



POSITION DESCRIPTION

JOB TITLE: Mechanical Engineer		Job Class: 3584
DATE	DEPARTMENT OR SCHOOL Office of Operations	DIVISION Facilities and Maintenance Services
BARGAINING UNIT: ASC		FLSA STATUS: ___ Exempt ___ Non exempt
Pay Schedule:	Pay Range:	APPROVALS
<p>POSITION SUMMARY: (Describe the general nature and level of work performed by this position.)</p> <p>Provides professional engineering support to review, design, troubleshoot, manage and inspect current and proposed mechanical systems throughout the Milwaukee Public Schools system. Coordinates design efforts of outside consultants with in-house personnel. Maintain MPS database of all mechanical and utility services.</p>		

DESCRIPTION OF THE JOB: DESCRIBE THE SPECIFIC DUTIES AND RESPONSIBILITIES OF THE JOB AS ACCURATELY AND COMPLETELY AS POSSIBLE. Indicate the approximate percentage of time devoted to each major task or group of related tasks. Identify essential functions of the job with an asterisk (*) An essential function must meet the following criteria: 1) the reason the position exists is to perform that function, 2) no other employee is available to perform that function, 3) the function is highly specialized, and 4) removing the function would fundamentally alter the job.

1. Manages the Mechanical, Electrical and Plumbing (MEP) projects from inception to completion.
2. Develops scope and budget for Capital and School funded MEP projects.
3. Reviews construction documents for compliance with MPS standards and scope. Coordinates consultant activities to assure scope is adequately identified.
4. Prepares and seals construction documents for MEP systems in AutoCAD. Prepares proposals for pre-purchasing major MEP equipment.
5. Directs MPS trade shop inspectors to assure construction standards are met.
6. Resolves field conflicts with contractors, consultants, existing conditions and construction documents.
7. Provides professional input for other District initiatives, such as additions and remodels.
8. Makes recommendations relative to changes in existing methods and procedures related to MEP activities.
9. Provides professional input for procedures and methods for solution of indoor air quality issues as a member of MPS' Indoor Air Quality Committee.
10. Develops and implements overall energy budget and strategy for the District. Prepares energy analysis and provides recommendations for district energy conservation efforts.
11. Develops and maintains MPS master MEP guide specifications. Develops and maintains MEP information database.
12. Actively supports the MPS Strategic Plan.
13. Performs other duties as assigned.

SUPERVISION RECEIVED: (Indicate the extent to which work assignments and methods are outlined, reviewed, and approved by others.)

Limited supervision required. Implements overall plans as developed by Manager, Design and Construction and Manager of Maintenance and Repair. Plans and arranges own work schedule.

SUPERVISION EXERCISED: (List the number and titles of personnel directly supervised. Specify the kind and extent of supervision exercised by indicating one or more of the following: (a) assign duties; (b) outline methods; (c) direct work in process; (d) review completed work; (e) sign or approve work; (f) make hiring recommendations; (g) prepare performance appraisal; (h) take or recommend disciplinary action.

May have lead worker responsibilities over a draftsman, part-time co-op students or craftsmen working on special studies/projects. Coordinates various personnel to complete projects as assigned. Assigns duties, outlines methods, directs the work, reviews completed work, and signs and approves work. Responsible for sign off of various projects.

JOB REQUIREMENTS: To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and ability required. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

Education Requirements (Include certificates, licenses, and/or registrations required.)

Bachelor's of Science degree in mechanical engineering from a school approved by the Accreditation Board for Engineering and Technology (ABET), with an emphasis in the design and application of heating, ventilating and air conditioning systems for educational/commercial buildings. Registration as a professional engineer in the State of Wisconsin is required.

Must possess a valid State of Wisconsin driver's license and provide a properly insured automobile for use on the job.

Experience Requirements

Minimum of seven (7) years of experience in design, developing specifications, cost estimating, planning and construction, inspection and project management related to MEP systems. Minimum three (3) years of experience in the operation of an AutoCAD work station and word processing programs and spreadsheets. Experience working in a multi-campus environment.

Knowledge, Skills, and Abilities

Advanced knowledge for engineering and design of heating and associated equipment distribution (Steam, Hot Water, Furnaces); ventilation and associated equipment and distribution (Constant Volume, Variable Volume, Dual Duct, Multi-Zone, Exhaust); air conditioning and associated equipment and distribution (Air and Water cooled Chilled Water, Direct Expansion, Ice Storage, Food Storage); cooling towers and associated equipment and distribution; building automation systems and associated programming, components and interconnection to equipment including direct digital, pneumatic, and electric and fuel oil storage and associated distribution.

Working Knowledge for the direction of consultants of plumbing (Potable and Non-Potable Cold, Hot and Hot Water Return, Sanitary, Storm, Domestic Water Heating, Kitchen Equipment integration, Solar Heating, Site); elevators and related systems (Hydraulic and Traction); lighting and lighting control including Stage Lighting; Fire Alarm, Mass Notification and associated Wireless Remote Monitoring; Area of Rescue Assistance; On Site Power Generation (Generators and Solar); Building and Security Access Controls; Energy Management Systems and Fire Protection (Hydronic, clean agent).

Must have a working knowledge of Microsoft Excel and Word. Demonstrated experience in writing technical reports as well as general correspondence. Ability to communicate with a variety of personnel at various levels of experience. Ability to evaluate various design and construction methods based on technical data, material history and constructability. Organizational skills as required to work on up to (70) projects at one time in various stages of completion. Must be able to effectively communicate with the public, District personnel, contractors, tradesmen, design professionals, regulatory and governing agencies.

WORKING ENVIRONMENT: The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

General office environment. Occasional school/site visits. May be exposed to dirty and dusty conditions. Ability to climb and work at various heights and in hazardous and confined environments. Subject to irregular working hours including after hours and weekend work.

PHYSICAL DEMANDS: The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job with or without reasonable accommodation.

THIS DESCRIPTION DOCUMENTS THE GENERAL NATURE AND LEVEL OF RESPONSIBILITY ASSOCIATED WITH THIS POSITION. IT IS NOT INTENDED TO BE A COMPREHENSIVE LIST OF ALL ACTIVITIES, DUTIES AND RESPONSIBILITIES REQUIRED OF INCUMBENTS. IT IS NOT INTENDED TO LIMIT OR MODIFY THE RIGHT OF ANY SUPERVISOR TO ASSIGN, DIRECT, AND MONITOR THE WORK OF EMPLOYEES UNDER SUPERVISION.