



January 2021
FLSA: NON-EXEMPT

COLLECTION SYSTEM MAINTENANCE WORKER I/II

DEFINITION

Under direct and general supervision, performs a broad range of skilled and semi-skilled duties associated with the operation, maintenance and repair of wastewater facilities; inspects, maintains, and repairs lift stations; performs maintenance work at the District's wastewater treatment facility; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives direct and general supervision from the Collection System Maintenance Worker III's and Collection System Superintendent. No supervision of staff is exercised.

CLASS CHARACTERISTICS

Collection System Maintenance Worker I: This is the entry-level class in the Collection System Maintenance Worker series. Initially under close supervision, incumbents with basic maintenance experience learn District systems, operations, practices, and procedures. As experience is gained, assignments become more varied and are performed with greater independence. Assignments may vary with the skill and training of the incumbent. Incumbents may advance to a higher level after gaining the knowledge, skills, and experience, which meet the qualifications of the higher-level class and after demonstrating the ability to perform the work of the higher-level class.

Collection System Maintenance Worker II: This is the journey-level class in the Collection System Maintenance Worker series. This class is distinguished from the Maintenance Worker I by the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise. Positions may be filled by advancement from the Maintenance Worker I level, or by recruiting an outside candidate with substantial maintenance experience. Incumbents are expected to perform a wide variety of maintenance duties with only occasional instruction or assistance. Adequate performance at this level requires the knowledge of departmental or office procedures and precedents and the ability to choose among alternatives in solving many problems.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative only)

Management reserves the rights to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Maintains and repairs, in a safe and sanitary manner, sewer lines, manholes, pressure hoses, mains, parts, and other related facilities and equipment.
- Inspects and tests underground wastewater collection pipes, lateral connections, and associated appurtenances using closed-circuit television devices and other specialized testing equipment to locate leaks, breaks, infiltration and the buildup of dirt, debris, roots, and other materials on a scheduled preventative maintenance basis.
- Assists with and examines, maintains, cleans, and unplugs collection lines with a variety of specialized equipment including hydro-cleaning, and video damaged lines as required.
- Tests and monitors manholes for dangerous gases and uses proper safety precautions when entering underground areas; builds and cleans out manholes and other collection facilities.
- Provides installation, maintenance, and repair of wastewater mains and laterals; digs up and repairs damaged sections of pipe; cuts, installs, threads, and assembles new pipe.
- Responds to customer complaints and emergency calls for service; uses inspection equipment to identify causes; and assists in mitigating overflow spills and damage as required.
- Operates a combination hydro cleaning/vacuuming truck to clean and flush sewer lines on a scheduled or emergency basis.
- Direct and oversee the containment and clean-up of sanitary sewer overflows (SSOs) and provide notification and field documentation for the reporting of sanitary sewer overflows.
- Completes work orders assigned by lead according to customer complaints and calls for service.
- Operates specialized vehicles and a variety of light, medium, and heavy equipment including forklifts; vibrators, jackhammers, tampers, and cutters appropriate for the construction, maintenance, and repair of the District's water/wastewater infrastructure system.
- Assists in the coordination of contracted repair work.
- Inspects lift stations and may repair or replace valves or fittings.
- May assist in the maintenance of records for locating District installed equipment, pipelines, and related facilities.
- Services and maintains mobile equipment in a clean and orderly condition; and makes minor repairs as needed.
- Performs basic building and grounds maintenance at collection system facilities.
- Sets up traffic control and safety equipment when using vehicles on a street or other roadway; and uses safety equipment and observes all safety procedures as specified by the District.
- Notifies supervisor of the need for repair or additional maintenance as found during routine inspection and cleaning activities; and prepares work orders or notes service requirements.
- Ensures that adequate materials and supplies are available for maintenance and repair work.
- Maintains accurate records of work performed.
- Contacts the public to inform them of activities; explains applicable rules and regulations.
- Troubleshoots system and facility problems.

