

**DESIGN PHASE AMENDMENT
TO
CONTRACT FOR STUDY, FINAL DESIGN, AND
CONSTRUCTION ADMINISTRATION SERVICES**

Awarding Authority:	
Mass. State Project No./Contract No.:	
Project Title/Project Location:	
User Agency:	
Designer:	
Effective Date of Amendment:	

WHEREAS, Designer and the Awarding Authority previously entered into a contract for Study, Final Design, and Construction Administration Services, dated _____ with a project number of _____ (the “Contract”); and

WHEREAS, the Awarding Authority has selected Designer to perform the Design Services in accordance with the Contract and desire to amend the contract to proceed into the Design Phase Services in accordance with Article 5 of the Contract.

The Awarding Authority and Designer acknowledge and agree that:

- 1. Certified Study.** As of the date of this Amendment, Designer has completed and been compensated for the work required under the Contract for the Study Phase of the Project, including without limitation the creation of a Certified Study as identified below, which is hereby incorporated into the Contract by reference:

Title:
Massachusetts State Project No.:
Study Date:
Cost Estimate Date:
Date of Certification:

- 2. Design Phase Schedule.** Designer and Awarding Authority agree that the Design Phase Services shall be performed in accordance with the following schedule:
 - a. Unless otherwise approved by the Awarding Authority in writing, Designer shall complete final drawings and specifications with associated BIMs (if applicable) and bid

documents within the following number of calendar days from the issuance of the “Notice to Proceed” to the Designer: _____ (# days)

- b. The estimated construction duration through substantial completion, including early bid packages, if any, is anticipated to be the following number of calendar days from the issuance of the first notice to proceed with construction services to the general contractor, with adjustments for out of sequence work on the Project as directed by DCAMM: _____ (# days)

3. Design Phase Contract Modifications. The Contract shall be modified as follows:

- a. The following documents attached hereto are hereby incorporated into the Contract by reference:
 - (i) Attachment E-3 – Corporate Vote or Other Evidence of Authority (Design Phase)
 - (ii) Attachment F-3 – Truth in Negotiations Certificate (Design Phase)
 - (iii) Attachment G – Design Phase Scope of Services
 - (iv) Attachment I – Designer’s Personnel Assigned to Project
 - (v) Attachment J – Certified Billing Rates of Designer’s and Designer’s Consultant’s Personnel
- b. On the cover page of the Contract, the following amount shall be inserted as the not-to-exceed amount for the Design Phase Basic Fee:

\$ _____; XX % of Estimated Construction Cost

If applicable: A breakdown of the Design Phase Basic Fee is attached hereto and incorporated by reference.

- 4. Defined Terms; Contract Terms Not Amended.** All other provisions of the Contract not expressly changed by this Amendment shall remain in full force and effect. Any capitalized term not defined in this Amendment shall have the meaning set forth in the Contract.
- 5. Counterparts.** This Amendment may be executed by the parties hereto in separate counterparts each of which when so executed shall constitute an original, but all of which together shall constitute one and the same instrument.

Remainder of page intentionally blank. Signatures on following page.

SIGNATURES

Designer and Awarding Authority have executed this rider to this Contract as of the date first written above under the pains and penalties of perjury.

DESIGNER:

AWARDING AUTHORITY

Printed Name: _____

Printed Name: _____

Title: _____
hereunto duly authorized

Title: _____
hereunto duly authorized

Date: _____

Date: _____

Approved as to Form:

Printed Name: _____

Title: Deputy General Counsel

Date: _____

[NOTE: Below is a Draft Design Scope of Services for DCAMM Projects; subject to change based on the information provided in the certified study, including but not limited to items designated as Additional Services]

Attachment G – Design Phase Scope of Services (MGL c. 149A)

1) General.

A. Project Delivery Method. The construction of this Project is being procured utilizing a construction manager at risk (“CM at Risk”) contract pursuant to M.G.L. c. 149A wherein the construction manager (“CM”) is under contract with DCAMM prior to the completion of final design. The CM is required to provide consulting and estimating services to DCAMM and the Designer during the design phase of the Project. Upon the issuance of the Notice to Proceed for construction services, the CM then acts as a general contractor for the Project providing both management and construction services.

All Design Phase Services necessary to construct the Project utilizing the CM at Risk method shall be part of BASIC SERVICES unless indicated otherwise in the Contract.

