

**NEVADA STATE PUBLIC WORKS DIVISION**

**SCOPE OF PROFESSIONAL SERVICES**

*Revised 1-1-16*

## TABLE OF CONTENTS

	<u>Page No.</u>
<b>SECTION 1: GENERAL REQUIREMENTS</b>	
1.1 Terminology	1
1.2 Definition of Services	1
1.3 Fee Basis Documentation	1
1.4 Modifications	1
1.5 Surveys	2
1.6 Geotechnical	2
1.7 Materials Testing and Inspection	2
1.8 Coordination	3
1.9 Adopted Standards	4
1.10 General Conditions of the Contract	4
1.11 Commissioning	4
1.12 Green Building Standards	4
1.13 Specialty Sub-Consultants	5
1.14 Specification Requirements	5
1.15 Assembly and Binding of Plans	5
1.16 Permits and Permit Fees	5
<b>SECTION 2: SCHEMATIC DESIGN PHASE</b>	
2.1 General Requirements	6
2.2 Required Documents	7
<b>SECTION 3: DESIGN DEVELOPMENT PHASE</b>	
3.1 General Requirements	9
3.2 Required Documents	9
<b>SECTION 4: 50% CONSTRUCTION DOCUMENTS</b>	
4.1 General Requirements	12
<b>SECTION 5: CONSTRUCTION DOCUMENTS</b>	
5.1 General Requirements	14
5.2 Required Reviews and Approvals	15
5.3 Plan Checking	15
<b>SECTION 6: BID DOCUMENTS</b>	
6.1 General Requirements	17
6.2 Bids in Excess of the Construction Budget	18
6.3 Bids Below the Construction Budget	18

## **SECTION 7: CONSTRUCTION ADMINISTRATION PHASE**

7.1	General Requirements	19
7.2	Site Visits	19
7.3	Interpretations	19
7.4	Requests for Information	19
7.5	Change Orders and Construction Change Directives	20
7.6	Minor Changes in the Work	20
7.7	Submittals and Shop Drawings	20
7.8	Contractor's Progress Payment Applications	20
7.9	Contractor Claims	20
7.10	As-Built Drawings	20
7.11	Project Completion and Guarantees	20
7.12	Operation and Maintenance Manuals	21
7.13	Record Drawings and Specifications	21
7.14	Errors and Omissions	21

## **SECTION 8: WARRANTY PERIOD SERVICES**

8.1	Warranty Period Services	22
-----	--------------------------	----

## **SECTION 9: OWNER RESPONSIBILITIES**

9.1	Construction Budget	23
9.2	Project Manager	23
9.3	Advertisement for Bids	23
9.4	Construction Inspection	23

## **SECTION 10: PERFORMANCE AND PAYMENT**

10.1	General	24
10.2	Performance and Payment Schedule	24
10.3	Submittal Sets Required	25
10.4	Project Budget and Building Size	25

## **SECTION 1 GENERAL REQUIREMENTS**

### **1.1 Terminology**

- 1.1.1 The term ‘State’ as used in this document shall mean the Nevada State Public Works Division, or other State Agency as identified in the Professional Services Agreement.
- 1.1.2 The term ‘Consultant’ as used in this document refers to the architect, engineer, or other design professional identified in the Professional Services Agreement. The Consultant is the person or organization responsible for the design of the project and the preparation of the drawings and specifications on behalf of the State. The Consultant typically employs or contracts with other design professionals who are referred to throughout this document as sub-consultants.
- 1.1.3 The term ‘Contract Documents’ refers to drawings, specifications, calculations, reports, and other documents prepared by the Consultant and sub-consultants for the purpose of planning, design, and construction of the project.
- 1.1.4 The term ‘Using Agency’ shall mean the State Agency having custody or use of the project upon completion of construction.
- 1.1.5 All references to a ‘day’ or to ‘days’ in this document shall be understood to mean calendar days unless specifically indicated otherwise.

### **1.2 Definition of Services**

- 1.2.1 The Consultant's services shall consist of those services performed by the Consultant or their employees and sub-consultants, and shall include architectural, civil, structural, mechanical, electrical, landscape architecture, all other specialty consultants, and all other services necessary to complete the Contract Documents in accordance with the terms of the Professional Services Agreement.
- 1.2.2 The Consultant's services shall include complete design and documentation for all elements of the project. The Consultant’s fee shall include all such design and documentation, except in the case of performance specifications that are utilized for metal buildings (excluding the foundation system), pre-cast/pre-stressed concrete panels, open web steel joists, gang-nail wood trusses, microwave towers, large cantilevered signs, and fire sprinkler systems. Any deviation from this requirement requires written approval and authorization by the State.
- 1.2.3 Drawings and specifications issued at each stage of the design process shall represent the following general percentages with regard to overall level of completeness:

Schematic Design Documents	20%
Design Development Documents	50%
50% Construction Documents	75%
100% Construction Documents	100%
- 1.2.4 The Consultant’s fee shall only be adjusted to account for additional services that are authorized in advance by the State. The Consultant’s fee shall not be adjusted to account for any construction inflation that may occur during the design and construction of the project.

### **1.3 Fee Basis Documentation**

- 1.3.1 The Consultant shall provide the State with a breakdown or summary of the overall fee distribution including the allocated fee for each major sub-consultant involved in the project. The fee summary will be utilized by the State to confirm that the project scope is understood by the Consultant and their sub-consultants.

### **1.4 Modifications**

- 1.4.1 No modifications shall be made to the requirements of the Scope of Professional Services unless agreed to in writing by the State and attached as an addendum to this document.

## 1.5 Surveys

- 1.5.1 The Consultant shall provide surveys describing physical characteristics, legal limitations, and utility locations for the site of the project, and a written legal description of the site.
- 1.5.2 The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures, adjacent drainage, rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data pertaining to existing buildings, other improvements and landscaping; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All of the information on the survey shall be referenced to a project benchmark.
- 1.5.3 Survey work shall be completed in accordance with the requirements of the Nevada Division of State Lands and shall include specific identification of any existing utilities that are to be abandoned.
- 1.5.4 The Consultant shall submit plans, legal descriptions, and other documents as necessary to the Nevada Division of State Lands in order to obtain a written property certification prior to issuing the bid documents.

## 1.6 Geotechnical

- 1.6.1 Unless otherwise agreed, the State will furnish the services of a geotechnical engineer when such services are necessary. Such services may include, but are not limited to, test borings, test pits, determinations of soil bearing values, percolation tests, evaluations of hazardous materials, ground corrosion and resistivity tests, and a report with appropriate design recommendations.
- 1.6.2 The Consultant shall immediately notify the State of any discrepancies, errors, or omissions discovered in the documents issued by the geotechnical engineer.
- 1.6.3 The recommendations included in the geotechnical report (including requirements for excavation, fill, backfill, compaction, dewatering, under-slab and under-footing preparation, vapor barriers, retaining structures, soil stabilization, drilled piers, material specifications, and all other items delineated in the geotechnical report) shall be incorporated into the Contract Documents in written and/or graphical format as is necessary to adequately convey the requirements to the Contractor for the purposes of bidding and construction.
- 1.6.4 The Consultant may issue the geotechnical report along with the other Contract Documents, however the Consultant shall specifically identify the geotechnical report as being provided 'For Information Only' and shall also specifically state that the report is 'Not a Contract Document'.