EXAMPLES OF ESSENTIAL FUNCTIONS (continued)

- Locate underground utilities by use of maps and electronic locating equipment in accordance with Underground Service Alert (USA) regulations.
- May assist with a variety of administrative duties, including purchasing, researching for bids, record keeping, and report preparation; keeps records and logs of operations; updates information for reporting purposes.
- May perform special project work including overseeing Capital Improvement Projects and providing input into water, recycled, and collection system projects.
- May respond to complaints and troubleshoot cross-connection and/or back-flow prevention device problems.
- Stays abreast of new trends and innovations in the field of wastewater collection system operation and maintenance.
- Provides training to new staff as required.
- Builds and maintains positive working relationships with co-workers, other District employees, and the public.
- Performs other duties as assigned.

QUALIFICATIONS

Knowledge of:

- Principles, practices, tools, equipment, and supplies required to maintain and repair wastewater collection systems, including underground wastewater collection lines and pump/lift stations.
- Basic principles and practices of mobile equipment servicing and repair.
- Basic safety practices related to the work, including confined space entry.
- Basic mechanical, electrical and hydraulic principles.
- Basic operational and maintenance practices of electrical motors, pumps, and circuitry.
- Electrical diagnostic tools and predictive equipment such as: multimeters, ammeters, vibration meters, etc.
- State and Federal water quality and residuals disposal standards.
- Basic safety practices related to the work, including confined space entry.
- Basic principles and practices in troubleshooting backflow and cross-connection problems.
- SCADA operating systems and other computer applications related to the work.
- Applicable Federal and State laws; District and Division regulations, codes, policies, and procedures.
- Record keeping principles and procedures.
- Computer applications related to the work.
- Shop arithmetic.
- Techniques for providing a high level of customer service to public and District staff, in person and over the telephone.

Ability to:

- Perform skilled and semi-skilled work related to the installation, inspection, maintenance, and repair, of underground wastewater collection lines, pump, and lift stations.
- Safely use hand and power tools related to the work and drive and operate trucks and hydrovactor equipment.
- Read meters and gauges efficiently and record accurate consumption information.
- Interpret and explain regulations, policies and procedures.
- Read maps, manuals and specifications.
- Perform process adjustments based on technical decisions to maintain process performance criteria.
- Paint all types of surfaces and equipment.
- Perform routine housekeeping.
- Wear personal protective equipment.
- Perform manual and strenuous physical labor and heavy lifting.
- Perform work in a confined space, following required confined space entry procedures.
- Work overtime, weekends, holidays, and shift work assigned.
- Promote a safe work environment with team members.
- Follow directions from a supervisor and accept constructive criticism.
- Maintain clear and accurate records.
- Make accurate arithmetic computations.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Identify and take appropriate action when operating problems occur.
- Maintain attention to detail and accuracy.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Establish and maintain effective working relationships with those contacted in the course of the work.

EDUCATION AND EXPERIENCE:

Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Collection System Maintenance Worker I and II: Equivalent to the completion of the twelfth (12th) grade.

Collection System Maintenance Worker I: Mechanical experience and /or experience in installing and maintaining underground pipeline is desired.

Collection System Maintenance Worker II: Two (2) years of responsible wastewater collection system maintenance experience.

Required Qualifications:

Collection System Maintenance Worker I and II:

- 40-hour HAZPOWER certificate within one (1) year of employment.

Collection System Maintenance Worker I:

- Possession of, or ability to obtain within 18 months of hire, a Class B driver's license.
- Possession of, or ability to obtain within 18 months of date of hire, a California Water Environment Association (CWEA) – Collection System Maintenance Grade I certificate.

Collection System Maintenance Worker II:

- Possession of a Class B driver's license.
- Possession of, or ability to obtain within 18 months of date of hire, a California Water Environment Association (CWEA) – Collection System Maintenance Grade II certificate.

Desirable Qualifications:

Collection System Maintenance Worker I and II:

- Possession of a California Water Environment Association (CWEA) – Mechanical Technologist Grade I certificate.

