



Town of East Bridgewater  
East Bridgewater, Massachusetts

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# COMMUNICATION AND PROJECT CONTROL PROCEDURES

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Project Procedures for Design,  
Bid, Award, and Construction Phases

for the

NEW EAST BRIDGEWATER JUNIOR / SENIOR HIGH SCHOOL PROJECT

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## I. PREFACE

In order to achieve full coordination and cooperation among the disciplines in the carrying out of their respective services for the Town of East Bridgewater, it is necessary to establish an understanding of the procedures and responsibilities for the tasks to be performed in accomplishing the Town's goals. This report has been prepared to clarify areas of responsibilities and lines of communication between the various parties, and to establish procedures that will be utilized for all aspects of the project as it relates to activities between the Designer, the Town, Owner's Project Manager, and Contractor.

This report is intended to supplement the Contract Documents and not to modify them. In the event of any conflict between the Contract Documents and this report, Contract Documents will govern.

## II. PROJECT OVERVIEW

The Town of East Bridgewater, through its East Bridgewater High School Building Committee (EBHSBC), will replace the existing East Bridgewater High School with a New Junior and Senior High School facility to accommodate the best practices and technologies in the education of Grades 7 through 12.

The Town submitted the Project to the Massachusetts School Building Authority (MSBA) under the Statement of Interest (SOI) process in June 2006. At the September 2009 Board of Directors meeting, the MSBA voted to issue an invitation to the Owner to participate in a study of the identified issues at the high school for this Statement of Interest to identify and study possible solutions and, through a collaborative process with the MSBA, reach a mutually-agreed upon solution. In July 2010, the Town was invited by the MSBA to the Model School program. The Town voted an appropriation to hire an Owners Project Manager and Designer through the Schematic Design Phase and Project Scope and Budget offered by the MSBA.

On July 14, 2010, the Town issued a Request for Services for an Owner Project Manager (OPM) which is required for all public construction projects with an estimated value above \$1.5 million. The EBHSBC selected **RFWalsh collaborative partners** (RFWCP) as the OPM. The MSBA issued an approval of the OPM selection process and released the Town to move forward with the Feasibility Study process.

On August 25, 2010 the EBHSBC designer selection subcommittee met to discuss and review the selection process and scoring criteria and proceeded to interview all three firms. Ai3 Architects, LLC was as the highest ranked design firm. The Town of East Bridgewater negotiated a contract with Ai3 for Designer services.

Once the Designer was under contract, a desired schematic plan was devised and agreed upon by the Town and the MSBA. The Project submitted the Schematic Design to the MSBA for a Project Scope and Budget Agreement in December 2010. The Scope and

Budget Agreement sets the total project budget and total reimbursement of eligible costs from the MSBA. The MSBA Board voted approval of the Project on February 9, 2011 and the Town secured local approval authorizing the project funds in an election on February 12, 2011.

The development of Construction Documents occurred over the next 4 months with a 50% Construction Document submittal to the MSBA on April 15, 2011 and a 100% submittal on June 21, 2011. Final Construction Documents were issued to prequalified General and Filed Sub-contractors on June 27, 2011 to begin the bidding process. The Construction Contract was awarded to Fontaine Bros., Inc. on August 8, 2011 with a low bid of \$65,409,000 including Project Alternates 1, 2, 3, and 4. Construction is scheduled to begin in September 2011 and Substantial Completion of the new school is June 24, 2013.

### III. ADMINISTRATIVE RELATIONSHIPS

#### Introduction

The Town of East Bridgewater, through the East Bridgewater High School Building Committee (EBHSBC), will serve as Owners with the responsibility to perform oversight of the Project in the best interests of the Town.

The Town of East Bridgewater, pursuant to MGL c.149 §44A1/2, has employed the services of *RFWalsh collaborative partners* (RFWCP) to act as the Owner's Project Manager (OPM) for this project. The Town has employed the services of Ai3 Architects, LLC to act as the Designer. The Town expects that the services of the Project Manager and the Designer will be provided through a team effort in achieving the project budget and schedule goals.

The Town awarded the Construction Contract to Fontaine Bros., Inc., the lowest responsible and eligible bidder, who will act as the General Contractor throughout the duration of the construction phase of the Project.

This manual documents the roles, procedures, and responsibilities between the Designer, OPM, the Town, and the Contractor in achieving the Town's objectives for this Project.

#### Definitions

##### **Town**

The Town, the Owner, as defined herein and in all Contract Documents is the Town of East Bridgewater, MA; by and through the Chair of the Selectmen, currently Mr. Brian Connors. Authorization and approval of all contracts, expenditures, and change orders are to be through the East Bridgewater High School Building Committee, currently chaired by Mr. David Floeck and co-chaired by Ms. Susan T. Cote, Superintendent of East Bridgewater Public Schools.

##### **User Agency**

The User Agency is the East Bridgewater Public Schools.

**Owner's Project Manager (OPM)**

The firm employed by the Town to provide Project Management services on the Project as the Owner's Representative, *RFWalsh collaborative partners* (RFWCP).

**Designer**

The firm employed by the Town to provide Designer services on the Project, A13 Architects, LLC.

**Contractor**

The firm awarded a Contract for the construction Work on the Project, Fontaine Bros., Inc.

**Project Management Team**

The Project Management Team will consist of designated representatives of the Town, High School Building Committee, User Agency, Designer, and Owner's Project Manager.

