



Massachusetts School Building Authority

Deborah B. Goldberg
Chairman, State Treasurer

James A. MacDonald
Chief Executive Officer

John K. McCarthy
Executive Director / Deputy CEO

June 7, 2019

The Honorable Dr. Yvonne M. Spicer, Mayor
City of Framingham
150 Concord Street, Room 121
Framingham, MA 01702

Re: City of Framingham, Fuller Middle School

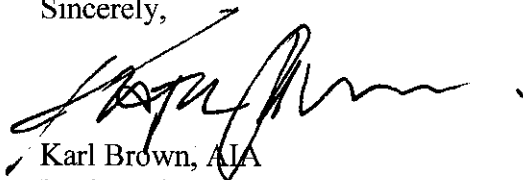
Dear Mayor Spicer:

The Massachusetts School Building Authority (the "MSBA") is forwarding review comments of the Design Development submission for the Fuller Middle School Project in the City of Framingham, received by the MSBA on May 17, 2019.

Responses to the attached comments shall be forwarded to Brian Lynch (Brian.Lynch@MassSchoolBuildings.org) through the Owner's Project Manager. Please review and return responses within 14 days of receipt of this letter.

If you have any questions or comments, please do not hesitate to contact Kevin Sullivan (Kevin.Sullivan@MassSchoolBuildings.org).

Sincerely,



Karl Brown, AIA
Design Director

Attachment: Design Development Review Comments

Cc: Legislative Delegation
Dennis L. Giombetti, Chair, Framingham City Council
Jennifer A. Pratt, Assistant Chief Financial Officer, City of Framingham
Adam Freudberg, Chair, Framingham School Committee
Dr. Robert A. Tremblay, Superintendent, Framingham Public Schools



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Framingham Design Development Review Comments

Joseph Corazzini, Assistant Superintendent for Equity, Diversity, and Community Development, Framingham Public Schools

Nancy Piasecki, Executive Director for the Office of the Superintendent, Framingham Public Schools

Matthew Torti, Director of Buildings and Grounds, Framingham Public Schools

Carol Brodeur, Executive Assistant, Office of Building and Grounds, Framingham Public Schools

Joel G. Seeley, Owner's Project Manager, Symmes Maini & McKee Associates, Inc.

Jonathan Levi, Jonathan Levi Architects, LLC

File: 10.2 Letters (Region 4)

APPENDIX 6A MODULE 6 – DESIGN DEVELOPMENT REVIEW COMMENTS

District: City of Framingham

School: Fuller Middle School

Owner’s Project Manager: SMMA

Designer Firm: Jonathan Levi Architects

Submittal Received Date: May 17, 2019

Review Date: May 20 – June 7, 2019

Reviewed by: Gienapp Architects, Karl Brown, Kevin Sullivan, Rich Hudson

MSBA REVIEW COMMENTS

The following comments¹ on the Design Development submittal are issued pursuant to a review of the project submittal document for the new construction of the proposed project and presented as a Design Development submission in accordance with the MSBA Module 6 Guidelines.

6A.1 Summary Comments

- Basic Project Information:
 - *630 students in grades 6-8.*
 - *136,790 PFA GSF.*
 - *New construction.*
 - *Construction Manager at Risk, Consigli Construction*
- General Comments:
 - *The total Project Budget per the PFA is \$98,276,878, and the information provided confirms it is still on budget.*
 - *The construction cost estimates are \$77,550,211 (CMR’s estimate by Consigli Construction Co.), \$77,387,384 (Designer’s estimate by A.M. Fogarty) and \$77,678,773 (OPM’s estimate by Miyakoda Consulting).*
 - *The construction budget per the PFA is \$77,935,429, and the information provided confirms that the reconciled construction cost of \$77,550,211 is still within budget.*

 - *The "Updated Project Budget" provided in the submission uses the PFA estimates rather than the updated reconciled cost estimate; therefore, it*

¹ The written comments provided by the MSBA are solely for purposes of determining whether the submittal documents, analysis process, proposed planning concept and any other design documents submitted for MSBA review appear consistent with the MSBA’s guidelines and requirements, and are not for the purpose of determining whether the proposed design and its process may meet any legal requirements imposed by federal, state or local law, including, but not limited to, zoning ordinances and by-laws, environmental regulations, building codes, sanitary codes, safety codes and public procurement laws or for the purpose of determining whether the proposed design and process meet any applicable professional standard of care or any other standard of care. Project designers are obligated to implement detailed planning and technical review procedures to effect coordination of design criteria, buildability, and technical adequacy of project concepts. Each city, town and regional school district shall be solely responsible for ensuring that its project development concepts comply with all applicable provisions of federal, state, and local law. The MSBA recommends that each city, town and regional school district have its legal counsel review its development process and subsequent bid documents to ensure that it is in compliance with all provisions of federal, state and local law, prior to bidding. The MSBA shall not be responsible for any legal fees or costs of any kind that may be incurred by a city, town or regional school district in relation to MSBA requirements or the preparation and review of the project’s planning process or plans and specifications.

does not update the total Project Budget. In response to this review, the OPM should provide an updated Total Project Budget using the current reconciled cost estimate that address the comments in this review. Refer to the comment below in the Scope and Budget section regarding updating the budget.