Additional Requirements:

Ability to be on standby for after hour emergency call outs and acknowledge the notification within 15 minutes when on standby duty. If an emergency requires the employee to return to work, they must do so within 1 hour of responding to the notification.

Employee must pass a respiratory fit test within 2 months of employment and adhere to District respiratory policy which specifies facial hair restrictions.

All Carmel Area Wastewater District employees are, by State and Federal law, **Disaster Service Workers**. The roles and responsibilities for Disaster Service Workers are authorized by the California Emergency Services Act and are defined in the California Labor Code. In the event of a declaration of emergency, any employee of the District may be assigned to perform activities which promote the protection of public health and safety or the preservation of lives and property. Such assignments may require service at locations, times, and under conditions that are significantly different than the normal work assignments and may continue into the recovery phase of the emergency.

If a "Local Emergency" is declared during the employee's shift, employees will be expected to remain at work to respond to the emergency needs of the community. If a "Local Emergency" is declared outside of the employee's shift, employees must make every effort to contact their direct supervisor or department head to obtain reporting instructions as Disaster Service Workers.

PHYSICAL DEMANDS

The physical demands and work environment described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions:

Standing:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, grass, sloped and uneven terrain
- Description: Performs while performing a variety of skilled work in the maintenance and repair of sewer lines, manholes, related facilities and equipment including smoke testing, CCTV work, packing and sealing, inspecting sewer collection lines, performing repairs, operating a variety of equipment including hydrocleaning, video equipment, testing and monitoring manholes, digging, installing pipes, operating a variety of equipment including vibrators, jackhammers, tampers, performing traffic control tasks including flagging vehicles, monitoring and controlling the operation of water distribution systems including chemical feeding equipment, utilizing the SCADA system, filtration equipment, regulating water flow, repairing leaks in pipelines, pumps, tanks, reservoirs, performing preventative maintenance on pumps, motors and other equipment, installing water meters, working in confined space entries, and a variety of related tasks.

Walking:

- Average Frequency: Greater than 9 times per day
- Average Duration: Medium (1 to 2 hours)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Long (2 to 8 hours)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, grass, sloped and uneven terrain
- Description: Performs while walking within the plant, to and from field sites, relocating tools, supplies, equipment, inspecting and monitoring equipment, operating vibrators, jackhammers, tampers, flagging vehicles, utilizing a wheelbarrow, dollies and a variety of related activities.

Sitting:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Long (2 to 8 hours)
- Surfaces: Cushioned vehicle seat, office chair
- Description: Performs during training or meetings, operating CCTV inspection equipment, operating equipment including a forklift, pickup truck, hydrocleaning/vacuum truck.

Kneeling/Crouching/Squatting:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, sloped and uneven terrain
- Description: Performs while digging, inspecting, or accessing equipment, retrieving or setting items on and off lower shelves or ground level, accessing leaks, equipment inspections, repairing equipment in conjunction with utilizing a variety of tools, finishing concrete.

Crawling:

- Average Frequency: 1 to 3 times per year
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per month
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, sloped and uneven terrain
- Description: Performs while performing equipment inspections, utilizing hand tools to finish concrete.

Laying on Back/Stomach:

- Average Frequency: 1 to 3 times per month
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per month
- Maximum Duration: Short (Less than 1 hour)
- Surfaces: Office – carpet, tile; field/plant – concrete, asphalt, dirt, gravel, mud, metal grating, sloped and uneven terrain
- Description: Performs while inspecting and repairing equipment including plumbing and mechanical.

Climbing/Balancing:

- Average Frequency: 1 to 3 times per month
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: 4 to 8 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Surfaces: Ladder or stair steps, vehicle floorboards
- Description: Performs while ascending or descending reservoir vertical fixed ladders up to 30 feet, accessing pump stations, ascending or descending 1 to 3 steps to access vehicle cabs.

