

APPENDIX B

DESIGN CONSULTANT'S PREDESIGN PHASE SERVICES

1. **General:** The Design Consultant's Predesign Services shall be performed in accordance with the Design Consultant Agreement and Appendix A. Predesign Services shall consist of the following tasks as may be further delineated or modified by the Appendix A for the specific Task Order Project:

- 1.1. Initial Project Meeting and Report
- 1.2. Preliminary Verification of Existing Conditions
- 1.3. Project Requirements Review
- 1.4. Conceptual Options Development, Evaluation and Selection
- 1.5. Final Predesign Report

Each of these tasks is further defined below. Following completion of Predesign Services, the Authority may request that the Design Consultant submit a detailed fee proposal for performance of additional Design Consultant Services related to the approved Project Scope which shall be authorized through the issuance of additional Task Order(s).

2. **Initial Project Meeting and Report:** Within 7 calendar days of receipt of the NTP, and prior to commencing any on-site verification activities, the Design Consultant shall attend a meeting with the Authority's Project Representative and representatives of the Client School District. The Design Consultant shall be prepared to review and discuss the following:

- 2.1. Review and confirm general project requirements, including the time frames for completion of Predesign Services.
- 2.2. Review and confirm the current use and future uses of existing facilities that may be considered in developing alternative solutions to satisfy project requirements.
- 2.3. Review and confirm the specific site(s), conditions, systems, and components which are the subject of preliminary verification activities.
- 2.4. Review and confirm a schedule for conducting on-site verification activities, including access to restricted areas, and inclusive of restrictions imposed by the District.
- 2.5. Review and confirm any logistical constraints, including the District's schedule for use and occupancy of the facility, which may impact when and how the Design Consultant's on-site verification activities may be performed.
- 2.6. Receive and review available information about the existing buildings such as warranty information, construction documents, maintenance records, the District's Asbestos Management Plan and AHERA report, and relevant reports and documents previously prepared by the Authority and others.

2.7. Initial Project Report: Within 7 calendar days of the Initial Project Meeting the Design Consultant shall provide an Initial Project Report to the Authority for review and acceptance. The Initial Project Report shall summarize the Design Consultant's understanding of the project scope, constraints, and considerations, and shall include a detailed schedule for completion of all Predesign Services, including dates and times for completion of on-site verification activities and any proposed invasive or destructive testing activities.

3. **Preliminary Verification of Existing Conditions:** In accordance with the schedule included in the accepted Initial Project Report, the Design Consultant shall proceed with the following activities in order to establish an understanding of existing conditions at the project Site sufficient to inform the development and evaluation of conceptual options.

3.1. **Boundary Survey Plan:** The boundary survey shall depict the Site in its entirety, inclusive of all individual tax blocks and lots that comprise the site and of all adjoining rights-of-way and vacated streets 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. Surveying services shall include all necessary fieldwork, file research, office work 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 Design Consultant.
- 3.1.3. If the Site is owned by the Project School District, the Design 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 Design 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 Design 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.
- 3.1.5. The survey shall be conducted under the supervision of and certified by a surveyor licensed in the state of New Jersey. The Design Consultant’s survey crew shall provide survey controls suitable for use by the Design-Build contractor. The Design 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 Design 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 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 transactions related to the Site.

