capitalized or written in italics, but not always. When used in a context consistent with the definition of a listed-defined term, the term shall have a meaning as defined below whether capitalized or italicized or otherwise.

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.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

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.

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

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

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.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include 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 Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *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 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

18. *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.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity 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.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

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

24. *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.

25. *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.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *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.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *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.

32. *PCBs*--Polychlorinated biphenyls.

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

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

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *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.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *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.

39. *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.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *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.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults,

tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

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

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

49. *Work Change Directive*--A written statement 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 subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered 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.

50. *Written Amendment*--A written statement modifying 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.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination 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 performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. *Day*

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. *Defective*

1. The word "defective," 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 14.04 or 14.05).

D. *Furnish, Install, Perform, Provide*

1. Furnish, Install, Perform, Provide, Supply - The word "Furnish" or the word "Install" or the word "Perform" or the word "Provide" or the word "Supply," or any combination or similar directive or usage thereof, shall mean FURNISHING AND INCORPORATING IN THE WORK including all necessary labor, materials, equipment, and everything necessary to perform the Work indicated, unless specifically limited in the context.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds*

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 *Copies of Documents*

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. 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 30 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.

2.04 *Starting the Work*

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein against all applicable field measurements and conditions. 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.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

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. 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; and

3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

a. Where a Contract is awarded on a lump sum basis, the Contractor shall file with the Engineer a balanced price segregation of his lump sum bid into items similar to the various subdivisions of the general and detailed specifications, the sum of which shall equal the lump sum bid. The cost of various materials shall be furnished upon request of the Engineer, and such data will then be used as a basis for making progress estimates. Breakdown cost itemized specification section and trade, and distribute cost to individual applicable units and structures. Where structures, units, equipment, or other components are identified by a specific series or, identification number, utilize said designation throughout cost breakdown. Provide detailed breakdown for individual yard piping or conduit runs and identify approximate quantities involved to satisfaction of the Engineer. Provide separate breakdown for change order items or items requested. Provide an additional breakdown sheet, equivalent to AIA document G703, showing the tabulation format for stored materials. Submit this sheet each month with Contractor's pay request breakdown. The detail and format of cost breakdown and stored materials tabulation sheet shall be fully approved by Engineer

C. *Evidence of Insurance:* 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 Article 5.

2.06 *Preconstruction Conference*

A. After Notice of Award, but before any Work at the Site is started (except with approval of OWNER), 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 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. 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 2.05.B. 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 acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and

substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

B. For Progress Schedule, see Specification Section 01060. For Schedule of Shop Drawings, see Section 01340.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. 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 labor, documentation, services, 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 provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

D. The Specifications may vary in form, format and style. Some specification sections are written in varying degrees of streamlined or declarative style and some sections may be relatively narrative by comparison. Omissions of such words and phrases as "the Contractor shall," "in conformity with," "as shown," or "as specified" are intentional in streamlined sections. Omitted words and phrases shall be supplied by inference. Similar types of provisions may appear in various parts of a section or articles within a part depending on the format of the section. The Contractor shall not take advantage of any variation of form, format or style in making claims for extra Work.

E. The cross referencing of specification sections under the subparagraph heading "Related Sections include but are not necessarily limited to:" and elsewhere within each specification section is provided as an aid and convenience to the Contractor. The Contractor shall not rely on the cross referencing provided and shall be responsible to coordinate the entire work under the Contract Documents and provide a complete Project whether or not the cross referencing is provided in each

section or whether or not the cross referencing is complete.

3.02 *Reference Standards*

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the 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.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or 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 any such provision or instruction 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 performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. 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 Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; 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.

B. *Resolving Discrepancies*

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

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

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. 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: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

3.05 *Reuse of Documents*

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity 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, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and

acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

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

4.01 *Availability of Lands*

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

1. Where easement lines are shown on the Contract Drawings they shall be considered as shown in their final location unless stipulated otherwise in the Supplementary Conditions.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* 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:

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

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

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

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

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 the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, 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.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and

b. 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 9.08 and 11.03.

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

a. 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

b. 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

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *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, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

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

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), 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 or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price of Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05 *Reference Points*

A. 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 property monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for

the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* 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:

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
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition 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. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such

condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly 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 condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR 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 on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such 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 the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment 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 paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. 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, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible.

Nothing in this paragraph 4.06.E shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. 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, subcontractors' or Suppliers' 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 Contract Documents.

B. 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 Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared 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 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. 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.

5.03 *Certificates of Insurance*

A. 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. 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.

5.04 *CONTRACTOR's Liability Insurance*

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

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

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

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

4. claims for damages insured by reasonably available 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. 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

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.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least 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;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, 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 (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. 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 13.07; and

7. 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 evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

8. With respect to all insurance required by this paragraph 5.04., CONTRACTOR agrees to waive all rights of subrogation against OWNER, ENGINEER, and each additional insured identified in the Supplemental Conditions.

5.05 *OWNER's Liability Insurance*

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, 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.

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall purchase and maintain property insurance 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:

1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the

Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

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, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: 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 or causes of loss as may be specifically required by the Supplementary Conditions;

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);

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;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured.

