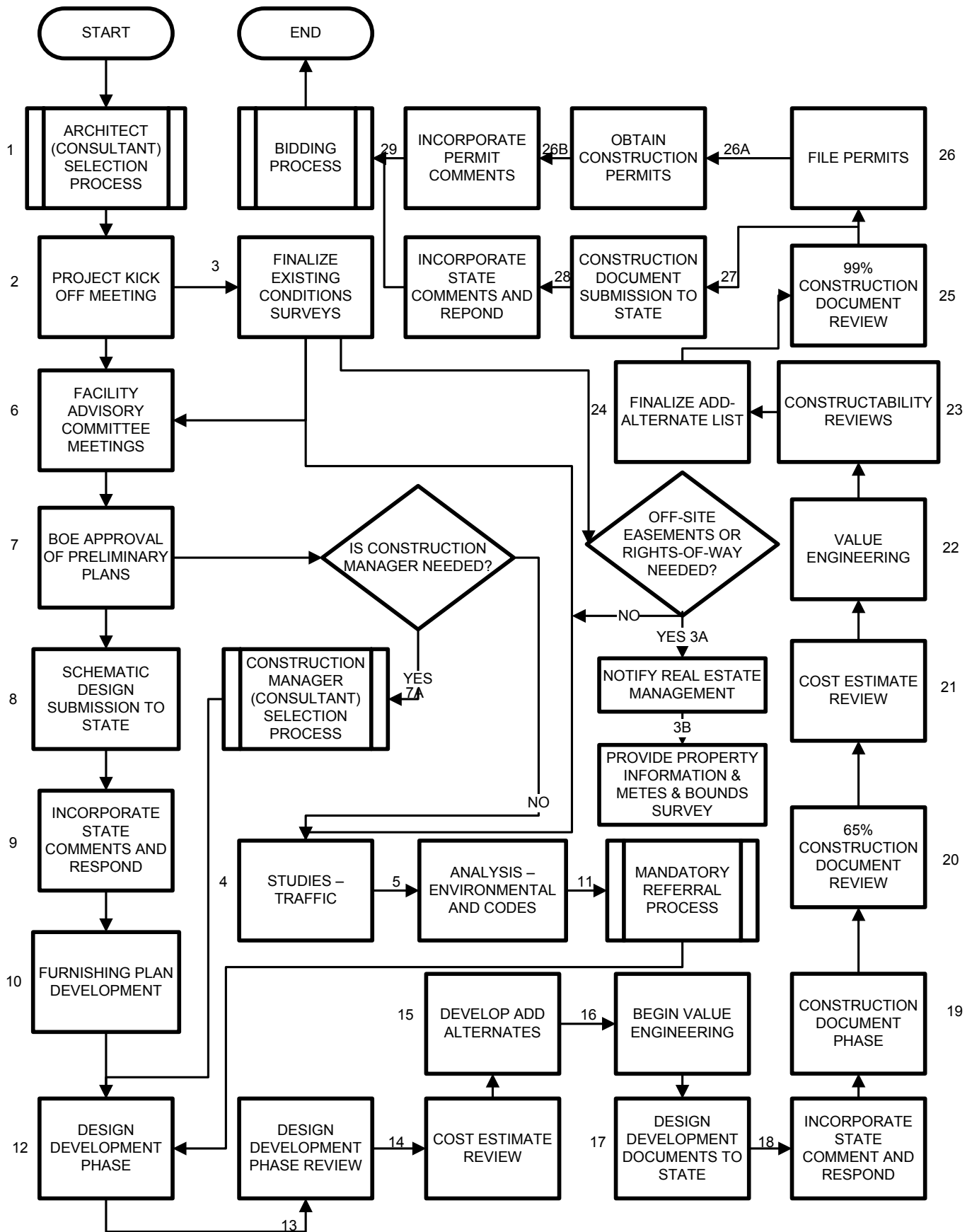


# Design Process

Division of Construction, MCPS



## **DESIGN PROCESS**

1. The architect is selected through the consultant selection process. The option is given to the selection committee to keep the same architect that was chosen and completed the feasibility study.
2. The project kick-off meeting is held at the school site. This meeting consists of the school principal, another staff member, a representative of the PTA, the design architect and the DOC project manager. The primary purpose of the meeting is to set the schedule for the Facility Advisory Committee (FAC) meetings to be held during the schematic phase of design. Typically, there are 4-5 meetings which are held alternatively in the late afternoon or evening to accommodate a larger number of participants, both staff and community.
  - The principal is requested to put the meeting schedule on the school web-site (if any) or otherwise disseminate the information to parents.
  - The PTA may also have on-line communication avenues to send out the meeting schedule to members.
  - The Division of Construction sends out letters to adjacent property owners and community associations surrounding the school. Depending on the make-up of the community, the letters will be sent in several languages to notify as many people as possible.
  - A sign advertising the meetings is to be posted on school property.
3. The existing conditions survey is done by the architect/engineers during the feasibility study process. The information needs to be finalized to prepare for the Mandatory Referral Process.
- 3A. If an off-site easement or right-of-way is needed, the real estate management team must be notified to begin the process.
- 3B. DOC will request the architect to have his consultants provide a metes and bounds survey to attach to the easement for approval by the Board of Education.
4. A traffic study needs to be completed by the architect's consultant to be submitted for the Mandatory Referral Process.
5. The environmental analysis which is done during the feasibility study and the code analysis are prepared by the architect/engineer to be submitted for the Mandatory Referral Process.
6. The composition of the FAC is anyone who wishes to attend the meetings to provide input to the design process. Educational specifications developed by MCPS staff will be reviewed in consultation with the FAC. Viewpoints of all participants will be included in the review of architectural plans and their

