

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 1101

SUMMARY OF WORK – DESIGN-BUILD DESIGN SERVICES

PART 1 – GENERAL

1.01 Summary

- A. This section includes specific Design-Build Team design obligations including:
 - 1. Preliminary Design Services
 - 2. Construction Documents and Construction Phase Design Services
 - 3. Project Close-Out Phase Services
 - 4. Design-Build Team's Responsibility for Finished Construction
- B. Unless specifically excluded from this Contract, Design-Build Team shall provide Owner with all professional architectural, engineering and design services, including without limitation all civil, electrical, fire protection, mechanical, structural engineering, landscape, and cost estimating services necessary to perform Design-Build Team's design obligations under this Section 01 1101 and other provisions of Contract Documents including, without limitation, Bridging Documents, and to complete the Project.

1.02 Deliverables Required Under This Section – Generally

- A. All deliverables required under this Section shall be submitted in full compliance with the Contract Documents, shall be submitted in at least triplicate (or such greater number as the Owner may reasonably request) and, when contained on electronic media, shall be submitted in printed form as well as on electronic media when requested by Owner.
- B. Deficiencies in deliverables and modifications to conform to Project requirements and modifications to achieve acceptability of deliverables to Owner, shall be promptly performed, and the cost thereof included in the Contract Price.

1.03 Incremental Design Packages

- A. Design-Build Team shall submit designs and deliverables meeting the requirements of this Section 01 1101. Design-Build Team shall create no more than two incremental packages of major building components or activities, and it so elects, it shall comply with the requirements of the Contract Documents for each increment separately. Design-Build Team shall be fully responsible for all consequences of electing incremental packages, including satisfying all Project milestones and deadlines. All submittals to Authorities Having Jurisdiction (AHJ) shall be through Owner and under no circumstances shall Design-Build Team submit directly to AHJ.

1.04 Consistency with Bridging Documents

- A. Design-Build Team shall perform all design services consistent with the Project Bridging Documents for all stages of design. Design-Build Team shall perform all design services in accordance with Document 00 5201 (Bridging Documents) and Document 00 7253 (General Conditions – Design-Build).
- B. Bridging Documents set forth Owner's minimum design and construction requirements for the Project

that Design-Build Team must meet. Design-Build Team shall prepare designs to meet these requirements and submit deliverables as described in this Section 01 1101. In the event of any conflict between the Bridging Documents and any other provision of Contract Documents, the more stringent requirement providing Owner with the greater scope of work shall control. The requirements of this Section 01 1011 supplement but do not supersede the requirements of Bridging Documents.

- C. Bridging Documents may be amended or supplemented to include elements or ideas from Design-Build Team's Proposal or other proposals, but only to the extent Owner expressly agrees in writing. Design-Build Team is solely responsible for confirming the extent of any changes to the Bridging Documents.

1.05 Designers and Designer Agreements

- A. Design-Build Team shall perform its design services using the Designers listed in its Proposal. Design-Build Team may substitute Designers identified in the Proposal only with Owner's written consent, which may be withheld or delayed in District's sole discretion.
- B. Design-Build Team shall fully coordinate all architectural and engineering disciplines and Designers involved in completing the Work. All Designers shall fully coordinate with Design-Build Team and all architectural and engineering disciplines and Designers involved in completing the Work.
- C. To the extent of the Services to be performed by a Designer, Design-Build Team shall require each Designer's written agreement (1) to be bound to the terms of Contract Documents, and (2) to assume vis-à-vis Design-Build Team all the obligations and responsibilities that Design-Build Team assumes toward Owner under the Contract Documents. (These agreements include for example, and not by way of limitation, all ownership and copyrights in Designer work product, warranties, claims procedures, and rules governing submittals of all types to which Design-Build Team is subject under the Contract Documents.
- D. Owner shall be deemed to be an intended third-party beneficiary of all Design agreements, and each such agreement shall so provide.
- E. At Owner's request, Design-Build Team shall provide Owner with a complete copy of all executed agreements between Designers and Design-Build Team or between Designers (of any tier).
- F. Owner at all times shall have the right (but not the duty) to review Design-Build Team's design services, whether performed by Design-Build Team or a Designer, and whether in a final or preliminary form, to determine progress and conformance to the requirements of Bridging Documents and other Contract Documents. In the event Owner should ever dispute the conformance of any design services (at any stage) with the intent of the Contract Documents, then Owner's determination shall control and Design-Build Team and/or its Designers shall perform the disputed design services to completion in accord with Owner's determination. Design-Build Team shall, however, retain its rights under the procedure in Document 00 7253 (General Conditions) Article 12 for claims and disputes, and Design-Build Team may under that procedure, in its name, advance any claim of any Designer.

