

EMPLOYEE:

CLAIM #



## Job Analysis Form

ALTERNATE FORMAT AVAILABLE

**JOB TITLE** Plumbing and Mechanical I

**JOB CLASSIFICATION** Plumbing and Mechanical I

**DICTIONARY OF OCCUPATIONAL TITLES (DOT) NUMBER** 862.381-030

**DOT TITLE** Plumber

**DEPARTMENT** Natural Resources and Parks

**DIVISION** Parks and Recreation

**# OF POSITIONS IN THE DEPARTMENT WITH THIS JOB TITLE**

**CONTACT'S NAME & TITLE** David Sizemore, Engineer III

**CONTACT'S PHONE** 206-391-7682

### ADDRESS OF WORKSITE

3005 NE 4<sup>th</sup> Street  
Renton, WA 98056

**VRC NAME** Kyle Pletz

**DATE COMPLETED** 9/2/09

### WORK HOURS

This is a 40 hour per week position and the hours of the work can be day shift, swing shift or night shift, Monday through Thursday, 10 hours per day; or 5 - 8 hour shifts, Monday through Friday. Additional shifts may be assigned based on business need. This JA is based upon a 10 hour shift.

**OVERTIME** (Note: Overtime requirements may change at the employer's discretion)

Required on an occasional basis. Overtime is based on business demand such as emergencies or priority projects and events.

### JOB DESCRIPTION

Maintain, repair, modify and construct plumbing, mechanical and structural systems in King County facilities.

### ESSENTIAL ABILITIES FOR ALL KING COUNTY JOB CLASSIFICATIONS

1. Ability to demonstrate predictable, reliable, and timely attendance.
2. Ability to follow written and verbal directions and to complete assigned tasks on schedule.
3. Ability to read, write & communicate in English and understand basic math.
4. Ability to learn from directions, observations, and mistakes, and apply procedures using good judgment.
5. Ability to work independently or part of a team; ability to interact appropriately with others.
6. Ability to work with supervision, receiving instructions/feedback, coaching/counseling and/or action/discipline.

## **JOB SPECIFIC REQUIREMENTS**

- Valid Washington State Drivers License
- Washington State Plumbers License
- Backflow Testing License – or the ability to obtain one within 12 months in some positions.
- Welder Certification (desirable in some positions)
- Ability to pass a thorough background check and pre-employment physical.
- Knowledge of installation and maintenance of domestic water, wells, wastewater, and vent systems.
- Knowledge of uniform plumbing code.
- Knowledge of Americans with Disabilities Act (ADA) requirements.
- Knowledge of installation and maintenance of fire sprinkler systems.
- Knowledge of sewage systems, septic pumps, tanks, and drain fields.
- Knowledge of brazing/soldering techniques.
- Knowledge of welding and fabrication techniques preferred.
- Communication skills (Oral and Written)
- Skill in reading and interpreting blueprints.
- Skill in using tools typical of the plumbing trade.
- Skill in completing documentation for work requests and maintenance records.

## **ESSENTIAL FUNCTIONS**

- Perform preventive maintenance on plumbing system components
- Repair and replace plumbing systems and system components.
- Maintain, repair and modify fire-protection safety equipment and fire sprinkler systems.
- Perform minor repairs to park buildings, grounds and facilities.
- Perform maintenance for pool water sanitation and related pool environment equipment.
- Design, lay-out and install waste, vent and domestic water systems.
- Mount/install plumbing fixtures, trim and related hardware/accessories.
- Maintain plumbing fixtures from source to local sewer systems.
- Investigate blockages in drain lines with in-line camera.
- Estimate and evaluate time and cost for plumbing projects.
- Weld and fabricate plates, brackets and pipes.
- Test and certify backflow assemblies.
- Ability to work on low pressure gas and propane.
- Respond to trouble calls, customer complaints, equipment failures, and work requests.
- Plan, design, construct and coordinate smaller construction projects.
- As part of a review team, review CIP plans for functionality and standardization.
- Ability to work in confined spaces such as: septic tanks and potable water tanks.
- Plan, design, construct and coordinate smaller construction projects.
- Establish and maintain repair and maintenance records.
- Coordinate and monitor outside contractors, local and state agencies and insurance companies on work performed on related systems.
- Install, remove, relocate, align and anchor various types of plumbing and mechanical equipment.