B. 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 individuals 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.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and

maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured and will contain waiver provisions in accordance with paragraph 5.07.

D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 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, Subcontractors, 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.

E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, 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.

5.07 *Waiver of Rights*

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss 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, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss 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

individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) 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.

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

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

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B 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 CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by paragraph 5.06 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 5.08.B. 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.

B. 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 15 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.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either 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 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. 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.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 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 canceled or permitted to lapse on account of any such partial use or occupancy.

1. All insurance required by the Contract Documents, or by laws or regulations shall remain in full force and effect on all phases of the Work, whether or not the Work is occupied or utilized by OWNER, until all Work included in the agreement has been completed and final payment has been made.

2. Nothing contained in the insurance requirements shall be construed as limiting the extent of CONTRACTOR's responsibility for payment of damages resulting from CONTRACTOR's, subcontractors' or suppliers' operations under the Contract. CONTRACTOR agrees that CONTRACTOR alone shall be completely responsible for procuring and maintaining full insurance coverage as provided herein or as may be otherwise required by the Contract Documents. Any approval by OWNER or ENGINEER shall not operate to the contrary.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. 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 OWNER or ENGINEER 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.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto 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 given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 *Labor; Working Hours*

A. 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.

B. In the absence of any Federal, state or local laws, regulations or covenants, the CONTRACTOR may conduct its performance of the Work at the CONTRACTOR's sole discretion, except that the cost of any overtime pay or other expense incurred by the OWNER for Resident Project Representative, OWNER's Representative and construction observation services, occasioned by the conduct of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day, shall be reimbursed to the OWNER by the CONTRACTOR.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, 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 performance, testing, start-up, and completion of the Work.

I. Where the Work requires equipment be furnished, due to the lack of standardization of equipment as produced by the various manufacturers, it may become necessary to make minor modifications in the structures, buildings, piping, mechanical work, electrical work, accessories, controls, or other work, to accommodate the particular equipment offered. CONTRACTOR's bid price for any equipment offered shall include the cost of making any necessary changes subject to the approval of ENGINEER.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, 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 source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents. All items of standard equipment shall be the latest model at the time of delivery, unless otherwise specified.

6.04 *Progress Schedule*

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing 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.

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

6.05 *Substitutes and "Or-Equals"*

A. 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, appearance, 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 submitted to ENGINEER for review under the circumstances described below.

1. *"Or-Equal" Items:* 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 approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least

equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items*

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. 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. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item 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 use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not

incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. 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 approved by 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 6.05.A.2.

C. Engineer's Evaluation: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. Special Guarantee: OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. ENGINEER's Cost Reimbursement: ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B 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 approves 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.

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

G. See Specification Section 01640.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER'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 individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual

relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, 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 individual or entity except as may otherwise be required by Laws and Regulations.

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

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. 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.

G. 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 5.06, 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 individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 *Patent Fees and Royalties*

A. 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, partners, employees or 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) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

A. 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.

6.09 *Laws and Regulations*

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the 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.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work;

however, it shall not be CONTRACTOR's 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 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

6.10 Taxes

A. 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.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. 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.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, 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) arising out of or relating to 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.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

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

6.12 Record Documents

A. 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 in good order and annotated to show 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. CONTRACTOR shall include accurate locations for buried and imbedded items.

6.13 Safety and Protection

A. CONTRACTOR shall be solely 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:

1. all persons on the Site or who may be affected by the Work;

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

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of 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 individual or entity 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 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. 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.

6.15 *Hazard Communication Programs*

A. 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.

6.16 *Emergencies*

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

6.17 *Shop Drawings and Samples*

A. CONTRACTOR shall submit required Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. 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 services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

1. Shop Drawings submitted as herein provided by CONTRACTOR and reviewed by ENGINEER for conformance with the design concept shall be executed in conformity with the Contract Documents unless otherwise required by OWNER.

2. When Shop Drawings are submitted for the purpose of showing the installation in greater detail, their review shall not excuse CONTRACTOR from requirements shown on the drawings and Specifications.

3. For-Information-Only-For-Future-Use submittals upon which the ENGINEER is not

expected to conduct review or take responsive action may be so identified in the Contract Documents.

B. CONTRACTOR shall also submit required Samples to ENGINEER for review and approval in accordance with the acceptable 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 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, 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.

D. *Submittal Procedures*

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

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

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

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. 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.

2. Each submittal shall 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.

3. At the time of each submittal, 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; otherwise CONTRACTOR will not be relieved of the responsibility of executing the Work in accordance with the Contract Documents, even though such Shop Drawings or Samples have been otherwise reviewed..

a. If a Shop Drawing or Sample, as submitted, indicates a variation from the Contract Requirements as set forth in the Contract Documents and ENGINEER finds same to be in the interest of OWNER and to be so minor as not to involve a change in the Contract Price or time for performance, ENGINEER may approve the Shop Drawings or Samples; provided however, such departure is slight in nature and does not affect the design concept of the Work.

4. CONTRACTOR shall submit all Shop Drawings and Samples sufficiently in advance of construction requirements to allow ample time for checking, correcting, resubmitting and rechecking and to avoid any delay in progress of the Work.

