

## CONSTRUCTION INSPECTOR I

### JOB DESCRIPTION

**Classification Responsibilities:** A Construction Inspector I performs quality assurance inspections on a variety of civil engineering and public works projects completed by the City, private developers, and utility companies, ensuring the projects meet appropriate City and industry standards. The Construction Inspector I will work with the Chief Construction Inspector and Project Manager to coordinate construction activities with contractors and the project team as well as attend various meetings to provide status updates, identify problem areas, and recommend resolutions. Other duties include: monitors quality control testing and coordinates quality assurance testing activities for placed materials (examples: concrete, asphalt, embedment/backfill of underground utilities, etc.), updates record drawings as needed, investigates customer complaints, and maintains contract document files. If workload dictates, the Construction Inspector I could move to any of three assignment areas (horizontal, vertical, right of way). The position performs related duties as required.

**Horizontal Projects Assignment:** A Construction Inspector I will inspect various types of horizontal construction including paving, water line, sanitary sewer, storm sewer, and traffic signalization for compliance with contract documents (plans, technical specifications, special provisions, Maricopa Association of Governments details, etc.).

**Right of Way - Non-City Utility (NCU) Inspection Assignment:** A Construction Inspector I will be responsible for daily utility coordination activities with outside agencies and various City departments; meeting with private and public utilities on a regular basis to determine routes and location of new facilities based on the permitted plans and factors such as preservation of City pavements, traffic impacts, and aesthetics of above-ground equipment; coordinating joint trench opportunities; and conducting site inspections of overhead communications facilities to ensure outside plant facilities meet National Electric Safety Code (NESC) and City requirements.

**Vertical Projects Assignment:** A Construction Inspector I will inspect various types of vertical construction projects including buildings, parks, water/wastewater plants, and appurtenances for compliance with contract documents (plans technical specifications, special provisions, etc.), applicable codes (including building, electrical, plumbing, mechanical, fire), and/or zoning requirements.

**Distinguishing Features:** A Construction Inspector I is expected to exercise initiative and independent judgment to maximize quality assurance inspection services in the assigned geographical area. An employee in this class is required to use appropriate safety equipment and follow approved safety procedures in performing work assignments. This class is supervised by a Chief Construction Inspector or Right of Way Manager through regular, on-site spot checks to ensure conformance with engineering principles, and through meetings and reports concerning status of assigned projects, problems encountered, and overall results achieved. Incumbents in this position may be required to work evenings, weekends, and overtime. This class is FLSA nonexempt.

### QUALIFICATIONS

**Employee Values:** All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

**Minimum Qualifications Required.** Graduation from high school or GED. Any combination of training, education, and experience equivalent to three years of experience in any of the following areas: construction trades, construction management, construction inspections, civil engineering inspections, building inspections, materials testing, and/or paraprofessional engineering.

**Special Requirement.** Must possess a valid Class D Arizona Driver's License by hire date. Due to the required access to all City buildings for this position, an individual receiving a conditional offer of employment from the City of Mesa must pass a background investigation through the City of Mesa Police Department, the Arizona Department of Public Safety, and Federal Bureau of Investigation prior to commencing employment with the City of Mesa to allow full, unescorted access to Police facilities (*by assignment*).

**Substance Abuse Testing.** Due to the safety and/or security sensitive nature of this classification, individuals shall be subject to pre-employment or pre-placement alcohol, drug and/or controlled substance testing as outlined in City policy and procedures.

**Preferred/Desirable Qualifications.** Experience involving inspection and final acceptance of contract work; contract administration; working with non-City utilities; and certification in a nationally recognized construction administration, construction quality assurance, or public works certification program.

## **ESSENTIAL FUNCTIONS**

**Communication:** Communicates with the general public, other City employees, various government agencies, non-City utilities (example: CenturyLink, Cox Communication, Salt River Project (SRP), etc., and contractors in order to advise of ongoing or future construction work, interact with the public, and coordinate work between agencies, contractors, and other City departments. Responds to customer inquiries. Prepares record drawings, written documents, contractor evaluations, daily logs, weekly progress reports, and requests for letters of acceptance. Prepares written communications with clearly organized thoughts using proper sentence structure, punctuation, and grammar. Uses word processing, spreadsheet, and electronic mail software to prepare reports, give instructions, and analyze data.

