

Minnesota Sports Facilities Authority in Collaboration with the Minnesota Vikings
Minneapolis, MN

New Multipurpose Stadium

REQUEST FOR PROPOSALS – ARCHITECTURAL AND ENGINEERING SERVICES

ADDENDUM NO. ONE

August 21, 2012

This Addendum forms a part of the contract Documents and modifies the proposal Documents dated August 10, 2012. Acknowledge receipt of this Addendum in the proposal response. Failure to do so may subject Proposer to disqualification.

This Addendum consists of 23 pages.

Changes to the Proposal

1. Pre proposal date change.
 - Was August 27, 2012 at 11am; Now is August 27, 2012 at noon.
2. Exhibit D Architecture/Engineering Scope of Services (attached)

END OF ADDENDUM ONE

EXHIBIT D TO THE RFP FOR A/E SERVICES

FUTURE EXHIBIT 1 TO THE DESIGN SERVICES AGREEMENT

DESCRIPTION OF DESIGNATED SERVICES for ARCHITECTURAL DESIGN / ENGINEERING SERVICES

DESIGNATED SERVICES

The Architect shall be responsible to complete, manage and coordinate the completion of all actions, information, documents and/or services related to the design of the Project as outlined in this **Exhibit 1** (the "Scope of Services").

The Architect acknowledges and agrees that the purpose and intent of the Design Services Agreement and the Scope of Services is to establish a comprehensive and complete description of the work to be completed by the Architect.

The Scope of Services for the Architectural Design / Engineering for the Stadium and Stadium Infrastructure are described below:

DESCRIPTIONS OF DESIGNATED SERVICES

PROJECT ADMINISTRATION AND MANAGEMENT SERVICES

- .01 Project Administration** services consisting of administrative functions including:
- .01 Consultation
 - .02 Research
 - .03 Conferences
 - .04 Communications
 - .05 Travel time
 - .06 Progress reports
 - .07 Meeting correspondence (e.g. minutes, reports, agendas, etc.)
 - .08 Direction of the work of in-house architectural personnel
 - .09 Direction of the work of architectural and engineering personnel for the Project employed by the Architect and/or Subconsultants for the Project. The Architect will be responsible for the performance of any and all Subconsultants employed by the Architect (or the Authority or the Team) for the Project
 - .10 Coordination of the Scope of Work with the Authority, Team, Design Team and other third parties as identified by the SDC Group.
 - .11 Management and maintenance of a Project Website, including an electronic drawing file system and file transfer protocol (FTP) website for the purpose of sharing design information among the Authority, the Team, the SDC Group and any parties under contract to the Authority, the Team and also the Design Team, construction contractor and all Subcontractors ("the Project Team").
- .02 Disciplines Coordination / Document Checking** consisting of:
- .01 Coordination between the architectural work and the work of engineering and other disciplines involved in the Project.
 - .02 Review and checking of documents among and between the Design Team and other consultants comprising the Project Team for clarity, consistency and completeness.
 - .03 The Architect shall provide a complete and coordinated set of Contract Documents among and between the Project Team at the completion of each phase of the design process (e.g. conceptual, schematic, design development, construction documents, as-builts, etc.), and at interim intervals if required by the Authority and Team. The Architect shall be responsible for any and all corrections or modifications required to provide a complete set of Contract Documents for each phase of the design process as deemed necessary by the SDC Group.

- .04 The Architect will be responsible to provide the Authority and all other Project Team with complete Drawings and Specifications in a timely manner when requested to support the design process and construction of the Project at the end of each phase of work.
- .05 The Architect is responsible to review all Drawings, Specifications and other deliverables to avoid conflicts among and between building systems. The Architect is responsible to conduct continuous review and coordination of the Drawing, Specifications and other deliverables among all members of the Design Team. The Authority and Team place the highest degree of importance on the Design Team being able to provide complete and coordinated Drawings and Specifications during each phase of the design process.
- .06 The Architect is responsible to review all Drawings, Specifications and other deliverables to confirm in accordance with the Standard of Care and Section .08.07 below that such deliverables are complete and consistent as required to construct the Project. Deliverables may be produced by any member of the Project Team.
- .07 The Architect and the Architect's Subconsultants will be responsible to provide additional design and engineering details when required by members of the Project Team.

- .03 **Building Information Modeling.** The Project will be designed using Building Information Modeling ("BIM") and the Architect shall use BIM applications and software to develop all Project designs. Digital modeling information shall be provided to the Project Team for all appropriate disciplines. This may include, but is not limited to, architectural, site, civil, structural, mechanical, electrical, safety and security, controls, fire suppression and alarms, building automation and other systems. This includes relevant model element information to be used for future integration into the Authority's facilities management system. This may include, but is not limited to, hyperlinks to O&M manuals, preventative maintenance schedules, and analysis data.

The Architect shall develop all of the necessary and appropriate facility data (the "Facility Data") consisting of a set of intelligent elements (e.g., architectural and structural elements, mechanical, plumbing and electrical elements, etc.) for the BIM model (the "Model"). This Facility Data shall include all material definitions and attributes that are necessary for the Project design and construction. The Architect shall use the Model to derive accurate Construction Documents. All submitted BIM Models and associated Facility Data shall be fully compatible with Autodesk Revit 9.0 or higher. The Architect shall be responsible for updating the Model during the Design Development Phase, Construction Document Phase, and Construction Phase (including change orders, RFI and submissions). A read-only, coordinated model shall be delivered to the Construction Manager for pre-construction coordination services and as required during construction. Collaboration with the Construction Manager is of utmost importance and attendance (co-location or web teleconference) at periodic coordination meetings will be required.

- .01 The level of detail, Model content, information exchange format, and the party responsible for modeling and information input will be decided upon during the Schematic Design Phase.
- .02 The Architect shall develop a project specific BIM Execution Plan ("BIM Plan") documenting the collaborative process in which BIM will be implemented throughout the lifecycle of the Project. The BIM Plan shall utilize the requirements identified herein and developed during the Conceptual Design Phase. It shall be submitted for approval by the SDC Group prior to the Design Development Phase.
- .03 The following uses of BIM are required: design authoring, design reviews, 3D design coordination, energy analysis, building envelope analysis, and architectural renderings.
- .04 The Architect shall perform design and construction reviews at each submittal stage to test the Model to ensure the design intent has been followed and that there are no unintended elements in the Model.
- .05 The Architect shall locate conflicting spatial data in the Model where two elements are occupying the same space. Log hard interferences (e.g., mechanical vs. structural or mechanical vs. mechanical overlaps in the same location) and soft interferences, (e.g., conflicts regarding equipment clearance, service access, fireproofing, insulation) in a written report and resolve.
- .06 The Architect shall implement a process in which BIM software uses the model and energy attributes to determine the most effective engineering methods based on design specifications. These analysis tools and performance simulations can significantly improve the energy consumption during lifecycle operations.
- .07 The Architect shall provide submittals in compliance with BIM Plan to be developed during the Schematic Design Phase.
- .08 At each phase required by the BIM Plan, the Architect will provide the SDC Group with the following:

