



# PUBLIC NOTICE OF DESIGNER SELECTION

## Designer Selection Board

One Ashburton Place, Room #1018A, 10th Floor | Boston, MA | 02108

Telephone: 617-727-4046 | [www.mass.gov/dsb](http://www.mass.gov/dsb)

**DSB List#:** 21-08

**Notice Date:** April 21, 2021

**Submission Date:** May 26, 2021 At 2:00 PM

**Project Number:** DCP2140

**Project Title:** MEP New and Existing Building Commissioning Services

**Project Location:** Statewide

**Awarding Agency:** Division of Capital Asset Management and Maintenance (DCAMM)

**Available Aggregate Amount:** \$1,000,000

**Estimated Construction Cost:** Varies per Project, Typically less than \$5,000,000, will not exceed \$10,000,000

**Contract Term:** Up to Six (6) Years

**Maximum Fee Per Contract**, based on the scope of work and services authorized, shall not exceed: \$500,000

### Prime Firm Requested:

- ☐ Architect
- ☐ Landscape Architect
- ☒ Engineer (**Mechanical**)
- ☐ Interior Designer
- ☐ Programmer
- ☐ Construction Manager

### Contract Type:

This contract will be a "House Doctor" contract. Multiple projects of the type described in the Project Overview and Scope of Work may be assigned, and fee increments approved, up to the maximum fee per contract. Selection by the DSB under this advertisement does not guarantee that a contract will be executed with any given firm. The Awarding Agency will enter into House Doctor contract(s) with selected firm(s) at its sole discretion, based on the Awarding Agency's needs. The Awarding Agency may award up to **two (2)** contracts, each with a total value of **\$500,000** to qualified designers under this contract. Awarding Authority may assign a House Doctor with which it has signed a contract to perform individual project(s) of the type described in this advertisement directly for another Commonwealth entity.

### Immediate Services Authorized:

- ☐ Certifiable Building Study
- ☐ Schematic Plans and Outline Specifications
- ☐ Design Development Plans and Specifications
- ☐ Construction Plans and Specifications
- ☐ Administration of Construction Contract
- ☒ Other: Independent Third-Party Oversight

## AGENCY INFORMATION

The Division of Capital Asset Management and Maintenance is responsible for construction, demolition, alteration, repair, and facility maintenance for a large majority of buildings owned and or operated by the Commonwealth of Massachusetts. The Commonwealth of Massachusetts owns over 80,000,000 gross square feet of buildings throughout the state. Building types include, but are not limited to, office space, correctional facilities, hospitals, courthouses, higher education facilities, and recreational facilities. Buildings range in age from over 100 years old to new and many buildings have historic designations or are located within historic districts.

## PROJECT OVERVIEW

The Division of Capital Asset Management and Maintenance includes the Office of Facility Management and Maintenance (OFMM) to manage DCAMM owned buildings as well as other state agency owned buildings. These services include critical repair and maintenance projects, typically under \$5M in Estimated Construction Cost, with most below \$1M. The purpose of this advertisement is to create a list of available commissioning firms to perform work for the OFMM Projects Team. The OFMM Projects Team will administer study, design, construction, and other contracts for construction projects with an Estimated Construction Cost of approximately \$5M or less. Projects will be procured under MGL c. 149,, ss. 44A-44H, c. 30 s. 39M, and/or c. 25A, s. 11C. DCAMM will continue to speed up the processing of this work and to ensure that all construction pursuant to this advertisement is completed in less than one year from the time of the initiation of the Study until substantial completion of any project. The OFMM Projects Team is focused on addressing the most urgent repair and capital renewal needs to better attend to our backlog of deferred maintenance and improve overall facility conditions throughout the Commonwealth. We are looking for innovative teams interested in partnering on this effort, who understand the challenges of limiting the scope of repairs in order to address the most pressing issues. Most projects will be repairs and renovations, and the goal will be to adhere to the accelerated timeline outlined below.

