



<Addendum #1 >

NJSDA
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Date: January 30, 2015

PROJECT #: ES-0042-A01

DESCRIPTION: Orange High School Addition-Renovation Project

This addendum shall be considered part of the Bid Documents issued in connection with the referenced project. Should information conflict with the Bid Documents, this Addendum shall supersede the relevant information in the Bid Documents.

A. CHANGES TO THE PROCUREMENT PROCESS:

1. Modifications to Procurement Submission Dates and Deadlines

The date for submission of the Technical Proposals and Fee Proposals is changed to 4:30 P.M, **February 11, 2015**. See Items 2.b, 3.a, 3.b and 3.d below to implement this change.

2. Modifications to the Advertisement

- a. **MODIFY:** In the Advertisement, Numbered Section 2 under "To Participate in the Selection Process" the text at subsections a. and b. shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

2. Proposing Firms are prohibited from identifying an individual as Project Manager or Project Architect if that individual:

a. Is currently performing as a Project Manager, **or** Project Architect ~~or other Key Team Member (of any capacity)~~ in an existing SDA project that has not yet reached Substantial Completion; OR

b. Has been identified as a Project Manager, **or** Project Architect ~~or other Key Team Member (of any capacity)~~ in a Proposal in response to any other active SDA procurement for which an award has yet to be made.

- b. **MODIFY:** In the Advertisement, Numbered Section 5, under “To Participate in the Selection Process” the text shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

To participate in the selection process, interested firms must submit a Technical Proposal (one unbound original, five bound copies and two full cover-to-cover copies in PDF format on electronic media (CD or comparable)) and a Fee Proposal (one unbound original in a separate sealed envelope) no later than 4:30 PM Eastern Time on ~~February 9, 2015~~ **February 11, 2015** as follows:

[end of modified text]

3. Modifications to the Request for Proposals and Associated Documents

- a. **MODIFY:** In the Request for Proposals, Cover Page 1, the “Proposal Due Date” shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

Proposal Due Date: ~~February 9, 2015~~ February 11, 2015.

- b. **MODIFY:** In the Request for Proposals, Page 4, second paragraph captioned “Submission of Proposals” the text shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

Submission of Proposals. Responses to this RFP, consisting of a Technical Proposal (one unbound original, five bound copies and two full cover-to-cover copies in PDF format on electronic media (CD or comparable)), and a Fee Proposal (one unbound original in a separate sealed envelope), must be received by the NJSDA by 4:30 PM Eastern Time on ~~February 9, 2015~~ February 11, 2015. Faxed or e-mailed Proposals shall not be accepted.

- c. **MODIFY:** In the Request for Proposals, Section 2.3.1, Key Team Member List, the text at subsections a. and b. following the designation “NOTE” shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

NOTE: Proposing Firms are prohibited from identifying an individual as **Project Manager** or **Project Architect** if that individual:

a. Is currently performing as a Project Manager, **or** Project Architect ~~or other Key Team Member (of any capacity)~~ in an existing SDA project that has not yet reached Substantial Completion; OR

b. Has been identified as a Project Manager, **or** Project Architect ~~or other Key Team Member (of any capacity)~~ in a Proposal in response to any other active SDA procurement for which an award has yet to be made.

Failure to comply with the above Key Team Member identification requirements will result in rejection of the Firm’s response to this RFP

- d. **MODIFY:** In the Request for Proposals, Section 4.0, **DELIVERY AND MAILING REQUIREMENTS**, the text shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

Proposals must be submitted to and received by the NJSDA by no later than **4:30 PM Eastern Time on ~~February 9, 2015~~ February 11, 2015**. The Proposal Package shall be placed in a sealed envelope and shall consist of the following:
[end of modified text]

- e. **REPLACE:** In Attachment B to the Request for Proposals (**Fee Proposal Forms**), Item 3.b, the originally issued “Detailed Predesign Fee Proposal Form” shall be deleted in its entirety and replaced with the “Revised Detailed Predesign Fee Proposal Form,” provided with this Addendum as Attachment 1.1. See Section D, **Bidder Questions and NJSDA Responses**, response to Question 49, below, for further information.

B. CHANGES TO THE BID DOCUMENTS

1. Modifications to the Design Consultant Services Agreement (Attachment C to RFP)

- a. **MODIFY:** In **Appendix B** to the Design Consultant Agreement, “**Design Consultant Predesign Phase Services**,” Section 3.1 “Boundary Survey Plan,” the text shall be modified as follows (deletions shown in *italics and strikethroughs*; additions shown in **bold and underline**):

- 3.1. **Boundary Survey Plan:** The boundary survey shall depict **the Site in its entirety, inclusive of** all individual tax blocks and tax lots that comprise the Site *in its entirety*, and **of** all adjoining rights-of-way **and vacated streets so as** to fully delineate and describe the property boundaries, including, but not limited to, the delineation and description of any individual internal tax lots. The boundary survey plan for the Site shall show metes and bounds for the entire Site and for all individual internal tax lots, and shall comply with the following:

~~3.1.1. The Authority will order a title search for all properties within the Site, which shall identify and describe any and all encumbrances of any kind. Copies of the completed title search will be provided to the Consultant. The Consultant shall coordinate such activity with the Title Company, as necessary to complete the final boundary survey plan. The final boundary survey plan shall delineate and describe any and all encumbrances of any kind, and any additional pertinent information revealed by the title search. In the event the Title Company has not produced a report of title at the time these survey services are required, the Consultant shall proceed with the survey based on its research of information available from appropriate municipal and/or County records, and shall confirm such information in a~~

supplement to the final boundary survey plan, at such time as the formal report of title becomes available. The Consultant will be required to certify the boundary survey plan to the Authority's title insurance company.

3.1.1 Surveying services shall include all necessary fieldwork, file research, ~~and~~ office work ~~and coordination with Authority's title company (hereinafter the "Title Company")~~ in order to compile boundary, topographic, and utility survey data fully describing the Site. These services shall comply with all American Land Title Association/ American Congress of Survey and Mapping ("ALTA/ACSM") survey requirements.

3.1.2. **If the Site is owned or to be acquired by the Authority, the Authority will order a title search and provide a copy to the consultant.**

3.1.3. **If the Site is owned by the Project School District, the Consultant shall order a title search of the County records for all properties within the Site, which shall identify and describe any and all encumbrances of any kind as necessary to complete the final boundary survey plan.**

3.1.3.1. **The title search shall review all county land records pertaining to the Site for a period of sixty years prior to the date of the search, and shall include a complete examination of title (the "Title Report").**

3.1.3.2. **The final boundary survey plan shall delineate and describe any and all encumbrances of any kind, and any additional pertinent information revealed by the title search.**

3.1.3.3. **In the event the Title Report is not available at the time these survey services are required, the Consultant shall proceed with the survey based on its research of information available from appropriate municipal and/or County records, and shall confirm such information in a supplement to the final boundary survey plan, at such time as the formal Title Report becomes available.**

3.1.4 The Consultant shall research all available records of deeds, easements, plans of survey, right-of-way ("ROW") maps, utility company maps, and Federal, State, County and City/Municipal records as necessary to fulfill the requirements of the boundary survey, and shall prepare and submit the boundary survey plan to the Authority.

~~3.1.4 The boundary survey shall depict all individual tax blocks and tax lots that comprise the Site in its entirety, and all adjoining rights-of-way to fully delineate and describe the property boundaries, including, but not limited to, the delineation and description of any individual internal tax lots. The~~

~~boundary survey plan shall show metes and bounds for the entire Site and all individual internal tax lots.~~

- 3.1.5. The survey shall be conducted under the supervision of and certified by a surveyor licensed in the state of New Jersey. The Consultant's survey crew shall provide survey controls suitable for use by the Design-Build contractor. The Consultant shall install redundant control points and provide coordinates for each point. The control points and coordinates shall enable a contractor to establish critical construction features, such as the property lines, elevations and fence line location.
- 3.1.6. The boundary survey plan shall delineate and describe all utility easements and rights-of-way within the Site and within 100 feet of the Site boundary, or within such additional distance as may be required by local subdivision or land development ordinance.
- 3.1.7. The boundary survey plan shall show all structures, buildings, pavement areas, existing easements and street rights-of-way, on the Site. The boundary survey plan shall show distances between structures and/or buildings and the property and lot lines, at their closest points. The distances shown on the boundary survey plan shall have been field measured.
- 3.1.8. The boundary survey plan, and all horizontal control, shall be presented in the New Jersey State Plane Coordinate System ("NJSPCS"). State Plane Coordinates shall be provided for all external property corners.
- 3.1.9. The boundary survey plan shall identify all owners of record and the acreage of each individually owned property within the Site, and shall also identify all adjoining property owners of record. All acreage shall be calculated to one one-hundredth (0.01) of an acre. Lot areas shall be calculated in acres and square feet. All current tax block and lot numbers shall be shown for all lots within the Site and for all adjoining properties.
- 3.1.10. The boundary survey plan shall show all street names, ROW lines, and ROW widths.
- 3.1.11. The boundary survey plan shall indicate the locations and descriptions of all of the Site's property corners. The exact location of each property corner shall be marked in the field by temporary iron pins, drill holes, or other suitable recoverable marker. For this purpose, the Consultant shall use any existing monuments and, if necessary, shall establish a new permanent monument.
- 3.1.12. A location or key map, north arrow and the appropriate graphic scale must be included on the final boundary survey plan.

3.1.13. The boundary survey plan must be certified to the New Jersey *Economic Development Authority, New Jersey* Schools Development Authority, the Project School District, the State of New Jersey Department of Education, the Title Company **of the Authority and/or the Project School District**, and if requested, the designated attorney that will represent the Authority during ~~the~~ transactions **related to the Site**.