- Winterize and de-winterize various facilities and plumbing systems.

### **PERSONAL PROTECTIVE EQUIPMENT USED**

Soft and leather gloves, eye protection, hearing protection, respirator, gas monitor, reinforced boots, knee pads, hard hat, welders helmet, face shield and reflective vests.

### **OTHER TOOLS & EQUIPMENT USED**

Pen, paper, computer, King County vehicle, backflow test kits/apparatus, telephone, high lift, scissors lift, pipes, brazing welder, wire weed welder, stick welder, grinder, solder, wrenches, torch, chop saw, port-a-power, pipe threading machines, ladders, putty, grinders, air compressor, utility knives and razor blades, putty knife, 2-way radio, pipe camera, small hoist, drop cloths, screw gun, screwdriver, and various hand and power tools. The Plumber also uses caustic materials for cleaning pipes, various pipe cleaners and pipe sealant.

### **PHYSICAL DEMANDS AS JOB IS TYPICALLY PERFORMED**

Continuously = occurs 66-100% of the time

Frequently = occurs 33-66% of the time

Occasionally = occurs 1-33% of the time

Rarely = may occur less than 1% of the time

Never = does not ever occur (such demands are not listed)

Highly Repetitive = Repeating the same motion every few seconds with little or no variation for more than two hours total per day.

### **This job is classified as**

Heavy—exerting 50-100 pounds of force occasionally, and/or 25-50 pounds of force frequently, and/or 10-20 pounds of force constantly to move objects.

#### **Standing**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel, etc. surfaces for up to 1 hour at a time for up to 4 hours total in a work shift. Most commonly occurs while performing fire inspections, backflow testing and using a pipe camera as well as installing and repairing plumbing systems. Standing varies according to duties performed.

#### **Walking**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel, etc. surfaces for up to 20 minutes at a time for up to 4 hours total in a work shift. Most commonly occurs while inspecting projects and buildings.

#### **Sitting**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently on a car seat, office chair, stool or floor for up to 60 minutes at a time for up to 5 hours total in a work shift. Most commonly occurs while driving a truck, working in a vault, repairing plumbing structures in low locations, recording time and labor hours, performing computer work/paperwork (minimal), as well as attending classes and meetings.

### **Climbing stairs**

Health Care Provider initials if restricted\_\_\_\_\_

Occasionally for up to 3 minutes at a time while climbing 3 flights for up to 15 minutes total in a work shift. Most commonly occurs while carrying equipment to upper floors for various interior projects.

### **Climbing**

Health Care Provider initials if restricted\_\_\_\_\_

Occasionally on a ladder to heights of up to 10-25 feet for up to 5 minutes at a time for up to 2-3 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing plumbing systems such as overhead fire suppression systems and gutters. The employee also climbs in order to braze overhead pipes.

### **Balancing**

Health Care Provider initials if restricted\_\_\_\_\_

Occasionally on a ladder to heights of up to 10-25 feet for up to 5 minutes at a time for up to 2-3 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing overhead plumbing systems.

### **Bending neck up**

Health Care Provider initials if restricted\_\_\_\_\_

Occasionally Frequently for up to 15 minutes at a time for up to 2-6 hours total in a shift while installing, troubleshooting and repairing plumbing systems such as overhead fire suppression systems.

### **Bending neck down**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently for up to 15 minutes at a time for up to 6 hours total in a shift while installing, troubleshooting, and repairing plumbing systems in lower areas.

### **Bending/Stooping**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel surfaces repetitively for 30 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing plumbing systems in lower areas such as vaults, crawl spaces and trenches. On most occasions the employee can alternate bending/stooping with kneeling and squatting.

### **Kneeling**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel surfaces repetitively for 30 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing plumbing systems in lower areas such as vaults, crawl spaces and trenches. On most occasions the employee can alternate kneeling with bending/stooping or squatting in accordance with preference.

### **Squatting**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel surfaces repetitively for 30 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing plumbing systems in lower areas such as vaults, crawl spaces and trenches. On most occasions the employee can alternate squatting with bending/stooping or kneeling in accordance with preference.

**Crawling**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel surfaces for up to 15 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while accessing lower, hard to reach areas such as crawlspaces.

**Operating Controls with Feet**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally for up to 1 hour at a time for up to 5 hours total in a shift while operating a truck, power snake and high lift.