concerns will be considered during the design stage before the plans are finalized. The outcome of these meetings is a brochure produced by the architect showing the preliminary plans for the project that will be sent to the Board of Education for approval.

7. The Board of Education will review the preliminary plans presentation and solicit comments from the DOC, project architect, school staff and PTA representatives. If the Board approves the plans, a resolution doing the same will be passed.
- 7A. If the project is determined to be of significant complexity to require a construction manager, one will be chosen through the consultant selection process and sent to the Board of Education for approval for the construction manager to perform pre-construction services during the design phases.
8. The schematic brochure design is submitted to Maryland State Department of Education (MSDE) for review and response.
9. Comments sent by MSDE are responded to and incorporated into the design when necessary.
10. A quarter scale plan of the rooms are provided in order to make tentative furniture placements so that data and telephone outlets can be located on the plans. This takes place at a meeting of the DOC project manager, design architect, curriculum coordinators, school principal and staff for particular areas of the school. Once these decisions are made, the information is provided to the electrical engineer to incorporate into the drawings.
11. The Mandatory Referral Process while advisory in nature, requires submitting the project to the Maryland National Capital Park & Planning board for approval. They are reviewing the site plan, storm water management, LEED requirements, traffic patterns, light pollution, pervious areas and a general community concurrence with the project. MNCP&P environmental planning division reviews the forest conservation plan required by the County and State and enforce forest conservation laws. This process can be done simultaneously with the design development phase.
12. The design development phase can proceed while the Mandatory Referral Process is ongoing. Design development will refine the schematic design and locate all the required spaces into the design.
13. At the end of the design development phase, a set of 35% documents will be reviewed by DOC staff to determine if the plans are progressing in accordance with the educational specifications and facility design guidelines.
14. At this stage a cost estimate will be developed and reviewed to compare to the original budget estimate.

15. Add alternates to the construction documents are items that the team would like to see incorporated into the plans and specifications that are over and above the educational specifications. Should adequate funding be available to accept any of the alternates, they would be considered in the award process. However, it is understood that the base bid would fulfill all the required specifications. The process of developing add alternates to account for 10% of the project bid is by request of the Board of Education and would begin at this time.
16. A value engineering review will begin during this stage to find the most cost effective ways to construct the project.
17. The design development documents are submitted to MSDE for review and comment.
18. Comments sent by MSDE are responded to and incorporated into the design when necessary.
19. The preparation of construction documents for finalizing the design begins.
20. When the construction documents are 65% complete, sets will be printed for review by DOC staff, school staff and curriculum coordinators along with the project architect to determine if the design meets the program needs and is following the educational specifications and facility design guidelines.
  - Staff comments will be incorporated into the design.
21. Another review of the cost estimate takes place to compare to the original budget estimate.
22. Now that the plan is more developed, more extensive value engineering can take place to review systems and plans for cost effectiveness.
23. Constructability reviews will be done by either the construction manager or an outside consultant to determine if the plans as drawn are constructible.
24. The list of add alternates will be finalized to include with the bid documents.
25. The last review (99%) of the construction documents takes place to be sure all previous comments from staff and constructability reviews have been incorporated into the plans.
26. The architect/engineer files for the required permits for the project.
- 26A. Construction permits are reviewed and obtained from the various agencies.

- 26B. Reviewing agency comments are incorporated into the construction documents.
27. The construction documents are submitted to MSDE for review and comment.
28. Comments sent by MSDE are responded to and incorporated into the design when necessary.
29. Plans are completed and the project moves into the bidding process.

# IGOE

Consultant Selection Process  
Facilities Guidelines  
Professional Design Standards  
Building Codes and Regulations  
Approved Preliminary Plans Brochure

## GUIDES

## INPUT

Facility Advisory Committee Output  
Phased Architectural Designs  
Design Team Review Comments  
Agency Review Comments  
Constructability Review Comments

## Design Process

## OUTPUT

Completed Drawings and  
Specifications for Bidding

## ENABLERS

Facility Advisory Committee  
Architect and Engineering Consultants  
MCPS Design Team  
DOC and DFM Director  
Board of Education