## 1.7 Materials Testing and Inspection

- 1.7.1 The State will execute a separate contract with a materials testing firm.
- 1.7.2 The Consultant shall coordinate the requirements for materials testing with the State and shall assist the State with obtaining proposals from materials testing firms. The Consultant shall clearly delineate all requirements for materials testing in the bid documents.
- 1.7.3 The Consultant shall prepare all Contract Documents such that they are consistent with the General Conditions of the Contract as they relate to materials testing.
- 1.7.4 The State will assign a building inspector for each project. Requirements for additional inspection or special inspection by a testing firm or laboratory shall be coordinated with the State and approved by the State prior to inclusion in the bid documents.

1.8 Coordination

- 1.8.1 The Consultant shall schedule a 'Pre-Design Meeting' with the State and with the Using Agency to review and discuss the general program and direction for the project, including the anticipated building form and function, building site issues, available utilities, overall project scope versus the available budget, and the project schedule. This meeting should also be utilized to discuss the intended approach for developing the required mechanical systems life cycle cost analysis (when applicable) and any applicable green building design goals. All major sub-consultants shall be in attendance at this meeting (including the mechanical, electrical, civil, and structural sub-consultants, and any other major sub-consultants as applicable).
- 1.8.2 The Consultant shall prepare a detailed graphical schedule identifying all applicable document delivery dates, including dates for sub-consultant document deliveries to the architect, dates for review meetings, dates for plan checking and/or reviews, dates for preparing and issuing the final bid documents, and dates for bidding and construction. The schedule shall include the duration of each item listed in the schedule. The detailed schedule shall be carefully coordinated with and approved by the State.
- 1.8.3 The Consultant shall schedule regular meetings with the State, the Using Agency, and the appropriate sub-consultants to allow for ongoing assessment of progress and of document coordination between disciplines. Meeting frequency shall be as determined by the State and the Consultant to be appropriate for the project size and scope.
- 1.8.4 Throughout the design process the Consultant shall communicate and coordinate with the State, the Using Agency, other involved agencies, and other consultants as may be required. The State shall be copied on all communications between the Consultant and the Using Agency. No decisions shall be made concerning the scope or budget of the project without the written approval of the State.
- 1.8.5 Throughout the design process the Consultant shall coordinate with all applicable federal, state, and local agencies, and shall incorporate appropriate requirements and design solutions into the Contract Documents.
- 1.8.6 The Consultant shall immediately notify the State of any discrepancies, errors, or omissions discovered in any information or documentation provided by the State.
- 1.8.7 The Consultant shall make on-site investigations and measurements to ascertain any existing conditions which may affect the work.
- 1.8.8 Prior to bidding, the Consultant shall coordinate the work of the project with the requirements of local utility companies, telephone companies, and local government agencies, and shall obtain all information necessary for the design of utility services to the project. The Consultant shall ascertain all utility company connection and/or permit fees and provide that information to the State. The Consultant shall be responsible to complete any applications required by local utility companies and local government agencies and shall submit those applications along with all required documents to the appropriate entities. Where applications require the signature of the State, the Consultant shall complete the documents as thoroughly as possible and forward the application to the State for signature.
- 1.8.9 The Consultant shall verify with local governing authorities whether any major project review, special use permit, zoning approval, or other approvals, are required for the project. The Consultant shall be responsible for preparing and filing all necessary documents, as required. The State will pay any required fees to such local governing authorities. The Consultant shall incorporate the requirements for any special use permit or zoning approval in the bid documents.

- 1.8.10 The Consultant shall coordinate with the State and the Using Agency to define the project construction boundaries, staging areas, and field office locations.
- 1.8.11 The Consultant shall coordinate with the State to ensure that the required asbestos survey is completed on all remodel projects and that materials identified in the survey to contain asbestos are not disturbed by the remodel work or are removed prior to construction.
- 1.8.12 The Consultant shall coordinate and cooperate with the designated Extended Project Manager whenever the State elects to employ the services of an Extended Project Manager.
- 1.9 Adopted Standards
- 1.9.1 All aspects of the design shall conform to the most current edition of the State Public Works Division Adopted Standards (including any issued addenda). Any deviation from the State Public Works Division Adopted Standards shall be approved in writing by the State.
- 1.10 General Conditions of the Contract
- 1.10.1 The Consultant shall ensure that all applicable sections of the project specifications are consistent with the requirements of the General Conditions of the Contract.
- 1.11 Commissioning
- 1.11.1 The Consultant and their appropriate sub-consultants shall coordinate all commissioning requirements with the State (mechanical systems commissioning, electrical systems commissioning, and third party commissioning as may apply to each project). The commissioning requirements shall be incorporated into the Contract Documents and shall be coordinated with other related specification sections, as appropriate.
- 1.11.2 The Consultant and their appropriate sub-consultants shall provide assistance with resolution of any design related issues that may arise during the commissioning process.
- 1.12 Green Building Standards
- 1.12.1 Buildings with a gross floor area greater than 20,000 square feet shall comply with the green building design goals defined by the State for each project. The green building design goals for projects involving a building with a gross floor area greater than 20,000 square feet shall, as a minimum, include compliance with ASHRAE/IESNA Standard 90.1-2010, a 20% reduction in water consumption beyond the requirements of the Energy Policy Act of 1992 (targeting both plumbing fixture selection and landscape design), and recycling of at least 50% of all construction waste material.
- 1.12.2 The Consultant shall assist the State with evaluating, documenting, and incorporating the desired green building design goals into the plans and specifications for each project. The evaluation and documentation provided by the Consultant shall include a life cycle cost analysis of each green building design feature, including potential renewable energy options. The life cycle cost analysis shall include the estimated initial cost, estimated operation and maintenance costs, estimated savings in energy and/or water use, estimated return on investment, and the estimated simple payback period. The Consultant shall prepare and submit all calculations necessary to substantiate compliance with the desired reductions in building energy and water consumption.
- 1.12.3 The Consultant shall develop and submit a detailed summary report of the potential green building design features along with the estimated initial cost and life cycle cost (pursuant to Nevada Administrative Code Section 341.346). The summary report shall include evaluation of whether use of a source of renewable energy (such as photovoltaic panels or a hybrid ground source heat pump system) are viable for the project. The consultant shall also provide a detailed summary of the final list of green building design features selected and incorporated in the design documents along with the associated initial cost and life cycle cost (pursuant to Nevada Administrative Code Section 341.346).

