
ARIZONA STATE UNIVERSITY
STANDARD FORM AGREEMENT BETWEEN OWNER AND
DESIGN-BUILDER
ON THE BASIS OF A GUARANTEED MAXIMUM PRICE

November 1, 2020 Edition

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This **AGREEMENT** is made this _____ day of _____ in the year 20____, by and between **ARIZONA BOARD OF REGENTS** for and on behalf of the Arizona State University (“**OWNER**”), located at 1551 S. Rural Road, Tempe, AZ 85281 and _____ (“**DESIGN-BUILDER**” or “**D-B**”) located at _____, (each a “Party” or collectively the “Parties”) for services in connection with the following Project: (number, name, location, and general description) (the “**PROJECT**”).

In consideration for the mutual covenants and obligations contained herein, Owner and Design-Builder agree as set forth herein.

Article 1 Scope of Work

1.1 In accordance with ABOR Policy 3-804, Owner intends to enter into a contract for design and construction services by a qualified design-builder as described in “Exhibit A - Design-Build General Conditions” and “Exhibit B - Design-Build Scope of Services” (hereinafter the “Scope”).

1.2 The D-B shall perform all needed design, pre-construction, and construction services in the Pre-Construction and Construction Phases of the Project, and provide all material, equipment, tools, and labor necessary to satisfactorily complete all work, deliverables and services described in and reasonably inferable from the Contract Documents (collectively “Scope of Work”, “Project Work” or “the Work”). The Parties agree that this Agreement shall not be effective as a contract for Construction Phase services until such time as the Parties agree on a Guaranteed Maximum Price (GMP) and Construction Phase Fee in the form of a written Amendment to this Agreement specifically incorporating those contract terms.

1.3 During the Design and Pre-Construction Phase, the D-B shall provide design and pre-construction services to determine the project designs, provide complete Construction Document Submittals, provide project GMPs, confirm the existing site conditions, including site surveys and geotechnical studies, and confirm project schedules, in accordance with this Agreement, “Exhibit A - Design-Build General Conditions”, and “Exhibit B - Design-Build Scope of Services”.

1.4 The D-B must keep the Project within the Owner’s Project Budget requirements, and D-B’s estimates of probable Construction Costs shall not exceed this amount. D-B shall prepare complete project construction cost estimates for all the Work required to complete the Project, with each Design Phase Submittal and with each GMP Proposal, using the format set forth in “Exhibit F - Cost of the Work”, which excludes the Design and Pre-Construction Phase Fee, so that the Owner and D-B have an opportunity to assess overall budget capacity prior to authorization of partial or complete GMPs.

The amount within the Owner's Project Budget available for the Work may be revised only by an Owner-approved written modification of the D-B Agreement.

1.5 If the GMP proposed by the D-B is acceptable to the Owner, and if the Owner desires to proceed with the Project, the Parties agree to execute an Amendment to this Agreement, in the form provided on "Exhibit E - Design-Build Agreement Form of GMP Amendment" attached hereto, to establish the GMP and Construction Phase Fee as described in "Exhibit F - Cost of the Work", and to incorporate herein the Construction Documents and other Contract Documents, and D-B's assumptions and clarifications as may be necessary to define the Scope of Work as described in "Exhibit G - List of Construction Documents", "Exhibit H - Statement of All Clarifications and Assumptions", and "Exhibit J - Schedule of Major Milestones" attached hereto. If the GMP is not within the Owner's Project Budget, or if the Owner desires not to proceed with the Project, the Owner reserves the right to terminate this Agreement or act as otherwise provided for in the "Exhibit A - D-B General Conditions".

1.6 Professional Registration Requirements and Standard of Care

D-B agrees that the D-B's Design Professional (including Sub-Consultants) are current registrants with the State of Arizona Board of Technical Registration (and others as required), and are fully qualified by education, technical training, and experience as professionals, to perform Professional Services and Contract Administration.

D-B agrees that in performing the Professional Services it will exercise the Standard of Care described below, and will cause its Design Professional and Sub-Consultants to exercise the same. D-B will also cause all Consultants and Sub-Consultants it employs, or contracts with, to meet this same Standard of Care.

The "Standard of Care" is the performance standard under which D-B shall provide its Professional Services, and is defined as: The skill, care and competence exercised by members of the applicable professional discipline currently practicing under similar circumstances. D-B shall perform the Professional Services as expeditiously as is consistent with the Standard of Care and the orderly and timely progress of the Project and Project Schedule.

Notwithstanding the contractual and indemnity remedies provided to Owner under the D-B Agreement, and notwithstanding any applicable law barring recovery for any economic loss caused by D-B, D-B acknowledges that a violation of the Standard of Care causing injury or damage to Owner is actionable, and D-B agrees that the Owner may pursue as a remedy, in addition to any contractual or indemnity remedy, a tort claim for professional negligence against D-B.

Although the Owner has the right to make claims in tort for professional negligence against D-B for the negligence, recklessness, or intentional wrongful conduct or errors or omissions of D-B, the D-B's Design Professional (including Sub-Consultants), D-B agrees it shall also be responsible for and shall indemnify and hold Arizona State University, the Arizona Board of Regents, and the State of Arizona, harmless from any and all losses, expenses, damages, costs, and injuries, arising from or resulting from any negligence, recklessness, or intentional wrongful

conduct, or errors or omissions, in the Design Documents prepared by D-B, or D-B's Sub-Consultants, for the Owner, or in the Construction Administration during the Construction Phase.

The Owner's acceptance of the Design Documents provided to it by D-B, and D-B's estimates of Probable Construction Cost, shall not relieve D-B from any responsibility for errors or omissions in those regards, nor from any other obligation of D-B under the D-B Agreement or applicable laws, statutes, ordinances, building codes, rules and regulations, or operation of law.

D-B acknowledges and agrees that approval and involvement by the Owner during the Design Phase (including, without limitation, recommendations by the Owner as to the Design), in no way relieves D-B of full responsibility for the Design and the Design Documents.

All drawings and specifications shall bear the signature and professional seal for all disciplines.

D-B shall be fully responsible for all design and coordination provided under this Agreement. D-B shall provide thorough review and coordination of all disciplines, drawings, and specifications, as well as Owner's Consultants (if any), and demonstrate to the Owner that this has been accomplished. This includes, but is not limited to:

- a. Civil Engineering, including Surveying and Drainage Analysis
- b. Landscape and Irrigation Design
- c. Architectural Design
- d. Acoustical Design
- e. Interior Design, including FF&E
- f. Structural Engineering
- g. Mechanical Engineering
- h. Plumbing Engineering
- i. Performance Design and Specification of the Fire Sprinkler System, including Architectural Control of Fire Sprinkler Head Locations
- j. Electrical Engineering
- k. Performance Design and Specification of the Addressable Fire Alarm System
- l. Telecommunications Systems
- m. Audio Visual Systems
- n. Owner's Proprietary Keyless Access and Security Systems
- o. Interference detection and resolution at the earliest appropriate submittal phase, and at each subsequent submittal phase
- p. Cost Estimating Services for Each Phase

D-B hereby agrees, subject to the Standard of Care, that it shall have the same legal responsibility to the Owner as the Owner has, or may have, to others arising out of, or resulting from, any errors or omissions of D-B.

1.7 Changes in Scope and/or Schedule:

1.7.1 The Owner at any time, by written notice to D-B, may make changes within the general scope of this D-B Agreement including, without limitation, to any one or more of the following:

1. Scope of Design, Pre-Construction, and/or Construction Phase Services, including but not limited to required drawings, designs, or specifications
2. Schedule of Milestones
3. Time for Completion

1.7.2 If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the D-B Agreement, whether or not identified in the notice, the Owner may negotiate with the D-B to make equitable adjustments to D-B's Fee or Guaranteed Maximum Price, the Milestone Schedule, or the Time for Completion, or shall otherwise modify the D-B Agreement as appropriate.

For Construction Services, D-B must assert its right to an equitable adjustment under this clause within thirty (30) days from the date of receipt of the written notice from the Owner. Owner may, in its sole and absolute discretion, consider and/or deny requests for equitable adjustment that are made more than thirty (30) days from receipt of the written notice, but in any event before final payment under D-B Agreement.

1.7.3 Any changes must be authorized by Owner in writing before they are performed.

Article 2 Contract Documents

2.1 The "Contract Documents" are comprised of the following. In the event of a conflict in the Contract Documents, the Contract Documents will be applied in the following order of precedence:

2.1.1 This Agreement without Exhibits or Attachments.

2.1.2 Exhibit A to this Agreement - "Design-Build General Conditions", with Attachments.

2.1.3 Exhibit B to this Agreement - "Design-Build Scope of Services".

2.1.4 Exhibit F - Cost of the Work

Exhibit H - Statement of All Clarifications and Assumptions

Exhibit J - Schedule of Major Milestones

For the purposes of order of precedence only, these three documents will be treated as one document.

2.1.5 Exhibit G to this Agreement - "List of Construction Documents".

- 2.1.6** Exhibit C to this Agreement - “D-B Company Name’s Design and Pre-Construction Services Hourly Rates Summary” dated month day, year, as subsequently modified by addenda, amendments or change orders.
- 2.1.7** The following other documents, if any, forming part of the Agreement: N/A, TBD or list, for example, Unit Price Schedules, CM@Risk’s Allowances, Owner’s Permit List, if any, and other Contract Documents.
- 2.1.8** Owner’s Request for Qualifications (RFQ) dated _____ with all addenda, exhibits and clarifications.
- 2.1.9** The D-B’s Statement of Qualifications (SOQ) submission, as required by the RFQ, dated _____, as accepted and agreed to by the Owner, including any clarifications and revisions of the submission.