- *The construction budget is \$77,935,429, and the submission reports the project is currently within the PFA construction budget. . All three estimates: the Designer (Miyakoda), OPM (A.M. Fogarty), and the CMR were originally over budget by at least \$4.7M. The submission indicates that all three parties assembled and reconciled their estimates. All three reconciled estimates are now showing the project on budget. In response to this review, the OPM should describe how the estimates were reconciled and the project was brought within budget, and provide an updated cost estimate reconciliation that address the comments in this review. Also provide an updated MSBA standard Cost Estimate Comparison Form from the MSBA website.*
- *The Project Schedule indicates that Bid Package No. 3 (the main portion of the project) will have the "Notice in the Central Register" (line 146) on November 6, 2019, but the "Trade Contractor Bid Package" (line 147) does not start until November 15, 2019 (10 days later). The "Trade Contractor Bid Package" aligns with the completion of the CDs (both November 15, 2019). It is unclear why the schedule is showing this 10-day difference and what is its purpose. With the response to these comments, indicate if this is intentional, and if so, provide an explanation for why.*
- *The Project Manual has been provided as a three-part CSI Masterspec format rather than an outline specification as required (consequently, some comments in this review are reflective of issues that would not typically arise with an outline specification). Many items have several manufacturers listed, but no reference to "or equal" especially where not proprietary. All non-proprietary items need to include "or equal" as a manufacturer option.*

6A.2 OPM Deliverables: *Unless specifically stated otherwise, the OPM deliverables are included in the submission with no response from MSBA required.*

6A.2.1 Submittal Review & Coordination:

- Review designer submissions; make recommendations to Owner. Address each of the following items individually, and describe how each was evaluated.
 - *Approve submission; implied, confirm as part of the response to these review comments.*
- Coordinate design; include written recommendations to the Owner. *The submission does not include a comment regarding coordinating the design and providing written recommendations to the Owner by the OPM for any of the following. With the response to these comments, indicate if the following have been reviewed.*

- Technical accuracy, coordination & clarity. *Not included.*
- Efficiency & cost effectiveness. *Not included.*
- Operability. *Not included.*
- Constructability. *Not included.*
- Phasing. *Not included.*
- Bid-ability. *Not included.*
- Site access during construction. *Not included.*
- Coordinate the commissioning consultant's review.
 - Include Cx review & District response. *The commissioning consultant's review is included; however, there are no responses by the District. As part of the response to these review comments, please comment and describe when each of the Cx review comments will be coordinated with the contract documents..*
 - Incorporate Cx recommendations. *See comment above.*
- Coordinate the District response to MSBA comments of previous submittal.
 - Include MSBA review & District response.
 - *Comments addressed*

6A.2.2 Project Schedule: All schedules should be presented in calendar days.

Update project schedule: As a minimum, the schedule update should provide the same level of detail as was included in Exhibit C of the Project Funding Agreement, expanded and updated to include milestones for Design Development, Bidding, Construction, and Closeout. The updated schedule should include proposed critical path and construction milestone information. In addition to the construction milestones, the schedule must also include the following information as listed in MSBA Module 7, Schedule Activities:

- Punch list start and end dates.
- Date of Project Registration with the US Green Building Council ("USGBC") or Collaboration for High Performance Schools ("CHPS").
- Provisional/Design package submittal date to USGBC or CHPS.
- Submittal date of 50% DCAMM Notification and 100% DCAMM Notification.
- General Contractor/Construction Manager request for final payment.
- Commissioning Consultant inspection (substantial completion plus approximately 10 months).
- Submittal date of Final Commissioning Report to MSBA.
- Submittal date of Final Construction package including but not limited to Final Commissioning Report to USGBC or CHPS.
- Anticipated issuance date of final Green School Program Certification letter from USGBC or CHPS.
- Submittal date to MSBA of Commissioning Certificate of Completion.
- Submittal date to MSBA of final reimbursement request. *Included; however, it is set for a date prior to the completion of the commissioning consultant's final evaluation. This should be reviewed and revised in the next submission.*

- Indicate submission dates for the following approvals. In addition, provide dates for any other state or federal approval not listed below (the following list is not a comprehensive itemization of required state approvals; other requirements may apply, and some of the items listed below may not be applicable to this project). Indicate "Not Applicable" where appropriate:
 - DESE - Special Education approval by Department of Elementary and Secondary Education.
 - MHC – Project Notification Form and approvals by MA Historical Commission.
 - OIG - Construction Manager at Risk approval by the Office of Inspector General.
 - Executive Office of Energy and Environmental Affairs / EEA: *The Project Schedule does not comment on these approvals. However, later in the Project Binder, the submission indicates these as not applicable. Clarify as part of the response to these review comments.*
 - MEPA - MA Environmental Policy Act by Energy & Environmental Affairs:
 - ENF - Environmental Notification Form. *See comment above.*
 - EIR - Environmental Impact Report. *See comment above.*
 - Article 97 Land Disposition Policy approval by Energy & Environmental Affairs. *See comment above.*
 - MA DEP - Massachusetts Department of Environmental Protection. *The Project Schedule does not comment on this approval. However, later in the Project Binder, the submission indicates it as not applicable. Clarify as part of the response to these review comments.*
 - MA DOT - Massachusetts Department of Transportation. *The Project Schedule does not comment on this approval. However, later in the Project Binder, the submission indicates it as not applicable. Clarify as part of the response to these review comments.*
 - MA DPH - Massachusetts Department of Public Health. *The Project Schedule does not comment on this approval. However, later in the Project Binder, the submission indicates it as not applicable. Clarify as part of the response to these review comments.*
 - EPA –NPDES National Pollutant Discharge Elimination System Notice of Intent approval by the US Environmental Protection Agency. *The Project Schedule does not comment on this approval. However, later in the Project Binder, the submission indicates it as not applicable. Clarify as part of the response to these review comments.*