B. Fixed Limit Construction Cost. The Project’s Fixed Limit Construction Cost is:
\$ _____.

2) Consultants. The Approved Consultants to the Designer under this Contract shall be those identified below and all Services provided by team members identified therein shall be provided as BASIC SERVICES unless otherwise expressly set forth herein or approved by DCAMM in writing. To the extent that other specialized consulting services beyond those provided by the Approved Consultants referenced herein are agreed to be required for the Project, retention of such Consultants shall proceed in accordance with Section 3.14 of the Contract.

Discipline	Name of Consultant	MBE/WBE (Yes/No)	Consultant included in DSB Application (Yes/No*)

**Note: In accordance with M.G.L. c. 7C, DCAMM will notify the Designer Selection Board (DSB) of the addition to and/or substitution of Consultants not included in the Designer's DSB application for this Project.*

3) **Building Information Modeling (BIM).** BIM shall be compensated as BASIC SERVICES.

4) **Geotechnical Engineering Services.**

A. The Designer, together with the geotechnical engineer, upon assessing information provided by the subsurface explorations, shall provide the following geotechnical services as BASIC SERVICES:

- i) Foundation design criteria to include engineering design parameters and settlement analyses for shallow spread footings, mat foundations, driven piles, drilled piers (caissons), auger cast piling, pressure injected footings (PIFs), and other foundation systems.
- ii) Settlement and subsidence analysis to include analyzing loose granular deposits for liquefaction potential, calculating consolidation settlement in soft clay and organic deposits under new earth embankment or area fill.
- iii) Earth retaining structures and reinforced earth (i.e., cantilever systems, tied-back walls, gravity retaining walls, and other earth retention systems).
- iv) Slope design to include soil and rock stability.
- v) Requisite construction administration services relating to foundation, underslab utilities within the building footprint, and retention systems work (i.e., field observations, review and approval of relevant submittals, preparation of responses to relevant RFIs (Requests for Information), review of substructure related tests, verification of design intent, and other similar activities).

B. The following shall be considered ADDITIONAL SERVICES:

- i) Subsurface explorations, including but not limited to: soil borings, test pits, percolation tests, observation wells, geothermal wells, mapping of existing underground utilities and appurtenances (active, inactive and abandoned), and detrimental conditions, including but not limited to: buried foundations, dump sites, hazardous materials, peat, ledge, and other elements that may impact proposed new construction.
- ii) Where hazardous materials are suspected, discovered and/or known to exist, the procurement of the services of a Licensed Site Professional (LSP) to analyze such materials and recommend appropriate remediation. Analyses shall not be performed by a geotechnical engineer, unless she/he is also an LSP.

- iii) Services related to on-site instrumentation and monitoring of the installation of deep foundations, including but not limited to: driven piles, drilled piles, and pressure-injected footings (PIFS), to the extent these are incorporated into the final design.

- 5) **Massachusetts Executive Order 484 and LEED Requirements.** In order to achieve the requirements of Section 7.2 of the Contract requiring compliance with Massachusetts Executive Order No. 484 - *Leading By Example: Clean Energy and Efficient Buildings*, the Designer shall provide as BASIC SERVICES, all design services required to achieve the maximum feasible LEED¹ certification for the Project. At a minimum, the Designer shall provide design services necessary to achieve Mass LEED Plus and LEED Silver certification. Such BASIC SERVICES shall include but are not limited to:
- A. Create methods, systems, materials, and prepare construction documents to achieve Mass. LEED Plus and LEED Silver or higher certification.
 - B. Work with the CM and DCAMM to establish, coordinate and finalize the LEED creditable work to be incorporated into the bid documents.
 - C. Perform a Life Cycle Cost Analysis (LCCA) in accordance with the Contract and the provisions of the current *DCAMM Designers Procedures Manual* Sections 7-9.
 - D. Prepare Energy Modeling which shall include the provisions of “Energy and Atmosphere Prerequisite 2” and “Credit 1,” contained within the current version of the *LEED Reference Guide for Green Building Design and Construction*..
 - E. Establish contact with utilities regarding potential rebates and prepare a design that achieves the maximum available incentives.
 - F. Compose, compile, package and submit all requisite documentation necessary for DCAMM to achieve LEED certification for the project, in cooperation with DCAMM and the CM, as appropriate. The submission fee for certification documentation shall be treated as a reimbursable expense pursuant to Section 6.8.1 of the Contract.
 - G. Provide briefings on LEED status as part of Project meetings. The Designer shall serve as liaison between the CM and the United States Green Building Council (USGBC) / Green Building Certification Institute (GBCI) to assure that all requisite documentation is submitted, and certification is achieved.
- 6) **Universal Design and ADA.** Included in the BASIC SERVICES, Designer shall comply with all of the requirements set forth in Section 7.6 in the Contract, including the incorporation and promotion of the principles of universal design, unless specifically excluded herein.

