



**SECTION TWELVE**  
**RESPONSIBILITIES OF ASCENTRUST, LLC**  
**FOR**  
**PROPOSED POWER PROJECTS**  
**IN THE TEXAS URBAN TRIANGLE AREA OF TEXAS**

## **SECTION SIX: RESPONSIBILITIES OF ASCENTRUST, LLC.**

### **PART ONE: PREAMBLE**

This section will be used to outline the overall responsibilities of **AscenTrust**. The Engineering staff and Consultants of **AscenTrust** are responsible for the production of this **Feasibility Study** and will manage all aspects of the project initiation, property acquisition, **FEEDD** (Front End Engineering and Design), licensing and regulatory issues and construction Management.

The following outline will be used as a starting point to the development of the extensive documentation required for the successful completion of this very important energy project. The responsibilities of **AscenTrust** will include at a minimum the following:

- 1. Project Definition (Pre-funding)**
  - a. Mission Statement**
  - b. Code of Conduct**
- 2. Data Room**
- 3. Scope Document**
- 4. Business Plan**
- 5. Feasibility Study**
- 6. Project Initiation**
- 7. Corporate Entities** required for the successful delivery of the overall project.
- 8. FEEDD (Front End Engineering and Design)**
- 9. Bay City Corporate and Project Setup**
  - a. Economic Development Zone in Matagorda County**
- 10. Regulatory Co-ordination**
- 11. Property Acquisition**
- 12. Project Plan**
- 13. Design Manuals**
- 14. Operations Manuals**
- 15. SCADA and IT Infrastructure and Computers**
  - a. Server setup in Bay City and Houston**
  - b. Content Management System**
  - c. BIM (Building Information Management),**
  - d. Secure networking for IT,**

e. security, Software,

f. Covid-19 Temperature testing and Monitoring

16. Contract Development

17. Frontend Engineering and Design.

18. Project Management

19. Construction Management

20. Initiation of Research and Development Center

21. Integration of Green Energy production into the ERCOT controlled grid

## **PART TWO: OUTLINE OF TASK ONE AND EIGHT**

### **SECTION ONE: Project Definition Document (Overall)** The first task

The **Project definition Document** or **project statement** is a composite statement which will include the **Mission Statement, Code of Conduct, objectives, and Stakeholders** in the project. It provides a preliminary delineation of roles and responsibilities, outlines the project's key goals, identifies the main stakeholders. The Project Definition, the Executive Summary of the project and the **Feasibility Study** shall all be completed by **AscenTrust** prior to funding of the project.

The **Project Definition Document** shall consist of the following items of Documentation:

- Contain the Mission Statement
- Contain the Corporate and Project **Code of Conduct**
- Contain the essence of the project.
- Provide a shared understanding of the project.
- Act as the preliminary contract between the project sponsor, key stakeholders and the project management team.

The purpose of the project charter is to document:

- Reasons for undertaking the project
- Objectives and constraints of the project
- Directions concerning the solution
- Identities of the main stakeholders
- In-scope and out-of-scope items
- operations runs at project resources.

**Note: As the Senior Engineer and his staff produce more of the outlined documentation it will be posted in this Data Room.**

## **SECTION EIGHT: Front End Engineering and Design**

**Front-End Engineering Design (FEEDD)**, is an engineering design approach used to control project expenses and thoroughly plan a project before a fix bid quote is submitted. It may also be referred to as Pre-project planning (PPP), front-end loading (FEL), feasibility analysis, or early project planning.

### **Overview**

The FEED is basic engineering which comes after the Conceptual design or Feasibility study. The FEED design focuses the technical requirements as well as rough investment cost for the project. The FEED can be divided into separate packages covering different portions of the project. The FEED package is used as the basis for bidding the Execution Phase Contracts (EPC, EPCI, etc) and is used as the design basis.

A good FEED will reflect all of the client's project-specific requirements and avoid significant changes during the execution phase. FEED contracts usually take around 1 year to complete for larger-sized projects. During the FEED phase there is close communication between Project Owners and Operators and the Engineering Contractor to work up the project-specific requirements.

Front-End Engineering focuses on technical requirements and identifying main costs for a proposed project.<sup>[2]</sup> It is used to establish a price for the execution phase of the project and evaluate potential risks. It is typically followed by Detailed Design (or Detailed Engineering). The amount of time invested in Front-End Engineering is higher than a traditional quote, because project specifications are thoroughly extracted and the following typically developed in detail:

- Project Organization Chart
- Project Scope
  - Defined civil, mechanical and chemical engineering
  - HAZOP, safety and ergonomic studies
  - 2D & 3D preliminary models
  - Equipment layout and installation plan
  - Engineering design package development
  - Major equipment list
  - Automation strategy
- PFD - Process Flow Diagrams and P&ID - Piping and Instrumentation Diagram
- Project timeline
- Fixed-bid quote

## **FEED Methodology**

FEED is a way of looking at a project before completing detailed design. There is no set way to conduct a Front-End Engineering study. Generally, FEED requires an engineer or a group of engineers to thoroughly and logically consider a proposed project. Example considerations may include:

- **Degree of automation** – depending on the application being considered, automation may or may not be appropriate. Determining the amount of automation in the project will help determine equipment, labor costs, layout, and design.
- **Rates and levels** – to hit a certain rate or level of, for example, production, a certain amount of equipment, materials, and automation may be required. Determining key rates and parameters will have great effect on overall project costs and timeline
- **Material specifications** – Not all materials work well together, or can withstand the physical application. A basic engineering discipline is determining materials of construction, material compatibility etc.
- **Standards and guidelines** – every industry has standards and guidelines, and many industries are regulated. Any equipment, production facilities, manufacturing lines etc. developed for these industries must meet these standards and regulations and can have major impact on costs/time to project completion
- **Assumptions, Exclusions, and potential problems:** FEED seeks to identify potential problems, assumptions or exclusions that could affect the project during execution. Identifying these during the front-end planning stage so they can be accounted for is the goal of FEED.

FEED also includes the outline and stages of Expansions to happen in future, although the timeline is not specifically stated for such expansions. In such cases, the plot area allocated for expansion at certain stage is usually not transgressed.

**Attached to this Document as Appendix A:**

**Appendix A: Template Document for A/E Contract.**

**APPENDIX A**  
**A/E SAMPLE CONTRACT**



**PROFESSIONAL SERVICES AGREEMENT  
FOR  
DESIGN AND CONSTRUCTION  
OF A NATURAL-GAS FIRED, POWER PLANT  
FOR LEWIS CREEK POWER, INC.**



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## PROFESSIONAL SERVICE AGREEMENT

### REGARDING: DESIGN, ENGINEERING, LICENSING, PROCUREMENT AND CONSTRUCTION OF GAS-FIRED POWER PLANT IN TEXAS

This Professional Service Agreement (**Agreement**) is made this 20th day of November, 2013 (the "Effective Date"), by and between:

- **AscenTrust, LLC.** (The Company) represented by Joseph David Fournier, with offices at 25301 Borough Park Drive, Suite 224, The Woodlands Texas, 77380 and here-in referred to as the **Architect/Engineer**.

And

**The Lewis Creek Alliance, Incorporated**, represented by

\_\_\_\_\_, with offices at \_\_\_\_\_ and here-in referred to as the **Funding Entity**.

And will hereinafter be referred to as "the Parties".

### RECITAL

WHEREAS, the Company, through it's senior scientist and Engineer is in possession of a large number of innovative pieces of intellectual properties concerning the production of electrical energy with wind, wave, solar, bio-mass, geo-thermal, and nuclear fission, is knowledgeable in project design, project engineering, project management and construction management.

WHEREAS, the Company through it's Senior Engineer, it's Engineering and Construction Staff, it's Consulting Staff and Strategic Partners have hundreds of man-years of accumulated experience in the production of electrical energy with the use of Natural Gas. Our management strength stems from several hundred man-years of experience along every step of the **LNG** supply chain, and in the implementation of Natural Gas Power Projects.

WHEREAS, the Company brings a strong moral and ethical code to all of it's business dealings. Ethical and moral behavior is at the forefront of it's client relationships and this translates into building trust and confidence both from the Funding Entities and from the client.

WHEREAS, **FUNDER** is engages in the business of private equity investment; and has agreed to provide funding for the design, license, build and operate two Natural-gas fired, electrical power plant, connected to the Entergy, or ERCOT Grid.

WHEREAS, **FUNDER** will invest \$400,000,000.00 in the power plant project. These funds shall be used:

- Incorporation of **Lewis Creek Power, incorporated** here-in referred to as **Owner** will be installed as the operator and Owner of the Merchant Power Plant to be licensed and built



- **AscenTrust, LLC.** shall provide the Project Design, project Engineering, Project Management and Construction Management for the successful completion of the Power Plant Project.

NOW, THEREFORE, the parties in consideration of their mutual promises hereby agree as follows:

## ARTICLE ONE DEFINITIONS

### 1.1. **Agreement** means:

- A. **Contract** between **AscenTrust, LLC. and Funding Group (Attachment A)**
- B. Professional Services Agreement and Appendices
- C. Scope of Work (**Appendix A**)
- D. Standard Documents for Construction
- E. Program Statement
- F. Any Approved Modifications to the Agreement

1.2. **Addendum:** A supplement to the Standard Documents, issued for the purpose of clarifying, correcting or otherwise changing the Standard Documents previously issued.

1.3. **Owner. Lewis Creek Power, Inc.:** a corporation in good standing, in the state of Texas will be referred here-in as the **Owner or Utility.**

1.4. **Owner's Representative:** The Board of Directors of **Lewis Creek Power, Inc.** will designate a Project Manager for the project who shall be the primary representative in the administration of this agreement, and provide Owner's oversight on the Project. The A/E's Project Manager will report to the **Owner's Representative.**

1.5. **Architect Engineer (A/E): AscenTrust, LLC.** the Architect/Engineer (A/E) is the Joint-Venture Partner which will select the site for the power plant, prepares the construction and bidding documents and has construction management duties under contract to the **Joint-Venture** or any of it's Utility Stakeholders.

1.6. **Project Manager:** The **A/E**, with the approval of the **Joint-Venture Partner**, shall designate an individual in charge and responsible for communication with the **Owner** and manage the project for the **A/E**. The term Project Manager shall apply only to the **A/E** function. For the site selection, licensing and construction of the power plant there will only be one person called the **Project Manager.**

1.7. **Scope Document:** Outline of services to be provided by the **A/E**. Scope document shall consist of the phases set forth in **Appendix A**, attached hereto and made a part hereof, and shall include estimating, scheduling, constructability analysis, value engineering, subcontractor pre-qualification, bidding services and other preconstruction and construction services, as applicable for the Project.

1.8. **Architect:** Architect means a person who is licensed as an architect by the appropriate State Agency.

1.9. **Assigned Contractor:** An assigned contractor is a contractor who has been assigned to the coordinating contractor for the limited purposes of scheduling and coordination of the work.

1.10. **Change Order:** A change order is a written change in a contract term, other than as specifically provided for in the contract, which authorizes an addition, deletion or



revision in the work or necessitates any increase or decrease in the cost of the contract or the time to completion.

- 1.11. Contractor:** The contractor is any individual, firm, partnership, corporation, joint venture or other entity who has entered into a construction contract with **Lewis Creek Power, Inc.** for some portion of the work.
- 1.12. Code of Conduct:** The Code of Conduct (Code) in Appendix C has been developed and written by Mr. Joseph Fournier, President of **AscenTrust, LLC.** and is to be used as the basis for the ethical practices of all the consultants, contractors, sub-contractors, Joint-Venture partners, vendors, affiliates and participants in any of the projects managed by the Company.
- 1.13. Coordinating Contractor:** The designated contractor for the project to whom the **A/E** may assign limited administration of the other contracts, as they relate to the Utility which provides us with the Connection to the grid, the Contact with the State of Texas Public utility Commission, and the Texas Commission on Environmental Quality (**TCEQ**).
- 1.14. Direct Wage Expense (DWE).** Actual hourly wages paid employees, exclusive of statutory and fringe benefits, personal and/or performance/profit bonuses.
- 1.15. Engineer.** Engineer means a person who is licensed as a professional engineer in the State of Texas, in which the Power Plant is located.
- 1.16. Subcontractor and Suppliers.** A subcontractor is any individual, firm, partnership, corporation, joint venture, or other entity, other than the contractors, who furnishes any goods or services of any kind under a subcontract entered into with a construction contract with any of the contractors. This legal definition shall govern in general, but various contract Articles herein shall distinguish between a subcontractor and a supplier. In those cases, a subcontractor is a business entity that has responsibility for a portion of the work that includes onsite installation labor. Suppliers are business entities that furnish only goods produced off site which will be incorporated into the work by others. The clause on change orders and others makes such a distinction.
- 1.17. Work.** The work comprises the complete construction required by the contract documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