Article 3 Interpretation and Intent

- 3.1** The Contract Documents are complementary and must be interpreted in harmony so as to avoid conflict, with words and phrases interpreted consistent with construction and design industry standards. In the event of any inconsistency, conflict, or ambiguity, Contract Documents shall take precedence in the order in which they are listed in Section 2.1.
- 3.2** Terms, words and phrases used in the Contract Documents, shall have the meanings as defined in “Exhibit A - Design-Build General Conditions” or if not specifically defined, their ordinary and common meaning.
- 3.3** The Contract Documents form the entire agreement between Owner and Design-Builder and by incorporation herein are as fully binding on the parties as if repeated herein. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

Article 4 Ownership of Documents

- 4.1** The plans, drawings, specifications, notes, reports, renderings, final models, design concepts and images, and all other documents and items to be prepared and furnished by Design-Builder pursuant to this Part 1 Agreement (hereinafter referred to as “Work Product”), both physical and digital, shall be the property of the Owner, including the right to use same on Owner’s other projects without additional cost to the Owner. D-B shall maintain for its file copies of those documents, drawings and/or other products required by law or the standards of professional practices.
- 4.2** In the case of reuse or modification of the Design Documents by the Owner, D-B’s name and all professional seals shall be removed, and D-B shall not be liable to the Owner or third parties in their reuse.

4.3 By execution of this D-B Agreement, D-B transfers and hereby assigns all copyright, ownership, and other intellectual property interest in the Construction Documents and the completed Project to the Owner, and further agrees to execute any separate assignment agreement necessary to implement such transfer. D-B may use on other projects any standard details and other parts of the Construction Documents not prepared exclusively for Owner.

4.4 If Owner terminates the Project for its convenience as set forth in Article 8 of the Agreement or Design-Builder elects to terminate this Agreement in accordance with Section 11.3 of the General Conditions, it is understood that the use of the Work Product is at Owner's sole risk without liability to Design-Builder or anyone working by or through Design-Builder, including Design Consultants of any type.

Article 5 Contract Time

5.1 Owner and Design-Builder mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents.

5.2 For the Design and Pre-Construction Phase Services, the Work and Contract Time shall commence within five (5) days of D-B's receipt of Owner's Notice to Proceed, unless the parties mutually agree otherwise in writing. Completion of the Design Documents set forth in "Exhibit B - Scope of Services" shall be achieved no later than _____, subject to adjustments in accordance with the Contract Documents.

5.3 For the Construction Phase Services the Work and Contract Time shall commence within five (5) days of D-B's receipt of Owner's Notice-to-Proceed (NTP), unless the Parties mutually agree otherwise in writing.

5.4 Substantial Completion.

5.4.1 Substantial Completion of the Work (the Substantial Completion Date) shall be achieved no later than _____ () calendar days after receipt of the NTP, or by date certain _____, subject to adjustments in accordance with the Contract Documents.

5.4.2 Interim milestones and/or Substantial Completion of identified portions or phases of the Work shall be achieved as follows, subject to adjustments in accordance with the Contract Documents: _____
_____.

5.5 Final Completion.

5.5.1 Final Completion of the Work or portion or phase thereof shall be achieved within _____ () calendar days after the date established for Substantial Completion of the Work, or by date certain _____, unless otherwise mutually agreed by amendment or change order.

5.5.2 Interim milestones and/or Final Completion of identified portions or phases of the Work shall be achieved as follows, subject to adjustments in accordance with the Contract Documents:

5.6 Liquidated Damages. Design-Builder understands that if Substantial Completion is not attained by the Date provided in Section 5.4.1 as adjusted in accordance with the Contract Documents (the “Scheduled Substantial Completion Date”), Owner will suffer damages which are difficult to specify accurately and ascertain. Design-Builder agrees that if Substantial Completion for the entire Work or any portion thereof is not attained by the scheduled Substantial Completion Date, Design-Builder shall pay Owner _____ dollars (\$_____) per day as liquidated damages, and not as a penalty, for each calendar day that Substantial Completion extends beyond the Designated Date. In addition, if Final Completion is not attained within the time period defined by Section 5.5.1, Design-Builder shall pay Owner _____ dollars (\$_____) per day that the Owner does not have beneficial use of as liquidated damages, and not as a penalty for each calendar day that Final Completion extends beyond the Designated Date. The liquidated damages provided herein shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages, whether special or consequential, and of whatsoever nature incurred by Owner which are occasioned by any delay in achieving Final Completion on the established dates.

Notwithstanding anything stated herein, the above-stated liquidated damages shall in no way limit Owner’s other rights (e.g. “recovery measures” or termination) or limit Owner’s entitlement to damages for any breach other than for delay for which Contractor may be responsible pursuant to the terms of this Agreement or applicable law. If for any reason liquidated damages as set forth in this section are unenforceable, Owner shall be entitled to recover its actual damages sustained as a result of any delay in the completion of this Project.

Article 6 Fees and Guaranteed Maximum Price

6.1 Fees

6.1.1 Include Basic Services and Additional Services (as defined in this Article 6.1) (collectively “Professional Services”). The D-B shall render the Professional Services in the Phases as described in the Scope. The Phases are to be performed in the sequence set forth in the Scope, and D-B shall not proceed with the next Phase in the Scope without prior written authorization from the Owner.

6.1.2 Design and Pre-Construction Phase Services. Design-Builder shall be compensated for Design and Pre-Construction Services (Basic Services) in accordance with this Article 6.1.2 of the Agreement. Included are the following:

Design-Builder’s Design Services Fixed Fee in the amount _____ Dollars
(\$_____);

Design-Builder's Pre-Construction Services Fixed Fee in the amount of _____ Dollars (\$ _____).

These fees will be authorized incrementally by Amendment(s). Initial and future fees accepted by this Agreement include:

INITIAL AUTHORIZED FEES	Phase 1	Phase 2	Total
Design Services Fees			
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Sub-Total Design Services Fees	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Pre-Construction Services Fees			
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Sub-Total Pre-Construction Services Fees	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Total Initial Services Fees	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Initial Reimbursable Expenses	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
FUTURE FEES AUTHORIZED BY AMENDMENT			
Design Services Fees			
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Construction Administration	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Closeout / Warranty	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Sub-Total Design Services Fees	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Pre-Construction Services Fees			
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
phase	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Sub-Total Pre-Construction Services Fees	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Total Future Services Fees	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **
Future Reimbursable Expenses	\$ ****,***,*** **	\$ ****,***,*** **	\$ ****,***,*** **

6.1.3 Additional Design and Pre-Construction Phase Services:

6.1.3.1 Additional Design and Pre-Construction Phase Services (“Additional Services”) is defined as all services not described in “Exhibit B - Scope of Services” and this Agreement, but that are otherwise requested by Owner.

6.1.3.2 The following Additional Services shall be provided by D-B only when authorized by Owner, and shall be paid for by Owner in accordance with the terms of this Agreement, in addition to the DB’s compensation for Basic Services:

- (a) Providing financial feasibility or other special studies.
- (b) Providing services relative to future facilities, systems, and equipment, which are not intended to be constructed during the Construction Phase.
- (c) Providing interior design and all other similar services required for or in connection with the selection, procurement or installation of movable furniture, furnishings, and related equipment if not expressly stated in this Agreement.
- (d) Providing consultation concerning replacement of any work damaged by fire, natural causes or forces majeure during the course of construction.
- (e) Retaining services of a competent surveyor or registered engineer or to provide any special inspections or tests, as required by code or prudent practice, during the Construction Phase.
- (f) Providing additional services arising from the default of the D-B or the default of any of its Subcontractors.
- (g) Providing assistance required by the Owner in any judicial, quasi-judicial, administrative, or legislative hearings or proceedings relating to the Project.
- (h) Providing staff, professional and otherwise, when directed by Owner, to perform tasks and duties assigned as necessary to prevent slippage in progress schedule and/or timely completion of the construction Work.
- (i) Providing other reasonable services.
- (j) If the Owner and the D-B agree on more extensive Design representation at the site during the Construction Phase than is described in “Exhibit B - Scope of Services”, the D-B shall provide one or more full-time Design Representatives. Such full-time Design Representatives shall be selected, employed and directed by the D-B, and the D-B shall be compensated for such services as mutually agreed in writing between the Owner and the D-B. Any full-time Design Representatives or replacements shall be subject to prior approval by the Owner. The Owner reserves the absolute right to reject or require replacement of any Design Representatives.

6.1.3.3 For all Additional Services, D-B's compensation will be computed using one or more of the following:

- (a) Mutually agreed upon adjustments to the Fixed Fee computed using the hourly rates as listed in "Exhibit C - Design and Pre-Construction Services Hourly Rates Summary",
- (b) A negotiated Fixed Fee amount, or
- (c) Other mutually agreed upon basis.

6.1.3.4 Additional Services must be approved by Owner in writing prior to commencement of the services.

6.1.4 Hourly Rates applicable to Design and Pre-Construction Phase Services under this Agreement are contained in "Exhibit C - Design and Pre-Construction Services Hourly Rates Summary".

6.2 Construction Phase Services and Guaranteed Maximum Price

6.2.1 Construction Phase Fee. The Construction Phase Fee, as defined in "Exhibit A - General Conditions", shall be a Fixed Fee, but initially established as _____ percent (_____%) of the Direct Construction Cost, and later when the GMP is established, as a Fixed Dollar Fee, subject to any cost or credit adjustments prescribed by Article 9.4 of *Exhibit A - General Conditions*.

6.2.2 Guaranteed Maximum Price. D-B shall provide a Guaranteed Maximum Price (GMP) for a complete functional project as described in "Exhibit B - Scope of Services", and is to be established in compliance with the "Exhibit A - General Conditions". The GMP is comprised of the Cost of the Work, including Contingencies and Allowances (each as defined in "Exhibit A - General Conditions"), and the Construction Phase Fee. Unless otherwise provided in the Contract Documents, Design-Builder's Guaranteed Maximum Price is deemed to include all sales, use, consumer and other taxes mandated by applicable Legal Requirements.

6.2.3 If the GMP requires an adjustment due to changes in the Work, the cost of such changes shall be priced as described in Article 9.4 of "Exhibit A - General Conditions".

6.2.4 For Owner-caused construction delays, either agreed to or awarded, D-B will provide all the necessary extended Construction General Conditions for a daily sum as provided for in Articles 8.1.3 and 9.4 of "Exhibit A - General Conditions". The specific amount of extended Construction General Conditions will be determined by the Owner on a case-by-case basis prior to issuance of a change order and must be determined to be fair and reasonable to the satisfaction of the Owner and the Design-Builder.