1. Study and Schematic Design	Less than 2 months
2. Design and Construction Documents	Less than 2 months
3. Procurement of Construction Contractor	2 Months
4. Construction Administration	5.5 months
5. Closeout	1 month

## SCOPE OF WORK

The scope of work has been prepared to identify the key tasks of the commissioning process and related facilities operations activities. The Commissioning Agent shall perform (but shall not be limited to) MEP commissioning services for new and existing buildings and will ensure adherences to industry-accepted standards in pursuing the following activities:

1. Conformance with LEED requirements for the following prerequisites under the Energy and Atmosphere (EA) category:
  - Fundamental commissioning and verification.
  - Minimum energy performance.
  - Building-level energy metering.
  - Fundamental refrigerant management.
2. Advocacy (where appropriate) during project planning and design for up to seven additional credits under EA.
3. Preparation of Facilities Operating Maintenance Plans (FOMP), analysis of maintenance staffing requirements, and MEP guidance for specialized functions (laboratories, data centers, animal care facilities, etc.).

4. DCAMM-CAMIS record-keeping for building operation and maintenance.
5. Facility Condition Assessments (FCA) and recommendations based on findings.

Key commissioning activities are noted below by the four design phases: Pre-Design (Study), Design, Construction, and Post-Occupancy. Please refer to the Additional Support Documents for ASHRAE Guidelines 0-2005, The Commissioning Process, for the full list of potential commissioning activities that may be requested.

### **Pre-Design Phase**

- Define the commissioning scope, schedule, and budget.
- Provide best practices input from similar projects previously completed by the consultant.
- Collaborate with the project team to review and prepare the Owner's Project Requirements (OPR). Review the Basis of Design (BOD) for the project for conformance to the BOD and report findings. The OPR is a written document that details the ideas, concepts, and criteria that are determined by the owner to be important to the success of the project. The BOD includes design information necessary to accomplish the OPR, including system descriptions, indoor environmental quality criteria, design assumptions, and references to applicable codes, standards, regulations, and guidelines.

### **Design Phase**

- Develop the Commissioning Plan detailing team organization, schedule, training, and documentation requirements. Include all related testing, verification, and quality control procedures.
- Conduct design phase kick off meeting and perform periodic commissioning focused reviews of the design submissions.
- Review the BOD for alignment with the OPR and ensure that the OPR and BOD are updated throughout the design process.
- Develop the commissioning specifications that define contractor responsibilities. Include requirements for: submittals, commissioning meetings, commissioning schedule development, construction checklist, functional test procedures format, startup process, measuring instrument and calibration requirements, test readiness confirmation, functional testing processes, balancing report review and reading validation, issues log process, deferred functional testing, training verification, Operation & Maintenance (O&M) manuals, and systems manual requirements.
- Provide samples of required commissioning documentation based on the most recent Portland Energy Conservation, Incorporated/Department of Energy (PECI/DOE) format to the project designer for integration into the project specifications.
- Establish the schedule for all commissioning activities, including periodic design reviews. Schedule commissioning meetings in conjunction with regular progress meetings held by the project team and ensure that commissioning activities do not interfere with or delay progress during any phase of the project.
- Review the design calculations and performance criteria for the project, identifying operation and maintenance problems. Provide written comments and a checklist of required actions to be completed by the designer prior to phase approval and recommend alternative options where appropriate.
- Check and confirm that the BOD includes all the items defined in the OPR at the end of the Design Phase.

### **Construction Phase**

- Update the Commissioning Plan to reflect any changes in the OPR and BOD.
- Coordinate the commissioning process with the project team through project planning and scheduled meetings.
- Review contractor submittals in collaboration with the project team for conformance to project specifications and operation and maintenance requirements, and report findings.
- Hold construction phase controls integration meeting. Verify that the controls system and system sequences are complete, verified, coordinated, and meet the OPR.
- Develop the master list of commissioning equipment and project specific construction checklists.
- Develop, monitor, and document functional performance tests on all building systems in collaboration with the project team.

- Maintain issues log.
- Observe and document system verification checks.
- Observe and document equipment and system start-ups.
- Document testing and balancing work.
- Confirm and document functional test readiness through the construction phase activities.
- Review contractor as built documents and warranties.
- Verify O&M training plans and video process.
- Review O&M manuals and verify compliance with contract documents. Complete construction phase commissioning report.
- Prepare the systems manuals.
- Convene and chair a comprehensive final debriefing with the entire project team (including the owner's maintenance staff) to coordinate correction of any remaining deficiencies, completion of any required re-testing and identification of any training deficiencies prior to building turnover.