PART 2 – DESIGN SERVICES

2.01 Preliminary Design Phases

A. Schematic Design Phase

1. Period of Service.
 - a. After acceptance by Owner of Design-Build Team's Proposal, execution of Contract Documents, and upon written authorization from Owner to proceed with design, Design-Build Team shall proceed with the performance of Services called for in the Schematic Design Phase.
 - b. Design-Build Team shall submit the deliverables required by the Schematic Design Phase.
 - c. All items that are inconsistent with Bridging Documents, other Owner program requirements, or other prior Owner directions or approvals, shall be expressly and separately identified and submitted in writing for approval.
2. Schematic Design Phase Documents. Schematic Design Phase Documents shall consist of plans and reports containing conceptual layouts, sketches and schematic design criteria with appropriate exhibits, sufficient to present the complete concept of the Project, including all major elements of the building(s), system(s), machinery, equipment, structure(s), and site design(s), proposed for construction which complies with the current program and cost limitations. By way of example, documents in this phase shall include, but are not limited to, the following (where applicable):
 - a. Plan list
 - b. Site plan(s)
 - c. Schedule of building types, equipment, machinery, systems, [Owner to Complete]
 - d. Wall sections and elevations
 - e. Outline specifications including architectural, structural, mechanical, electrical, and instrumentation systems and materials proposed
 - f. Project-specific analysis of codes, ordinances and regulations
 - g. Three-dimensional line plans or plans
 - h. Initial construction phasing recommendations
 - i. Tabulation of both gross and assignable floor areas including a comparison to the initial program area requirements.
3. Criteria. Reports, plans and exhibits shall incorporate all Bridging Documents requirements and any other Owner program requirements, and shall include structural concepts, site utilization plans, floor plans, elevations, sections, study perspectives and other plans necessary to describe the Project. Schematic Design Phase reports and exhibits shall indicate clearly the considerations involved including, without limitation, applicable requirements of governmental AHJ or private licensing, patent, easements, or other legal restrictions, as well as an exposition of how the design reflects the Owner's program objectives. Reports and exhibits shall indicate any alternative solutions available to Owner and set forth Design-Build Team's findings and recommendations.
4. Design-Build Team shall identify, analyze, and conform to the requirements of governmental and private AHJ to approve the design of the Project and participate in consultations with such authorities.
5. Owner Review. Design-Build Team shall develop Schematic Design Phase reports, plans, and exhibits until Owner has approved an acceptable design concept that complies with

the intent of the Bridging Documents. Design-Build Team shall participate in progress meetings with Owner representatives at Owner's request, up to twice monthly. In particular, certain Project Stakeholders, if applicable, shall be provided the opportunity to review and comment on the Schematic Design, and those comments shall be incorporated into the Design Development Documents. Design-Build Team should allow two weeks for Owner review time and to incorporate comments from Owner prior to submission to Project Stakeholders.

6. Design Basis Report. Design-Build Team shall provide a narrative report by each design discipline describing its proposed design philosophy with a description of, and the rationale for: the proposed structural systems, mechanical systems, electrical, electronics and security systems, types of equipment, materials and finishes, and site development and landscaping as required by the Project. The rationale shall include initial costs, lifecycle costs, and life expectancy and maintenance considerations.
7. Present Schematic Documents to Owner. Design-Build Team shall present Schematic Design Phase documents to Owner and secure its approval.

B. Design Development Phase

All submittals to AHJ shall be through Owner and under no circumstances shall Design-Build Team submit directly to AHJ.

1. Period of Service.
 - a. After acceptance by Owner of Design-Build Team's Schematic Design Phase deliverables, and upon written authorization from Owner, Design-Build Team shall proceed with the performance of the services called for in the Design Development Phase. The intent of Design-Build Team's Design Development Phase submittal is to obtain Owner approval for design revisions, refinements, and concept elaborations produced by Design-Build Team during Design Development prior to Construction Document production.
 - b. Design-Build Team shall submit the deliverables required by the Design Development Phase.
 - c. Design-Build Team shall at the outset of this Phase make full written disclosure to Owner, and obtain Owner's express written approval of any proposed innovative, unique, proprietary, or sole source design features. Owner retains full discretion to disapprove such features.
 - d. All items that are inconsistent with approved Schematic Phase Design Documents, or (unless previously approved) Bridging Documents, other Owner program requirements, or other prior Owner directions or approvals, shall be expressly and separately identified and submitted in writing for approval.
2. Design Development Documents. Design-Build Team shall prepare and submit to Owner design development documents. Design-Build Team shall revise these documents consistent with the requirements and criteria established by Owner and shall meet with Owner and involved subconsultants twice monthly, to review and verify Owner gives its written confirmation of a Design Development Document. These documents shall include the following:
 - a. Final Design Criteria Plans (architectural, civil, electrical, mechanical and structural) sufficient to fix and illustrate project's scope and character in all essential design elements including, without limitation, site plans, architectural, structural, mechanical, electrical, and plumbing floor and equipment connection plans, elevations; cross sections and other mutually agreed upon plans deemed necessary to describe the developed design; single line electrical and mechanical plans, and