**Role of the Project Manager**

The primary function of *RFWalsh collaborative partners* is to provide professional services in the management of the Project. The objective of these services is to promote efficient coordinated planning, design, and construction of the Project within an established timetable and budget. In accomplishing this objective, the Project Manager will have the role of leadership of the project team in matters concerned with schedule, budget, procedures, and administering construction contracts for the Owner. In conjunction with carrying out the various management activities, the OPM may make suggestions and recommendations concerning the design and construction documents to the Town. However, final design decisions shall be established in the Owner-Designer Agreement. The scope of responsibility of the OPM is defined in the Owner-OPM Agreement, and is generally as follows:

- Oversee designer and consultants
- Provide an overall project strategy (phasing)
- Develop and submit monthly progress reports
- Develop a management and communications plan
- Develop and maintain an overall project schedule
- Facilitate communication and activities between the Town and MSBA
- Develop and monitor the project budget and process
  - Impact of design decisions on time and cost
  - Value Analysis
  - Construction packaging and phasing
  - Identification of long-lead items and plan of acquisition or action
  - Provisions for time and cost control in the specifications
  - Provide detailed cost estimates and revisions thereto at each design phase
  - Review and recommend all applications for payments related to the Project
- Manage and lead contractor pre-qualification process
- Review and analyze bids and recommend award of contract
- Provide daily on-site observation of construction activity
- Manage schedule and cost controls
- Manage Change Orders
- Manage for Town the project close out process

### Role of Designer

The primary function of the Designer on the Project is to carry out professional activities of project design, documentation, and construction observation. The objective of the services performed by the Designer is to produce a design for the facility to meet the Town's needs and requirements and to ensure the implementation of that design in construction. In accomplishing this objective, the Designer will have the role of leadership of the project team in matters related to design of the project, selection of materials, systems, equipment, and construction contract compliance related to workmanship and design. In general, the scope of responsibilities of the Designer in carrying out the design and inspection activities is outlined as follows:

- Developing a design as necessary to ensure project budget compliance
- Furnishing logical contract packaging and construction documents
- Furnishing schedule information and project milestone data related to the design process, sequence, and progress
- Develop furniture and equipment packages and hazardous waste remediation packages
- Preparing addenda and providing input to change orders through established procedures
- Observation of construction process to ensure technical sufficiency of construction
- Periodic reporting of construction activities and progress as required by the Town
- Reviewing shop drawings, submittals, progress payments in accordance with established procedures and time spans
- Providing a timely response to Requests for Information (RFI)

### Design Work Plan

The Designer submitted a proposed Design Work Plan pursuant to this Contract, including anticipated tasks and submittals. The Designer also submitted to the Owner and OPM, a proposed Work Plan Schedule consistent with the project schedule included in the RFS. The Design Work Plan contains dates for submittals, deliverables, actions, milestones, design workshops, meetings, and the critical path through all design service activities. It includes allowances of time for the Owner's and the Authority's review and approval of submittals and for necessary submissions for permits in connection with the Project. The work plan also includes a work plan schedule of values consistent with Attachment A to the RFS, which shall be the basis for which payments of the Fee for Basic Services within each project Phase shall be made. The work plan schedule of values identifies deliverables within each Phase and percentages of the Phase Fee payable upon completion of such deliverable.

### Communications

The Owner, User Agency, Owner's Project Manager, Designer, Consultants and Contractor(s) shall designate an individual within their respective organizations to serve as their primary contact for communication on this Project. All communications will be routed to or through those individuals.

All communications with the public or media will be referred to the Owner's primary contact, Mr. David Floeck, Chairman of the High School Building Committee and the secondary contact will be Ms. Susan Cote, Superintendent of East Bridgewater Public Schools and Co-Chair of the High School Building Committee.

The Project Management Team will not discuss the Project with the press unless so authorized by the Owner. RFWCP's Corporate Public Relations staff can be made available, if necessary, to assist in dealings with the media.

All communications associated with the Project between the Town of East Bridgewater, East Bridgewater Public Schools, East Bridgewater High School Building Committee, other Town agencies, OPM, Designer, Designer's consultants and Contractor, shall be copied to the OPM. Communications to mean reports, letters, forms, memoranda, submittals, contracts, proposals, invoices, purchase orders, emails, phone conversation records, and transmittals.

Each party may place their own project number on such communications; however, all Project communication shall always be identified as the "New East Bridgewater Junior / Senior High School Project".

*RFWalsh collaborative partners* shall maintain all communications in a Project master file. The Project master file will utilize RFWCP's filing codes. All original bids, contracts, purchase orders, and invoices are to be kept and filed at Town offices or as required by the Town's Purchasing Officer. Only copies will be kept in the Project master file maintained by RFWCP.

During Construction, RFWCP shall maintain an on-site master file which shall contain all communication during the construction, fit out, and close out phases. This master file shall contain contractor's submittals, architects' supplemental instructions and sketches, change proposals, change orders, all logs and payroll records. This on-site master file will be combined with the master file maintained at RFWCP's office and turned over to the Town as the Project Record at the close out phase of the Project.

### **Project Meetings**

During the course of the Project, meetings between the Owner, User Agency, OPM, Designer, Contractors and other project stakeholders, will be scheduled to facilitate the progress of the Work. Project meetings shall encompass all programs, design and user agency meetings, as well as all construction meetings. It will be the responsibility of the OPM to schedule and manage project meetings, as well as record and distribute the official minutes of all project meetings. Public meetings held by Town officials or committees shall not be categorized as project meetings.

### **Issue Resolution**

During the course of the Project, issues may arise that will require policy decisions by the Owner. The Program Management Team will make initial recommendations to the EBHSBC for review and approval.



#### IV. DESIGN PHASE PROCEDURES

##### Feasibility Study

The Feasibility Study is the beginning phase of the design process. It is in the Feasibility Study Phase that the full scope of the Project is to be determined and the options available to East Bridgewater will be examined. The ultimate goal of the Feasibility Study is to come to an agreement with the MSBA on a preferred schematic solution upon which the Project can move forward. The Owner is required to ascertain the Authority's input and approval throughout the study process; therefore, the Design Team shall develop and prepare the documentation required to assist the Owner in securing the Authority's concurrence and/or approval at the following milestones, before proceeding to the next milestone.

