



**Standard Operating Procedure (SOP)
Design Review Process**

SOP No.	DC 4500	Revision:	0
Department:	Design and Construction	Date:	11/5/2013
Dept. Head Approval:	 11/5/2013		
Director Approval:	 11/12/13		

Purpose

Systematic design reviews are intended to provide all necessary stakeholders an opportunity to review, critique, and provide input regarding the design. Design reviews during the early stages of a project are important because changes are easier to make in early stages of design. Significant changes late in design result in delays, additional cost and increased design fees. Changes during construction are most expensive and most difficult to accommodate.

Referenced or Related Documents and Procedures:

- 1) SOP DC-1200 Administrative Project Approvals UPC and BOG
- 2) SOP: DC-4150 Approval of Design Guidelines and Construction Standards
- 3) Design Guideline: Section 0056000 Design Phase Estimates
- 4) Design Guideline Section 005004 Design Phase Requirements
- 5) Design Guideline Section 005006 WV State Fire Marshal

Responsibility

- 1) The following people are responsible for following this SOP.
 - a) Project Managers and Engineers
 - b) Campus Planners
 - c) Associate Directors and Departmental Managers

Procedure

- 1) General
 - a) Design Kick-off Meeting: The purpose of this meeting is to communicate the overall project goals and objectives to the stakeholders. The following information is shared: Approved Program of Requirements, Vision for Project, Design Process, Project Team, Schedule, and Budget.
 - b) Design Phase Milestones: After a Design Kick-off meeting, formal design reviews should be conducted at the Design Phase Milestones. In some cases it may be appropriate to have fewer or more frequent design reviews:
 - i) Schematic Design (SD)
 - ii) Design Development (DD),
 - iii) 95 % Construction Documents (CD)

- c) Design deliverables to be reviewed include reports, drawings, specifications, construction estimates, and schedule. (See DC 4300 for Design Deliverables)
- d) Design reviews may also be appropriate if a major change occurs in the design. These design reviews may often fall between the above noted milestones, or their review may be delayed to the following milestone. The need for a design meeting should be determined by the extent of the change.

2) Design Review Meetings and Documentation

- a) Design reviews are conducted at the end of each design phase. Design review periods should be incorporated into the design-phase schedule and communicated in advance. Adequate time should be allowed in the schedule for design reviews. Two to three weeks is typically adequate. All comments should be documented and transmitted to the Project Manager, who should then compile them and forward them to the Architect/Engineer.
- b) Distribution of Documents
 - i) Design Documents (Specifications and Drawings) should be distributed in advance of the design review meetings.
 - ii) All stakeholders should have access to an electronic version of design documents via an electronic file sharing method (e.g. FTP site or web-based system). A complete hard copy set of documents should be supplied to the End-User Group and FM Engineering. The Project Manager should keep a complete set of documents that can be made available for other users to review at the office of Design and Construction. Sub-sets or Sections of the documents should be supplied to stakeholders as needed for appropriate review.
 - iii) Meeting attendance should be documented via a sign-in sheet, collected at the end of the meeting and included with the distribution of Logs or minutes.
- c) The Project Manager should set up a series of meetings for key stakeholders to ask questions and provide comments to the Project Manager, Architect and Engineer. A design review meeting schedule and agenda should be published to all stakeholders in advance of the meetings.
- d) Documentation of Comments (Logs and Action Items)
 - i) Detailed Comment/Action Logs are required so each comment can be documented and assigned to a responsible party for timely completion of the task(s). Items completed should not be removed from the list, but noted as closed. The action item log should remain a living document throughout the design process.
 - ii) A portion of the comments/actions should be back-checked after they are acted upon.

3) Design Stakeholders/Reviewers

The project stakeholders can be broadly categorized into two categories: Programmatic Stakeholders and Operational Stakeholders (See Project Organizational Chart). Programmatic stakeholders represent the units or departments that will be housed within or use the facility. The Operational Stakeholders are primarily support departments that are responsible to operate and/or maintain the

facility. This section provides a list of the various Programmatic and Operational Stakeholders that should be involved in the design review process.