- 3.2. **Topographic/Utility Survey Plan:** The Design Consultant shall prepare topographic/utility survey plans for the Site showing all site topographic features, including, but not limited to, utilities, structures/buildings, pavements, slabs, vegetation, and surface materials, and shall comply with the following:
- 3.2.1. The Design Consultant shall perform all field survey measurements necessary to develop a topographic/utility survey plan. All horizontal control shall be presented in the NJSPCS; vertical datum shall be National Geodetic Vertical Datum of 1929 (“NGVD”).
 - 3.2.2. Contours shall be shown on a one-foot contour interval. Spot elevations shall be provided as necessary within the Site at locations of structures, pavements, high and low points of elevation, and other appropriate points, in order to accurately document elevations of the Site’s surface and subsurface features.
 - 3.2.3. Where practical, the topographic mapping shall extend to 100 feet beyond the Site or to such additional distance as may be required by local subdivision or land development ordinances.
 - 3.2.4. The topographic mapping may be prepared via aerial photography at a scale sufficient to accurately produce the required topographic/utility survey plan. If the Design Consultant proposes to prepare the topographic mapping from existing aerial photography, the date of the aerial photography shall not be more than two years prior to the Effective Date of this Agreement. The Design Consultant shall verify the existence of all structures indicated by the aerial photography, above or below ground, prior to commencement of the survey. The locations of all building corners, permanent structures and the like shall be field verified and relayed on to the topographic and utility survey plan.
 - 3.2.5. Utility information shall include accurate locations of any and all utilities, such as water lines, storm sewer, sanitary sewer, gas mains, telephone and underground electric lines; utility poles with identity numbers and street lights; the size of all such lines and their type of construction material (e.g., RCP, DIP, PVC, etc.). The utility information shall also include the accurate location of all manholes, catch basins, chambers, culverts, utility vaults, valve boxes, hydrants, headwalls, and any other features and structures related to utilities. The Design Consultant shall provide surveyed elevations of all inverts, top of grate/castings, outfall inverts and top of headwalls associated with the above-mentioned features and structures, where accessible. Any sewers containing combined sanitary and storm sewer flows shall be noted as such.
 - 3.2.6. The final topographic/utility survey plan shall include pertinent data from the boundary survey plan, such as each individual tax lot line and description, area calculations, easements, street right-of-way lines and descriptions, street names and tax lot numbers.

3.3. Survey Deliverables

- 3.3.1. The Design Consultant shall provide certified, reproducible vellums and digital versions in .dwfx and .pdf formats of each boundary survey plan and topographic/utility survey plan, in appropriate scales approved by the Authority.
- 3.3.2. Digital survey information shall be layered to facilitate its use as a base map for geotechnical and environmental investigations of the Site, and for subsequent site/civil, planning and design phases of the project.
- 3.3.3. The Design Consultant shall provide six (6) sets of signed and sealed prints of each final boundary survey plan and final topographic/utility survey plan. These survey plans shall be signed and sealed by a New Jersey Licensed Professional Surveyor.
- 3.3.4. The Design Consultant shall provide six (6) signed and sealed, certified, written boundary descriptions of each overall Site and of each individual property that may comprise the Site.
- 3.3.5. The Design Consultant shall provide one (1) set of 8" x 10" color prints of any aerial photography used to prepare the topographic base maps. The Design Consultant shall also provide digital versions of any such aerial photography, in native, .pdf and .jpeg formats.

3.4. Utility Verification and Report: Based on a review of existing documentation and site observations, the Design Consultant shall verify and document the location, age, size, and capacity of utilities available to the Site, including sanitary sewer and storm sewer systems, potable water, electric power, natural gas, telephone service, cable television, and communication lines. The Design Consultant shall confirm conditions of utilities with respect to project requirements and perform the following for the Site:

- 3.4.1. Analyze and estimate order-of-magnitude utility loads for the proposed project.
- 3.4.2. Perform a water flow/hydrant test to confirm available water supply pressure and flow.
- 3.4.3. Develop a contact list for all utility companies, and secure a dated "will-serve" letter from each stating the projected utility load for each facility and confirming the utility company's capacity for providing the required service in the necessary quantity.
- 3.4.4. In the event that existing utility services are not sufficient for project requirements, assist the Authority in identifying alternative solutions and requesting utility infrastructure improvements.
- 3.4.5. Provide a Utility Investigation Report to the Authority for review and acceptance. The report shall include an inventory of all active and non-active utilities within and in each of the streets surrounding the Site. The report shall include copies of all site utility survey data, a utility contact list, and copies of all correspondence with all utilities including all "will-serve" letters. The report shall summarize the utility survey and investigation activities undertaken by the Design Consultant and shall include a comparison of projected utility service requirements and the

compatibility of existing utilities to meet those requirements, and final recommendations for any necessary improvements to existing utilities.