**Reaching above shoulder height**

Health Care Provider initials if restricted \_\_\_\_\_

Occasionally to Frequently for up to 15 minutes at a time for up to 2-4 hours total in a shift while installing, troubleshooting and repairing plumbing systems.

**Reaching at waist to shoulder height**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 30 minutes at a time for up to 4-6 hours total in a work shift while driving a truck as well as threading and cutting pipe. The employee also reaches at waist to shoulder height while installing, troubleshooting and repairing plumbing systems such as valves, control systems etc.

**Reaching at knee to waist height**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently and highly repetitive on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel, etc surfaces for 30 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing plumbing systems in lower areas such as vaults.

**Reaching at floor to knee height**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently on cement, grass, vegetation, uneven ground, crawlspaces, mud, gravel surfaces repetitively for 30 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs while installing, troubleshooting and repairing plumbing systems in lower areas.

**Lifting 1-10 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 30 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs with weights of 5-10 pounds while holding hand tools, valves, pipe, power tools and plumbing materials such as tape, putty or sealant.

**Carrying 1-10 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 10 minutes at a time for up to 6 hours total in a work shift. Most commonly occurs with weights of 5-10 pounds while carrying hand tools, valves, pipe, power tools and plumbing materials such as tape, putty or sealant.

**Lifting 11-20 pounds**

Health Care Provider initials if restricted \_\_\_\_\_

Frequently for up to 15 minutes at a time for up to 4 hours total in a work shift. Most commonly occurs with weights of 12-20 pounds while manipulating power tools, pieces of pipe, valves, etc.

### **Carrying 11-20 pounds**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently for distances of 25-100 feet for up to 5 minutes at a time for up to 4 hours total in a work shift. Most commonly occurs with weights of 12-20 pounds while transporting power tools, pieces of pipe, valves, etc. to and from the work site.

### **Lifting 21-50 pounds**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently for up to 5 minutes at a time for up to 4 hours total in a work shift. Most commonly occurs with weights of up to 50 pounds while manipulating power tools, pieces of pipe, coupling, water main, valves, etc. The employee works on lines ranging from ¾" to 8" (diameter) so weights can vary drastically based upon the project.

### **Carrying 21-50 pounds**

Health Care Provider initials if restricted\_\_\_\_\_

Occasionally for distances of 25-100 feet for up to 5 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs with weights of up to 50 pounds while transporting power tools, pieces of pipe, couplings, valves, etc. to and from the work site. The employee works on lines ranging from ¾" to 8" (diameter) so weights can vary drastically based upon the project.

### **Pushing and Pulling**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently for up to 5 minutes at a time with a force of up to 5-100 pounds for up to 4 hours total in a work shift while transporting carts, dolly, power snake and various equipment to and from work site. The employee also pushes and pulls hand tools (such as wrenches), lengths of pipe, pipe camera, valves, couplings, etc. When setting hydrants the employee needs to be able to push or pull up to 100 pounds of force.

### **Handling**

Health Care Provider initials if restricted\_\_\_\_\_

Continuously for up to 1 hour at a time for up to 8 hours total in a work shift while using various hand and power tools as well as when driving, manipulating pipe, etc.

### **Operating Controls with Hands**

Health Care Provider initials if restricted\_\_\_\_\_

Frequently for up to 1 hour at a time for up to 6 hours total in a work shift while driving, operating a power snake, valve exercising and hydrant exercising.

### **Fingering**

Health Care Provider initials if restricted\_\_\_\_\_

Continuously for up to 2 hours at a time for up to 8 hours total in a work shift while operating a computer via the keyboard and mouse as well as manipulating hand tools, small pipes, small valves, pipe tape, pipe dope. Employee also fingers while writing and performing control panel operation.

### **Feeling**

Health Care Provider initials if restricted\_\_\_\_\_

Occasionally for up to 1-2 minutes at a time for up to 2 hours total in a shift while identifying pipe temperature, water temperature, valve locations, leaks, couplings and wet surfaces.

### Talking

Health Care Provider initials if restricted

Frequently for up to 10 minutes at a time for up to 4 hours total in a work shift while conversing about duties, receiving directions and instructions, and communicating with co-workers, vendors and supervisors in person, cellular phone and via 2-way radio.