Reaching:

Above Shoulder Level:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while operating CCTV inspection equipment, operating equipment including a forklift, pickup truck, hydrocleaning/vacuum truck, operating equipment in conjunction with maneuvering steering wheels or levers, performing repairs, operating a variety of equipment including hydrocleaning/video equipment, testing equipment, digging installing pipes, operating a variety of equipment including vibrators, jackhammers, tampers, performing traffic control tasks including flagging vehicles. Unilateral or bilateral upper extremities from a less than full to full extensions at each occurrence.

Between Waist and Shoulder Level:

- Average Frequency: Greater than 9 times per day
- Average Duration: Medium (1 to 2 hours)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while operating a variety of equipment including forklift, truck, golf cart, tractor, backhoe, man lift in conjunction with maneuvering levers and a steering wheel, retrieving and relocating tools, supplies, equipment, inspecting, troubleshooting and repairing equipment, utilizing a variety of basic or power tools including a shovel, pick, digging bar, sledgehammer, grinders, chop saw, presses, skill saw, operating a jackhammer, maintaining plumbing, painting in conjunction with utilizing brushes or rollers, performing custodial tasks including sweeping, vacuuming, utilizing a squeegee, shampooer, extractor to clean floors, performing a variety of carpentry work including remodeling and assembling of cabinets, counters, drawers, renovating, relocating, altering workstations, sanding, texturing and repairing walls, repairing and installing building hardware including door handles, repairing plumbing systems, during traffic setup. Unilateral or bilateral upper extremities from a less than full-to-full extensions on each occurrence.

Below Waist Level:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while repairing and servicing equipment, retrieving or setting items on and off lower shelves or the ground, painting in conjunction with utilizing rollers or brushes, landscaping including utilizing basic hand tools to repair irrigation systems, custodial tasks including polishing furniture, utilizing a squeegee to clean windows, cleaning toilets, urinals, wiping walls, retrieving trash or debris, lubricating equipment, installing water meters, performing a variety of carpentry work including remodeling and assembling cabinets, counters, drawers, sanding, texturing and repairing walls, installing building hardware, marking utilities. Unilateral or bilateral upper extremities from a less than full-to-full extensions on each occurrence.

Pushing/Pulling:

- Average Frequency: 1 to 3 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while utilizing a shovel, utilizing a hook to remove or replace manhole lids, meter covers, operating a vibrator, jackhammer, tamper – a combination of lifting, pushing, pulling, guiding, operating hydrocleaning vacuum truck hoses, connecting or disconnecting trailers, utilizing a pipe wrench, roto hammer, chop saw, skill saw, sawzall, drill, a variety of wrenches, setting concrete in conjunction with utilizing hand tools, relocating a wheelbarrow in conjunction with lifting, operating a skill saw, a chainsaw to cut or remove roots, utilizing a valve key to open or close/exercise valves, utilizing a 20' scraper to remove grease from manhole interiors, utilizing a dolly.

Twisting/Rotating:

Waist:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Medium (1 to 2 hours)
- Description: Performs while accessing restricted areas, equipment, inspecting equipment, shoveling, repairing, servicing, and maintaining equipment in conjunction with utilizing a variety of tools, driving. The motion is from center to right back to center or center to left back to center up to 20-degrees.

Neck:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while inspecting or monitoring equipment, driving, repairing, servicing, and inspecting equipment, during normal body mechanics. The motion is center to the right back to center or center to the left back to center less than 45-degrees per occurrence.

Wrists:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while utilizing a variety of tools including drills, pliers, ratchets, screwdrivers, saws, digging tools, Allen wrenches, manipulating nuts, bolts, screws, small parts, shoveling, utilizing rollers or brushes while painting, utilizing a vacuum, sweeping, mopping, utilizing a metal hook to remove or replace a manhole lid. Unilateral or bilateral hand use.