- MAAB - Accessibility variances by MA Architectural Access Board. *The Project Schedule does not comment on this approval. However, later in the Project Binder, the submission indicates it as not applicable. Clarify as part of the response to these review comments.*
- Indicate all required state reviews or permits on the milestone schedule including actual or planned dates of approval which are required in order to maintain the planned bidding and construction schedule and milestones indicated therein. For required state reviews or permits which have not been obtained on schedule, provide a separate (subnetwork) schedule depicting recovery actions to obtain required approvals in order to maintain the bidding and construction schedule.
- The schedule is to be updated and submitted to MSBA with each OPM monthly report and as often as is required to reflect any changes, including any changes to milestone dates, but must be submitted with each design submittal (DD, 60% CD, 90% CD). The schedule shall reflect any variances in the updated schedule relative to the baseline project schedule included with the Project Scope and Budget Agreement.
- Indicate the date for submission to MSBA of the Design Development, and proposed dates for submission of the 60% and 90% Construction Documents submittals. The schedule is to incorporate 21 calendar day required duration for MSBA review of each submission, and a minimum of 14 calendar days for project team incorporation of MSBA review comments as well as all others into the project documents prior to the due date of the next submission or finalizing project documents for bidding. 35 calendar days for each submission is the minimum acceptable duration; if the project team believes additional time is required for any or all of the submissions the durations for these activities are to be increased accordingly.

6A.2.3 Scope and Budget

- Develop project scope and budget:
 - Reconciled construction cost estimate including Designer/OPM comparison chart:
 - Prepare independent construction cost estimates pursuant to Section 8.1.2.2 of the Contract for Project Management Services, with escalation to the mid-point of construction, for comparison with the Designer's cost estimate, based upon design development progress documents. *An estimate for the OPM, by A.M. Fogarty, is included in the submission; however, it appears to have been escalated twice. On the summary sheet, there is a note after "Total Direct Cost" that indicates it has been "estimated to the mid-point of construction". Following this there is another escalation line which is less clear to what point it is escalated. This second line appears to be applied to the direct cost plus contingency but does not include general conditions, general requirements, or any of the*

other general costs that are incurred by a project. Therefore, it is unclear why there are two escalations and why they are applied in the way they are applied. With the response to these comments, provide an explanation for their purpose.

Additionally, the original OPM's estimate is short and may be difficult to compare with the more detailed Designer's estimate. Consider expanding this estimate to make comparison clearer in the next submission.

Note that the OPM is responsible to reconcile the Designer's and CMR's independent cost estimates, resulting in one reconciled cost estimate amount which is then used for the updated Total Project Budget. Currently, the OPM has only provided the CMR's estimate as the "reconciled" amount. As part of the response to these review comments, confirm this will be done in the 60% and 90% CD submissions.

- CMR (if applicable).
 - If Owner has not yet contracted with a Construction Manager (CM), the OPM must develop a construction cost estimate for comparison with the Designer's cost estimate.
 - If the Owner has given the CM a Notice to Proceed, the OPM must review cost estimates provided by the Designer and CM and provide a detailed line by line reconciliation of the Designer's and CM's construction cost estimates.
- Updated project budget in the total project budget format, based on the reconciled construction cost estimate. If the reconciled estimate is not used for the updated project budget, provide an explanation. *An updated project budget is included, but it is not on the MSBA Project Budget Template. Provide an updated project budget on the MSBA template form in the response to this review.*

Additionally, the updated project budget is based on the PFA construction estimate and not on the reconciled estimate. In the response to this review, the updated project budget should use the reconciled estimate.
- Value Engineering recommendations.
 - For any Value Engineering recommendations which have been accepted, provide a copy of the Committee vote. *A copy of the Committee vote on the value engineering recommendations is not included in the submission. This should be provided with the next submission.*

6A.3 Designer Deliverable: *Unless specifically stated otherwise, the Designer deliverables are included in the submission with no response from MSBA required.*