## ARTICLE 2: A/E'S RIGHTS AND RESPONSIBILITIES

- 2.1 A/E's Principal in Charge:** The A/E shall designate a single individual who shall be in charge of the overall project, from its inception to its close-out. The individual in charge of the project will be referred to as the **Project Manager. Lewis Creek Power, Inc. (The Owner)** the Power Plant Owner and all other stakeholders having jurisdiction shall co-ordinate with the **Project Manager** all queries relating to the project. **Lewis Creek Power, Inc.** shall address all questions and concerns about this agreement and the A/E's performance of its duties, as it relates to the agreement to the A/E's **Project Manager**.
- 2.2 Federal and State Laws.** All applicable Federal and State laws and the rules and regulations of all authorities having jurisdiction over the design of the project shall apply to the agreement throughout, and they will be deemed to be included in the contract the same as though written therein in full. The most important Statutes will be discussed separately in this Agreement.
- 2.3 Project Codes, Standards and Regulations.** The A/E shall prepare all documents in accordance with all applicable codes, standards and regulations. A complete list of the regulatory standards and a copy of the applicable codes and Standards shall be included by reference in the early sections of the **Project Manual**.
- 2.4 Legal Responsibility.** Notwithstanding any other provision herein, the A/E shall perform all of its services in conformity with the standards of reasonable care and skill of the profession. The A/E shall be responsible for the performance of persons retained by the A/E and states that its consultants, subcontractors, agents, employees and officers shall possess the experience, knowledge and character to properly perform their duties.
- 2.5 Standard of Project Quality.** The A/E shall exercise professional expertise and judgment in establishing a standard of quality appropriate for the project. The A/E shall establish the standard early in the design process for review by all the stakeholders of the project.
- 2.6 A/E's Consultants.** The A/E shall employ all consultants necessary for the performance of the services herein described and be contractually responsible for them. Professional and testing consultants shall be pre-qualified in their respective professions.
- 2.7 Construction Supervision.** The A/E shall be responsible for construction means, methods, techniques, sequences, procedures, supervision or for safety precautions and programs in conjunction with the project or work thereon. The A/E shall be responsible for the construction management and the hiring of the on-site construction supervision staff.
- 2.8 Contractor Performance Evaluation.** The A/E through the **Project Manager** will, at the completion of each stage of the construction, provide an evaluation of the contractors involved to all the stakeholders of the Project. The A/E may also prepare interim evaluations as required by the **Owner** or any other major stakeholders.
- 2.9 Defaulting Contractor.** The A/E, in the event of default by any contractor, agrees to work in concert with the **Owner** to manage the funds left in the defaulting contractor's contract to ensure completion of the contract.

- 2.10 Redesign.** Should the lowest responsible competitive proposals or bids obtained on any contract be in excess of the final detailed statement of probable construction costs, any of the stakeholders may request the A/E, in consultation with the stakeholders and the contractors, to redesign the project within the statement of probable construction costs at no additional compensation.
- 2.11 Addenda and Change Orders.** Upon notice or discovery, the A/E shall perform necessary professional services including issuance of addenda to the bidding documents and change orders to the contract documents, to correct or revise errors, omissions, or ambiguities, without additional compensation.

### **ARTICLE 3: OWNER'S RIGHTS AND RESPONSIBILITIES**

#### **3.1. Owner's Representative.**

- A.** The **Funder** will designate a **Representative** for the project who shall be the **Owner's** point of contact in the administration of this agreement. The A/E's **Project Manager** will report, as required, to the **Owner's Representative**.
- B.** The **Owner's Representative** shall be the liaison between the A/E and the Utility (Owner). All correspondence between the A/E, **Lewis Creek Power and Funder** shall be communicated through the **PM**. All correspondence related to the project shall include the project title and the **Owner's** project number. No official communication shall be done by electronic mail.

**3.2. Owner's Review: Lewis Creek Power** shall have the right to review and approve the A/E's submittal of the respective phases of design services for conformance with the provisions of this agreement and to require a written response to all questions raised regarding such services. The **Owner's** review and any approval of the A/E's submittal does not relieve the A/E of its responsibilities. The A/E is assumed to be responsible for the successful completion of the project.

**3.3 Interpretation of Agreement.** The **Owner** shall have the authority to determine questions of fact that arise in relation to the interpretation of this agreement and the A/E's performance hereunder. However, such determinations, except terminations of the contract, are subject to **alternative dispute resolution (ADR)** as described herein.

Unless the parties agree otherwise, such determinations and/or mediation procedures shall not be cause for delay of the performance of this agreement and the completion of the construction of the Power Plant.

**3.4 Error/Omission Change Order Policy.** By written agreement, the **Owner** reserves the right to recover from the A/E all or a portion of the costs associated with change orders issued to correct errors or work omitted in the construction documents prepared by the A/E. Consequential damages, including any delay of work or damages incurred by other parties due to errors and omissions may be included in the recovery.

**3.5 Ownership, Dissemination and Publication of Documents.** The drawings, specifications, reports, renderings, models, electronic media and all such other documents to be prepared and furnished by **AscenTrust, LLC.**, A/E pursuant to this agreement, including the copyrights, are and will remain the property of the Company. All documents listed above may be issued for informational purposes without additional compensation to the A/E.



**3.6 Project Manager's Performance Evaluations.** From time to time, or at the request of the **Owner**, the Company will evaluate the performance of its Project Manager, subcontractors and Suppliers.

#### **ARTICLE 4 COMPENSATION AND PAYMENT**

**4.1 Appendix B.** An attachment to the agreement that delineates the compensation to the A/E for the various services agreed upon and establishes the project schedule.

**4.2 Basic Services Fee.** As compensation for phases of the project:

- Site Selection and Procurement of Turbine.
- design phase,
- permitting and licensing phase and
- construction phase
- Close-out and Warranty phase

For services rendered, in each phase of the project under the agreement, the A/E shall receive a basic services fee as set forth in Appendix B.

**4.3 Site Selection and Procurement Phase:** The site selection service fee is compensation for preliminary title reports, Stage One Environmental Report and all other task associated with this phase of the Project and outlined in the Scope Document located in **Appendix A** of this document.

**4.4 Design Phase Compensation:** The design phase fee is for design and bidding services through the award of construction contracts. The portion of the basic services fee payable for each level of design phase services is set forth in Appendix B. Progress payments shall be paid to the A/E upon successful completion of each level of design and bidding phase as set forth in Appendix B. Progress payments proportional to the percentage of completion of services may be made monthly. A/E shall submit evidence of services completed to be eligible for payment.

**4.5 Permitting and Licensing Phase:** The permitting and licensing phase fee is compensation the preparation of all documentation required to permit the power plant with the **PUC** of Texas, acquire the connection approval from the Entity controlling access to the Grid and all services through the permitting of the site for the actual construction of the power plant. The portion of the basic services fee payable for each level of permitting and licensing services is set forth in Appendix B. Progress payments shall be paid to the A/E upon successful completion of each approval as set forth in Appendix B.

**4.6 Construction Phase Compensation.** The portion of basic services fee for construction phase services is set forth in Appendix B. Progress payments will be paid to the A/E in installments proportional to the percentage of construction completed.

**4.7 On-Site Representative Compensation.** Appendix C indicates the allowance for on-site compensation. A/E's **Project Manager** shall office on the Power Plant Site during the construction phase of the project. Should the A/E anticipate a need for additional on-site compensation, a written request for said expenses shall be submitted to the **Owner** for review. All changes to the agreement shall be by written modification duly executed by the contracting parties.

**4.8 Additional Services.** The A/E shall provide additional services germane to the agreement when authorized by the **Owner** in writing. Compensation, as agreed to and set forth in such authorization, will be based on a negotiated lump sum fee. Payment for additional services shall be made upon completion of the services or as otherwise agreed upon in writing with the **Owner**.

**A.** At **Owner's** option, compensation may be based on a negotiated not-to exceed fee.

**B.** Change orders which alter the project scope shall, with prior approval of the PM, be prepared and processed as additional services.

**4.9 Reimbursable Expenses.** The A/E shall be reimbursed for actual costs of reimbursable services as set forth in Appendix A. Unless approved in writing by the **Owner**, no mark-up will be allowed. The expense of administering subcontracts shall be considered a basic service. Should the A/E anticipate a need for additional reimbursable expenses, a written request for said expenses shall be submitted to the **Owner** for review. The A/E shall provide evidence of an authorized expense when requesting any reimbursement. All changes to the agreement shall be by written modification duly executed by the contracting parties.

**4.10 Construction Administration Fee.** The Construction Administration Fee (CAF) is twelve percent (12%) of the basic services fee plus all additional services fees rounded up to the next hundred dollars as shown on Appendix B. The full amount of this Fee shall be invoiced by the A/E on the initial progress payment request. Prior to the approval of the second progress payment request and no later than 20 calendar days after receipt of the warrant for the initial payment request, the A/E shall direct to the Office of Payment Disbursement of the **Owner**, a check or money order made payable to **Funder's Representative** in the amount of the CAF. Additional CAF imposed as a result of an increase of basic services and/or additional services fees shall be invoiced in the first subsequent pay request and paid to the **Owner** as stated above.

**4.11 Changes in Compensation.** Should the **Owner** elect to change the project scope to the extent that services to be performed by the A/E are substantially altered, then the **Owner** and the A/E will negotiate an equitable adjustment in the A/E's compensation. All changes to the agreement shall be by written modification duly executed by the contracting parties.

**A.** Changes to design requested or approved by the **Owner** in the preparation of the bidding documents may be compensable as additional services if the requested change adds services or requires revisions to previously accepted documents.

**4.12 Withholding of Payments.** The **Owner** may withhold payments, in whole or in part, for a material breach of the contract, including but not limited to, the A/E's failure to perform services or meet the schedule, design errors or omissions, failure to pay consultants and failure to adhere to terms of this agreement.

**4.13 Pay Request.** A/E requests for compensation shall be in accordance with Appendix B of the agreement and as described in this section.

## ARTICLE 5 INSURANCE REQUIREMENTS

**5.1 General.** The A/E shall purchase and maintain insurance coverage as set forth herein for the life of the agreement. The **Owner** shall determine the acceptability of the A/E's insurance carriers as of the time of contract execution. Subsequent to execution, if the A/E chooses to change carriers, the **Owner's** approval is required. Subsequent to execution, if the **Owner** requires the A/E to change carriers due to an erroneous acceptability determination, the additional cost of the change shall be borne by the **Owner**.

**5.2 A/E's Duty to Maintain Insurance.** The A/E shall have the duty to confirm that the terms of all insurance comply with the agreement.

**5.3 Failure to Maintain.** If the **Owner** determines at any time that the insurance does not meet the requirements, this shall constitute a material breach of the agreement and the **Owner** shall provide prompt notice to the A/E and, in its sole discretion, may take any one or more of the following measures to protect itself from the effect of the A/E's breach.

- A. Order the A/E to cease all operations until the proper insurance shall be procured and made fully effective. The cost of any such interruption of the performance of this agreement and any delays resulting there-from, shall be borne by the A/E.
- B. In the exercise of any of its rights as declared herein, the **Owner** does not waive any of its other rights provided in the agreement documents.

**5.4 Acceptability of Insurance Companies.** Insurance that conforms to paragraphs 5.8, of this section of the Agreement shall be acceptable to the **Owner** when issued by an insurance company that meets all of the following standards:

- A. Has a current Best's rating of any level of "B+" or better and has a current Best's financial class of "VI" or higher.
- B. Does not have an unacceptable record of improper conduct or financial problems with the Texas Department of Insurance.

**5.5 Cut-through Endorsements.** Policies with a 100% cut-through endorsement giving all claimants a direct right of recovery, against a re-insurer that meets the criteria of Paragraph 5.7 when the primary insurer fails or is unable to pay for any reason, shall be acceptable provided that a proper endorsement and reinsurance treaty is submitted.

**5.6 Discretion to Adjust Criteria.**

- A. Acceptability criteria set out in Paragraph 5.7 shall constitute minimum requirements unless waived prior to executing the agreement by the **Owner**.
- B. The **Owner** may require wrap up insurance when required by the State of Texas or the State of Alabama.

**5.7. Unacceptable Performance of an Insurance Company.** Unacceptable performance of an insurance company, related to **Owner** claims, may consist of one or more of the following:

- A. Failure to abide by the requirements of the agreement and herein.
- B. Failure to respond to **Owner** communications within a reasonable time.

- C. Failure to acknowledge receipt of a claim within 30 calendar days.
- D. Failure to investigate and respond to a claim within 60 calendar days.
- E. Failure to pay meritorious claims on a timely basis.
- F. Failure to work cooperatively and in good faith with the **Owner**.
- G. Failure to provide the **Owner** with requested documentation within a reasonable time, including but not limited to, insurance policies, inspection reports, certificates, binders, and general correspondence.