- 3.5. **Preliminary Geotechnical and Stormwater Review and Report:** The Design Consultant shall review existing documentation and perform visual onsite observations of the Site in order to:
- 3.5.1. Describe the subsurface soil and groundwater conditions at likely areas of new construction and/or site development.
 - 3.5.2. Describe existing stormwater drainage and related systems and structures at likely areas of new construction and/or site development.
 - 3.5.3. Identify any apparent conditions that may impose limitations on project design, placement or construction, or warrant other consideration in the development of the project.
 - 3.5.4. Provide a Preliminary Geotechnical and Stormwater Report summarizing the above for the Authority's review and acceptance.
 - 3.5.5. If necessary, recommend additional investigative activities, such as test pits or borings, which may be required in order to confirm existing conditions to the extent necessary to inform the development and evaluation of conceptual options. Upon authorization by the Authority, complete such additional investigative activities as Allowance Services, and incorporate the findings in the Preliminary Geotechnical and Stormwater Report.
- 3.6. **Preliminary Geophysical Survey and Report:** The Design Consultant shall conduct a multi-component geophysical survey of areas of potential new construction and/or site development work in order to identify the presence of buried utilities, subsurface structures, artifacts, anomalies or obstructions in the potential project areas.
- 3.6.1. This survey shall include electromagnetic terrain conductivity (EM), ground-penetrating radar (GPR) using both high frequency and low frequency antennas, and radiodetection line tracer, as well as the use of a metal detector and fluxgate magnetometer based on professional judgment.
 - 3.6.2. If necessary, recommend additional investigative activities, such as test pits, which may be required in order to confirm existing conditions to the extent necessary to inform the development and evaluation of conceptual options. Upon authorization by the Authority, complete such additional investigative activities as Allowance Services, and incorporate the findings in the Preliminary Geophysical Survey Report.
 - 3.6.3. Provide a Preliminary Geophysical Survey Report summarizing the above for the Authority's review and acceptance.
- 3.7. **Preliminary Environmental Review and Report:** The Design Consultant shall undertake a preliminary environmental review for the Site and each indicated existing building consisting of the following:

- 3.7.1. Review of existing records including AHERA reports and environmental documentation.
- 3.7.2. Visual inspection for preliminary confirmation of existing records and preliminary identification of any variances or other conditions that must be taken into account in the course of development and evaluation of conceptual options.
- 3.7.3. If necessary, recommend additional investigative activities which may be required in order to confirm existing conditions to the extent necessary to inform the development and evaluation of conceptual options. Upon authorization by the Authority, complete such additional investigative activities as Allowance Services, and incorporate the findings in the Preliminary Environmental Review Survey Report.
- 3.7.4. Provide a Preliminary Environmental Review Report summarizing findings for the Authority's review and acceptance.
- 3.8. **Preliminary Facilities Survey:** The Design Consultant shall conduct a survey of each indicated building and shall document each building to a level of information and detail sufficient to develop schematic site and floor plans sufficient to support the development of conceptual options. The Preliminary Facilities Survey shall include the following:
 - 3.8.1. Review of existing drawings and other documents that describe the existing facilities.
 - 3.8.2. On-site inspection of existing facilities and identification of any areas or conditions that vary from those reflected in existing documentation.
 - 3.8.3. For any areas of such variance, preliminary measurement and recording of existing conditions in detail sufficient to support the development of conceptual options.
 - 3.8.4. The creation of schematic site and floor plans, at appropriate scales acceptable to the Authority, with information sufficient to support educational planning and the development of conceptual options.
- 3.9. **Preliminary Facilities Condition Assessment and Report:** The Design Consultant shall conduct a survey and assessment of existing building systems in order to establish a sufficient understanding of their disposition and condition to inform the development of conceptual options. The Preliminary Facilities Condition Assessment and Report shall include the following for each building:
 - 3.9.1. Review of existing drawings and other documents that describe the existing facilities.
 - 3.9.2. A non-invasive survey of each building to become familiar with the type, disposition, quality, functionality, and condition of existing buildings and their various systems, including an assessment of their capability and capacity to be expanded or extended.
 - 3.9.3. Verification of existing condition deficiencies in project scope areas specifically identified in Appendix A.