- .01 The Model (Revit) and Facility Data (various).
- .02 A 3-D interactive review format of the Model in Autodesk Navisworks, Adobe 3D PDF 7.0 (or later), or other format per BIM Plan requirements. The file format for reviews can change between submittals.
- .03 A list of all submitted files. The list should include a description, directory, and file name for each file submitted. For all CAD sheets, include the sheet title and sheet number. Identify files that have been produced from the submitted Model and Facility Data.
- .09 All costs associated with BIM, including model updates during construction, shall be included in the Design Services Fee. An as-built BIM model shall be submitted by the Architect to the Authority upon Final Completion of the Work for the agreed upon building systems listed in this Agreement. The BIM digital information is to be considered the Architect's work product and as such the ownership and rights thereto are governed by the terms of the Design Services Agreement.
- .04 Agency Consulting / Review / Approval services, including:**
 - .01 Authorities Having Jurisdiction consultations
 - .02 Research of critical applicable regulations
 - .03 Preparation of written and graphic explanatory materials
 - .04 Appearances on Authority's behalf at meetings including:
 - .01 City Agencies
 - .02 Planning boards
 - .03 County agencies
 - .04 Regional agencies
 - .05 State agencies
 - .06 Federal agencies
 - .07 Staff user organizations of the Authority and Team
 - .08 Community and neighborhood organizations
 - .09 Consumer interest organizations
 - .10 Environmental interest groups.
 - .11 Special needs user groups.
- .05 Coordination of Data Supplied by the Authority and/or Team, including:**
 - .01 Review and coordination of data furnished for the Project as a responsibility of the Authority and Team.
 - .02 Assistance in establishing user criteria
 - .03 Assistance in obtaining data, including, where applicable, documentation of existing conditions.
- .06 Schedule Development / Monitoring services, including:**
 - .01 The SDC Group will establish and maintain a Master Project Schedule for the Project. The Architect will be responsible to establish a Design Schedule for Architectural Design / Engineering Services, decision-making, and design documentation. The Architect shall be responsible to coordinate the Design Schedule with the corresponding Schedules of other members of the Project Team, subject to approval by the SDC Group. The Architect is the party that will be responsible for the timely delivery of the deliverables among all members of the Design Team, including Drawings, Specifications and other deliverables, in accordance with the Master Project Schedule.
 - .02 Review and update of previously established schedules during subsequent phases.
 - .03 The Architect shall be responsible to prepare weekly updates to the Design Schedule for review by the SDC Group. Any changes to the Design Schedule shall require the approval of the SDC Group.
 - .04 The Architect shall be responsible to prepare and update weekly a list of decisions and information that is required by the Architect for the Project. This list shall provide the SDC Group with not less than fifteen (45) days to respond to requirements of the Architect. The SDC Group will provide the Architect with notice when such decisions or information cannot be provided within fifteen (15) days and the Architect will then propose any adjustments necessary to the Design Schedule.
 - .05 The Architect will be responsible to coordinate the Design Schedule with the Master Project Schedule. The SDC Group shall resolve any conflicts between the Design Schedule and the Construction Schedule in accordance with the overall requirements of the Master Project Schedule. Decisions by the SDC Group involving coordination between the Design Schedule and Construction Schedule shall be final and binding on the Project Team.
 - .06 The Architect will be responsible to coordinate and manage bi-weekly production / discipline coordination meetings among and between the Architect's staff and the Architect's Subconsultants. During the Construction Documents Phase of the Project these meetings will occur on a weekly

basis. These meetings are to be attended by each of the lead designers of the various design disciplines (structural, mechanical, electrical, etc.). The Architect will chair these meetings and should anticipate the SDC Group will attend. The Architect will organize these meetings to keep the Design Team working in accordance with the requirements of the Design Services Agreement and the Master Project Schedule, especially, but not limited to: .01 Project Administration, .02 Disciplines Coordination, .05 Schedule Development / Monitoring and .08 Subconsultant Selection and Administration.

- .07 Presentation services** consisting of presentations and recommendations by the Architect to the following:
- .01 Authority
 - .02 Team
 - .03 Building committee(s) as required
 - .04 Staff committee(s) as required
 - .05 User group(s) as required (i.e. specific staff user groups)
 - .06 Consultant(s).
 - .07 Financing entity (entities)
 - .08 Public and governmental bodies involved with the Project.
- .08 Meeting Documentation services** shall consist of the Architect preparing, maintaining and distributing meeting agendas and meeting minutes for all design meetings and other meetings. The Architect shall develop all meeting agendas and minutes for review and approval of the SDC Group prior to distribution to any members of the Project Team. The Architect shall be responsible to prepare and maintain a listing of all decisions and information required by the Authority and/or Team. The listing shall be maintained by the Architect and provided to the SDC Group on a weekly basis.
- .09 Subconsultant Selection and Administration services** including:
- .01 Establish procedures and documentation for the qualification and selection of Subconsultants for all phases of the Scope of Services.
 - .02 Provide a detailed summary and analysis of all Subconsultant proposals for review and approval by the SDC Group.
 - .03 Negotiate and contract for Subconsultant services in accordance with the terms and conditions of the Design Services Agreement.
 - .04 Provide the SDC Group with copies of all agreements by and between the Architect and the Subconsultants.
 - .05 Administer all contracts and agreements with the Subconsultants. Administer contracts and agreements with the Architect's Subconsultants except those Consultants who are contracted directly with the Authority or Team. The Architect will provide the SDC Group with a copy of the proposed contract for all subconsultant services which shall require the approval of the SDC Group. The proposed form of contract shall require any Subconsultant employed by the Architect to assume the same responsibilities for the applicable portion of the Design Services as the Architect has towards the Authority or the Team.
 - .06 The Architect will be directly responsible for the performance of all Architect's Subconsultants.
 - .07 The Authority and Team expect to directly contract with certain consultants, including, without limitation, the survey and geotechnical consultants (collectively "Authority's Consultants", "Team's Consultants" or "Consultants"). Although the Consultants shall be retained separately by the Authority or Team to advise the SDC Group and other members of the Project Team or to produce the design documents within the scope of their work, the Architect will perform all the same duties and tasks as if the Consultants were under contract to the Architect, including the direction and coordination of the work of such Consultants to the extent ordinarily required to obtain and coordinate the Design Documents required within the scope of each Consultant. The parties agree that this paragraph shall govern all other provisions of this Design Services Agreement, and that it shall be unnecessary to distinguish between the responsibilities of the Architect and the Consultants in each individual reference in this Design Services Agreement.
- .10 Sustainability Requirements**
- .01 The Authority and Team have determined that the Project requires a LEED or Green Globes certification.
 - .02 The Architect shall provide a Leadership in Environmental and Energy Design ("LEED") Accredited Professional to actively participate in the Project through all stages identified in the Agreement.

- .03 The Architect shall design, document, and assist the Construction Manager to administer construction of the Project in accordance with the current version of the LEED or Green Globes rating system for the purpose of achieving the certification goal established for the Project by the Authority and the Team.
- .04 Unless otherwise stipulated in this agreement, the Architect shall, with the assistance of the Construction Manager register the Project with the Green Building Certification Institute ("GBCI") or Green Building Initiative ("GBI"), specify, collect, and review the required submittals, certifications, reports, and other documentation and submit the collected submittals, certifications, reports, and other documentation to the GBCI or GBI for the purpose of achieving the certification goal established by the Authority and Team.
- .05 The Architect shall perform parametric modeling and analysis of cost and benefits of sets of design features affecting Energy and Atmosphere credits. The Architect shall present this analysis to the SDC Group and allow the SDC Group to approve the set of design parameters that support these target credits.
- .06 The Architect shall, with the assistance of the Construction Manager, summarize and maintain the targeted credits in a LEED or Green Globes checklist.
- .07 The Architect shall cooperate with the commissioning agent for the Project.
- .08 LEED or Green Globes registration and certification fees for the Project shall be directly paid by the Authority, unless included in this Agreement as a Reimbursable Expense allowance set forth in the Design Services Agreement or Construction Services Agreement.
- .09 The costs for the Architect's participation in the LEED or Green Globe certification process shall be included in its Design Services Fee and additional compensation shall not be permitted.