- 1.12.14 The Consultant shall schedule and conduct meetings with the State and with all necessary sub-consultants as necessary to facilitate successful incorporation of the selected green building design goals.
- 1.12.5 The Consultant shall utilize a recognized computer software program for the required energy modeling (Carrier Hourly Analysis Program, Trane Trace, DOE-2, or eQUEST) and shall include all input and output in the submittal to the State.
- 1.12.6 The Consultant and appropriate sub-consultants (typically Civil, Mechanical, Electrical, and Landscaping) shall obtain a copy of the applicable green building design reference manual (typically the Leed Reference Guide for New Construction and Major Renovation) for ongoing reference during the project.
- 1.12.7 The Consultant shall assist the State with obtaining Leed certification from the U.S. Green Building Council on all projects that include this requirement. The Consultant shall schedule meetings with the State, all necessary sub-consultants, and the Leed consultant as necessary to facilitate successful completion of the certification process (including meetings during the construction administration phase and during the warranty period when necessary for certification).
- 1.13 Specialty Sub-Consultants
- 1.13.1 Design rationale and recommendations from all specialty sub-consultants (including, but not limited to fire protection, acoustics, and laboratory sub-consultants) shall be bound, indexed, and submitted to the State at each phase of design. A minimum of four copies of each such document shall be provided.
- 1.14 Specification Requirements
- 1.14.1 Specifications on all projects shall comply with the requirements of Nevada Revised Statutes Section 338.140, which states in pertinent part that all specifications shall list at least two acceptable product manufacturers followed by the words "or equal", except in the following two circumstances:
- A. Where a single product manufacturer or provider is specified in order to match other products in use at a facility, or
- B. Where only one product is available to meet the intended application.
- In cases involving a unique or novel product, the use of which is deemed to be in the best interest of the project, only one product or manufacturer need be listed. The use of such proprietary products shall be approved by the State prior to specifying.
- 1.15 Assembly and Binding of Plans
- 1.15.1 Plans shall be organized, printed, and bound such that no more than 150 sheets are bound into any one volume (to facilitate lifting, transporting, and filing).
- 1.16 Permits and Permit Fees
- 1.16.1 The Consultant shall assist the State with obtaining any permits that are required for the Project. The State is generally exempt from paying for permit fees as stipulated in Nevada Revised Statutes Section 278.580.



## **SECTION 2 SCHEMATIC DESIGN PHASE**

### **2.1 General Requirements**

- 2.1.1 Schematic design documents shall include drawings, a table of contents indicating the specification sections that are planned to be incorporated in each of the subsequent design phase submittals, and a cost estimate. The schematic design documents shall be developed in sufficient detail to indicate the exterior design of the project, the functional relationships of all interior areas, the relationship of the project to the site and other existing buildings, the materials to be used in construction, and the types of mechanical, electrical, and structural systems. The cost estimate shall be itemized to include all major categories of the work.
- 2.1.2 In consultation with the State and by independent analysis and investigation, the Consultant shall determine and evaluate the overall requirements of the project, the required scope of work, space and architectural requirements, impacts on the established construction budget, the total project time schedule, availability and location of utilities, and the requirements of approving authorities.
- 2.1.3 The Consultant shall schedule a meeting with the State and with the Using Agency to present an overview of the schematic design documents immediately after the documents are submitted. The Architect and the major sub-consultants (including the mechanical, electrical, civil, and structural sub-consultants, and any other major sub-consultants as applicable) shall each provide a summary presentation pertaining to their portion of the submittal. The meeting location shall be as determined by the State. Approval of the schematic design submittal shall be a condition of final payment for that phase of design.
- 2.1.4 For each building with a gross floor area greater than 20,000 square feet, a detailed analysis of the cost of operation and maintenance of the building shall be completed to identify and evaluate measures for the conservation of energy. The analysis shall include operation and maintenance cost comparisons of at least three different HVAC system types. The three different system types to be evaluated shall be reviewed and approved by the State prior to beginning the analysis.
- 2.1.5 A separate analysis and narrative shall be provided on all projects, regardless of size, considering specific HVAC system components (components such as plate and frame heat exchangers, variable frequency drives, CO<sub>2</sub> control of minimum outside air, etc.) and considering specific building envelope components as they relate to energy conservation. The different HVAC system components and building envelope components to be evaluated shall be reviewed and approved by the State prior to beginning the analysis.
- 2.1.6 A narrative or summary document shall be provided outlining the proposed building envelope construction materials and the associated insulating values (for walls, glass, roof, etc.) after reviewing and coordinating those values with the architect and with the architectural plans and specifications.
- 2.1.7 The analysis and narrative documentation described in Sections 2.1.4 thru 2.1.6 is required to be submitted no later than the midpoint between the Schematic Design Phase submittal and the Design Development Phase submittal.
- 2.1.8 Lighting fixture types (direct, direct-indirect, indirect, etc.) and lighting levels for all building areas shall be reviewed and discussed with the State prior to commencing with the lighting systems design.

## 2.2 Required Documents

- 2.2.1 Architectural design services during the Schematic Design Phase shall respond to program requirements and shall consist of:
- A. Site plan including parking areas, with horizontal control dimensions.
  - B. Building floor plans, with dimensions.
  - C. Building sections and elevations, with floor-to-floor heights identified.
  - D. Roof plan, with major mechanical equipment identified.
  - E. Selection of building systems and materials.
  - F. Preliminary exiting plan and code analysis (Basis of Design).
  - G. Floor plans indicating all area and/or occupancy separations and rated walls.
  - H. The interior design components shall be developed based on an assessment of functional relationships, and on consideration of alternative systems and equipment, as necessary to establish required partition, furniture, and equipment locations.
  - I. The architectural narrative shall include:
    - 1. Identification of potential architectural materials, systems and equipment, and their criteria and quality standards.
    - 2. Investigation of availability and suitability of alternative architectural materials, systems and equipment.
  - J. Perspective sketches, if required.
  - K. Study models, if required.
- 2.2.2 Civil design services during the Schematic Design Phase shall consist of consideration of alternative materials and systems and development of conceptual design solutions, and narrative descriptions covering the following:
- A. On-site utilities.
  - B. Off-site utilities.
  - C. Fire protection systems.
  - D. Drainage systems.
  - E. Paving.
- 2.2.3 Structural design services during the Schematic Design Phase shall consist of recommendations regarding basic structural materials and systems, preliminary analyses, establishment of design criteria and loads, development of conceptual design solutions, and narrative descriptions covering the following:
- A. The recommended structural system.
  - B. Alternate structural systems.
  - C. Project specific design criteria and loads.

- 2.2.4 Mechanical design services during the Schematic Design Phase shall consist of evaluation of alternative systems and equipment and development of conceptual design drawings and narrative descriptions covering the following:
- A. HVAC systems and equipment.
  - B. Approximate space requirements for HVAC systems and equipment (with major equipment such as chillers, boilers, cooling towers, and air handling units depicted on floor and/or roof plans).
  - C. Energy conservation concepts.
  - D. Energy/fuel sources.
  - E. Plumbing fixtures and equipment.
  - F. Fire sprinkler system configuration (including fire pump location, if applicable).
  - G. Life cycle cost analysis and associated narratives (see Sections 2.1.4 thru 2.1.7).
- 2.2.5 Electrical design services during the Schematic Design Phase shall consist of evaluation of alternative systems and equipment and development of conceptual design drawings and narrative descriptions covering the following:
- A. Electrical power service and distribution.
  - B. Intended lighting fixture types (direct, indirect, direct-indirect, etc.) and intended lighting levels for all building areas.
  - C. Telephones.
  - D. Fire detection and alarm systems.
  - E. Emergency and stand-by power systems.
  - F. Security systems.
  - G. Electronic communications.
  - H. Special electrical systems.
  - I. Approximate space requirements for electrical equipment and systems (including emergency generator location, if applicable).
- 2.2.6 Landscape design services during the Schematic Design Phase shall consist of a preliminary list of plants, systems and equipment, and development of conceptual design solutions for land forms, lawns, and plantings based on program requirements, physical site characteristics, design objectives, environmental determinants, and water conservation.
- 2.2.7 Construction cost estimate services during the Schematic Design Phase shall consist of development of a probable construction cost for the project based on the schematic design documents, utilizing current and historic square foot costs, or other unit costs, including an appropriate design contingency.