- a) Programmatic Stakeholders
 - i) Facilities Management, Planning and Scheduling Services
 - (1) Program of Requirements
 - (2) Space Standards
 - (3) Classrooms Standards
 - (4) Room Numbering
 - (5) Building Name
 - (6) Interior Signage and Exterior Sign Committee
 - (7) Furniture, Interior Design and Interior Finishes
 - (8) Exterior Architectural Style and Finishes
 - ii) University Planning Committee (UPC)
 - (1) Overall Project Scope and Budget and any changes thereto
 - iii) WVU Senior Administration (Vice President for Administration and Finance, and Senior Associate Provost) or Designated Project “Sponsor”
 - (1) Approval of Exterior Elevations and Renderings
 - (2) Approval of Site Layout
 - (3) Approval of SD Floor Plans
 - (4) Building Name
 - (5) Interior Finish Selections
 - iv) Departmental Dean, Director or Manager
 - (1) Overall Programmatic Design Goals
 - (2) Room Assignments
 - (3) Budget allowances for Owner Furnished equipment and components
 - v) Project Design Team Led by PM
 - (1) Refinement of Program of Requirements to Final Construction Documents
 - (2) Overall Design to meet end-user needs
 - (3) Adjacencies
 - (4) Floor Plans, Architectural Drawings, Interior/Exterior Design, and related Specifications
 - vi) Social Justice
 - (1) ADA Requirements
 - (2) Lactation Rooms
 - (3) Provisions for Disability Services (Vans)
 - vii) Historic Preservation Committee

b) Operational/ Technical

i) Facilities Management

- (1) FM Engineering (Manager of FM Engineering will serve as liaison to all departments under FM Maintenance)
 - (a) Vertical Transportation
 - (b) Utilities
 - (c) Energy Management
 - (d) Code Compliance
- (2) FM Central Shops (Mechanical, Electrical, and Structural/Roofing)
 - (a) Life Safety Systems (Fire Control)
 - (b) Lock Shop (Doors, Hardware and Keying)
- (3) FM Zone Maintenance
 - (a) Individual Zone Supervisors
- (4) FM Roads and Grounds
 - (a) Site Design
 - (b) Landscaping and Hardscapes
 - (c) Sidewalks and Driveways
 - (d) Exterior Grounds Improvements
- (5) FM Operations
 - (a) Custodial Space Requirements
 - (b) Custodial Considerations to design
- (6) FM Administrative Support
 - (a) Recycling
 - (b) FM Environmental Health and Safety (EH&S)

ii) EH&S (Designated Project Liaisons will coordinate reviews)

- (1) Life Safety – Liaison to State Fire Marshal
- (2) Hazardous Material Management during Demolition/Construction
- (3) Hazardous Materials Facilities
- (4) Sanitary Public Health
- (5) Fume Hoods /Lab Safety Cabinets
- (6) Roof Fall Protection and Facilities Hazards
- (7) Stormwater Management

iii) Parking and Transportation (AD)

iv) Facilities and Services - Office of Sustainability

v) University Police

- (1) Security Cameras and Public Safety Considerations

vi) Office of Information Technology

- (1) Communications Infrastructure, VOIP Cabling
- (2) Tele/data Closets
- (3) Wireless Equipment

(4) Connection to WVU Campus Fiber

vii) Electronic Card Access - Mountaineer Card

viii) CTEC Classroom Technology

ix) WVU TV Productions – Digital Information Stations

x) Distance Learning

c) External Operational Stakeholders and Regulatory Agencies

i) Local Public Utilities

ii) Morgantown Utility Board

(1) Water, Stormwater, and Sanitary Sewer

iii) City Of Morgantown

(1) Interface with City Rights of Way or Roadways

iv) WV Department of Transportation

v) WV Department of Environmental Protection (WVDEP)

vi) WV State Fire Marshal

(1) The Plans Review division of the State Fire Marshal's office must review all project designs that impact Life Safety Systems. Plans reviews should be coordinated through EH&S representative.