5. See Section 01340.

6. Shop Drawings and Sample submittals not conforming to requirements of this paragraph 6.17D and Section 01340 will be returned to CONTRACTOR without action for resubmittal and the resulting delay shall be entirely the responsibility of CONTRACTOR.

E. *ENGINEER's Review*

1. ENGINEER will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. 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.

2. 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.

3. ENGINEER's review and approval of required 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 each submittal as required by paragraph 6.17.D.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 6.17.D.1.

4. ENGINEER's check and review of Shop Drawings and Samples, Standard Specifications and descriptive literature submitted by CONTRACTOR will be only for general conformance with design concept, except as otherwise provided, and shall not be construed as:

- a. permitting any departure from the Contract Requirements;
- b. relieving CONTRACTOR of the responsibility for any error in details, dimensions or otherwise that may exist in such submittals;
- c. constituting a blanket approval of dimensions, quantities, or details of the material or equipment shown; or
- d. approving departures from additional details or instructions previously furnished by ENGINEER.

Such check or review shall not relieve CONTRACTOR of the full responsibility of meeting all of the requirements of the Contract Documents.

F. *Resubmittal Procedures*

1. 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.

6.18 *Continuing the Work*

A. 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 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 *CONTRACTOR's General Warranty and Guarantee*

A. 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:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or
2. normal wear and tear under normal usage.

B. 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:

1. observations by ENGINEER;

2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;
4. use or occupancy of the Work or any part thereof by OWNER;
5. any acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by OWNER.

6.20 Indemnification

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. 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
2. is caused in whole or in part by any act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

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

ARTICLE 7 - OTHER WORK

7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and
2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. 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 other 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 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 properly connect or otherwise make its several parts come together and properly 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.

C. 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 to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

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

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of ENGINEER*

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

8.03 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

8.06 *Insurance*

A. OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 *Limitations on OWNER's Responsibilities*

A. 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 performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. 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

9.01 *OWNER'S Representative*

A. 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 will not be changed without written consent of OWNER and ENGINEER.

9.02 *Visits to Site*

A. 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, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site 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 observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's 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 performance of the Work.

9.03 *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive 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 9.10 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 individual or entity will be as provided in the Supplementary Conditions.

B. ENGINEER's Resident Project Representative shall not authorize any deviation from the Contract Documents or substitutions of materials or equipment.

9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will

be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 *Authorized Variations in Work*

A. 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 and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 *Rejecting Defective Work*

A. 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 13.04, whether or not the Work is fabricated, installed, or completed.

B. The acceptance at any time of materials or equipment by or on behalf of OWNER shall not be a bar to future rejection if they are subsequently found to be defective, inferior in quality, or not equal to the material or equipment specified, or are not as represented to ENGINEER or OWNER.

9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

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

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

9.08 *Determinations for Unit Price Work*

A. 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 (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

9.09 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. 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, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, 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 this paragraph 9.09 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 14.07) 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.

9.10 *Limitations on ENGINEER's Authority and Responsibilities*

A. 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 in contract, tort, or otherwise owed by ENGINEER to

CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. 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 performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A 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.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. 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 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).

1. Change Proposal Request

a. When OWNER requests CONTRACTOR to present a proposal to accomplish a change in the Work, the request will be made in the form of

a Change Proposal Request (CPR) prepared by ENGINEER. The CPR will describe the change and request CONTRACTOR to propose a Contract Price and/or Contract Time change. CONTRACTOR will propose cost and/or time changes, provide a breakdown for the costs, if any, sign the CPR and return it to ENGINEER. ENGINEER will make recommendations to OWNER concerning acceptance. If the CPR is approved by OWNER, the CPR will be included in a Change Order. CONTRACTOR is not authorized to proceed with a change contained in a CPR until the Change Order is properly signed and issued.

b. When the CONTRACTOR desires to propose changes to the Work, it may initiate a CPR in the same form as provided in Paragraph 10.01A.1.a. and submit the CPR to the ENGINEER for the ENGINEER's review and recommendation.

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. 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, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 *Execution of Change Orders*

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

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including

any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; 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 6.18.A.

10.04 *Notification to Surety*

A. 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. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the

opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, 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 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), 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.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* 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. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. 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 11.01.B.

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 outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

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.

3. Payments made by CONTRACTOR to Subcontractors for Work performed 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 acceptable. 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 this paragraph 11.01.

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.

5. Supplemental costs including the following:

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

b. 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.

c. 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, assembly, dismantling, and removal thereof. All such costs shall be 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.

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

e. 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.

f. 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 of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages 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.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. 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.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships 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 branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

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.

4. 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.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR's Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.02 *Cash Allowances*

A. 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 performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

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

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.

B. 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.

11.03 *Unit Price Work*

A. 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 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 subject to the provisions of paragraph 9.08.