6A.3.1 General Requirements

- Submit updated work plan. *Included; however, it appears it is out of order. 90% and 100% CDs appear before the Design Development Documents. This should be reviewed, corrected, and coordinated in the next submission.*
- Basis of Design narrative description for all disciplines.
- Building code analysis.
- Provide a list identifying all proposed proprietary items (if any) with an affidavit which shall indicate an elected body of the district (school committee, city or town council, or selectmen, - but not an ad-hoc building committee) has been presented with proposals for proprietary requirements approval action, has had an opportunity to investigate, or to require staff or consultant investigation upon each item so proposed, and has majority voted in an open public session that is in the public interest to do so. Provide MSBA with a certified copy of the vote of the elected body. *The submission lists several items and states "[t]hese will need to be voted on and approved by the SBC", but there is no indication when this might occur. With the responses to these comments, indicate when this vote is anticipated. This anticipated vote date should also be added to the Project Schedule.*
- An interior color theory statement describing proposed paint and material selections and colors for typical and special spaces, why they have been selected and how these selections relate to exterior materials and colors. Confirm that color and material selections have been presented to and approved by the District. *The submission indicates materials and colors were presented to the SBC; however, finalization of colors is anticipated during construction when specific manufacturer's options are known.*
- Confirmation of project registration with CHPS or USGBC.
- Structural narrative including methods of lateral bracing and how requirements of earthquake code will be met.
- Structural calculations and required floor loads.
- Energy calculations.
- Life Cycle cost analysis for energy and water consuming devices.
- Heat gain and loss calculations for Heating, Ventilating and Air Conditioning systems.
- Calculations showing total electrical load.
- Security and visual access requirements:
 - Confirmation that the persons responsible for implementation of the District's emergency procedures, and responding emergency medical, fire protection, and police agency representatives have been consulted in the planning process and any associated requirements have been included in the project.
 - Identification of any other security related items particular to the District and/or the proposed project.

- Verification that the following safety and security related issues have been reviewed and are in accordance with the District's procedures as noted above:
 - Main entrance design – describe District protocol for visitor entry and check-in related to the current design for visitors to remain in the vestibule versus a side sub-vestibule.
 - Classroom lockset hardware - confirm hardware functions are compatible with the District's protocols related to lockdown.
 - Classroom / Instructional spaces visibility - confirm that the inclusion of sidelights at entrance locations is compatible with the District's current standards related to visibility from corridors and whether any related vision control option measures are to be incorporated.
 - Alternative entry locations - confirm project includes site and building signage, as may be required by District's emergency procedures, to identify locations where first responders may more directly reach a person needing medical attention; Knox Boxes; and provisions for building plans to be delivered to local fire and response agencies. *The submission is very limited when noting alternative entry location information. It appears this was discussed with City Representatives, but there is no information as to whether it includes site and building signage, how responders reach a person in need, or how plans will get to the response agencies. In the next submission, provide additional information.*
- Quality Control documents demonstrating: *The submission comments on the Designer's quality control methodology; however, several of the categories below are not specifically mentioned. With the response to these comments, confirm items noted below as "Not included" have been reviewed for quality control purposes.*
 - Ceiling clearances.
 - Mechanical room and shaft sizes.
 - Coordinate specifications and drawings. *Not included.*
 - Filed sub-bid work. *Not included.*
 - Scheduling. *Not included.*
 - Equipment and power.
 - Existing and new construction. *Not included.*
 - Phasing. *Not included.*

6A.3.2 Space Summary

- Updated space summary and signed certification that reflects the current design. *Based on the space summary provided, the MSBA notes the following:*

The updated space summary includes yellow highlights and orange highlights. The latter are explained as changes above 5% of the NSF. The former is not explained, and they do not appear to be noting changes. With the response to these comments, indicate what yellow highlighting indicates.

<u>Spaces</u>	<u>PFA Space Summary</u>	<u>DD Space Summary</u>	<u>60% CD Space Summary</u>	<u>90% CD Space Summary</u>	<u>Difference to PFA</u>	<u>Comments</u>
Core Academic Spaces	36,000	35,600			(400)	This category has decreased by 400 nsf since the PFA.
Special Education	9,150	9,075			(75)	This category has decreased by 75 nsf since the PFA.
Art and Music	3,675	3,640			(35)	This category has decreased by 35 nsf since the PFA.
Vocations & Technology	3,170	3,185			15	This category has increased by 15 nsf since the PFA.
Health and Physical Education	9,985	9,795			(190)	This category has decreased by 190 nsf since the PFA.
Media Center	6,280	6,250			(30)	This category has decreased by 30 nsf since the PFA.
Dining and Food Service	8,960	8,690			(270)	This category has decreased by 270 nsf since the PFA.
Medical	610	620			10	This category has increased by 10 nsf since the PFA.
Administration and Guidance	5,250	5,245			(5)	This category has decreased by 5 nsf since the PFA.
Custodial and Maintenance	2,140	2,630			490	This category has increased by 490 nsf since the PFA.
Other	6,700	6,755			55	This category has increased by 55 nsf since the PFA.
Total Building Net	91,920	91,485	-	-	(435)	This category has decreased by 435 nsf since the PFA.
Non Programmed						
Other Occupied Rooms						
Unoccupied MEP/FP	1,685	1,415				
Unoccupied Closets, Supply Rooms & Storage	235	280				
Toilet Rooms	3,560	3,325				
Circulation	34,175	25,970				
Remaining	5,215	14,285				
Total Gross	136,790	136,760			(30)	
Grossing Factor	1.49	1.49			0	