CONCEPTUAL DESIGN PHASE SERVICES

During the Conceptual Design Phase, the Architect shall provide, or begin to provide, the Services described in the following Sections .11 through .22. To the extent that any such Services are not completed during the Concept Design Phase, such Services shall continue into subsequent Phases.

- .11 **Programming** services consisting of consultation to establish and document the following detailed requirements for the Project:
 - .01 Design objectives, limitation and criteria
 - .02 Development of initial gross facility areas and space requirements
 - .03 Space relations
 - .04 Number of functional responsibilities personnel
 - .05 Flexibility and expandability
 - .06 Special equipment and systems
 - .07 Site requirements
 - .08 Development of a preliminary budget for the Work based on programming and scheduling studies
 - .09 Operating procedures
 - .10 Identification of facility requirements
 - .11 Security criteria
 - .12 Communications relationships
 - .13 FF&E requirement as required
 - .14 Description of interior finishes
 - .15 Project schedule.
 - .16 Program definition to establish the broadest function and use of the Stadium to maximize revenue as a multi-purpose venue
- .12 **Program comparison** shall involve a comparative analysis of the design solutions for the Project to current standards of the National Football League (NFL), Major League Soccer (MLS) and other stadiums developed in the NFL and MLS over the past five (5) years. The comparison analysis shall include, without limitation:
 - .01 Sight line and section analysis
 - .02 Seating bowl configuration
 - .03 Gross area and net usable program requirements
 - .04 Team facility requirements
 - .05 Premium seating capacity and amenities
 - .06 Toilets and other public facilities
 - .07 ADA seating configuration
 - .08 Concessions and other points of sale (e.g. novelty, etc.)
 - .09 Parking requirements

- .10 Specialty systems (e.g. scoreboards, etc.)
 - .11 Comparative sections to other NFL enclosed stadia, including analysis of seating bowl sections of the six other most recently completed NFL stadiums and any others as required by the Authority.
 - .12 Evaluation of symmetrical vs. asymmetrical seating bowl configurations
 - .13 Analysis of multi-purpose program requirements for enclosed stadia to evaluate and consider specific requirements to maximize use and program development of the Stadium.
 - .14 Evaluation of the program and technical requirements associated with a fixed roof vs a retractable feature. A retractable feature is an alternative design option to a fixed-roof stadium that would provide for an operable roof and/or other open air options for the Stadium. The Architect, together with the Construction Manager, and any Consultants deemed necessary or appropriate by the SDC Group to assist in making the analysis described under this section shall develop analyses of the Stadium and Stadium Infrastructure assuming (i) construction of the proposed Retractable Feature as part of the Minimum Design Standards and (ii) that the Minimum Design Standards do not include the proposed Retractable Feature. The models should attempt to illustrate as clearly as reasonably possible the effects of inclusion of the Retractable Feature on the Project Budget, Master Project Schedule, projected capital repairs and improvements, and projected operating costs for the Stadium.
 - .15 Compare amenities and services against existing facilities within Minneapolis/St. Paul including Target Field, Target Center, Xcel Energy Center and TCF Stadium. Comparison will at a minimum include POS ratios, plumbing fixture ratios, concourse square footage ratios and sight lines.
- .13 Space Schematics / Flow Diagrams** consisting of diagrammatic studies and pertinent descriptive text for:
- .01 Conversion of programmed requirements to net area requirements
 - .02 Internal functions
 - .03 Human, vehicular and material flow patterns
 - .04 General space allocations
 - .05 Analysis of operating functions
 - .06 Adjacency relationships
 - .07 Special facilities and equipment
 - .08 Flexibility and expandability
- .14 Sports Facilities Program Development** consisting of researching, evaluating, reviewing and planning for specific program requirements of a multi-purpose sports and entertainment facility, including, without limitation:
- .01 Development of seating bowl geometry and sightline analysis
 - .02 Requirements and criteria for premium seating and suites
 - .03 Typical design approach for seating, including ADA details and seat count by sections (between aisles by level)
 - .04 Operational requirements including multi-purpose functions for the Stadium. These shall include, but not be limited to amateur football, amateur baseball, amateur and professional soccer and amateur and professional lacrosse.
 - .05 Analysis of ADA criteria and requirements
 - .06 Analysis of field systems and requirements
 - .07 Analysis and research of special systems (i.e. scoreboards, sports lighting, food service, audio-visual, etc.)
 - .08 Team facility program and requirements
- .15 Site Analysis and Selection** consisting of:
- .01 On-site observations
 - .02 Evaluation of movement systems, traffic and parking studies
 - .03 Topography analysis
 - .04 Analysis of deed, zoning and other legal restrictions
 - .05 Overall site analysis and evaluation
- .16 Site Development Planning** consisting of preliminary and final site analysis, and preparation and comparative evaluation of site development designs, based on:
- .01 Land utilization and evaluation
 - .02 Master planning to provide design services relative to future facilities, systems and equipment which are not intended to be constructed as part of the Project but as future phases of development (
 - .03 Structures placement
 - .04 Facilities development

- .05 Development phasing
 - .06 Movement systems, circulation and parking
 - .07 Utilities systems
 - .08 Surface and subsurface conditions
 - .09 Ecological requirements
 - .10 Deeds, zoning and other legal restrictions
 - .11 Landscape concepts and forms.
- .17 **Detailed Site Utilization Studies** consisting of detailed site analyses, based on the approved conceptual site development design, including:
- .01 Land utilization
 - .02 Structures placement
 - .03 Facilities development
 - .04 Development phasing
 - .05 Movement systems, circulation and parking
 - .06 Vehicular access to the field and loading dock
 - .07 Utilities systems
 - .08 Surface and subsurface conditions
 - .09 Review of soils report(s)
 - .10 Vegetation
 - .11 Slope analysis
 - .12 Ecological studies
 - .13 Deeds, zoning and other legal restrictions
 - .14 Landscape forms and materials.
- .18 **On-Site Utility Studies** consisting of establishing requirements and preparing initial designs for on-site:
- .01 Electrical service and distribution
 - .02 Gas service and distribution
 - .03 Water supply and distribution
 - .04 Site drainage
 - .05 Sanitary sewer collection and disposal
 - .06 Process waste water treatment
 - .07 Storm water collection and disposal
 - .08 Central-plant mechanical systems
 - .09 Fire systems
 - .10 Emergency systems
 - .11 Security
 - .12 Pollution control
 - .13 Site illumination
 - .14 Communications systems.
- .19 **Off-Site Utility Studies** consisting of:
- .01 Confirmation of location, size and adequacy of utilities serving the Property
 - .02 Determination of requirements for connections to utilities
 - .03 Planning for off-site utility extensions and facilities
 - .04 Design of off-site utility extensions and facilities.
- .20 **Environmental Studies and Reports** consisting of:
- .01 Determination of need or requirements for environmental monitoring, assessment and/or impact statements and assist with the coordination and documentation of associated design documents as required by the Authority
 - .02 Ecological studies
 - .03 Attendance at public meetings and hearings
 - .04 Presentations to governing authorities as required.
- .21 **Zoning Processing Assistance** consisting of:
- .01 Prepare and file applications for zoning, permits and other regulatory approvals
 - .02 Preparation of presentation materials
 - .03 Attendance at public meetings and hearings.
- .22 **Geotechnical Engineering** services, including, but not limited to:

- .01 Coordination of test borings, test pits, determinations of soil bearing values and locations, percolation tests, evaluation of hazardous materials, ground corrosion and resistivity tests, including necessary operations for anticipating subsoil conditions, if any, and provided by the Authority.
 - .02 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 restriction, boundaries and contours of the site; locations, dimensions and necessary data pertaining to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All information shall be referenced to a project benchmark.
- .23 Conceptual Design**
- .01 Development of Conceptual Design Documents illustrating the site plan, configuration, scale and relationship of the Stadium and Stadium Infrastructure, including the following:
 - .01 Site analysis and conceptual site plan for the Project
 - .02 A configuration for the Project, including, but not limited to, requirements for seating, concourses, suites, club seats, other premium spaces, offices, retail space, practice facilities, meeting spaces and restaurants, concessions, food court areas, parking and facility operations;
 - .03 The key requirements of Applicable Laws and the NFL Rules with respect to the design and construction of the Project and the key requirements of Governmental Authorities and community groups having a special interest in the Project;
 - .04 A proposed approval process for obtaining the Governmental Approvals for the Project;
 - .05 Conceptual floor plans and massing studies for the Project; and
 - .06 A massing model for the Project.

