

## EDITED TASK LISTING

**CLASSIFICATION: ENGINEER, CIVIL**

**NOTE: Each position within this classification may perform some or all of these tasks.**

Task Statements	
1.	Prepare engineering design documents (e.g., maps, plans, charts, diagrams, specifications, etc.) and estimates for various types of construction and maintenance projects including buildings, roads and retaining walls to provide direction to the field utilizing various resources (e.g., engineering software, manuals, hand drafting equipment, calculator, Design Construction Policy Guidelines (DCPG), Standard Design Documents (SDD), Design Criteria Guidelines (DCG), California Building Codes (CBC), etc.), as directed.
2.	Plan the survey scope for various types of construction projects to produce action plan utilizing existing site maps and previous project as-built site plans, as needed.
3.	Direct survey parties to produce topographic maps and elevation studies utilizing survey equipment, as needed.
4.	Conduct foundation studies for various types of construction projects to make a recommendation regarding building footing design utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, computer, calculator, engineering software, etc.), as needed.
5.	Observe structures under construction to ensure conformance to plans and specifications utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, tape measure, calculator, etc.), as needed.
6.	Provide construction support to assist construction crew in resolving issues of construction methods and materials utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, professional knowledge, industry standard techniques, etc.), as directed.
7.	Inspect existing structures to determine if repairs are necessary and identify the magnitude and methods of repairs utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, tape measure, calculator, professional knowledge, industry standard techniques, etc.), as directed.
8.	Determine the hydraulic properties of stream channels, hydraulic systems, structures and analyze hydrologic data to determine flood frequencies, unit hydrographs, precipitation, stream flow and ground water utilizing various resources (e.g., engineering software, manuals, calculator, etc.), as needed.
9.	Design site grading plans to provide erosion control measures and storm-water management plans utilizing various resources (e.g., engineering software, manuals, DCPG, DCG, SDD, CBC, computer, hand drafting equipment, calculator, professional knowledge, industry standard techniques, etc.), as directed.
10.	Analyze site grading plans to determine adequacy of erosion control measures and storm-water management plans utilizing various resources (e.g., engineering software, manuals, calculator, DCPG, DCG, SDD, CBC, computer, hand drafting equipment, professional knowledge, industry standard techniques, etc.), as directed.

*Tasks highlighted in bold text are not currently on the SPB classification specification*

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11.	Prepare written documents for the Design Environmental Services and Standards Branch to provide information and documentation utilizing various resources (e.g., engineering software, manuals, calculator, DCPG, DCG, SDD, CBC, computer, hand drafting equipment, professional knowledge, industry standard techniques, etc.), as directed.
12.	Keep the necessary records pertaining to construction progress to produce project as-built documents utilizing various resources (e.g., Microsoft Office software, filing system, copier, etc.), as needed.
13.	Confer with construction crew regarding compliance with plans and quality of work and construction activity to ensure conformance with applicable codes and standards utilizing various resources (e.g., engineering software, manuals, calculator, DCPG, DCG, SDD, CBC, computer, hand drafting equipment, professional knowledge, industry standard techniques, etc.), as needed.
14.	Review the consultant's work products to ensure conformance with applicable codes utilizing various resources (e.g., engineering software, manuals, calculator, DCPG, DCG, SDD, CBC, computer, professional knowledge, industry standard techniques, etc.), as directed.
15.	Provide support and update of project documentation by identifying information necessary to maintain an accurate and complete historical record in the project folder utilizing departmental policies and procedures, as needed.
16.	Perform field surveys to collect essential information for preparing a design utilizing camera, tape measurements and interview with institutional staff, as directed.
17.	Consult with construction crew to provide information, alternative construction methods, review change orders and respond to request for information (RFI) utilizing, DCPG, DCG, SDD and CBC, professional knowledge, interpersonal skills, as needed.
18.	Conduct value engineering analysis for various projects to provide possible cost saving alternatives utilizing various (e.g., engineering software, manuals, DCPG, DCG, SDD, CBC, professional knowledge, etc.), as directed.
19.	Analyze description of property to ensure new structure is constructed within State property line utilizing survey reports, as needed.
20.	Perform technical studies, investigations and research work on a wide variety of civil and structural projects and or issues to determine solutions utilizing DCPG, DCG, SDD, CBC, professional knowledge, industry standard techniques, interpersonal skills, as needed.
21.	Prepare written reports of engineering assessment to provide recommendations on engineering problems utilizing DCPG, DCG, SDD, CBC, professional knowledge, industry standard techniques, interpersonal skills, as requested.
22.	Review various construction documents produced by other entities to ensure conformance with design documents and applicable codes utilizing various resources (e.g., engineering software, manuals, calculator, DCPG, DCG, SDD, CBC, computer, professional knowledge, industry standard techniques, etc.), as directed.

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23.	Communicate in a professional and effective manner to establish and maintain effective working relationships with other entities utilizing tact and interpersonal skills on an on-going basis.
24.	Interact with Construction Services Branch (CSB), state construction supervisors, institution staff and capital outlay staff to provide information, resolve construction issues, ensure construction quality and maintain design standards utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, professional knowledge, industry standard techniques, interpersonal skills, etc.) within specified timeframes on a regular basis.
25.	Prepare project status reports in order to provide information to clients and team members on the progress of projects, utilizing departmental database software, departmental policies and procedures, as needed.
26.	Coordinate document reviews and approvals by applicable jurisdictional authorities (e.g., State Fire Marshal (SFM), State Historical Society, etc.) in order to produce approved designs and construction documents utilizing back-check meetings, departmental policies and procedures, as needed.
27.	Manage in-house design projects with engineering and architectural disciplines to ensure designs conforms to the budget, institutional needs, DCPG, DCG and CBC utilizing various resources (e.g., computer, professional knowledge, scheduling, etc.), as directed.
28.	Participate in training for work development in order to improve project leadership/management skills, morale, design and technical knowledge utilizing State funded training, departmental training, etc., as needed.
29.	Interact with manufacturing/industry representatives in order to obtain technical product information utilizing computer, telephone and personal contact in accordance with departmental policies and procedures, as needed.
30.	Assist Facilities Asset Management Branch (FMB), Project Management Branch (PMB) and their design professionals in developing comprehensive submittal packages utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, professional knowledge, industry standard techniques, interpersonal skills etc.), as needed.
31.	Assist clients with various project documents and reports used to establish scopes, budgets and schedules to support the client's funding request with the Department of Finance (DOF) in accordance with applicable regulations, legislative mandates and client requirements, as needed.
32.	Consult with institution plant operations personnel to provide technical information, recommendations on engineering concerns utilizing various resources (e.g., manuals, DCPG, DCG, SDD, CBC, professional knowledge, industry standard techniques, interpersonal skills etc.), as needed.