¹ *Leadership in Energy and Environmental Design* (“LEED”) Green Building Rating System developed by the U.S. Green Building Council

- 7) **Building Commissioning.** Designer's services related to building commissioning shall be included as part of BASIC SERVICES. Designer shall be required to:
- A. Meet and consult with DCAMM's building commissioning agent (BCA) during design and construction to document the basis of design; review, respond and incorporate the commissioning specification; and review documents prepared by DCAMM's BCA, as appropriate, for all operating systems to ensure maintainability and operational efficiency;
 - B. Meet, consult, and review with DCAMM's BCA and client agency to enable DCAMM's BCA to develop an owner's project requirements and operations and maintenance plan for the facility; and
 - C. Review and comment on DCAMM's BCA periodic commissioning progress reports and issues log as appropriate.
 - D. Participate in the initial operation and maintenance training session by presenting the project basis of design.
 - E. Coordinate commissioning activities with the Construction Manager.
 - F. Indoor Air Quality (IAQ) standards for products that meet volatile organic compound (VOC) limits shall be specified. Also, Environmentally Preferable Products (EPPs) shall be reviewed.
- 8) **Selection of Furniture, Furnishings and Moveable Equipment.** Coordination with DCAMM or its client agency's consultant relative to the selection of furniture, furnishings and moveable equipment, shall be compensated as ADDITIONAL SERVICES.
- 9) **Signage and Wayfinding.** Any additional special signage and wayfinding requirements beyond Section 6.5 of the Contract shall be compensated as ADDITIONAL SERVICES.
- 10) **Meetings and Workshops.** In addition to attendance and participation at required Project meetings, Designer shall be required to partake in the following specific meetings and workshops as part of BASIC SERVICES:
- A. Up to three (3) half day Global Workshops and/or Global Workshop preparation meetings which may be held at various points in the Design Phase upon DCAMM's request with DCAMM and CM for briefings and review of conditions, assumptions and decisions made during the Design Phase.
 - B. Estimating and value engineering meetings in accordance with the requirements of Paragraph 11 below.

- C. Weekly meetings chaired by the Designer to discuss relevant issues to design, constructability and construction phasing, which may be incorporated into regular scheduled weekly meetings held during the Project.
- D. Monthly executive meetings among DCAMM and Designer's executive staff, the CM firm, and DCAMM's client agency.

11) **Cost Estimates.** The preparation or update of Cost Estimates, including the reconciliation of estimates by the CM, shall be part of the BASIC SERVICES.

- A. **Cost Reconciliation.** The Designer and (if applicable) its professional cost estimator shall participate in budget, cost, and reconciliation meetings with the CM (when the CM is under contract) and DCAMM in order to reconcile any discrepancies between the estimates prepared by the Designer's estimator and the CM and develop an agreed upon estimate. Where such discrepancies in the estimates exist, the purpose of such reconciliation meetings shall be to collaborate and reach agreement on revised estimates. The Designer shall be required to incorporate such revised estimates into the remaining Design Phase Services for the Project so that the cost of the design does not exceed the Approved Estimated Construction Cost (ECC) or the Fixed Limit Construction Cost authorized for the Project.

B. **[Note: subject to further clarification and/or modification at completion of study] Schedule of Cost Estimate.** At a documentation point agreed between DCAMM and the Designer, the Designer shall prepare or update Construction Cost Estimates as follows:

- i) 100% Schematic Design, which shall include any necessary updates to the comprehensive estimate based on the most current information from the completed SD.
- ii) 100% Design Development, which shall provide any necessary updates to the comprehensive estimate based on the most current information from the completed DD.
- iii) Construction Documentation (CD). The Designer and its Estimator shall prepare or update Cost Estimates during the CD phase for individual bid packages issued prior to establishment of GMP and a complete estimate at the end of the CD phase.

12) **Services for CM at Risk Projects.** Designer's performance of the following services related specifically to the CM at Risk delivery method shall be compensated as noted herein:

- A. **Designer's Services Regarding CM Prequalification and Selection Committees.** Pursuant to M.G.L. c. 149A, §§ 5 and 6, the Designer is required to participate on a statutorily established prequalification and selection committees for the evaluation and selection of the CM firm. All services performed by Designer in accordance with

the prequalification and selection committee requirements of M.G.L. c. 149A, including but not limited to: Designer's review and evaluation of the qualifications and proposal submissions from interested CM firms, participation in committee meetings, deliberations and evaluations. **Option 1:** Such services shall be compensated as _____ SERVICES. **Option 2, if CM responses are obtained during schematic design:** Such services have been authorized and paid for during the Project's Study Phase. Any such ongoing services during the Design Phase shall be treated as BASIC SERVICES.