ARCHITECTURAL AND ENGINEERING SERVICES SUBSEQUENT PHASES

- .24 Architectural Design / Documentation:**
- .01 During the Schematic Design Phase, advancing the conceptual design by preparing:
 - .01 Review of initial program, budget and evaluation of the Minimum Design Standards
 - .02 Written detailed Program for the SDC Group
 - .03 Schematic site and building plans
 - .04 Preliminary sections and elevations
 - .05 Preliminary selection of building systems and materials
 - .06 Dimensioned floor plans, elevations and sections
 - .07 Development of approximate dimensions, areas and volumes
 - .08 Perspective sketch(es)
 - .09 Parameters for concert design, multiple sports and other multi-purpose functions or events to be accommodated in the Stadium
 - .10 Preliminary infrastructure and parking layout.
 - .11 Locating sufficient quantities of elevators and vertical transportation
 - .12 Identification of key conditions or details that are unique to the proposed Stadium
 - .13 An area by area square footage tabulation for the entire Stadium
 - .14 Research and prepare detailed studies for variances that may be required for building codes with governmental authorities having jurisdiction over the Project.
 - .15 Provide a detailed comparative analysis of the specific systems used in comparable stadia. Complete an analysis of comparative stadia and provide a detailed summary of these systems. Provide life-cycle cost benefit analysis to determine the most suitable systems for the Project.
 - .16 Coordination with any other required parties to complete the design.
 - .02 During the Design Development Phase consisting of continued development and expansion of the approved architectural Schematic Design Documents and development of Specifications to establish the final scope, relationships, forms, size and appearance of the Project through:
 - .01 Dimensioned plans, sections and elevations
 - .02 Typical construction details
 - .03 Three-dimensional sketch(es)
 - .04 Study model(s) as required
 - .05 Final materials selection
 - .06 Equipment layouts.

- .07 Coordination with any other required parties to complete the design.
- .03 During the Construction Documents Phase consisting of preparation of Drawings and Specifications based on approved Design Development Documents setting forth in detail the architectural construction requirements for the Project.
- .04 The Architect is responsible for the coordination of all Drawings and Specifications (and all other related documentation) with all other members of the Project Team as required to provide a complete and coordinated set of Construction Documents required for the complete construction of the Project.
- .25 **Structural Design / Documentation:**
 - .01 During the Schematic Design Phase consisting of providing basic structural materials and systems, analyses, and development of conceptual design solutions for:
 - .01 A predetermined structural system
 - .02 A comparative analysis of structural framing alternatives, including, concrete, steel, precast and composite systems.
 - .03 Establish preliminary weights, sizes, and reinforcing for development of budgets
 - .04 Prepare structural analysis and conceptual design documents to determine most economical structural systems(s) (i.e. composite vs. steel vs. precast concrete, etc)
 - .05 Prepare structural roof framing analysis and conceptual design documents to determine most economical structural framing systems(s).
 - .06 Provide a detailed structural analysis to determine cost benefits associated with fixed roof vs. Retractable Feature concepts
 - .07 Prepared conceptual designs of modifications required to existing structural systems. (i.e. revised foundations or modifications steel framing)
 - .08 Prepare analysis for structural accommodation of typical rigging, network aerial camera attachment and scoreboard supports.
 - .09 Coordination with the other Architect's Subconsultants and with the Consultants.
 - .02 During the Design Development Phase consisting of continued development of the specific structural systems(s) and Schematic Design Documents and development of Specifications in sufficient detail to establish
 - .01 Final structural design criteria and layout
 - .02 Foundation design criteria and layout
 - .03 Preliminary sizing of major structural components
 - .04 Critical coordination clearances
 - .05 Specifications or materials lists
 - .06 Establish weights, sizes and reinforcing requirements for structural elements
 - .07 Prepare framing sections
 - .08 Scoreboard and other rigging requirements
 - .09 Preliminary layout and sizing of catwalk system(s).
 - .10 Prepare specification for any special coatings.
 - .11 Establish allowances for weights of connections.
 - .12 Prepare specifications for shop coatings of structural steel.
 - .13 Prepare documentation as may be required to support the procurement of long-lead structural materials
 - .14 Coordination with any other required parties to complete the design.
 - .03 During the Construction Documents Phase consisting of preparation of final structural engineering calculations, Drawings and Specifications based on approved Design Development Documents, setting forth in detail the structural construction requirements for the Project.
 - .01 Architect or Architect's Structural Engineering Consultant shall prepare connection configuration details for all structural steel systems. Connection details will be developed during the Construction Documents Phase in sufficient detail to establish specific design criteria, load calculations and erection sequence requirements to delegate completion of connections by steel fabricator's connection engineer.
 - .02 Architect or Architect's Structural engineering Consultant shall prepare connection concepts for all exterior wall panel precast systems to tie back to the structure. Connection details will be developed during the Construction Document Phase in

- sufficient detail to establish specific design criteria, load calculations and erection requirements.
 - .03 Prepare all structural load calculations as required to establish a complete structural design for the Project.
 - .04 Coordination of all Drawings and Specifications with any other members of the Project Team as required to provide a complete and coordinated set of Construction Documents required for the complete construction of the Project.
- .26 **Mechanical Design / Documentation:**
 - .01 During the Schematic Design Phase consisting of consideration of alternate materials, systems and equipment, and development of conceptual design solutions for:
 - .01 Energy source(s)
 - .02 Energy conservation
 - .03 Heating and ventilating
 - .04 Air conditioning
 - .05 Plumbing
 - .06 Fire protection and smoke control
 - .07 Snowmelt systems
 - .08 Food service
 - .09 General space requirements
 - .10 Building management systems and controls
 - .11 Coordination with any other required parties to complete the design.
 - .12 Approximate equipment sizes and capacities
 - .13 General equipment layouts for major systems
 - .14 Provide a detailed comparative analysis of the specific systems and sizes of equipment used in comparable stadia. Complete an analysis of load requirements for comparative stadia and provide a detailed summary of the utility usage and efficiency associated with these systems. Provide life-cycle cost benefit analysis to determine the most suitable systems for the Project.
 - .02 During the Design Development Phase consisting of continued development and expansion of the approved mechanical Schematic Design Documents and development of Specifications or materials lists to establish:
 - .01 Approximate equipment sizes and capacities
 - .02 Preliminary equipment layouts
 - .03 Required space for equipment
 - .04 Required chases and clearances
 - .05 Acoustical and vibration control
 - .06 Requirements for special systems
 - .07 Visual impacts
 - .08 Energy conservation measures
 - .09 Prepare documentation as may be required to support the procurement of long-lead mechanical equipment and materials
 - .10 Coordination with any other required parties to complete the design.
 - .03 During the Construction Documents Phase consisting of preparation of final mechanical engineering calculations, Drawings and Specifications based on approved Design Development Documents, setting forth in detail the mechanical construction requirements for the Project.
 - .04 Coordination of all Drawings and Specifications with any other members of the Project Team as required to provide a complete and coordinated set of Construction Documents required for the complete construction of the Project
- .27 **Electrical Design / Documentation**
 - .01 During the Schematic Design Phase consisting of consideration of alternate systems, recommendations regarding basic electrical materials, systems and equipment, analyses, and development of conceptual solutions for:
 - .01 Power service and distribution
 - .02 Lighting
 - .03 Telephones