#### 5.8 Evidence of Insurance.

- A. The A/E shall file with the **Owner** evidence of complete coverage of all insurance required with the original signature of the insurance company's authorized agent. Fax copies will be accepted, provided the **Owner** receives the original within seven (7) calendar days. The following are acceptable evidence of insurance:
  - 1. A binder or certificate of insurance accompanied by endorsements as set out below,
  - 2. The complete insurance policy, including all required endorsements.
- B. Endorsements shall be required on each policy, which state each of the following:
  - 1. That "The coverage and limits conform to the minimums required by the professional services agreement." Any exception or deviation shall be brought to the attention of the **Owner** for a ruling on acceptability.
  - 2. The **Owner** project number and the **Owner** contract number of the project covered by the policy.
  - 3. That the company agrees to timely provide complete copies of policies upon request by the **Owner**.
  - 4. That the policy will not be canceled, changed or altered until at least ten (10) calendar days prior written notice has been given to the A/E and the **Owner**, unless the same is stated in a policy provision.
  - 5. That the **Owner**, its officers and employees are included as additional named insured for occurrences arising, in whole or in part, out of the work and operations performed. This endorsement does not apply to Worker's Compensation and Professional Liability policies.
- C. The agreement will not be in full force until acceptable evidence of coverage is on file with the **Owner**. The A/E shall, at its own expense and delay, cease operations if the insurance required is terminated or reduced below the required amounts of coverage. The **Owner** may stop payment to the A/E if the insurance required is terminated or reduced below the required amounts of coverage. In no event shall any failure of the **Owner** to receive policies or certificates or to demand receipt be construed as a waiver of the A/E's obligation to obtain and keep in force the required insurance and to provide the required evidence of insurance.

**5.9 General Liability Insurance Requirements.**

**A. Comprehensive Automobile Liability:** The policy shall cover owned, non-owned and hired vehicles.

1. \$1,000,000 Bodily Injury and Property Damage Liability Limit Each Occurrence

**B. Commercial General Liability.** Include coverage for premises and operations, broad form property damage, products completed operations, independent contractor's personal injury liability, and contractual obligations. The general aggregate limit shall be endorsed on a per project basis.

1. \$1,000,000 Bodily Injury Per Person
2. \$1,000,000 Bodily Injury Aggregate Limit
3. \$ 500,000 Property Damage per Occurrence
4. \$1,000,000 Property Damage Aggregate Limit
5. \$1,000,000 Combined Single Limit Coverage for bodily injury and property damage per occurrence and, in the same aggregate limit, will be accepted in lieu of the separate limits specified above.

**C. Umbrella or Excess of Loss Coverage.** If the limits specified in Paragraphs 5.9.A and 5.9.B are not met, an Umbrella or Excess Liability policy of not less than \$1,000,000 for any one occurrence and subject to the same aggregate over the Comprehensive Automobile Liability and Commercial/Comprehensive General Liability coverage is acceptable.

**5.10 Worker's Compensation Requirements:** Worker's compensation shall be provided in accordance with the provisions of the Texas Worker's Compensation Act for the Construction portion of the Project. The A/E is responsible for full compliance to the Statutory Requirements vis-à-vis Workers Compensation, both in the office environment and the construction site.

**5.11 Professional Liability Insurance Requirements.** Professional liability insurance shall cover the A/E against claims the A/E may become obligated to pay arising out of the performance of the A/E under the agreement and caused by any error or omission of the A/E or of any person employed by the A/E, or any others for whom the A/E is liable.

## ARTICLE 6 TERMINATION AND SUSPENSION OF THE AGREEMENT

**6.1 Termination for Cause.** If the A/E fails to perform any of its obligations under this agreement, the **Owner** may, after thirty (30) calendar days, after the issuance of the written notice during which period the A/E fails to perform such obligations, terminate the agreement. This shall be without prejudice to any other remedy the **Owner** may have. The **Owner** may deduct from the payments then or thereafter, due the A/E, the cost of correcting such deficiencies with a completing A/E and, including but not limited to, the cost of additional A/E services made necessary by such failure to perform. The **Owner** may take possession of any jobsite facilities, records, etc. and use same to the full extent they could have been used by the A/E.

Should the **Owner** terminate the A/E during the construction phase and prior to completion of the project, the **Owner** shall not waive any claim it may have as a result of errors or omissions, except that the terminated A/E shall not be liable for any changes to the documents made by another A/E contracted by the **Owner** to complete the project.

## ARTICLE 7 GENERAL PROVISIONS

- 7.1 Governing Law.** This agreement shall be governed by the laws of the States of Texas. During the construction phase all issues of licensing and permitting shall be governed by the laws of the State of Texas.
- 7.2 Severability of Clauses.** It is agreed that the illegality or invalidity of any term or clause of this agreement shall not affect the validity of the remainder of this agreement, and the agreement shall remain in full force and effect as if such illegal or invalid term or clause were not contained herein.
- 7.3 Waiver of Breach.** The waiver by either party of any breach of this agreement shall not constitute a waiver as to any other breach.
- 7.4 Written Notice.** Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or if delivered at or sent by certified mail, return receipt requested, to the last known business address of the recipient.
- 7.5 Obligations Survive.** The obligations or duties imposed upon the A/E and the **Owner** under the agreement shall survive any termination or closeout of the agreement.
- 7.6 Successors and Assigns.** The **Owner** and the A/E each binds itself, its partners, successors and assigns and legal representative to other party hereto and the partners, successors, assigns and legal representative of such other party in respect to all covenants, agreements and obligations contained herein.
- 7.7 Independent Contractor.** The A/E is an independent contractor and in providing its services under this agreement shall not represent to any third party that its authority is greater than that granted to it under the terms of the agreement.
- 7.8 Indemnification.** The A/E hereby agrees to indemnify, keep and hold harmless, the **Owner** and it's board members, officers, agents and employees, in both individual and official capacities, against all suits, claims, damages, losses and expenses, including attorneys' fees which are the result of an error, omission or negligent act

of the A/E or any of its employees or agents arising out of or resulting from the performance of service under this agreement, except where such is due to the active negligence of the party seeking to be indemnified. This provision is applicable to the full extent as allowed by the laws of the States of Texas and not beyond any extent which would render this provision void or unenforceable.

- 7.9 Non-Assignment.** The A/E acknowledges that the **Owner** is induced to enter into this agreement by, among other things, the fact that the A/E is in possession of certain intellectual properties and possesses certain professional qualifications. The A/E agrees that neither this agreement nor any right or obligations hereunder may be assigned in whole or in part to another firm, without the prior written approval of the **Owner**.
- 7.10 Fair Employment Practice.** The A/E agrees in performing this agreement to comply with all statutory employment requirements, including, but not limited to, the provisions of the **Texas Commission on Human Rights**. The Texas Commission on Human Rights was established by the state legislature when the Texas Commission on Human Rights Act passed on June 26, 1983, authorizing the agency to enforce the law and handle complaints filed under the commission and/or deferred by the United States Equal Employment Opportunity Commission of discrimination in certain employment transactions. "An Act to prohibit discrimination and intimidation on account of race, creed, color, sex or national origin in employment under contracts for public buildings or public works"
- 7.11 Record Keeping.** The A/E shall maintain, for a minimum of five (5) years after the completion of the agreement, adequate books, records, and supporting documents to verify the amounts, receipts, and uses of all disbursements of funds passing in conjunction with the agreement. These records shall be available for the review and audit by the **Owner**. The A/E agrees to cooperate fully with any such audit and shall provide full access to all relevant materials.
- 7.12 Right to Audit.** The **Owner** shall have the right to have access to and audit all of the A/E's records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda and similar data relating to this contract throughout the term and for a period of five years after payment. In addition, The **Owner** or its authorized representative shall have access to the A/E's facilities and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this article.
- 7.13 Confidentiality.** The A/E shall keep all information concerning the project confidential, except for communications incident to completion of the project between the **Owner**, the A/E and the assigned contractors, and their independent subcontractors, suppliers, and consultants, and except for publicity approved by the **Owner** and communications in connection with filings with governmental bodies having jurisdiction over the design and construction of the project.

## **ARTICLE 8 ALTERNATIVE DISPUTE RESOLUTION (ADR)**

**8.1 Rules Governing Disputes.** The parties shall seek to resolve all disputes arising from or related to the interpretation and enforcement of this Agreement by consultation among themselves. If the parties cannot resolve the dispute amicably within sixty (60) days of the commencement of their consultation, then either Party may request arbitration of the dispute under this Section 8 by delivery of written notice to the other Parties. Such disputes shall be submitted to final and binding arbitration before a Board of Arbitration in accordance with the Arbitration Rules of the American Arbitration Association.

**8.2 Board of Arbitration.** The Board of Arbitration shall consist of three (3) arbitrators. AscenTrust, LLC. shall appoint one arbitrator and **Owner** shall appoint one arbitrator. The two (2) arbitrators thus appointed shall appoint the third arbitrator, who shall serve as the Chairman of the Board of Arbitration. If a party fails to appoint its arbitrator within thirty (30) days of the receipt of a written request from a party for arbitration, such arbitrator shall be appointed by the President of the American Arbitration Association. If the two arbitrators thus appointed fail to agree on the appointment of the third arbitrator within thirty (30) days of the appointment of the other arbitrators and if the parties do not otherwise agree on the appointment of the third arbitrator, the President of the American Arbitration Association shall appoint the third arbitrator. The third arbitrator shall be the presiding arbitrator on the Board of Arbitration.

**8.3 Procedures for Arbitration.** The arbitration shall be conducted in the English language and shall take place under the auspices of and in the offices of the American Arbitration Association in Houston, Texas, United States. The Board of Arbitration shall decide by majority vote on points of substance, law and otherwise; provided, however, that in the event a majority vote cannot be reached, the third arbitrator shall make the final decision. All decisions of the Board of Arbitration shall be rendered in the English language, shall be final and binding on the parties and may be entered against them in a court of competent jurisdiction. The Board of Arbitration shall determine the costs of arbitration in its award, and such costs shall be allocated between the parties as determined by the Board of Arbitration.

**8.4 No Suspension of Obligations.** Neither the existence of any dispute, controversy or claim nor the fact that arbitration is pending shall relieve either party of its obligations under this Agreement except for obligations related to matters in dispute and under pending arbitration.

**8.5 Consent to Jurisdiction.** Each party agrees that any judgment rendered by the Board of Arbitration against it may be executed against its assets in any jurisdiction. By execution of this Agreement, each of the parties hereby irrevocably submits to the non-exclusive jurisdiction of the appropriate courts in the United States or any other jurisdiction in any legal action or proceeding relating to such execution of judgment. The parties hereby irrevocably waive any objection they may have to any suit, action or proceeding arising out of or relating to the enforcement of an arbitral judgment under this Agreement, whether brought in the United States or in any other jurisdiction in which it has assets, and hereby further irrevocably waives any claim that any such suit, action or proceeding brought in any such jurisdiction has been brought –in an inconvenient forum.



## ARTICLE 9 STATUTORY REQUIREMENTS

**9.1 General.** The following are statutory requirements that may impact the project. This list is not exclusive. The A/E shall comply with all State and Federal requirements governing the design of the project and its contract. This section lists some of those requirements:

- A.** The A/E will make every attempt to note these requirements in the scope statements when they can be anticipated. The cost impact of these requirements will also be included whenever possible.
- B.** When the requirements are not noted, the A/E, in cooperation with the **Owner**, shall review the project and determine if any of the statutory requirements apply. If a statutory requirement impacts the project, the A/E shall determine the funding impact to the project and advise the **Owner**.

**9.2 Life Cycle Cost Analysis.** The A/E, if requested by the **Owner** shall prepare life cycle cost estimates for the energy consuming systems proposed.

The A/E shall establish the parameters for all life cycle cost estimates to be prepared. These include the life of the study, the "discount rate or cost of capital", escalation rates by category, project financing repayment schedule, etc.

### 9.3 Endangered Species Act.

- 1. Animals:** In 1973 the Texas legislature authorized the Texas Parks and Wildlife Department to establish a list of endangered animals in the state. **Endangered species** are those species which the Executive Director of the Texas Parks and Wildlife Department (TPW) has named as being "threatened with statewide extinction". **Threatened species** are those species which the TPW Commission has determined are likely to become endangered in the future. Laws and regulations pertaining to endangered or threatened animal species are contained in Chapters 67 and 68 of the Texas Parks and Wildlife (TPW) Code and Sections 65.171 - 65.176 of Title 31 of the Texas Administrative Code (T.A.C.).
- 2. Plants:** In 1988 the Texas legislature authorized the Department to establish a list of threatened and endangered plant species for the state. An **endangered plant** is one that is "in danger of extinction throughout all or a significant portion of its range". A **threatened plant** is one which is likely to become endangered within the foreseeable future. Laws and regulations pertaining to endangered or threatened plant species are contained in Chapter 88 of the TPW Code and Sections 69.01 - 69.9 of the T.A.C.
- 3. Regulations:** TPWD regulations prohibit the taking, possession, transportation, or sale of any of the animal species designated by state law as endangered or threatened without the issuance of a permit. State laws and regulations prohibit commerce in threatened and endangered plants and the collection of listed plant species from public land without a permit issued by TPWD. In addition, some species listed as threatened or endangered under state law are also listed under federal regulations. These animals are provided additional protection by the U.S. Fish and Wildlife Service.

The Endangered Species Protection Act provides protection for the State's threatened or endangered flora and fauna. It is the stated policy of the **A/E**, through a consultation process with the Department of Natural Resources, in the application to the **PUC** of Texas for a license to operate a power plant in the State of Texas, to determine whether any action funded by the **Owner** is "likely to jeopardize the continued existence of Texas listed endangered and threatened species or are likely to result in the destruction or adverse modification of the designated essential habitat of such species.....". The State of Texas may request the A/E to prepare or cause to be prepared a determination of the project impact on any endangered flora and fauna at the site. This study would be an additional service under the agreement.

