

LIST OF DESIGN REQUIREMENTS & DELIVERABLES

SCHEMATIC DESIGN PHASE (SD)

SD General Requirements		Submittal Required
	Review program specifications upon receipt of authorization to begin work.	
	Attend planning conferences to receive instruction from the District.	
	Secure project planning information including information on U/G utilities and site constraints	
	Request any additional data needed from District	
	Submit listing of proposed consultants planned for the project.	
	Coordinate project with other District projects.	
	Consult with the campus, consulting architect, and campus landscape architect regarding the project when directed by the District.	
	Design the facility in accordance with all applicable codes and standards.	
	Participate in DSA collaborative process (Fire-Life-Safety, Structural, ADA Accessibility) prior to 75% SD submittal	
	Obtain approval of SD work in progress from District's CMPCT team	
	Modify or redesign the project as necessary to secure approval from the campus, validation from CMPCT, and approval from DSA.	
	Request and obtain approval from the Project Manager before initiating any work to modify the project documents which may require performance of extra services.	
SD Architectural Requirements		
	Site Civil and Landscape Drawings (Scale: Minimum 1 inch = 40 feet)	
	▲ Depict overall dimensions of proposed new or altered building(s).	
	▲ Depict and identify existing structures within a radius of 300 feet of project site. Indicate distances from proposed new buildings to adjacent existing buildings, property lines, and roadways.	
	▲ Depict major new exterior elements and, for alterations and additions, existing exterior elements that will remain in place. Show streets, service drives, easements, loading docks, parking areas, paved areas, walks, stairs, ramps, pools, retaining walls, fences, fire hydrants, above & below ground storage (dry & wet), and equipment.	
	▲ Depict proposed finished elevations of building entrances and major exterior elements	
	▲ Depict existing and proposed contours at one-foot intervals. Indicate method of general site drainage. Provide a written narrative on design grading and retention systems proposed. Discuss possible alternate systems.	
	▲ Provide sections through the site as needed to explain changes in levels within the proposed building as related to the site.	
	▲ Depict placement of ramps and other provisions for disabled access to the site and building.	
	▲ Depict landscape design	
	▲ Depict site demolition	
	▲ Show locations of existing utilities and proposed new utilities work.	
	▲ Document finding and design impacts from initial site investigations, geotechnical, and environmental reports.	

Floor Plans (Scale: Minimum 1/4 inch = 1 foot)	
▲ Indicate locations, room names, sizes (in assignable square feet), and space numbers for all programmed spaces and required gross area spaces including entrances, lobbies, corridors, stairs, elevators, toilet rooms, janitors' closets, and mechanical/electrical equipment rooms.	
▲ Indicate overall dimensions of major elements of the building.	
▲ Indicate building elements: walls, columns, doors, windows, openings, and major built-in equipment.	
▲ Indicate compliance with applicable disabled access codes.	
▲ Provide demolition plan if demolition required. Indicate existing work to be removed, and existing work to remain in place.	

Elevations and Sections (Scale: Minimum 1/16 inch = 1 foot)	
▲ Show all building elevations. Depict floor-to-floor dimensions, overall building height, and relationship to natural and graded ground contours.	
▲ Include sections as needed to explain the structure and its design features.	

Code Analysis Report & Plans	
Provide a narrative discussion and summary of building code issues, impacts and restrictions particular to this project. The outline shall include a written report and diagrammatic plan drawings delineating design criteria (e.g. exit paths, travel distances, required exits, rated walls, rated corridors, building occupancy, construction type, and fire zones). The analysis shall be updated for each design phase.	

Interdisciplinary Coordination Review	
Provide a narrative discussion of methodology used to segregate structural, mechanical electrical and plumbing systems. Describe any zoning or hierarchies used.	

Building Materials and Massing	
▲ Provide display board with mounted samples of actual proposed exterior materials.	
▲ Provide study models as needed to analyze various alternative building site locations and building massing schemes.	
▲ Provide narrative description of the design concept and important features of the Project.	
Basis of Design Report (Building Envelope)	
Provide analysis of at least two alternate building envelope solutions as part of the initial 75% progress SD review.	

SD Structural Requirements

Provide detailed written description of recommended structural system and the basis for recommending this system over other approaches.	
Provide conceptual foundation and structural framing plan of a typical floor. Indicate via a dimensioned grid reference system, columns, load-bearing walls, shear walls, footings, and related items.	

SD Plumbing Requirements

Provide written analysis of calculated load demands of proposed new plumbing systems, the design demand of the project, and the capacity of the existing plumbing systems, if any. Show domestic water, sanitary systems, natural gas, domestic water, storm retention and release, and fire protection sub-systems.	
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	Provide analysis of male and female fixture count and location with a comparison to plumbing code minimum requirements.	
	Provide plumbing plans with diagrammatic water service, storage, roof drainage, fire risers if applicable, and invert elevations at points of connection with site utilities.	

