Design & Construction Project Worksheet
Rev August 26, 2025

Project #:_____

Project Title:_____

Construction Scope of Work:_____
_____

Consultant Scope of Work:_____
_____

Consultant Services:

Programming: Yes / No Y

Programming and Other Services Required:

| | | |
|---|---|---|
| Client Interviews | Yes / No | Y |
| Estimate Required | Yes / No | Y |
| Space Summary | Yes / No | Y |
| Conceptual Floor plans | Yes / No | Y |
| Marketing Materials | Yes / No | Y |
| Other [Please attached list] | | |

Basic Services: Yes / No Y

*Firms providing programming and/or preliminary design on a given project may not eligible to provide design services for that project when that work is used to establish the project budget. An exception to this rule may be made for Tool Box Architects/Engineers that would provide design services within the limits of Tool Box work.*

Consultant Selection:

The University of Missouri uses two procedures for the selection of consultants depending on the size of the project. The dollar sizes of the projects mentioned below are guidelines.

☐ Type I - Major Projects: Major Projects include new buildings, major renovations and significant studies. Typically, professional fees on Major Projects exceed $200,000.

☐ Type II - Small Projects: Small Projects include various types of consulting and typically have professional fees less than $200,000. The process follows the same steps as the Type I process. However, an RFQ and committee interviews are not required. The Project Manager will consider no less than three (3) qualified firms. The Project Manager may elect to use a Type I procedure if there are advantages in finding the best qualified firm for the project.

Evaluation Criteria

The University's procedures for selecting consultants follow the intent of State and Federal guidelines. For each project, the firms will be evaluated based on the following:

1. The firm's qualifications.
2. The number of projects the firm has completed are similar in scope and size.
3. The current number of contracts the firm has with the University of Missouri.
4. The firm's past performance.
5. The firm's present workload.
6. The firm's experience with projects of similar scope & size.
7. The firm's Minority status and minority participation in the design team.
8. The firm's status as a Missouri Firm.

Selection Procedure Documentation

For Type I projects - the Project Manager prepares the Request for Qualifications (RFQ) and determines the maximum architect/engineer fee for the project with this worksheet. This maximum fee will be stated in the RFQ.

For Type II projects – the Project Manager may elect to request a fee proposal from the selected architect/engineer firm and negotiate the fee if there is no advantage to the University to stipulate the maximum architect/engineer fee.

Prepare and Attach the University of Missouri Consultant Selection Summary Form and include any output from the Consultant Database, and a University of Missouri MBE/WBE Consultant Summary Form.

Project Delivery System Selection:

New Construction Cost Estimate: _____

Renovation Cost Estimate: _____

Many factors should be considered when determining which construction delivery system should be used. In general, the following factors should be considered:

- Project type
- Project difficulty and complexity
- Project size
- Project schedule
- Project relationship to other projects

Select one of the following construction delivery systems based on factors indicated above.

☐ **Design/build with full bridging** – this system is generally used for projects costing more than $5 million. This delivery method may be used for complex projects and will have schedules similar to design-bid-build.

☐ **Design/build with schematic design bridging** – this system is generally used for projects with construction cost less than $5 million where design options are available to bidders and for larger projects with repetitive features such as those found in parking structures and residential facilities. This delivery method may have shorter project delivery timelines but will leave some design features to the contractor's discretion.

☐ **Design-bid-build** – this system is generally used for projects with construction cost up to $5 million and for complex projects with construction cost greater than $5 million including renovations or utility type projects. This delivery method may require a longer schedule but will provide more specificity and certainty in what the final design will be.

☐ **Construction Management at Risk** – this system is generally used for complex projects costing more than $20 million, or several projects that may be performed in the same general area. The project schedule will be similar to design-bid-build.

☐ **Master Construction Agreement** – this system is used for smaller projects costing less than $3 million. Plans and specifications are completed by an architect/engineer and given to the Master Contractor for pricing. The project schedule will be similar to design-bid-build, but slightly shorter. Design documents do not have to be developed to a competitive bid level.

Architectural and Engineering Basic Services Fee Estimating Guidelines

Basic Services is the design work customary on a typical project to take an established building program, site, and budget, and then develop the architectural design, engineer the building systems, produce construction documents, and perform construction administration for a single-phase project. Basic Services include the design services customary on every project such as architectural, structural, civil, mechanical, and electrical engineering services. Basic Services are described in the Standard Consulting Agreement.

The following method estimates the Basic Services fees using the Amount Available for Construction (AAC) from the established project budget. The fees are expressed as percentage of AAC for six (6) project types with differing levels of complexity for both New Construction and Renovation. The Project Types are:

- ☐ **Project Type I – Considerably Less than Average Complexity**: Farm Structures, shop & Maintenance, Service, Warehouses, Storage Facilities, Parking Structures.

- ☐ **Project Type II – Less Than Average Complexity**: Student Housing, Office Buildings, Complex Parking Structures.

- ☐ **Project Type III – Average Complexity**: Classroom Facilities, General Teaching Spaces, Medical Offices, Clinics, Gymnasia.

- ☐ **Project Type IV – More Than Average Complexity**: Complex University Buildings, Engineering Laboratories, University Libraries, Dining Facilities, Theaters, Arenas, Auditoriums, Medical Schools.