- structural plans with Schematic sizing of major structural elements.
 - b. Revised Drawing list.
 - c. A tabulation of both gross and assignable floor, pavement and/or yard areas in a comparison to the approved conceptual program area requirements and to the initial program area requirements.
 - d. As appropriate, Design-Build Team shall provide to Owner for its approval a color and materials board, samples of textures and finishes of all materials proposed in the Work.
 - e. Recommendations for scheduling and phasing of construction.
 - f. Outline specifications for each technical specification section, following Construction Specification Institute 2015 conventions, with Part 2 Products of each section completed, describing the size, character and quality of the entire Project in its essentials as to kinds and locations of materials; equipment selections; and types of structural, mechanical and electrical systems. For major equipment and system specifications, Design-Build Team shall also submit first cost and lifecycle cost analysis, with comparative analysis for the selected equipment/system item and two other alternative equipment/system items considered by Design-Build Team but not selected.
 - g. Schematic engineering calculations for all disciplines, including realistic loads, and sufficiently complete for work on Construction Documents to proceed. Prepare for approval by Owner updated written design criteria for [mechanical, electrical and plumbing systems (for example, temperature, humidity, lighting levels and floor live load design shall be stated for general and special occupancy areas).
 - h. A grading and drainage plan and a site plan from architectural information showing a final development of the site. This Drawing will also include a horizontal and vertical control plan and utility connections to the infrastructure plan. The services described in this subparagraph shall be provided by a Designer who is a professional civil engineer under an agreement with Design-Build Team.
3. Additional Data or Services. Design-Build Team shall advise Owner in writing if additional data or services of the following types are necessary and obtain such data and services as directed in writing by Owner:
- a. Borings, probings and subsurface explorations, hydrographic surveys, laboratory tests and inspections of samples, materials and equipment;
 - b. Appropriate professional interpretations of the foregoing; and
 - c. Other special data or consultations necessary or useful in completion of the Project.
4. Report on Additional Permits or Reports. Advise in writing if any of the following are required:
- a. Governmental permits of any type; and
 - b. Reports of any type to governmental agencies.
5. Review with Owner. Prepare, for review by Owner for compliance with Bridging Documents, written design criteria for mechanical, security, and electrical systems.
6. AHJ, etc. Design-Build Team shall be fully responsible for obtaining and coordinating all necessary approvals from all AHJ.

2.02 Construction Documents and Construction Phases Design Services

- A. Construction Documents Phase.

All submittals to AHJ shall be through Owner and under no circumstances shall Design-Build Team submit directly to AHJ.