Note: Some of the approvals to move to the next milestone require a vote of the MSBA's Board of Directors.

- (a) MSBA approved enrollment projections generated through the MSBA's on-line enrollment projection system
- (b) Scope, cost and schedule for the Feasibility Study
- (c) Preliminary design program
- (d) Budget Statement for Educational Objectives, as defined by 963 CMR 2.02
- (e) Development of alternatives to be studied
- (f) Preliminary evaluation of alternatives
- (g) Final Evaluation of Alternatives
- (h) Recommendation to the MSBA's Board of Directors of the preferred alternative that will be advanced to schematic design

##### Alternatives to Consider

The Design Team shall define and develop a few reasonable, educationally sound, cost effective and practical solutions to evaluate, that shall satisfy the East Bridgewater Public Schools educational program requirements. The alternatives considered shall address the following as a minimum:

- (a) Analysis of school district student school assignment practices and available space in other schools in the district
- (b) Tuition agreements with adjacent school districts (per MGL c.70B §8)

- (c) Rental or acquisition of existing buildings that could be made available for school use. (per MGL c.70B §8)
- (d) Renovation and/or addition to existing building(s) and related facilities or fields, if appropriate to the Project
- (e) No-build or status quo option, to be used as a benchmark for comparative analysis of all other alternatives
- (f) In some cases, it may also be appropriate to consider construction of new building and the evaluation of potential locations

### **The Feasibility Report**

The Feasibility Study will review the problems identified in the Statement of Interest at the East Bridgewater Public Schools. It will review the feasibility of a model school. The Design Team shall explore each option for conformance to the Education Program, phasing or schedule impacts, and overall cost. The EBHSBC, along with EBPS, at the conclusion of the Feasibility Study phase, will select a preferred scheme that fulfills the educational mission of the School Department now, and in the future, and is the most economical alternative in terms of permanent value, low maintenance, and low initial cost.

The Feasibility Report shall document the evaluation of the options explored during the Feasibility Study phase, leading to the Recommended Preferred Solution as approved by the EBHSBC and the Town. The report shall document that the Design Team reviewed all available drawings, reports, maintenance reports and other existing data pertaining to the Project, and conducted a thorough on-site review of conditions relating to the Project. The report shall demonstrate that the "Recommended Preferred Solution" complies with all applicable Codes and Regulations, including any special design standards supplied by the Authority. The Feasibility Report shall include or address the following:

- (a) Potential Alternative to Construction or Renovation
- (b) No Build or Status Quo Option
- (c) School assignment Practices and Available Space
- (d) Underutilized or Vacant Space
- (e) Lease, Rental or Acquisition of Existing Buildings for School Use
- (f) Regional or Tuition Possibilities with Adjacent School Districts
- (g) Cost Estimate for Each Alternative
- (h) Environmental and Cost Impacts of Construction Phasing
- (i) Evaluation of Existing Conditions
- (j) Geotechnical Evaluation and Soils Exploration
- (k) Initial Site Investigation by an LSP
- (l) Analysis of Budget Statement for Educational Objectives
- (m) Analysis of District's Operating and Capital Budget
- (n) Ability of District to Support Operating and Capital Costs and District Funding of All Costs.
- (o) Detailed Scope of Proposed Project
- (p) Architectural & Site Program Drawings

- (q) Description of Major Building Construction Systems
- (r) Budget Cost Estimate
- (s) Projected Cash Flow
- (t) Permitting Requirements
- (u) Design and Construction Schedule
- (v) Sustainable Design goals

### Schematic Design

Upon receipt of an Approval to Proceed to Schematic Design Phase, the Designer shall meet with the Owner and OPM to arrive at a mutual understanding of the requirements of the Final Design Program approved in writing by the Owner and the Authority. The Designer shall develop the Recommended Preferred Solution to a full schematic design level. Schematic design level documentation shall be based on the Final Design Program, shall incorporate Owner and Authority comments, and shall include each of the following to the extent applicable to the Recommended Preferred Solution:

- (a) Site analysis, including content, traffic and access, topographic and utilities recognition.
- (b) Site Development Plan – Site plan shall be at a minimum scale of 1 inch equals 40 feet and include property lines with bearings and distances, building setbacks, site acreage, wetlands information, proposed and existing topography, proposed and existing buildings and site features, floor and roof elevations for all buildings, proposed and existing utilities and utility connections, emergency equipment access.
- (c) Traffic Analysis – Analysis of the impact of anticipated vehicular and pedestrian traffic, including impacts to existing infrastructure, to determine efficient and safe site access.
- (d) Environmental Assessment – Provide additional site and building assessments as may be required by the Authority to quantify presence of unsuitable materials and scope of possible remediation efforts.
- (e) Geotechnical and Geoenvironmental Analysis – Provide additional geotechnical analysis as may be required by the Owner or the Authority to describe soil conditions, remediation requirements and appropriate foundation.
- (f) Program Analysis - A space measurement analysis for the design, which shall verify that the sum of all program floor areas plus all other floor areas equal the gross floor area of the Final Design Program
- (g) Code Analysis – Determination of the impact of all federal, state, regional and local codes, regulations and ordinances having jurisdiction, including a listing of permitting and other regulatory filing requirements.
- (h) Utility Analysis – Determination of the availability and capacity of all required building utilities. Provide soils analysis and preliminary design for on-site septic/sewage treatment facilities, if required.

(i) Massing Study – An analysis of the building's integration into its surroundings and neighborhood with drawings, models, or photographs.