Bending:

Waist:

- Average Frequency: 4 to 8 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while digging, inspecting, or accessing equipment, retrieving or setting items on and off lower shelves or ground level, accessing leaks, equipment inspections, repairing equipment in conjunction with utilizing a variety of tools, utilizing tools to finish concrete, performing various repairs, operating a variety of equipment including hydrocleaning, CCTV equipment, digging, installing pipes, operating a variety of equipment including vibrators, jackhammers, tampers, repairing leaks in pipelines, performing preventative maintenance on pumps, motors and other equipment including water meters, working in confined space entries. The motion is in a forward direction between 5 and 65-degrees.

Head/Neck:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)

- Description: Performs while performing a variety of skilled work in the maintenance and repair of sewer lines, manholes, related facilities and equipment including smoke testing, CCTV work, packing and sealing, inspecting sewer collection lines, performing repairs, operating a variety of equipment including hydrocleaning, testing and monitoring manholes, digging, installing pipes, operating a variety of equipment including vibrators, jackhammers, tampers, performing traffic control tasks including flagging vehicles, monitoring and controlling the operation of water distribution systems including chemical feeding equipment, utilizing the SCADA system, filtration equipment, regulating water flow, repairing leaks in pipelines, pumps, tanks, reservoirs, performing preventative maintenance on pumps, motors and other equipment, installing water meters, working in confined space entries, and a variety of related tasks, utilizing a variety of hand or power tools, inspecting equipment, during normal body mechanics.

Wrists:

- Average Frequency: Greater than 9 times per day
- Average Duration: Short (Less than 1 hour)
- Maximum Frequency: Greater than 9 times per day
- Maximum Duration: Short (Less than 1 hour)
- Description: Performs while utilizing a variety of tools including drills, wire cutters, wire strippers, tape measures, sockets, socket adapters, ratchets, tape measures, wrenches, screwdrivers, hammers, Allen wrenches, shovel, pick, digging bar, manipulating bolts, nuts, small parts, screws, operating a jackhammer, operating equipment including maneuvering a steering wheel and levers, sweeping, mopping, vacuuming, utilizing rollers or brushes while painting, utilizing carpentry tools, utilizing a metal hook to remove or replace a manhole lid, during normal body mechanics. Unilateral or bilateral hand use.

Lifting/Carrying:

0 to 10 lbs.:

- Objects: Smaller power tools (drills, grinders, air tools, grease gun, skill saw, etc.); hand tools (wrenches, screwdrivers, pliers, hammers, ratchets, strippers/cutters, etc.); small tool bag, socket set, fasteners; couplings, short sections of metal/pipe or wood; miscellaneous parts, wiring, levels, tape measures, small fire extinguisher, electrical cords, diagnostic equipment, aerosol cans, rollers, brushes, one-gallon containers, two safety cones, step-stool/ladder, broom, squeegee/mop, shovel, binders, manuals, writing utensils, telephone handset, chair
- Average Frequency: Ongoing - tasks performed throughout shift
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: Ongoing - tasks performed throughout shift
- Maximum Duration: Seconds to less than 15 minutes at a time
- Height: Ground to shoulder or above
- Distance: Average - less than 100 feet including ascending/descending stairs. Maximum - 1,000 feet

- Description: Using hand or power tools as needed, performs a variety of lifts and carries to complete the following: carpentry, electrical, plumbing, painting, landscaping, cleaning, assembling/disassembling, diagnosing, repairing, bolting, screwing, cleaning, sweeping, stocking, storing, office duties, paperwork/manuals, writing.