## **SECTION 3 DESIGN DEVELOPMENT PHASE**

### **3.1 General Requirements**

- 3.1.1 Design development phase documents shall include drawings and preliminary specifications developed from the schematic design documents. The design development phase documents shall provide greater detail as required to confirm or adjust all aspects of the schematic design documents and shall include a revised cost estimate reflecting the more detailed development.
- 3.1.2 Based on the approved schematic design documents and any adjustments authorized by the State in the project program, schedule, or construction budget, the Consultant shall prepare, for approval by the State, design development documents consisting of drawings and other documents as necessary to fix and describe the size and scope of the project as pertains to architectural, structural, mechanical and electrical systems, materials, and other such elements as may be appropriate.
- 3.1.3 The Consultant shall schedule a meeting with the State and with the Using Agency to present an overview of the design development documents immediately after the documents are submitted. The Architect and the major sub-consultants (including the mechanical, electrical, civil, and structural sub-consultants, and any other major sub-consultants as applicable) shall each provide a summary presentation pertaining to their portion of the submittal. The meeting location shall be as determined by the State. Approval of the design development submittal shall be a condition of final payment for that phase of design.
- 3.1.4 The Consultant and their sub-consultants shall meet with all applicable state and local agencies, utilities, and other regulatory agencies, and shall provide the State with a list of all contacts made and a written summary of the results of those meetings.

### **3.2 Required Documents**

- 3.2.1 Architectural design services during the Design Development Phase shall consist of continued development and expansion of architectural schematic design documents to establish the final scope, relationships, form, size, and appearance of the project including:
  - A. Site plan.
  - B. Building floor plans and roof plan.
  - C. Building sections and elevations.
  - D. Typical construction details.
  - E. Final materials selections.
  - F. Equipment layouts.
  - G. Identification and resolution of all code issues.
  - H. Exiting plan and code analysis (Basis of Design).
  - I. Floor plans indicating area/occupancy separations and rated walls.
  - J. Identification of all proposed bid alternates on the drawings.
  - K. Preliminary bound specifications (project specific) with table of contents.
  - L. Product data sheets for all major products and equipment.
  - M. Current/updated supporting documentation for all green building design goals.
- 3.2.2 Interior design services shall consist of continued development of interior schematic design documents, including preliminary details and specifications as necessary to establish the project requirements relative to:
  - A. Materials, finishes, and colors.
  - B. Furniture, furnishings, and equipment selections (if applicable).

- 3.2.3 The Design Development Phase specifications submittal shall be in the form of a bound and indexed project manual. The required specifications shall be a preliminary version of all sections that are to be included in the finalized construction documents and shall include a complete index identifying all specification sections in their intended order. Specification section numbering format shall be reviewed with the State and the format shall be agreed upon prior to beginning work on the specifications.
- 3.2.4 The Design Development Phase construction cost estimate shall be a detailed line item estimate thoroughly broken down to include estimated quantities for all major items of work. The cost estimate shall be organized into sections corresponding to the CSI or MasterSpec format. Proposed bid alternates shall be identified in the estimate and approved by the State prior to inclusion in the construction documents.
- 3.2.5 Civil design services during the Design Development Phase shall consist of continued development of civil schematic design documents and development of preliminary drawings, specifications, and details to establish the final scope for on-site and off-site civil engineering work with regard to the following:
- A. Site access.
  - B. Site fire protection (hydrant locations, fire flows, and fire truck access).
  - C. Utility connections and layout.
  - D. Site drainage.
  - E. Paving, curbs and gutters, and sidewalks.
  - F. Preliminary specifications with table of contents.
- 3.2.6 Structural design services during the Design Development Phase shall consist of continued development of preliminary drawings, specifications, and details to establish the final scope of the selected structural system. Minimum information to be provided in the design development phase documents shall include:
- A. Drawings showing basic structural system and dimensions.
  - B. Final structural design criteria and loads.
  - C. Foundation plans and preliminary footing sizes.
  - D. Preliminary sizing of major structural components (beams, columns, bracing, shear walls, etc.).
  - E. Critical clearances (for coordination with other disciplines).
  - F. Floor and roof framing plans.
  - G. Major building sections/elevations and preliminary details.
  - H. Typical details and structural sheet notes (including requirements for materials testing and special inspections).
  - I. Preliminary specifications with table of contents.
- 3.2.7 Mechanical design services during the Design Development Phase shall consist of continued development of preliminary drawings, specifications, and details to establish the final scope of the mechanical systems. Minimum information to be provided in the design development phase documents shall include:
- A. Approximate HVAC equipment sizes and capacities, in schedule format.
  - B. HVAC equipment locations depicted on floor and/or roof plans (correlated to equipment schedules).
  - C. Main HVAC ductwork and piping systems layouts with sizes (on vav systems include medium pressure ductwork upstream of vav boxes).
  - D. Required chases for ductwork and piping.
  - E. Identification of energy conservation methods.

- F. Temperature control system schematic diagrams and written control sequences.
- G. Coordinated list of all mechanical equipment requiring emergency power.
- H. Building floor plans with each thermal zone outlined (including location of associated room temperature sensor).
- I. Plumbing fixture and plumbing equipment locations depicted on floor plans (correlated to schedules).
- J. Main plumbing piping systems including sizes and invert elevations depicted on floor plans (invert elevation coordinated with the civil engineer).
- K. Locations of fire sprinkler system components (fire riser, inspector's test station, backflow preventer, and anti-freeze loops if applicable).
- L. Catalogue cuts for all HVAC equipment and for all plumbing fixtures/equipment.
- M. Preliminary specifications with table of contents.
- N. Preliminary HVAC load calculations (both input and output).
- O. Preliminary drawings, matrices, diagrams, and narratives describing the smoke control systems in the building (when applicable). Such documentation shall comply with all requirements of the International Building Code and the local fire authority.