#### **9.4 Wetlands Policy.**

**State Wetlands Conservation Plans** were an outgrowth of the National Wetlands Policy Forum, which was convened in 1987 at the request of the U.S. Environmental Protection Agency. The charge to the Forum was that of addressing major policy concerns regarding nationwide protection and management of wetlands. The Forum consisted of twenty members representing business and agricultural interests, state and local government and academia. In its final report, the Forum provided approximately 100 recommendations for improving wetlands conservation, and it was in this Forum that the concept of "no net loss" of wetlands first gained general acceptance. In its recommendations, the Forum encouraged each state to prepare a State Wetlands Conservation Plan. The overall purpose of State Wetlands Conservation Plans is to improve the efficacy and efficiency of governmental and private sector efforts to protect, restore and create wetlands in a state or on tribal lands.

In 1995, a Wetlands Assistance Guide for Landowners was published that describes the programs, regulations and conservation options that affect landowners in Texas. The Landowner's Guide summarizes existing state, federal and private programs that provide financial and technical assistance for wetlands protection. Other topics discussed include an assessment of landowner options for wetlands protection, a summary of existing federal and state regulations affecting wetlands, a list of contacts, and a description of the roles of state and federal agencies that are involved in wetlands regulation and management.

With regards to Wetlands issues the following guidelines will be adhered to by the A/E:

- A.** Any project having an adverse impact to a wetland is subject to compliance with this act and the associated administrative rules. No project impacting a wetland shall commence without review and approval of the State of Texas Dept. having Jurisdiction.
- B.** The A/E shall prepare, or cause to be prepared, a wetland impact determination according to the administrative rules. In addition to the project identifying information, the A/E shall provide the alternative actions considered and the justification for the selected alternative that may or is likely to adversely impact a wetland.
- C.** The A/E may be requested to prepare a wetlands compensation plan when the wetland determination which adversely impacts a wetland is approved. This plan shall be developed in cooperation with the **Owner**.

- D. If the project impacts a wetland, both the determination and the compensation plans must be approved by the State of Texas prior to commencement of the design.
- E. The preparation of a wetland determination and compensation plan is an additional service to the agreement.

### **9.5 Air Quality Standard Permit for Electrical Generating Units**

The standard permit issued by **TCEQ** authorizes electric generating units that generate electricity for use by the owner or operator and/or generate electricity to be sold to the electric grid, and that meet all of the conditions listed below.

1. **Applicability:** This standard permit may be used to authorize electric generating units installed or modified after the effective date of this standard permit and that meet the requirements of this standard permit.
2. **Administrative Requirements**
  - A. Electric generating units shall be registered in accordance with 30 TAC (Texas Administrative Code) § 116.611, Registration to Use a Standard Permit, using a current Form PI-1S. Units that meet the conditions of this standard permit do not have to meet 30 TAC § 116.610(a)(1), Applicability.
  - B. Registration applications shall comply with 30 TAC § 116.614, Standard Permit Fees, for any single unit or multiple units at a site with a total generating capacity of 1 megawatt (MW) or greater. The fee for units or multiple units with a total generating capacity of less than 1 MW at a site shall be \$100.00. The fee shall be waived for units or multiple units with a total generating capacity of less than 1 MW at a site that have certified nitrogen oxides emissions that are less than 10 percent of the standards required by this standard permit.
  - C. No owner or operator of an electric generating unit shall begin construction and/or operation without first obtaining written approval from the executive director.
  - D. Records shall be maintained and provided upon request to the Texas Commission on Environmental Quality (TCEQ) for the following:
    - (i) Hours of operation of the unit;
    - (ii) Maintenance records, maintenance schedules, and/or testing reports for the unit to document re-certification of emission rates as required by subsection (4)(G) below; and
    - (iii) Records to document compliance with the fuel sulfur limits in subsection (4)(C).
  - E. Electric generators powered by gas turbines must meet the applicable conditions, including testing and performance standards, of Title 40 Code of Federal Regulations (CFR) Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, and applicable requirements of 40 CFR Part 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines.

- F. Compliance with this standard permit does not exempt the owner or operator from complying with any applicable requirements of 30 TAC Chapter 117, Control of Air Pollution from Nitrogen Compounds, or 30 TAC Chapter 114, Control of Air Pollution from Motor Vehicles.

### 3. General Requirements

- A. Emissions of **NO<sub>x</sub>** from the electric generating unit shall be certified by the manufacturer or by the owner or operator in pounds of pollutant per megawatt hour (lb/MWh). This certification must be displayed on the name plate of the unit or on a label attached to the unit. Test results from U.S. Environmental Protection Agency (EPA) reference methods, California Air Resources Board methods, or equivalent alternative testing methods approved by the executive director used to verify this certification shall be provided upon request to the TCEQ. The unit must operate on the same fuel(s) for which the unit was certified.
- B. Electric generating units that use combined heat and power (CHP) may take credit for the heat recovered from the exhaust of the combustion unit to meet the emission standards in subsections (4)(D), (4)(E), and (4)(F). Credit shall be at the rate of one MWh for each 3.4 million British Thermal Units of heat recovered. The following requirements must be met to take credit for CHP for units not sold and certified as an integrated package by the manufacturer:
- (i) The owner or operator must provide as part of the application documentation of the heat recovered, electric output, efficiency of the generator alone, efficiency of the generator including CHP, and the use for the non-electric output, and
  - (ii) The heat recovered must equal at least 20 percent of the total energy output of the CHP unit.
- C. Fuels combusted in these electric generating units are limited to:
- (i) Natural gas containing no more than ten grains total sulfur per 100 dry standard cubic feet;
  - (ii) Landfill gas, digester gas, stranded oilfield gas, or gaseous renewable fuel containing no more than 30 grains total sulfur per 100 dry standard cubic feet; or
  - (iii) Liquid fuels (including liquid renewable fuel) not containing waste oils or solvents and containing less than 0.05 percent by weight sulfur.
- D. Except as provided in subsections (4)(F) and (4)(H), **NO<sub>x</sub>** emissions for units 10 MWe or less shall meet the following limitations based upon the date the unit is installed and the region in which it operates:
- East Texas Region:**
- (i) Units installed prior to January 1, 2005 and
    - (a) operating more than 300 hours per year - 0.47 lb/MWh;
    - (b) operating 300 hours or less per year - 1.65 lb/MWh;
  - (ii) Units installed on or after January 1, 2005 and

- (a) operating more than 300 hours per year, with a capacity greater than 250 kilowatts (kW) - 0.14 lb/MWh;
  - (b) operating 300 hours or less per year - 0.47 lb/MWh; or
  - (c) any unit with a capacity of 250 kW or less - 0.47 lb/MWh.
- E. Except as provided in subsections (4)(F) and (4)(H),  $\text{NO}_x$  emissions for units greater than 10 MW shall meet the following limitations:
  - (i) Units operating more than 300 hours per year - 0.14 lb/MWh;
  - (ii) Units operating 300 hours or less per year - 0.38 lb/MWh.
- F. Electric generating units firing any gaseous or liquid fuel that is at least 75 percent landfill gas, digester gas, stranded oil field gas, or renewable fuel content by volume, shall meet a  $\text{NO}_x$  emission limit of 1.90 lb/MWh. Units in West Texas with a capacity of 10 MW or less that fire at least 75 percent landfill gas, digester gas, stranded oilfield gases, or gaseous or liquid renewable fuel by volume, must comply with the applicable West Texas  $\text{NO}_x$  limit in subsection (4)(D).
- G. To ensure continuing compliance with the emissions limitations, the owner or operator shall re-certify a unit every 16,000 hours of operation, but no less frequently than every three years. Re-certification may be accomplished by following a maintenance schedule that the manufacturer certifies will ensure continued compliance with the required  $\text{NO}_x$  standard or by third party testing of the unit using appropriate EPA reference methods, California Air Resources Board methods, or equivalent alternative testing methods approved by the executive director to demonstrate that the unit still meets the required emission standards. After re-certification, the unit must operate on the same fuel(s) for which the unit was re-certified.
- H. The  $\text{NO}_x$  emission limits in subsections (4)(D)-(4)(F) are subject to the following exceptions:
  - (i) The hourly  $\text{NO}_x$  emission limits do not apply at times when the ambient air temperature at the location of the unit is less than 0 degrees Fahrenheit.
  - (ii) At times when a unit is operating at less than 80% of rated load, an alternative  $\text{NO}_x$  emission standard for that unit may be determined by multiplying the applicable emission standard in subsections (4)(D)-(4)(F) by the rated load of the EGU (in MW), to produce an allowable hourly mass  $\text{NO}_x$  emission rate. In order to use this alternative standard, an owner or operator must maintain records that demonstrate compliance with the alternative emission standard, and make such records available to the TCEQ or any local air pollution control agency with jurisdiction upon request.

## ARTICLE 10 GENERAL SERVICES

**10.1 General.** The A/E shall provide the services indicated herein in accordance with the terms and conditions of the agreement.

**10.2 Meeting Minutes.** The A/E shall record minutes of all meetings held throughout the course of the project and distribute copies to participants and the project team within seven (7) calendar days.

**10.3 Monthly Progress Reports.** The A/E shall submit monthly progress reports of design/construction activities to the **Owner** through its Representative. The report shall include:

- A. Activities completed and items pending since last report;
- B. Projected progress;
- C. Comparison of schedule and actual progress; and,
- D. Decisions or information required.

## ARTICLE 11 PROJECT BUDGET AND ESTIMATING

### 11.1 Project Budget.

A. The project budget is the total funding available for the project. Any changes to the project funding which will effect the viability of the project shall be issued in writing by the **Owner's Representative**. The project construction budget indicated on Appendix C, is the balance of funds available for construction after subtracting the value of the A/E Agreement. The A/E shall design the project using 90 percent of the project construction budget for the base bid work unless otherwise authorized in writing by the **Owner**.

B. The A/E shall use the Schedule of Values form, found in Appendix C, to show the distribution of the project costs. This form is to be used as a summary of project costs and updated and submitted with each design phase and on into the construction phase. .

**11.2 Contingency Budget.** Ten percent of the project construction budget shall be set aside for the project contingency. When appropriate, the A/E may permit the base bid to be designed up to 95 percent of the project construction provide the A/E can justify the budget for the project and can certify that cost overruns will not amount to more than the stated 5%. The A/E shall make all requests to exceed the 90 percent threshold in consultation with the **Owner** and include appropriate documentation, including a detailed estimate.

**11.3 Estimates.** Estimates of probable construction costs shall be prepared at each stage of the project design phase. The A/E shall submit these estimates with each review submittal. These estimates shall be prepared in greater detail as the design progresses.

- A.** At program analysis, the estimate may be presented as scope items and their anticipated cost. Parameter based estimating is acceptable at this phase. For example:
- Furnish and Install fire detection system \$5.00 per bldg gsf
  - Furnish and install bituminous paving \$15.00 per sy paving
- B.** At the intermediate phases of the design, estimates can be based on components of the work. Components costs as illustrated in R.S. MEANS Square Foot Costs or Assemblies Cost Data manuals is the level of detail required at these stages of design development. For example:
- Roofing, built-up tar and gravel \$1.65 per sf of roof
  - 2-1/2 inch bituminous overlay \$4.50 per sy paving
  - 6 inch aggregate base \$8.75 per sy paving
- C.** At the final design review, the estimate shall be fully itemized and detailed at a level equal to R.S. MEANS Construction Cost manual. The costs as reported by R.S. MEANS are not endorsed by the **A/E** and are used only as an example.

## **ARTICLE 12 PROJECT DEFINITION, ANALYSIS, AND DESIGN**

### **12.1 Scope Statement.**

A project scope statement will be developed by the **A/E**. The scope shall contain background and justification for the project and quantification of work items contained in the project. The Scope Statement shall be attached to this Agreement as Appendix A.

**12.2 Orientation Meeting.** An orientation meeting will be scheduled by the **A/E**, generally within fifteen (15) calendar days of the official start of the project. The orientation meeting shall be attended by the **A/E**, the **PM**, all consultants, the **Owner** and the representative of the Utility Company involved in the interconnect.

The purpose of the orientation meeting is to review and confirm the project scope, to discuss special project requirements and project schedule, and to begin negotiations for the scope of services.

### **12.3 Site Selection Phase**

The **A/E** shall prepare preliminary design submittal and budgets, based upon the sites which have been presented to the **Owner** as potential candidates for the construction and connection of the power plant. Submittal shall clearly illustrate the site which the **A/E** deems to be the preferred site for the project.

### **12.4 Project Analysis Phase.**

- A.** Review and coordinate the project scope statement, consult with **Owner** and the Utility providing the connections to the grid and visit the project site to obtain a thorough understanding of the existing conditions and the project.
- B.** Provide the coordinated project scope supplemented by all other information necessary to form a complete basis for the project design. Requirements for project analysis submittal shall include the following:
1. Narratives and diagrams required to define all the components of the project, including but not restricted to: identity of the Stakeholders, functions, off-site elements, and their relationships.