11 to 25 lbs.:

- Objects: Larger hand tools (large sledgehammer, large wrenches), medium power tools (pneumatic nail gun, reciprocating saws, hammer-drill, core drill), medium tool bag, bucket of tools, 3-gallon containers, up to five safety cones, medium fire extinguisher, 6' ladder, pneumatic pipe plug, shovel with dirt, picking/digging tools, sections of metal/pipe or wood, boxes of tools/parts; valves, 100' of ¾" hose, 20' of 2" suction hose, 13-gallon trash can, partial box of paper/files
- Average Frequency: Routine- 1 per hour
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: 8 times per hour
- Maximum Duration: Seconds to less than 15 minutes at a time
- Distance: Less than 100 feet, including ascending/descending stairs
- Height: Ground to shoulder or above
- Description: Using hand or power tools as needed, performs a variety of moderate duty lifts/carries to complete the following: carpentry, electrical, plumbing, painting, landscaping, assembling/disassembling, diagnosing/repairing, bolting, screwing, cleaning, stocking, storing, valve removal/replacement, battery removal/replacement; small grate and lid removal/replacement; digging and filling. Retrieval, set-up, breakdown and replacement of equipment for projects.

26 to 50 lbs.:

- Objects: Large tool bag/kit, metal chain, small electric motors, 12' ladder, 20' extension ladder, jack hammer, concrete and metal debris, flanges, couplers, sections of metal/pipe or plastic/wood, smaller valves, small impellers, band saw, flange, pipe vice, oil bucket, blower, shaft, threader, traffic signage, wheelbarrow, 5-gallon container/bucket, empty pallet, case of paper or full box of files, 30-gallon garbage can, 50' of 1" hose, 10' of 6" suction hose, valve box lid, car battery
- Average Frequency: 4 times per day
- Average Duration: Seconds to less than 10 minutes at a time
- Maximum Frequency: 4 times per hour
- Maximum Duration: Up to 15 minutes at a time
- Distance: Less than 50 feet, including ascending/descending stairs
- Height: Ground to shoulder
- Description: Using hand or power tools as needed, performs a variety of medium duty lifts/carries to complete the following: carpentry, electrical, plumbing, painting, landscaping, assembling/disassembling, bolting, stocking, storing, valve removal/replacement, battery removal/replacement; grate and lid removal/replacement; digging and filling. Retrieval, set-up, breakdown, and replacement of equipment for projects. Jackhammer use includes pushing, pulling, partial lifting, lifting, and guiding.

51 to 60 lbs.:

- Objects: 28' extension ladder, 10' step ladder, confined space winch, wheelbarrow, medium electric motor, medium VFD unit, steel flanges, steel elbows/necks/spools, couplers, longer sections of metal/pipe or wood, 100' of 1" hose, truck battery, 30' of 2" hose, 15' of 6" hose, 4' x 4' aluminum vault lid, sandbag, small steel stormwater grating
- Average Frequency: 4 times per month
- Average Duration: Seconds at a time
- Maximum Frequency: 4 times per day
- Maximum Duration: Less than 1 minute at a time
- Height: Ground to waist
- Description: As needed for activities including repair and construction projects; retrieval, set-up, breakdown and replacement of project equipment; confined space entry set-up/breakdown, accessing vaults, collections infrastructure repair, flood preparations.

61 to 120 lbs. (two-person lifts):

- Objects: 32' extension ladder, AA frame ladder, forklift propane cylinder [63 pounds shoulder height], 2' submersible pump, portable railing anchor plate, trash pumps, vault lid, electric motors, VFDs, confined space base tripod, bollards, jumping jack, steel manhole covers, steel piping, 15' or more of large suction hose, generator, 8" x 20' suction pipe, large steel stormwater grating, various steel valves, flanges, elbows up to 150 lbs.
- Average Frequency: As assigned - 1 to 4 times per month
- Average Duration: Seconds at a time
- Maximum Frequency: As assigned – 4 times per day
- Maximum Duration: Less than a minute at a time
- Distance: Less than 25 feet
- Height: Ground to waist
- Description: As needed for non-routine projects and activities including repair, replacement or construction projects; confined space entry set-up/breakdown, accessing vaults, collections infrastructure repair. Lifting straps are to be used if safety will be increased.