Article 7 Procedure for Payment

7.1 Progress Payments.

7.1.1 For Design and Pre-Construction Services, Design-Builder shall submit to Owner on the last business day of each month beginning with the first month after the Date of Commencement, Design-Builder's Application for Payment based on the percentage complete agreed to by the Owner of the total Design and Pre-Construction Services, in accordance with the Contract Documents.

7.1.2 Payment for Design-Builder's Construction Services, shall be made in accordance with Article 6 of "Exhibit A - Design-Build General Conditions". All costs, which exceed the GMP and are not authorized by change order, are to be paid by the D-B and not the Owner.

7.1.3 Owner shall make payment on Design-Builder's properly submitted and accurate Application for Payment within fourteen (14) days after Owner's receipt and approval of each monthly Application for Payment in accordance with the Contract Documents, but in each case less the total of payments previously made, and less amounts properly withheld under the Contract Documents. Failure to submit a proper or accurate invoice suspends the running of the time for payment of the invoice.

7.2 Interest. Payments properly due and unpaid by Owner to Design-Builder, whether progress payments or final payment, shall bear interest as provided by law.

7.3 Record Keeping and Finance Controls. With respect to all Work performed by Design-Builder, its Subcontractors and Consultants, under this Agreement, Design-Builder, its Subcontractors and Consultants, shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems approved by the Owner. During performance of the Work and for five (5) years after Final Payment, the Design-Builder shall retain and shall also require all Subcontractors and Consultants to retain for review and/or audit by the Owner all correspondence, meeting minutes, memoranda, electronic media, books, accounts, reports, files, time cards, material invoices, payrolls, and evidence of all communications, direct and indirect costs and all other matter related to the Work. Upon request by the Owner, a legible copy or the original of any or all such records shall be produced by the Design-Builder at any time during or after the Work as the Owner may request. The Design-Builder shall submit to the Owner upon request all payrolls, reports, estimates, records and any other data concerning Work performed or to be performed and concerning materials supplied or to be supplied, as well as Subcontractor or Consultant payment applications or invoices and such Subcontractor's or Consultant's progress payment checks. The requirements of this Section shall be provided for in all contracts between the Design-Builder and its Subcontractors and Consultants.

Article 8 Termination for Convenience

8.1 Upon ten (10) days' written notice to Design-Builder, Owner may, for its convenience and without cause, elect to terminate the Agreement. In such event, Owner shall pay Design-Builder for all Work executed, and for cost or expense necessarily incurred in connection with the Work, and reasonable costs and expenses attributable to such termination, including demobilization costs,

and amounts due in settlement of terminated contracts with Subcontractors and Design Consultants.

8.2 During its work under this, Design-Builder agrees that it will not unilaterally undertake any irreversible commitment or make any non-cancelable agreement for the provision of future goods, materials, or services and for which the Owner would or may be responsible should the Owner exercise its rights to terminate this Agreement for the convenience of the Owner in accordance with Section 8.1 above. During the course of the Work, when Design Builder determines that irrevocable commitments for future goods, materials, or services are necessary for the efficient and timely completion of the Project, Design-Builder shall notify the Owner of its opinion and the reasons therefor. However, no such commitments shall be made without the prior written authorization of the Owner, which shall not be unreasonably withheld.

Article 9 Representatives of the Parties; Authority

9.1 Owner's Representatives.

9.1.1 Owner designates **Chris Coulter, Executive Director, ASU, Capital Programs Management Group, ASU, PO Box 875512, Tempe AZ 85287-5512**, as the "Owner's Senior Representative", which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.2 of "Exhibit A - Design-Build General Conditions".

9.1.2 Owner designates **Ed Soltero, Assistant Vice President and University Architect, ASU, PO Box 875512, Tempe AZ 85287-5512** as its "Project Representatives", which have the authority and responsibility set forth in the Contract Documents.

9.2 Design-Builder's Representatives.

9.2.1 Design-Builder designates **individual's name and title, firm name and complete address** as Design-Builder's "Senior Representative", which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.2 of "Exhibit A - Design-Build General Conditions".

9.2.2 Design-Builder designates **individual's name and title, firm name and complete address** as Design-Builder's "Representative" which individual has the authority and responsibility set forth in the Contract Documents.

9.2.3 Design-Builder designates **individual's name and title, firm name and complete address** as Design-Builder's "Construction Superintendent", which individual has the authority responsibility set forth in the Contract Documents.

9.2.4 Design-Builder's Representatives and Construction Superintendent as approved by the Owner, shall not be replaced without the Owner's prior written approval.

Article 10 Insurance and Bonds

10.1 Insurance. Design-Builder shall procure in accordance with the Contract Document the insurance coverages as defined in the General Conditions. Insurance certificates shall be submitted to Owner prior to Owner’s issuance of a Notice to Proceed.

10.2 Bonds. Design-Builder shall provide Performance and Payment Bonds for One Hundred (100%) percent of the Guaranteed Maximum Price stated herein, underwritten by a Surety licensed in the State of Arizona and acceptable to the Owner, utilizing the forms established in “Exhibit A - Design-Build General Conditions - Attachment 1”. Bonds shall be submitted to Owner prior to Owner’s issuance of a Notice to Proceed with any construction work.

Article 11 Other Provisions

11.1 Other provisions, if any, are as follows: Consultants and Subcontractors submitted initially and approved by the Owner shall not be replaced without the Owner’s prior written approval. Any additional costs due to an approved change shall not be the Owner’s responsibility and will not increase the Guaranteed Maximum Price.

Design-Builder represents that it has the necessary financial resources to fulfill its obligations under the Contract Documents, and has the necessary corporate approvals to execute the Agreement, and perform the Work described herein.

DESIGN-BUILDER:
Design-Builder Company Name
By Its Authorized Representative

OWNER:
Arizona Board of Regents
on behalf of Arizona State University

(Signature)

(Signature)

(Printed Name)

(Printed Name)

(Title)

(Title)

(Date)

(Date)

EXHIBIT A

Design-Build General Conditions
dated November 1, 2020

(xx pages)

EXHIBIT B

Design-Build Scope of Services
dated month - day - year
(xx pages)

ARIZONA STATE UNIVERSITY
EXHIBIT B
DESIGN-BUILD AGREEMENT SCOPE OF SERVICES

November 1, 2020 Edition

Project Description

Facilities Program

A Facilities Program will be developed by the D-B Team as part of this scope of work. In general, the programming process by the D-B team will provide an overview of the initial facility programming process, as well as room-by-room descriptions of the spaces required, their critical features, and their desired adjacencies.

Site Description

Guidance for the project will be provided by *The Arizona State University Comprehensive Campus Plan*, adopted by the Arizona Board of Regents in August 2012 and amendments which will be provided by the Office of the University Architect. Project-specific site development guidelines will be developed by the Owner and provided to D-B for implementation.

Project Budget - Construction

The current proposed **construction** budget for this project represents the complete construction cost as expected in the form of a Guaranteed Maximum Price (GMP) from D-B, and will include a “bidding contingency” commensurate with the level of completion of the documents and with the current nature of the local market at the time the GMP is prepared. The construction budget reflects the complete construction cost including sub-trade costs, contractor’s general conditions and general requirements, bidding contingency, bonds, insurance, taxes, and construction phase fee.

The Owner has endeavored to include in the construction budget sufficient allowance to compensate for the difficult and restricted construction site and staging areas.

In general, the construction budget (GMP) **includes, but is not limited to, the following categories:**

- **New Construction:** All demolition and new construction.
- **Renovation:** All demolition and renovation of the existing building(s) required to facilitate the relationship and interconnection with new construction.
- **Site Improvements:** All typical hardscape development & site furniture, landscape & irrigation, exterior lighting and site signage, loading and delivery, security and gated entries, etc.
- **Special Fixed Equipment:** Exterior building signage, infrastructure and raceways for electronic security and access controls, fixed graphics & fixed casework displays, audio/visual fixed equipment, fume hoods, food preparation and cooking equipment, environmental control rooms, cage washing equipment, etc.
- **Site Utilities Extensions:** ASU tunnel and ASU utility connections, stormwater, sanitary sewer, relocation of any and all existing utilities, etc.
- **Telecommunications Infrastructure:** Incoming services and building distribution

raceways and pathways (voice, data, fiber, cable), etc. Excludes handsets and portable user devices.

- **Audio/Visual Infrastructure:** Internal distribution raceways and pathways, and termination devices.

Specifically **not** included in the construction budget are the following items:

- Owner’s budget management contingency
- Moveable Furnishings, Fixtures, and Equipment, including but not limited to furniture and room signage
- Telecommunications “Moveable” Equipment, including but not limited to activation charges, cabling, telephone instruments, control electronics, personal computers, etc.
- Audio/Visual Systems equipment and cabling
- Construction Phase Quality Assurance Testing
- Commissioning Services
- Moving Costs
- Financing Cost
- Owner’s Project Management Costs
- Plan review and inspection
- ASU Facilities Management support

Project Schedule

Schedule

Begin Design Process	date
Begin Construction - Phase One	date
Substantial Completion - Phase One	date
Begin Construction - Phase Two	date
Substantial Completion - Phase Two	date

Professional Services Requirements

Investigation of Existing Conditions

D-B shall review any and all available record documents/as-built drawings at University of Arizona offices relative to the existing site, building and adjacent utility infrastructure. Copies of pertinent drawings, if available, will be provided by the Owner for the use of and when requested by D-B.

D-B shall review any and all available record documents/as-built drawings at the City, County, other municipalities, utility companies, and other similar agencies relative to existing site conditions.

D-B shall perform site visits to verify adequacy of record documents/as-built drawings for use in site demolition and design documentation.

Site Survey

D-B will provide professional surveying services to support design and construction phase activities, and to meet the requirements outlined below. Provide the survey as part of the Deliverables Packages, and as a stand-alone AutoCAD file.