B. 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. Work described in the Contract Documents, or reasonably inferred as required for a functionally complete installation, but not identified in the listing of unit price items shall be considered incidental to unit price work listed and the cost of incidental work included as a part of the unit price.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

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

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. 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 submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. 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:

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 paragraph 11.03); or
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 12.01.C.2); or
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 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee:* The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
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:
 - a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;
 - b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

c. 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 paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.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;

d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. 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

f. 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 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

C. No extension of the Contract Time will be allowed for additional Work or for claimed delay unless the additional Work contemplated or claimed delay is shown to be on the critical path of the Project's schedule of construction or CONTRACTOR can show by Critical Path Method analysis how the additional Work or claimed delay adversely affects the critical path.

12.03 *Delays Beyond CONTRACTOR's Control*

A. 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 12.02.A. 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.

12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. 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.

12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or 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:

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR 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.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption

directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. 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 Site and 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.

13.03 *Tests and Inspections*

A. 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.

B. 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:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and
3. as otherwise specifically provided in the Contract Documents.

C. 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.

D. CONTRACTOR shall 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 acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. 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.

F. Uncovering Work as provided in paragraph 13.03.E 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.

13.04 *Uncovering Work*

A. 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.

B. 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 (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such 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); or Owner shall be entitled to accept defective Work in

accordance paragraph 13.08 in which case CONTRACTOR shall still be responsible for all costs associated with exposing, observing, and testing the defective Work. 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. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

13.05 *OWNER May Stop the Work*

A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to 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, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 *Correction Period*

A. 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, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas,

or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas 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 repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

B. 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.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, 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.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay 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) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. 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, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *OWNER May Correct Defective Work*

A. 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 13.06.A, 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.

B. 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.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 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. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. 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.

D. 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 under this paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A 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.

14.02 *Progress Payments*

A. *Applications for Payments*

1. At least 20 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 or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications

1. ENGINEER will, within 10 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.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site 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:

a. the Work has progressed to the point indicated;

b. 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 9.08, and to any other qualifications stated in the recommendation); and

c. 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.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections 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.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. 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 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Written Amendment or Change Orders;

c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or

d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

C. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. *Reduction in Payment*

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

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

b. 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;

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

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall 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.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 *CONTRACTOR's Warranty of Title*

A. 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.

14.04 *Substantial Completion*

A. 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. Promptly 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 14 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 14 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, and protection of the Work, 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.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR

reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which 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 conditions.

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 paragraph 14.04 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.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete,

ENGINEER will promptly 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.

14.07 *Final Payment*

A. *Application for Payment*

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. 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 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 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.

B. *Review of Application and Acceptance*

1. 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 for Payment 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 14.09. Otherwise, ENGINEER will return the Application for Payment 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 for Payment.

C. *Payment Becomes Due*

1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

14.08 *Final Completion Delayed*

A. 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 5.01, 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.

14.09 *Waiver of Claims*

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

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 14.06, 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

2. a waiver of all Claims by CONTRACTOR against OWNER and/or ENGINEER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *OWNER May Suspend Work*

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive 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 a Claim therefor as provided in paragraph 10.05.

15.02 *OWNER May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02A. occur, OWNER will provide written notice to CONTRACTOR and Surety to arrange a conference with CONTRACTOR and Surety to address CONTRACTOR's failure to perform the Work. Conference shall be held not earlier than {7} days, nor later than 15 days, after receipt of notice.

If the OWNER, the CONTRACTOR, and the Surety do not agree to allow the CONTRACTOR to proceed to perform the Construction Contract, the OWNER may, to the extent permitted by Laws and Regulations, declare a CONTRACTOR Default and formally terminate the CONTRACTOR's right to complete the Contract. CONTRACTOR Default shall not be declared earlier than 20 days after the CONTRACTOR and Surety have received notice of conference to address CONTRACTOR's failure to perform the Work.

If CONTRACTOR's services are terminated, Surety shall be obligated to take over and perform the Work. If Surety does not commence performance thereof within {15} consecutive calendar days after date of notice to CONTRACTOR that the services of CONTRACTOR have been terminated, or if Surety has taken over for CONTRACTOR and while prosecuting the Work in lieu of CONTRACTOR, any one or more of the events cited in 15.2.1. through 15.2.4. occur, then OWNER, without process or action at law, may take over any portion of the Work and complete it as described below. If OWNER completes the Work, OWNER may 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.

Whether OWNER or Surety completes the Work, 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.

Neither OWNER, ENGINEER, nor any of their respective consultants, agents, officers, directors or employees shall be in any way liable or accountable to CONTRACTOR or Surety for the method by which the completion of the said Work, or any portion thereof, may be accomplished or for the price paid therefore.

OWNER, notwithstanding the method used in completing the Contract, shall not forfeit the right to recover damages from CONTRACTOR or Surety for CONTRACTOR's failure to timely complete the entire Contract. CONTRACTOR shall not be entitled to any claim for damages on account of the method used by OWNER in completing the Contract.

Maintenance of the Work shall continue to be CONTRACTOR's and Surety's responsibilities as provided for in the bond requirements of the Contract Documents or any special guarantees provided for under the Contract Documents or any other obligations otherwise prescribed by law.

C. 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.

15.03 OWNER May Terminate For Convenience

A. 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 Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

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;

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;

3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. for reasonable expenses directly attributable to termination.