(j) Schematic Building Floor Plans of all floors and roof at a minimum scale of 1/16" =1'-0" showing all elements of the building, including overall dimensions, gross square footage of each floor and net square footage of each space, response to functional requirements of program, major and minor access, and circulation.

(k) Schematic Exterior Building Elevations for all sides and orientations, indicating all exterior finishes and fenestration.

(l) Building Systems Descriptions – Description in narrative and on schematic plans basic information relative to:

1. Building Structure - a written narrative of the design approach to the structural systems including discussion of the feasible options for foundations and superstructure as well as treatment of special situations such as unusual soils conditions or long spans.

2. Plumbing and HVAC - written narratives of the basic systems and proposed fuel source(s) and a preliminary life cycle cost analysis pursuant to the criteria of M.G.L. c. 149 § 44(m). Provide schematic plans indicating basic distribution concepts and the location of major equipment items such as boilers, water heaters, cooling towers, chillers, air handling units, heat recovery units, exhaust stacks, and special systems (e.g. fume exhausts).

3. Fire Protection - written narratives of the basic systems and design criteria. Provide schematic plans indicating basic distribution concepts and the location of major equipment items such as fire pumps, standpipes, and fire department connections.

4. Electrical (including power, lighting, communications, fire alarm, video/CATV, security/surveillance) - written narratives of the proposed electrical and communications systems resources, needs, and proposed scope. Provide schematic plans indicating basic distribution concepts and the location of major equipment items such as switchgear, standby generator, and control centers/panels.

5. Information Technology - written narratives of the proposed information technology system resources, needs, and proposed scope. Provide schematic plans indicating basic distribution concepts, location of major equipment items such as switches and hubs.

(m) LEED Gold Scorecard – Pursuant to the MSBA Green School Guidelines, complete LEED Gold Scorecard and describe sustainable design features and each high performance green school prerequisite and credit included in the proposed design and a plan for implementation or inclusion of any appropriate public utility energy conservation design programs.

(n) Outline specifications in accordance with Unifomat and M.G.L. c.149 § 44F filed sub-bid format that clearly define the scope of construction, identify the sub-trades

pursuant to M.G.L. c. 149 § 44F, establish the quality of materials, finishes, products, equipment and workmanship, and the special or unique conditions of construction.

(o) Accessibility - an analysis of the design's compliance with the Americans with Disabilities Act (ADA) and the Massachusetts Architectural Access Board requirements (MAAB).

(p) Project Schedule - Provide a reasonable level of design-related input to the OPM such that the OPM can prepare a draft schedule for the proposed project for the Owner in the form of a graphic representation (Gantt Chart) of the duration of all tasks, activities and phases of the design and construction processes against the progression of time, up to a proposed occupancy date.

Dependencies between activities and tasks will be delineated. Individual tasks and activities will be rolled up to the major project milestones. Provide input to the OPM regarding priority actions and activities that may have a major impact on the schedule. The OPM, not the Designer, is responsible for preparing and maintaining the draft and updated project schedule document, except as it pertains to the project design schedule developed under the work plan by the Architect.

(q) Construction cost estimate - in Unifmat II Level 2 format with aggregated unit rates and quantities supporting each item. If independent cost estimates are prepared for the Owner by the OPM in this or subsequent phases, then the Designer shall work with the OPM to resolve such any differences in a cost reconciliation process and shall involve any relevant parties in such process.

### **Feasibility and Schematic Phase Meetings**

The OPM shall lead bi-weekly design coordination meetings between the Designer with appropriate consultants, and the Owner and, as required, the Authority, to provide for review and discussion of design/engineering related issues. The OPM shall provide technical assistance to the Owner and shall record and distribute minutes of these meetings to the Owner. These meetings will be conducted at the Town of East Bridgewater's facility, except when an alternate location is appropriate and all parties are in agreement. Additional participants will attend the meetings when their input is required.

### **Cost and Schedule Control**

The OPM shall monitor the activities and responsibilities of the Designer during this phase and assist the Owner in the review of the proposed scope, schedule, and budget developed by the Designer, including the review of the Designer's preliminary drawings. The OPM shall:

- a. Prepare independent construction cost estimates for comparison with the Designer's cost estimates.
- b. Work with the Owner and Designer to prepare the Project Schedule.

The OPM shall monitor the status of the Designer contract including monitoring the schedule of the Designer, provide review and comment of Designer's work product and

make recommendations to the Owner when, in the opinion of the Owner's Project Manager, requirements of the Designer's contract with the Owner are not being fulfilled. The OPM shall meet with the Owner, Designer and other project participants as necessary.

### **Value Engineering**

The OPM shall review the schematic design to recommend Value Engineering Changes (VEC) to the Owner. The Value Engineering Change shall include an analysis of the constructability, cost, quality, and schedule impact. The Designer will be responsible for a thorough review and recommendation on the technical merit of the VEC.

### **Site Evaluation and Testing**

The Designer and OPM shall assist in the implementation of additional site evaluation and testing as required by the Designer, including, but not necessarily limited to, site surveys, wetlands evaluation, environmental evaluations, hazardous materials evaluation, subsurface testing (percolation tests, test pits, borings, etc.), destructive testing, and other investigative work in the case of renovation projects.

### **Green School and Grant Writing**

The Designer and OPM shall assist the Owner with the completion of grant applications for funding for the study of green design strategies and assist by identifying green strategies, as appropriate, for study during this phase. The OPM shall assist the Owner and Designer, as needed, in the preparation of the certification required for Green Schools in accordance with LEED Gold pursuant to the most current MSBA requirement.