- b. **ADD:** Add to the Design Consultant Agreement **Appendix H “NJSDA Design Manual for Design-Bid-Build Projects, dated January 28, 2015”** attached hereto as Attachment 1.2.

NOTE: Proposing Firms are reminded that content of the Design Manual is applicable only to services following Predesign and is therefore understood by the Authority to not be of substantial import to the preparation of a responsive proposal for initial Predesign Services. Therefore, proposing Firms are advised that the Authority is not disposed to grant a further extension of the Proposal Due Date based on the issuance of Appendix H at this time.

C. CHANGES TO THE DRAWINGS:

1. **Not applicable.**

D. BIDDER’S QUESTIONS AND NJSDA RESPONSES:

1. Question: Do you intend to provide Accessibility in the existing High School?

Answer: The completed Project shall comply with the requirements of the New Jersey Rehabilitation Subcode (N.J.A.C. 5.23-6) and the barrier-free requirements thereof. Accordingly, the extent of accessibility-related improvements must be defined during the Predesign Phase.

2. Question: How old is the existing roof? Since we will not be able to access the roof condition, do you intend to replace it?

Answer: While the January 9, 2015 site visit did not include access to the roof due to snow conditions, interested firms were advised that they would have opportunity to access the roof during the supplemental site inspection offered on January 14, 2015.

The age of the roof systems is described in the Orange HS Facilities Conditions Assessment Report dated April 2013, Page 9. Final determination relative to replacement or repair of the roof systems will not be made until the conclusion of the Predesign Phase.

3. Question: Do you have existing conditions drawings (Architectural/MEP/Fire Protection) in CAD format?
- Answer: To the best of the Authority's knowledge, no CAD drawings exist.**
4. Question: Can you identify the existing classrooms and labs and public spaces you will be renovating?
- Answer: Please refer to Appendix A, "Project Description and Special Conditions," Section 2.0.**
5. Question: You state in the RFP that you will be doing limited renovations in the existing Orange HS. Can you please expand your expectations?
- Answer: Please refer to Appendix A, "Project Description and Special Conditions," Section 2.0.**
6. Question: Has a construction budget been established for all parts of this RFP?
- Answer: No. Please refer to Appendix A, "Project Description and Special Conditions," Section 7.0, "Construction Budget."**
7. Question: Has a time frame been established?
- Answer: NJSDA interprets this question to ask whether a schedule for deliverables has been established. A schedule for deliverables for the Pre-design Phase has been established; please refer to Appendix A, Section 3.0 "Schedule," page 3. The project schedule for Design Phase deliverables and construction activities will not be established until after completion of Pre-design Phase activities.**
8. Question: Please confirm Insurance requirements.
- Answer: The Insurance Requirements are located in Section 12.1 of the Design Consultant Services Agreement, Attachment C to RFP.**
9. Question: Can you identify the area of work in both buildings at the new bridge connection?
- Answer: The Design Consultant is responsible for identifying options to satisfy this project requirement as part of their scope of services.**
10. Question: What time is the walk thru on Wednesday?
- Answer: The elective walk thru was conducted on Wednesday, January 14, 2015 at 11 AM.**

11. Question: The boundary survey specifications require an ALTA survey. Under ALTA specifications, the Owner must provide all title reports to the surveyor. However, the RFP states that this should happen, but if the NJ SDA Title company does not provide the title reports in a timely manner, then the surveyor must take on this work. This probably won't be determined until several weeks into the pre-design phase. Then the Title work is the responsibility of the Surveyor at their expense which was not calculated into the fee and they are behind schedule. Will we get a time extension to the published schedule and be compensated for the time and expense of conducting our own title work?

Answer: The bid documents have been amended to require the Design Consultant to secure a title search as part of the Design Consultant's Predesign Scope of Services. Please see Section B.1.a, above, for modifications to the procurement documents that effect this change.

12. Question: The mapping deliverables include electronic versions of the survey map in *.dwx and *.pdf format, with information in CAD layers. However, the real value in the survey work is the coordinate point files. The survey points that are embedded in the CAD file and are what our civil engineer needs to design the site to close tolerances that are required of: barrier free routes, sidewalks, stairs, walls, etc... Please advise if electronic CAD files are available, otherwise the A/E team will need to perform our own survey which will increase the A/E fee.

Answer: Refer to response to Question No. 3 above and Section 3 of Appendix B "Design Consultant Predesign Phase Services."

13. Question: The proposal allows aerial topography, however, aerial topography is not accurate enough for design purposes. We cannot use an aerial topographic survey prepared to 1 foot contours with an accuracy to the nearest 1/2 foot. The pre-design services must include an "on the ground" topographic survey and that the electronic deliverables must include an AutoCAD *.dwg compatible file with all survey points (i.e. point number, point elevation, point description).

Answer: See Section 3 of Appendix B "Design Consultant Predesign Phase Services." It is the responsibility of the Design Consultant to determine the appropriate survey techniques to collect and document the required survey information.

14. Question: Pre-design services require flow tests on the existing water system. Most water utilities will not permit flow tests in winter, due to water/ice hazards. How can we handle this requirement and still meet project deliverable deadlines? If the NTP is delayed and the pre-design slides into Spring then this may not be an issue.

Answer: NJSDA does not anticipate that the flow test will be required while such restrictions are in place.

15. Question: Pre-design services include GPR and electromagnetic scanning services. Do these subcontractors need to be NJSDA pre-qualified?

Answer: Prequalification is required only if these services are being performed by an entity that is required to be pre-qualified under the terms of the RFP.

16. Question: The Allowance can be used for additional testing that we deem necessary including the performance of excavated test pits. I presume we would need to engage an excavator to dig the test pits and then restore the surfaces? Do they need to be NJ SDA pre-qualified? Do they need to be paid prevailing wage? Will we be able to bill our hours spent against the allowance, including; 1.) preparing such an RFQ , 2.) coordinating the excavator's work, and 3.) providing field personnel to record the test pit data?

Answer: Allowance amounts may be used for additional testing activities deemed necessary by the Design Consultant, upon approval by the Authority in accordance with Section 2.33 of the Design Consultant Services Agreement. The Design Consultant will be responsible for engaging an excavator or other contractor to provide the labor and equipment to dig the test pits in support of testing activities, and to restore the condition of the site. The contractor performing the excavation need not be prequalified by NJSDA.

The NJSDA interprets the Prevailing Wage Act to apply to the wages of a contractor engaged by the Design Consultant to dig test pits.

Allowance funds may be utilized for the Design Consultant's reasonable costs for procurement and supervision of excavators or other contractors engaged to perform work in connection with additional testing, as long as such costs do not exceed the ten percent limit prescribed by Section 2.33.3 of the Design Consultant Services Agreement. The Design Consultant's provision of field personnel to record test pit data is a cost compensable under the additional testing allowance amount.

17. Question: Are we permitted to imbed photos into the NJSDA RFP forms which describe our project understanding and approach?

Answer: The use and quantity of photos is at the discretion of the Architectural firm submitting the proposal, subject to all the requirements of the RFP.

18. Question: Please provide a copy of the existing roof warranty (current or expired).

Answer: To the best of the Authority's knowledge, no roof warranty information is available.

19. Question: With the exception of the new overhead link between the High School and the Middle School and the review of the MEP/FP and security systems in both schools, no other work is anticipated in the Middle School?

Answer: No work is anticipated at the Orange Preparatory Academy other than what is required to implement work at the High School. This is currently understood to include the overhead link and the boiler plant.

20. Question: Is there any expectation for accessibility (ADA) in the existing High School ie: toilets, drinking fountains, access to classrooms etc.?

Answer: Yes. Refer to the response to Question No. 1 above.

21. Question: Do you plan to install an emergency generator in the High School?

Answer: Subject to confirmation during the Predesign Phase, it is anticipated that a generator will be included in the Project scope. See also Appendix A Section 2.0 "General," Project Requirements, #3 Existing Facilities Conditions Deficiencies.

22. Question: Please confirm that the only work that will be done in the High School gymnasium is the replacement of the bleachers.

Answer: The extent of all work in the High School is subject to confirmation during the Predesign Phase.

23. Question: Please confirm that with the exception of the total renovation of the 4 science labs on the second floor, minimal renovations will be considered thru out the building.

Answer: The extent of all work in the High School is subject to confirmation during the Predesign Phase.

24. Question: Do you have a schedule once an Architect is chosen?

Answer: Refer to the response to Question No. 7, above.

25. Question: Please confirm whether or not we must include consultants for the disciplines listed on page 3 of the RFP: i.e.: P015, P029, P038, P066, P103, or only those listed as required subconsultants in the pre-bid conference agenda?

Answer: Responding firms are **REQUIRED** to be DPMC and NJSDA prequalified in the discipline of Architecture (P001), and must either themselves be prequalified, or must engage prequalified subconsultants in the following **REQUIRED** disciplines:

**P002 Electrical Engineering
P003 HVAC Engineering
P004 Plumbing Engineering
P005 Civil Engineering
P007 Structural Engineering
P011 Environmental Engineering**

Responding firms are **NOT REQUIRED** to be prequalified themselves, or to engage subconsultants in the following disciplines, but to the extent they do engage subconsultants in the following disciplines, and to the extent the contract value for such subconsultant engagement equals or exceeds \$500,000, the following types of engaged subconsultants must be prequalified by DPMC and NJSDA:

**P015 Land Surveying
P029 Construction Management
P038 Asbestos Safety Control Monitoring
P066 - P103 Materials Testing Laboratories**

26. Question: It doesn't appear in the list, but would cost estimating services be required as part of this contract as well?