- 1) The University of Arizona's goal is to allow conventional ground surveys to proceed in a way that does not confuse the resulting measurements with State Plane values, while at the same time allowing an easy method for drawings/surveys to be translated back into their state plane position.
- 2) Prior to the execution of the survey, the surveyor should contact Planning, Design & Construction at the University of Arizona for information on available control benchmarks, and other information that may be necessary regarding the campus survey control system.
- 3) Surveying should be based on monuments within the campus survey control system. Using good surveying practices, a sufficient number (and not less than three) of primary control monuments will be tied to. Each control point has a published State Plane value. "Ground co-ordinate equivalents" will be calculated for these points by applying a scale factor to the coordinate value, then subtracting the following values from the X and Y coordinates:
X = - 900,000
Y = - 400,000
- 4) This shift in coordinates is done to ensure that users of the survey don't mistake the values for State Plane. These "shift values" apply within 8 miles of the center of main campus. For other ASU-related surveys beyond this area, contact PD&C for appropriate shift values.
- 5) Survey drawings should be created based on the "ground coordinate equivalent" values for these control points.
- 6) A table should be presented on survey drawings documenting the scale factor, shift, and datum. The table should list each primary control point used, and the following information for each: the ASU point number; the ground point number, X, Y, Z coordinates; and a description of the physical monument.
- 7) The surveyor's drawing layer containing survey monuments should be maintained as a layer within the architectural site plan (or whichever drawing is used as the common base plan to which all other design drawings are referenced).
- 8) The "0,0" point of any plan view drawing should not be altered from that provided in the surveyor's map.
- 9) Wherever possible, design consultants are encouraged to maintain the drawing units provided in the surveyor's drawing as opposed to converting into "architectural units".

Geotechnical Report

D-B will provide professional engineering services to support design and construction phase activities, including professional recommendations regarding local conditions, accompanied by test borings or test pits, soil bearing values, percolation tests, air and water pollution tests, ground corrosion and resistivity tests including necessary operations for determining subsoil, air and water conditions, and chemical, mechanical, laboratory or other tests.

Other Design and Construction Phase Testing Services

D-B will provide all other tests required by mutual agreement between the Owner and D-B.

Meetings and Communication

D-B shall be responsible for including adequate time and travel in their fee proposal to address the meeting requirements described in D-B Agreement for this project. This is an important project for University of Arizona and will require an adequate amount of meetings for D-B to gain input, and for all stakeholders to share information and maintain a clear understanding of project and the process. The D-B team will attend the meetings with the following during the design phase:

- 1) Owner's Project Manager and User Group Representatives to determine specific requirements, to review project progress, and to engage in an exchange of ideas for the purpose of developing the project design.
- 2) Owner's Project Manager and User Group Representatives for coordination meetings during all project phases, design through construction. Meetings will be held weekly unless waived in writing by the Owner.
- 3) Owner's Project Manager and any Other University Representatives

All communications on the project shall be via the Owner's designated Project Manager. Any meetings or communication with other Owner Representatives shall be coordinated through the Owner's Project Manager. In the event that the Owner's Project Manager is not able to attend a meeting between D-B and other Owner Representatives, D-B shall provide in writing to the Owner's Project Manager minutes of the items discussed, actions required, or any other documents reasonably requested by the Owner, to keep the Owner's Project Manager informed of any discussions held.

At a minimum, the following meetings shall have D-B involvement. Responsibility to lead the meeting or issue meeting minutes is noted. Additional meetings may be required by the Owner, or required as a normal course of business, and shall not be additionally compensated by the Owner to D-B unless agreed to in advance in writing by the Owner, and unless the scope of such meetings could not have reasonably been expected given the scope of the project.

<u>Meetings</u>	<u>Lead</u>	<u>Frequency</u>	<u>Issue Minutes</u>
Kickoff	Owner	Four	D-B
OAC - Design Phase	Owner	Weekly	D-B
Design Review (PADRAC)	Owner	Four	Owner
Community Review (CPAC)	Owner	Five	Owner
Presentation of Phase			
Deliverables to User Groups	D-B	As Needed	D-B
Plan Review	Owner	Minimum Four	D-B
Commissioning	Comm. Agent	As Needed	Comm. Agent
GMP-Setting	Owner	As Needed	D-B
Pre-Construction	Owner	One	D-B
OAC - Construction Phase	D-B	Weekly	D-B
Pre-Installation	D-B	As Needed	D-B
Design-Related Subject	D-B	As Needed	D-B
Closeout	Owner	One	D-B
Others as required by Owner	TBD	TBD	

Coordination with Commissioning Agent

D-B shall cooperate and coordinate with the Owner's Commissioning Agent throughout the project design and construction phases.

Design Standards

D-B shall be responsible for design conforming to the current Arizona State University Project Guidelines. Coordinate final product specifications with the Owner's Project Manager.

Sustainability

D-B is responsible for sustainable and environmentally responsible design as follows:

- 1) Design shall be responsive to the climate and environment in a way that minimizes energy consumption, yet creates a comfortable environment for faculty, students, staff and visitors.
- 2) Design shall demonstrate an understanding of the setting, both environmentally and as part of the campus fabric.
- 3) Facility shall be an exhibit of sustainability achievement in this climate.
 - a) Minimum USGBC LEED Silver certification.
 - i) D-B shall provide LEED application processing through USGBC. The Owner shall be listed as the "Applicant" under the USGBC website application, and shall have access to the entire submittal form to ensure ownership and access to documentation at all times (including archived documentation).
 - b) Preliminary Energy Model using Integrated Environmental Solutions Virtual Environment Software (IESVE): 1) First model to demonstrate energy consumption using a "black box" approach, followed by a 2) Preliminary model of the proposed design exterior enclosure and MEP systems, using an Owner provided occupancy schedule.

Accessibility

Incorporate accessible design principles to ensure that the completed facility provides full, equal, and unrestricted access to all users. See the requirements in the Codes enumerated below.

Governing Jurisdictions

D-B shall prepare and provide all documents in a form necessary for Owner to obtain any and all approvals required for approval of design and completed construction by all governmental authorities having jurisdiction over the Project and/or designated by the Owner.

D-B shall be responsible for coordination with the governing jurisdiction as follows:

- 1) The project utilities will be served by the University's Central Plant, as well as Southwest Gas, City of Tempe Water, and Maricopa County Wastewater Management.
- 2) The University's Risk Management Services (RMS) will be the Authority Having Jurisdiction (AHJ) for building permitting, and fire sprinkler and fire alarm systems.
 - a) The Owner's Project Manager will submit documentation to RMS for Building Permits.
 - b) The D-B will submit Fire alarm and Fire Sprinkler Shop Drawings to RMS for installation permits.
- 3) The Owner will provide design review and construction inspection.
- 4) Local zoning and ordinances will not apply. The Owner will provide site development guidelines specific to this project.
- 5) Interface and permitting by D-B with the City of Tempe and other municipalities will be

limited to any utility easements with these entities, if these improvements are not owned by the University.

- 6) Owner will coordinate submittal and payment for Maricopa County Wastewater Management sewer connection fees.
- 7) D-B will interface with Maricopa County Wastewater Management for physical sanitary sewer connections. D-B will prepare submittals and pay fees for construction work in the public right-of-way, and physical sewer connections.

Codes

D-B shall design the project in such a manner that the completion of project is in compliance with the following codes. When reference is made to "this code" it shall mean all the codes in the Arizona State University Project Guidelines.

Cost Estimating

D-B shall coordinate the format to be used for each Phase estimating effort by D-B and the Owner's Cost Consultant to ensure differences between the two estimates are reconcilable. Differences between the estimates must be reconcilable to the lowest level of detail of the estimate.

If at any time D-B's Estimate of Construction Costs and/or proposed GMP (after attempted reconciliation between D-B's Estimate of Construction Costs and the Owner's Cost Consultant Estimate) exceeds the amount within Owner's then-current Project Budget available for the Cost of the Work, D-B shall promptly and at no cost to the Owner:

- 1) Revise all or any part of the Project drawings, specifications or both as the Owner may deem advisable for the purpose of reducing the Cost of the Work to be within the allocated line items within the Project Budget.
- 2) Perform any or all of the services as described in the Agreement as may be necessary to obtain an estimate of Construction Costs and/or GMP not exceeding the amount within Owner's then-current Project Budget available for costs of the Work.

D-B shall provide a complete project construction cost estimate at each Design Phase Submittal, and with each GMP Proposal, to evaluate the status of Owner's budget capacity to complete project scope in future GMPs and Phases.

Design-Builder will provide comparable costs from similar projects for Owner to use in reports to Arizona Board of Regents and the State of Arizona Joint Committee on Capital Review.

Owner Reviews

There will be a two-to-three week Owner review period at each Design Phase Submittal. The Owner will prepare written Review Comments and provide to D-B. D-B shall prepare written responses to these comments. To ensure that all issues are fully understood and resolved, responses shall be submitted to the Owner as soon as possible after receipt of Comments by D-B. D-B will not be authorized to proceed into the next Phase of the project until all comment responses have been reviewed and accepted by the Owner.

Also included in the review process are Roundtable Review Meetings to provide an opportunity for discussion of written comments and responses, and other related design topics.

Project Submittals

In addition to the requirements of the Agreement, D-B shall provide submittals for the following project Phases for review by the Owner:

- 1) Program Submittal
- 2) Conceptual Design Submittal
- 3) Schematic Design Submittal
- 4) Design Development Submittal
- 5) 50% Construction Documents
- 6) 100% Construction Documents / GMP Setting Submittal
 - a. Multiple Construction Document packages, such as foundation, core and shell, and interiors packages, as required for schedule compliance.
- 7) Models, renderings, sketches, product samples, and other materials as needed at all phases of project development to fully explain the design to all User Group Representatives, as well as ASU entities such as PADRAC, Facilities Management, Planning Design & Construction, Disability Resource Center, Risk Management Services, and any other relevant departments.
- 8) Life Cycle Cost Analysis:
 - a. Base and alternate design building envelope systems.
 - b. Base and alternate design Mechanical, Plumbing, and Electrical systems.
 - c. Total Cost of Ownership based on Statement of Probable Construction Cost and Life Cycle Cost Analyses.
 - d. Provide Life Cycle Cost Analysis with Program, Conceptual Design, Schematic Design, and Design Development Phase submittals.
- 9) Energy Model:
 - a. One as required for LEED certification.
 - b. Additional energy model that demonstrates anticipated performance in energy unit measures, and as compared to DSS system requirements.
 - c. Provide Energy Model with Program, Schematic Design, and Design Development Phase submittals.
- 10) Hydrology Report:
 - a. Provide hydrology report / stormwater mitigation report with Program, Schematic Design, Design Development, and Construction Documents Phase submittals.
 - b. Comply with the University of Arizona Manual of Design and Specification Standards Tab C-9 Surface Water Design Guidelines.
- 11) Refer to **Submittal Requirements by Phase**, below, and “*Attachment 1 - Project Deliverables by Phase*”, for detailed requirements.