- .04 Fire detection and alarms
 - .05 Security systems
 - .06 Electronic communications
 - .07 Special electrical systems (i.e. A/V, CATV, IPTV, scoreboard, broadcast cabling, sports lighting, satellite uplink, lightening protection, information technology systems, security stems, Hi density wifi, neutral host Distributed Antenna System, etc.)
 - .08 General space requirements.
 - .09 Coordination with any other required parties to complete the design.
 - .10 Criteria for lighting, electrical and communications systems
 - .11 Sizes and capacities of major components
 - .12 Provide a detailed comparative analysis of the specific systems and sizes of equipment used in comparable stadia. Complete an analysis of load requirements for comparative stadia and provide a detailed summary of the utility usage and efficiency associated with these systems. Provide life-cycle cost benefit analysis to determine the most suitable systems for the Project.
- .02 During the Design Development Phase consisting of continued development and expansion of the approved electrical Schematic Design Documents and development of Specifications or materials lists to establish:
- .01 Criteria for lighting, electrical and communications systems
 - .02 Approximate sizes and capacities of major components
 - .03 Preliminary equipment layouts
 - .04 Required space for equipment
 - .05 Required chases and clearances.
 - .06 Prepare documentation as may be required to support the procurement of long-lead electrical equipment and materials
 - .07 Coordination with any other required parties to complete the design.
- .03 During the Construction Documents Phase consisting of preparation of final electrical engineering calculations, Drawings and Specifications based on approved Design Development Documents, setting forth in detail the electrical construction requirements for the Project.
- .04 Coordination of all Drawings and Specifications with any other members of the Project Team as required to provide a complete and coordinated set of Construction Documents required for the complete construction of the Project
- .28 Civil Design / Documentation:**
- .01 During the Schematic Design Phase consisting of consideration of alternate materials and systems and development of conceptual design solutions, as required, for:
- .01 On-site utility systems
 - .02 Fire protection systems
 - .03 Drainage systems
 - .04 Paving.
 - .05 Preliminary grades
 - .06 Coordination with any other required parties to complete the design.
- .02 During the Schematic Design Phase meet with local authorities having jurisdiction and utility providers in developing alternative routing of systems and development of design solutions, as required for:
- .01 Sanitary sewer systems
 - .02 Storm sewer systems
 - .03 Storm water retainage
- .03 During the Design Development Phase consisting of continued development and expansion of the approved civil Schematic Design Documents and development of Specifications or materials lists to establish the final scope of and preliminary details for on-site and off-site engineering work
- .04 During the Construction Documents Phase consisting of preparation of final civil engineering calculations, Drawings and Specifications based on approved Design Development Documents, setting forth in detail the civil construction requirements for the Project.

- .29 Landscape Design / Documentation:**
- .01 During the Schematic Design Phase consisting of consideration of alternate materials, systems and equipment and development of conceptual design solutions for land forms, lawns and plantings based on program requirements as required, physical site characteristics, design objectives and environmental determinants.
 - .02 During the Design Development Phase consisting of continued development and expansion of landscape Schematic Design Documents and development of Specifications or materials lists to establish final scope and preliminary details for landscape work
 - .03 During the Construction Documents Phase consisting of preparation of final landscaping design calculations, Drawings and Specifications based on approved Design Development Documents, setting forth in detail the landscaping construction requirements for the Project.
- .30 Interior Design / Documentation:**
- .01 During the Schematic Design Phase consisting of space allocation and utilization plans based on functional relationships, consideration of alternate materials, systems and equipment and development of conceptual design solutions for architectural, mechanical, electrical and equipment requirements in order to establish:
 - .01 Partition locations
 - .02 Partition type (light gauge framing, masonry, FF&E etc.)
 - .03 Conceptual signage and graphic designs
 - .04 Furniture and equipment layouts as required
 - .05 Types and qualities of finishes and materials for furniture, furnishings and equipment as .01 required.
 - .06 Coordination with any other required parties to complete the design.
 - .02 During the Design Development Phase consisting of development and expansion of interior Schematic Design Documents and development of Specifications or materials lists to establish final scope and preliminary details relative to:
 - .01 Interior construction of the Project
 - .02 Special interior design features
 - .03 Wall section profiles for all types of interior partitions including soffit and other section details
 - .04 Typical room and wall elevations
 - .05 Detailed room and wall elevations for all areas that are not "typical"
 - .06 Furniture, furnishings and equipment selections as required
 - .07 Signage and graphics designs
 - .08 Materials, finishes and colors.
 - .09 Coordination with any other required parties to complete the design.
 - .03 During the Construction Documents Phase consisting of preparation of Drawings, Specifications and other documents based on approved Design Development Documents, setting forth in detail the requirements for the interior construction and for furnishings, fixtures and equipment as required for the Project.
- .31 Life Safety Systems :**
- .01 During the Schematic Design perform research and prepare and present a life safety concept analysis that will document in the applicable discipline above the Project requirements including the items listed below as may be required by governmental authorities having jurisdiction over the Project.
 - .01 Construction type
 - .02 Requirement for automatic sprinklers
 - .03 Requirement for standpipe system
 - .04 Requirement for fire alarm/detection systems
 - .05 Requirements for occupancy separation
 - .06 Exit system criteria
 - .07 Interior finish criteria
 - .08 Emergency lighting requirements
 - .09 Emergency power requirements

- .10 Mechanical and electrical system features specifically related to fire protection such as fire dampers, smoke control, elevator recall and hoistway venting;
- .11 Safety glazing criteria.
- .02 Identify requirements which require clarification or can be approached utilizing an equivalency concept with the goal of achieving equal or superior life safety for the Project while obtaining greater flexibility or cost savings
- .03 Document areas to be sprinklered and provided with smoke control.
- .04 Prepare graphic material which aids in illustrating the proposed fire protection concepts
- .05 Solicit approval of any large issues that will affect design or that cannot be priced as an alternates
- .06 During the Construction Documents Phase consisting of preparation of Drawings, Specifications and other documents based on approved Design Development Documents, setting forth in detail the requirements for all life safety systems and equipment as required for the Project.

- .32 **Tenant-Related Services** consisting of design and documentation services for the occupants of the Project relating to:
 - .01 Space planning, partition and furnishings locations, and furniture and equipment layouts
 - .02 Material and color selections and coordination
 - .03 Adaptation of mechanical, electrical and other building systems to meet tenant needs
 - .04 During the Construction Documents Phase consisting of preparation of Drawings, Specifications and other documents based on approved Design Development Documents, setting forth in detail the requirements for the interior construction and for furnishings, fixtures and equipment as required for the Project including all tenant related areas.

- .33 **Graphic Design** services consisting of:
 - .01 Design and selection of interior and exterior signs and identifying symbols
 - .01 Exterior Site Signage
 - .02 Interior Building Signage
 - .03 Wayfinding Graphics
 - .04 Exterior Building Signage
 - .02 Sponsorship and activation areas
 - .03 Material and color selections and coordination
 - .04 Preparation of Drawings and Specifications and bidding documents
 - .05 Review of requirements for conformance, clarity and completeness with the Construction Documents

- .34 **Food Service Equipment** services consisting of providing the Drawings and Specifications for the procurement and installation of food service equipment in all concession and food service related areas:
 - .01 Preparation of Drawings and Specifications and bidding documents
 - .02 Identification of and MEP design for portable stand locations
 - .03 Review of requirements for conformance, clarity and completeness with the Construction Documents
 - .04 During the Construction Documents Phase consisting of preparation of Drawings, Specifications and other documents based on approved Design Development Documents, setting forth in detail the requirements for the food service equipment, fixtures and all connection details as required for the Project.