Answer: NJSDA interprets this question to ask whether engagement of a cost estimating subconsultant is a required component of the contract. While the scope of services requires the performance of certain cost estimating activities, there is no requirement that such activities must be performed by a separate subconsultant prequalified in the cost estimating discipline.

27. Question: Would you consider extending the deadline for questions?

Answer: Due to projected construction schedules, we are unable to extend the deadline for questions. NJSDA has changed the previously advertised Proposal Due Date to February 11, 2015 in accordance with this Addendum. Please refer to Items 2.b, 3.a, 3.b and 3.d above for modifications implementing this change.

28. Question: What is the anticipated timeline between when proposals are due (2/9/15) and the award/initial NTP?

Answer: The Authority currently anticipates issuance of an NTP during May, 2015.

29. Question: Does SDA have an estimated construction budget for the proposed addition and building link?

Answer: No.

30. Question: Does SDA have an estimated construction budget for the renovation?

Answer: Please refer to the response to Question No. 6, above.

31. Question: Will as-built CADD files be available to the design firm for both buildings? If as-built CADD files are available will they contain Architectural, Plumbing, HVAC, Electrical and Site?

Answer: Please refer to the response to Question No. 3, above.

32. Question: Sheet A-1 has First Floor Test Fit, is there a Second Floor Test Fit available?

Answer: No.

33. Question: Section 2.3.1 of the RFP states that individuals currently performing as Project Manager, Project Architect or Key Team Member of other SDA projects cannot be utilized on this project team. We have an individual who is overseeing exterior envelope commissioning of an existing SDA project. This individual is not a key member of the design team (was independent through design phases) and only periodically checks the work during construction as a quality assurance measure for the SDA. Can this individual be identified as a Key Team Member of the Orange High School project?

Answer: Per Items No. 2.a and 3.c above, the requirements of the Advertisement and RFP have been changed regarding the scope of preclusion of certain individuals from identification as Project Manager or Project Architect in this engagement, based on such individuals' identification or service as Key Team Members in on other existing or advertised NJSDA projects. The category of precluded individuals has been narrowed to preclude only the identified Project Manager or Project Architect for such other projects from service as the Design Consultant's Project Manager or Project Architect in this engagement. Accordingly, based on the information provided in your inquiry, the individual described will not be precluded from being named as the Project Manager, Project Architect or as any other Key Team Member in this engagement.

34. Question: Appendix B, Section 3.4.2 – Is it the intent to have the Consultant hire the contractor to perform the hydrant flow test?

Answer: Yes.

35. Question: Appendix B, Section 3.4.3 – Given the project schedule, which provides for 50 working days from Project Requirements Review to issuance of the Final Report, it may not be possible to secure the requested “will-serve” letters from all of the relevant utility providers, due exclusively to the utility provider response times. If the appropriate load letters and service request applications/documents have been submitted in a timely manner and a response is pending, will this be acceptable to the SDA?

Answer: Yes.

36. Question: Appendix B, Section 3.8 – is it the intent that the Preliminary Facilities Survey be conducted for the entirety of both the Orange High School and the Orange Preparatory Academy, or only those aspects of the Orange Preparatory Academy that have direct potential impact on the proposed addition?

Answer: The Preliminary Facilities Survey shall include only those aspects of the Orange Preparatory Academy that have direct potential impact on the proposed addition and renovations at the High School.

37. Question: Appendix B, Section 3.8.1 – Do existing conditions and/or as-built drawings and documents exist for both the Orange High School and the Orange Preparatory Academy?

Answer: No such drawings exist, to the best of the Authority's knowledge at this time.

38. Question: Appendix B, Section 3.9 – is it the intent that the Preliminary Facilities Condition Assessment be conducted for all systems of both the Orange High School and the Orange Preparatory Academy, or only those systems in the Orange Preparatory Academy that currently serve the Orange High School, or have direct potential impact on the proposed addition?

Answer: The Preliminary Facilities Condition Assessment shall include only those systems in the Orange Preparatory Academy that currently serve the Orange High School or have direct potential impact on the proposed addition and renovations at the High School.

39. Question: Similarly, there are a number of temporary classroom units presently on site. Since we expect the ultimate goal is to remove these trailers, is assessment or any other work for these TCU's to be included in the scope of pre-design services?

Answer: The temporary classroom units are not included in the Project Scope.

40. Question: The RFP documents appear to be silent with regard to data and telecommunications. What is the scope/expectation regarding assessment

of the existing telecommunications equipment and/or cabling infrastructure?

Answer: See Appendix A, specifically the following language on Page 3 of 6:

c. Existing systems and components requiring further investigation by Design Consultant in order to determine what, if any, work may be required to address:

- Fire alarm system
- Intercom system
- Video surveillance system

41. Question: Based on the information provided in the RFP and Appendices A, B and C, it appears that a Preliminary Environmental Report (not a full Preliminary Assessment / Phase 1 report) is required within 30 days of SDA accepting the Initial Report. The full Preliminary Assessment / Phase 1 report per Appendix C, Section 10.8 is required once SDA accepts the Preliminary Report and must be submitted as part of the Final Predesign Report. Please confirm this is the intended approach and timeline. If different, please provide further detail on each required submission.

Answer: Yes, the Preliminary Assessment and Report, as described in Section 10.8 of Appendix C, shall be performed during Predesign Services and included in the Final Predesign Report.

42. Question: Appendix C outlines service and deliverable requirements beyond the Predesign Phase of this RFP. Section 10.8 “Preliminary Assessment and Report” is the only section specifically referenced as a requirement. Do the requirements of other Appendix C sections need to be included in the scope of work? For example, Sections 10.3 “Environmental Screening Report”; 10.7 “Historical and Cultural Resources...”; 10.12 “Traffic Impact Evaluation and Report”; 10.14 “Acoustical Study and Report” etc.

Answer: Of the services and deliverables listed in Appendix C, only Section 10.8 shall be included in the Predesign Phase. Others may be required in later phases.

43. Question: It was mentioned during the walk-thru that the School District recently had solar panels installed on the existing roof. Please provide a copy of the As-Built drawings, details and any overburden requirements which the roofing manufacturer required of the project.

Answer: There currently are no solar panels on the existing roof systems. No such documents exist to the best of the Authority's knowledge at this time.

44. Question: Is the school used as an emergency evacuation center during an emergency?

Answer: The Orange High School has not been identified as an emergency evacuation center at this time.

45. Question: Is it the SDA's intention to have the project LEED certified or just follow the LEED design guidelines as much as possible?

Answer: LEED certification is required. See Section 2.24 of the Design Consultant Services Agreement and Section 4.2.7 of Appendix B.

46. Question: The RFP indicates that the Architect is to follow the NJDOE FES Standards.

- The FES standard for a Media Center is 10,075 sf, however the Program indicates a 4,600 sf Media Center. Is the existing Media Center to remain with an addition or a remote Media Center? Please clarify.
- The FES standard for "an" Aux. Gym is 3,800 sf, however the Program indicates a 3,500 sf Aux. Gym. Please clarify.

Answer: The premise of the question is not entirely accurate. See Section 2.0 of Appendix A. With respect to the proposed square footage of the Media Center and Auxiliary Gym, the Program will be followed.

47. Question: Is the Architect required to furnish rendering(s) of the project to the SDA and School District?

Answer: Renderings are not included in Predesign Services. Renderings are required during Design Phase Services as listed in the NJSDA Design Manual for Design-Bid-Build Projects dated 01/28/15, included in this Addendum as Attachment 1.2.

48. Question: FVHD realizes that the cut-off for requests for information was last Friday, but the FVHD team was going through the RFP yesterday to go over our approach and the following item to be clarified if possible: In the Advertisement, page-2, the RFP clearly identifies the responding team / DPMC classification requirements. The question relates to the subconsultant classifications. We note the contract threshold amount of \$500,000 or greater. FVHD is not prequalified in classification P029 - Construction Management, but we intend to perform the construction administration services with our in-house staff (as we have done on all past NJSCC & NJSDA projects). I assume we do not need a firm with classification P029 on our team as the fee associated with that part of the project would not exceed \$500,000.

Answer: Your assumptions are correct. A design consultant does not need to be separately prequalified in discipline P029 in order to perform construction administration services under this contract.

49. Question: On the cover page of the excel fee breakdown document it mentions two separate proposal forms for building envelope and building interior. There is only one for the Building envelope. Should I just copy that form and rename it building interior or is it different in some way?

Answer: The “Detailed Predesign Fee Proposal Form” and associated instruction sheet referenced in the above question have been revised, and the cited language requiring the submission of separate proposal forms for building envelope and for building interior has been deleted in the revised instruction sheet.

In accordance with Item A.3.e, above, please disregard the previously issued Detailed Predesign Fee Proposal Form and associated instruction sheet. The “Revised Detailed Predesign Fee Proposal Form” and associated instruction sheet are provided via this addendum as Attachment 1.1 “ES-0042-A01 Revised Detailed Predesign Fee Proposal Form, dated January 29, 2015.”

50. Question: If we include a SBE Category 1 firm in a non-required discipline, surveying, telecommunications, would it still count toward the target goal of 5%?

May we supplement a Category 1 firm for a Category 6 firm for a major discipline like civil?

Answer: As to the first question, refer to the RFP Section 2.9, “Small Business Enterprise Participation.” Based on the information you have supplied, the cited Category 1 firms would count toward the target goal of 5% for Category 1. The SBE goals can be fulfilled by the participation of firms that satisfy required discipline requirements under the RFP, or other, additional subconsultant firms engaged by the Design Consultant in addition to the cited required disciplines.