1. Period of Service.
 - a. After acceptance by Owner of the Design Development Documents and any other required deliverables in the Design Development Phase, and upon written authorization from Owner, Design-Build Team shall proceed with the performance of the services called for in the Construction Documents Phase.
 - b. Design-Build Team shall submit the deliverables required by the Construction Documents Phase within the stipulated period required in the Project Schedule.
 - c. All items that are inconsistent with approved Design Development Documents, or (unless previously approved) Schematic Phase Design Documents, Bridging Documents, other Owner program requirements, or other prior Owner directions or approvals, shall be expressly and separately identified in writing and submitted for approval.
2. Construction Documents. On the basis of the Owner-approved Design Development Documents, Design-Build Team shall prepare final Drawings and Specifications (together, "Construction Documents") to show the work to be furnished and performed by Design-Build Team. Construction Documents shall set forth in detail the requirements for construction of all Work to be performed, and shall be Contract Documents, but shall not supersede other Contract Documents (including Bridging Documents) where other Contract Documents contain a more stringent requirement.
3. Construction Documents shall be prepared in accordance with industry standards. Construction Documents Specifications shall be prepared in conformance with the thirty-three-division format of the Construction Specification Institute and paragraph 2.02A.5 below. Design-Build Team shall have complete responsibility to secure timely review by all authorities with jurisdiction.
4. The same architectural and engineering team (and team personnel) that prepared the Design Development Documents shall complete the Construction Documents and do all final coordination and quality review of the Construction Documents, including without limitation, following revisions requested or final comments made by authorities with jurisdiction. Where Drawings and Specifications are submitted to AHJ, then the same architectural and engineering team (and team personnel) that prepared the submittal shall complete the Drawings and Specifications. If the submittal is incomplete in any manner, then Design-Build Team shall continue working on Drawings and Specifications after the submittal in order to complete it, including completing all Designer services, fully coordinating the Drawings, and doing a quality control review. All Drawings shall be brought to ninety-five percent level of completion at either the submittal, or shortly thereafter, and then coordinated and checked. The purpose of this paragraph is to require Design-Build Team to finish the design, so far as practical, either at the time of the submittal or shortly thereafter, to retain continuity in the design team and their familiarity with the Project. For good cause, Design-Build Team may request relief from this paragraph. Owner may, but is not required to, conduct a peer review on the completed Drawings.
5. Format of Technical Specifications. Design-Build Team shall prepare and transmit to Owner final technical specifications in conformance with the 2015 conventions of the Construction Specification Institute. Owner requests Bluebeam or similar to denote changes. Design-Build Team shall cooperate with Owner in coordinating the Drawings and technical specifications with Owner's Divisions 00 and 01 General standard specifications included in Contract Documents.

6. Auto CAD and Other Electronic Data. Provide AutoCAD or Revit (Release 14) files of all Drawings including as-bid, as-built, and all record Drawings, in electronic formats as requested by Owner. Prepare electronic record sets and sets of reproducible record prints or Drawings showing those changes made during the construction process, based on the marked-up prints, marked-up Technical Specifications, Drawings and other data furnished by Design-Build Team to Owner. Electronic data shall be generated in AutoCAD Release 14 or Revit Release 14 and shall conform to Owner standards package (to be supplied.)
7. Compliance with Codes, Regulations and Requirements. All Drawings, Specifications, structural design calculations, site data, and cost estimates required by State or Federal law shall comply with State and federal standards. Design-Build Team shall comply with any other requirements of authorities with jurisdiction over the Project or the Plans and Specifications. Design-Build Team shall comply with the applicable standard of care when preparing Drawings and Specifications to comply with applicable building codes, ordinances, statutes, laws, standards, governmental regulations and private restrictions, applicable to the Services including, but not limited to, those listed in Contract Documents, all environmental, energy conservation, and disabled access requirements, regulations and standards of AHJ over the Project.
8. Supply of Design Calculations. Design-Build Team shall provide Owner with copies of all final electrical, mechanical and structural design calculations, organized by specification. Design-Build Team shall provide Owner with a final update on the final design criteria utilized.
9. Make full written disclosure to Owner, and obtain Owner's express written approval of any proposed innovative, unique, proprietary, or sole source design features.
10. Warranty. Design-Build Team warrants to Owner that the final design, as expressed in the Construction Documents:
 - a. Will be constructible, workable, watertight, and within Design-Build Team's detailed Project schedule (per Section 01 3200);
 - b. Will comply in all respects with the requirements of the Contract Documents (including without limitation Bridging Documents);
 - c. Will not call for the use of hazardous or banned materials; and
 - d. Will fully comply with applicable building codes, ordinances, standards, governmental regulations, and private restrictions applicable to the Work.
11. Design-Build Team shall prepare and submit draft Construction Documents at the 95% level of completion to Owner for review. Owner requests Bluebeam or similar to denote changes. Design-Build Team shall allow for at least two weeks for Owner review. Owner shall conduct such review as necessary on the 95% Construction Documents and shall advise Design-Build Team of any necessary modifications, amendments and additions as reasonably required by Owner. Following receipt of Owner's comments, Design-Build Team shall complete final Construction Documents. Such complete Construction Documents may then be submitted by Owner to AHJ, if applicable, for approval.
12. Design-Build Team shall take all steps to secure AHJ approvals and all other required reviews and approvals of the Construction Documents. All submittals to AHJ, if applicable, shall be through Owner and under no circumstances shall Design-Build Team submit directly to AHJ.
13. Upon completion of Construction Documents, Design-Build Team shall submit such Drawings and Specifications for approval to Owner's representatives (as Owner shall designate) and any other applicable agency, and obtain necessary permits for the construction and operation of the Project as specified in the Construction Documents. During the same time period, Design-Build Team shall submit to Owner three (3) complete

sets of Construction Documents for final approval.

