Design Phases

- Schematic Design Phase - SD
- Design Development Phase - DD
- Construction Documents Phase – CD
Schematic Design Phase

• Development of a “graphic solution” to the owner’s written program
• Documents are prepared for client communication and to convey design concepts and project scope to estimators
• The SD package will include:
  ▪ Site plan with utilities and preliminary grading, site layout and major site improvements
  ▪ Building plans
  ▪ Typical building sections, particularly where additions meet existing building
  ▪ Exterior elevations with main materials noted
  ▪ Design narratives including short form spec of finishes and materials and Structural, Mechanical, and Electrical System analysis
  ▪ Building codes narrative
Design Development Phase

• To clearly illustrate the design intent of the project and to ensure that client goals, functional, and technical requirements have been met

• Documents are prepared for client communication and are used by contractor and design team for technical and regulatory milestones and to prepare the cost estimate

• The DD package will include:
  - Phasing Plans
  - Code drawings
  - Site and Civil drawings showing layout, utilities, grading,
  - Structural foundation and framing plans, typical sections
  - Demolition plans
  - Floor and Roof plans
  - Reflected Ceiling plans
  - Exterior Elevations
  - Building sections and typical wall sections
  - Door and window types
  - Interior elevations at specialty spaces
  - Plumbing, Mechanical, and Electrical plans including roof top equipment design
  - Fire Protection plans, riser diagram, and fire pump design
  - Short form or preliminary edits of final specs
Construction Documents Phase

- During Construction Documents phase, a project is fully developed and coordinated, details are finalized, and specifications are completed.
- Includes all written and graphic documentation for State (Bureau of School Facilities) Review as well as for public bid.
- The CD package will include:
  - All drawings listed above, fully developed.
  - All construction details.
  - Contractual and procedural information (Project Manual division 1) in conjunction with the construction managers.
  - Architectural, site-work, engineering, and construction information (Project Manual and drawings).
Estimated Construction Costs by Design Phase

- Construction Estimate
- Design Contingency
- 3% Construction Contingency
- Escalation

![Chart showing estimated construction costs by design phase](chart.png)
Design Start – Prior to Legislative Approval

Risk: $1.2 Mil.
Design Fees Escalation

Impact: $0

Escalation Impact: $0
Design Start – After Legislative Approval

Escalation Impact: $2.4 Mil.

Risk: None
Design Start Date Options

**Design Start**
- Application Acceptance (Approx. Sept. 2013)
- Grant Approval (July 2014)
- Construction Start (Nov. 2014)
- Design Start (Sept. 2015)
- Construction Start (Sept. 2015)
- Completion (Apr. 2018)

**Completion**
- (June 2017)
- (Apr. 2018)
Summary

• High level of confidence that the grant will be approved
  • All projects in years past that have been on the priority list have received funding
  • NEASC Report shows the need for the project
  • EHHS has not requested state funding in approximately 20 years, and that was for minor work