Submittal Requirements by Phase

- 1) Program Phase
 - a) identified units of facility need
 - a) projected enrollment or activity

- b) references to relevant standards appropriate to comparable institutions
- c) discussion of locational determinants
- d) utilization for any classrooms or teaching laboratories
- e) estimated net-to-gross ratios
- f) special physical requirements affecting cost
- g) Required size, use, occupancy, and furnishings/equipment requirements of all spaces.
- h) Required relationships of spaces to other spaces.
- i) Required utility services for all spaces and investigations into available utilities.
- j) Environmental requirements of all spaces.
- k) Traffic/circulation requirements within and without the building. Building service requirements.
- l) Tabulation of all net assignable areas.
- m) Explanation of probable non-assignable required areas.
- n) Calculation of probable gross buildings area(s).
- o) Code analysis. Describe all area separations, occupancy separations, compartmentation, fire-rated construction requirements, hazard classifications, exiting requirements, general code provisions, and project-specific provisions. Include diagrams describing these issues as applied to the specific project design.
- p) Site analysis, including utilities, circulation, service, orientation, adjacent structures, etc.
- q) Energy Models.
- r) Hydrology Report, Storm Water Management Analysis and Plan.
- s) Proposed LEED Score card for the Design (LEED Silver minimum requirement).
- t) Life Cycle Cost Analysis and Total Cost of Ownership Analysis.
- u) Statement of Probable Construction Cost
- v) Project Schedule
- w) Budget estimates of FF&E, Audio Visual Systems, and Branding and Graphics

2) Conceptual Design Phase

- a) A minimum of three distinctly different concepts shall be presented to the Owner before proceeding with final schematic documents. These concepts are to communicate site, functional and massing relationships. The concepts may be presented in diagrammatic form.
- b) Include with each concept the approximate net assignable to gross area efficiency factors.
- c) Include with each concept a code analysis. Describe all area separations, occupancy separations, compartmentation, fire-rated construction requirements, hazard classifications, exiting requirements, general code provisions, and project-specific provisions. Include diagrams describing these issues as applied to the specific project design.
- d) Include with each concept a Statement of Probable Construction Cost.
- e) Include with each concept a Life Cycle Cost Analysis and Total Cost of Ownership Analysis.

3) Schematic Design Phase

Review the Project Program and the approved Conceptual Design with the Owner to solicit and receive comments and recommendations, confirm the Owner's understanding of the subject matter, determine any additional, modified or alternative requirements, and obtain the Owner's approval.

Provide the Owner with a preliminary evaluation of the requirements of the Project based on the Owner's budget.

Review with the Owner alternate methods and approaches to the design and construction of the Project and recommend the approach and jointly decide with the method best suited to the Owner's requirements and the Project.

Based upon the Project Program, the approved Conceptual Design, the discussions with the Owner, the amount within the Owner's Budget available for costs of the construction Work, the surveys, and the soils reports, prepare Schematic Design Documents which will consist of drawings and other documents depicting the scale and relationship of Project components, for review with the Owner, and for the Owner's approval.

The D-B shall review with the Owner alternate methods and approaches to the design and construction of the Project, including infrastructure systems for structure, mechanical systems and other relevant systems.

The Schematic Design Documents shall consist of at least the following:

- a) Preliminary site plan showing walks, parking drives, landscaped areas, drainage, retention and detention areas.
- b) Site survey.
- c) Soil boring data & consultant's foundation recommendations.
- d) Schematic floor plans, 1/4" = 1'-0".
 - 1) New work, all floor levels including walls, doors, windows, equipment, furniture, location of plumbing fixtures, and structural grid.
 - 2) Remodeled areas of existing buildings, if any, including demolition.
 - 3) Existing building drawings for remodeled areas.
- e) Reflected ceiling plan (if any special or unique features).
- f) Exterior elevations, showing mechanical equipment.
- g) Diagrammatic building sections, each direction through building with structure indicated.
- h) Typical wall sections to show materials, relationships, and construction intent, including structure.
- i) Room materials list and equipment outline.
- j) Narrative of design rationale, code analysis, design load assumptions, and proposed structural systems together with justification of selected system.
- k) Narrative of design rationale and demand assumptions, and descriptions of proposed mechanical system(s), electrical system(s), landscape irrigation system(s), and special system(s).
- l) Preliminary mechanical equipment room layouts (major equipment).
- m) Preliminary one-line HVAC duct layouts and/or preliminary mechanical piping

- diagram including preliminary size and location of connection to utility supply.
- n) Plumbing water and sewer main sizing with point of connection to public systems.
 - o) Fire protection hazard classification of system and preliminary size of supply main and identification of source location.
 - p) Preliminary one-line electrical distribution diagrams with preliminary load and service sources identified.
 - q) Preliminary Draft of Project Manual including outline specifications.
 - r) Code analysis. Describe all area separations, occupancy separations, compartmentation, fire-rated construction requirements, hazard classifications, exiting requirements, general code provisions, and project-specific provisions. Include diagrams describing these issues as applied to the specific project design.
 - s) Structural, mechanical, electrical, and other calculations used by the Design Professional as a basis for design, appropriate to the Schematic Design level.
 - t) Net assignable and gross area calculations, in conformance with Owner definitions for each category and functional group of space.
 - u) Schematic presentation shall include a preliminary model, and sketch perspectives of both the exterior and major interior features that will fully communicate the design intent to User Group Representatives.
 - v) Communications and data transmission system infrastructure.
 - w) Energy Models.
 - x) Hydrology Report, Storm Water Management Analysis and Plan.
 - y) Proposed LEED Score Card for the Design (LEED Silver minimum requirement); include checklist and strategy.
 - z) Life Cycle Cost Analysis and Total Cost of Ownership.
 - aa) Statement of Probable Construction Cost.
 - bb) Budget estimates of FF&E and AV.
 - cc) Geotechnical Investigation Report.
 - dd) Project Survey.

4) Design Development Phase

Based on the Schematic Design Documents and any amendments approved by the Owner in the Program or the Project Budget, prepare Design Development Documents for review with the Owner and for the Owner's approval, consisting of drawings and other documents to delineate, and define the general design of the entire Project, including size and character as to architectural, structural, mechanical and electrical systems, materials, and any other Project elements as may be appropriate.

The Design Development Document shall consist of at least the following:

- a) Site survey and annotated site survey showing items for demolition, removal or relocation.
- b) Site Plan:
 - 1) Contours/grading
 - 2) Paving, sidewalk, curb, fence, parking, and other site improvements (showing location and overall dimensions)
 - 3) Retaining walls
 - 4) Demolition of any existing improvements

- 5) Underground utilities
- 6) Notation of existing memorial trees, plaques and any other marked items
- 7) Phasing plan
- 8) Construction access and staging plan
- c) Landscape plan:
 - 1) Planting plan
 - 2) Plant materials schedule
 - 3) Point of connection for power and water, and demand for each
 - 4) Irrigation plan
- d) Seismic Analysis based on IBC Code Requirements.
- e) Foundation plans:
 - 1) Footing and foundation sizes, reinforcing, elevations
 - 2) Below grade concrete walls, thickness and reinforcing
 - 3) Waterproofing, dampproofing, and drainage; standard detail types
- f) Structural framing plans:
 - 1) Horizontal and vertical member size, sample reinforcing
 - 2) H and V sample reinforcing
 - 3) Typical floor and roof details, thickness
 - 4) Typical exterior wall sections
 - 5) Typical exterior wall supports, bracing, ties, reinforcing
 - 6) Lateral bracing methods, location
 - 7) Fireproofing - NFPA designation
 - 8) Vibration isolation or other special details
 - 9) Design live and dead loads tabulated for all floors, areas, roofs
- g) Exterior wall elevations, all planes.
- h) Building sections.
- i) Typical wall sections.
- j) Typical roofing and flashing details.
- k) Floor plans, all levels and roofs:
 - 1) Partition type identification
 - 2) Smoke and fire compartmentation
 - 3) Built-ins and fixed equipment shown and noted
 - 4) 1/4" scale furniture and movable equipment layouts, for ALL spaces
 - 5) Phasing information
- l) Reflected ceiling plan:
 - 1) Lights, diffusers, grilles, sprinkler heads and unusual conditions
- m) Stair and elevator details and types.
- n) Room finish and door schedules for all areas/spaces.
- o) Miscellaneous specialties and equipment schedules.
- p) Fixed equipment schedule, locations, and service requirements.
- q) Plumbing systems:
 - 1) Fixture schedule, locations
 - 2) Equipment schedule, locations
 - 3) Water piping, locations (sizes for pipes larger than 1")
 - 4) Waste piping, locations (sizes for pipes larger than 4")
- r) Roof drainage system, locations, and key sizes.

- s) Fire protection systems:
 - 1) Location of check valves, building entrance, riser and drain
 - 2) Provide system performance design criteria
- t) Mechanical systems:
 - 1) Equipment schedule, locations, sizes, types
 - 2) Chilled, condenser, hot water, steam, and condensate piping systems, locations, riser diagrams
 - 3) Supply, return, and exhaust duct layout
 - 4) HVAC piping, locations, and sizes for pipes larger than 1"
 - 5) Equipment connections and supports; standard details
 - 6) Load calculations
 - 7) HVAC controls and schematics
- u) Power distribution diagram:
 - 1) Power distribution layout
 - 2) Equipment schedule, locations
 - 3) Feeder sizes
 - 4) Emergency generator size, location
 - 5) Uninterruptible power supply equipment size and location, if required
 - 6) Grounding, standard details
 - 7) Load calculations
- v) Interior electrical plans:
 - 1) Fixture and switch locations with identification
 - 2) Typical receptacle and power outlet locations
 - 3) Special requirements noted
 - 4) Coordination of and pathways for University keyless access and security.
- w) Motor control schedule with starter and circuit sizing.
- x) Communication, data transmission and audio-visual systems.
- y) Basis of Design for Commissioning Agent, including Engineering calculations and load data; System selection; System rejection reasoning; Equipment selection; Equipment rejection reasoning; Failure modes; and Critical sequence of operations.
- z) Current update of Project Manual including Project Specifications.
- aa) Code analysis. Describe all area separations, occupancy separations, compartmentalization, fire-rated construction requirements, hazard classifications, exiting requirements, general code provisions, and project-specific provisions. Include diagrams describing these issues as applied to the specific project design.
- bb) Structural, mechanical, electrical, lighting (on a per point method computer analysis), and other calculations used by the Design Professional as a basis for design, appropriate to the Design Development level.
- cc) Net assignable and gross area calculations, in conformance with Owner definitions for each category and functional group of space.
- dd) Materials and color boards, exterior and interior.
- ee) Update presentation graphics to accurately reflect current design.
- ff) Cut sheets of all plumbing, mechanical, electrical, and other special fixtures and equipment.
- gg) Energy Models.
- hh) Hydrology Report, Storm Water Management Analysis and Plan.