- Comparison of the current design with the final educational program, and confirmation that there are no variations. If there are variations, the written summary must address the following:
 - Explanation of deviations within the space summary from the Project Funding Agreement. *Explanations of deviations are included and mostly focus on further development of the design. However, some deviations are not explained. For example, the explanation for Art and Music is that it reduced by 35 SF due to "building design effort" then it explains how one room was split in two and two others split into three with no explanation as to why. Prior to MSBA accepting this variation to the project, the Designer must describe in detail the reason for this change. Additionally, Dining and Food Service was reduced by 270 SF, bringing the category below guidelines. Prior to accepting this variation to the project, the Designer must describe in detail the reason for this change and also confirm that this change is acceptable to the District. Also, within the Administration and Guidance category one teacher work room has been eliminated without further explanation. Prior to MSBA accepting this variation to the project, the Designer must describe in detail the reason for this change. This should be addressed with the response to these comments.*
 - *The MSBA will continue to monitor these ineligible square footage amounts through Module 6, and to continue to consider them ineligible at PFA Bid. Please note the following:*
 - *The Medical category did not exceed guidelines at the time of PFA (610 nsf); however as outlined above, as part of the DD submission the category has increased by 10 nsf, therefore 10 nsf would now be considered ineligible for reimbursement.*
 - *Custodial and Maintenance exceeded guidelines by 35 nsf at PFA, and 35 nsf was considered ineligible. This category has increased by 490 nsf in the DD submission. This additional area will be considered ineligible.*
 - *The Other category exceeded guidelines by 6,700 nsf at PFA, and 6,700 nsf was considered ineligible. This category has increased by 55 nsf in the DD submission. This additional area will be considered ineligible.*
 - The MSBA considers that deviations include changes in the size of a specific space, the total nsf of a program area (e.g. general classrooms, voc tech, dining etc.), the location of a space, the surrounding adjacencies of a space and or the intended purpose of the room. *See comment above.*

- The submittal must clearly call out deviations to location and surrounding adjacencies through the use of redlines or “clouding.” *Included on the provided space summary, but not on plans. This should be provided with the response to these comments.*
- The explanation should clearly identify the basis of the change identifying both architectural and/or programmatic reasons. *Not included, see comment above.*
- If the basis of the change is programmatic, the submittal should include a red-lined version of the educational plan included in the Project Funding Agreement. *Not included, see comment above.*
- Regarding DESE approved SPED spaces; *The submission notes minor changes in classroom and teacher planning size due to further development of the design. As part of the response to these review comments, indicate if all SPED space changes are final. Once finalized, a SPED resubmittal will be required to be submitted to MSBA which will be forwarded to DESE for their review.*
 - If the District wishes to submit a change to its DESE approved submittal, it must a) confirm that all changes to SPED spaces are final; b) provide a new submittal utilizing the format of the original submittal requirements and clearly noting any changes through use of clouded floor plans and red-lined narratives and tables; and c) indicate how the project schedule can accommodate a potential resubmittal and approval by DESE. Please provide a separate package for changes to DESE approved SPED spaces. *See comment above.*
 - If the District chooses not to change from the DESE approved submittal it should confirm that the spaces are the same or explain when and how the spaces will be returned to the approved size, configuration and location. *See comment above.*
- Regarding DESE approved Public Day Education spaces; *Not applicable.*
- Regarding DESE pre-approved Chapter 74 Program spaces; *Not applicable.*

6A.3.3 Project Approvals

- Describe the status of the following approvals. In addition, provide the status of any other state or federal approval not listed below (the following list is not a comprehensive itemization of required state approvals; other requirements may apply, and some of the items listed below may not be applicable to this project). Provide a copy of the appropriate application forms and/or approval letters where applicable. Indicate “Not Applicable” where appropriate. For each agency approval required for this project, indicate the date when approval was received. All required approvals should have an associated approval date indicated as part of the 90% CD submission and prior to advertising for bids.
 - DESE - Special Education approval by Department of Elementary and Secondary Education.