As to the second question, NJSDA interprets the question to ask whether the design consultant can supplement a Category 1 professional services consultant in a discipline like civil engineering (which is a required subconsultant under this engagement) WITH the participation of a Category 6 construction firm, in an effort to satisfy the 5% goal of engagement of Category 1 professional services consultants. This approach may be acceptable upon a showing of a good faith effort to comply with the SBE goals for engagement of professional services consultant SBEs. Obviously however, the engagement of the Category 6 construction firm would in no way satisfy the RFP requirement to provide Civil Engineering services through an entity properly prequalified in that discipline (P005), whether that prequalified entity is the Design Consultant itself, or a Civil Engineering subconsultant engaged by the Design Consultant.

E. CHANGES TO PREVIOUS ADDENDA:

1. Not applicable.

F. ATTACHMENTS

1. Attachment 1.1 **2015ES-0042-A01 Revised Detailed Predesign Fee Proposal Form dated January 29, 2015**
2. Attachment 1.2 **NJSDA Design Manual for Design-Bid-Build Projects dated January 28, 2015.**

G. SUPPLEMENTAL INFORMATION

This Addendum supplements the original Bid Documents by including herewith as Attachment 1.2 the “NJSDA Design Manual for Design-Bid-Build Projects, dated January 28, 2015” previously referenced as Exhibit H to the Design Consultant Services Agreement.

Any bidder attempting to contact government officials (elected or appointed), including NJSDA Board members, NJSDA Staff, and Selection Committee members in an effort to influence the selection process may be immediately disqualified.

End of Addendum No. 1

/s/Katherine Gallo _____
NJSDA Senior Program Officer Date
Katherine Gallo

<Addendum # 1>

NJSDA
32 East Front Street
Trenton, NJ 08625
Phone: 609-858-2915
Fax: 609-656-7258

Date:

PROJECT #: ES-0042-A01

DESCRIPTION: Orange High School Addition-Renovation Project

Addendum No. 1

Acknowledgement of Receipt of Addendum

Design Consultant must acknowledge the receipt of the Addendum by signing in the space provided below and returning via fax to (609-656-7258) or in an attachment via E-mail to dkutch@njsda.gov. Signed acknowledgement must be received prior to the Bid Due Date. Acknowledgement of the Addendum must be made in Section E.6 of the Price Proposal Submission.

Signature

Print Name

Company Name

Date

Instructions for completing Detailed Predeisng Fee Proposal form

1. Firm shall provide information in shaded cells only.
2. A top of worksheet, provide name of Consultant Firm and date of proposal (proposal due date)
3. For each identified discipline (or other fee proposal breakdown category), provide name of proposed firm to provide those services and indicate whether firm is a certified SBE (Y/N).
4. For each identified firm (or other fee proposal breakdown category), provide name, position, hourly rate (per Agreement) and proposed hours (for each Predesign phase) for each staff member proposed to provide services.

Form has embedded formulae to perform necessary subtotal and total calculations. Worksheet is currently protected to avoid inadvertant overwriting of embedded formlae. Password to unprotect worksheet is "user". Firms may prepare and submit form non-electronically.

The submitting firm shall be responsible for checking and verifying that all required information is included and that all required calculations are correct.

DETAILED PREDESIGN FEE PROPOSAL FORM

Project Name: Orange High School Addition and Renovation Project

Firm:

SDA Contract No.: ES-0042-A01

Proposal Date:

Building Envelope		Discipline/ Position	Hourly Rate	Proposed Hours					Total Hours	SBE Y/N	Fee (\$)
				2.0 Initial Project Meeting and Report	3.0 Preliminary Verification of Existing Conditions	4.0 Project Requirements Review	5.0 Conceptual Options Development, Evaluation, and Selection	10.8 Preliminary Assessment and Report (Appendix C)			
Firm 1 Name		Architectural									
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Staff Member		Position									\$ -
Firm 1 Name Subtotal		Average Rate =	-	-	-	-	-	-	-	-	\$ -
Firm 2 Name		Electrical Engineering									
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Staff Member		Position									\$ -
Firm 2 Name Subtotal		Average Rate =	-	-	-	-	-	-	-	-	\$ -
Firm 3 Name		HVAC Engineering									
Firm 3 Staff Member		Position									\$ -
Firm 3 Staff Member		Position									\$ -
Firm 3 Staff Member		Position									\$ -
Firm 3 Staff Member		Position									\$ -
Firm 3 Staff Member		Position									\$ -

DETAILED PREDESIGN FEE PROPOSAL FORM

Project Name: Orange High School Addition and Renovation Project
 SDA Contract No.: ES-0042-A01

Firm: Firm:
 Proposal Date:

Building Envelope		Discipline/ Position	Hourly Rate	Proposed Hours					Total Hours	SBE Y/N	Fee (\$)
				2.0 Initial Project Meeting and Report	3.0 Preliminary Verification of Existing Conditions	4.0 Project Requirements Review	5.0 Conceptual Options Development, and Evaluation, and Selection	10.8 Preliminary Assessment and Report (Appendix C)			
Firm 3 Staff Member	Position									\$ -	
Firm 3 Staff Member	Position									\$ -	
Firm 3 Staff Member	Position									\$ -	
Firm 3 Staff Member	Position									\$ -	
Firm 3 Name Subtotal	Average Rate =		-	-	-	-	-	-	-	\$ -	
Firm 4 Name	Plumbing Engineering										
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Staff Member	Position									\$ -	
Firm 4 Name Subtotal	Average Rate =		-	-	-	-	-	-	-	\$ -	
Firm 5 Name	Civil Engineering										
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Staff Member	Position									\$ -	
Firm 5 Name Subtotal	Average Rate =		-	-	-	-	-	-	-	\$ -	
Firm 6 Name	Structural Engineering										

DETAILED PREDESIGN FEE PROPOSAL FORM

Project Name: Orange High School Addition and Renovation Project
 SDA Contract No.: ES-0042-A01

Firm: Firm:
 Proposal Date: Proposal Date:

Building Envelope	Discipline/ Position	Hourly Rate	Proposed Hours					Total Hours	SBE Y/N	Fee (\$)
			2.0 Initial Project Meeting and Report	3.0 Preliminary Verification of Existing Conditions	4.0 Project Requirements Review	5.0 Conceptual Options Development, and Evaluation, and Selection	10.8 Preliminary Assessment and Report (Appendix C)			
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Staff Member	Position								\$ -	
Firm 6 Name Subtotal	Average Rate =	-	-	-	-	-	-	-	\$ -	
Firm 7 Name	Environmental Engineering									
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Staff Member	Position								\$ -	
Firm 7 Name Subtotal	Average Rate =	-	-	-	-	-	-	-	\$ -	
Firm 8 Name	Firm Discipline(s)									
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	
Firm 8 Staff Member	Position								\$ -	

DETAILED PREDESIGN FEE PROPOSAL FORM

Project Name: Orange High School Addition and Renovation Project
 SDA Contract No.: ES-0042-A01

Firm: _____
 Proposal Date: _____

Building Envelope		Discipline/ Position	Hourly Rate	Proposed Hours					Total Hours	SBE Y/N	Fee (\$)
				2.0 Initial Project Meeting and Report	3.0 Preliminary Verification of Existing Conditions	4.0 Project Requirements Review	5.0 Conceptual Options Development, Evaluation, and Selection	10.8 Preliminary Assessment and Report (Appendix C)			
Firm 8 Staff Member	Position									\$ -	
Firm 8 Staff Member	Position									\$ -	
Firm 8 Name Subtotal		Average Rate =		-	-	-	-	-	-	\$ -	
Firm 9 Name		Firm Discipline(s)									
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Staff Member	Position									\$ -	
Firm 9 Name Subtotal		Average Rate =		-	-	-	-	-	-	\$ -	
Firm 10 Name		Firm Discipline(s)									
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Staff Member	Position									\$ -	
Firm 10 Name Subtotal		Average Rate =		-	-	-	-	-	-	\$ -	
Total - All Consultants - Building Envelope				-	-	-	-	-	-	\$ -	
SBE Total				-	-	-	-	-	-	\$ -	



NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

January 28, 2015

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

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NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

1. General Submission Procedures

- 1.1 General: This Design Manual defines the minimum design deliverables and submission requirements for Authority projects being delivered through a Design-Bid-Build form of agreement. Design submissions shall demonstrate conformance with the requirements of all applicable NJSDA Design Standards and project requirements.
- 1.2 Design Submission Schedule: Design submissions shall be made in accordance with the approved Project Schedule. In general, all Design submissions shall be made in sufficient time to allow fourteen (14) calendar days for Authority review as well as sufficient time for revision, resubmission, and acceptance prior to any subsequent activities related to or dependent upon the submission.

2. General Submission Requirements

2.1 Transmittal

- A. Each design submission shall be accompanied by a transmittal sheet in a format acceptable to the Authority and listing the following information:
 - (1) Submission date.
 - (2) Name, title, firm name and address of sender and recipient.
 - (3) NJSDA Project number.
 - (4) Project School District.
 - (5) Project name.
 - (6) Document listing with exact name, date and number of copies for each document comprising the submission.
 - (7) Notes and comments.
 - (8) Copy recipients.

2.2 Design Submission Information

- A. Each design submission document (drawing sheet, specification book, report, etc.) shall include the following information:
 - (1) Names of the Project, School District, Construction Manager (if applicable), the Authority's package number and the Department of Education (DOE) project number.
 - (2) Name, address and telephone number of the Design Consultant.
 - (3) Name, address and telephone number of Design Subconsultant (if any) responsible for the document.
 - (4) Document name.
 - (5) Document number (if applicable).