- ii) Proposed LEED Score Card for the Design (LEED Silver minimum requirement); include checklist and strategy.
- jj) Life Cycle Cost Analysis and Total Cost of Ownership Analysis.
- kk) Preliminary SWPPP, regardless of site size.
- ll) Statement of Probable Construction Cost.
- mm) Budget estimates of FF&E and A/V.

5) 100% Construction Documents / GMP Setting Phase

Based upon the approved Design Development Documents (DDs) and any further amendments of any kind approved by the Owner, prepare detailed Construction Documents (CDs) setting forth the requirements for the construction of the entire Project, including complete Bid Documents, Drawings, Specifications.

D-B shall provide fully updated versions of the deliverable documents listed in the Design Development list, reflecting 100% complete drawings, checked and coordinated with all Sub-Consultants and Owner Consultants, and with all necessary and required details and information for the successful pricing, construction, and completion of the project.

If the Work is intended to be done in Phases with Multiple Bid Packages and some Phases are intended to start after the GMP is established but before all of the Construction Documents are complete, the Design Professional's seal and signature shall be affixed to the documents for those initial Phases of the Work only after Owner review and incorporation of all final comments.

The Construction Documents are subject to review and approval by the Owner.

D-B is responsible for production of complete Drawings and Specifications, and assembly of the Project Manual, including a cover for each. Document covers shall include the Owner project name and number and date.

The Construction Documents shall consist of at least the following:

- a) Drawings for all design disciplines.
- b) Specifications.
 - 1) All sections complete and edited project specific.
 - 2) Written descriptions of all options (alternates), allowances, unit prices, and special construction scheduling requirements.
 - 3) Table of contents for technical sections.
 - 4) Schedule of drawings.
 - 5) Specifications shall be prepared by the D-B using CSI format, with University Project Number on all pages.
 - 6) Standard Owner "boilerplate" (bidding and contract provisions, and Division 1 sections) will be "red-marked" by Owner and provided to D-B for information and coordination with their Drawings and Specifications. Owner will provide final word processing of boilerplate documents, and deliver completed version to D-B for inclusion in the Project Manual.
- c) Final code analysis. Describe all area separations, occupancy separations,

compartmentalization, fire-rated construction requirements, hazard classifications, exiting requirements, general code provisions, and project-specific provisions. Include diagrams describing these issues as applied to the specific project design.

- d) Final structural, mechanical, electrical, acoustical, vibration, lighting (on a per point method computer analysis) and other calculations used by the Consultant as a basis for design.
- e) Cut sheets for final selection of all plumbing, mechanical electrical and other special fixtures and equipment.
- f) Updated Basis of Design for Commissioning Agent.
- g) Final material and color boards; interior and exterior.
- h) Net assignable and gross area calculations, in conformance with Owner definitions for each category and functional group of space.
- i) Final Hydrology Report, Storm Water Management Analysis and Plan.
- j) Final Life Cycle Cost Analysis and Total Cost of Ownership Analysis.
- k) All bidding documents, ready for reproduction, with all final comments from the Construction Documents submittal resolved.
- l) Design Professional's seal and signature shall be affixed to documents only after Owner review of the Construction Documents submittal and incorporation of all final comments.
- m) Master plan/expansion information to inform future project planning teams.
- n) A Statement of Probable Construction Cost; ASPE "Level Five".

Furniture, Fixtures and Equipment

D-B shall provide the following services as part of the project scope of work:

- 1) Interior Design
- 2) Furniture selection and installation coordination
- 3) Branding and Graphics
- 4) Audio Visual system design and construction administration

Submit design updates for each category of FF&E commensurate with the development of the project design at each phase of the project for Owner review and approval.

Unless otherwise indicated, FF&E will be procured and installed under separate contracts independent of the contract for construction. The Owner's Project Manager, in conjunction with the University's Procurement and Contracting Services Department, will write and issue all Purchase Orders. D-B will be responsible for coordinating the orders with the vendors and the University.

Furniture

Furniture will be selected from the current offerings of the Tri-University vendors. Within these categories, appropriate selections will be made for the project in collaboration with the Owner's Project Manager and User Group Representatives.

The only competitively bid, performance specification-based furniture will be for specific functions that are not covered by the Tri-University contracts. In such case, D-B shall prepare

a complete Bid Package set that will be used by Owner to request proposals from furniture vendors. This will need to be bid through the University's Procurement & Contracting Services Department if the value of the total of all non Tri-U selections is \$100,000 or more.

D-B shall meet with the Owner's Project Manager and appropriate User Group Representatives to define the project's requirements and budgetary goals, including assessment and cataloging of existing furniture and equipment to be relocated, and new furniture and equipment to be selected and procured.

At each Design Phase of the project, D-B shall, in collaboration with the Owner's Project Manager, coordinate with vendors on selections, availability and pricing. D-B shall provide a conceptual Furniture Cost Estimate inclusive of all items required to furnish the building and allow it to be functional, including items identified as OPCI (Owner Provided Contractor Installed) or OPOI (Owner Provided Owner Installed). Cost Estimates shall include freight, delivery, installation, and tax. D-B will prepare floor plans reflecting decisions reached with the Owner on relocated and new furniture and equipment, and reflecting the approved furniture budget at each Design Phase.

D-B shall ensure that final Furniture/Equipment layouts are fully coordinated with architectural, structural, mechanical, telecommunication, fire alarm, and electrical components, for compatibility with the system components, to prevent conflicts, and to confirm that the necessary power and telecommunications are provided as needed to support the Furniture/Equipment.

During the 100% Construction Documents Phase, D-B shall confirm with vendors the furniture and equipment selections, availability, and pricing. D-B shall prepare final furniture documents for Owner review and approval, as follows:

- 1) Furniture/Equipment plans graphically showing:
 - a. Scaled relationship of all Furniture and Equipment for all rooms
 - b. Room numbers
 - c. Individual Furniture and Equipment item reference numbers
- 2) Separate spreadsheets sorting Furniture and Equipment Item list organized by Vendor. The Furniture and Equipment spreadsheet shall reference:
 - a. Department
 - b. Room Name
 - c. Room Number
 - d. Item Reference Number
 - e. Item Description
 - f. Item Specification Sheet
 - g. Vendor
 - h. Quantity
- 3) Item Specification Sheet (for each category of item) shall list:
 - a. Vendor
 - b. Manufacturer
 - c. Description
 - d. Model Number

- e. Size
 - f. Quantity
 - g. Location(s)
 - h. Special Notes
 - i. Material Finish, and graphic representation of item
- 4) Approved material finish samples in acetate sleeves shall list the following information:
 - a. Furniture and Equipment item reference number(s)
 - b. Vendor
 - c. Manufacturer and color or material name or number
 - 5) Vendor Data Sheet shall list company names, addresses, phone/fax numbers, and primary contact.

During the Construction Administration phase, D-B will:

- 1) Review FF&E shop drawings and submittals for conformance with final Furniture and Equipment Documents.
- 2) Coordinate with selected vendors to establish a delivery and installation schedule, and monitor and verify that construction is on schedule to reach Substantial Completion as identified in the Contract Documents.
- 3) Observe the installation of the Furniture and Equipment, and develop a punch list of incomplete or incorrect work requiring the Vendor's attention.
- 4) Review the completion of all punch list items to establish the Date of Final Completion for the Furniture and Equipment.

Audio Visual Systems

D-B will be responsible for the complete AV design and documentation. Coordinate with the Owner's Project Manager and User Group Representatives for AV design requirements.

D-B will produce complete documentation for infrastructure and raceways as part of the building contract documents for installation under D-B scope of work.

D-B will design and prepare complete documentation for the AV systems for bidding and procurement of an outside vendor.

At each Design Phase, D-B shall, in collaboration with Owner's Project Manager and User Group Representatives, coordinate with the University's Audio/Visual Systems management staff. D-B will prepare floor plans reflecting decisions reached with the Owner on AV systems, as well as a narrative for the systems and spread sheets describing the system components for each type of space. D-B shall provide a conceptual AV Cost Estimate inclusive of all items required to provide AV for the project and allow it to be functional and meet the Owner's budget goals. Cost Estimates shall include freight, delivery, installation, and taxes.

D-B shall ensure that AV systems are fully coordinated with architectural, structural, mechanical, telecommunication, fire alarm, and electrical design, to assure the compatibility of the AV system.

During the 100% Construction Documents Phase, D-B shall confirm with vendors the A/V equipment selections, availability and pricing. D-B shall prepare final AV documentation for Owner review and approval, as follows:

- 1) AV plans graphically showing:
 - a. Scaled relationship of all AV for all rooms
 - b. Room numbers
 - c. Individual component item reference numbers
- 2) Provide separate spreadsheets sorting AV Items list organized by Room Type. Spreadsheet shall reference:
 - a. Room Names and Numbers where system occurs
 - b. Item Reference Numbers
 - c. Item Descriptions and Model Numbers
 - d. Vendors
 - e. Quantities
 - f. Vendor
 - g. Special Notes
- 3) System narrative for each type of space.

Branding and Graphics

The Scope of Branding and Graphics Systems will be finalized after completion of the Schematic Design Phase. The scope will generally include major wayfinding components and University of Arizona identity.