- .35 **Furniture, Furnishings and Equipment Services** consisting of providing the Drawings and Specifications for the procurement and installation of furnishings, fixtures and equipment:
 - .01 Preparation of Drawings and Specifications and bidding documents
 - .02 Review of requirements for conformance, clarity and completeness with the Construction Documents

- .36 **Special Design / Documentation**, including:
 - .01 During the Schematic Design provide design services consisting of development and documentation of space allocation and utilization plans based on functional relationships, consideration of alternate materials, design requirements, systems and equipment for the development of Schematic Design solutions in coordination with architectural, structural, mechanical, electrical, civil and other design documents for the following specialty systems:
 - .01 Food Service
 - .02 Elevators and vertical transportation systems
 - .03 Seating systems

- .04 Security
 - .05 Life safety systems
 - .06 Graphics and signage
 - .07 Audio-visual, sound systems and broadcasting
 - .08 MATV – Master Antenna Television System
 - .09 Scoreboards and scoreboard control room
 - .10 Acoustical Design
 - .11 Sponsorship and activation areas
 - .12 Team Store design including retail furnishings and fixtures
 - .13 Team Hall of Fame design including exhibits and interactive displays
 - .14 Restaurant
 - .15 Furniture, Fixtures and Equipment
 - .02 Preparation and coordination of special conceptual Drawings and Specifications for obtaining bids or prices on alternate subdivisions of the Work.
 - .03 During the Design Development Phase, continued development and expansion of Special Systems Documents and development of Specifications or materials lists to establish final scope and preliminary details relative to:
 - .01 Approximate equipment sizes and capacities
 - .02 Preliminary equipment layouts.
 - .03 Required space for equipment.
 - .04 Required chases and clearances.
 - .05 Acoustical and vibration control.
 - .06 Visual impacts.
 - .07 Energy conservation measures.
 - .08 Coordination with any other required parties to complete the design.
 - .04 During the Construction Documents Phase, preparation of Drawings, Specifications and other documents based on approved Design Development Documents, setting forth in detail the requirements for the special designs as required for the Project.
- .37 Materials Research / Specifications:**
- .01 During the Schematic Design Phase consisting of:
 - .01 Identification of potential architectural materials, systems and equipment and their criteria and quality standards consistent with the conceptual design
 - .02 Investigation of availability and suitability of alternative architectural materials, systems and equipment
 - .03 Determine acoustical requirements and treatments
 - .04 Coordination of similar activities of other disciplines.
 - .05 Review and contribute information determined in the above activities to Notes of Clarification
 - .06 Coordination with any other parties required to complete the design.
 - .02 During the Design Development Phase consisting of activities by in-house architectural personnel in:
 - .01 Presentation of proposed General and Supplementary Conditions associated with the Construction Services Agreement
 - .02 Development of architectural Specifications or itemized lists and brief form identification of significant architectural materials, systems and equipment, including their criteria and quality standards
 - .03 Coordination of similar activities of other disciplines
 - .04 Review and contribute information determined in the above activities to Notes of Clarification
 - .05 Production of design manual including design criteria and Specifications or materials lists.
 - .06 Completion of a fully coordinated set of Drawings and Specifications for the purpose of establishing the basis of the Contract Sum with the Construction Manager
 - .07 Coordination with any other required parties to complete the design.
 - .03 During the Construction Documents Phase consisting of activities of in-house architectural personnel in:
 - .01 Assistance to the Stadium Developer and Construction Manager in development and preparation of bidding and procurement documents and information which describes the

time, place and conditions of bidding, bidding forms, and the form(s) of Agreement between the Construction Manager, Subcontractors and Trade Contractors. A Trade Contractor is a person or entity who has a direct or indirect contract with the Stadium Developer to perform a portion of the work at the Project.

- .02 Development, preparation and reproduction of all documents required for bidding
- .03 Development and preparation of architectural and engineering Specifications describing materials, systems and equipment, workmanship, quality and performance criteria required for the construction of the Project
- .04 Coordination of the development of Specifications by all other disciplines
- .05 Compilation of the Drawings and Specifications as required by the Construction Manager for purposes of establishing the basis of the Contract Sum with the Stadium Developer.
- .06 Compilation of the Project Manual including General and Supplementary Conditions of the Construction Services Agreement, bidding and procurement information, Drawings and Specifications as required for a multiple bid-package construction procurement.
- .07 Compilation and posting on the Project Website all published standards referenced in the Project Manual.
- .08 All schedules of requirements (e.g. finish schedules, door schedules, panel schedules and equipment schedules) are to be provided in a non-modifiable format (i.e. .pdf) for record purposes, and also in a Microsoft excel format for use by the Project Team.
- .09 All "live" design files (i.e. CADD or .dwg) are to be provided to Project Team members upon request, and approval of the Authority.
- .10 Coordination with any other required parties to complete the design.

BIDDING OR NEGOTIATION SERVICES

- .38 **Bidding Materials** consisting of the preparation of a complete set of Drawings and Specifications to be used by the Construction Manager to secure the Contract Sum with the Stadium Developer for the complete construction of the Project, including:
 - .01 Complete Design Development Drawings
 - .02 Complete Design Development Specifications
 - .03 Finish schedule and materials list(s)
 - .04 Equipment list(s) and specifications as required
 - .05 Completeness review and correlation of documents
 - .06 Completion of all Construction Documents including all Drawings and Specifications
 - .07 Distribution of all Drawings and Specifications as required by the Authority or Construction Manager.
- .39 **Addenda** services consisting of preparation and distribution of Addenda as may be required during bidding or negotiation and including supplementary Drawings, Specifications, instructions and notices of changes in the bidding schedule and procedure.
- .40 **Analysis of Alternates / Substitutions** consisting of consideration, analyses, comparisons, and recommendations relative to alternates or substitutions proposed by Bidders or proposers either prior or subsequent to receipt of Bids or proposals.
- .41 **Bid Evaluation** services consisting of:
 - .01 Validation of bids or proposals
 - .02 Participation in reviews of bids or proposals
 - .03 Evaluation of bids or proposals
 - .04 Participation in negotiations prior to or following decisions on award of the Construction Services Agreement, Subcontract Agreements or Trade Contracts.

CONSTRUCTION ADMINISTRATION PHASE

- .42 **Project Representation** shall be provided by the Architect consisting of daily on-site representation at the Project site to evaluate and inspect the Work being performed by the Construction Manager, Construction Manager's employees, Subcontractor's and other Trade Contractor's for conformance with the Contract Documents.

From the date construction operations begin, the Architect shall be represented on the Project site by a Project Representative(s) that has been involved in the development of the Contract Documents and will have the authority to provide interpretation of the Contract Documents, speak for the Architect in meetings and advise the Authority with respect to rejection of installed work found not to conform to the Contract Documents. These individuals will be the primary contact for responding to all Requests for Information (RFI), and participate in Owner / Architect / Construction Manager (OAC) and construction progress meetings. The lead Project Representative, nor various design discipline representatives, may not be removed from the Project site without written permission of the Authority. The lead Project Representative will act as the coordinator of the various project representatives, designers and engineers.