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- (6) Submission block with the name of the submission or resubmission for which the document has been prepared, and the date of the submission.
 - (7) Revisions block with original document date, all previous revision date(s), and current revision date, with brief description of purpose of each revision.
 - (8) A space designated for the signature, raised seal, and printed name and license number of the registered professional responsible for the document.
- B. Design documents shall be organized into volumes in a logical manner acceptable to the Authority. Each drawing volume shall be post-bound with paper binding cover. Specification and report volumes shall be post-, comb- or wire-bound in a manner appropriate to the size and content of the volume.
- (1) Each drawing and specification volume shall include an index listing all drawing sheets or specification sections by volume.
- C. Revisions and Resubmissions
- (1) Unless otherwise directed, each design resubmission shall include all drawing sheets or specification sections included in the original submission.
 - (2) Each revision shall be “bubbled” or otherwise highlighted to indicate clearly the extent of the revision.
 - (a) Each revision bubble shall be tagged to a revision date as listed in the index and sheet revisions block.
 - (b) Where details, specification paragraphs or other information are deleted, do not remove the information from the document. Use strikethroughs, cross-outs or notations to indicate the extent of the deletion, while leaving the original information legible.
 - (3) The index of each submission volume and each subsequent resubmission shall include a table tracking each successive resubmission date for every drawing or specification section in the complete volume.
 - (4) Each report and similar resubmission document shall include on its cover a similar listing of each resubmission date for the document.
 - (5) Each paper resubmission shall include additional copies of the updated index sheet(s) or page(s) for insertion into all previous paper submission copies.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

2.3 Design Submission Format Requirements

A. Drawing Sheet and Electronic File Identification

- (1) Drawing sheets and electronic files thereof shall be identified in accordance with the United States National CAD Standard (“NCS”), latest version.
- (2) Electronic drawing file identifiers shall be identical to drawing sheet numbers, followed by a brief sheet description and the submission date in YYMMDD format.
- (3) All other electronic files shall be named so as to be readily identifiable and end with current revision date, formatted YYMMDD.
- (4) File names of subsequent versions of electronic files shall be identical to the first version except for the date.

B. Drawings

- (1) Unless otherwise agreed to, all full-size drawings shall be submitted on consistent sheet sizes of Arch E1 (30" x 42").
- (2) Lettering shall be a minimum of 1/8" high.
- (3) Maintain consistent orientation of building between site and floor plans, with north up preferred, and consistent scale for each type of view.
- (4) Typical drawing scales are as follows, with modifications as needed to convey essential information:
 - (a) Site plans (all disciplines): 1" = 30'-0" or as otherwise appropriate to the size of the site.
 - (b) Overall floor plans: 1/16" = 1'-0".
 - (c) Partial floor plans, roof plans, reflected ceiling plans (all disciplines): 1/8" = 1'-0".
 - (d) Enlarged floor plans for toilet rooms, elevators, stairs, ramps and other critical spaces: 1/4" = 1'-0".
 - (e) Overall exterior elevations: 1/16" = 1'-0".
 - (f) Partial exterior elevations: 1/8" = 1'-0".
 - (g) Building sections: 1/8" = 1'-0".
 - (h) Wall sections, details and other drawings: Scale as appropriate to level of detail being portrayed.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- (5) Provide key drawings on each partial plan and elevation sheet to indicate each portion of project in relationship to the whole.
 - (6) Schedules may be included in drawings or specifications as appropriate to the information being conveyed.
 - C. Color renderings: Minimum size: 20" x 30", framed with matte and non-reflective glazing.
 - D. Interior finish color and material selection boards: Format appropriate to the materials and information being presented, but not larger than 24" x 36".
 - E. Specifications: 8½" x 11", utilizing the naming and numbering system of CSI MasterFormat 2014.
 - F. Other reports, including calculations, shall be 8½" x 11" with larger fold-outs as needed.
- 2.4 Electronic Document Submission Requirements: In addition to required number and type of hard copy submissions, submit electronic copies in accordance with the following requirements.
 - A. Electronic file submission organization: Provide individual document files, in formats as described below, as well as composite copies of all final end-of-phase submissions in .pdf format, organized similar to submission organization.
 - B. Layering: File layers shall be organized and named in accordance with the NCS layering system.
 - C. Electronic File Formats
 - (1) Drawings: Provide electronic copies of all files in .dwg and .pdf formats.
 - (2) Other documents: Provide electronic copies of all documents in native application format (.docx, .xlsx, etc.) and in .pdf format.
 - D. Transmittal of electronic files shall be via FTP site, compact disk, or other means acceptable to the Authority.
- 2.5 Submission Quantity Requirements
 - A. Design Submissions
 - (1) Five complete, full-sized sets of all deliverables and two half-sized sets of all large-format deliverables.
 - (2) One complete electronic set of all submission documents.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- B. Schematic and Final Educational Adequacy (FEA) submission, for review by the Authority prior to submission by the Authority to DOE.
 - (1) Six complete, full-sized sets of all deliverables and two half-sized sets of all large-format deliverables.
 - (2) One complete electronic set of all submission documents.
- C. Department of Community Affairs (DCA) plan review submission and resubmission(s), for review by the Authority prior to submission to DCA.
 - (1) Six complete, full-sized sets of all deliverables and two half-sized sets of all large-format deliverables.
 - (2) One complete electronic set of all submission documents.
- D. Approved DCA plan release (full or partial release, as applicable) and other agency approval submissions, conformed documents and as-built documents.
 - (1) Three complete, full-sized sets of all documents and two half-sized sets of all large-format documents.
 - (2) One complete electronic set of all submission documents.

3. Schematic Design Phase Submission Requirements

3.1 Drawings

- A. Cover Sheet(s)
 - (1) Name of Project, the Authority's package number, DOE number, location map, New Jersey State Seal and name of the Governor.
 - (2) Drawing index, legends, abbreviations and symbols.

3.2 Educational Specifications

- A. Educational Specifications in accordance with the requirements of N.J.A.C. 6A:26-5.2 and DOE requirements.
- B. In addition to the requirements of DOE and N.J.A.C. 6A:26-5.2, Educational Specifications shall include the following:
 - (1) A summary of the educational programs to be delivered in the proposed School Facility Project.
 - (2) A description of required parking, play areas, outdoor physical education facilities, and other required site facilities.
 - (3) A narrative description of the organization of the educational programs and the necessary organization of programmatic elements.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- (4) An adjacency matrix indicating required and desirable adjacencies of all programmatic elements.
 - (5) A room finish schedule listing finishes for walls, floors and ceilings.
 - 3.3 Schematic Design Drawings
 - A. Schematic Design drawings in accordance with the requirements of N.J.A.C. 6A:26-5.2 and DOE requirements.
 - B. Schematic building elevations.
 - C. Schematic building sections.
 - D. Schematic building three-dimensional view.
 - 3.4 Additional Information: Any additional information provided to the New Jersey Department of Education (DOE) pursuant to its determination of educational adequacy.
 - 3.5 Project Narrative
 - A. A written summary description of the proposed design's basic characteristics, materials and systems, organized in a manner consistent with CSI MasterFormat, identifying any proposed variances from SDA Materials and Systems Standards.
 - 3.6 Other Schematic Design Documents
 - A. Schematic Design Construction Cost Estimate.
 - B. Project Schedule.
 - C. Copies of all transmittals and will-serve letters, approvals, review comments, and other regulatory correspondence pertaining to the design of the Project.
 - D. Final versions of any other studies or reports which were prepared during the Schematic Design Phase.
- 4. Design Development Phase Submission Requirements**
 - 4.1 Detailed Materials and Systems Review Report
 - 4.2 Drawings
 - A. Cover Sheet(s)
 - (1) Name of Project, the Authority's package number, DOE number, location map, New Jersey State Seal and name of the Governor.
 - (2) Drawing index, legends, abbreviations and symbols.
 - (3) Rendering of project.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- B. Sitework Drawings
- (1) Boundary and topographic survey, updated as necessary.
 - (2) Utility survey, updated as necessary.
 - (3) Site logistics plan indicating location of temporary facilities for construction including site access, fencing, trailers, staging, lay-down, and storage areas.
 - (4) Site remediation, abatement, demolition and construction phasing drawings as applicable.
 - (5) Grading plan(s) indicating:
 - (a) Existing and proposed grades at 1-foot contour intervals, distinguishing visually between existing and proposed.
 - (b) Proposed spot elevations at all entrances, exits, and building corners, and on a 20-foot grid for parking lots and open areas.
 - (6) Site plan(s) showing size and location of all site improvements, including:
 - (a) All buildings and structures.
 - (b) Site ingress and egress.
 - (c) Site pedestrian and vehicular access, parking, barrier-free and emergency access, and other circulation improvements.
 - (d) Fencing, lighting, landscaping, site furniture and retaining walls.
 - (7) Site drainage plan showing storm water drainage, retention, detention, infiltration and any other above- or below-grade drainage systems and structures, with proposed elevations and inverts in plan and profile.
 - (8) Soil erosion and sediment control plan showing compliance with applicable codes and requirements during construction.
 - (9) Site utility plan showing location, inverts and sizing of all above- and below-grade utilities serving the building and site.
 - (10) Site plan demonstrating compliance with New Jersey's Best Practices Standards for Schools under Construction or Being Planned for Construction ("Best Practices") requirements.
 - (11) Typical site details for all site structures and improvements.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- C. Addition and Renovation Project Drawings
 - (1) Building Survey, Inventory and Documentation information, updated as necessary.
 - (2) Selective Demolition Drawings
 - (a) Floor plans, elevations, sections, and other drawings as necessary to indicate the extent of selective demolition.
 - (b) Demolition phasing drawings if necessary to indicate extent of demolition impact on Project School District operations.
- D. Architectural Drawings
 - (1) Code Analysis Drawings
 - (a) Code analysis sheet(s) with the following information:
 - (i) List of applicable codes and standards, with issuance dates or versions.
 - (ii) Use groups and occupancies, by floor.
 - (iii) Special detailed code requirements based on use and occupancy.
 - (iv) Building height and area calculations, with comparison to code limitations.
 - (v) Type(s) of construction, with building element ratings and fire separation distances.
 - (vi) Fire and smoke protection features.
 - (vii) Listing of egress components with basis of code analysis information.
 - (viii) Key to symbols used in egress plans.
 - (ix) Plumbing fixture calculations.
 - (x) Notes and other information as necessary to describe the basis of code analysis for the project.
 - (b) Floor plans and other drawings as necessary to indicate the following information:
 - (i) Fire ratings for all rated building elements.
 - (ii) Space name, room number, net square feet, and calculated occupant load for every space.
 - (iii) Path of egress travel from every space to exit, with travel distance in feet.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- (iv) Accumulated occupant load along each path of egress travel.
 - (v) Common paths of egress travel, with common path distance in feet.
 - (vi) Egress width, egress capacity, and design occupant load for every door, stair, or other egress component.
 - (vii) Project features to address the requirements of the New Jersey Best Practices document.
- (2) Floor plans indicating the following:
- (a) Sufficient detail and dimensions, including net area of all rooms, so that critical dimensions, clearances, and relationships can be ascertained and confirmed.
 - (b) Wall, floor and shaft types and ratings and all required chases and shafts.
 - (c) Doors and windows, structural elements affecting room layouts, and all furniture, furnishings, and equipment.
 - (d) Overall and partial floor plans as needed to indicate all floors at the required scales.
 - (e) Identification and references for all building elevations, sections, and enlarged plans.
- (3) Room layout plans locating and identifying each item of furniture, fixtures, and equipment, consistent with the DOE-approved documents, indicating necessary clearances, with schedule indicating whether each item is to be provided by the Contractor, the Authority or the Project School District.
- (4) Enlarged floor plans for all spaces such as toilet rooms and kitchens with built-in architectural fixtures and equipment, with dimensions as required to demonstrate compliance with egress and barrier-free requirements.
- (5) Interior partition schedules indicating partition types and demonstrating compliance with requirements for fire ratings and acoustic values.
- (6) Coordinated roof plan(s) showing roof types, drainage systems, all rooftop features and equipment (including dunnage, exposed ducts and piping mains, if any), walk pads, roof ladders, railings and penetrations.