Construction Phase Services

Successful construction of the project will necessarily involve the full, open, and transparent participation of the entire Project Team, including the Design-Builder, the Design Professional, and the Owner. The Owner requires that the review and evaluation of the Design Professional be included with the information being provided to the Owner. At a minimum, this will include the following:

Evaluate the progress of the Work for compliance with the design intent of the Project, and for conformance with the requirements of the Construction Documents. Interpret the requirements of the Construction Documents. The interpretations shall be consistent with the intent of and reasonably inferable from the Construction Documents.

Attend progress meetings, to address and resolve such matters as procedures, scheduling, work deficiencies, Submittals, Requests For Information (RFIs), and any other matters relating to the completion of the Project.

Perform weekly site visits to be knowledgeable about the progress and quality of the Work, and prepare weekly field reports.

Review and respond to Requests for Information (RFIs).

Review and approve Submittals, Shop Drawings, Product Data, Samples, and other required Materials Submissions, for conformance with the design concept of the Project, and compliance with the Construction Documents.

Identify Work which does not conform to the design intent or Construction Documents, including applicable codes, statutes, or local or national standards.

Participate in site visits and meetings to identify the dates of Substantial and Final Completion of the Work, or designated portions of the Work. Participate in the preparation of Punch Lists identifying a comprehensive list of items of the Work to be completed or corrected.

Review and evaluate Closeout Materials including As-Built Drawings, Operation and Maintenance Manuals, Record Submittals, Test and Balance Reports, Commissioning Reports, Training Materials, and Progress Photographs.

Prepare Closeout Materials including Record Drawings, (DWGs and PDFs), BIM Model, GeoDatabase Drawings, and Key Plan Drawings.

Participate in Warranty Site Visits ten (10) months and twenty-two (22) months after the Date of Substantial Completion. Assist in resolving Warranty issues as they develop.

Fee Proposal

Staff

Clearly identify all key staff for the D-B Firm and for all Sub-Consultants, and their roles in the Project Team. Any Sub-Consultants not originally identified in the Statement of Qualifications resulting from the Owner's Request for Qualifications shall be submitted to the Owner for review, and will be included in the Project Team only upon written approval of the Owner.

Reimbursable Expenses

Include all Reimbursable Expenses such as travel costs, meals, printing for internal review, deliverables, etc., as part of D-B's basic services fee.

Categories of allowable reimbursable expenses include:

- 1) Reproduction, mailing, and electronic media, which are in addition to those required for normal project deliverables
- 2) Agency permit and submittal costs

ATTACHMENT 1

Project Deliverables by Phase - 8 Pages

Design Phases Deliverables

PADRAC Reviews

PowerPoint

Program Phase

Report - PDF

Conceptual Design Phase

Drawings - PDF

Schematic Design Phase

Drawings - PDF

Specifications - PDF

Security Design - AutoCAD

Geotechnical Investigation Report - PDF

Project Survey - AutoCAD

Design Development Phase

Drawings - PDF

Specifications - PDF

Site Plan - AutoCAD

Room Numbering - PDF

Security Design - AutoCAD

Wi-Fi Design - AutoCAD

100% Construction Documents / GMP Setting Phase

Drawings - PDF

Specifications - PDF

GeoDatabase - AutoCAD

Key Plans - AutoCAD

TeleCom Bid - PDF

Project Closeout Phase Deliverables

Facilities Documentation Package - PDFs

As-Built Drawings

Operation and Maintenance (O&M) Manuals, per CSI Division

Final Record Submittals, per CSI Division

Balance Reports

Commissioning Report

Final LEED Submittal

Training Materials (including sign-in sheets, notes, handout materials, videos, etc.)

Progress Photos, per CSI Division/Section, Time Period, Etc.

Construction Administration Package - PDFs

Warranties (General Contractor and Subcontractors)
Subcontractor Directory
All Applicable Permits
Signed-Off PDC Green Inspection Cards
Any Other Reports or Certifications Required by the Contract
Meeting Minutes, Monthly Reports, Etc.
RFIs, ASIs, PRs, CORs, Etc.
Change Orders
Payment Applications
Testing and Inspection Reports
Project Documentation Logs
Any Other Construction Administration Materials

Project Closeout Package - PDFs

Affidavit of Payment
Consent of Surety
Copy of Small Business Utilization Report
Receipts for Returned Keys
Final Attic Stock and Extra Materials Transfer Log
Receipts for Deliveries of Attic Stock and Extra Materials
Final Net Asset Log (Equipment, Tools, and Unused Materials)
Receipts for Deliveries of Project-Owned Assets (Equipment, Tools, and Unused Materials)
Final Rent vs Buy Analysis & Fair Market Comparison
Completed Contractor's Project Closeout Checklist

Design Professional Materials

Record Drawings - PDFs
Record Drawings - Bound AutoCAD
GeoDatabase Drawings - AutoCAD
Key Plan Drawings - AutoCAD
BIM Model

Detailed Deliverables Criteria

Package Requirements

- Total Path Name of Folders, Sub-Folders, and Documents, is limited to **130 characters**

Drawings / Specifications / Other Documents - PDFs

Printed/Plotted PDFs are preferred

- files must contain searchable text
- secure approval from the Project Manager for scanned PDFs

Combine all individual Documents contained in each submittal into a single PDF, in order

- PDF file size is not a consideration
- files should be consistent with printed submittals

- for example: if a drawing set is two volumes, the PDFs should be two files
- name each item as the original item is titled
 - include date issued in the file name (YYYY/MM/DD)
- bookmark each individual item
 - bookmark drawings with Sheet Number and Title
 - bookmark specifications with CSI Division and Section
 - bookmark reports with Chapters and Sections
- create expanded bookmarks to simplify finding a specific item
 - for example: Architectural / Structural / Etc.
Division 02 / Division 03 / Etc.
Chapter 1 / Chapter 2 / Etc.
- combine multiple PDFs into a single ZIP folder

Photos, Videos, Etc.

- group similar photos / videos into folders and sub-folders
- group by date, topic, etc.
- combine all folders into a single ZIP Folder

ZIP Folders

- contain multiple PDFs, Folders, etc.

Room Numbering PDFs

Provide Floor Plans **only**

Printed/Plotted or Scanned PDFs are acceptable

Combine all individual Floor Plans into a single PDF, in order

- number and name each Floor Plan as the original Sheet is titled
- bookmark each individual Floor Plan

TeleCom Bid PDFs

Provide **all** TeleCom Sheets and all Electrical Sheets, **only**

Printed/Plotted or Scanned PDFs are acceptable

Combine all Drawings into a single PDF, in order

- number and name each Drawing as the original Sheet is titled
- bookmark each individual Sheet
- create expanded bookmarks to simplify finding a specific sheet
 - for example: TeleCom / Electrical
Lighting Plans / Power Plans / Etc.

Bound AutoCAD Drawings

Deliver Project Record Drawings to the Owner electronically.

1. The intent of these guidelines is to enable the Owner to collect, archive, and use at a later date digital copies of Record Drawings for any construction project. These projects include (but are not limited to) new construction, renovations, additions, utility work, and interiors work. The Owner considers it important to maintain accurate records of new work for several reasons:
 - Accurate information (e.g. underground utilities and tunnels) for future projects.

- Accurate base drawings for future projects, enabling consultants to modify existing drawings instead of creating new drawings from field measurements.
 - Accurate data for the Enterprise Geographic Information System (EGIS).
2. The D-B is responsible for verifying the accuracy of all drawings. Appropriate notation should be attached (Record Drawings) or detached (official seals and signatures) from each drawing. There should be an overall consistency in the format of the Record Drawings as further described below.
 3. The Transmittal for the Record Drawings Submittal should contain the following information:
 - University of Arizona Building Number, Project Number, and Project Name, in the following format:
 - ZZZZ.XX-XXXX-ABCDEF, where ZZZZ is the building number, XX-XXXX is the University of Arizona Project Number, and ABCDEF is the University of Arizona Project Name
 - Firm name and contact information
 - Discipline (Architectural, Mechanical, Landscape, etc.)
 - *RECORD DRAWINGS*
 - Date of the Record Drawings Submittal

Format:

Drawings: All drawings shall be submitted in an AutoCAD *.dwg* format

Graphics: Preferred formats for graphics (photos, sketches, renderings, etc.) include: *.jpg* and *.pdf*

Content of Record Drawings Digital Submittal:

Submit a digital copy of each sheet in the set, and a list of each sheet by page number with the contents of the sheet and the name of any raster images that are attached.

Record Drawings Label:

- Revision dates should be updated for each submission in the title block (with the last date being the date of the Record Drawings submission).
- *Record Drawings* should be clearly seen in bold letters along the bottom of the sheet or near the title block on the right side of the sheet.

Digital Record Drawings:

- The electronic copies of the Record Drawings should be usable in AutoCAD Release 2013, however the drawings themselves don't need to be drawn in this release. Usable is defined as being able to easily identify the file needed, open it, select the appropriate layout tab (representing one sheet from the hardcopy set), and send it to the plotter without have to assign proxy graphics, reconnect (and find) External References (referred to as xrefs from here forward) and raster images, or find a missing *.ctb* or *.stb* (plot style tables) file.
- Each *.dwg* file should be named using the following format: *Sheet Number-xyz* where *xyz* is a project number or project name or other further identifying label as determined by the DP. For example: *Sheet A1.00* should not be in a file called *A1*, but it should be in a file called *A1.00-xyz.dwg*
- If more than one sheet is contained in one file, then the file should be composed to only have one sheet per file and then naming each accordingly.

- Each sheet should be set up on a layout tab of its own in paper space. Each layout tab should be renamed with the sheet number represented on it. Any unused layout tabs should be deleted.
- All *xrefs* should be bound. Any *xrefs* no longer needed in a drawing should be “detached” and not just “unloaded”.
- In order to prevent missing raster images, before transferring the digital files, place all raster images in the same folder as the file into which they are referenced.
- When the transferred files are opened, individual files should be available either in the root folder or in the first sub-folder. In other words, one shouldn’t have to open 2 or more sub-folders to find a file.
- The file with pen weights (.*ctb* or .*stb* file) should be included in the transfer, along with any other non-standard font or shape files.
- Each layout should be set up for either 24”x36” or 30”x42” according to the following settings:
 - Plotter: None
 - Plot Area: Layout
 - Pen Assignment: As per D-B’s own .*ctb* or .*stb* file
 - Scale: 1:1
 - Viewports: Should be zoomed to appropriate scale and locked
 - Paper size: ArchD (24”x36”) or E1 (30”x42”) that matches the plotted drawing set

GeoDatabase AutoCAD Drawings

Provide the following composite drawings derived from the project documents that will be incorporated in to the ASU Enterprise GeoDatabase (e.g., campus maps, vegetation inventory, floor plans, etc.).