2. Space itemization including: function and size (show as net assignable sq. ft./area), number and classification of occupants, type and quantity of fixed and movable equipment (noting required utilities), special environmental and/or system requirements.
  3. Total of all job related areas including a percentage allowance for circulation, mechanical and maintenance functions.
  4. Code analysis report indicating all regulatory agencies, permits, building codes, and standards that apply to the project. Include in this report an action checklist indicating all required regulatory agencies reviews and permits.
  5. Preliminary cost estimate and Proposed Project Cost Budget form.
- C. Resolve, in consultation with the **Owner** any discrepancies in the project scope or budget prior to proceeding to site selection and preliminary design.

#### 12.6 Preliminary Design Phase.

- A. Prepare preliminary design submittal based on the accepted Scope document and the approved budget. Submittal shall illustrate the resolution of all building and site elements. Fix and illustrate the scope, scale and relationship of the project components for structural, mechanical and electrical systems. Identify materials and specify performance characteristics and quality standards.
- B. Requirements for the preliminary design submittal shall include, at a minimum, the following:
1. **Project Manual:** Outline specifications for each major project component.
  2. **Site Plan.** Locate each building, existing and finished contours, ground floor elevations, roads, walks, parking areas, utilities (existing, new and relocated), other site construction, and limits of the contract. (Coordinate any proposed interruptions to services, roads, etc. with the using agency.)
  3. Procedures for Application with Power Grid Operator and Procedures for licensing with the **PUC** and **TCEQ**, for the power production facility.
  4. Proposed Project Cost Budget form and preliminary construction cost estimate broken down by principal elements and major trades.
  5. Current project schedule.
  6. Model or rendering if requested by the **Owner**
  7. **Floor Plans.** Identify room numbers, names, and mechanical spaces.
  8. All elevations showing finishes, window and door styles, etc.
  9. Provide vertical building sections.
  10. Provide location and type of primary structural members.
  11. Utility service requirements, including temporary service.
  12. Identify wiring distribution systems and basic layouts of lighting systems showing illumination levels, switching patterns, and switch locations. Show special systems such as fire alarm, emergency lighting and exit signs. Show communication systems such as telephone, data, CCTV, TV and intercom.



13. Description and number of plumbing fixtures, including design population and plumbing fixture to population ratios.
  14. Fixed equipment in tabular form with utility connection requirements noted.
  15. Identify areas requiring sound barriers.
- C. A/E shall not proceed beyond preliminary design until provided with a written statement properly endorsed by the **Owner** signifying acceptance of the proposed design.

#### **12.7 Licensing and Permitting Documents Phase.**

- A. A/E shall prepare documents based on the accepted preliminary design submittal, including all agreed upon revisions, in a form acceptable to the **Project Manager**.
- B. Documents may be submitted and reviewed at the 25 percent, 50 percent, 75 percent and 100 percent stages of completion as set forth and agreed upon in the agreement. Each submittal will contain (at a minimum) the Project Manual, Drawings, and detailed cost estimate.
- C. Additional information to be submitted to the **Owner** by the 100 percent design stage include the final code analysis/regulatory review action checklist, copies of all permits and approvals, and executed utility agreements, as applicable.
  - Utility agreements are contracts between the **Owner** and a utility company for the installation or relocation of utility service facilities in conjunction with an **Owner** project to be maintained by either the utility company or the customer (using agency). The A/E shall review such agreements to determine that the required utility service/equipment has been provided for the project and shall include the associated costs in the summary of proposed project costs.
- D. A/E shall prepare bidding documents in accordance with Articles 13 and 14 of this agreement.

### **ARTICLE 13 CONSTRUCTION DOCUMENTS PREPARATION**

- 13.1 General.** The A/E shall prepare the documents consisting of Project Manual, Bid Form(s), Drawings and Addenda as set forth herein.
- 13.2 Division of the Work.** The A/E shall use the general layout called for in **Master Format 2004** to divide the work into distinct trade contracts as required. This division shall be clear, concise and allocate all the work to the contractors without gaps in the construction contracts. The A/E shall not include any clause or provision in the contract documents that attempts to assign any of the work by common trade practice, by indirect linkage, etc.
- 13.3 Competitive Product Selection.** It is the responsibility of the A/E to select and specify products. The A/E shall utilize specifications that are explicit, realistic, and non-restrictive. The A/E may request approval from the **Owner** to prepare a performance specification for a specific material or equipment item when that product or system can be specified by reference to commonly accepted standards such as ASTM, IEEE, NEMA, etc.

- A. Products shall be specified by manufacturer and model number and shall have a minimum of three manufacturers named who make comparable products. All specifications shall include a preference for American manufacturers.
- B. In compliance with **A/E's** Purchasing policy, products or systems should not be sole sourced unless the A/E believes that single sourcing, as in the purchase of the turbo-machinery, is better left as a negotiated item.
  - 1. Requests for single or dual sourcing may be initiated by the A/E and shall be in writing, addressed to the **Owner**. A/E shall review and make recommendations to the **Owner** on any single or dual source requests.
  - 2. Each request shall include justification for the request: cost and time savings/benefit analysis that establishes that the product or system is economically procurable from only one source, in a timely manner.
- C. The use of "or approved equal", in the documents shall be restricted to those products which are not critical to the turbine and the energy producing portions of the project. The use of such phrases as "similar products manufactured by...", and "equal products manufactured by..." shall be restricted to the residential and building portions of the project. Language for the power generating equipment shall be specific and include name, model numbers, etc. of all manufacturers whose products are considered by the A/E to be of equal quality.

**13.4 Specified Contractors.** The A/E shall not specify a restricted list of acceptable contractors or subcontractors for furnishing and installation of any component or system without the written approval of the **Owner**. The A/E shall submit a written request to the **Owner** indicating the system or component of the work for which the A/E desires to specify a list of furnishing and installing contractors. This request shall indicate the justification for specifying the installing firms in addition to the equipment desired. **All requests must be approved by the Owner.**

**13.5 Alternates.** Alternate bids shall be clearly delineated on the drawings. Each contract to be bid that has work in the same alternate shall have the same alternate designation number following the trade designation letter. The A/E shall consult with the project team regarding the priority of alternates and shall provide the **Owner** with a letter stating the priority of alternates to be awarded prior to the bid opening.

**13.6 Unit Prices.**

- A. The use of unit prices is discouraged. Prior to bidding, the Unit Manager must approve the use of unit prices in any construction contract. Where unit prices are used, it is preferable that they be incorporated so that they are extended to, and included in, the contractor's base bid.
- B. Only in extreme cases may unit prices be utilized that are not extended into calculation of the base bid. The **Owner** shall be advised of all bid unit prices outside the base bid by the unit manager.
- C. The evaluation of unit prices must be performed prior to the award of any contract. The A/E shall recommend the acceptance or rejection of all unit prices.

### 13.7 Project Manual.

- A. The specifications for each project shall be prepared according to the **A/E's Power Plant Design Manual**. The A/E shall utilize the latest Construction Specifications Institute (CSI) Master Format 2004, List of Specification Sections in the development of technical specification. The project manual shall include, the minimum items following:
1. Cover Page
  2. Table of Contents
  3. Comprehensive Contact list
  4. Resumes of the most important consultants
  5. Preliminary Title Reports on the selected Projects
  6. Preliminary Budgets for each site for site selection
  7. Regulatory Requirements from State of Texas
  8. Regulatory Requirements for Interconnect
  9. All documents relating to Application to interconnect to the Grid
  10. All documents relating to the licensing of the Power Plant with respect to the production and sale of power.
  11. Phase One Environmental Report
  12. Survey and Topo for Proposed Site
  13. Soils Report
  14. Comprehensive Environmental Report (Phase Two)
  15. Request for Bid
  16. Bid Forms
  17. Product Substitution Form
  18. Drawings, Schedules, and Details
  19. Section 01010, Project Summary, providing prebid and contract information. The A/E shall follow Instructions for Preparing Section 01010 in the **Design Manual**.
  20. Alternate Bids Requirements
  21. Regulatory Requirement with respect to Construction Permit.
  22. Sections 01110 up to Division 2 for contract requirements such as submittals, schedule, etc.

23. Technical Specifications. A/E shall follow Guidelines for Preparing Technical Specification as set out by **Master Format 2004** Sections as provided in the Design Manual.
- B. Specifications shall be written as directions to the contractors.
  - C. Provide soil boring logs in the Project Manual or on drawings. A/E may include a statement in the Project Manual that the complete soils report is available for review at the A/E office prior to bidding.
  - D. A recommended sequence of construction shall be included in the specifications for all unusual conditions.
  - E. Any warranties requested beyond two years for HVAC equipment, roof systems, carpet, etc. should be clearly specified by the A/E as warranties from the manufacturer. It is the A/E's responsibility to verify that such warranties are available. A/E note that all extended warranties must be specified in the appropriate Project Manual section. See current Standard Documents for Construction for limitations.
  - F. Specify all tests required for all systems and devices to be tested. Where required, testing procedure shall also be specified.
- 13.8 **Drawings:** Detailed instructions on the preparation of electronic versions of the documents as located in Appendix D of this Agreement.
- A. Cover sheet shall be prepared in accordance to the requirements as set forth in Appendix D. In addition to the information shown in the exhibit, include a list of symbols, abbreviations and applicable building codes. When appropriate for the project, include building square footage, occupancy classification, type of construction and fire resistive rating.
  - B. The title block and all related information shall appear on each sheet. Standard sheet size 30" x 42" maximum - 24" x 36" minimum unless otherwise approved by the **Owner**.
    - 1. Drawings attached to the Project Manual shall be noted as such and shall be located after the last technical specification section. Drawings attached to the Project Manual shall be reduced to 11"x 17".
    - 2. All drawings comply with the requirements of this section. When bound into the Project Manual, a cover sheet is not required.
  - C. Minimum scales of drawings, unless approved otherwise by the **PM**, shall be:
    - 1. Site Plan 1" = 30'
    - 2. Floor and Roof Plan 1/8" = 1'0"
  - D. All sheets shall contain a graphic scale. Each plan shall indicate north arrow consistent between all sheets.
  - E. Minimum acceptable lettering size is 1/8 inch. The record drawings for the projects shall be recorded and stored in digital format. In order that legible information will be available in digital format, the A/E shall prepare the original drawings using **CAD** drafting techniques and procedures suitable for this purpose.
  - F. Match lines shall be used to identify portions of buildings or site shown on separate sheets. Match lines shall be consistent throughout drawing set.

**G. Other Drawing Requirements:**

1. All floor plans and partial floor plans shall show consistent column grid line indications, room names and numbers and shall be to the same scale.
2. The elevation of the finished floor shall be indicated under the title for each floor level (all disciplines).
3. All details shown on drawings shall be applicable to the project.
4. Designation for sections, details, etc. shall denote detail and sheet number on which it is cut and sheet number on which it is detailed.
5. Clearly identify and define all work involved in alternate bids, removals, abandonment, or other activities associated with the project.
6. All work shown is assumed to be new unless stated otherwise. Do not use the word "Proposed" on contract drawings when referring to required work. Existing items pertinent to the project may be marked as "existing" to avoid confusion with new work.

**13.9 Permits.** As required, prior to the bidding phase, the A/E shall provide the local authority (or authorities, where more than one local authority has jurisdiction) with sufficient design documents as it may require for purposes of review and/or issuance of permits. A/E shall provide the **Owner** with all review correction notices or comments issued by the local authority. A/E shall make corrections to the documents and resubmit to the local authority for review and/or issuance of permits.

**13.10 Application of Professional Seals.** Documents submitted for final **Owner** design review, technical reports, record documents and all bidding documents shall contain a legible seal, signature, date and license expiration date of the, structural engineer or professional engineer responsible for the document or under whose supervision the document was prepared.

## **ARTICLE 14 DESIGN CRITERIA AND GUIDELINES**

**14.1 General.** The A/E has adopted certain design policies in force at the time of execution of this agreement, that shall be incorporated into the Agreement. The A/E shall determine the policies required for the project to satisfy the requirement of the appropriate regulators in reference to the project, and may include:

- A. Flood Plain Construction Policy.** All new construction in Texas must comply with the Flood Plain Regulations of the Texas Commission on Environmental Quality (TCEQ). Prior to the design of a project, the A/E shall determine if the site is in a special flood hazard area.
- B. Asbestos Abatement.** The A/E has a comprehensive manual including sample specifications, estimating worksheets and complete procedures required for inspection, sampling, operations and maintenance plans, abatement design and design review procedures, and complete bidding and construction phase procedures, as it relates to Asbestos Abatement.
- C. Energy Policy Act.** Projects shall be designed in conformance with the Federal Energy Policy Act of 1992 (EPAC) which mandates compliance with ASHRAE 90.1-89.

**D. Prohibitive Products Policy.** The following products are prohibited from use on all projects:

1. Asbestos and asbestos containing material. (ACM)
2. Fire retardant treated (FRT) wood products in structural applications.
3. Chlorofluorocarbons (CFC).
4. Polychlorinated Biphenyl (PCB)

**14.2 Policy on Local Codes.** It is the policy of the **A/E** to design projects in substantial compliance with building codes formally adopted by the unit of local government in which the project is located. All **Owner** requests for deviations from the local codes shall be documented by the A/E and subject to approval by the local authority. When "approval by local authority" or "authority having jurisdiction" is referenced, plans will be reviewed by **LandPlan Engineering**, prior to submittal to the local authority. Where no code exists, the building code shall be deemed to be the International Building Code.