- MHC – Project Notification Form and approvals by MA Historical Commission.
- OIG - Construction Manager at Risk approval by the Office of Inspector General.
- Executive Office of Energy and Environmental Affairs / EEA: *The submission indicates this is not applicable.*
 - MEPA - MA Environmental Policy Act by Energy & Environmental Affairs:
 - ENF - Environmental Notification Form.
 - EIR - Environmental Impact Report.
 - Article 97 Land Disposition Policy approval by Energy & Environmental Affairs.
- MA DEP - Massachusetts Department of Environmental Protection. *The submission indicates this is not applicable.*
- MA DOT - Massachusetts Department of Transportation. *The submission indicates this is not applicable.*
- MA DPH - Massachusetts Department of Public Health. *The submission indicates this is not applicable.*
- EPA –NPDES National Pollutant Discharge Elimination System Notice of Intent approval by the US Environmental Protection Agency. *The submission indicates this is not applicable.*
- MAAB - Accessibility variances by MA Architectural Access Board. *The submission indicates this is not applicable.*
- Confirmation that the Project has undergone review and obtained all necessary approvals by any departments or agencies of the Commonwealth required by law to review the Project, including but not limited to the approvals listed above. Attach such letter of documentation evidencing such reviews and approvals. In accordance with Section 4.12 of the Project Funding Agreement (the "PFA"), the District must obtain such reviews or approvals prior to the solicitation of construction bids.
- For any required state reviews or permits for which approval has not been obtained as of the Design Development submission date, provide a status update including actions taken to date and actions planned to obtain the required state reviews and permit approval(s) in order to comply with PFA Section 4.12 and maintain the projected schedule milestones listed in OPM Deliverables.
- List and target dates for all local zoning approvals, testing and permits.
- Provide a certification that all applicable utility officials have been contacted by the designer regarding each basic design, and utility connections. *Certification that many of the utility companies have been contacted is included in the submission, but it does not appear to include water or sewer utilities. With the response to these comments, indicate if these utilities have been contacted.*

6A.3.4 Cost Estimates *The following has been reviewed in regards to the Designer's reconciled estimate, by Miyakoda. Refer to comments under 6A.1*

- Construction cost estimate using the Uniformat II Classification to Level 3, Showing unit rates and quantities; projected to mid-point of construction AND:
- Construction cost estimate using the CSI MasterFormat 6-digit format to Level 3 and MGL c.149 s 44F (filed sub-bid) format. Showing unit rates and quantities; projected to mid-point of construction.

6A.3.5 Drawings (developed to Design Development progress level)

- Cover sheet showing a list of all drawings, symbols, abbreviations, notes, locations map (the project title should be visible when the drawings are rolled). *The list of drawings, the symbols, and abbreviations are not on the cover sheet. Consider adding to the next submission for clarity.*
- Site and utility drawings showing the following:
 - Existing and proposed contours and locations of the proposed building or addition(s). Show entry level elevations and key exterior grades at perimeter showing drainage away from the building. Indicate all retaining walls. Include benchmarks of site if survey is available.
 - All utilities existing and proposed, indicating location, elevation, composition and size e.g., gas and electric utility providers.
 - Roads, laid out parking areas, walks, recreation areas, terraces and other site improvements.
 - Building locations fixed and referenced from main survey baseline, if available. *The building location is not fixed to the survey. Please include in the next submission.*
 - Plant materials with preliminary schedule.
- Architectural drawings showing the following:
 - Demolition drawings and temporary work required. *Demolition drawings are not included. Please include them in the next submission.*
 - Floor plans (minimum 1/8" = 1'0").
 - Key plans / overall plans where required.
 - Building perimeter with exterior wall thicknesses and overall dimensions. *Overall dimensions are not included. Provide overall dimensions and angles to ensure accurate layout the building in the next submission.*
 - Structural grid.
 - Plan requirements of mechanical and electrical systems.
 - Building core; elevators, stairs, shafts, public toilets, with dimensions.
 - Internal partitions; appropriate thicknesses and dimensions to fix basic organizations; indicate fire rated partitions and smoke partitions. *Dimensions are not included to locate basic organizations. Please include dimensions in the next submission.*
 - Door swings.
 - Finish floor elevations coordinated with exterior grade elevations at all interior exterior transitions. *The finish floor elevations are not coordinated*

with the exterior grades at the interior exterior transitions. Please include in the next submission.

- Built-in furniture and equipment.
- Furniture layout concept drawings.
- Modular 4", 8", or 1' unit modular dimensions on Masonry. *Since there are no dimensions, it cannot be determined whether the overall dimensions are based on modular dimensions. Please include dimensions in the next submission.*
- Large scale plans showing key areas e.g. lobby, special spaces. Indicate floor surface materials. (minimum scale 1/4" = 1'0").
- Roof plans showing the following:
 - Proposed systems type.
 - Pitch and drainage pattern.
 - Roof drain, gutters and scuppers.
 - Skylights, stair halls through roof, penthouses, major equipment, chimneys.
- Building sections - One transverse and one longitudinal section. Indicate floor to ceiling heights and floor-to-floor heights. Label all spaces.
- Building sections updated and coordinated with plans and elevations.
- Building elevations showing the following:
 - Full height elevations including roof structures, e.g., mechanical equipment, chimneys, and penthouses.
 - Floor elevations, floor-to-floor height, and overall height related to benchmarks on site plans. *The overall heights related to grades are not included. Please include them in the next submission.*
 - Windows, storefront & curtain wall systems.
 - All columns located on a centerline and coordinated with the structural drawings.
 - Materials indicating major control and expansion joints, and divisions of materials where required. *Expansion joints not included, and should be added in the next submission.*
 - Louver locations coordinated between building elevations, floor plans, mechanical equipment, project manual etc. *There are no louvers, including in the interior boiler room. Verify that makeup air for boilers and water heaters is provided in the next submission.*
 - Exterior grades and topographical features in context.
- Full height wall sections for main elevations and at special conditions. Show foundation and perimeter treatment, wall construction including insulation and supporting structure, fenestration and mechanical penetrations, and floor construction. *The wall sections are only minimally developed. Please develop the wall sections and detail references for the next submission.*
- Interior elevations: Show at all spaces, e.g. library, lobby, and all typical spaces, e.g. classroom.
- Reflected ceiling plans: Show prototypical structural, fire protection, mechanical and electrical information for classrooms and major spaces, including lighting layouts with ceiling height and material changes. *The*

ceiling heights, fire protection, and mechanical information are not included in the reflected ceiling plans. Please include this information in the next submission.