### **MSBA Approval and Project Funding Agreement**

At the conclusion of the Schematic Design Phase, the Design Team shall prepare a submission to the MSBA for a Board of Directors approval of the Project and the issuance of the Project Funding Agreement (PFA). This submission shall include all the Schematic Design phase drawings, specifications, construction cost estimates, and other submittals required by the MSBA. The Schematic Design submission is required to be submitted to the MSBA at least six (6) weeks prior to the MSBA Board meeting, to allow for staff review and final recommendation to the Board. It is during this period that the Town, along with the OPM and Designer, shall meet with the MSBA to determine the final scope and budget of the project. These meetings with the MSBA will focus on a detailed review of the space summaries, cost estimates, and project schedule. The final scope and budget agreement issued by the MSBA will determine the total amount of reimbursable project costs and the reimbursement rate, along with the total amount of project costs that will not be eligible for reimbursement. It is this Agreement that will be presented to the MSBA Board for approval and, once approved, will be the basis for the PFA. It is from this MSBA Board vote that the Town has 120 calendar days to obtain total funding approval through debt exclusion and bond authorization votes at Town Meeting and Election. Upon full project funding from the Town, the MSBA will execute the PFA and the Project will be entered into the PFA on the MSBA's ProPay system for monthly reimbursement of all approved costs.

### Design Development

As a model school project, there is no Design Development submittal. Most, if not all, of the tasks and studies will be part of the 50% Construction Document submittal. The final design process is broken into two distinct phases, the Design Development and the Construction Document Phases. The Design Development Phase is where the schematic or preliminary plans, that were the basis for MSBA and Town approval, are finalized. Meetings with school officials and teachers will be held to confirm the educational program. Meetings with the EBHSBC, with the advice of selected school administration and faculty, shall determine the final design of the site layout, floor plans and room layouts, building elevations, building materials, furniture, and equipment to be installed will be decided during this phase. The building site design issues that need to be reviewed and agreed upon in the Design Development Phase include:

- Site Design
  - Traffic patterns and parking
  - Pedestrian flow
  - Material drop off and trash pick up locations
  - Student drop off and pick up locations
  - Athletic Fields
  - Landscaping
  
- Building Design
  - Final plan layout
  - Interior circulation
  - Classroom layouts
  - Library, Cafeteria, auditorium, Gym, Lobby and Administration design
  - Emergency shelter
  - Community use and activities
  - Building security issues
  - Exterior materials
  - Window types and arrangement
  - Interior materials
  - HVAC system selection
  - Furniture fixture and equipment scope and layout

### Progress Meetings – Design Development Phase

The Designer with appropriate consultants, Project Manager, and the EBHSBC Design Sub-Committee, shall attend progress meetings at a minimum of twice monthly for the duration of the Design Development Phase. These meetings will be conducted at the Town of East Bridgewater's facility, except when an alternate location is appropriate and all parties are in agreement. Additional participants will attend the meetings when their input is required. The role of the EBHSBC and the Design Sub-Committee is to review, comment, and make final approval of the design issues as they are presented. The Design Phase Progress Meetings shall provide the following:

- Discussion of current issues
- Receipt of information from the Town



- Decisions concerning revisions to the Design and Program
- Progress report from the Designer
- Review of specific cost reports or studies
- Review of schedule status
- General communication between the Designer, Project Manager, the Town, the User Agency

### **Construction Documents**

The Construction Document Phase is where the building and site design is completed and all the technical information is incorporated into documents that will be issued to pre-qualified contractors eligible to submit bids on the Project. Meetings with the EBHSBC and the Design Sub-Committee shall determine the final details of the site design, building details, selection of colors, furniture, and building systems. The building and site design issues that need to be reviewed and agreed upon in the Construction Document Phase are:

- Site Design
  - Plantings
  - Type of exterior light fixtures
  - Athletic facilities outdoor
  - Any site amenities
- Building Design
  - Final material selection
  - Final interior materials and colors
  - Casework design
  - Building security system
  - HVAC system selection
  - Furniture fixture and equipment selection

### **Progress Meetings – Construction Document Phase**

The Designer with appropriate consultants, Project Manager, and the EBHSBC Design Sub-Committee shall attend progress meetings on a bi-monthly basis for the duration of this Phase. These meetings will track the ongoing design process to assure that issues are reviewed and decisions are made in a timely manner. The form and agenda of these meetings will be similar to that of the design meetings during the previous phase.

### **Contractor Pre-qualification**

During the Construction Document Phase, General Contractors and Filed Sub-contractors will be pre-qualified by the Pre-qualification Committee established for the Project pursuant to MGL c.149 §44D ½ and MGL c.149 §44D3/4. This Committee shall comprise of the OPM, Designer and two members selected by the Owner. The Committee shall be chaired by the OPM. The purpose of the Pre-qualification Committee is to review each contractor responding to the Request for Qualifications (RFQ) issued by the Town. Only General Contractors and Filed Sub-Contractors who are pre-qualified during this process will be eligible to submit bids for the Project. The Statement of Qualifications (SOQ) will



contain information on the firm's management personnel, project experience as it relates to the Project, reference contact information, and data on the company's financial health. The Committee will review all information furnished in the SOQs and assign a score to each contractor based on the criteria established in the RFQ. Any contractor who fails to score above 70 points will be ineligible to offer a bid on the Project. On average about 80-100 contractors will submit a pre-qualification package for review.

### **Project Budget**

The Project Budget shall encompass all soft costs (design, management, legal, and miscellaneous Project costs), all hard costs (construction, site, furniture, and equipment costs) and a project contingency. It will be the OPM's responsibility to manage the budget process and monitor all costs. A budget summary and cash flow will be updated and submitted as part of the Project Manager's Monthly Report.