All written materials requested in this scope of work will be provided to DCAMM as working drafts and shall conform to the requirements of the Model Commissioning Plan and Guide Specifications produced by Portland Energy Conservation, Inc., and the U.S. Department of Energy (DOE). Upon submittal of each draft, DCAMM shall review and provide comments to the selected vendor. If requested by DCAMM, the selected vendor will attend a meeting with DCAMM staff to review draft documents. Comments shall be incorporated into final products.

## **Facilities Operations**

### **Design Phase**

- Review the size and skill levels of the user's maintenance staff in relation to the requirements of the new building.
- Provide specific recommendations to fill any deficiencies, either through hiring additional personnel or contracting for professional services. In collaboration with the Project Manager and Designer, provide operations and maintenance staffing data for the development of a Life Cycle Cost Analysis (LCCA) for the project.

### **Construction Phase**

- In collaboration with the Designer, Contractor(s) and Construction Manager populate all operational information, including equipment data, for each building system in the digital format specified by DCAMM. Respondents to this solicitation must be experienced in and capable of conforming to the process requirements of Building Information Modeling (BIM) and Construction Operations Building Information Exchange (COBIE). Pricing must be inclusive of any and all costs associated with the intent of this solicitation.
- Review all as-built documents and warranty information in collaboration with the project team. Submit warranty information and preventive maintenance schedules for all building systems in a comprehensive, five-year preventive maintenance plan. The format for this submittal shall be approved jointly by DCAMM and the building owner. This submittal shall also include list(s) of recommended spare parts, bench stock, and special tools/equipment required for the first year of building operation. Preparation of Facilities Operating Maintenance Plans for five year operating costs and 20 year capital renewal costs.
- Ensure and confirm that the user's staff can operate and maintain all building systems.

### **Occupancy and Operations Phase**

- Confirm that all equipment continues to perform as designed and alert the owner to any warranty claims by providing a review of all system warranties prior to their one-year expiration date.
- Document the estimated savings generated by the commissioning process through specific examples of avoided costs collected through all project phases. The required format will be provided by the DCAMM Project Manager. Compare the actual tested performance of the building's completed systems with established standards.

- Implement a Measurement and Verification (M&V) plan consistent with Option D: Energy Conservation Measure Isolation as specified in the International Performance Measurement & Verification Protocol (IPMVP) Volume III: *Concepts and Options for Determining Energy Savings in New Construction*, April 2003. The M&V period must cover at least one year of post-construction occupancy.

The overall performance of the selected vendor during the execution of this contract shall be subject to evaluation by the user's facility managers and DCAMM's program and project managers. The results of these evaluations will be used to assign future projects.

## ADDITIONAL SUPPORTING DOCUMENTS:

The scope of work for this project is supported by the materials listed below, which are available for review and download on the Designer Selection Board website.

- ASHRAE Guidelines 0-2005 The Commissioning Process  
<http://www.mass.gov/anf/docs/dcam/dsblist/dsb141501-ashrae-guideline-o-the-commissioning-process.pdf>
- Construction Operations Building Information Exchange (COBIE).  
<http://www.mass.gov/anf/docs/dcam/dsblist/dsb141501-cobie.pdf>
- Portland Energy Conservation, Incorporated/Department of Energy (PECI/DOE) format  
<http://www.peci.org/resources/model-commissioning-plans-guide-specifications>
- International Performance Measurement & Verification Protocol (IPMVP) Volume III: *Concepts and Options for Determining Energy Savings in New Construction*, April 2003.  
<http://smartenergy.arch.uiuc.edu/pdf/Archive/IPMVPNewConstruction.pdf>
- FOMP <http://www.mass.gov/anf/docs/dcam/dsblist/dsb141501-isis-fomp-sample-scott.pdf>

## APPLICATION EVALUATION

Applications will be evaluated based on the DSB criteria for selection of semi-finalist and finalist appearing on the DSB website <https://www.mass.gov/files/documents/2018/12/19/criteria-for-selection-of-semi-finalists-and-finalists-160707.pdf>. The specific Personnel and Project Experience required is listed below.