- B. Designer's Services Regarding Trade Contractor Prequalification. Pursuant to M.G.L. c. 149A, § 8, the Designer is required to participate on a statutorily established trade contractor prequalification committee. All services performed by Designer in accordance with the prequalification committee requirements of M.G.L. c. 149A, including but not limited to: Designer's review and evaluation of the qualifications and proposal submissions from interested trade contractors, participation in committee meetings, deliberations and evaluations shall be compensated as _____ SERVICES. All other services related to Designer's preparation and review of bid documents as required in Section 6.5 of the Contract, including but not limited to: the review of trade contractor sub-bids, attendance at pre-bid meetings and bid openings, and recommendations to DCAMM regarding trade contractor sub-bids, shall be included in BASIC SERVICES.
- C. Designer's Services Regarding Assessment of Non-trade Contractors. To the extent that DCAMM requests Designer's services relative to the evaluation of qualifications of non-trade contractors proposed by CM, such services shall be compensated as _____ SERVICES.
- D. Preparation and Coordination of Early Bid Packages. In order to commence construction prior to the completion of the final design documents, DCAMM may request the Designer to prepare early bid packages, including but not limited to: **site work, demolition, abatement of hazardous materials, utilities, and foundations.** If DCAMM requests Designer to prepare any early bid packages, the cost shall be included in Designer's BASIC SERVICES for the Project. Notwithstanding the foregoing, to the extent that early or out of sequence work requires Designer to provide construction administration services prior to the Notice to Proceed to the CM for construction services, then Designer shall be compensated as ADDITIONAL SERVICES on a per diem basis as agreed in writing by the parties.

13) [Additional sections, detail, and attachments inserted as needed]

[NOTE: Below is a Draft Design Scope of Services for DCAMM Projects; subject to change based on the information provided in the certified study, including but not limited to items designated as Additional Services]

Attachment G – Design Phase Scope of Services (MGL c. 149)

1) General.

A. Project Delivery Method. The construction of this Project is being procured utilizing using the “design-bid-build” project delivery method in accordance with M.G.L. c. 149, §§ 44A through 44J. All Design Phase Services necessary to construct the Project utilizing the M.G.L. c. 149 design-bid-build method shall be part of BASIC SERVICES unless indicated otherwise in the Contract

B. Fixed Limit Construction Cost. The Project’s Fixed Limit Construction Cost is: \$ _____.

2) Consultants. The Approved Consultants to the Designer under this Contract shall be those identified below and all Services provided by team members identified therein shall be provided as BASIC SERVICES unless otherwise expressly set forth herein or approved by DCAMM in writing. To the extent that other specialized consulting services beyond those provided by the Approved Consultants referenced herein are agreed to be required for the Project, retention of such Consultants shall proceed in accordance with Section 3.14 of the Contract.

Discipline	Name of Consultant	MBE/WBE (Yes/No)	Consultant included in DSB Application (Yes/No*)

**Note: In accordance with M.G.L. c. 7C, DCAMM will notify the Designer Selection Board (DSB) of the addition to and/or substitution of Consultants not included in the Designer’s DSB application.*

3) Building Information Modeling (BIM). BIM shall be compensated as BASIC SERVICES.

4) **Geotechnical Engineering Services.**

A. The Designer, together with the geotechnical engineer, upon assessing information provided by the subsurface explorations, shall provide the following geotechnical services as BASIC SERVICES:

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- ii) Settlement and subsidence analysis to include analyzing loose granular deposits for liquefaction potential, calculating consolidation settlement in soft clay and organic deposits under new earth embankment or area fill.
- iii) Earth retaining structures and reinforced earth (i.e., cantilever systems, tied-back walls, gravity retaining walls, and other earth retention systems).
- iv) Slope design to include soil and rock stability.
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- i) Subsurface explorations, including but not limited to: soil borings, test pits, percolation tests, observation wells, geothermal wells, mapping of existing underground utilities and appurtenances (active, inactive and abandoned), and detrimental conditions, including but not limited to: buried foundations, dump sites, hazardous materials, peat, ledge, and other elements that may impact proposed new construction.
- ii) Where hazardous materials are suspected, discovered and/or known to exist, the procurement of the services of a Licensed Site Professional (LSP) to analyze such materials and recommend appropriate remediation. Analyses shall not be performed by a geotechnical engineer, unless she/he is also an LSP.
- iii) Services related to on-site instrumentation and monitoring of the installation of deep foundations, including but not limited to: driven piles, drilled piles, and pressure-injected footings (PIFS), to the extent these are incorporated into the final design.