### Hearing

Health Care Provider initials if restricted

Continuously for up to 2.5 hours at a time for up to 9 hours total in a work shift while identifying potential hazards such as moving machinery. The employee also utilizes hearing when conversing about duties, receiving directions and instructions, and communicating with co-workers, vendors and supervisors in person, cellular phone and via 2-way radio. The employee also utilizes hearing when operating tools and equipment to ensure proper operation.

### Seeing

Health Care Provider initials if restricted

Continuously for up to 4 hours at a time for up to 10 hours total in a work shift while identifying potential hazards such as moving machinery, leak detection, pipe threading, pipe brazing and soldering, etc. The plumber also uses vision when writing, reading, and performing computer and office work, inspecting projects for work quality, reading meters, using testing equipment, operating an automobile and identifying appropriate signage.

### Working with Heightened Awareness

Health Care Provider initials if restricted

Continuously for up to 4 hours at a time for up to 10 hours total in a work shift while identifying potential hazards such as moving machinery and potentially unsanitary conditions. The employee also works in elevated areas, confined spaces and works around potentially hazardous and toxic chemicals.

## ENVIRONMENTAL FACTORS

Work is performed at various King County Parks and Recreation facilities in outside weather conditions, indoors, in an office setting, and multiple types of buildings that may have poor ventilation. Workers are occasionally exposed to sewer and drainage smells. Employee is also exposed to gas and diesel engines, slick surfaces, extreme noises, confined spaces and high temperatures. The employee can be exposed to raw sewage on an occasional basis.

### The noise level is

HCP Initials if Restricted

Approximately 50-110 decibels. The noise is caused by hand/power tools

### Work environment may include the following exposure(s):

HCP Initials if Restricted

Outside weather: Frequently

Non-weather related temperatures above 75 degrees: Occasionally

Wet: Frequently

Humidity/dampness: Occasionally

Fumes: Frequently

Odors: Frequently

Dusts: Occasionally

Mists: Occasionally

Gases: Occasionally

Moving mechanical parts: Frequently


KING COUNTY JOB ANALYSIS COMPLETED ON: 9/2/09  
JOB TITLE: Plumbing & Mechanical I  
EMPLOYEE:

DOT #: 862.381-030  
CLAIM #

Vibration: Occasionally  
Working in high, exposed places: Occasionally  
Toxic or caustic chemicals: Occasionally


### **POTENTIAL MODIFICATIONS TO JOB**

Lift gate or hoist on truck to reduce heavy lifting of equipment (such as snake and in-line camera) in and out of the back of the truck.  
Hand truck is available to reduce carrying.  
Alternate between, bending/stooping, kneeling and squatting as needed.  
Lifting assistance is commonly available (via Utility Worker) on large projects.  
Lift truck can be used to pull objects out of manholes.



## SIGNATURES

Signatures on this page are obtained before the document becomes available for use and are not required each time the document is reused. Obtained signatures are kept on file at King County Safety & Claims. The Health Care Provider signature section is separate and appears on the following page.

Kyle Pletz, VRC, Vocational Consultant

Printed name & title of VRC evaluator

\_\_\_\_\_  
Signature of VRC evaluator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name & title of contact

\_\_\_\_\_  
Signature of contact

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name & title of employee

\_\_\_\_\_  
Signature of employee

\_\_\_\_\_  
Date

### HEALTH CARE PROVIDER SECTION

Check all that apply

- ☐ The employee is released to perform the described duties without restrictions on performance or work hours as of \_\_\_\_\_.
- ☐ The employee is released to perform the described duties on a reduced schedule as of \_\_\_\_\_. The recommended schedule is: \_\_\_\_\_  
☐ Temporary until \_\_\_\_\_ ☐ Permanent as of \_\_\_\_\_
- ☐ The employee is released to perform the described job with the following modifications: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
☐ Temporary until \_\_\_\_\_ ☐ Permanent as of \_\_\_\_\_
- ☐ The employee is not released to perform the described duties due to the following job functions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
☐ Temporary until \_\_\_\_\_ ☐ Permanent effective \_\_\_\_\_
- ☐ The employee is unable to work in any capacity.  
A release to work is: ☐ anticipated by \_\_\_\_\_ ☐ Not expected

The limitations are due to the following objective medical findings:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Printed or typed name and phone number of Health Care Provider

Signature of Health Care Provider

Date