B. 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.

15.04 *CONTRACTOR May Stop Work or Terminate*

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 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 Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, 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

17.01 *Giving Notice*

A. 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.

17.02 *Computation of Times*

A. 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.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto 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.

17.04 *Survival of Obligations*

A. 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 or termination or completion of the Agreement.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

1 2003/06/10

2 **SECTION 00805**
3 **SUPPLEMENTARY CONDITIONS**
4 **TO**
5 **EJCDC GENERAL CONDITIONS, 1910-8 (1996 EDITION)**

6
7 **Supplementary Conditions**

8
9 These Supplementary Conditions amend and supplement Section 00700 - General Conditions, and other
10 provisions of the Contract Documents as indicated below. All provisions of the General Conditions that are
11 amended or supplemented remain in full force and effect as so amended or supplemented. All provisions
12 of the General Conditions which are not so amended or supplemented remain in full force and effect.

13
14 **Defined Terms**

15
16 The terms used in these Supplementary Conditions which are defined in the General Conditions have the
17 meaning assigned to them in the General Conditions.

18
19 **Amendments and Supplements**

20
21 The following are instructions that amend or supplement specific paragraphs in the General Conditions and
22 other Contract Documents.

23
24 **ARTICLE 1 - DEFINITIONS AND TERMINOLOGY**

25
26 **SC-1.01A.20.**

27
28 Add a new paragraph immediately after Paragraph GC-1.01A.20. which is to read as follows:

29
30 "A listing of ENGINEER's Consultants is as follows:

31 Emil G. Swize & Associates, Inc.
32 Kleinfelder
33 Guadalupe Survey Company"

34
35 **SC-2.02A.**

36
37 Amend the first sentence of Paragraph GC-2.02A. by striking out "ten copies," and substituting "five
38 copies."

39
40 **SC-2.03A.**

41
42 Delete the last sentence of paragraph 2.03A.

43
44 **SC-4.02A.**

45
46 Add a new paragraph 4.02A.3, which shall read as follows:

47 "3. The following report of exploration and tests of subsurface conditions was prepared for the
48 site of the Work: "Geotechnical Investigation, Kerrville Water Treatment Plant Addition,
49 Membrane System Building, Kerrville, Texas" prepared for the City of Kerrville, Texas, and HDR
50 by Kleinfelder, April 2004."

51
52 **SC-4.05**

53
54 Add a new paragraph 4.05B., which shall read as follows:

1 "B. CONTRACTOR shall, at his own expense, employ a registered professional land surveyor
2 (RPLS) to give CONTRACTOR lines and elevations for CONTRACTOR's use in constructing
3 the Work. The RPLS shall furnish to ENGINEER, through CONTRACTOR, a signed plat
4 certifying to the location and elevations of the Work indicating ties and closure to baseline and
5 datum benchmark. CONTRACTOR shall provide plat for water treatment plant site certifying
6 layout is at plan location. CONTRACTOR shall also provide plat certifying all structures for the
7 water treatment plant are constructed at plan location."
8
9

10 **SC-5.04A.**

11
12 The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide
13 the following coverages for not less than the following amounts or greater where required by Laws and
14 Regulations in the State of Texas:

15
16 5.04A.1. and 5.04A.2. Workers' Compensation, etc., under paragraphs 5.04A.1. and 5.04A.2 of the General
17 Conditions.

18
19 (1) State: Statutory.

20
21 (2) Applicable Federal (e.g., Longshoreman's): Statutory.

22
23 (3) Employer's Liability: \$100,000.

24
25 No "alternate form" of Worker's Compensation insurance will be accepted.

26
27 5.04A.3., 5.04A.4., and 5.04A.5. CONTRACTOR's Liability Insurance under paragraphs 5.04A.3. through
28 5.04A.5. of the General Conditions, which shall also include completed operations and product liability
29 coverages and eliminate the exclusion with respect to property under the care, custody and control of
30 CONTRACTOR:

31
32 (1) General Aggregate (Except Products-- Completed Operations): \$1,000,000.

33
34 (2) Products--Completed Operations Aggregate: \$1,000,000.

35
36 (3) Personal and Advertising Injury (Per Person/ Organization): \$1,000,000.

37
38 (4) Bodily Injury and Property Damage:

39
40 General Aggregate \$1,000,000.

41 Each Occurrence \$1,000,000.

42
43 This policy shall be on a form acceptable to the Owner, endorsed to include: the OWNER, (the
44 City of Kerrville, Texas, its officers, employees and agents); and ENGINEER and ENGINEER
45 Consultants listed herein under SC-5.04B as additional insureds (hereinafter referred to
46 collectively as "the Indemnitees"). This policy shall also contain cross-liability and severability of
47 interest endorsements, state that this insurance is primary (to the extent applicable) insurance as
48 regards to any other insurance carried by the Indemnitees, and shall include the following
49 coverages:

- 50 1. Premises/operations;
- 51 2. Products/completed operations for a period of two (2) years following the acceptance of
52 the Contractor's Work;
- 53 3. Contractor's Protective for Contractor's liability arising out of the hire of Subcontractors
54 (Independent Contractors);
- 55 4. Aggregate Limits applicable on a Per Project basis;

5. Broad Form contractual Liability specifically in support of, but not limited to, the indemnity provisions of the Contract Documents;
6. Personal Injury with the contractual exclusion deleted;
7. Broad Form Property/Damage including Completed Operations;
8. All other Broad Form CGL coverages;
9. Explosion, collapse and undergrounds (X, C, U) coverage;

(6) Umbrella Excess Liability Insurance:

General Aggregate	\$10,000,000.
Each Occurrence	\$10,000,000.