**Manual/Physical:** Inspects City contracts, private developers' subdivision project work sites, and non-City owned utility projects for acceptable quality levels. Ensures compliance with Mesa's specifications and details, Maricopa Association of Governments (MAG) standard specifications and details for public works construction, including, but not limited to: earthwork; sanitary sewers and water lines; irrigation pipes; storm drains; streetlights; electric, telephone, and dry utility trenches; paving and concrete flatwork; and bridges and structures, etc. Checks for City, county, Arizona Department of Transportation (ADOT), and non-City utility permits and ensures permits are obtained and closed out when work is complete. Coordinates survey requests and staking. Assists in monitoring of dust control and National Pollution Discharge Elimination System (NPDES) activities. Monitors trenching for alignment and grade, shoring, and manhole locations and compaction. Check pipes, valves, and fire hydrants for proper location, type, and operations. Obtains samples of water for high and low chlorine tests for safe public consumption. Schedule pressure tests. Monitors conflicts with other utilities. Inspects forms for curbs, gutters, sidewalks, and driveways. Inspects installed equipment for conformance to specifications. Works in a hot, dusty environment, often standing for periods of two

hours or more around construction equipment. Works in small, cramped areas including confined spaces such as sanitary sewer and storm drain manholes, pipelines, and concrete vaults. Works at elevated levels up to 50 feet while performing inspections on bridges. Operates a motor vehicle, such as City-owned pickup trucks, requiring a standard Class D Arizona Driver's License to operate on City, county, and state highways for construction site inspection. Uses common hand tools such as hammers, saws, screwdrivers, or similar tools. Digs up ground using a pick, shovel, or spade to locate necessary valves, and uses valve keys, wrenches, screwdrivers, or pick head to shut off water lines and fire hydrants, and to open manhole covers. Works with chemicals, such as chlorine used in water lines for disinfecting. Distinguishes colors of Blue Stake markings to determine location of utilities. Meets scheduling and attendance requirements.

**Mental:** Reads and interprets engineering plans, specifications and details, utility maps, barricade manuals, and related engineering plans and drawings for constructability and to ensure compliance with project plans and specifications, and/or to advise contractors or developers of changes necessary for compliance. Compiles a punch list and monitors completion of punch list items. Initiates letters of acceptance or release of Certificate of Occupancy when all work meets specifications and standards. Monitors contractor's construction schedule, submittal of shop drawings and cut sheets, survey requests, and permits. Coordinates and schedules lab testing, utility shutdowns, tie-ins, and valve exercising. Notifies other City departments when their facilities will be affected by construction. Verifies progress payment requests and computes final quantities item-by-item from the contract bid schedule on City contract jobs, special improvement districts, and on a private development involving City cost sharing in order to determine the amount of money to be paid by contractor. Calculates solutions to mathematical problems involving ratios and proportions, fractions, percentages, unit weights, areas, and basic algebraic, geometric, and trigonometric formulae. Learns job-related material through classroom and on-the-job training regarding traffic safety, new materials, and methods of construction.

**Knowledge and Abilities:**

Knowledge of:

general civil engineering and public works practices including conduit installation and testing, water and sewer main installation and testing, backfill type and compaction standards, paving sub-grade standards, trench specifications, etc.;

public works construction practices and procedures;

types and quality of materials generally used in civil engineering and public works projects;

general terminology and mechanical drawing symbols used in civil engineering and public works plans and details;

Mesa standard specifications and details;

MAG standard specifications and details for public works construction;

general contract administration practices and procedures; and

computer software for word processing, spreadsheet analysis, and communication.

Ability to:

read and interpret construction plans, specifications and details, utility maps, and related engineering and architectural plans and drawings in order to ensure compliance with project specifications;

review and approve owned utility plans for conformance with MAG and City specifications;

calculate appropriate fees;  
inspect project work sites to ensure acceptable quality levels, and compliance with MAG standards, and City procedures and standards in civil engineering and public works construction;  
inspect sub-bases and Aggregate Base Course (ABC) bases for grade, compaction, moisture, and preparation for paving;  
inspect asphaltic and portland cement concrete paving for thickness, density, smoothness, and conformance to design;  
inspect forms for curbs, gutters, and sidewalks;  
interact with contractors and construction personnel to ensure work activities and products meet required quality levels and standards;  
analyze construction problems, determine possible solutions, and select the option which best resolves the situation while maintaining quality standards;  
organize assigned inspection activities to minimize backtracking, and increase efficiency;  
check project for City, county, ADOT, and Non-City Utility permits;  
coordinate work sequences/schedules with contractors, private sector utilities, and other City departments/units;  
calculate solutions to mathematical problems involving ratios, proportions, percentages, and basic algebraic, geometric, and trigonometric formulas;  
write correspondence;  
prepare clear, concise written reports;  
lift, carry, and push 100 pounds (example: five-gallon buckets of concrete, wheelbarrows full of concrete, or ABC, etc.);  
enter confined spaces such as manholes, pipelines, tanks, etc.;  
climb structures;  
go up in elevators, manlifts, and buckets 50 feet above ground;  
use a shovel to locate valves, meters, etc.;  
turn a valve key to operate water valves, fire hydrants, etc.; and  
establish and maintain effective working relationships with supervisors, contractors, construction personnel, and coworkers.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included do not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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INCREMENTS 64-200

PAY GRADE: 49

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