### **Cost Control**

The overall goal of cost control is to monitor the costs during the Design Phase to assist in keeping the Project within the original budget allocated. During the Design Development and Construction Document phases, two cost estimates are required by the MSBA at the 50% Construction Documents Phase, and one cost estimate is required at the 100% Construction Documents Phase. As the design becomes more complete, the estimates will include construction not included in earlier estimates, thus increasing the total estimated costs. The design contingency will become less to offset the increase in estimated costs. Cost control is achieved by monitoring the design versus the program and the anticipated construction cost throughout the Design Phase by preparing phased estimates and cost reduction adjustments, as necessary.

### **Estimates and Design Review**

The Designer will receive from the OPM, the budgets for all phases of the Project including contingency. It shall be the Designer's responsibility to manage the design of the Project to ensure the Project Construction costs are within the designated construction budget.

The Owner's Project Manger and the Designer will both provide the phased estimates and value analysis studies as required. Estimates will be prepared at the Schematic Design, Design Development, 50% Construction Document, and 100% Construction Document Phases. The line item components in the estimate will be compared to the previous estimate components to identify major variances. All estimate information will be strictly confidential.

Should there be a significant variance from the budget amount to the estimate, the Designer and OPM will jointly prepare a listing of areas of potential cost reduction for the Town's review. The Designer will be required to furnish the technical data for these cost estimates.

### Design Phase Adjustment / Professional Supplemental Service

If after review of the Project design and phased cost estimates, should the Town elect to proceed with a significant scope change; a Design Adjustment will be issued in order to document the program, schedule, and budget revisions. A Design Phase Adjustment is to be prepared by the OPM and issued by the Town to authorize the Designer to make significant modifications to the Project. All Design Phase Adjustments shall receive approval by the EBHSBC.

If the Design Phase Adjustment significantly affects the Designer's scope of services, the Designer shall provide a Professional Supplemental Service (PSS) proposal detailing all cost and schedule impacts. All PSSs shall be reviewed and accepted by the OPM. If accepted, the OPM will present to the EBHSBC for approval and execution, adjusting the Designer's Contract price and/or time.

### Designer Submittal Requirements

The Designer will provide submittals at each Design Phase as outlined in the Designer Scope of Services. Prior to beginning design review and estimating, the OPM will check the documents to determine if the contractual submittal requirements have been satisfied. For design review and estimating purposes, a number of duplicate copies will be required.

### Schedule Responsibility

It shall be the responsibility of the OPM to prepare a Master Schedule and Critical Date Schedule. The Critical Date Schedule shall set specific dates during the Design Phase to achieve the Project Schedule. It must be recognized by all participants of the schedule, that to the greater degree, the Critical Date Schedule is precipitated by the final completion dates established by the Owner. The Critical Date Schedule shall include the Designer, Town, and OPM activities necessary to implement the Project Management Plan as it relates to the design, packaging the documents, early orders, approvals, estimates, bid/award, and Construction Phase interface dates.

It shall be the responsibility of the Owner, OPM, and the Designer to achieve their respective activities on schedule.

At any time, if an unforeseen constraint becomes apparent to the Owner, OPM, or Designer, which affects his ability to achieve his respective activities on schedule, he shall work with the other Management Team Members to adjust the schedule to minimize the delay and/or recover the lost time.

## V. CONSTRUCTION PHASE PROCEDURES

### Project Bid Phase

Upon completion of the Contract Documents by the Designer and final review by the OPM, the Project will be advertised to receive bids from pre-qualified general and filed sub-contractors. The advertisement will be written by the OPM and issued by the Town.

The distribution of Contract Documents and receipt of bid deposits will be the responsibility of the Designer, with the assistance of the OPM. The typical bid period is three (3) weeks for Filed sub-bids, with General bids to be received two (2) weeks after the filed sub-bids. A Pre-bid Conference will be held to allow potential bidders to examine the site and ask questions of the Designer and OPM. The OPM will manage and record the Pre-bid Conference.

All bids will be received by the Town at the time and place designated in the advertisement. The OPM shall assist the Town throughout the bidding process and open all bids at the scheduled public bid openings. Upon review and analysis of bids received, beginning with the lowest apparent bidder first, the Town/OPM shall review required supplemental bid information such as, and not limited to the Minority and Women Business Enterprise contract awards per contract requirements, and DCAM Certificate of Eligibility and Update Statement. Once the supplemental bid information is reviewed, the OPM shall recommend award of the contract to the lowest responsible and eligible general bidder. This recommendation shall be given to the Town to approve the award of the contract. Upon Town approval, the OPM will draft a Notice of Intent to Award, to be issued by the Town. The Town will initiate the process to execute a contract with the awarded General Contractor pursuant to Town procedures.

#### **Pre-Construction Conference**

Once the Notice to Proceed has been issued, the OPM will organize a pre-construction conference. This meeting will serve as the first project construction meeting with the agenda to orient the Contractor(s) to the various reporting procedures and site rules prior to the commencement of actual construction. The conference attendees will include the Town, OPM, a representative of the Designer, and personnel from the Contractor's organization including, at a minimum, their jobsite Superintendent and Project Manager. The EBHSBC, Designer, and OPM may elect to require the Contractor to bring representatives of selected major contractors to this meeting.

#### **Construction Observation**

The OPM will have a significant presence during the construction phase to observe the progress of the Work and advise the Town and the Designer of any deviations and deficiencies observed in the Work. The OPM's observation duties shall include reasonable diligence to discover work that is not in compliance with the Contract Documents and monitoring the Contractor's compliance to their Contractor Quality Control Program.

Should the Contractor be in non-compliance with their Quality Control Program, a written notification will be transmitted to the Contractor. If the Contractor fails to correct, non-compliance may result in withholding of payments.

The Designer will provide periodic visits during construction to determine whether the Work is in conformance with the Contract Documents. These visits will be made in conjunction with weekly jobsite meetings and a monthly visit dedicated to composing a monthly construction observation report. Neither the Designer nor the OPM will be

responsible for construction means, methods, sequence or procedures, safety precautions, or programs in connection with the Work.