- Schedules:
 - Finish schedule by room types.
 - Door schedule by room types.
 - Window schedule.
 - Equipment schedules; e.g., food service, instructional media.
- Structural Concepts:
 - Framing plans; typical floor framing, roof framing, special framing, show framing at major openings and sizes of members.
 - Foundation plan showing sizes and locations of typical components.
 - All columns and beams are identified and listed in the column and beam schedule. *A beam schedule is not included. Consider including one in the next submission for clarity.*
 - Preliminary details including floor and roof deck.
 - Details for special and/or incidental structural features; e.g. tunnels, connecting bridges and unique architectural features. *Special details for the canopy and the bridge have not been included. Please include them for the next submission.*
 - Connection to existing buildings at foundation and at key points at existing structure if applicable. *Not applicable.*
 - All construction joint and expansion joint locations coordinated with structural drawings. *An expansion joint detail has not been included. If applicable, please include one in the next submission.*
- Fire protection; floor plans indicating wet or dry type systems, hose racks, or cabinets and fire department tie-ins. Indicate a fire pump where required. Show typical sprinkler head layout. *The sprinkler head layouts are not included. Please include them in the next submission.*
- Plumbing and sanitary systems; floor plans indicating locations of all plumbing fixtures and special features, and approximate location and size of all piping systems and principal items of equipment.
- Heating, Ventilating and Air Conditioning Systems:
 - Show locations and approximate sizes of piping systems, air handling systems and principal items of equipment such as compressors or cooling towers.
 - Indicate space requirements of major equipments and their location in mechanical rooms and fan rooms. Indicate shaft requirements.
 - Adequate ceiling heights exists at worst-case duct intersection. *Based on the information shown in the submission, verifying adequate space for overlapping ducts could not be performed. There are no ceiling heights on the reflected ceiling plans or the interior elevations. The building sections are cut at locations where the ceilings are tight to the underside of the floor above. The documents should be developed further in the next submission including this information so this can be determined and confirmed.*

- Ceiling diffusers/registers match mechanical drawings, including all soffit and vent locations.
- Electrical Systems:
 - All services including those for special purposes shall be located and indicated.
 - Light fixtures on electrical drawings match reflected ceiling plans.
 - Switchgear and emergency generator.
 - Electrical equipment locations are coordinated with site paving and grading.
 - All motorized equipment is coordinated with electrical drawings.
 - All power equipment has electrical connections. *The boilers, pumps and water heaters are not shown connected on the plans. Please show this in the next submission.*
 - Fire alarm system drawings showing all initiation and signaling devices, control panels, annunciator panels, etc.
 - Security system drawings.
 - Communications drawings showing chases, major equipment locations and any special distribution requirements.

6A.3.5.1 Project Coordination

- The structural, mechanical, or other disciplines, do not conflict with architectural plans or specifications.
- Structural dimensions match Architectural drawings. *There are no dimensions on either the structural or architectural drawings. Please provide information necessary to confirm coordination of this in the next submission.*
- Column orientation matches Architectural drawings.
- Column grid lines match Architectural drawings.
- Column and bearing wall locations match Architectural drawings.
- Column locations coordinated with all other disciplines. *The columns do not appear clearly on any of the other disciplines. Please include the column locations in the next submission.*
- Seismic detailing coordinates with Architectural drawings. *The seismic detailing does not appear to be coordinated with the Architectural drawings. The following are a few examples; this list is not all inclusive. All locations should be reviewed and corrected in the next submission.*
 - *On sheet S201, Elevation 4, there is a conflict with a door on the third floor.*
 - *In Elevation 7, the framing cannot be located. Column line BF8 may be missing from the plans.*
 - *In Elevations 8, 10, and 11, the bracing shares partitions with folding partition spaces.*
 - *On sheet S202, Elevation 3, there is a conflict with a door on the second floor.*
 - *On elevation 4, there is a conflict with a door on the third floor.*

- *On elevations 8, 9, and 10, the bracing shares partitions with the spaces for folding partitions.*
- *On Elevation 9, there is a conflict with a door on the first floor.*
- Beams and columns protruding horizontally and vertically into stairwells, and other interior spaces.
- The finish grade elevations coordinated between all disciplines. *The finish grade elevations do not appear to be coordinated. Please coordinate finish grades with structural and architectural drawings.*
- Mechanical equipment power requirements and physical locations, including special information as to who mounts, connects, tests, etc.
- Verification of potential spatial conflicts in mechanical equipment.
- Room wall/floor/ceiling construction coordinated with the finish schedule.
- Civil earthwork grading and excavation plans are coordinated with architectural and landscape plans.
- All room numbers are coordinated between all disciplines. *There are no room numbers on the fire protection plans. Please include them in the next submission.*
- Equipment plan coordinates with architectural plans. *The kitchen plans and the architectural plans differ from the equipment plan along column line S6. Please coordinate in the next submission.*
- All kitchen equipment connected to utility systems. *The kitchen equipment is not connected to the plumbing, sanitary or gas lines. Please show them connected in the next submission.*

