

CITY OF MILPITAS
Effective: June 1985
Revised: July 2013
EEOC: Professional
FLSA: Exempt
Unit: Mid-Mgmt /Confidential
Physical: 1

PRINCIPAL CIVIL ENGINEER

DEFINITION

The Principal Civil Engineer leads, supervises, plans, coordinates, and participates in one of the Engineering Sections of the Engineering Division or Building Department. Engineering sections include Design and Construction, Land Development, Traffic, and Utility. The Principal Civil Engineer provides professional and technical engineering expertise relative to his or her assigned area of responsibility and serves on the Department Director's management team.

SUPERVISION RECEIVED AND EXERCISED

Depending on assignment within the organization, receives direction from the Public Works Director, City Engineer, Assistant City Engineer, or Chief Building Official.

Exercises direct and indirect supervision over professional, technical and clerical staff within assigned section.

EXAMPLES OF DUTIES - Duties may include, but are not limited to, the following:

Lead, supervise, plan, administer, coordinate, and participate in the activities of a major engineering section;

Provide professional and technical engineering expertise relative to assigned area of responsibility;

Serve as part of Departments Senior Management team by assisting in development and implementation of Department goals, policies, procedures and priorities;

Supervise, train, and evaluate assigned professional, technical, and clerical staff;

Interpret, apply, and prepare revisions as appropriate for relevant codes, ordinances, rules and regulations;

Develop and administer assigned section budget, administer and/or oversee consultant and other contracts, provide technical review and approval of all payments and billing for contracted services, and track section costs;

Review and sign engineering drawings, plans, specifications, studies, and reports;

Coordinate engineering activities with other City departments and divisions as appropriate;

Serve as staff to a variety of City and outside commissions, boards and committees as assigned;

Conduct special engineering studies relative to assigned area of responsibility; prepare appropriate reports and analyses; and

Perform related duties as assigned.

Additional tasks and duties of specific engineering sections are described in Addenda 1-3 for the Design and Construction Principal Civil Engineer, Land Development Principal Civil Engineer, and Utility Principal Civil Engineer.

QUALIFICATIONS

Knowledge of:

- Principles and practices of civil engineering as applied to development, municipal public works, and water/wastewater utilities.
- Applicable laws and regulatory codes related to development, water, sewer, solid waste, and storm systems, public contract administration, urban runoff pollution control, and public works construction.
- Methods and techniques used in the design and construction of a variety of public works projects.
- Principles of organization, administration, budget and personnel management.

Ability to:

- Interpret and apply applicable codes, ordinances, rules and regulations related to development and construction,
- Interpret, review and analyze development proposal, plans, and specifications,
- Perform professional and technical support services relative to assigned area of responsibility,
- Perform engineering analysis, prepare engineering reports, and provide engineering recommendations,
- Communicate effectively, orally and in writing,
- Provided written and oral reports to the City Council and other committees and commissions,
- Establish and maintain effective work relationships with developers, contractors, engineers, City staff and the general public, and
- Supervise, train and evaluate assigned staff.

EXPERIENCE AND EDUCATION

Experience: Five years of increasingly responsible civil engineering experience, including significant supervisory responsibilities. A significant portion of experience with public agencies is highly desirable.

Education: Bachelor of Science degree from an accredited college or university with major course work in civil engineering or closely related field.

License or Certificate

- Registration as a Professional Civil Engineer in the State of California.
- Possession of, or an ability to obtain and maintain, a valid driver’s license from the State of California.
- **When assigned to Utility Engineering:** Possession of D-2 Water Distribution Certificate is desirable.

SPECIAL REQUIREMENTS:

Essential duties require the following physical abilities and work environment.

Work is performed primarily in an office environment and at construction sites; extensive use of the telephone, radios, and computers with repetitive keyboarding; ability to walk on uneven ground; and drive to various locations daily. Ability to work safely in a hard-hat construction zone is essential.

Approved by:

City Manager

Date

Human Resources Director

Date

- Addendum 1: Design and Construction Principal Civil Engineer
- Addendum 2: Land Development Principal Civil Engineer
- Addendum 3: Utility Principal Civil Engineer

Addendum 1 Design and Construction Principal Civil Engineer

This position manages the Design & Construction Section of the Engineering Division. The section prepares a 5-year Capital Improvement Program (CIP) plan, which is adopted by the Council annually. This section administers the approved CIP, including project management of the design and construction of streets, water, sewer, parks, building, and storm drain projects. This section also performs special studies, such as Parks Master Plans, which lead to the design and construction of projects.