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- (7) Building elevations of all exterior conditions indicating exterior materials, appurtenances, floor levels, floor-to-floor heights, rooftop equipment, and section references.
- (8) Building sections for all types of rooms and sectional conditions, indicating floor-to-floor heights and ceiling heights, with all spaces labeled.
- (9) Interior elevations for all typical spaces, assembly spaces and specialized instructional spaces, indicating all doors, windows, equipment, and any special acoustic treatment, materials, or finishes.
- (10) Wall sections and typical details of each type of exterior wall and fire wall to indicating compliance with requirements for fire ratings, energy performance, acoustic values, and continuity of building envelope.
- (11) Reflected ceiling plans including ceiling types and heights and locations of lighting, registers, grilles and ceiling-mounted equipment. Indicate any special acoustic materials or treatment in assembly areas or other areas with special acoustic requirements.
- (12) Finish schedule identifying wall, base, floor, and ceiling finishes for all spaces, indicating ceiling height and any special finish conditions.
- (13) Preliminary details of any special items or conditions.
- (14) Door and hardware schedule indicating door, frame and hardware types as well as fire and acoustical ratings and other special requirements.
- (15) Door and window elevations indicating size and fenestration patterns and any special glazing requirements.
- (16) Other typical details as required to demonstrate compliance with project requirements.

E. Structural Drawings

- (1) Preliminary foundation plan(s) showing location, type, size and depth of each foundation component. Identify expansion joints, fire walls, and any other isolation assemblies.
- (2) Preliminary structural plans for each floor and roof, indicating columns, beams, bearing and shear walls, slabs, decks, and other major structural elements, with typical sizing. Identify expansion joints, fire walls, and any other isolation assemblies

NJSDA Design Manual for Design-Bid-Build Projects

Design Phase Deliverables and Submission Requirements

- (3) Preliminary structural sections through foundations, below-grade construction, slabs on grade, walls, floors and roofs, with depths of structural elements.
 - (4) Preliminary plan and section details of typical structural conditions, including building movement and fire separation conditions.
 - (5) Roof equipment support types and locations.
- F. Food Service Drawings
- (1) Enlarged floor plan(s) of food service areas indicating size and location of all required food service equipment and demonstrating necessary operating clearances.
 - (2) Equipment schedule of all required food service equipment with utility requirements.
- G. Plumbing Drawings
- (1) Floor plans indicating utility entrances, fixtures, equipment, pumps and drains, and location and routing of all piping systems including sanitary, storm, domestic water, natural gas and radon mitigation, with sizing.
 - (2) Enlarged plans and/or sections for Kitchen, Mechanical and Pump Rooms, and other spaces with special plumbing requirements.
 - (3) Vent stacks and other roof penetrations.
- H. Fire Protection Drawings
- (1) Floor plans with performance criteria noting Use Group, hazard and hydraulic flow test summary and date of test.
 - (2) Floor plan(s) noting incoming fire water service size and location, zone control valve assemblies, standpipes, fire pumps, and other major components.
 - (3) Enlarged floor plans of areas to be served by specialized fire protection systems such as dry pipe, pre-action, or chemical fire suppression systems
- I. Heating, Ventilating and Air Conditioning (HVAC) Drawings
- (1) Floor plans showing HVAC system distribution drawings for all floors indicating equipment, piping, ductwork and unitary equipment. The following must also be indicated:
 - (a) HVAC system zoning, with floor plans highlighting HVAC zoning for each area of the building.

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- (b) Duct sizes and single-line ductwork layouts in plan and section.
 - (c) Diagrammatic indication of air terminal units, reheat coils, fan coil units, heat pumps, and unitary systems, noting zoning and dedicated conditions of specialized spaces.
 - (d) Detailed layout of typical spaces occurring multiple times, including ductwork distribution, air devices, thermostat locations and perimeter systems.
 - (e) Diagrammatic indication of perimeter systems, including finned tube panels, radiation elements, ceiling radiation, fan powered air terminals, etc.
 - (f) Locations and ratings of fire and smoke dampers and other rated conditions.
 - (g) Heating and cooling pipe main distribution, noting main sizes, equipment connections, typical connections to common terminal equipment, and roof and wall penetrations.
 - (h) Specialized and independent systems serving areas such as computer rooms, telecommunication rooms, kitchen, etc.
 - (i) Services for special equipment.
- (2) Riser and flow diagrams sufficient to describe basic system design.
 - (3) Enlarged floor plans of mechanical equipment rooms indicating equipment, piping and ductwork mains, and louvers, indicating all required shafts and soffits to and from mechanical equipment rooms.
 - (4) Rooftop equipment.
 - (5) Equipment schedule identifying all equipment. Indicate capacity, outside air quantity, location and area(s) served by each item of equipment.
- J. Electrical Drawings
- (1) Electrical site plan showing utility transformer, incoming underground conduit bank to main electrical room, telephone/data conduit bank, perimeter grounding system and other services, with manholes and related equipment.
 - (2) Site lighting plan with light fixture locations, photometric lighting level information and typical pole types.

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- (3) Lighting floor plans of each floor indicating type and location of light fixtures throughout building, including typical room layouts, indicating controls and emergency lighting.
 - (4) Power floor and roof plans showing main distribution switchboard, panel boards, motor control centers, transformers, conduit bank routing/size from main electric room to electric closets and risers, major HVAC and plumbing equipment, elevator motors, and any other major equipment or systems.
 - (5) Enlarged floor plans of main electric room and electrical closets, with all equipment and required clearances.
 - (6) Photometric plans for each room type demonstrating lighting levels and compliance with code and project requirements.
 - (7) Light fixture schedule indicating all fixtures types, including photometric and other performance information.
 - (8) Equipment schedules for all switchboards, panels and motor control centers.
 - (9) Fire alarm plans and riser diagram showing fire alarm control panels and typical components.
 - (10) Preliminary electrical grounding grid plan, showing building grounding.
 - (11) Preliminary lightning protection plan showing all components.
- K. Technology Drawings (including Information Technology, Security and Audiovisual Systems)
- (1) Floor plans indicating main distribution frame (MDF) and intermediate distribution frame (IDF) rooms, main point of entry (MPOE), and other designated technology systems spaces, including the following:
 - (a) Entrance cabling and conduit paths.
 - (b) MDF to IDF conduit paths. Include bend radius where applicable to all conduits.
 - (c) Distribution paths from MDF and IDF locations to equipment locations and station drops.
 - (d) Paths and locations of wire trays, ladder racks, J-hooks, ceiling straps and any other distribution support systems. Display all bend radiuses.
 - (2) Enlarged floor plans for MDF and IDF rooms indicating placements and clearances on all sides for two-post racks, server

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cabinets, freestanding floor equipment, wall-mounted equipment, power receptacles with NEMA type, overhead cable pathways, conduit entrances and equipment grounding.