This policy shall be written on an umbrella excess basis above coverages as described in paragraphs 5.04A.1. and 5.04A.2. (Employer's Liability only) and paragraphs 5.04A.3. through 5.04A.6., contain cross-liability and severability of interest endorsements, and state that this insurance is primary insurance as regards any other insurance carried by the Indemnitees.

5.04A.6. Automobile Liability.

(1) Bodily Injury:

\$1,000,000.	Each Person
\$1,000,000.	Each Accident

Property Damage:

\$1,000,000.	Each Accident
--------------	---------------

or

(2) Combined Single Limit (Bodily Injury and Property Damage):

\$1,000,000.	Each Accident
--------------	---------------

This policy shall be on a standard form written to cover all owned, hired, and non-owned automobiles. The policy shall be endorsed to include the Indemnitees as additional insureds, contain cross-liability and severability of interest endorsements, and state that this insurance is primary (to the extent applicable) insurance as regards any other insurance carried by the Indemnitees.

SC-5.04B.

5.04B.1. The entities listed below are "additional insureds as their interest may appear" including their respective officers, directors, agents and employees.

OWNER:	The City of Kerrville, Texas
ENGINEER:	HDR Engineering, Inc.
ENGINEER's Consultants:	Emil G. Swize & Associates, Inc. Kleinfelder Guadalupe Survey Company"

SC-5.04B.2.

Modify Paragraph GC-5.04B.2. by adding the following phrase after the word "greater":

1
2 "The Contractor's general liability insurance shall include a per project or per location endorsement,
3 which shall be identified in the certificate of insurance provided to the Owner."
4

5 **SC-5.04B.4.**

6
7 The Contractual Liability coverage required by Paragraph 5.04B.4 of the General Conditions shall provide
8 coverage for not less than the following amounts:
9

10 (1) General Aggregate: \$2,000,000.

11
12 (2) Each Occurrence (Bodily Injury and Property Damage): \$1,000,000.
13

14 **SC-5.06A.1.**

15
16 At the end of Paragraph 5.06A.1., add the following sentence:

17 "The insured and the additional insured shall be listed in the insurance coverage by specific name and
18 not by genre."
19
20

21 **SC-5.06A.2.**

22
23 At the end of Paragraph 5.06A.2., add the following sentence:

24 "Additional perils are as follows: explosion, and underground exposures."
25
26

27 **SC-6.03**

28
29 Add the following paragraph to Paragraph 6.03.

30
31 "C. The City of Kerrville through a contract for Goods and Special Services has purchased the
32 membrane system for this Project from Zenon Environmental. Specification Section 01011, Owner
33 Furnished Equipment provides information on the Goods and Special Services to be provided by
34 Zenon Environmental. Specification Section 13400, Installation of Owner Furnished Equipment
35 provides the requirements for the installation of the equipment. In addition, the Zenon Tender Package
36 providing documentation of the equipment to be provided by Zenon Environmental and the Work to be
37 completed by the Contractor is included in the Contract Documents.
38

39 **SC-6.10**

40
41 Add a new paragraph 6.10B., which shall read as follows:

42 B. Owner is an exempt organization as defined by Chapter 11, Property Tax Code of Texas, and is
43 hereby exempt from payment of sales taxes under Chapter 151 of the Limited Sales, Excise, and Use
44 Tax, revised Civil Statutes of Texas. Contractor may purchase all materials incorporated into realty in
45 the performance of this Contract without paying sales tax in accordance with State Comptroller's Rule
46 3.291. CONTRACTOR will be liable for payment of the limited sales and use tax if CONTRACTOR
47 uses tangible personal property in some other manner or for some other purposes than that listed
48 above, and shall pay the tax based on the price paid for the tangible personal property.

49 In the event of changes in the work, CONTRACTOR's charges to the OWNER for any material
50 incorporated into the project in excess of the quantity provided for in the Agreement will be no less
51 than the price paid for such material by the CONTRACTOR.

52 In order for CONTRACTOR to purchase consumable materials by issuing a resale certificate in lieu
53 of payment of sales tax:

54 CONTRACTOR will transfer title of consumable, but not incorporated, materials to OWNER at the
55 time and point of receipt by the CONTRACTOR, and no use may be made of the materials prior to
56 passage of title.

1 CONTRACTOR will be paid for these materials by OWNER as soon as practicable. Payment will
2 not be made directly but considered subsidiary to the pertinent bid item. CONTRACTOR's monthly
3 pay request will state that the request includes consumables that were received during the month
4 covered by the estimate.