### 14.3 Civil

- A.** The A/E shall use Tex DOT Standard Specifications for Road and Bridge Construction for site work including roads, bridges and miscellaneous concrete. Provide reference to appropriate articles and include a statement under Quality Assurance in the specifications that deletes reference to the method of measurement and basis of payment, and changes the term "Engineer" to "Architect/Engineer".
- B.** The A/E may use the latest edition of City of Houston Standard Specifications for Water and Sewer Main Construction in Texas for preparing water and sewer specifications.
- C.** Comply with local regulations for storm water piping or retention. Notify the **Owner** at preliminary design review if there is an absence of local governing agency criteria and design to the following:
  1. Parking lots shall be designed to accommodate a minimum five-year storm.
  2. Buildings shall be protected from the effects of a 100-year storm.
- D.** Fire hydrants shall be installed only if required by the **Fire Marshall**. If required by Code the fire hydrant shall be located within 10 feet of a road or a fire lane and at least 50 feet from the building. Any point on the perimeter of any building shall be covered with a maximum hose length of 300 feet.
- E.** The compaction requirements and bearing limits of soils and fill material shall be based on the recommendation of the soils consultant and structural engineer.
- E.** Only ACI Standards shall be specified in Division 3 "Concrete" specifications.
- F.** The A/E shall be required to provide or obtain surveys essential to the design and construction of the project as a basic service. A/E is responsible for obtaining its own benchmarks, location of utilities and topography information for establishing building and site improvements locations. The A/E shall include all additional services, such as providing a survey not essential to the design effort (i.e. boundary surveys), required for the successful completion of the Civil Engineering portions of the Project. The A/E is responsible for determining the scope of any survey.

- G.** Grading plan shall consider adequate site drainage including building and paved areas, and shall consider erosion and sediment control.
- H.** Civil Drawings shall be labeled as appropriate for the division of work as set forth in Article 13. Drawings shall include the following:
1. Site development work, storm sewers, and landscaping shall be included in the general work contract. Water service shall be included in the plumbing work contract. Sanitary sewer may be included in either the general or plumbing work contract.
  2. Proposed contours shall be labeled, and shall indicate adequate drainage and contrast with labeled existing contours.
  3. Show all new topography, newly established levels and grades, existing structures, new structures, roadways, walks, location of nearest drainage/sewer connections, other identifiable features and areas to be seeded and landscaped. All structures and improvements which are to be removed under the construction contract shall be shown.
  4. Profiles and cross sections shall be provided for all new roadways. Cross sections shall be provided for each type of sidewalk and curb design. Expansion joints shall be shown in plan view and details shall be provided of each joint type used.
  5. Profiles shall be provided for all sewers. Show invert elevations of all sewers, manholes and catch basins. Show frame and grate elevations of all manholes and catch basins.

#### **14.4 Architectural**

Architectural drawings shall be labeled as appropriate for the division of work as set forth in Article 13. Drawings shall include the following:

1. Plan of each floor and roof.
2. Elevations of each facade.
3. Longitudinal and transverse sections through entire building.
4. Schedule of finishes, doors, and accessories.
5. Roof plan showing high and low elevations; show exact slopes.
6. Wall sections at relative elevations, including flashing details.
7. Miscellaneous details, sections, and enlarged plans as necessary to effectively communicate the design.
8. Reflected ceiling plans showing all ceiling elements visible on the ceiling such as; lighting fixtures, exit signs, speakers, detectors, diffusers, sprinkler heads, and suspended ceiling grids.

9. Building expansion joints at intervals controlled by the design criteria and the shape of the building, but not to exceed 200 feet.

#### 14.5 Structural

- A. Design for optimum use of materials. Plastic design or load and resistance factor design in steel and ultimate strength design in concrete construction shall be considered for more economical and efficient use of materials.

- B. **Applicable Codes and Standards:** A complete list of all regulatory Agencies providing Standards and Code set shall be included in the Project Manual and shall contain, as a minimum requirement the following:

1. Building Code Requirements for Reinforced Concrete - ACI 318.
2. Specifications for Structural Steel for Buildings - AISC.
  - a. Allowable Stress Design and Plastic Design.
  - b. Load and Resistance Factor Design.
3. Specifications for the Design of Light Gauge Cold-Formed Steel Structural Members - AISI.
  - a. Cold-Formed Steel Design Manual
4. Structural Welding Code AWS.
  - (a) Steel, AWS D1.1.
  - (b) Sheet Steel, AWS D1.3.
5. National Design Specification for wood construction, and Supplemental Design Values for Wood Construction, NFPA.
6. Specifications for the Design and Construction of Load-Bearing Concrete Masonry - NCMA.
7. Recommended Practice for Engineered Brick Masonry - BIA.
8. Metal Building Systems-Metal Building Mfg. Association.
9. Code of Recommended Standard Practice for Composite Deck, Form Deck, and Roof Deck Construction-SDI Design Manual
10. Standard Specification for Steel Joists, Including Load and Weight Tables, SJI

- C. Drawings shall be labeled as appropriate for the division of work as set forth in Article 13. Drawings shall include the following as appropriate for the project.

1. Include the following information in general notes:
  - a. Governing structural codes with year of edition.
  - b. Design live, wind and earthquake loads, or design coefficients used as a basis for structural design.
  - c. Detailed breakdown of dead loads.
  - d. Net allowable soil bearing capacity.
  - e. Strength of all structural materials.



- f. Other information required as a basis for structural evaluation.
2. Show overall dimensions, center lines, location of members and offsets.
3. Show all columns on grids.
4. Schedule (as required) footings, columns, beams, girders, slabs, lintels, and reinforcement.
5. Detail all special connections, assemblies, and expansion joints.
6. Show connection details or required design reaction loads for all structural steel framing connections.
7. For new construction, unless otherwise approved by the **Owner** design roof drainage slope into the structural system.
8. Show elevations for top of beams and slabs; top and bottom of columns; bottom of footings, etc.

#### **14.6 Mechanical**

- A. Do not reference a "mechanical contractor." Refer specifically to the individual Heating, Ventilating, Plumbing or Sprinkler contractor.
- B. Refrigerants/Halons.
  1. The U.S. Clean Air Act's 1990 Amendments called for phasing out production of USEPA class 1 halogenated chlorofluorocarbons by January 1996. Included are R-11, 12, 113, 114, 115 and halons. New equipment shall use alternate refrigerants.
  2. Specifications should be written for that refrigerant offering the best life cycle cost commensurate with good engineering practice.
  3. The complete phase out for manufacturing ozone depleting halons was January 1, 1995. Their use in new fire suppression systems is prohibited.
- C. Specify dielectric insulating unions between all dissimilar metals.
- D. Specify insulation thickness per Table 5.1 of ASHRAE 90.
- E. Underslab plumbing drain and waste lines shall be 4" diameter minimum. Plastic pipe under slabs and in inaccessible areas shall be permitted where permitted by local code.
- F. Fire Suppression Systems shall be designed in compliance with NFPA 13, and shall be installed in the residential portion of the Power Plant.
- G. Design roof drains in accordance with requirements of the locally adopted code. In the absence of any local code, design roof drains in accord with the International Plumbing Code.
- H. Schedule equipment such as air handling units, fans, coils, diffusers, registers, grilles, pumps, chillers, cooling towers, boilers, unit heaters, convectors, air separators, radiation traps, etc. Include technical information (capacity, power requirements, motor sizes, etc.) only. Schedules on drawings are preferred. Indicate contractors' responsibilities where interface is required.
- I. **Ductwork:**

1. Fiberboard ductwork shall not be specified.
  2. Reference SMACNA duct gauges for all ductwork.
- J.** HVAC temperature controls should provide energy-efficient operation where possible (i.e., demand type economizers, night setback, non-simultaneous heating and cooling, low leakage outdoor air dampers, etc.)
- K.** Testing and Balancing, shall be provided as a reimbursable consultant to the A/E in the agreement.
- L.** Mechanical drawings shall be labeled for the appropriate division of work as set forth in Article 13. Drawings shall include the following as applicable to the project.
1. Show where the work of others (contractors, utilities, existing work, etc.) stops.
  2. Show all connections to all equipment (electrical, etc.)
  3. Show duct work or piping over 12" to scale in double lines. Do not shade.
  4. Detail major heating and plumbing equipment such as pumps, water heaters, coils, boilers, chillers and air handling units, showing valves, gauges, thermometers, unions, drains, etc.
  5. Show all work spaces (tube pull area, coil pull area, access space, etc.) for all equipment requiring same.
  6. Where rooftop equipment is used, provide a roof plan showing all equipment (units, exhaust fans, cowls, etc.). Mount rooftop equipment on a curb, or on supports that provided a minimum of 24" clearance above the roof. Avoid interior angles to facilitate flashing.
  7. Place rooftop piping and conduit on factory fabricated pipe supports.
  8. Show all valves, cocks, unions, strainers, gauges, etc., on plan or in typical details.
  9. Show and size all sprinkler mains and risers. Specify code.
  10. Show all fire hose cabinets on plumbing drawings or sprinkler system if a separate contract.
  11. Provide waste and vent, hot and cold water riser diagrams; and isometrics for all plumbing fixtures or fixture groups. Number all fixture groups. Show air chambers on isometrics and shock absorbers where provided on multiple fixture groups in lieu of air chambers.
  12. Schedule plumbing fixtures including kitchen equipment, drinking fountains, electric water coolers, water heaters and water treatment equipment.
  13. Show underground plumbing work on a footing plan or foundation drawing.
  14. Show all cleanouts on plumbing drawings.

15. Show all devices (balancing dampers, fire dampers, turning vanes, extractors, splitters, etc.), and access panels on drawings for contractor providing them.
16. Identify equipment provided by other contractors to be installed or connected by the plumbing contractor.

#### **14.7 Electrical**

**A. General.** Comply with International Code Council's latest edition. A/E shall provide the following information on either the drawings or in the project manual:

1. Specifications that are applicable to the project, having the correct voltage, circuit elements, products, and wiring methods for the particular work at hand.
2. Calculations performed to obtain load analysis, service size, panel and transformer capacities, available fault currents, and voltage drop, as well as the coordination study and resulting sizing of equipment made per the above.
3. Single line diagram with all primary and secondary distribution equipment and loads, including feeder identification with conductor and raceway size and type.
4. Primary distribution equipment and all other loads located in plain view, with initial spatial coordination done by the design professional.
5. Service entrance arrangements with the serving utility, made, confirmed, and noted by the design professional.
6. Branch circuiting with voltage drop considerations, for both power and lighting, including switching, dimming, special controls, and homerun designations.
7. Mechanical equipment power requirements and physical locations, including special information as to who mounts, connects, tests, etc.
8. Control diagrams and schematics revealing interactive relationships as well as operating logic for all systems. Information should be adequate to understand and install appropriate wiring.
9. Schedules of fixtures, panelboards, switchgear and other equipment, including sizes, types, styles, catalog numbers, and other pertinent characteristics.

**B. Line Side Taps:** Taps, where used, shall be in a separate box ahead of the service panel.

**C.** Incorporate transient/surge suppressors where deemed necessary. Consider Kfactor or oversized transformers, added neutrals (or increased size) and uninterruptible power systems. Consider all sensitive electronic equipment.

**D.** Define equipment grounding system, including special requirements for telecommunications, interference shielding, isolated systems, filters, etc., when used. Verify compatibility with ground fault protection systems used.

**E. Lighting:**

1. Schedule light fixtures and lamps. Include the type designation, the number, type, and size of lamps per fixture, and the accessories and methods necessary for mounting the type of fixture.
2. Select service voltages to minimize energy losses. The use of 480Y/277 volt system is encouraged for all ballast lighting and power with reduction to 208/120 for general receptacles and incandescent lighting.
3. Use efficient luminaires. Consider energy efficient ballasts, lamps, reflectors and refractors.

**F. Fire Alarm System.**

For projects with sprinkler systems, kitchen hood fire extinguishing systems, or other special systems, include the devices and circuiting to actuate the system. Duct smoke detectors, fan shutdown and smoke evacuation devices shall be considered part of the fire alarm system. Duct smoke detectors which are not readily accessible should be provided with remote controls.

**G. Telecommunications Equipment.**

1. The **Owner** will instruct the A/E when/where outlets, conduits, wiring, etc. are to be included in the project.
2. Consult with telephone company to establish network point of presence (NET POP) at the building (for a single building facility) or at a common distribution point for a multi-building complex.

**H. Define switching methods employed for lighting, motor control, and other systems.**

**I. Cable Testing.**

1. When high voltage cable testing is required, specify that it shall be performed by a firm employed by the A/E with the contractor assisting.
2. Properly identify the phase conductors tested in all test records.
3. If during the testing, a fault in the cable, splice, termination, etc., is apparent, the fault shall be cleared, necessary repairs or replacement made, and the cable retested.

**J. Electrical Drawings shall be labeled as appropriate for the division of work as set forth in Article 13. Drawings shall include the following as appropriate to the project.**

1. Include electrical power, telecommunications and other electrical systems on the site drawings or combined site plans. Designate as the work of the electrical contractor.
2. Completely circuit and define all work. Do not leave for contractor to design.
3. Show a one-line diagram of power distribution, including emergency power distribution and ground fault protection. Use riser diagrams, if appropriate, to further define distribution.
4. Draw major items of electrical equipment such as switch gear, transformers, panels, lighting fixtures, etc., to scale.