SD HVAC Requirements

	Provide written analysis of calculated loads of proposed new HVAC systems, and description of recommended system with the basis of recommendation over other approaches..	
	Provide a conceptual single-line mechanical diagram showing major ducts and equipment. Identify sizes and locations of major equipment items including cooling towers, chillers, pumps, fans, air-handling units, compressors, and related items.	
	Determine capacity of existing systems, if any, based on an examination of the facility's record drawings, an inspection of the existing system, and test reports.	
	Provide description of proposed fume hood ducting and exhaust system.	
	Show air intake and exhausts and demonstrate how air entrainment is avoided.	

SD Electrical & Telecom Requirements

	Provide site plan showing proposed method of service for electrical power, telecommunications, and fire alarm systems	
	Provide single-line diagram showing:	
	▲ Method of service (campus or local utility)	
	▲ Major transformers and transformer substations	
	▲ Major switchboards, motor control centers, and panel and distribution boards	
	▲ Major components of emergency power	
	▲ Major components of telecommunications system:	
	▲ ▲ Building Distribution Facility (BDF)	
	▲ ▲ Intermediate Distribution Facility (IDF)	
	▲ ▲ Proposed point of connection to campus backbone	
	▲ ▲ Narrative on proposed system design, media type conduit routing and access	

SD Estimated Project Construction Cost

	Provide estimate of the total construction cost of the Project. Estimates for building projects shall be arranged in CSI Unifomat detailed to Level 2.	
	Provide written narrative explaining in detail any deviation from the initial project budget. Be prepared to present program or design adjustment alternatives for District consideration when adjustments are needed to bring the project scope, project schedule, and construction budget into alignment.	
	Bring any unusual cost item to the attention of the District's Project Manager.	

SD Project Schedule

	Develop a simple project schedule identifying the following items. This schedule shall be reviewed with the Project Manager at all project meetings and updated by the Architect at each submittal.	
	▲ Project phase submittals (from Project Assignment)	
	▲ Review times assumptions	
	▲ Submittal dates for District Team review and submittal of CMPCT items	
	▲ CMPCT meeting date	
	▲ Plan submittal (from Project Assignment)	
	▲ Back check submittal (from Project Assignment)	
	▲ Pre-bid operations	
	▲ Construction duration	

▲ Furnishing/installation of Group II equipment	
▲ Commencement of operations/classes	

SD Basis of Design Reports

Prepare a schematic phase Basis of Design Report for the following systems:	
▲ Building Envelope	
▲ HVAC	
▲ Lighting	

SD Area Calculations (JCAF 31)

At 100% SD submittal, provide a summary using Job Cost Accounting Form (JCAF) 31 to compare the area allocation in the Program specifications presented in the capital outlay request with the area allocations in the SD. Summary must include the total assignable area, total gross area, and resulting percentage efficiency of the design.	
Develop a space-by-space comparison of the SD documents' ASF with the project program's ASF. These tabulations shall be made by floor and program component and include totals for the building or renovated area as a whole.	
Provide a detailed written explanation of any major deviations from the area allocations in the program specifications presented in the capital outlay request.	

SD Presentation to CMPCT

Architect shall make a progress SD presentation to District Team early enough in the development of the phase (approximately 75%) so that design comments from this review meeting can be effectively incorporated into the final 100% SD submittal for CMPCT approval. Submittal requirements include:	
▲ The latest approved Physical Master Plan (available from District)	
▲ A colored 'presentation' site plan, showing the shape and location of adjacent improvements, landscaping, shadows, and paving patterns	
▲ A plan of each floor	
▲ All elevations	
▲ Sections necessary to show basic structural and vertical space organization	
▲ A colored rendering perspective view, cast to provide a single overall view of the project from eye level. Samples of the rendering style shall be submitted to the Project Manager for approval prior to beginning rendering.	
▲ A color photograph of the project site taken from a vantage point approximating that of the rendering.	
▲ An estimate of the total construction costs	
▲ Basis of Design reports for building envelope, HVAC, and lighting.	
Adjust and complete SD incorporating comments received from the District team.	
Prepare the following Presentation Materials for CMPCT Meeting:	
▲ Provide in .JPG format on CD-ROM electronic image files of above items (except for cost estimate and Basis of Design reports). (.JPG format shall be sized with an image area exclusive of titles and borders of 1024 x 768 resolution or greater.)	
▲ Provide a display board of the project rendering. Rendering shall be mounted on a rigid, non-warping base.	