1. The intent of this guideline is to insure new facility information is available to ASU in a form and at a time in the design process which will enable a more effective update of ASU Enterprise GeoDatabase.
2. To meet this intent, an electronic drawing file will be created through compositing a number of CAD layers from different source drawings. This new drawing file will then be transformed into the original units, coordinates, and scale of the ASU Enterprise GeoDatabase. If desired, several composite drawings may be created (e.g., one for site layers, one for architectural layers, etc.) so long as they all end up in the same original Enterprise GeoDatabase coordinates.
3. Composite Drawing Elements: The composite drawing(s) should include at a minimum the following plan view elements separated into distinct layers by feature types (e.g. survey monuments and monument labels on different layers, trees on one layer and shrubs on a different layer, etc.). Name each layer within categories as noted below (e.g. Hardscape, Irrigation, Building Footprint, etc.) name beginning with a standard prefix for that category (e.g. *Plant_xyz.dwg*, *Irrig_xyz.dwg*, etc.). Name layers in a way which legibly communicates the subject layer. This could be in one or several drawings, although all layers must spatially register with each other properly.

Site Information

Existing survey control monuments referenced in the project, and new ones added

Planting plan

Hardscape plan (walks, streets, curbs, parking, parking lot striping, etc.)

Irrigation lines and components
Building footprint
Underground site utilities and/or building connection points
Site work / grading
Drainage
Other site structures proposed by the project

Building Information

- Survey control monuments
Building footprint and roof outline
Architectural plans for each floor
Interior layout plans for each floor
Structural plans for each floor
Plumbing plans for each floor
Mechanical Piping and HVAC Ductwork plans for each floor
Electrical Power and Lighting plans for each floor
Telecommunications (voice, data, audio/visual, etc.) plans for each floor
4. Transform this composite drawing(s) into the original state plane coordinates (see Survey Requirements defining units, scaling and other transformation parameters in this “Exhibit B - Scope of Services”). Do not include imbedded blocks or x-refs (i.e., explode all elements/layers so that they permanently reside in the drawing and its transformed coordinates).
 5. Provide an Index in Word or Excel, for each composite drawing, listing and describing drawing category prefixes, which are used to group the layers by features and by subject. Also list the names for each category and briefly describe contents.
 6. Provide the Enterprise GeoDatabase Drawings at two times:
 - with the 100% Construction Documents
 - with the Project Record Drawings

Project Survey AutoCAD Drawings

Save files in AutoCAD release 2013

Site Plan AutoCAD Drawings

Provide Overall Site Plan **only**:

- survey monuments
- buildings
- hardscape (walks, streets, curbs, parking, parking lot striping, etc.)
- other site structures proposed by the project

Save files in AutoCAD Release 2013

No coordinate shift or other modifications required in this drawing; just the Site Plan current at that phase, in project coordinates

Key Plans AutoCAD Drawings

Provide **separate** DWG file **for each floor**

Save files in AutoCAD Release 2013

Formatting of AutoCAD Floor Plan Files

- include Room Numbers and Room Names

- depict each wall as two lines **only** (representing the finished surface on each side of the wall)
- include only lines for each floor on that Floor Plan
- remove intermediate lines, hatching, and symbols from within the walls
- include the project's original site survey monuments on a separate layer, on the Floor Plan which includes the building's Main Entrance
- additional construction-phase monuments may be added as well
- include separate hardscape layers on the Floor Plan which includes the building's Main Entrance
- existing hardscape layers (pre-construction streets, curbs, walks, site walls) from the project's site survey
- sidewalk and pedestrian hardscape layers created for the project
- include doors and windows
- include major pieces of fixed equipment, casework, lab benches, etc.
- remove dimensions
- remove notes and keynotes
- remove structural grid
- remove symbols
- set up layer and block properties to facilitate black-on-white printing on a variety of plotters
 - avoid nested blocks and hard-set colors

Security Design AutoCAD Drawings

Provide Floor Plans, Reflected Ceiling Plans, and Sections **only**

- save files in the AutoCAD Release 2013

Formatting of AutoCAD Files

- include Room Numbers and Room Names
- include doors and windows
- include major pieces of fixed equipment, casework, lab benches, etc.
- remove dimensions
- remove notes and keynotes
- remove structural grid
- remove symbols
- set up layer and block properties to facilitate black-on-white printing on a variety of plotters
 - avoid nested blocks and hard-set colors

Wi-Fi Design AutoCAD Drawings

Provide Site Plans, Floor Plans, and Reflected Ceiling Plans **only**

- save files in the AutoCAD Release 2013

Provide BIM Model

- (see detailed requirements below)

Formatting of AutoCAD Files

- include Room Numbers and Room Names
- include doors and windows
- include major pieces of fixed equipment, casework, lab benches, etc.

- remove dimensions
- remove notes and keynotes
- remove structural grid
- remove symbols
- set up layer and block properties to facilitate black-on-white printing on a variety of plotters
 - avoid nested blocks and hard-set colors

BIM Model

A complete BIM Model, including all design disciplines, in the Latest Release of Revit.

Submitting the BIM Model **does not** exempt the D-B from submitting Record and As-Built Drawing AutoCAD and PDF files, as described in this document.

EXHIBIT C

Design-Build Firm Name
Design and Pre-Construction Services Hourly Rates Summary
dated month - day - year

(tbd pages)

EXHIBIT D

**Form of Pre-Construction Services Amendment
(Template)**

(1 page)

AMENDMENT No. **

Amendment to the Agreement dated _____ (and as amended by subsequent Amendments) by and between the Arizona Board of Regents on behalf of Arizona State University and Design-Builder Company Name (D-B) for services, deliverables and work related to Project No.**-****, Project Name.

This Amendment give brief description of the amendment.

1. The Fixed Fee for Pre-Construction Services is increased to compensate D-B for give a description of services added **OR** decreased for give a description of services deleted.
2. The term of the Agreement is increased by ** months to a total of ** months.
3. Reimbursable Expenses are increased by \$*****
4. The total fee compensation under this Agreement as amended by this Amendment shall be:

	Pre-Construction Phase	Construction Phase	Total
Original Agreement			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Previous Amendments			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Previous Change Orders			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
This Amendment			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Total Including This Amendment			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00

All other provisions, terms and conditions of the Agreement remain unchanged and in full effect.

OWNER
Arizona Board of Regents
on behalf of Arizona State Arizona

DESIGN-BUILDER
D-B Company Name

By

By Its Authorized Representative

Signature

Signature

Printed Name

Printed Name

Date

Date

EXHIBIT E

**Form of GMP Amendment
(Template)**

(2 pages)

AMENDMENT No. **

Amendment to the Agreement dated _____ (and as amended by subsequent Amendments) by and between the Arizona Board of Regents on behalf of Arizona State University and Design-Builder Company Name (D-B) for services, deliverables and work related to Project No.**-****, Project Name. This Amendment give brief description of the amendment.

1. This Amendment establishes a Guaranteed Maximum Price (“GMP”) and Construction Phase Fee for Construction Services, and incorporates such terms into the Agreement, making the Agreement effective for Construction Phase Services:
 - a. The total fee for Construction Phase Services, which is included in the Guaranteed Maximum Price (“GMP”) as defined under the Agreement, shall be fixed at \$ _____ Dollars (\$ _____).
 - b. The Guaranteed Maximum Price (“GMP”) for Construction Services, as defined under the Agreement, shall be \$ _____ Dollars (\$ _____).
 - c. The total compensation under the Agreement, as amended by this Amendment, shall be:

	Pre-Construction Phase	Construction Phase	Total
Original Agreement			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Previous Amendments			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Previous Change Orders			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
This Amendment			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Total Including This Amendment			
Fees	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00
Reimbursable Expenses	\$***,***,***.00	\$***,***,***.00	\$***,***,***.00

2. DELETE the blank template *Exhibit F - Cost of the Work TEMPLATE* from the Agreement, and ADD *Exhibit F - D-B Company Name Cost of the Work* dated month, day, year, x Pages, attached hereto.
3. ADD *Exhibit G - List of Construction Documents necessary to define Scope of Work and deliverables for the Construction Phase Services, including plans, designs, drawings, specifications and other required Contract Documents* dated month, day, year, x Pages, attached hereto.
4. ADD *Exhibit H - Statement of All Clarifications and Assumptions* dated month, day, year, x Pages, attached hereto.
5. ADD *Exhibit J - Schedule of Major Milestones* dated month, day, year, x Pages, attached hereto.

All other provisions, terms and conditions of the Agreement shall remain unchanged and in full effect.

OWNER

Arizona Board of Regents
on behalf of Arizona State University

By:

Signature

Printed Name

Date

DESIGN-BUILDER

D-B Company Name

By Its Authorized Representative:

Signature

Printed Name

Date

EXHIBIT F

Cost of the Work

**Design-Builder to provide a specific Cost of the Work
for each GMP Amendment
dated month - date - year**

(tbd pages) - (final document to be included with GMP Amendment)

EXHIBIT G

LIST OF CONSTRUCTION DOCUMENTS

**Construction Documents necessary to define Scope of Work and Deliverables for the
Construction Phase Services, including plans, designs, drawings, specifications and other
required Contract Documents
dated month - date - year**

(tbd pages) - (final document - to be included with GMP Amendment)

EXHIBIT H

STATEMENT OF ALL CLARIFICATIONS AND ASSUMPTIONS

dated month - date - year

(tbd pages) - (final document - to be Included with GMP Amendment)

EXHIBIT J

SCHEDULE OF MAJOR MILESTONES

dated month - date - year

(tbd pages) - (final document - to be included with GMP Amendment