5. Show power distribution and special systems layouts separate from lighting layouts for clarity. Provide separate plans for multiple systems.
6. Show a detailed schedule for each panel board, switchboard, motor control center, etc. Include breaker size, fusible switch size, or fuse size, frame size and trip setting, usage of circuit, spares, spaces, connected load for each circuit, etc. Preferably, show schedule on the drawing depicting wiring from that unit. Spares should not exceed 10 percent of poles used.
7. Schedule motor control, including auxiliaries, overload protection, interlocking, etc.
8. Provide the foot candle level and the watts per square foot for each room. Provide total wattage for building.
9. Identify equipment provided by another contractor to be wired by the electrical contractor.

## **ARTICLE 15: REVIEW OF DESIGN**

**15.1 General.** The **A/E** will schedule design review submittals and/or review meetings required by the agreement. These reviews provide the **Owner** the opportunity to review contract documents and design concepts. The **Owner** reviews the documents for general compliance with the project objectives, design standards and contract requirements. **Owner's** acceptance of these documents does not relieve the A/E of its responsibilities contained herein.

### **15.2 Review Process.**

- A.** Submit documents for review as required by the agreement. The A/E shall provide up to two (2) sets of review documents for the **Owner** for each review.
- B.** After receipt of review documents from the A/E, the **Owner's Representative** will establish a review meeting date. Meetings are usually held within 3 calendar days after receipt of documents.
- C.** The review process may include the evaluation of the documents to determine that the design provides the functions required by the Owner and that the project is within budget. The **Owner** may also review for cost effective design, energy conservation, and general compliance with applicable codes, rules and regulations.
- D.** All key design staff and consultants should attend the review meeting(s).
- E.** Review comments prepared by the **Owner** and/or regulatory agencies will be provided to the A/E at or prior to the review meetings.
- F.** The **Owner** will, in writing or at the review meeting, provide notice of the acceptance of the review documents or issue instructions regarding required rework. If the required corrections are minor, the **Owner** may conditionally acceptance and authorize the A/E to proceed to the next review phase.
- G.** Following the reviews, the A/E shall:
  1. Prepare meeting minutes indicating issues discussed/resolved.

2. Respond to the **Owner** in writing to all review comments and questions within 3 calendar days.

## **ARTICLE 16 BIDDING PHASE**

**16.1 General.** All bidding documents require the approval of the **Owner** prior to the **A/E** printing and distributing documents to the contractors. Upon approval, the **A/E** shall sign, seal and date all drawings and the project manual with the same date. Dates shall reflect the most recent state of completion.

**16.2 Official Advertisement for Bids.** Official advertisement for bids will only be issued when such advertisements are requested by the **Owner**. In such case the **Owner** will ensure that the project is advertised in the proper venues.

- A.** The advertisement for bids shall include the pre-bid conference information if applicable. Any mandatory attendance requirements at the pre-bid conference shall be noted in the advertisement.

**16.3 Document Distribution.** The reproduction and distribution of bidding documents is the responsibility of the **A/E**. The **A/E** shall maintain an accurate record of all vendor provided with Bidding Documents. "In-House" printing of bid sets, by the Contractors is permitted when included in the agreement.

- A.** The **A/E** shall distribute bid documents to all notified bidders, subcontractors, suppliers, etc. Each prospective bidder shall be provided with one loose copy of the bid forms, one **PM** bid envelope addressed to the appropriate bid receipt location, and the "Bidder Check List." The envelope and check list are available from the **A/E**.

- B.** Plan holders shall make a reasonable plan deposit. The plan deposit may be cash or company check. Bidders that return plans within ten (10) calendar days of the bid opening shall have their deposit returned to them. The **A/E** will return the deposit within 10 days of receipt of bidding documents if the plans are in good reusable condition. An accurate record of all deposits shall be kept by the **A/E**.

**16.4 Plan Holder Lists.** The **A/E** shall submit the list of plan holders, including address, telephone number, and contract(s) the plan holder intends to bid to the **Owner**

**16.5 Addenda.** The **A/E** shall prepare all required addenda.

- A.** All addenda, including all revised drawings and sections, must be approved by the **Owner** prior to distribution to the plan holders. **A/E** shall allow sufficient time for **Owner** review and approval to fulfill the adequate notice requirement.
- B. Distribution and Adequate Notice.** All addenda shall be issued to all plan holders as required to ensure receipt no later than three (3) business days prior to the bid opening. The **A/E** shall use whatever delivery method is most prudent to ensure receipt. **A/E** shall verify receipt of the addenda with each plan holder.
- C.** The **A/E** will consider written requests by prospective bidders to amend the bidding documents. Such requests must be received at least ten (10) calendar days prior to bid opening date and include complete description of the desired change including any technical data and references for the **A/E**'s evaluation. If a

request is approved, the A/E will include the modification by addendum. When requested, the A/E will provide to the **Owner** a listing of the requests that were not approved.

- D. All addenda shall be prepared according to the format set forth in the Project Manual. The addenda shall be numbered sequentially and dated.
  - 1. List all changes in order of specification sections and drawing numbers.
  - 2. The A/E shall not cause a sole sourcing or dual sourcing of an item by addenda without written approval of the **Owner**.
  - 3. If one or more of the bid forms require a change, the A/E shall issue a complete set of new bid forms with the following information located in the lower right hand corner of each page; REVISED, ADDENDUM #( ), (addendum date).
  - 4. Drawings shall have the changes clearly noted and identified (A, B, C, etc.). Make a notation in the revision column of the drawing indicating the change letter, the date of the change, and a brief description of the change. All changes are to be incorporated into the original drawing whether that be tracings, software file, etc. Changes are not to be issued from marked up copies or additional drawings.
  - 5. The A/E shall state the status of previously issued addendum.
- E. Pre-bid conference minutes and bid tabulations are not to be issued as addenda. These are informational items and are to be distributed as such.

**16.6 Pre-Bid Conference.** When a pre-bid conference is scheduled, the A/E shall include the date, time, and location of the pre-bid conference. The pre-bid conference will be scheduled by the **PM** and will be held no less than seven calendar days prior to the day the bids are to be opened. The **PM** will chair the pre-bid conference.

- A. With the consent of the **PM**, attendance at pre-bid conference may be mandatory for prospective bidders when specified in the project manual. The list of bidders shall be submitted to the **PM**. This list will be transmitted to the **Owner's Representative**. Bidders who did not attend the mandatory pre-bid conference shall have their bids rejected.
- B. The A/E shall record the names of individuals, and the names and addresses of their respective firms of all persons in attendance. This list shall be compared to the list of plan holders. The A/E shall also record the minutes of the pre-bid conference, listing all questions and all responses to those questions.
- C. Minutes of the conference shall be issued to all plan holders and all persons attending the pre-bid conference, but are not to be included as part of any subsequent addendum.

**16.7 Final Estimate.** Prior to the bid opening, the A/E shall submit a final detailed estimate of probable construction costs of the contracts being bid based on the bidding documents and all addenda.

**16.8 Bid Openings.** The A/E and the **PM** shall attend all bid openings for the project.

- A. The A/E shall have developed, in conjunction with the **Owner** an order of priority to be used in awarding alternates.

- B. A/E shall provide bid results to all parties that require the information.

## **ARTICLE 17 AWARDING OF CONSTRUCTION CONTRACTS**

**17.1 General.** The **A/E** will award construction contracts within 2 working days from receipt of the bid(s).

- A. The A/E shall notify all bidders of the rejection of any or all bids received.
- B. A/E shall comply with **Owner** policy in regards to discussions with bidders, news media, etc.

**17.2 Bid Analysis.** A/E shall provide **Owner** with requested information to identify the apparent successful bidder or bidders.

- A. Review all product substitutions submitted in accordance with procedures set forth in Standard Documents for Construction and provide the **Owner** with a written recommendation to accept or reject the proposed substitution.
- B. Review all unit prices submitted and provide written recommendation or rejection.
- C. Bids submitted that fail to acknowledge all addenda issued shall be rejected.

**17.3 Award Notification.** The **PM** will notify the successful bidder(s) and deliver the construction contract for execution. The Notice of Award Letter will be issued with a construction contract which stipulates the acceptance of any alternate bids, unit prices, or product substitutions.

## **ARTICLE 18 CONSTRUCTION PHASE**

**18.1 General.** The A/E shall provide the construction management, through the **PM** for the project, being funded by the Joint-Venture. The A/E shall also perform administrative duties during this phase of the project as set forth herein.

**18.2 Owner's Representative.** The **PM** shall consult and advise the **Owner's** representative as provided in the Standard Documents for Construction and herein. All instructions to the contractors shall be issued through the **PM** who shall have



authority to act on behalf of the **Owner** to the extent provided in this document and the Standard Documents for Construction.

**18.3 Construction Documents.** The A/E shall issue documents stamped and dated "Issued for Construction" to the contractors. The contractors shall not commence work without the documents stamped and dated "Issued for Construction".

**A.** Each contractor will receive construction documents in quantity as determined by the **PM** up to a maximum of six sets. The contractor may purchase additional sets for a charge to cover reproduction and handling.

**18.4 Contractor and Tradesmen Licensing.** The contractors are responsible for any applicable licensing with the appropriate authority in accordance with the Standard Documents for Construction. The A/E shall receive and review all applicable licenses prior to that contractor or tradesman commencing any work. Evidence of proper licensure shall be forwarded to the **Owner's** representative, if requested. The A/E shall not knowingly allow any work to commence or accept any work installed by a non-licensed firm or tradesman where licensure is required.

**18.5 Contractor's Work with Own Forces.** The Standard Documents for Construction requires that a percentage of the work be performed by the contractor's own forces. The A/E shall consider this requirement during the review and approval of the contractor's schedule of values and during the execution of the work.

**18.6 Pre-Construction Meeting.**

**A.** This meeting will be scheduled by the **PM** generally within 4 calendar days of awarding construction contracts. Attendance is mandatory for the **PM**, the **Owner's** Representative, coordinating contractor, all assigned contractors, Attendance by sub-contractors and A/E consultants is encouraged, but not mandatory.

**B.** Minimum agenda will consist of **A/E's** explanation of construction procedures, pay request application procedures, and documentation to be supplied by contractors, sub-contractors and material suppliers in support thereof. **PM** will explain requirements for submittal of shop drawings, samples and product data. Using agency may review facility access and specific safety/security procedures.

**18.7 Contractor Submittals/Shop Drawings, Product Data, Samples.**

**A.** A/E shall review and monitor all required submittals for timeliness and conformance with the contract documents and project schedule. A/E shall review and respond to submittals within 7 calendar days.

**B.** Each submittal shall be stamped, dated, and either initialed or signed by the reviewer. The reviewer shall provide clear instruction to the contractors of any corrective action to be taken.

**C.** The A/E shall only review those materials and equipment specified in the contract documents. The A/E shall not make changes in the contract requirements through the review of submittals.

**D.** The contractors may not submit and gain approval of material substitutions through the shop drawing review process. In this event, the A/E shall return the submittal without review and advise the contractor that he may request and

initiate a material substitution change order in accordance with the substitution clause of the Standard Documents for Construction.

- E. If in reviewing the submittal the A/E determines that contract changes are required, notify the **Owner** and request approval of the required changes prior to returning the submittal to the contractor. The submittal shall then be returned to the contractor with the note that a change order request is contemplated.
- F. No work requiring review of submittals shall be commenced without A/E approval. The A/E shall notify the contractor to cease the work until approval is obtained. The contractor shall be liable to replace any work that is not in compliance with the subsequently reviewed submittal.

**18.8 Contractor's Schedule of Values.** Each coordinating and assigned contractor is required to prepare the a CSV form and submit it to the A/E for review and approval prior to the first progress/pay meeting. This form is a detailed breakdown of the contract amount and will form the basis for progress payment requests. The A/E shall review the form to ensure each item of work required for the contract is indicated and all values are expressed in separate line item costs for material and labor. The A/E may request the contractor provide subcontracts and relevant documentation to substantiate the values indicated.

**18.9 Construction Schedule.** The construction schedule is to be prepared by the **PM** with input and concurrence of all assigned contractors and submitted to the A/E prior to the first progress/pay meeting. The A/E shall review the schedule for conformance with the contract requirements. Schedules may be in bar chart, arrow diagram, CPM or other format as specified in the project manual and shall include a schedule for submitting shop drawings, product data and material samples.

**18.10 Contractor Payment and Progress/Pay Meetings.**

- A. A/E shall review and certify contractor's applications for payment, maintain record of payments and contract balances, and all proposed and approved changes thereto. The A/E shall reconcile and maintain files for the contractor's and subcontractor's/supplier's waiver of liens and contractor's sworn statements.
- B. Progress/Pay meeting dates are established by the **PM** at the pre-construction meeting. Attending the meeting shall be the **Owner's** representative, the A/E, the project manager, all assigned contractors.
- C. Minimum agenda will consist of reviewing contractor's progress, noting projections for work to be completed in the next month and comparing this information to the current approved project construction and submittal schedule, reviewing and reconciling contractor's pay applications and discussing of project problems and proposed contract changes.