To fulfill the position responsibilities, general knowledge and experience in the following specific areas is desirable:

- **Capital Improvement Programs** including preparation of CIP document cost estimating, preparation of work scope, administration and preparation of annual reports.
- **Public Presentations** including Council meeting and Planning Commission presentations, Community meeting presentations, and other public meetings as required;
- **Civil Engineering design and construction** of street improvements, utilities and other public infrastructure improvements including knowledge of plans and specifications preparation for public contracts, preparation of consultant agreements, construction contracts, agency cooperative agreements and other agreements.
- **Contract Specifications** including knowledge of current Public Contract provisions for a General Law City, CSI and Caltrans specification formats, contract provisions for public safety, compliance with regulatory agencies, construction administration, bid procedures, contract compliance, and technical specifications.
- **Urban Runoff Pollution Control** including management of construction sites, permanent best management practices and enforcement for Private development.
- **Construction Contract Administration** including inspection requirements, contract compliance requirements and enforcement, preparation project critical path schedules and analysis, claims avoidance and resolution, start up and acceptance procedures. **Computer Applications** including programs required for effective production and management of the engineering, financial and other management products.
- **Public Presentations** including Council and Planning Commission meeting presentations, community meetings, and other public presentations as required.

Addendum 2 Land Development Principal Civil Engineer

This position manages the Land Development Engineering Section of the Engineering Division. The section reviews and approves all subdivision maps, grading and erosion control plans, and developer public improvement plans; issues encroachment permits for construction work within the City's public right-of-way; administers the National Flood Insurance program, and Local Improvement, Community Facilities and Landscape Maintenance Districts; maintains utility plats showing water, sewer, recycled water, and storm drain facilities, provides public access for all City drawings, deeds, maps assessment district diagrams, aerial photos, and utility drawings, and performs Geographical Information Systems (GIS) mapping updates and maintenance. The section also performs special studies, such as the Storm Master Plan, which leads to the development of engineering standards and design and construction of projects.

The Land Development Engineer will meet and confer with developers, contractors, engineers and the general public relative to City policies, regulations, and engineering standards and procedures; coordinate discrepancies and resolve problem situations with outside parties, oversee land and easement acquisition activities, supervise the preparation, updating and maintenance of maps and records, and prepare and/or review improvement agreements.

To fulfill the position responsibilities, general knowledge and experience in the following specific areas is desirable:

- **Local Improvement District, Community Facilities and Landscape Maintenance District** formation, administration and preparation of annual reports.
- **National Flood Insurance Program** administration, including audit reports and preparation of annual reports.
- **Encroachment permits** including review of plans from private developers, utilities and other agencies requiring construction within the City's Public Right-of-Way.
- **Private Development** including plan review and verification of compliance with City Engineering Standard Plans and Specifications, coordination of plan reviews with other City departments. Calculation and establishment of various City development fees, including sanitary, water and storm drain connection fees.
- **Urban Runoff Pollution Control** including management of construction sites, permanent best management practices and enforcement for private development.
- **Subdivision Map review and approval** including drafting of public improvement agreements, conditions of development and determination of easement and other development agreements.
- **Automated Mapping** including management of City's digital parcel-based map and digital utilities map, and experience working with AutoCAD Map and Geomedia Pro.
- **Computer Applications** including programs required for effective production and management of the engineering, financial and other management products.
- **Public Presentations** including Council and Planning Commission meeting presentations, community meetings, and other public presentations as required.

Addendum 3 Utility Principal Civil Engineer

The Principal Civil Engineer manages the Utilities Engineering Section of Public Works. The City is a water retailer, and owns and maintains water distribution systems retailing from two potable water suppliers: San Francisco Public Utility Commission and the Santa Clara Valley Water District. It also operates a recycled water system. In addition, the City owns and operates a sewage collection system with two pump stations. . The City also manages a citywide solid waste collection franchise. The City manages an Urban Runoff Pollution Prevention Program.

The candidate shall have sanitary (water and wastewater) engineering or environmental engineering training and/or experience with emphasis on safe water distribution and wastewater collection operations, knowledge of urban runoff pollution control, and background in solid waste collection management practices. To fulfill the position responsibilities, general knowledge and experience in the following specific areas is desirable:

- **Potable Water Supply** including Safe Drinking Water Act requirements, emergency contingency planning, wholesale water purchases and contract administration, and retail rate setting.
- **Recycled Water Supply** including cross connection control, and retail rate setting.
- **Wastewater Collection** including the State sanitary system management planning mandates, and retail rate setting.
- **Urban Runoff Pollution Control** including management of a Municipal Stormwater Permit, permanent best management practices, storm water fee and rate setting.
- **Solid Waste Collection Services** including management of franchise trash and recycled material collection agreements, compliance with AB341 mandatory recycling requirements, household hazardous waste management, customer outreach services, and retail rate setting.
- **Utility System Functional Design** for water distribution, and wastewater collection systems, including hydraulic modeling.
- **Regional Coordination** for potable and recycled water supplies, wastewater collection, urban runoff and solid waste collection.
- **Budgetary Projections and Planning** for enterprise funds.
- **Computer Applications** including programs required for effective production and management of the engineering, financial and other management products.
- **Public Presentations** including Council and Planning Commission meeting presentations, community meetings, and other public presentations as required.

The section also performs special studies support to engineering design and construction, construction inspection, operating and maintenance, planning department, building department, fire department, and finance department staff. As such, the candidate must be able to develop and maintain very good communications and positive work relationships with City staff, consultants, and contractors.

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Evaluations and programs may include odor control, utility resource planning, and asset management, cross connection evaluations, hydraulic studies, and cost/benefit studies.

Desirable Additional Utility Engineer Certificates:

- D-2 Water Distribution Certificate