6A.3.6 Project Manual (developed to Design Development progress level)

- Geotechnical report, including locations and dates of test boring holes and results of soil investigation, including water levels, allowable solid bearing pressure and bottom grades of footing and slabs.
- Outline Specifications in the current version of CSI Master spec divisions including: *The submitted specification is a 3-part CSI specification rather than the required outline specification. Consequently, some of the comments below are related to the full specification, as presented, and may address a level of detail beyond what is normally considered design development topics. Consequently, the presentation of information does not correlate to the outline below.*
 - Site work: clearing, drives, walks, parking areas, fences, excavation, backfill, planting, footings on earth, rock, piles, caissons, proposed bearing pressures, boring logs.
 - Foundation walls; type of concrete, reinforcing, type and extent of waterproofing.
 - Footing drains; type, disposal of drainage.
 - Exterior walls: superstructure, type, materials, brick type, alternate cladding, back-up materials, damp proofing material and extent, special features.
 - Roofs; type, vapor barrier, insulation, flashings, all materials.

- Flashings; general types, all materials, weights, where each type is to be used.
- Sheet metal; gutters, leaders, others uses, except flashing. *It is not clear if the project includes gutters and leaders. The Project Manual mentions leaders and gutter supports in Section 05 5000, but only in a very general sense, and may have been a left over from a previous project. The drawings are not developed sufficiently to confirm if they are included in the project. If used, both should be better identified and specified in the next submission. Clarify this in the response to these review comments.*
- Windows; general types, materials, sub-frames, finish, glazing, screens. *Section 08 44 13 Glazed Aluminum Curtain Walls refers to Section 08 51 13 Aluminum Windows; however, this section is not included in the Project Manual and is also not included in the Table of Contents. This should be reviewed and coordinated in the next submission.*
- Rough openings for all doors and windows coordinated.
- Doors, exterior and interior; types and thicknesses and fire rating identified if applicable. *Section 08 11 13 Hollow Metal Doors and Frames is full of colored text as if in process of editing. This should be reviewed and corrected in the next submission.*
- Steps, exterior; including platforms and landings' materials.
- Stairs, interior; including platforms, landings, walls, materials and finishes.
- Framing; wood, concrete or metal systems in accordance with general design.
- Partitions; materials, thicknesses, finishes.
- Cabinet and casework; types and materials.
- Food Service Equipment; list of equipment to be provided.
- Furring; lathing, plastering, materials and locations.
- Insulation thermal; types, thicknesses, methods of application and locations.
- Acoustical treatments; types, thicknesses, methods of application and locations.
- Interior finishes; materials for floors, walls, bases, wainscots, trim, ceilings, ceiling heights. *Specific colors and types are not indicated in the various finish sections. This should be reviewed and provided in the next submission.*
- Fire protection; standpipe systems, sprinkler systems, fire pumps and accessories.
- Water supply; source; location of main to which connection will be made; type of pipe for service main; load requirements; load factors and pressures.
- Sanitary sewers; sewage disposal system, pipe and other materials.
- Storm sewers; storm drainage disposal system (institution or local facility), pipe and other materials.
- Gas main; material, size, location. Interface with utility company.

- Plumbing; systems such as wastes, vents, hot water, cold water, gas, air, oxygen, vacuum, main source of supply, materials for each, water heaters, pumps, thermal insulation fixture quality, all special features.
- Heating, ventilating and air conditioning; type of heating and refrigeration plants, type and capacity of boilers and cooling equipment, fuel, type of burners, fuel storage, heaters, feed water pumps and heaters, thermal insulation, type of heating medium, supply and return piping, radiation, unit heaters, radiant heating, principal air conditioning equipment types, special features, supply, return and exhaust ductwork.
- Electric work; service connection, location, institution or public utility, overhead or underground, transformers including type and location, types of conduit and wiring, types of fixtures, location of main switchboard, radio, fire alarm, telephone, public address, emergency lighting and wiring, emergency or other generators, special features, including Master TV, information retrieval and/or data processing system. *Several of these items are not included, for example: the service connection for electrical is not mentioned; the transformer locations are not indicated; and the location of main switchboard is not indicated. This should be reviewed and indicated in the next submission.*
- Elevators, dumbwaiters and platform lifts; capacities, speed, travel in feet, landings, operation, controls, platform sizes, machine type and location, car and entrance finishes, signals.
- Other built-in equipment, types and materials. *Built-in equipment does not appear to be included in the Project Manual. This should be reviewed and, if applicable, included in the next submission.*
- All "Work by others" specifications coordinated.
- The sub-contractor identified for the installation of all equipment supports and anchors for walls, floor and ceilings.
- Special features. *None provided. Due to the design of the project, this should be reviewed and corrected, if needed.*