### Progress Meeting - Construction Phase

A progress meeting will be held weekly at the jobsite. The day and time for the meetings will be determined at the Pre-Construction Conference for the particular contract.

The regular attendees at the site meetings will include representatives of the Contractor, the Designer, the Town, and the OPM. Representatives of the Town, School Department, and Educational Facility Planning & Building Committee members may be present to address specific issues. Depending on activities currently underway, the applicable Designer consultants shall attend along with certain sub-contractor trades as deemed appropriate. If non-regular attendees are requested, a 48-hour advance notice will be provided. The OPM will facilitate, record, and chair all construction meetings. The minutes from the previous week's meeting will serve as the agenda for the next meeting.

At each of the regularly scheduled progress meetings, the Contractor and the Designer shall bring their respective Shop Drawing Logs, RFI Logs, and Change Order Logs in order to provide a joint review of the status of the Work. The Contractor shall provide all Proposed Change Orders and a two week look-ahead schedule noting all activities expected for the coming weeks.

### Schedule

It is the responsibility of the Contractor to develop their schedule for the Project in accordance with the Contract Documents:

- Within twenty (20) days after Notice to Proceed (NTP), the Contractor shall develop their Critical Path Method Schedule and submit it to the OPM and Designer for review.
- Within seven (7) days of completion of the Schedule, the Contractor will provide the Schedule of Values for review.
- Within fourteen (14) days upon the receipt of the Schedule of Values, the Designer and OPM shall provide comments or approve the Schedule and Schedule of Values for resubmission within seven (7) days.
- Within fourteen (14) days the Contractor shall provide a cash flow schedule.

### Submittals

The Contractor shall, within fifteen (15) days of NTP or contract execution, submit to the OPM and Designer, a schedule of submittals. Submittals shall be comprised of shop drawings, samples, or any other information that documents materials and/ or procedures that the Contractor is to provide during the course of the Project to ensure that all construction is in compliance with the Contract Documents. The Contractor shall assure that all submittals are submitted to the Designer through their office and not directly by the

subcontractor. All submittals shall bear the Contractor's signature certifying that the submittal has been checked for conformance to the Contract Documents. The Designer shall, within twenty-one (21) calendar days of receipt of the shop drawings, samples, or other submittals, complete their review and return the submittals to the Contractor. The Designer shall include a transmittal form with a complete description of the item(s). Should the submittal be so extensive that additional review time is required, the Designer must advise the OPM immediately.

Shop Drawings which are not in accordance with the requirements stated; for example, submittal of a drawing which does not contain the Contractor's certification that he has checked the same, shall immediately be returned to the Contractor by the Designer with the reason for returning.

The OPM shall be provided with one (1) set of the final approved shop drawing and one (1) sample for the Project master file and other submittals.

### **Periodic Payments Applications**

As is required by the Contract Documents, the Contractor shall submit their estimated value for each activity which must correspond with the activities of the construction schedule and sub-divided as appropriate. The approved cost values (Schedule of Values) will be the basis for processing the future payment requests from the Contractor.

Monthly, prior to a weekly progress meeting, the Contractor shall issue a "pencil" or draft payment noting the requested payment for Work performed the prior month. The Contractor should be prepared to substantiate the actual Work completed. If the Contractor's payment request includes payment for stored materials, the appropriate documentation is to be provided. At the progress review meeting, the Owner, the Designer, and the OPM will review the pencil payment request along with an update of the Construction Schedule to verify the Contractor's percentage complete for each item.

The payment application will include the total amount of the contract, total amount earned to date, total amount previously paid, total retention withheld, change orders, and amount left unearned. The format of the application shall be the standardize payment application, as approved by the MSBA, and should include MSBA Construction Contract ProPay codes for each category of Work. The Designer and OPM will review and comment on the payment application. The Contractor shall make adjustments noted by the Owner's Team and submit a final payment request. The Designer will sign and forward to the OPM who will provide a payment recommendation to be approved by the EBHSBC. Once the payment request has been reviewed, the EBHSBC will vote their final approval and the payment application will be processed by Town administration. By law, periodic payment applications must be paid to the contractor within 15 days from receipt of the "designer approved" Application from the Contractor. All Contractor monthly payment requisitions will be reviewed by the OPM and Designer to confirm that the Work included in the requisition is accurate and in conformance with the construction contract. The OPM will review all payment requisitions with the Town prior to the EBHSBC meeting for approval.

### Construction Change Orders

Construction Change Orders are any changes to the Construction Contract involving Project cost or Project time. The Change Order procedures below represent a suggested set of guidelines to follow for the Project. The exact procedures to be utilized will be determined jointly by representatives from the Owner, Designer, and the OPM and will be compatible with administrative procedures, Town procurement regulations, and the General Conditions. Change Orders can only be authorized for five (5) reasons:

- Request by the Owner
- Errors in the Contract Documents
- Omissions in the Contract Documents
- The discovery of an existing condition that was unforeseen and not shown in the Contract Documents
- Change of Law, Regulation, or Jurisdiction

All Owner requests shall be issued by the Designer in the form of a Request for Proposal (RFP). The RFP should contain all information and documentation necessary for the Contractor to determine the additional cost and time required to incorporate the change into the contract. The Contractor shall submit a detailed break down of all costs and additional time required in the form of a Proposed Change Order (PCO) to the OPM.

The Contractor shall notify the OPM of potential changes due to errors or omissions in the contract or discovery of unforeseen conditions. The notification is to be in the form of a Request for Information (RFI) where the Contractor requests clarification of the Contract Documents from the Designer. The Designer shall be the interpreter of the Contract Documents and respond to the RFI within five (5) working days. The OPM shall maintain a log of all RFIs and Designer responses.