### PERSONNEL

1. Mechanical Engineer (M/P/FP) (**Prime Firm**) \*
2. Electrical Engineer

\*Should the advertisement require the applicant to be either an A&E firm or Engineer, the P.I.C. or P.M. must be a Registered Engineer in the Commonwealth of Massachusetts.

### EVALUATION FACTORS

Applications will be evaluated based upon the requirements of M.G.L. Ch. 7C, § 49 and the work listed on DSB Application Form Sections 4 and 5 which illustrate current qualifications in the following areas:

1. Diversity Focus Statement (Section 5) Approach to enhancing diversity in assembling the team for this project and the inclusion of firms that expand the overall breadth of different firms working on DCAMM projects including description of specific working relationships and responsibilities between and amongst team members for both MBE/WBE firms and those with which they will be teaming. If applicable, please highlight prior projects that have met M/WBE goals.

2. Key team members will have demonstrated experience in leading and facilitating projects which target high efficiency and climate resiliency in design and systems, including knowledge of Passive House and Net Zero building design principles, resilient design, considerations of site-specific resilience enhancements, decarbonization of fossil fuel systems, and strategic electrification.
3. Experience in providing commissioning services during all phases of the life of a project, inclusive, from initial planning through measurement and verification of the building operational efficiency during the first year of owner occupancy.
4. Experience in commissioning a wide range of building types, from simple office buildings to complex laboratory facilities, and the ability to provide a broad variety of examples of separate building commissioning projects completed by their firm.
5. Extensive experience with testing, adjusting, and balancing complex heating, ventilation, and air conditioning systems as well as other automated building systems such as lighting, security, and fire protection.

## SUPPORTING DOCUMENTS

The scope of work for this project is supported by the materials listed below.

N/A

## PROJECT REQUIREMENTS

Project requirements, general conditions and/or requirements of this public notice include, but are not limited to:

### [Affirmative Marketing](#)

### **MBE/WBE Participation**

The Commonwealth is committed to helping address the disparity in the participation of minorities and women in design. Along with the MBE and WBE participation goals which reflect ownership status set forth below, the Designer Selection Board and DCAMM are interested in learning about the applicant firm's approach and commitment to diversity in its HR policy, its overall business practices and in assembling this project team. Firms are encouraged to be creative in assembling their teams by considering dividing the work of a particular discipline, when appropriate, including work it would typically provide in house, partnering, offering opportunities to qualified firms with which it or its consultants have not previously worked or firms that may have less experience working on public projects, and other means that provide additional opportunities for MBE and WBE firms in new ways.

**Applicants, as prime firm and team lead, should include in their application, under Section 5, a Diversity Focus Statement directly addressing their approach to enhancing diversity in assembling the team for this project, including a clear description of each working relationship, and in their overall HR and business practices. The Designer Selection Board strongly encourages teams composed of firms that expand the overall breadth of different firms working on DCAMM projects. See also Evaluation Factors.**

In accordance with M.G.L. C.7C, §6 and Executive Orders 526 and 565, the **Division of Capital Asset Management and Maintenance (DCAMM)** has established minimum MBE and WBE participation goals of **4.2% MBE and 8.6% WBE** of the overall value of the study and final design contracts for this Contract/project. Applicants must utilize both MBE and WBE firms whose participation meet these separate participation goals set for the Contract. The

separate MBE and WBE participation goals must be met within the list of requested prime and sub-consultants and those MBE and WBE firms with which they team. MBE and WBE firms providing extra services, such as surveying or testing, can also contribute to the MBE and WBE participation on the project.

All applicants must indicate in their applications how it or its consultants will meet these goals and will be evaluated on that basis. Further information about the MBE and WBE Program appears in the “Participation by Minority Owned Businesses and Woman Owned Businesses,” in the Commonwealth of Massachusetts Contract for House Doctor Services at Attachment F, and a list of firms currently MBE or WBE certified appears on the Supplier Diversity Office website: <http://www.mass.gov/sdo>.