14. Following approval of final Construction Documents by Owner and AHJ, if applicable, Design-Build Team shall provide a final Document 00 1115 (List Of Final Drawings, Tables And Schedules) identifying all final Drawings and Specifications, along with a hard copy and electronic copy of the stamped drawings and specifications.
15. Permits. To the extent not otherwise provided in Section 01 1101 (Summary of Work – Design-Build Contractor Services) or other provisions of Contract Documents, Design-Build Team shall assist Owner in securing all necessary permits and approvals, by identifying all necessary permits and approvals, securing necessary forms, and either applying for such permits and approvals in Design-Build Team's name or by providing Owner with signature ready completed forms for Owner's review and execution. This duty includes, but is not limited to, providing technical criteria, written descriptions and design data for use in filing applications for permits with or obtaining approvals of such governmental authorities as have jurisdiction to approve the design of the Project, and engage in consultations with appropriate authorities.

B. Substitutions

1. Design-Build Team must base its design on products and systems specified in the Contract Documents or listed by name in Addenda.
2. Design-Build Team may submit requests for substitutions (including, without limitation, "or equal" substitutions—see Document 00 7253 General Conditions paragraph 13.11) no later than 14 days before submission of final Construction Documents to all AHJ.
3. Submittals of substitutions shall contain all required information set forth in Document 00 6325 (Substitution Request Form) and Specification Section 01 6000 (Product Requirements). Insufficient information shall be grounds for rejection of substitution.
4. Subject to the foregoing, Owner may consider Specifications/Bridging Documents final upon Contract award, however, and will consider substitutions following award in its sole discretion.

C. Construction Phase

1. Following Owner's acceptance and other AHJ, if applicable, approval of Design-Build Team's Construction Documents (or applicable portion thereof), Design-Build Team may commence construction of the Project (or applicable portion thereof).
2. General Administration of Construction. Design-Build Team's Designers shall make regular visits to the site at intervals appropriate to the various stages of construction as necessary to assure that construction conforms to the final design as approved.
3. Quality Control and Reporting. Design-Build Team's Designers shall participate fully in Design-Build Team's required quality control program and shall advise Design-Build Team and Owner in writing of any observations of defective work, work not in conformance with Drawings and Specifications or other Contract Documents, and lack of progress consistent with the schedule of work in areas associated with their Services.
4. Coordination of Inspections. Design-Build Team is responsible to coordinate inspections by BSCC and to implement any corrections required by BSCC.

2.03 Project Close-Out Phase Services

- A. Operation/Close Out.** During the Operation/Project Close-Out Phase, Design-Build Team and its

Designers shall, when requested by Owner, provide all necessary architectural, design and engineering services, for:

- B. Refining, adjusting and correcting of any equipment or systems.
- C. Start-up, testing and placing in operation all equipment and systems.
- D. Completion of punchlist work.
- E. Training Owner's staff to operate and maintain all equipment and systems.
- F. Assist Owner in developing systems and procedures for control of the operation and maintenance of and record keeping for the Project.
- G. Prepare electronic record sets and sets of reproducible record prints or Drawings showing those changes made during the construction process, based on the marked-up prints, Drawings and other data.
- H. Together with Owner, visit the Project to observe any apparent defects in the completed construction, correct such deficiencies, and supply information as needed regarding replacement, correction, or diminished value of defective work.

2.04 Design-Build Team's Responsibility For Finished Construction

- A. Owner's right to review Design-Build Team's design and deliverables, including without limitation Design Development Documents, Construction Documents, shop drawings, samples and Submittals, as specified in the Contract Documents, including any review by Bridging Architect or other Owner advisor, shall not relieve Design-Build Team of its responsibility for a complete design and construction complying with the requirements of the Contract Documents; but rather, such review shall be in furtherance of Owner's monitoring and accepting the design as developed and issued by Design-Build Team, consistent with these Contract Documents. Design-Build Team's responsibility to design and construct the Project in conformance with the Contract Documents including, but not limited to, the applicable performance standards and any fully executed change orders, shall be absolute. Such duty may not be altered or diminished by any action other than a signed change order.
- B. Auto CAD and Other Electronic Data. Provide Auto CAD [2010] files of all Construction Documents including as-bid, as-built, and all record Drawings, on C.D. Prepare electronic record sets and sets of reproducible record prints or Drawings showing those changes made during the construction process. Electronic data shall conform to Owner requirements for compatibility with Owner equipment and software.
- C. Provide an **Operations and Maintenance (O&M)** program that includes a formulated plan of training, cleaning, work practices, and surveillance to maintain buildings and operations within in good condition.

END OF SECTION