If it is determined that a potential change to the contract exists, the Contractor shall assemble and submit a PCO within seven (7) days from receipt of the Designer response to the RFI. The PCO must include substantiation of all the costs and impacts to the project schedule required to incorporate the change to the Project. The PCO must be in the format approved by the Town and detail all costs in materials, labor, and equipment. All overhead and profit costs must conform to the percentages dictated in the Contract.

The OPM will maintain a log of all RFIs, PCOs, and CCDs and they are to be reviewed at the weekly project meetings by the Owner, OPM, and Designer. Resolving PCOs is a critical element in keeping the Project on schedule and will be a major element in the weekly project meetings. The OPM will lead the Owner's team in negotiating all PCOs with the Contractor.

When the Contractor and OPM reach agreement on the final cost and time, a final PCO incorporating all negotiated changes will be submitted. The Designer shall assemble all approved PCOs into a Change Order and submit to the OPM. There could be numerous PCOs contained in a Change Order. The OPM will review and approve the Change Order and submit to the EBHSBC for their approval to execute an Amendment to the Contract by the Town.

If a negotiated agreement with the Contractor cannot be achieved in a timely manner and the change is of a critical nature, the OPM may determine that a Construction Change Directive (CCD) is required to keep the project on schedule. The CCD requires the Contractor to proceed with the change while the issues of cost and time are being negotiated. The Designer shall issue the CCD with all documentation required to define the scope of Work involved. The CCD is to be executed once signed by the Town and the Contractor. Because time is a critical issue, it is of paramount importance that the Town designates a representative who will have authority to sign the CCD.

### Project Time

The Contract stipulates the amount of time allowed for the Contractor to complete the Project. An extension of Contract time can only be granted if the Contractor can demonstrate that the Project has been delayed through no fault of the Contractor's.

All requests for extension of Contract time will be in the form of a Proposed Change Order. The PCO must contain a detailed analysis of the construction schedule showing the impact and cause of the delay. The Owner, OPM, and Designer will review the time extension PCO in relationship to the approved schedule activities and analysis provided by the Contractor. If the time extension is justifiable due to changes in the Work, the OPM will recommend adjustment in both time and cost. If the time extension is justifiable due to acts of nature, the OPM will recommend an extension of time only with no additional monies approved. A Change Order extending Contract time will be executed in the same process as noted above.

### Contractor Claims

A Claim is a demand or assertion of rights under the Contract. Contractor claims normally arise from a decision by the Town or an interpretation by the Designer that the Contractor takes issue. All claims must be in writing and must be submitted within 21 days of the written notification of a decision by the Town or interpretation by the Designer. The OPM will receive a copy of all notices of claims by the Contractor against the Owner. The OPM will perform a preliminary evaluation of the contents of the claim, obtain information concerning the claim, and make recommendations to the Town on the claim's substance. The burden to substantiate a claim is with the Contractor; however, it is in the Town's interest that claims are resolved quickly and equitably. It is the OPM's responsibility to document claim's issues and assist the Town in reaching a resolution.

### Non-Conforming Work

During the observation or inspection of the Work, non-conforming work may be uncovered. The OPM will, in conjunction with the Designer, make recommendations to the Contractor for corrective action on observed non-conforming work. The OPM will also advise when the Contractor is in non-compliance with their Quality Control Program. If there is a disagreement with the conformity of the Work, the Designer shall be the final arbiter of the issue. If the Contractor refuses to correct non-conforming Work, the Town can have the Work corrected by other forces and back charge the Contractor for all costs associated with this action, or negotiate with the Contractor on the appropriate loss of



value credit. The OPM, along with the Designer, shall document all non-conforming work and assist the Town in making a final resolution of the issue.

### **Project Commissioning**

A Commissioning Consultant shall be assigned to the Project by the MSBA, prior to the completion of the Construction Documents, to provide commissioning services including advisory services during the design and construction phases. The OPM will maintain communication with the Commissioning Consultant throughout the duration of the Project. The OPM shall schedule the Commissioning Consultant to provide services and reports, as required to support the construction schedule.

Prior to the project reaching Substantial Completion, the Contractor must complete the Project Commissioning Program. This includes the verification that all systems are properly installed per the Documents and written certification that the specified systems have been completed and tested in accordance with the plans and specifications and performance of the systems demonstrated.

### **Substantial Completion**

In conjunction with the OPM, the Designer will make the determination that the Project has achieved Substantial Completion. Substantial Completion shall mean that the Work is ready to be used for its intended purposes, can obtain a Certificate of Occupancy, and the remaining value of uncompleted work is less than 1% of the contract value. The OPM and Designer will systematically review all the finished Work and notify the Contractor of any deficiencies through an itemized punch list. After the Designer completes a follow-up review (back-punch) of the deficiencies, the remaining incomplete punch list items will be monetized by the Designer to reflect the cost to complete the Work by other forces if the Contractor fails to complete the Work. The release of project retainage will be based on the value of the monetized punch list. The OPM and Designer will advise the Town of acceptability of project completeness and recommend issuance of the Certificate of Substantial Completion.

### **Final Completion**

The Contractor has sixty (60) calendar days under the Contract to complete the punch list and submit all close out documents. Close out documents include as-built drawings, all warranties, and all operation and maintenance manuals for all equipment incorporated into the Project. Close out also includes all training of User Group personnel on all equipment. The OPM and Designer will, at the conclusion of all corrective action of all punch list items, make a final comprehensive review of the Project, make a report to the Town which will indicate whether the Work performed is in compliance with the Contract Documents, and make recommendations as to final payment to the Contractor. The Contractor must submit evidence of release of all sub-contractor liens and resolution of all claims before final payment.