Applications from MBE and WBE firms as prime consultant are encouraged. Applicants that are themselves MBE or WBE certified may use their participation toward meeting the goal for the certification they hold and will be required to bring participation by additional firm(s) that holds the necessary SDO certifications to meet or exceed the goals on this Contract. Applicants are strongly encouraged to utilize multiple disciplines and firms to meet the MBE and WBE goals. Consultants to the prime can team within their disciplines in order to meet the MBE and WBE goals, but must state this relationship on the organizational chart (Section 6 of the application form). Please note that only firms that are currently Massachusetts Supplier Diversity Office certified as MBE or WBE can be credited toward meeting project MBE or WBE goals.

#### **Additional Diversity Programs:**

##### **Veteran Owned Business Participation Benchmark – Chapter 108 of the Acts of 2012; Executive Order 565**

The Commonwealth encourages the participation of Service-Disabled Veteran-Owned Business Enterprises (“SDVOBE”) and Veteran-Owned Business Enterprises (“VBE”) on its design projects. The benchmark for combined SDVOBE and VBE participation on DCAMM and other Executive Branch agencies design projects is 3% of the contract price as set forth in the standard DCAMM Contract for House Doctor Services referenced herein.

In addition the Commonwealth encourages the participation of Disability-Owned Business Enterprises (DOBEs) and Lesbian, Gay, Bisexual, and Transgender Business Enterprises (LGBTBEs) firms on its design projects (see Executive Order 565 -No. 565: Reaffirming and Expanding the Massachusetts Supplier Diversity Program | Mass.gov).

#### **Energy, Sustainability and Climate Change Adaptation**

##### **Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth**

Projects undertaken under this contract shall comply with all applicable requirements of Executive Order 569 – see <https://www.mass.gov/executive-orders/no-569-establishing-an-integrated-climate-change-strategy-for-the-commonwealth>.

##### **Executive Order 484: Leading by Example – Clean Energy and Efficient Buildings**

Projects undertaken under this contract shall comply with all applicable requirements of Executive Order 484 (EO 484) or the most recent Leading by Example Executive Order: see <https://www.mass.gov/doc/executive-order-484-mass-register-1077/download>.

All building studies shall include preliminary estimates of the project’s energy use, water use, and greenhouse gas emissions using protocols established by EOEEA or as determined by DCAMM. No building study shall be certified for final design unless all means, methods, and commitments required to mitigate the project’s impact on the operating agency’s plan for meeting goals of the relevant Executive Orders are documented in the consensus solution, implementation plan and estimated construction cost.

#### **LEED Certification**

If applicable, as determined by DCAMM, any project authorized under the House Doctor Contract shall be certified at a level of Silver or higher, including Mass LEED Plus requirements. All measures proposed to achieve a LEED rating shall be incorporated into final design as part of the House Doctor’s base fee; administration of the certification process by the House Doctor during the final design and construction phases of the project will be considered an extra service.

## Universal Design

Design solutions provided under this contract are expected to meet the diverse and changing needs of users across age, ability, language, ethnicity, and economic circumstance. **DCAMM** welcomes innovative design strategies that are usable by the widest range of people operating in the widest range of situations without special or separate design.

## Accessibility

The House Doctor's team's design must comply, at a minimum, with 521 CMR, The Rules and Regulations of the Architectural Access Board (<http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations.html>), as well as the 2010 ADA Standards for Accessible Design (<http://www.ada.gov/regs2010/2010ADAStandards/2010ADASTandards.htm>). When the requirements of these two laws differ the consultant shall comply with the one that provides the greater degree of accessibility. The House Doctor is also expected to understand and reflect in its design the civil rights obligations of the Commonwealth under Title II of the Americans with Disabilities Act ([http://www.ada.gov/regs2010/titleII\\_2010/titleII\\_2010\\_regulations.htm](http://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm)) to provide equal access to programs, services, activities and comply with ADA scope requirements for alteration of primary function areas, as applicable. **DCAMM** will use its Accessibility Consultants to provide technical assistance and oversight for accessibility compliance during the study, design, and construction process, including accessibility audits of existing buildings.