3.2.8 Electrical design services during the Design Development Phase shall consist of continued development of preliminary drawings, specifications, and details to establish the final scope of the electrical systems. Minimum information to be provided in the design development phase documents shall include:

- A. Lighting, power, and communications system plans.
- B. Sizes, capacities, and locations of major system components (transformers, panels, emergency generators, etc.).
- C. Location of data, telephone, and electrical rooms identified on floor plans.
- D. Lighting fixture types (direct, direct-indirect, indirect, etc.) in schedule format, correlated to the drawings, and lighting levels for all building areas. The intended wall and ceiling surface colors and reflectance shall be included as part of the lighting systems design review and discussion.
- E. Catalogue cuts on all light fixtures and major electrical equipment.
- F. Required chases and clearances for conduit, cabling, and cable trays.
- G. One-line diagrams illustrating power distribution.
- H. Life safety system components (fire alarm panel, fire alarm devices, emergency lights, exit lights, etc.).
- I. Preliminary specifications with table of contents.
- J. Preliminary lighting calculations for all spaces in the building.
- K. Preliminary emergency egress lighting calculations for all applicable spaces in the building.
- L. Preliminary service load calculation per National Electrical Code.
- M. Detailed drawing/diagram depicting the physical electrical system grounding plan.

3.2.9 Landscape design services during the Design Development Phase shall consist of continued development of landscape schematic design documents, and development of preliminary drawings (including preliminary landscaping and irrigation plans), specifications, details, and materials lists to establish the final scope of the landscape work.

## **SECTION 4 50% CONSTRUCTION DOCUMENTS**

### **4.1 General Requirements**

- 4.1.1 On projects with a construction budget of \$10,000,000 or greater the Consultant shall provide an interim submittal at the midpoint between the Design Development submittal and the Construction Documents submittal. This submittal shall be identified as a '50% Construction Documents' submittal. The submittal shall include plans, specifications, and a detailed cost estimate that reflect the project design documentation requirements at the midpoint between the Design Development and 100% Construction Documents submittals.
- 4.1.2 The Consultant shall schedule a meeting with the State and with the Using Agency to present an overview of the 50% Construction Documents immediately after the documents are submitted. The Architect and the major sub-consultants (including the mechanical, electrical, civil, and structural sub-consultants, and any other major sub-consultants as applicable) shall each provide a summary presentation pertaining to their portion of the submittal. The meeting location shall be as determined by the State. Approval of the 50% Construction Documents submittal shall be a condition of final payment for that phase of design.
- 4.1.3 A copy of all documents and correspondence submitted to the local utility providers shall be presented and reviewed during the course of the 50% Construction Documents presentation meeting (drawings and correspondence as required to facilitate acquisition of any required approvals and design drawings from the various utility providers).
- 4.1.4 Civil design documentation for the 50% Construction Documents submittal shall include the following (in addition to all other documentation required to demonstrate progress to the level of 50% Construction Documents):
  - A. The Consultant shall complete and submit all required utility application forms (and obtain State representative's signature as required).
  - B. The Consultant shall coordinate and attend a meeting with each utility department to ensure proper hand-off of the plans and specifications along with the necessary application forms. The State shall be advised in advance as to the date and time for each coordination meeting.
  - C. The Consultant shall track the progress of utility company reviews and shall promptly incorporate all utility company requirements, ensuring that all utility company issues are coordinated and addressed in the 100% Construction Documents submittal.
- 4.1.5 The Consultant shall provide current/updated supporting documentation for all green building design goals.

- 4.1.6 Mechanical design documentation for the 50% Construction Documents submittal shall include the following (in addition to all other documentation required to demonstrate progress to the level of 50% Construction Documents):
- A. Written responses or confirmation regarding the completion status of each item listed in the most current version of the State Public Works Division '50% Construction Documents Example Review Comments'. Any items listed in the example review comments that have not been incorporated and/or completed as part of the submittal shall be specifically identified as requiring further information or action.
  - B. International Energy Conservation Code compliance calculations.
  - C. Enlarged plumbing plans or isometric diagrams for restrooms, laboratories, central plants, and other areas with congested plumbing. Provide separate enlarged plans or isometric diagrams for domestic water piping and for waste & vent piping.
  - D. Ductwork and diffusers downstream of vav boxes.
  - E. Finalized drawings, matrices, diagrams, and narratives describing the smoke control systems in the building (when applicable) as required by International Building Code Section 909, as required by the local fire authorities, and as required to confirm the required scope of special inspections (QAA testing). The smoke control system documentation shall be carefully coordinated with the Fire Protection Engineer's written design recommendations (Rational Analysis).
  - F. Single line drawing/sketch of each medium pressure duct system, from the air handling unit to each vav box, with the cfm and velocity listed for each section of medium pressure duct.
  - G. Identification of specific measures that have been incorporated into the design documents to mitigate noise and vibration generated at major mechanical equipment such as large air handling units, fans, pumps, chillers, fire pumps, etc.
- 4.1.7 Electrical design documentation for the 50% Construction Documents submittal shall include the following (in addition to all other documentation required to demonstrate progress to the level of 50% Construction Documents):
- A. Detailed drawing/diagram depicting the physical electrical system grounding plan.



## **SECTION 5 CONSTRUCTION DOCUMENTS**

### **5.1 General Requirements**

- 5.1.1 From approved design development documents, prepare and satisfactorily complete within the time allowed, construction documents and a detailed construction cost estimate.
- 5.1.2 The Construction Documents submittal shall be stamped and signed by each of the responsible disciplines with the words '100% Construction Documents' placed directly below the stamp/signature block.
- 5.1.3 The submitted plans and specifications shall be issued in a condition such that the documents are complete, fully coordinated between disciplines, and ready to be issued for bidding with the understanding that any additional plan checking (via peer review or owner/agency review) may be conducted at the discretion of the State. The Consultant shall not submit documents with the intent of completing their own in-house quality control review or interdisciplinary coordination during the plan checking period. All such review and coordination is to be completed prior to issuing the documents for plan checking.
- 5.1.4 The Consultant shall submit a finalized report detailing each of the green building design features that have been incorporated into the project plans and specifications. Such documentation shall include the life cycle cost information described in Section 1.12 'Green Building Design Standards' and shall be suitably formatted/detailed to allow for third party review of whether the targeted green building design goals have been achieved.
- 5.1.5 The Consultant shall schedule a meeting with the State and with the Using Agency to present an overview of the 100% Construction Documents immediately after the documents are submitted (while the plan checking process is in progress). The Architect and the major sub-consultants (including the mechanical, electrical, civil, and structural sub-consultants, and any other major sub-consultants as applicable) shall each provide a summary presentation pertaining to their portion of the submittal. The meeting location shall be as determined by the State. Approval of the 100% Construction Documents submittal shall be a condition of final payment for that phase of design. Documents to be presented and reviewed at this meeting shall include utility company drawings, the bid proposal form, any proposed bid alternates, and any supplemental general conditions.
- 5.1.6 All utility company comments and coordination issues shall be resolved and addressed prior to issuing the Construction Documents. Utility company drawings shall be incorporated into the Construction Documents submittal.
- 5.1.7 Civil drawings shall be formatted and printed on the same size drawing sheets as the rest of the Construction Documents utilizing the architect's title block (to match all other disciplines in the drawing set). In cases where the utility provider requires a specific smaller sheet size those drawings shall be issued to the utility provider in the size required.
- 5.1.8 Prior to assembling and printing the bid documents the Consultant shall ascertain all utility company connection and/or permit fees including fees to be charged by the utility company for work to be performed by the utility company. Information regarding utility company fees shall be transmitted to the State as soon as it is obtained.
- 5.1.9 Proposed bid alternates shall be concisely described and delineated in the Construction Documents with specific attention being given to how the project will be affected when and if bid alternates are not accepted. The Consultant shall ensure that the project can be successfully completed when bid alternates are not accepted. The scope of work related to testing, balancing, and commissioning of mechanical systems shall be clearly defined.
- 5.1.10 Written approval of the Construction Documents submittal shall be obtained from the State before proceeding with printing of the bid documents.