Project representatives from key design disciplines are to be assigned to the Project site on a full-time basis during their disciplines construction activities. The Architect should plan the proper administrative staff as required to support this staff. Staffing levels and disciplines are to be presented in writing and approved monthly by the Authority. The Architect should plan on a minimum site specific staffing of the following disciplines:

- .01 Lead Project Representative as described above.
- .02 Architectural / Life Safety / ADA
- .03 Structural
- .04 Mechanical
- .05 Electrical
- .06 BIM Operator (Draftsmen).

The purpose of the BIM operator (draftsmen) is to provide professionally drawn clarification of the requirements of the Contract Documents as directed by the Authority and other members of the Project Team.

- .43 **Inspections of the Work** by the Architect shall occur on a daily basis such that the Architect is familiar with the progress and quality of the Work and to determine that the Work when completed will be in accordance with the Contract Documents. The Architect shall endeavor through these inspections to protect the Authority against defects and deficiencies in the Work. The Architect will be responsible for preparing reports and communications which document the Work as completed and the Architect's inspection(s) thereof.
- .44 **Submittal Services** consisting of:
 - .01 Processing of submittals, including receipt, review of, and appropriate action on Shop Drawings, Samples and other submittals required by the Contract Documents. The Architect is responsible for the timely review of all submittals on its behalf and all members of the Design Team
 - .02 Distribution of submittals to the Construction Manager and Architect's field representative
 - .03 Maintain master file of submittals
 - .04 Related communications.
 - .05 The Architect and the Architect's Subconsultants shall be responsible for the timely (as provided in the Agreement) response to all Submittals, and must provide sufficient staffing to support the timely response to such Submittals. Any delays in the process of submittals by the Architect or the Architect's Subconsultants will be the responsibility of the Architect.
- .45 **Supplemental Documentation** services consisting of:
 - .01 Preparation, reproduction and distribution of supplemental Drawings, Specifications and interpretations in response to requests for information and clarification from the Construction Manager and the Authority.
- .46 **Quotation Requests / Change Orders** consisting of:
 - .01 Preparation, reproduction and distribution of supplemental Drawings and Specifications to describe Work to be added, deleted, or modified
 - .02 Review of proposals for changes provided by the Construction Manager
 - .03 Coordination of communications, approvals, notifications and record keeping relative to changes in the Work
 - .04 Upon request by the Authority, forwarding of electronic Drawing files to requested parties.
- .47 **Project Closeout** services initiated upon notice from the Authority that the Work, or a designated portion thereof which is acceptable to the Construction Manager, is sufficiently complete, in accordance with the

Construction Documents, to permit occupancy or utilization for the use for which it is intended, and consisting of:

- .01 A detailed inspection with the Construction Manager's representative for conformity of the Work to the Construction Documents to verify the list submitted by the Authority of items to be completed or corrected
 - .02 Determination of the amounts to be withheld until final completion
 - .03 Securing and receipt of consent of surety or sureties, if any, to reduction in or partial release of retainage or the making of final payment(s)
 - .04 Issuance of Certificate(s) of Substantial Completion
 - .05 Inspection(s) upon notice by the Authority that the work is ready for final inspection and acceptance
 - .06 Notification to Construction Manager of deficiencies found in follow-up inspection(s), if any
 - .07 Final inspection with the Construction Manager's representative to verify final completion of the Work
 - .08 Receipt and transmittal of warranties, affidavits, receipts, releases and waivers of liens or bonds indemnifying the Authority against liens
 - .09 Securing and receipt of consent of surety or sureties, if any, to the making of final payment(s)
 - .10 Issuance of final Certificate(s) of Payment.
- .48 Use of a Web-based Project Management System
- .01 If the SDC Group decides, in its sole discretion, to utilize a web-based project management system for the Project, the Architect shall participate to the fullest extent possible in the system.
 - .02 All costs for the Architect's (including their Subconsultants) use of the project management system shall be included in its Design Services Fee, and additional compensation shall not be permitted.
 - .03 If the Architect's staff or its Subconsultants are unfamiliar with the proper use of the project management system, the Architect shall provide its staff and Subconsultants for training without additional compensation under this Agreement.

POST-CONTRACT SERVICES

- .49 **Maintenance and Operational Programming** services consisting of:
- .01 Assistance in the establishment by the Authority and/or 3rd party operator of in-house or contract program(s) of operation and maintenance of the physical plant and equipment
 - .02 Arranging for and coordinating instructions on operations and maintenance of equipment in conjunction with manufacturer's representatives
 - .03 Assistance in the preparation of operations and maintenance manual(s) for the Authority's and/or 3rd party operator's use.
- .50 **Start-Up Assistance** consisting of:
- .01 On-site assistance in the operation of building systems during initial occupancy
 - .02 Assistance in the training of the Authority's and/or 3rd party operator's operation and maintenance personnel in proper operations, schedules and procedures
 - .03 Administration and coordination of remedial work by the Stadium Developer after final completion.
- .51 **Record Drawings** services consisting of:
- .01 Making arrangements for obtaining from the Construction Manager information in the form of marked-up prints, drawings and other data certified by them on changes made during performance of the Work
 - .02 Review of general accuracy of information submitted and certified by the Construction Manager
 - .03 Preparation of record drawings based on certified information furnished by the Construction Manager
 - .04 Transmittal of record drawings and general data, appropriately identified, to the Construction Manager and others as directed.
 - .05 Provide complete project file of all Drawings and Specifications and a complete set of "Record" Documents on BIM file. The Architect will be responsible to provide such "Record" Documents in both a complete printed and electronic format acceptable to the Authority. The purpose of these "Record" Documents is to develop a complete and accurate set of Construction Documents that reflects the Project upon completion of the Work by the Construction Manager and the Trade Contractors.

- .06 Provide complete Project file of all “live” (alterable) electronic files of Drawings and Specifications upon the request of the Authority. These requests may be at any phase of the Project.
- .52 **Warranty Review** consisting of:
- .01 Consultation with and recommendation to the Construction Manager during the duration of warranties in connection with inadequate performance of materials, systems and equipment under warranty
 - .02 Inspection(s) prior to expiration of the warranty period(s) to ascertain adequacy of performance of materials, systems and equipment
 - .03 Documenting defects or deficiencies and assisting the Construction Manager in preparing instructions for correction of noted defects.

.53 **MINIMUM DELIVERABLES**

Following is a general outline detailing the minimum deliverables that are required to be provided by the Architect during each phase of the design of the Project. This is not an exhaustive listing of the Architect’s deliverables but is intended to provide a basic description of the Architect’s responsibilities for documentation during each phase of the design process. The Architect must provide a list of deliverables for each phase of the design process for review and approval by the Authority using the following minimum deliverables as a basis of understanding the requirements set forth by the Authority.

Schematic Design Phase

Conceptual and Programming Documents

(To be developed early in the Schematic Design Phase. Graphic depictions are to be updated if program is altered as design advances in the Schematic Design Phase.)

- Image Boards
- Theme Concepts
- Diagrammatic Plan Layouts and Options
- Exterior Concepts
- Entertainment Concepts
- Massing/Height Concepts
- Space relationship and adjacency
- Sight line sections for all seating
- Circulation diagrams
 - Service
 - Public
 - Media
 - Vehicular
 - Employee/Back of House
- Public Spaces: Concourses, Seating, Suites, Clubs and Toilet Rooms
- Food & Beverage outlets including Concession Stands, Pantries for Premium Areas and Commissary
- Back of house spaces,
- Media Facilities
- Elevator and Escalators Quantity/type
- Life Safety and Code Abstract (Report on code compliance issues after preliminary consultation with Authorities Having Jurisdiction)

Master Plan and Architectural Site Plan (Overall)

- Building footprint with overall dimensions
- Fan arrival/exiting (Premium and General Admission)
- Service areas and loading docks
- Parking valet, taxi, tour bus
- Major MEP systems and locations

Architectural

- Overall floor plans, all floors
- Seat count plans (by section and level) and suite plans
- Finished floor elevations

- Preliminary roof plan
- Exterior elevations, finishes, ext. lighting @ building
- Identification of all sponsor signage locations
- Exterior building sections (typical)
- Narrative of major building components
- Preliminary code evaluation
- Occupancy/exiting calculations
- Preliminary vertical transportation analysis
- Identification of design features incorporated to comply with the Americans with Disability Act and regulations promulgated thereunder.