5) **Massachusetts Executive Order 484 and LEED Requirements.**

TO BE CUSTOMIZED FOR EACH PROJECT – REVIEW WITH PM:

Option 1:

Massachusetts Executive Order 484 is not applicable to this Project. It is also not anticipated that this project will be eligible for LEED certification.

Option 2:

In order to achieve the requirements of Section 7.2 of the Contract requiring compliance with Massachusetts Executive Order No. 484 - *Leading By Example: Clean Energy and Efficient Buildings*, the Designer shall provide as BASIC SERVICES, all design services required to achieve the maximum feasible LEED¹ certification for the Project. At a minimum, the Designer shall provide design services necessary to achieve Mass LEED Plus and LEED Silver certification. Such BASIC SERVICES shall include but are not limited to:

- A. Create methods, systems, materials, and prepare construction documents to achieve Mass. LEED Plus and LEED Silver or higher certification.
- B. Work with the general contractor and DCAMM to establish, coordinate and finalize the LEED creditable work to be incorporated into the bid documents.
- C. Perform a Life Cycle Cost Analysis (LCCA) in accordance with the Contract and the provisions of the current *DCAMM Designers Procedures Manual* Sections 7-9.
- D. Prepare Energy Modeling which shall include the provisions of “Energy and Atmosphere Prerequisite 2” and “Credit 1,” contained within the current version of the *LEED Reference Guide for Green Building Design and Construction*.
- E. Establish contact with utilities regarding potential rebates and prepare a design that achieves the maximum available incentives.
- F. Compose, compile, package and submit all requisite documentation necessary for DCAMM to achieve LEED certification for the project, in cooperation with DCAMM and the general contractor, as appropriate. The submission fee for certification documentation shall be treated as a reimbursable expense pursuant to Section 6.8.1 of the Contract.
- G. Provide briefings on LEED status as part of Project meetings. The Designer shall serve as liaison between the Designer, the general contractor and the United States Green Building Council (USGBC) / Green Building Certification Institute (GBCI) to assure that all requisite documentation is submitted, and certification is achieved.

¹ *Leadership in Energy and Environmental Design* (“LEED”) Green Building Rating System developed by the U.S. Green Building Council

- 6) **Universal Design and ADA.** Included in the BASIC SERVICES, Designer shall comply with all of the requirements set forth in Section 7.6 in the Contract, including the incorporation and promotion of the principles of universal design, unless specifically excluded herein.
- 7) **Building Commissioning.** Designer's services related to building commissioning shall be included as part of BASIC SERVICES. Designer shall be required to:
- A. Meet and consult with DCAMM's building commissioning agent (BCA) during design and construction to document the basis of design; review, respond and incorporate the commissioning specification; and review documents prepared by DCAMM's BCA, as appropriate, for all operating systems to ensure maintainability and operational efficiency;
 - B. Meet, consult, and review with DCAMM's BCA and client agency to enable DCAMM's BCA to develop an owner's project requirements and operations and maintenance plan for the facility; and
 - C. Review and comment on DCAMM's BCA periodic commissioning progress reports and issues log as appropriate.
 - D. Participate in the initial operation and maintenance training session by presenting the project basis of design.
 - E. Coordinate commissioning activities with the general contractor.
 - F. Indoor Air Quality (IAQ) standards for products that meet volatile organic compound (VOC) limits shall be specified. Also, Environmentally Preferable Products (EPPs) shall be reviewed.
- 8) **Selection of Furniture, Furnishings and Moveable Equipment.** Designer's services including coordination with DCAMM or its client agency's consultant relative to the selection of furniture, furnishings and moveable equipment, shall be compensated as ADDITIONAL SERVICES.
- 9) **Signage and Wayfinding.** Any additional special signage and wayfinding requirements beyond Section 6.5 of the Contract shall be compensated as ADDITIONAL SERVICES.
- 10) **Meetings and Workshops.** Designer shall attend and participate in weekly Project meetings and workshops necessary to complete the final design as part of the BASIC SERVICES.
- 11) **Cost Estimates.** Designer shall prepare and update the Schematic Design Cost Estimate in accordance with Section 4.3 of the *Consultants Estimating Manual*; the Design Development Cost Estimate in accordance with Section 4.4 of the *Consultants*

Estimating Manual; and the Construction Document Cost Estimate in accordance with Section 4.5 of the *Consultants Estimating Manual*.

12) [Additional sections, detail, and attachments inserted as needed]

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