## 5.2 Required Reviews and Approvals

- 5.2.1 The Consultant shall obtain and address review comments from the State agencies listed below (as applicable):
- A. State Public Works Division (including issuance of building permit)
  - B. State Fire Marshal
  - C. State Health Division
  - D. State Department of Transportation
  - E. State Environmental Protection Division
  - F. State Lands
  - G. State Historic Preservation Office
  - H. Nevada Services to the Blind (for vending facilities)
  - I. Other agencies as may be applicable
- 5.2.2 The Consultant shall obtain and address review comments as applicable from county and/or local government agencies, including, but not limited to, those listed below. Review comments that either conflict with State requirements or which substantially affect the project cost shall be brought to the attention of the State for resolution.
- A. Community Development and/or Zoning and Planning Department
  - B. Fire Department
  - C. Local Utility and Public Works Departments

## 5.3 Plan Checking

- 5.3.1 The Consultant shall provide complete sets of construction documents and bound calculations for review by designated plan checkers (including, but not limited to the following):
- A. Code Compliance
  - B. Structural Engineering
  - C. Mechanical Engineering
  - D. Electrical Engineering
- 5.3.2 The Consultant and their sub-consultants shall provide written responses to all plan check comments, along with revised plans and specifications as necessary to accommodate back-checking of each review comment, within 14 calendar days of the date that the review comment letter is issued. Some projects may involve several iterations of back and forth comments and responses before the plan checking process is successfully completed. Written responses to follow-up comment letters shall be provided within 7 calendar days of the date that the follow-up comment letter is issued.
- 5.3.3 The Consultant shall incorporate appropriate solutions for all plan check comments into the Bid Documents and shall revise the construction cost estimate accordingly.
- 5.3.4 Structural, mechanical, and electrical calculations shall be separately bound and indexed. Computer calculations shall include both input and output and shall be clearly correlated to the construction documents. Minimum calculations required for each project (as applicable to the selected systems) shall be as follows:
- A. Structural Calculations
    - 1. Complete vertical and lateral load calculations for all aspects of the structure.
    - 2. Calculations shall be neatly prepared and organized so that an independent peer reviewer can readily check the validity of the calculations.
    - 3. Computer programs utilized shall be clearly identified. Both input and results shall be fully documented.

B. Heating, Ventilating, and Air Conditioning Calculations

1. International Energy Conservation Code compliance calculations.
2. HVAC load calculations (both input and output with tabs and index).
3. Air handler/fan e.s.p. calculations (for all fans).
4. Duct static regain calculations (if applicable).
5. Pump head calculations.
6. Expansion tank sizing calculations.
7. Combustion air sizing calculations.
8. General summary of central plant equipment selection criteria:
  - a. Boilers & Chillers (two selected, each at 50% to 60% of total calculated load).
  - b. Pump selection temperature differentials (for CHW and HW pumps).
9. Building pressurization evaluation (summary of total exhaust air cfm and total outside air cfm for areas served by each air handling unit). Provide a separate summary for each air handling unit.
10. Single line drawing/sketch of each medium pressure duct system, from the air handling unit to each vav box, with the cfm and velocity listed for each section of medium pressure duct.

C. Plumbing Calculations

1. Domestic CW pipe sizing calculations.
2. Domestic HW pipe sizing calculations.
3. Gas pipe sizing calculations.
4. Roof drain pipe sizing calculations.
5. Pipe sizing calculations or other design criteria utilized to size compressed air, vacuum, or other specialty piping.
6. Water heater sizing calculations.
7. Sand/oil and grease interceptor sizing calculations.
8. Specialty equipment sizing calculations or other design criteria utilized to size air compressors, vacuum pumps, water softeners, etc.

D. Electrical Calculations

1. International Energy Conservation Code compliance calculations.
2. Lighting calculations for all spaces in the building.
3. Emergency egress lighting calculations for all applicable spaces in the building.
4. Feeder voltage drop calculations.
5. Short circuit calculations.
6. Service load calculation per National Electrical Code.
7. Coordination study (either prepared by the electrical engineer or included in the specifications as a submittal requirement to be completed by the electrical contractor). A coordination study is required on all new buildings and on all electrical system modifications involving circuits over 400 amps.

## **SECTION 6 BID DOCUMENTS**

### **6.1 General Requirements**

- 6.1.1 From approved Construction Documents, the Consultant shall prepare and satisfactorily complete the Bid Documents within the time allowed, incorporating appropriate corrective actions as necessary to address all review comments issued as a result of the plan checking process.
- 6.1.2 The Bid Documents submittal shall be stamped and signed by each of the responsible disciplines with the words 'Bid Documents' placed either directly below the stamp/signature block or elsewhere in the title block on each sheet of the drawings.
- 6.1.3 The Bid Documents prepared by the Consultant shall include the drawings, specifications, and addenda. The State will provide one copy of the following documents for duplication and incorporation into the project manual by the Consultant:
  - A. Invitation to Bid
  - B. Instructions to Bidders
  - C. Wage Scales
  - D. Bid Proposal Form
  - E. Owner-Contractor Agreement
  - F. General Conditions of the Contract
  - G. Supplemental General Conditions
  - H. Other documents as may be applicable
- 6.1.4 The intent of the Bid Documents and the Consultant's construction cost estimate shall be to provide a project that can be completed within the established construction budget, not including the State's construction contingency. The contingency is intended for use during the construction phase of the project only.
- 6.1.5 The Consultant shall assemble, print, and bind the required number of sets of Bid Documents, unless these services have been specifically excluded from the Consultant's scope of work.
- 6.1.6 The Consultant shall provide assistance in soliciting and obtaining bids from properly licensed contractors.
- 6.1.7 The Consultant shall distribute the bid sets, shall maintain a log of all plan holders, and shall handle collection and return of plan deposit checks as directed by the State.
- 6.1.8 The Consultant shall issue required addenda to all plan holders. No addenda shall be issued less than 72 hours before the bid time established in the Invitation to Bid unless authorized by the State.
- 6.1.9 The Consultant shall issue a complete checklist of all required submittals to the Contractor. The checklist shall be utilized to ensure that all required submittals are received and reviewed by the Consultant.
- 6.1.10 The Consultant shall attend the pre-bid conference (when applicable).
- 6.1.11 The Consultant shall review all bids received and provide the State with a recommendation for the award of the construction contract.