## Policies & Procedures

### Financial Statement

M.G.L. c. 7C, §51 requires that on public design contracts where the total design fee is expected to exceed \$30,000 for the design of a project for which the estimated construction cost is expected to exceed \$300,000 the designer shall:

- a) File its latest CPA or PA audited financial statement with the Division of Capital Asset Management and Maintenance (DCAMM), and continue to do so annually throughout the term of the contract;
- b) Submit a statement from a CPA or PA that states that they have examined management's internal auditing controls and expresses their opinion regarding those controls to the **DCAMM**.

### DCAMM Procedures

The House Doctor must be familiar with the procedures established in DCAMM's Designer Procedures Manual dated August 2008 (<https://www.mass.gov/files/documents/2017/12/19/designers-procedures-manual-aug08.pdf>). Applicants are urged to review and become familiar with the following supplemental material, which is available on the web at: (<http://www.mass.gov/dcam>).

### Environmental and other supplemental services

Development of any hazardous materials assessments, specifications, and documents will be provided through the Hazardous Materials Consultant design team member identified above. **DCAMM** reserves the right to obtain supplemental services through independent consultants who will collaborate with the House Doctor's team. These supplemental services may include, but are not limited to, asbestos inspection and monitoring, and indoor air quality testing and monitoring.

### Construction Specifications

The House Doctor shall utilize the DCAMM Standard Specification.

### Cost Estimating

Cost estimates, cost models, and estimator participation in both the study and the design phases shall meet the requirements of the current DCAMM Cost Estimating Manual and will be submitted in Uniformat II in the study



phase and in both Uniformat II to Level 3 and CSI Masterformat in the design phase. The Cost Estimating Manual can be found at <https://www.mass.gov/files/documents/2017/12/19/cost-estimating-manual.pdf> and Uniformat II can be found at <http://fire.nist.gov/bfrlpubs/build99/PDF/b99080.pdf>.

## CONTRACT REQUIREMENTS

### Contract for House Doctor Services

Appointed applicants will sign a standard *Contract for House Doctor Services* (July 2020) (“House Doctor Contract”). Once a House Doctor Contract is executed with a selected applicant, DCAMM will solicit proposals from the House Doctor related to specific projects and issue Notices to Proceed for agreed upon scopes of work as set forth in the House Doctor Contract.

<https://www.mass.gov/doc/contract-for-house-doctor-services/download>

Exhibit C of the House Doctor Contract sets forth specific terms and conditions for the scope of services.

*No costs shall be incurred or work performed before all contract documents are properly executed and a project Notice to Proceed is issued in accordance with the terms of the contract.*

Applicants are advised that certain documents are required as a condition of contract execution, including, without limitation, evidence of professional liability insurance in an amount equal to the lesser of \$5,000,000 or 10% of the Project’s Fixed Limit Construction Cost, but in no event less than \$250,000 per claim (i.e., minimum coverage of \$250,000 up to \$5,000,000 per claim depending on the construction cost). Evidence of current coverage will also be required for each Notice to Proceed issued under the contract.

## CONDITIONS FOR APPLICATION

Before a designer can apply for a project within DSB jurisdiction, they must file a written “disclosure statement” in accordance with M.G.L. c. 7C, § 48. The statement provides the basis for the DSB informational database and verifies that the designer meets certain general qualification and ownership requirements detailed in M.G.L. c. 7C, §§ 44 and 48. To help firms meet this requirement, the Designer Selection Board provides an online registration system that can be accessed at <https://www.mass.gov/service-details/new-dsb-online-registration-process>. Firms must register on this platform to submit the required disclosure statement; paper disclosure statement submissions are no longer accepted. As part of applying for a particular project, firms must verify that the information provided remains accurate and up-to-date or, if necessary, submit updated information.

## APPLICANTS PLEASE NOTE

The Designer Selection Board has transitioned to a new online system for all of its operations on the AUTOCENE Enterprise Automation Platform. We encourage everyone in the design community to enter all their information and start getting used to this powerful new product! The board no longer accepts jurisdictional applications through our old application system and all new applications must be completed within Autocene. New users can request credentials through the system login screen: <https://dsb-dev.formverse5.com/FORMVERSESERVER-DSB/WebApp/Login.aspx?ReturnUrl=%2fFORMVERSESERVER-DSB%2fWebApp%2fHome.aspx>.