5 A representative of OWNER must be notified as soon as possible of the receipt of these materials so
6 that an inspection may be made by the representative. Where practical, the materials will be labeled
7 as the property of "THE CITY OF KERRVILLE."
8

9 **SC-6.21**

10
11 Add a new paragraph immediately after paragraph GC-6.20, which is to read as follows:

12 "6.21 Wages

13 A. CONTRACTOR shall comply with Texas Worker's Compensation Commission
14 Rule 28 TAC Article 110.110."
15

16 **SC-12.03.**

17
18 Add a new paragraph after Paragraph GC 12.03A. which is to read as follows:

19
20 "B. Time extensions will not be granted for rain, wind, flood, or other natural phenomena of normal
21 intensity for the locality where Work is performed. For purpose of determining extent of delay
22 attributable to unusual weather phenomena, a determination shall be made by comparing the
23 weather for a minimum continuous period of at least one-fourth of the Contract Time involved
24 with the average of the preceding 5-year climatic range during the same time interval based on
25 U.S. Weather Bureau statistics for the locality where the Work is performed."
26

27 **END OF SECTION**

1 99B19

2

SECTION 00830
PREVAILING WAGE RATES

3

4

(See attached Wage Rate Determinations for Kerr County)

5

6

7

END OF SECTION

GENERAL DECISION: **TX20030067** TX67

Date: June 13, 2003

General Decision Number: **TX20030067**

Superseded General Decision No. TX020067

State: TEXAS

Construction Type:
BUILDING

County(ies):

BANDERA	KENDALL	MEDINA
EDWARDS	KERR	REAL
FRIO	KINNEY	UVALDE

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories.)

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

BANDERA	KENDALL	MEDINA
EDWARDS	KERR	REAL
FRIO	KINNEY	UVALDE

SUTX1024A 01/29/1990

	Rates	Fringes
AIR CONDITIONING MECHANICS	7.75	
BRICKLAYERS	10.00	
CARPENTERS	8.03	
CEMENT MASONS	8.50	
ELECTRICIANS	10.33	
GLAZIERS	5.84	
IRONWORKERS	9.71	
LABORERS	5.30	
PAINTERS	7.52	
PLASTERERS	10.00	
PLUMBERS & PIPEFITTERS	14.11	
ROOFERS	7.39	
SHEET METAL WORKERS	9.09	
SOFT FLOOR LAYERS	7.54	

TRUCK DRIVERS

5.50

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N. W.
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The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the

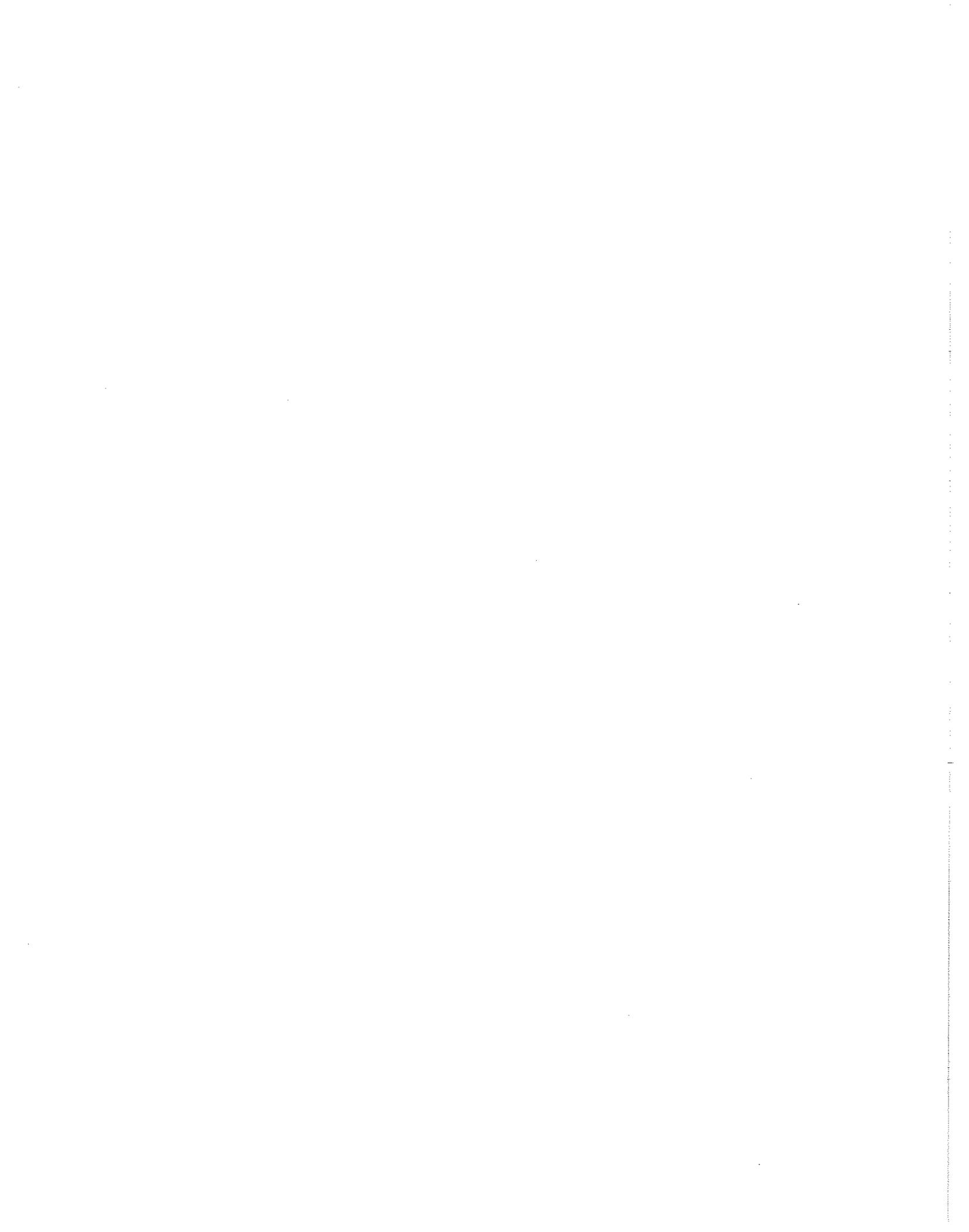
requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