- ☐ **Project Type V – Considerably More than Average Complexity**: Science and Medical Research Buildings, Hospitals, Museums.

- ☐ **Project Type VI – Engineering Projects**: Campus/Building Chilled Water, Steam, Fire Protection, or Hot Water Systems; Campus/Building Electrical Distribution Systems; Building Replacement Mechanical or Electrical Systems; Building or Campus Generator Systems; Campus Fire Alarm or Security Systems; Outdoor Lighting or Sports Lighting; Retrofit Building Fire Protection Systems; Campus Voice/Data Systems. Power & steam generating capacity projects are not included.

The exact fee can be determined using the "Design Fee Calculator" spreadsheet. Simply, plug in the AAC and return. The A/E fee percentage and lump sum fee will be calculated for each column. Find the column best describing the project type. The corresponding fee

percentage and amount are considered a reasonable estimate of a Basic Services Fee for that project.

The application of these tables is dependent on understanding the size and complexity of the project. It is assumed the project scope of work and budget has been developed to a level where this method can be used to produce an estimate of a reasonable and customary fee.

Consultant Fees to prepare Design/Build proposal documents are estimated using the Basic Services curves and then factored for the level of bridging documents required. For example, bridging through Design Development would be factored by 35%. Services for proposal package preparation, responding to questions during the proposal phase, proposal evaluation services, and construction administration support are then added as not to exceed fees estimated based of the level of effort anticipated.

Not included in the Basic Services Fee are amounts to cover Additional Services or approved Reimbursable Expenses. These costs should be added to the Total Project Budget and should be estimated based on the projected scope of work.

Additional Services are those required to augment the Basic Services that are not customary on every project. The need for Additional Services is dependent on the individual project and will change from project to project. Some of these services will not be identified until the project is underway. However, it is preferable for needed additional services to be identified when requesting services for design.

Basic Services

A. New Construction Cost Estimate: _____

B. New Construction Factor: _____

C. Renovation Cost Estimate: _____

D. Renovation Cost Factor: _____

E. Design/Build Adjustment: _____

Use the percentage completion factors from the SCA as a guide; SD = 15%, DD = 35%. Use 1.00 for D/B/B projects.

F. Total Basic Services Fee: A*B*E + C*B*E = _____

Normally state this fee as a Lump Sum.

G. Other adjustments: _____

For example, estimate fees for D/B guidelines, proposal evaluation, and design/construction submittal review on an hourly basis. Normally state these fees as Not-To-Exceed basis.

H. Total Fee: F + G = _____

Additional Services

Itemize services and estimate fees based on an hourly basis. See attached listing of typical additional serives.

Programming

Itemize services and Estimate fees on an hourly basis [or a square foot basis as applicable].

*Professional Liability [P/L]*
*The minimum PL required on any UM A/E agreement is $1,000,000. For Projects greater than $10,000,000, additional PL may be required as a reimbursable expense.*

Additional Services

Additional Services include, but are not limited to, those listed below. It is desirable that these be identified with the basic services fees and approved at the same time.

Pre-Design Phase

- Feasibility Studies/Analysis
- Assistance with Grant and Funding Applications
- Facility Programming
- Master Planning
- Soils Investigations/Reports/Geotechnical Services
- Surveys-Topographic/Boundary/Vegetation Improvements/Utilities
- Existing Facilities Analyses
- Measured Drawings of Existing Facilities
- Environmental Assessments
- Storm Water Management Permitting
- Environmental/Site Permitting
- Traffic Analyses
- Hazardous Materials Consultation/ Surveys

Design Phase

- Additional Project Meetings [Owner requested in excess of those required for milestone reviews and customary design meetings necessary for the design work]
- Accelerated Design Schedules
- Engagement of a Signature Design Architect
- Engagement of Specialty Expert Consultants for consultation on design parameters, such as Food Service, Historic Preservation, Theater, Acoustical, Audio/Visual, Landscape, Life Safety, Laboratory, Way-finding graphics, Interior Design, Furnishings, & Artwork
- Coordination with Consultants Engaged Directly by the Owner
- Site Specific Seismic Studies
- LEED Process Support and Documentation
- Electrical Fault Current Studies
- Load Studies (Mechanical or Electrical)
- Reliability Analysis (Mechanical or Electrical)
- Value Analyses / Life Cycle Cost Analyses (beyond that required under basic services)
- Computer Modeled Energy Analyses (other than required by University Energy Standards – ASHREA 90)
- Renderings/Models/Videos
- Owner directed Changes to Scope, Size, or Complexity
- Documents Prepared for Multiple Component Construction Packages
- Documents Prepared for Separate Proposal Packages Requested by the Owner
- Environmental Work (Hazardous Waste Consultant Hired by Design Professional)

Construction Phase

- Comprehensive CPM Scheduling
- Phased Construction Observation
- Prequalification of Contractors/ Subcontractors Services
- Commissioning
- Commissioning Support
- Full Time Construction Inspection Provided by the Design Professional
- Program Management Services
- Designing Replacement Work for Damaged Work
- Post Occupancy Observations/Evaluations