6.2 Bids in Excess of the Construction Budget

6.2.1 If the low bid received exceeds the established construction budget but is negotiable under the provisions of Nevada Revised Statutes Section 341.145, the Consultant shall revise all Bid Documents as necessary to reflect the negotiations with the low bidder and shall provide conformed documents as necessary to proceed with award of the contract.

6.2.2 If the low bid received exceeds the established construction budget and is not negotiable under the provisions of Nevada Revised Statutes Section 341.145, the Consultant shall revise all Bid Documents, furnish new sets of documents to the State at no increase in fee, and shall repeat all requirements of this section (Bid Documents).

6.3 Bids Below the Construction Budget

6.3.1 If the lowest responsible bid is less than 85% of the established construction budget, the Consultant's fee may be adjusted proportionately downward, or the Consultant may be required to provide professional services for additional construction work equating to the established total construction budget, as may be deemed appropriate by the State.

## **SECTION 7 CONSTRUCTION ADMINISTRATION PHASE**

### **7.1 General Requirements**

- 7.1.1 The Consultant shall provide construction administration services as described in the General Conditions of the Contract and herein. The Construction Administration Phase shall commence with the issuance of the Notice to Proceed and terminate when the State approves the Contractor's final progress payment application.
- 7.1.2 The Consultant shall attend the pre-construction meeting and shall prepare and submit a list of pertinent issues to be addressed during the meeting.
- 7.1.3 The Consultant shall provide technical assistance to the State throughout the Construction Administration Phase.
- 7.1.4 The Consultant shall conduct the job-site construction progress meetings and shall prepare and distribute typed meeting minutes for each construction progress meeting. The minutes shall be prepared in a manner that is intended to be objective and unbiased in all regards.

### **7.2 Site Visits**

- 7.2.1 The Consultant and, as appropriate, their sub-consultants shall attend all regularly scheduled job-site construction progress meetings. The typical frequency of meetings shall be weekly (unless a lesser frequency is agreed to on smaller projects).
- 7.2.2 The Consultant and their sub-consultants shall make periodic visits to the site to familiarize themselves with the progress and quality of the work and to determine if the work is proceeding in accordance with the Contract Documents. The Consultant, and as appropriate, their sub-consultants shall visit the site at least once per month and shall prepare and distribute a written report describing their observations during each site visit.
- 7.2.3 The mechanical and electrical sub-consultants shall schedule site visits no less than once per month on projects with a total construction contract amount of \$10,000,000 or greater.
- 7.2.4 Site visits by the Consultant and all sub-consultants shall be coordinated with the State.
- 7.2.5 Site visits by the Consultant and all sub-consultants will be required for the entire construction administration time period as defined in the Payment and Performance Schedule. The Consultant and all sub-consultants shall include costs for reasonably anticipated construction contract time extensions in the negotiated fee.

### **7.3 Interpretations**

- 7.3.1 The Consultant will be the interpreter of the drawings and specifications. All interpretations and decisions rendered by the Consultant shall be consistent with the intent of the Contract Documents.
- 7.3.2 Written interpretations shall be provided by the Consultant within a maximum of 10 days from the date that the interpretation is requested.

### **7.4 Requests for Information**

- 7.4.1 Responses to Requests for Information (RFI's) issued by the Contractor shall be provided by the Consultant within a maximum of 10 days from the date that they are received by the Consultant.

7.5 Change Orders and Construction Change Directives

7.5.1 The Consultant shall prepare Change Orders and Construction Change Directives (in the format required by the State) for review and approval by the State.

7.5.2 The Consultant shall prepare drawings, specifications, and other supporting documentation as required to facilitate changes in the work.

7.5.3 The Consultant shall review and evaluate proposals from the Contractor regarding changes in the work, and shall make recommendations to the State regarding the validity of any proposed changes to the Contract Sum or the Contract Time.

7.5.4 The Consultant shall issue no order to the Contractor or to any subcontractor that might commit the State to extra expenses, or otherwise amend the Owner-Contractor Agreement, without first obtaining the approval of the State.

7.6 Minor Changes in the Work

7.6.1 The Consultant shall have authority to order minor changes in the work that do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Such minor changes shall be consistent with the intent of the Contract Documents and shall be implemented only through written order.

7.7 Submittals and Shop Drawings

7.7.1 The Consultant shall review submittals and shop drawings for conformance with the Contract Documents. Submittals and shop drawings shall be reviewed and distributed within a maximum of 14 days from the date that they are received by the Consultant.

7.8 Contractor's Progress Payment Applications

7.8.1 Based on site observations, the Consultant shall review and evaluate the amounts claimed by the Contractor in each Progress Payment Application.

7.8.2 Progress Payment Applications shall be reviewed and assessed by the Consultant each month at the project site with the Contractor and the State's designated representatives.

7.9 Contractor Claims

7.9.1 The Consultant shall review and evaluate claims relating to the execution and progress of the work. Consultant evaluations or opinions regarding performance by the Contractor shall be subject to confirmation and approval by the State.

7.10 As-Built Drawings

7.10.1 The Consultant and their sub-consultants shall periodically monitor and evaluate the progress and quality of the Contractor's as-built drawings, which shall document the complete project as constructed, including dimensioned locations and sizes of buried utility lines. As a minimum, the Consultant and their sub-consultants shall review the as-built drawings each month, during the on-site assessment of the Contractor's Progress Payment Application.

7.11 Project Completion and Guarantees

7.11.1 At such time that the Contractor states that the project is substantially complete and/or fully complete the Consultant and their sub-consultants shall conduct a comprehensive review of the project and shall prepare a punch-list identifying all noted deficiencies. The Consultant and their sub-consultants shall verify that all punch-list items have been satisfactorily completed prior to recommending approval of final payment to the Contractor.

7.11.2 The Consultant shall conduct site visits as required to determine the date of Substantial Completion and the date of final completion and shall receive and forward to the State as-built drawings, operation and maintenance manuals, guarantees, warranties, and other close-out documents required by the Contract Documents and the General Conditions of the Contract.

7.12 Operation and Maintenance Manuals

7.12.1 The Consultant shall review all operation and maintenance manuals for compliance with the Contract Documents and shall forward them to the State.

7.13 Record Drawings and Specifications

7.13.1 The Consultant shall prepare a complete set of record drawings and specifications showing all changes in the work made during construction based on the Contractor's as-built drawings and based on all addendum items, clarifications, RFI's, and change orders. All revisions to the original Contract Documents shall be completed by a qualified draftsman in a manner that is consistent with the quality of the original Contract Documents. The responsibility for preparation of record drawings may not be assigned to the Contractor.

7.13.2 The record drawings and specifications shall be provided by the Consultant no more than 30 days after the as-built drawings are delivered to the Consultant by the Contractor.

7.13.3 The Consultant shall submit to the State a record set of the following documents on digital versatile disc (dvd) media:

All drawing files in AutoCAD 'dwg' format.

All drawing files in 'pdf' file format.

All specification files in Microsoft Word 'doc' format.

All specification files in 'pdf' file format.

All mechanical, electrical, and structural calculations in 'pdf' file format.

All geotechnical reports (and soils reports when applicable) in 'pdf' file format.