vii) Other Public Related Regulatory Agencies

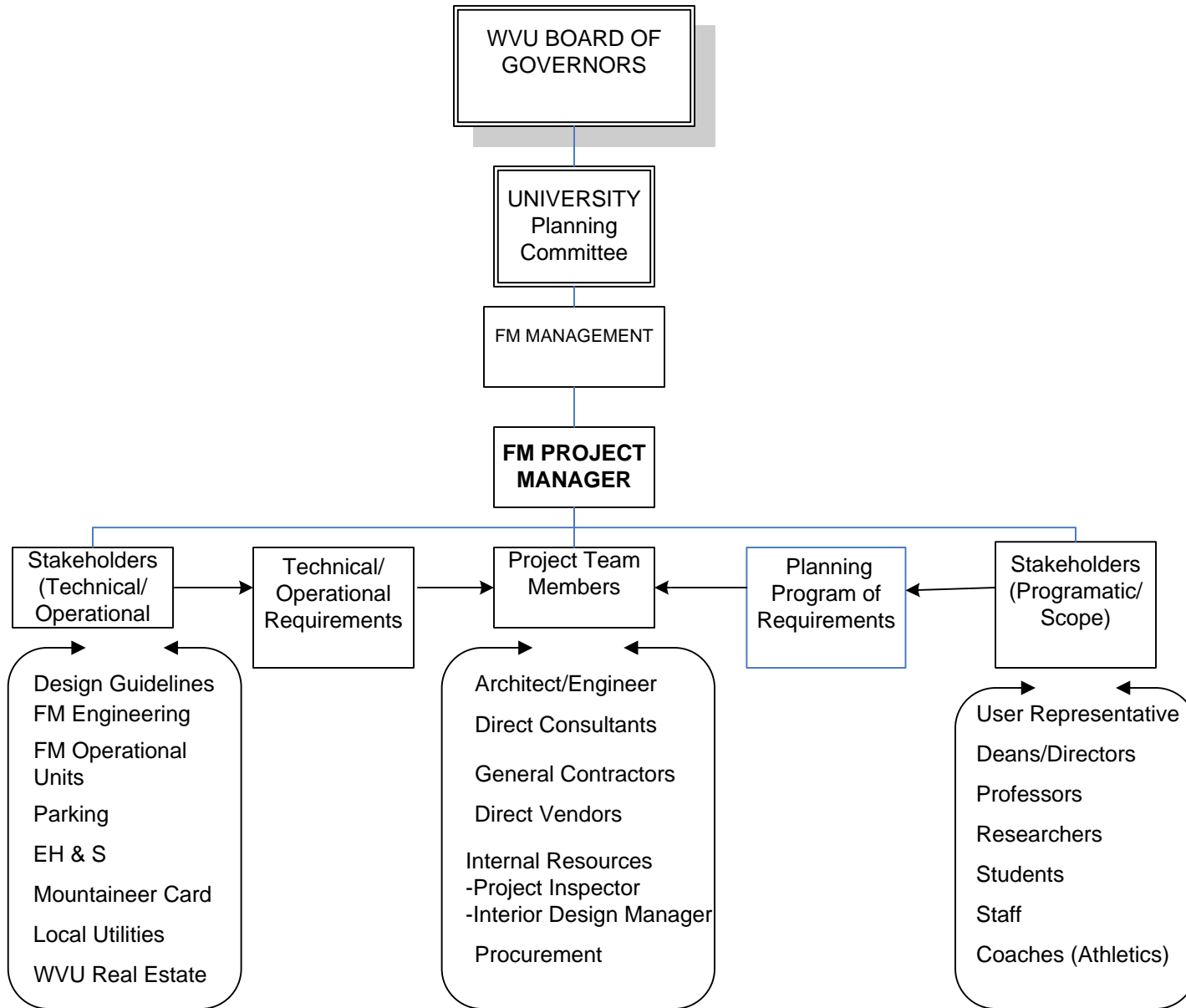
4) FM Design Guidelines and Construction Standards

a) WVU has developed Design Guidelines and Construction Standards (Standards) to communicate WVU's standards, minimum requirements and preferences. Compliance with these standards should be reviewed at the Design Review meetings.

These standards are located on WVU's web-site at:

http://facilitiesmanagement.wvu.edu/design_construction/construction_services/design_and_construction_standards/design_guidelines_and_construction_standards

CAPITAL PROJECT-ORGANIZATIONAL CHART



DESIGN REVIEW COMMENTS

Project Name: _____

Comment #	Discipline	Phase	Date	Dwg # / Spec #	Reference	Reviewer	Questions/Comments
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