- 3.9.4. Identification, during the course of the steps above, of any other significant condition deficiencies that might be considered by the Authority for inclusion in the project scope.
 - 3.9.5. Provide a draft Preliminary Facilities Condition Assessment Report for review by the Authority. The report shall be organized by building, building area, and system type and shall describe the type, disposition, capacity, quality, functionality, and condition of building systems and components. For each identified condition deficiency, the report shall also identify and discuss options for addressing the deficiency including considerations of cost, schedule, and potential impact on ongoing use and occupancy of the facilities. The report shall also identify additional investigative techniques, such as testing, which may be recommended to further assess the condition of existing facilities. Following review and comment, the Design Consultant shall complete and submit the final Preliminary Facilities Condition Assessment Report for acceptance by the Authority.
4. **Project Requirements Review:** In accordance with the schedule included in the accepted Initial Project Report, the Design Consultant shall proceed with the following activities in order to establish an understanding of project requirements sufficient to inform the development and evaluation of conceptual options.
- 4.1. **Regulatory Review Report:** The Design Consultant shall determine all applicable codes and regulatory reviews applicable to the project and prepare a Regulatory Review Report that includes the following:
 - 4.1.1. A list of all approvals that will be required for completion of the project, including prior approvals required under the Uniform Construction Code.
 - 4.1.2. Identification of the authority having jurisdiction for each approval, submission requirements, typical timeframes for securing such approvals, and identification of the project milestone(s) for which each approval is a prerequisite.
 - 4.1.3. Based on review with the Authority, identification of the party or parties responsible for securing each approval.
 - 4.2. **Project Requirements Review and Report:** The Design Consultant shall conduct a Project Requirements Review with representatives of the Authority and School District in order to confirm and document the requirements which will serve as the basis for development and evaluation of conceptual options and which will serve to inform the development and evaluation of subsequent activities and deliverables. The Project Requirements Review shall include the following activities:
 - 4.2.1. Review and confirmation of general project expectations and goals including performance, cost, and schedule.
 - 4.2.2. Review of the target space programs provided in Appendix A and confirmation of educational program requirements, including organization and adjacencies.

- 4.2.3. For the Site, review and confirmation of site requirements including outdoor PE and learning areas, parking, drop-off and pick-up, service access, and general site circulation considerations.
- 4.2.4. Identify any materials and systems preferences that have been adopted or otherwise expressed by the School District, noting any that are in conflict with the Authority's Materials and Systems Standards; and identify any items for which the School District plans to request proprietary specifications.
- 4.2.5. Identify any School District requirements or restrictions with respect to phasing and occupancy, including any potential need for swing space.
- 4.2.6. Identify any other functional or performance requirements which the School District may wish to propose for the project.
- 4.2.7. Establish the project's approach with respect to achievement of LEED certification, building commissioning, SmartStart, and application for E-Rate funding.
- 4.2.8. Following the Project Requirements Review, the Design Consultant shall submit the draft Project Requirements Report in a format acceptable to the Authority, for review by the Authority and the School District. Following review and comment, the Design Consultant shall complete and submit the final Project Requirements Report for acceptance by the Authority.

5. **Conceptual Options Development, Evaluation and Selection:** The Design Consultant shall identify, develop, and evaluate alternative approaches to addressing the identified project requirements in accordance with the following:

- 5.1. **Confirmation of Evaluative Criteria:** Based on the Project Requirements Review and discussions with the Authority and the School District, the Design Consultant shall confirm the criteria that will be used in the evaluation of conceptual options and shall prepare a narrative describing such criteria for review and acceptance by the Authority. Such criteria shall include, but shall not be limited to:
 - 5.1.1. The extent to which a conceptual option satisfies educational program requirements.
 - 5.1.2. Construction Time and Phasing Requirements.
 - 5.1.3. Impact of construction activities on ongoing use and operation of the facilities.
 - 5.1.4. The need for temporary facilities to accommodate construction of the option.
 - 5.1.5. Potential for earlier advancement of some elements of the project scope.
 - 5.1.6. Construction Cost.
 - 5.1.7. Other criteria as identified and agreed by the Authority and School District.
- 5.2. **Identification of Options:** The Design Consultant shall identify and present a range of alternative approaches to satisfying the established project requirements in order to identify up to three options which shall be further developed and evaluated.

