

PROJECT TECHNOLOGIST

NATURE OF WORK

This is technical work in the design and preparation of plans and specifications, as well as, contract administration for multi disciplined engineering, architectural or mechanical alterations to existing university buildings and facilities.

Work involves responsibility for the design and preparation of plans for alterations and repairs to existing buildings and facilities. Work also involves estimating costs involved in proposed projects and scheduling of contractors to perform required work. Assignments consist of specific projects and normally include instructions as to general policies and procedures, where the employee is expected to make technical decisions. Planning of assignments requires ability to interpret broad guidelines, to work with dated floor plans and specifications, and to anticipate the need for details in advance. Work also involves the inspection of work in progress to ensure adherence to approved specifications and requirements of projects. Work is reviewed by the immediate supervisor through consultation and analysis of completed work.

ILLUSTRATIVE EXAMPLES OF WORK

Discusses requirements of alterations, repairs, remodelling and space planning with appropriate officials; records field notes and measurements; conducts research using existing blueprints, equipment manuals and design ideas; makes preliminary studies; prepares and drafts rough designs, plans and specifications for offices, student laboratories, computer laboratories, etc.; estimates labour and materials required for proposed renovations; and informs requesting department representatives of approximate total cost involved.

Prepares working drawings using computerized software; determines quality and quantity of materials using industry standards, calculations or reference books; details all technical information specifications using the National Master Specification guidelines; prepares tender and acceptance forms; responds to technical queries from bidders.

Reviews existing mechanical, electrical and architectural drawings to ensure that proposed plans are compatible with existing structures; develops design of such alterations; complies with building and life safety codes and with internal security and safety requirements.

Plans and coordinates interior space utilization; coordinates and schedules relocation from one area to another; assists in the interior design selection including furniture layout and selection and finish, colour and fabric selections.

Designs the layout and functionality of the Facilities Atlas Application using computer aided and visual management programs; meets with Facilities Management managers to discuss

applications specific to area of responsibility; generates reports, graphs and floor plans; and updates floor plans.

Contacts manufacturers and suppliers regarding availability, cost and delivery time for equipment, machinery, furnishings and parts necessary for proposed plans.

Prepares tender on bid requests for necessary work; responds to enquiries concerning the tender; approves substitutes to tendered items if impact on project is not significant; reviews tenders on bids received; assists supervisor in determining the most appropriate contractor for proposed project; meets with successful bidder to view job site; arranges for security, access, etc., with other units of Facilities Management; and coordinates work for completion.

Administers the project; advises contractors on problems encountered, such as departmental requests for further or different alterations, structural limitations not illustrated on design plans and scheduling problems; checks work in progress for conformance with specifications; monitors the progress of projects under construction to ensure user satisfaction, quality control and compliance with the budget; discusses any discrepancies with contractors; resolves differences between plans and specifications when such differences do not involve questions of significant cost or engineering design; acts as the first line of resolution concerning work problems with contractors on-the-job; reviews and recommends for payment contractor progress claims.

Coordinates required internal activities through the Work Control Centre and other sections of Facilities Management.

Surveys parking lots and outside locations to determine necessary specifications for proposed changes.

Inspects roofs and exteriors of buildings to determine necessary specifications for proposed repairs.

Establishes and maintains harmonious work relationships with contractors on the job and with client departments in explaining specifications and departmental policies applicable to construction projects.

Conducts special studies as assigned; prepares blueprints; performs drafting, surveying and related activities incidental to principal responsibility.

Assist supervisor in performing work relating to major construction projects.

Perform related work as required.

REQUIREMENTS OF WORK

Considerable experience in engineering or architectural drafting and design; graduation from high school supplemented by completion of a three year program in Architectural Engineering Technology; or any equivalent combination of experience and training which provides the following knowledge, abilities and skills:

Considerable knowledge of the terminology, methods, practices and techniques of construction design and drafting.

Knowledge of computerized drafting.

Knowledge of the methods and materials used in building remodelling work.

Knowledge of cost estimation of labour and materials for construction projects.

Knowledge of the applicable building codes relating to mechanical, plumbing and electrical areas.

Ability to understand and follow construction plans, sketches, drawings and blue prints.

Ability to gather and interpret data required to complete tasks.

Ability to interpret broad guidelines and anticipate technical requirements in advance.

Ability to administer multi disciplined renovation, repair and construction projects.

Ability to prepare and present written cost summaries of proposed repair and alteration projects.

Ability to inspect and evaluate the work done by contractors to ensure that performance is of an acceptable standard.

Ability to operate blueprint machine and surveying instruments.

Ability to establish and maintain effective working relationships with contractors, officials, department heads and employees.

Ability to compute related calculations for square footage, lighting, ventilation, cooling, heating loads, etc.

Skill in designing alterations to buildings and structures and in preparing drawings and specifications.

Skill in the use of computerized and manual drafting equipment

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