**18.11 Contractor Stored Materials.**

- A. The **Owner** may pay contractors for material stored for future use on its projects.
- B. The **PM** shall attest to the existence of any stored materials, its protection and identification in accordance with the Contract Documents.

**18.12 Interpretations.** When requested by the **Owner** or a contractor, the A/E shall provide interpretation of the contract documents. A/E shall prepare and distribute

supplementary drawings, specifications and instructions as necessary to communicate the interpretation.

#### **18.13 Claims and Disputes.**

- A.** A/E shall record any occurrence or work that might result in a claim for a change in contract time or amount. Any disputes or claims shall be referred directly to the **Owner's** Representative. A/E shall enter the claim or dispute into a claims log and provide a current copy of the log to the **Owner** at each monthly progress/pay meeting.
- B.** A/E shall review each claim or dispute, including documentation of any time, money or other expenditure made in connection with it. A/E shall provide a written response, interpretation and recommendation for resolution to the claimant and the **Owner**. The **Owner** shall make a final determination on all disputes unless removed to ADR and/or the Courts.
- C.** While work is in progress, A/E shall observe, measure and verify costs incurred that are related to the dispute. Immediately notify the **Owner's** Representative if additional on-site representation is required to monitor the disputed work.

#### **18.14 Change Orders.**

- A.** Specific procedures, general information, and standard **A/E** forms required for preparing and processing construction contract changes have been developed by the **A/E** and are included in Procedures and Forms - Construction Phase Manual.
- B.** Requests for a change may be initiated either verbally or in writing. Subcontractors' requests shall be directed to their contractor, assigned contractors to the coordinating contractor, and coordinating contractor to the A/E. Only the **PM** can initiate and only the **Owner** can authorize the A/E to prepare a Request for Proposal/Change Order (RFP/CO). The A/E shall prepare an RFP/CO for each contract affected by the proposed change.
- C.** The A/E shall prepare each RFP/CO including supplemental drawings and/or specifications to fully describe the change in the work. Each change order package should be self-explanatory. When requested by the **Owner**, the A/E shall submit a cover letter to the change order package explaining the need for the contract change.
- D.** The A/E shall review the contractor's proposal for completeness and conformance with the RFP/CO and contract documents. Where change orders require additional clarification or additional back-up, the A/E shall obtain such information from the contractors prior to forwarding the change order package to the **Owner** for approval.
- E.** The A/E shall recommend issuance of a change order to the **Owner**. Recommending issuance shall mean that the A/E has reviewed all quantities, prices and other data in the contractors' proposal and has found such to be reasonable and in conformance with the provisions of the Contract Documents.
- F.** When requested by the **Owner**, the A/E and any consultants shall be required to attend Board meetings to explain any change orders presented for Board approval.

- G.** A/E shall review all time extension requests and make their recommendations within a reasonable time.

**18.15 Contractors' Record Drawings.** The A/E shall observe the contractors' record drawings at intervals appropriate to the construction, and notify the **Owner** of any apparent failure to maintain up-to-date records in accordance with the contract documents.

## **ARTICLE 19 QUALITY CONTROL**

**19.1 Observation of the Work.** The **PM** shall, as a basic service of the agreement, observe and report the progress and quality of the work as is reasonably necessary and as set forth herein, to determine in general that the work is proceeding in accordance with the approved construction schedule, and that the materials, finishes and workmanship are in conformance with the contract documents.

The **Owner** shall be notified immediately if, in the A/E's opinion, the materials, finishes and workmanship does not conform to the contract documents, requires special inspection or testing, or has been disapproved or rejected by the A/E. The A/E and the contractor shall be liable for the replacement and/or any damages incurred as a result of knowingly permitting non-specified material, or otherwise non-conforming work to be incorporated into the project.

### **19.2 On-Site Representative.**

- A.** The A/E's **PM** shall office on the construction site to manage the day to day operations of the project and report on the progress of the project. The duties of the on-site representative are exclusive of other construction phases basic services listed herein and are limited to:
1. Expedite contract interpretation and clarifications.
  2. Record activities of the project including weather conditions, nature and location of the work being performed, verbal interpretation and other details.
  3. Observe, measure and verify costs incurred by contractors related to any disputes or claims.
- B.** Prior to commencing the construction phase, A/E shall submit the name, AND resumes of proposed on-site project superintendents to the **Owner** for approval.

### **19.3 Observation Reports.**

- A. A written report shall be submitted to the **Owner's** Representative. Reports shall be submitted in a timely manner as the construction activity dictates. In no case shall submission interval exceed 30 days from the date of the written report.
- B. Each report shall include general and specific information regarding the project as follows:
  - 1. General Information
    - a. Project Name and Location
    - b. **PM** Name and Phone Number
    - c. Report Preparers' Name
    - d. Coordinating Contractor's Name (if any)
    - e. Date of Report
    - f. Report Number
    - g. Weather Conditions
  
  - 2. Specific Information
    - a. Names of Contractors On-Site
    - b. Size of Each Contractor's Workforce
    - c. Nature and Location of Work Being Performed
    - d. Progress of the Work
    - e. Items Inspected
    - f. Problems Resolved
    - g. Verbal Interpretations Given to Contractor
    - h. Tests Witnessed/Performed

**19.4 Construction Testing.** **PM** shall witness field tests, review and evaluate test reports and notify the **Owner** of any deficiencies. A copy of all test results shall be provided to the **Owner**.

## **ARTICLE 20 PERFORMANCE TESTING, START-UP AND TRAINING**

- 20.1 General.** A/E shall be responsible for ensuring that each contractor, as required by the contract documents, perform a thorough and systematic performance test and start-up of their respective work. Each general, mechanical, electrical and fire suppression element and the total system shall be tested in the presence of the A/E, all appropriate consultants, and the Owner's Representative prior to substantial completion of the project.
- A. When requested, and if not previously provided in the contract documents, the A/E shall provide the contractors with all design criteria and system design/operation concepts to facilitate performance testing and start-up.
  - B. The A/E shall provide a report to the **Owner** that they have observed the performance testing and start-up process, and that each contractor has demonstrated that all systems comply with the requirements of the contract

documents. The report shall include any changes and/or reconfiguration which may have occurred during the performance testing and start-up process.

**20.2 Owner's Personnel Training.** The A/E shall ensure that each contractor required by the contract documents provide the specified training of the designated personnel prior to substantial completion. The A/E shall attend the training sessions to observe and provide any input into the operation and maintenance of the systems as designed.

## **ARTICLE 21 PROJECT CLOSEOUT PHASE**

**21.1 General.** The A/E shall be responsible for certifying the completion of all contracts.

**21.2 Substantial Completion.** It is a condition which occurs when the **Owner** accepts the certification of the A/E that construction is sufficiently complete in accord with the contract documents such that the project, or a designated portion thereof, may be occupied or utilized by the Owner for the use for which it was intended.

**21.3 Guarantees and Warranties.** At substantial completion, the A/E shall obtain from the contractors and assemble all guarantees and warranties, check for coverage, start date and duration in accordance with the contract documents before forwarding to the **Owner**.

**A.** The A/E shall obtain from each contractor a final list of all suppliers and subcontractors with complete names, addresses and telephone numbers of persons to be contacted for service and/or replacement of materials and equipment.

**21.4 Materials and Equipment.** The A/E shall confirm that all extra materials and equipment specified in the contract documents which are the property of the **Owner** are properly identified, delivered and stored as specified.

**21.5 Notification and Preliminary Inspection.** The contractors shall provide written notification to the A/E that their work, or a designated portion thereof, is substantially complete. This notification shall include a list of any incomplete items. The A/E shall then make a preliminary inspection of the work and preliminary punch list. If A/E is in agreement with the contractor, notify the **Owner** that a substantial completion inspection meeting is warranted.

### **21.6 Substantial Completion Inspection Meeting.**

**A.** This meeting shall be set by the A/E's **PM** when the **PM** concurs with the A/E'S superintendent force, that the project is substantially complete. A/E shall issue notice of the meeting. Attending the meeting shall be the **PM**, assigned contractor, A/E, (including consultants and observer if provided) and the **Owner's** representative.

**B.** Minimum agenda will consist of the inspection, discussion of the punch list, determination of final completion dates. The **A/E** will also review the requirements for contractor closeout in accord with the contract documents.

**C.** Upon completion of this inspection meeting, the A/E shall prepare the certificate of substantial completion with the completed punch list and forward the package to the **PM** and each assigned contractor.

**21.7 Final Acceptance.** A condition which occurs when the **Owner** accepts the certification of the A/E that the contractors have complied with all requirements of their contracts, and that the contractors are authorized to receive final payment in full, including all retainage.

**A.** Final acceptance is dependent only upon individual performance, and is not related to other contractor performance. The A/E shall expedite the closeout and final payment for each contractor as they complete their contractual obligations.

**21.8 Notification and Final Inspection.** The contractor shall notify the A/E in writing that all punch list items have been completed or corrected, all work has been reviewed and completed in accord with its contract, and the project is ready for final inspection. The A/E shall make an inspection of the completed work. If the A/E is in agreement with the contractor that all of its work is complete, the A/E shall notify the **Owner** that a final acceptance meeting is warranted.

**21.9 Final Acceptance Meeting.** A formal final acceptance meeting requiring attendance of all contractors, the Owner's Representative, The **Owner** and the A/E may be requested by the **Owner**. If the final acceptance meeting is required, the A/E shall provide notification to all parties. In either case, verification of the punch list completion shall be made by the A/E and the **Owner's** Representative.

**A.** When the work is confirmed as finally accepted by the A/E and the **Owner**, the A/E shall prepare and issue a Certificate of Final Acceptance to the contractors.

**21.10 Contractor Final Payment.** A/E shall process and certify final payment including retention only after all items of the contract are completed. A/E shall ensure that the final pay request package is complete in accord with the contracts prior to forwarding to the **Owner**.

**A.** A/E shall obtain from the contractors all releases and waivers of lien.

**B.** Final waivers for the full contracted amount are required. A/E shall reconcile all waivers and provide a statement of final accounting to **Owner** when the final waivers are not for the full amount of the contracts.

**C.** A Final Waiver of Lien is necessary from each contractor in the full amount of its contract.

**D.** The A/E shall acknowledge receipt of the contractor's record drawings on the final closeout package (FCP) form. This form shall be used as a checklist of the required documentation for closeout and it shall be transmitted with the contractor's final pay request to the **Owner**.

**21.11 Nine Month Inspection.** The A/E shall make arrangements with the **Owner's** Representative for an inspection of the contracted work nine months after substantial completion of the project. The A/E shall exercise care and judgement to determine corrective action to be taken under warranties or guarantees as opposed to abuse, misuse, normal wear and tear or lack of proper maintenance.

The A/E shall provide a written report of the inspection to the **Owner** within seven calendar days. The **Owner** shall notify affected contractor of any corrective action noted in the report. A/E shall monitor all corrective work under the warranties or guarantees, and submit a final report.



**21.12 A/E Closeout**

**A. Record Construction Drawings.** Prior to processing A/E's final payment, A/E shall submit to the **Owner** two sets of revised contract documents labeled "Record Construction Drawings," which show all changes reported by the contractor(s), and all changes made by change orders, addenda, and clarifications made by the A/E during construction.

1. These drawings shall be in electronic format, in addition to the two hard copies.

**21.13 Final Payment.** In addition to the construction related requirements in this section, A/E's final payment is dependent upon final resolution of any fee adjustments required of the **Owner**, and/or required by the agreement.

This Agreement and any document referred to in this Agreement constitute the entire agreement, and supersede any verbal communications and any previous agreement between the parties relating to the subject matter of this Agreement.

Each party acknowledges and represents that it has not relied on or been induced to enter into this Agreement by a representation, warranty or undertaking (whether contractual or otherwise) other than those expressly set out in this Agreement or any document referred to in this Agreement.

It is understood by the parties to this Agreement that facsimile copies, photocopies or scanned documents sent by email of this document and/or any agreements pertaining to this subject are declared and regarded as valid and equal to the original, provided they are represented by proper signatories of the parties to this Agreement being:

**For the first Party: Mr. Joseph Fournier, CEO and President  
AscenTrust, LLC.  
25301 Borough Park Drive, Suite 224  
The Woodlands, Texas 77380**

I, Joseph Fournier, declare that I am the **CEO, President** and Majority Stockholder of **AscenTrust, LLC.** acting with full legal authority on behalf of **AscenTrust, LLC.** and all other entities here-in mentioned, and can bind these entities to performance of this Working Agreement.

In witness, whereof, the first party hereto causes this Working Agreement to be duly executed on the day and year mentioned below.

**FOR AND ON BEHALF OF:  
AscenTrust, LLC.**

\_\_\_\_\_

Date: \_\_\_\_\_





Joseph David Fournier CEO and President

**For the second Party:** \_\_\_\_\_

I, \_\_\_\_\_ declare that I am acting with full legal authority and made this valid authorization and all statements in Witness Whereof, I have hereunder subscribed my name.

\_\_\_\_\_ Date: \_\_\_\_\_  
SECOND PARTY FULL NAME