Dragging/Pulling:

76 to 100 lbs. (single-person pulls):

- Objects: Floor jack, manhole covers, 100' of charged 1" water line, charged suction lines, metal grating, aluminum pipe, heavy duty electrical wire, long sections of plastic or wood, collections equipment jetting lines, collections camera tether/cable
- Average Frequency: 4 times per month
- Average Duration: Seconds to less than 10 minutes at a time
- Maximum Frequency: Four times per day
- Maximum Duration: 5 minutes
- Distance: Less than 5 feet to 100' feet for collections lines
- Height: Ground level or partial lift of one end from ground

- Description: A combination of pulling and/or partial lifting as needed to move heavy objects including: using a floor jack, removing and replacing a manhole lid with a metal hook, dragging hose, dragging lengths of pipe, wood or metal, dragging metal grating. Lifting straps are to be used if safety will be increased.

Grasping:

Simple:

- Average Frequency: Ongoing - tasks performed throughout shift
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: Ongoing - tasks performed throughout shift
- Maximum Duration: Seconds to less than 15 minutes at a time
- Description: Performs while operating a variety of equipment (forklifts, truck, golf cart, tractor, backhoe, etc.); operating small power tools; using small hand tools; retrieving and relocating miscellaneous tools, parts; utilizing a telephone handset, handling paperwork; utilizing calking and grease guns; spraying aerosol cans; painting with rollers or brushes, mopping, sweeping, vacuuming, landscaping; scraping, utilizing a squeegee; any grasping necessary to complete required lifts/carries below 25 lbs. Unilateral and bilateral hand use.

Power:

- Average Frequency: Routine- 1 per hour
- Average Duration: Seconds to less than 15 minutes at a time
- Maximum Frequency: 8 times per hour
- Maximum Duration: Seconds to less than 15 minutes at a time
- Description: Performs while utilizing a shovel, digging bar or pick while digging; operating a jackhammer in conjunction with pushing, pulling, partial lifting and guiding; utilizing wrenches to remove or secure and torque bolts; using pry bars, wrenches, levers; tie down and securing equipment; utilizing wide variety of power tools grinders, electric chop saw, presses, drills, chainsaw, installing cabinetry including repairing walls. Any grasping necessary to complete required lifts/carries and pulls above 25 lbs. Unilateral and bilateral hand use.

Fine Manipulation:

- Average Frequency: 4 times per day
- Average Duration: Seconds to less than 5 minutes at a time
- Maximum Frequency: 2 to 3 hours
- Maximum Duration: Seconds to less than 10 minutes at a time
- Description: Performs while using of small hand tools (screwdrivers, small sockets, Allen wrenches, etc.), placing bolts, nuts, screws, nails, small parts; joining small components; using electrical testing equipment; making equipment adjustments, using machine-user interfaces, utilizing a writing utensil, using computer keyboards/tablets and mouse, touchpad or touch screens; using telephone. Unilateral or bilateral hand use.

Machine/Tools:

The machines and tools listed here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions:

- Drills
- Pneumatic nail gun
- Pliers
- Tape measures
- Sockets
- Socket adapters
- Ratchets
- Wrenches
- Screwdrivers
- Reciprocating saws
- Hammers
- Diagnostic tools
- Allen wrenches
- Digging bar
- Pick
- Writing utensil
- Telephone handset
- Sledgehammer
- Grinders
- Air tools
- Grease gun
- Skill saw
- Levels
- Square
- Wire strippers
- Spray can
- Roto hammer
- Jackhammer
- Pipe wrenches
- Presses
- Chop saw
- Computer keyboard, mouse, monitor
- Band saw
- Cut off saw
- Forklift
- 28-ton truck
- Golf cart
- Tractor
- Backhoe
- Aerial lift
- Dollies
- 4-wheeled cart
- Wrenches
- Motors
- Ladders
- Valves
- Generators
- Electric snakes
- Rollers
- Blowers
- Vacuum
- Broom
- Mop
- Squeegee
- Paint brushes

Weights and Measures:

The items listed here to be weighed or measured are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions:

Items Weighed:

- 4" C-900 pipe fitting – 6 lbs.
- 6" C-900 pipe fitting – 12 lbs.
- Gas Can (2 gallon) – 13 lbs.
- Suction hose (2" x 20' Green PVC) – 16 lbs.
- 6" x 4" I-beam – 20 lbs.
- Flow thru plug 6-8" – 20 lbs.
- 8" C-900 – 23 lbs.
- Pneumatic plug 10-18" – 25 lbs.
- Pipe (4" x 20' SDR 35) – 27 lbs.
- 3/8" chain – 28 lbs.
- Valve box lid (B12) – 28 lbs.
- Shoring (2' x 24-36" cylinder) – 30 lbs.
- Discharge hose (2" x 50' blue PVC) – 30 lbs.
- Cut off saw (hot saw) – 32 lbs.
- Jack hammer (30 pound) – 33 lbs.
- Gas can (5 gallon) – 33 lbs.
- Firehose (2.5" x 50') – 34 lbs.
- Confined space blower – 35 lbs.
- Electric motor (1 HP) – 35 lbs.
- Ventilation Blower (12V) – 36 lbs.
- Confined space winch – 41 lbs.
- Storm drain inlet (2x2) – 42 lbs.
- 20' extension ladder – 42 lbs.
- Concrete/Asphalt debris – 50 lbs.
- 6' plug hand crank – 50 lbs.
- Standard wheelbarrow (full) – 50 lbs.
- Metering vault lid (open) – 52 lbs.
- 28' extension ladder – 57 lbs.
- Traffic valve box (G5) – 58 lbs.
- Sandbags – 60 lbs.
- Pipe (4"x6' mission clay) – 60 lbs.
- Perma-Patch sack (60 pound) – 60 lbs.
- Concrete sack (60 pound) – 60 lbs.
- 2" Submersible sump pump – 60 lbs.
- Pipe (6"x20' SDR 35) – 61 lbs.
- Bumper crane assembly – 62 lbs.
- Lumber boards (2"x12"x16') – 64 lbs.
- Jack Hammer (60 pound) – 65 lbs.
- 2x4 grate – 71 lbs.
- Jet hose (pulling) – 71 lbs.
- Bollards (remove and replace) – 72 lbs.
- 32' extension ladder – 72 lbs.
- 4" plug valve – 75 lbs.
- 24" Manhole lid (open/lift) – 75 lbs.
- Concrete Sack (90 pound) – 90 lbs.
- Plywood (4'x8'x 1 1/8") – 94 lbs.
- Confined space base (tripod) – 95 lbs.
- Valve box (B12) – 96 lbs.
- Jack hammer (90 pound) – 97 lbs.
- Move furniture – 100 lbs.
- 2" Trash Pump (187 GPM) – 104 lbs.
- Pipe (8"x20' SDR 35) – 110 lbs.
- 4" gate valve – 114 lbs.
- 6" gate valve – 194 lbs.
- Manhole lid (36" diameter) – 229 lbs.

PERSONAL PROTECTIVE EQUIPMENT

Depending on the hazard, the employee is required to wear head, hearing, eye, foot, face, respiratory, body harness, and/or hand protection.

ENVIRONMENTAL ELEMENTS

- Employee is frequently exposed to outside weather conditions
- Employee is occasionally exposed to high, precarious places
- Employee is exposed to confined spaces; fumes or airborne particles; toxic or caustic chemicals.
- Employee is exposed to unpleasant smells and odors
- Employee is exposed to moderate cold, moderate heat
- Employee is exposed to risk of electrical shock or mechanical hazards
- Employees in this classification may perform duties that involve a potential risk of exposure to blood-borne pathogens
- The noise level in the work environment is usually loud
- Employee, as needed, works indoors, office setting, climate controlled

NOTICE: The examples of functions, responsibilities, work environment, physical demands etc. listed in this Job Analysis are representative only, and not exhaustive of the tasks that an employee may be required to perform.