Structural

- Summary of structural concepts and building components
- Live load design calculation/assumptions
- Recommended structural system w/confirmed column grids, bay sizes, overall dimensions and floor elevations.
- Preliminary foundation design
- Preliminary catwalk, fall arrest and rigging load and design for all configurations

Civil Design

- Schematic Site Plan (dimensioned)
 - Building footprint (sf)
 - Parking lot areas (areas, parking spaces)
 - Environmental issues (flood plains)
- Preliminary Grading Plan(s)
 - Mass grading concepts
 - Cut/fill analysis
 - Erosion control concepts
- Preliminary Drainage Concepts
 - Outfalls
 - Detention/retention

Interiors/Theming

- Conceptual Designs, space plans, FF&E, renderings, theme design
 - General Admission Concourses
 - Club

Mechanical, Plumbing & Fire Protection

- Evaluation of Alternate Systems and Building Components
- Utility Connections, Sizes & Locations
- Initial FP Code Reviews
- MEP & FP Conceptual Designs for Central Plant and seating bowl

Electrical

- Lighting analysis, conceptual lighting plan and description of lighting control system
- Major electrical equipment roughly scheduled indicating size and capacity
- Complete preliminary one-line electrical distribution diagram
- Preliminary power plan

Audio Visual

- Coordination with Preliminary Scoreboard Design
- Distributed Television Infrastructure
- Information Technology (IT) Systems
- Coordination with Sound Distribution Design Concepts
- Identification of television camera, spotlight and scoreboard control room locations

Food Service Consultants

- Preliminary design “concepts” and layouts

Review and comments to Notes of Clarification

Design Development Phase

Program Analysis

- Program vs. Design (SF basis)

Demolition

- Provide a complete civil, grading and site utility package that defines the expected condition of the site upon completion of demolition of the existing facilities.
- Civil
- Grading plans
 - Roadway, plans & profiles
 - Pavement designs
 - Utility plans, water & san, sewer (mains & laterals)
 - Drainage designs, plans & profiles (Initial)
 - Permitting submittals (Preliminary)
- Architectural
- Architectural floor plan, enlarged, partial
 - Building Sections
 - Complete Club Design
 - Complete Toilet Room Designs
 - Complete Concession Stand Designs
 - Complete Premium Area Pantry Designs
 - Complete Commissary Design
 - Seating Plan
 - Exterior elevations and theming
 - Clubs, Loge, overall plans @ 1/16" = 1'0"
 - Interior partitions locations, types and fire ratings
 - Door and hardware schedule
 - Handrail design and details
 - Elevator sections
 - Stair sections
 - Roof plan (1/16" – 1'0") w/MP&E locations
 - Overall reference plan/sections
 - Final Life Safety Report
 - Reviewed, updated and fully coordinated Notes of Clarification
 - BOH Space plans/approvals
- Structural (Concepts)
- Foundation designs complete
 - Foundation schedules, details
 - Column schedules, details
 - Sections, details
 - Floor and framing plans
 - Structural roof plan
 - Structural System Description and General notes
 - Shear wall schedules, details
 - Expansion Joints located, sized and detailed
- Mechanical
- Load calculations for each space and major duct or pipe runs sized and coordinated with structural runs
 - Snow Melt System Design
 - Smoke evacuation analysis
 - Club Design
 - Stair pressurization designs
 - Vertical & Horizontal distribution (all floors)
 - Condenser & chilled water flow diagrams
 - Central plant equipment specifications and layouts
 - Equipment selections
 - Reviewed, updated and fully coordinated Notes of Clarification
- Plumbing
- Site plan utility connection, sizes & elevations
 - Fire pump, preliminary calculations
 - Preliminary fixture selections
 - Material selections, specifications
 - Roof drains riser diagram

- Plumbing plans and details, including riser diagrams
 - Reviewed, updated and fully coordinated Notes of Clarification
- Electrical
- Site electrical distribution
 - Site electrical where impacted by site regarding
 - Total electric load
 - Electrical one line design
 - Electrical legends
 - Electrical equipment room layouts
 - Light fixture schedule, locations & weights
 - Interior electrical load estimate for systems, furniture, receptacles, lighting, food service equipment and any other special use areas.
 - Grounding and lightning protection system
 - Reviewed, updated and fully coordinated Notes of Clarification
 - Lighting Control Concepts
- Audio Visual
- Scoreboard Design concepts
 - Description and one line diagram for special systems (telephone, data, distributed TV, broadcast TV, POS, CCTV, security, fire alarm, Hi density wifi, neutral host Distributed Antenna System)
- Food Service Designs (Preliminary)
- Equipment layouts
- Back of House Areas (Preliminary)
- Equipment layouts
- Acoustical
- Final acoustical requirements
- Interiors & Theming
- Typical interior elevations, sections & details
 - Clubs and Loge areas Complete
 - Elevator lobbies, RCP
 - Finish schedules, FOH, RCP
 - Signage
 - Preliminary signage package (interior & site)
 - Reflected ceiling plans, ALL spaces to include public areas, restaurants
 - Millwork
 - Preliminary FF&E
- Outline Specifications
- Review and comments to Notes of Clarification

Construction Documents Phase

Program Analysis, Space by Space Basis

Life Safety Plan (Final), Code Analysis

Architectural:

- Reference Plan, key plans
- Building Envelope
 - Building sections (all) @ extension
 - Roof plan (enlarged)
 - Exterior Elev. (enlarged)
 - Exterior Elev. (partial)
- Floor Plans, Wall Types, Dimensions
- Stair Plans, section
- Elevator Plans, section
- Escalator Plans, sections
- Specifications
- Finish Schedules

Civil

- Final Roadway Plans & Profiles
- Final Grading Plans
- Final Storm Drainage Plans, Calculations

- Final Roadway Sections, Pavement Designs
- Specifications
- Structural
 - Floor Framing Plans (Final)
 - Roof Framing Plans (Final)
 - MP&E Penetrations
 - Sections, Details Typical
 - Footing & Foundations Plans
- Mechanical/Plumbing
 - Final Design Calculations
 - All Layers, Plumbing Layouts
 - Fire Protection Pump Selection
 - Sprinkler Risers, Vertical Distribution
 - HVAC Vertical Distribution
 - HVAC Equipment Layouts, Schedule
 - HVAC Roof Plan (Final)
 - Snow Melt System Layout
 - Snow Melt Equipment Details
 - Specifications
- Kitchens
 - Approved Equipment Layouts
 - Equipment Requirements
 - Equipment Schedule
 - Recessed Slabs (Coolers, Freezers)
 - Specifications
- Interiors & Theming
 - Millwork
 - FF&E
- Signage Design & Interior
 - Exterior Signage Plans, Elevations, Details
 - Interior Theming and Advertising Signage
 - Wayfinding and Room Identification Signage
 - (See Audio Visual for Scoreboards)
- Electrical
 - Lighting Plans, All Areas
 - Power Plans, All Areas
 - Final Design Calculations
 - One Line Diagrams
 - Electrical Equipment Selections, Layouts
 - Electrical Equipment Room Layouts
 - Initial Permitting Submittal
 - Specifications