- (3) Interior elevations of MDF and IDF rooms depicting rack elevations, wall-mounted equipment, cross-connect blocks and overhead cable pathway access points.
- (4) Enlarged floor plans of typical instructional areas indicating types, interface requirements and locations of all technology systems outlets, devices, equipment, and other components.
- (5) Technology system plans indicating types and locations of all system components, in sufficient detail to demonstrate compliance with project requirements and Best Practices requirements.

4.3 Outline Specifications

- A. Provide outline specifications describing the type and fundamental characteristics of all materials and systems to be incorporated in the Work.
 - (1) Provide specifications organized in accordance with the divisions and sections of the latest version of CSI MasterFormat.
 - (a) Generally the division and the first level of subdivisions should be used. Use additional subdivisions when necessary to accommodate technically detailed requirements or industry practices.
- B. Describe materials and systems in sufficient detail to demonstrate compliance with project requirements. Typical information includes the following:
 - (1) Architectural, Civil and Structural
 - (a) General and regulatory requirements.
 - (b) Preliminary building code and accessibility analysis.
 - (c) Structural criteria and requirements.
 - (d) Acoustical criteria.
 - (e) Description of interior and exterior construction and materials.
 - (2) Mechanical, Electrical, Plumbing and Fire Protection
 - (a) Utility requirements.
 - (b) Schedule of design criteria including indoor and outdoor conditions, ventilation, air circulation, minimum exhaust,

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sound levels, system diversities and building envelope thermal characteristics.

- (c) Detailed system descriptions and criteria.
- (d) Preliminary fixture and equipment selections.
- (e) Energy analysis.

4.4 Other Design Information

- A. Criteria, reports, analyses and other information developed by other consultants and required for preliminary review and approval and/or coordination with work of other disciplines.

4.5 Material, Color and Product Selections

A. Exterior Materials and Colors

- (1) Exterior material and color boards: Provide sample boards of proposed exterior materials and color finishes, including masonry products and color samples of exterior doors and windows and frames, signage and appurtenances, metal roofing, copings, flashings, and other trim materials.
- (2) Exterior renderings: Provide color renderings of all exterior elevations indicating application of exterior materials, including masonry patterning.

B. Interior Colors and Finishes

- (1) Interior color and finish boards: Provide sample boards of proposed interior materials, colors, and finishes including flooring, base, ceiling finishes, and paint colors.
- (2) Finish plans: Provide color floor plans indicating application of interior color and finishes including floor patterns and any special finish applications.

C. Product Selections

- (1) Provide catalog information and photographs of typical products as specified for the following items:
 - (a) Door hardware.
 - (b) Floor finishes.
 - (c) Plumbing fixtures.
 - (d) Lighting fixtures.

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- 4.6 Color Renderings
 - A. Following acceptance of exterior material and color selections, provide one color rendering of an exterior view of the design as selected by Authority.
- 4.7 LEED Compliance
 - A. LEED Checklist identifying elements and features incorporated in design to achieve required LEED certification.
 - B. Copies of any project submissions made to USGBC to date.
 - C. Provide designated Authority staff members with online access to Project information via the LEED Online website.
- 4.8 Building Commissioning Submissions
 - A. Preliminary Commissioning schedule.
 - B. Preliminary Commissioning Plan.
 - C. Preliminary Commissioning checklists and forms.
- 4.9 Other Design Development Submission Requirements
 - A. Supplementary geotechnical data required by code.
 - B. Preliminary analyses and calculations required by code and as needed to support the design. Examples, without limitation, include:
 - (1) Stormwater and drainage analysis.
 - (2) Structural analysis indicating all static and dynamic loads on major structural elements.
 - (3) HVAC load and energy model calculations using an approved energy modeling method.
 - (4) Plumbing calculations and sizing.
 - (5) Electrical calculations and sizing.
 - C. HVAC control diagrams and preliminary written sequence of operation of the HVAC system depicting control devices and components, safety devices, control and monitoring points, and other system components and equipment to be interlocked.
 - D. Updated Construction Cost Estimate.
 - E. Updated Project Schedule.

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Design Phase Deliverables and Submission Requirements

5. Construction Documents Phase Submission Requirements

5.1 Drawings

A. Cover Sheet(s)

- (1) Name of Project, the Authority's package number, DOE number, location map, New Jersey State Seal and name of the Governor.
- (2) Drawing index, legends, abbreviations, symbols and mounting heights.
- (3) Rendering of project.

B. Existing Conditions Drawings

- (1) Boundary and topographic survey showing contours at 1-foot intervals and all existing site improvements and other features.
- (2) Utility survey showing the type, size, location, and approximate depth of all existing utilities within the site and in any adjoining streets or sidewalks.

C. For addition and renovation projects, existing conditions drawings, updated as necessary.

D. Sitework Drawings

- (1) Site logistics plan indicating location of temporary facilities for construction including site access, fencing, trailers, staging, lay-down, and storage areas.
- (2) Grading and drainage plan showing grading, storm water drainage, retention, detention, infiltration and any other above- or below-grade drainage systems, with elevations and inverts, in plan and profile.
- (3) Site remediation, abatement, demolition and construction phasing drawings as applicable.
- (4) Soil erosion and sediment control plan demonstrating compliance with Soil Conservation District rules and regulations.
- (5) Utility plan showing all utilities, location and size of building services, and electrical transformer and generator locations.
- (6) Sitework plan describing the following:
 - (a) All proposed site improvements, buildings and structures.
 - (b) Pedestrian and vehicular access, parking and circulation improvements.

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- (c) Fencing, lighting, landscaping, site furniture and retaining walls.
 - (d) Playing fields and playgrounds.
 - (e) Existing and proposed grades at 1-foot contour intervals
 - (f) Spot elevations at all entrances, exits, and building corners, and on a 20-foot grid for parking lots and open areas.
 - (7) Sitework sections, details and schedules.
 - (8) Landscape plan describing the following:
 - (a) All proposed trees, shrubs, ground covers and other planting materials.
 - (b) A schedule of all planting materials.
 - (c) All other ground surface treatments such as synthetic turf, rubberized safety surface, etc.
 - (d) Provisions for irrigation and other on-site landscape care systems or features.
 - (9) Landscape sections, details and schedules.
- E. Building code drawings, including the following:
 - (1) Building code analysis with code-related information such as the following:
 - (a) List of applicable codes and versions.
 - (b) Building code analysis establishing use and occupancy classification and requirements, construction type, building height and area, fire resistance ratings, and description of code-related features and systems.
 - (c) Schedule of firestop systems.
 - (d) Plumbing fixture calculations.
 - (2) Code and egress plans for each floor level showing:
 - (a) Fire separations and applicable ratings.
 - (b) Fixed furnishings, net area, occupancy type and occupancy load for each space.
 - (c) Travel distances, egress width, exit capacity and total occupancy load for each exit component.
 - (d) Other code-related features as required to demonstrate code compliance.

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- (3) Best practices plan(s) indicating design features that address each requirement of the Best Practices document.
- F. Selective Demolition Drawings
- (1) Floor plans, elevations, sections, and other drawings as necessary to indicate the extent of selective demolition.
- G. Architectural Drawings
- (1) General notes, symbols and abbreviations.
 - (2) Architectural floor plans for each level of the building, indicating the following:
 - (a) Overall floor plans, keyed to partial plans.
 - (b) Partial floor plans as needed to indicate all floors at the scales noted above.
 - (c) All room layouts with sufficient detail and dimensions, including net area of all rooms, so that critical dimensions, clearances, and relationships can be ascertained.
 - (d) Wall types and ratings and all required chases and shafts.
 - (e) Structural elements, doors and windows.
 - (f) All furnishings and equipment to be provided by the Contractor.
 - (g) All furnishings and equipment to be provided by the Authority or the Project School District for which support or connection must be provided by the Contractor.
 - (h) References to all building elevations, sections, and other drawings.
 - (3) Roof plans showing roof types, drainage systems, rooftop equipment (including exposed ducts and piping), railings, walk pads, roof ladders and penetrations.
 - (4) Exterior elevations identified by orientation and labeled with preliminary floor and roof elevations for each level, and indicating the following:
 - (a) All building exterior wall materials.
 - (b) Door, window and glazing types.
 - (c) Control joints, wall-mounted lighting, canopies, signage, and other exterior wall-mounted features and appurtenances.

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- (d) Rooftop equipment and stair and elevator penthouses.
- (e) A key plan indicating the location of each building elevation.
- (5) Building sections with all spaces labeled and showing the following:
 - (a) Vertical relationships between building elements and all changes in building section.
 - (b) Floor-to-floor heights and all changes in floor elevation.
 - (c) Ceiling heights.
- (6) Wall sections and details of each major type of exterior wall and fire wall treatment, to indicate compliance with requirements for fire ratings, acoustic values, and continuity of building envelope.
- (7) Plan and section details as required to show relationships between systems and materials at a scale appropriate to the information being conveyed.
- (8) Door and hardware drawings and schedule indicating door, frame, glazing and hardware types as well as fire and acoustical ratings.
- (9) Window and glazing elevations, with nominal dimensions and other characteristics such as swing and opening type, keyed to building elevations.
- (10) Enlarged toilet room plans with critical dimensions.
- (11) Enlarged elevator plans and sections.
- (12) Enlarged stair and ramp plans and sections with critical dimensions.
- (13) Elevator, stair and ramp details.
- (14) Enlarged plans and interior elevations of typical classrooms and other instructional spaces, with critical dimensions.
- (15) Interior details.
- (16) Interior partition drawings and schedules identifying all partition types and demonstrating compliance with fire separations, acoustic performance and other requirements.
- (17) Reflected ceiling plans showing all ceiling features and types, with dimensions where necessary for layout.
- (18) Ceiling details.