The drawing and specification files shall be identified with file names that are consistent with the numbering scheme utilized in the bid documents (for ease of identification and reference by the State).

Each computer disk shall include any associated plot styles, text styles, and externally referenced drawings, such that the associated AutoCAD drawing files can be opened, viewed, and printed with all of the required/finalized content.

All of the record drawings shall be of the same standard size. Record drawings shall be prominently noted in the lower right hand corner as "Record Drawing" and shall be signed and dated by the Architect or Engineer of record.

7.13.4 In any case where the record drawings have been prepared utilizing a software program other than AutoCAD the drawing files shall be converted to AutoCAD 'dwg' files prior to submitting them to the State.

7.14 Errors and Omissions

7.14.1 The Consultant shall be liable to the State for errors and omissions in the Contract Documents, and may be held financially responsible for additional construction costs resulting from errors and omissions in the Contract Documents.

7.14.2 The Consultant shall prepare drawings and specifications as may be necessary to correct project deficiencies resulting from the Consultant's errors and/or omissions. Such drawings, specifications, and related construction administration services shall be provided at no additional cost to the State.



## **SECTION 8 WARRANTY PERIOD SERVICES**

### 8.1 Warranty Period Services

- 8.1.1 Prior to the end of the one year warranty period (approximately 11 months after the date of the Certificate of Substantial Completion, on a date scheduled by the Owner) the Consultant and their sub-consultants (including mechanical and electrical sub-consultants as a minimum, and including other sub-consultants as deemed appropriate by the State) shall attend a warranty review session at the project site, and shall prepare a list of any warranty issues observed during the review session.
- 8.1.2 The Consultant shall provide written opinions or interpretations regarding warranty issues for the duration of the warranty period.

## **SECTION 9 OWNER RESPONSIBILITIES**

### 9.1 Construction Budget

9.1.1 The State will establish a construction budget as part of this agreement and may periodically revise or update the construction budget as necessary to reflect escalation due to inflation and/or to reflect changes within the overall budget for the project.

### 9.2 Project Manager

9.2.1 The State will designate a Project Manager authorized to act on the State's behalf with respect to the project. The Project Manager will render decisions in a timely manner pertaining to documents submitted by the Consultant in order to avoid unreasonable delay in the orderly and sequential progress of the Consultant's services.

### 9.3 Advertisement for Bids

9.3.1 The State will prepare and advertise the Invitation to Bid.

### 9.4 Construction Inspection

9.4.1 The State will assign a building inspector for each project. The State's building inspector will periodically observe the Contractor's work primarily as it pertains to conformance with the applicable codes.

## **SECTION 10 PERFORMANCE AND PAYMENT**

### **10.1 General**

- 10.1.1 Contract time is one of the elements used in determining the compensation established in the Professional Services Agreement. The various phases of services shall be performed within the time periods established in the Performance and Payment Schedule. The Consultant hereby agrees to bind themselves, their employees, and their sub-consultants to the completion dates specified in the Performance and Payment Schedule.
- 10.1.2 Upon approval by the State for a phase of the work, a lump sum progress payment will be made in accordance with the Performance and Payment Schedule. The Consultant may request a more frequent payment schedule and the State may agree to such a request if deemed appropriate, but in no case may the payment schedule be less than monthly. Payments during the Construction Administration Phase may not exceed the progress of the work as determined by the percentage approved in the Contractor's Progress Payment Application.
- 10.1.3 A final progress payment of 10% of the amount due under the Construction Administration Phase shall not be due or payable until the Project has been completed and the record drawings and other close-out documents have been received and accepted by the State.
- 10.1.4 The Consultant shall pay each sub-consultant, within 15 calendar days after receipt of payment from the State, an amount equal to the percentage of payment allowed to the Consultant for completed portions of the work.
- 10.1.5 It is understood and agreed that the Consultant will not be entitled to additional fees for inflation costs affecting the estimated or actual construction cost after the Consultant's fee is negotiated and the Professional Services Agreement is executed.

### **10.2 Performance and Payment Schedule**

- 10.2.1 The Schematic Design Phase shall commence on the date that the Professional Services Agreement is fully executed, unless another date is agreed to between the Consultant and the State.
- 10.2.2 The time indicated in this section for the Construction Administration Phase is agreed and understood to be a reasonable estimate of the time required for construction and may be adjusted for approved time extensions issued by change order and for project close-out procedures. The Consultant shall not be entitled to additional fees for such time extensions or for other reasonably anticipated extensions to the time allocated for the Construction Administration Phase.
- 10.2.3 Should the construction time indicated in this section be adjusted to a longer or shorter duration during the design process the Consultant will not be entitled to additional fees (or to reduced fees) for such adjustments.
- 10.2.4 Payment for services will be allocated in accordance with the following schedule:

<u>Phase of Work</u>	<u>Date of Completion</u>	<u>Payment</u>
Schematic Design Phase	See Project Schedule	15% of total
Design Development Phase	See Project Schedule	20% of total
100% Construction Documents	See Project Schedule	40% of total
Bidding Phase	See Project Schedule	2% of total
Construction Administration	See Project Schedule	23% of total

Dates listed above shall be assessed and inserted as developed and agreed upon as part of the Consultant's overall project scheduling effort (see Section 1.8.2).

10.3 Submittal Sets Required

10.3.1 As part of the Consultant's services and fee the following number of complete sets of documents shall be submitted for each phase of work:

<u>Submittal Sets Required</u>	<u>Full Size</u>	<u>Half Size</u>
Schematic Design Phase	xx sets	xx sets
Design Development Phase	xx sets	xx sets
50% Construction Documents	xx sets	xx sets
100% Construction Documents and Plan Checking	xx sets	xx sets
Bid Documents	xx sets	xx sets
Conformed Sets (for Owner use during Construction)	xx sets	xx sets

In addition to the physical or hard copy sets of documents listed above the Consultant shall also provide a pdf file of the bid documents (and a pdf file of the conformed documents when deemed appropriate by the State Public Works Division). The pdf file version of the bid documents and/or the conformed documents shall be formatted and assembled as necessary for posting on the Quest Construction Data Network website.

10.3.2 In addition to the submittal sets listed above, the Consultant shall provide and distribute complete sets of documents (plans and specifications) to each of their sub-consultants at each phase of the design process (to facilitate the review and coordination process).

10.3.3 The Consultant shall provide three sets of wet-stamped and signed Bid Documents for State Public Works Division use in obtaining and issuing the required building permit.

10.4 Project Budget and Building Size

10.4.1 The bid documents shall represent a complete and usable project within the following budget limitations:

Established Construction Budget: xx

Furnishings Budget (FF&E): xx

The established construction budget shall include all structures, site work, landscaping, and built-in equipment and furnishings. The established construction budget does not include the construction contingency amount reserved by the State.

The furnishings budget shall include only movable furnishings, fixtures, and equipment.

10.4.2 For new construction and for additions, the total gross square footage of the building(s) shall not exceed the amounts stipulated below, without written approval of the State.

The total gross square footage shall be calculated based on the entire building footprint, including the exterior walls.

Building Name: xx

Gross Floor Area: xx square feet