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U. S. Department of Labor

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Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.
END OF GENERAL DECISION



GENERAL DECISION: TX20030038 TX38

Date: June 13, 2003

General Decision Number: TX20030038

Superseded General Decision No. TX020038

State: TEXAS

Construction Type:

HEAVY
HIGHWAY

County(ies):

ARANSAS	FRIO	LLANO
ATASCOSA	GILLESPIE	MASON
AUSTIN	GOLIAD	MATAGORDA
BANDERA	GONZALES	MAVERICK
BASTROP	JACKSON	MCMULLEN
BEE	JIM HOGG	MEDINA
BLANCO	JIM WELLS	REFUGIO
BROOKS	KARNES	STARR
BURNET	KENDALL	UVALDE
CALDWELL	KENEDY	WHARTON
CALHOUN	KERR	WILLACY
COLORADO	KLEBERG	WILSON
DE WITT	LA SALLE	ZAPATA
DIMITT	LAVACA	ZAVALA
DUVAL	LEE	
FAYETTE	LIVE OAK	

Heavy (excluding tunnels and dams and all heavy work in Matagorda and Wharton Counties) and Highway Construction Projects (does not include building structures in rest area projects) and Incidental Shore work in Aransas, Bee, Brooks, Calhoun, DeWitt, Goliad, Jackson, Jim Hogg, Jim Wells, Karnes, Kenedy, Kleberg, Lavaca, Live Oak, Refugio, Starr, Willacy and Zapata Counties.

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

ARANSAS	FRIO	LLANO
ATASCOSA	GILLESPIE	MASON
AUSTIN	GOLIAD	MATAGORDA
BANDERA	GONZALES	MAVERICK
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BROOKS	KARNES	STARR
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CALDWELL	KENEDY	WHARTON
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DE WITT	LA SALLE	ZAPATA
DIMITT	LAVACA	ZAVALA
DUVAL	LEE	
FAYETTE	LIVE OAK	

SUTX2041A 03/26/1998

	Rates	Fringes
ASPHALT RAKER	7.86	
ASPHALT SHOVELER	7.25	
CARPENTER	9.81	
CONCRETE FINISHER-PAVING	9.41	
CONCRETE FINISHER-STRUCTURES	9.10	
CONCRETE RUBBER	8.02	
ELECTRICIAN	13.94	
FLAGGER	5.99	
FORM BUILDER-STRUCTURES	10.05	
FORM SETTER-PAVING & CURB	8.32	
FORM SETTER-STRUCTURES	8.54	
LABORER-COMMON	6.67	
LABORER-UTILITY	7.58	
MECHANIC	9.38	
SERVICER	8.03	
PILEDRIVER	13.75	
PIPE LAYER	7.89	
ASPHALT DISTRIBUTOR OPERATOR	8.64	
ASPHALT PAVING MACHINE	9.47	
BROOM OR SWEEPER OPERATOR	7.09	
BULLDOZER	8.89	
CONCRETE PAVING SAW	9.00	
CRANE, CLAMSHELL, BACKHOE, DERRICK, DRAGLINE, SHOVEL	10.16	
FOUNDATION DRILL OPERATOR TRUCK MOUNTED	12.31	
FRONT END LOADER	8.20	
MOTOR GRADER OPERATOR FINE GRADE	11.56	
MOTOR GRADER OPERATOR	9.72	
PAVEMENT MARKING MACHINE	8.12	
ROLLER, STEEL WHEEL PLANT-MIX PAVEMENTS	8.48	
ROLLER, STEEL WHEEL OTHER FLATWHEEL OR TAMPING	6.67	
ROLLER, PNEUMATIC, SELF PROPELLED	7.04	
SCRAPER	7.65	
TRACTOR-PNEUMATIC	7.31	
TRAVELING MIXER	7.76	
REINFORCING STEEL SETTER PAVING	8.90	
SPREADER BOX OPERATOR	8.38	
BARRICADE SERVICER WORK ZONE	7.09	
TRUCK DRIVER-SINGLE AXLE LIGHT	7.42	
TRUCK DRIVER-SINGLE AXLE HEAVY	8.25	
TRUCK DRIVER-TANDEM AXLE SEMI- TRAILER	7.60	
TRUCK DRIVER-LOWBOY/FLOAT	10.29	

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