- 5.2.1. Based on its knowledge and understanding of project requirements and existing site and building conditions, the Design Consultant shall develop, in diagrammatic and/or narrative form, a range of potential options that illustrate alternative ways in which the project elements can be arranged to satisfy the project requirements . Potential options shall include those identified and illustrated in Appendix A (if any) as well as other options identified by the Design Consultant.
- 5.2.2. The Design Consultant shall present the diagrammatic options to the Authority and the School District, in one or more workshop setting(s), and utilizing the established evaluative criteria, lead a discussion to identify a maximum of three diagrammatic options for each school that most effectively satisfy the project requirements.
- 5.2.3. Document in writing the discussion and decision-making process by which the options are identified, presented and discussed.
- 5.3. **Conceptual Options Development and Report:** The Design Consultant shall develop and undertake a comparative evaluation of the identified diagrammatic options, and shall prepare a draft Conceptual Options Report for review and acceptance by the Authority. The draft Conceptual Options Report shall include the following:
 - 5.3.1. An executive summary which shall include:
 - 5.3.1.1. A brief overview of the options development process.
 - 5.3.1.2. A summary of each developed option.
 - 5.3.1.3. A summary of evaluative criteria.
 - 5.3.1.4. A summary comparison of developed conceptual options in tabular form including features such as new construction and renovation square footage and construction cost, as well as an evaluation of each developed option in regard to established evaluative criteria.
 - 5.3.1.5. A preliminary recommendation for advancement of a selected option including the reasons and rationale for the recommendation.
 - 5.3.2. For each developed option, the Conceptual Options Report shall include:
 - 5.3.2.1. A narrative description of the option describing the type and extent of site and building construction proposed.
 - 5.3.2.2. A narrative evaluation of the option in regard to how and to what extent it satisfies project requirements and established evaluative criteria.
 - 5.3.2.3. Conceptual site and floor plans.
 - 5.3.2.4. Conceptual phasing plans and narrative, including a description of the impact of the option on ongoing school operations, temporary facilities requirements (if any), and options for earlier advancement of work.
 - 5.3.2.5. A conceptual construction cost estimate based upon types and extent of proposed construction and agreed-upon unit costs.

The Design Consultant shall present the draft Conceptual Options Report to the Authority for review and comment. Following any revisions directed by the Authority, the Design Consultant shall present the conceptual options and comparative analysis to the Authority and the School District for selection of a preferred option.

- 5.4. **Conceptual Options Selection and Report:** Following selection of the preferred conceptual option by the Authority and the School District, the Design Consultant shall revise the draft Conceptual Options Report to reflect the development, evaluation and selection process and the basis for selection of the preferred option and shall submit a final Conceptual Options Report to the Authority for review and acceptance.
6. **Final Predesign Report:** Following review and acceptance of each of the above components, the Design Consultant shall prepare and submit the draft Predesign Report, consisting of printed and electronic versions of all final Predesign deliverables and reports in a format acceptable to the Authority. Following review and comment by the Authority and the School District, the Design Consultant shall revise the draft and submit the Final Predesign Report.
7. **Submissions:** Unless otherwise directed by the Authority, the Design Consultant shall provide all deliverables in three printed and bound copies, plus digital versions in native (.doc or .dwx) and .pdf formats.
8. **Meetings**
 - 8.1. In addition to meetings and site visits required above, the Design Consultant shall attend and participate in progress meetings every two weeks at the Authority's offices in Trenton. The Design Consultant's Subconsultants shall be in attendance at meetings where their services and deliverables are to be discussed or reviewed.
 - 8.2. The Design Consultant shall prepare and submit draft minutes of all meetings within five working days, for the Authority's review and acceptance, and final minutes within five working days of the Authority's acceptance.