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- (19) Finish and signage plans, schedules and details indicating application of interior color and finishes including floor patterns and any special finish applications.
- (20) Casework and equipment plans, schedules and details.

H. Structural Drawings

- (1) Structural design criteria and analysis indicating all static and dynamic loads on major structural elements.
- (2) Foundation plans showing type, location, size and depth of each foundation component.
- (3) Structural plans for each floor and roof, indicating columns, beams, bearing and shear walls, slabs, decks, bracing, and other major structural elements, with typical sizing.
- (4) Structural sections through foundations, below-grade construction, slabs on grade, walls, floors and roofs, with depths of structural elements.
- (5) Plan and section details of typical and special structural conditions, including building movement and fire separation conditions.

I. Food Service Drawings

- (1) General notes, symbols and abbreviations.
- (2) Food service equipment and rough-in plans.
- (3) Food service reflected ceiling plans indicating equipment and utilities.
- (4) Food service details, elevations and sections as needed to indicate compliance with codes and Project requirements..
- (5) Food service equipment schedules with utility requirements and locations.

J. Plumbing Drawings

- (1) General notes, symbols and abbreviations.
- (2) Plumbing plans for each floor and roof showing utility entrances; locations and quantity of fixtures, equipment, pumps and drains; and all piping systems including sanitary, storm, domestic water, natural gas and radon mitigation (where required), with sizing.
- (3) Riser diagrams of sanitary, storm, domestic water, natural gas and radon mitigation systems, with main pipe sizes and equipment indicated.

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- (4) Equipment schedules identifying each type of fixture and item of equipment, with pertinent product data.
 - (5) Enlarged plans, sections and/or details for toilet rooms, kitchens, mechanical and pump rooms and other spaces with special plumbing requirements and conditions.
- K. Fire Protection Drawings
- (1) General notes, symbols and abbreviations.
 - (2) Fire protection plans with performance criteria noting Use Group, hazard and hydraulic flow test summary and date of test.
 - (3) Enlarged plans noting incoming fire water service size and location, zone control valve assemblies, standpipes, fire pumps, and other major components.
 - (4) Enlarged plans of areas to be served by specialized fire protection systems such as dry pipe, pre-action, or chemical fire suppression systems.
 - (5) Fire protection riser diagrams.
 - (6) Fire protection schedules and details.
- L. HVAC Drawings
- (1) General notes, symbols and abbreviations.
 - (2) Ductwork plans showing system distribution for all floors indicating ductwork and equipment, as follows:
 - (a) Double-line ductwork for all mains 24 inches and larger, with sizes noted.
 - (b) Single-line ductwork downstream of air terminal units to air devices.
 - (c) Double-line ductwork within shafts and mechanical rooms and for ductwork exposed to the outdoors and penetrating walls or roofs.
 - (3) Piping plans for all floors indicating HVAC piping and equipment.
 - (4) Enlarged plans of HVAC equipment rooms indicating equipment, piping and ductwork mains, and louvers, and all required shafts and soffits to and from mechanical equipment rooms.
 - (5) HVAC details.
 - (6) Ventilation schedules.

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- (7) Equipment schedules indicating capacities, outside air quantities, locations and areas served.
 - (8) Air flow diagrams
 - (9) Water riser diagrams.
 - (10) Control block and wiring diagrams.
- M. Electrical Drawings
- (1) General notes, symbols and abbreviations.
 - (2) Site power plan showing utility transformer, incoming underground conduit bank to main electrical room, telephone/data conduit bank and other services, with manholes and related equipment.
 - (3) Site lighting plan with light fixture locations, photometric information and typical pole types.
 - (4) Power plans for all floors and roof showing receptacles, panel boards, motor control centers, transformers, conduit banks, HVAC and plumbing equipment, elevator motors, and other electrical equipment.
 - (5) Lighting plans for all floors showing light fixtures, lighting control system, exit signs, and emergency lights.
 - (6) Photometric lighting level plans indicating lighting levels and room schedules to indicate compliance with code and project requirements.
 - (7) Fire detection and alarm system plans for all floors.
 - (8) Electrical grounding grid plan, showing building grounding and typical details.
 - (9) Lightning protection plan showing all components and typical details.
 - (10) Enlarged power and lighting plans for kitchen, auditorium, and other spaces with special fixtures and equipment.
 - (11) Electrical details.
 - (12) Power panel schedules.
 - (13) Lighting panel schedules.
 - (14) Lighting control panel schedules.
 - (15) Mechanical panel schedules.
 - (16) Power riser diagrams.

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- (17) Fire alarm riser diagrams.
- N. Technology Drawings (including Information Technology, Security and Audiovisual Systems)
 - (1) General notes, symbols and abbreviations.
 - (2) Floor plans indicating main distribution frame (MDF) and intermediate distribution frame (IDF) rooms, main point of entry (MPOE), and other designated technology systems spaces, including the following:
 - (a) Entrance cabling and conduit paths.
 - (b) MDF to IDF conduit paths. Include bend radius where applicable to all conduits.
 - (c) Distribution paths from MDF and IDF locations to equipment locations and station drops.
 - (d) Paths and locations of wire trays, ladder racks, J-hooks, ceiling straps and any other distribution support systems. Display all bend radiuses.
 - (e) Placement and count for all data drops, with labels for all data drops.
 - (3) Floor plans showing locations and types of all information technology, security and audiovisual terminations and devices, including those pertaining to windows, doors and hardware, mechanical and plumbing equipment, power and lighting controls, and other building components and systems.
 - (4) Enlarged floor plans for MDF and IDF rooms indicating placements and clearances on all sides for two-post racks, server cabinets, freestanding floor equipment, wall-mounted equipment, power receptacles with NEMA type, overhead cable pathways, conduit entrances and equipment grounding.
 - (5) Interior elevations of MDF and IDF rooms depicting rack elevations, wall-mounted equipment, cross-connect blocks and overhead cable pathway access points.
 - (a) List all port densities per rack with relevant patch panel count(s).
 - (b) Indicate rack, patch panel and patch panel port numbering to match station labeling.

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- (6) Enlarged floor plans of all typical and specialized instructional areas indicating type and location of all technology system outlets, devices, equipment, and other components.
- (7) Line diagrams indicating MDF to IDF cable types, conduits, and termination types.
- (8) Riser diagrams depicting cable types, counts, and total length.
- (9) MDF and IDF grounding diagrams, grounding points and continuity.
- (10) Equipment schedules for cable routing and support systems, including J-Hooks, ceiling straps, wire trays, ladder racks and other distribution mechanisms.
- (11) Station outlet elevations and back box details.
- (12) Cable tray details and master label scheme.
- (13) Conduit, penetration, firestopping, grounding and bonding details.
- (14) Wiring schedules and block diagrams for all technology systems and equipment.
- (15) Equipment schedules for all technology equipment and devices.

5.2 Specifications

- A. Detailed technical specifications describing the type and characteristics of all materials and systems to be incorporated in the Work.
 - (1) Provide specifications organized in accordance with the divisions and sections of the latest version of CSI MasterFormat.
 - (2) Describe all materials and systems in sufficient detail to demonstrate compliance with all codes and project requirements.
 - (3) Identify requirements for submittals, quality assurance, warranties, and guarantees, as well as all requirements for LEED and commissioning.

5.3 Color and Material Selections

- A. Exterior Material and Color Boards
 - (1) Final material and color boards with all exterior materials and color finishes, including masonry products and color samples of exterior doors and windows and frames, signage and appurtenances, metal roofing, copings, flashings, and other trim materials.

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- B. Interior Material and Color Boards
 - (1) Final material and color boards with all interior materials, colors, and finishes including flooring, base, ceiling finishes, and paint colors for walls and exposed elements such as structure and ductwork.
- 5.4 Product Selections
 - A. Updated catalog information and photographs of typical products as specified for the following items:
 - (1) Door hardware.
 - (2) Floor finishes.
 - (3) Plumbing fixtures.
 - (4) Lighting fixtures.
- 5.5 Other Design Information
 - A. Supplementary geotechnical data required by code.
 - B. Final structural calculations.
 - C. Final load calculations for all energy and utility systems.
 - D. Final energy model calculations using an approved energy modeling method.
 - E. Final HVAC control diagrams and written sequence of operation of the HVAC system depicting control devices and components, safety devices, control and monitoring points, and other system components and equipment to be interlocked.
- 5.6 LEED Compliance
 - A. Updated LEED Checklist identifying elements and features incorporated in design to achieve required LEED certification.
 - B. Copies of all LEED submissions to USGBC made to date.
- 5.7 E-Rate and Smart Start Programs
 - A. If directed by the Authority, provide separate drawings, specifications and related information required for submission to the Schools and Libraries Program of the Universal Services Fund (“E-Rate”) and Smart Start Program.
 - (1) Coordinate all E-Rate and Smart Start documents with other documents to ensure that contractors’ responsibilities are clear and reimbursements are maximized.

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- 5.8 Building Commissioning Submissions
 - A. Commissioning schedule.
 - B. Commissioning Plan.
 - C. Commissioning checklists and forms.
- 5.9 Other Submission Requirements
 - A. Updated Construction Cost Estimate.
 - B. Updated Project Schedule.
 - C. OSC submission specifications.
 - D. Final Educational Adequacy submission plans and specifications.
 - E. Copies of all submissions to and communications with the DCA and other regulatory agencies in conjunction with regulatory reviews and approvals.