



**King County**

**Disability Services  
Safety and Claims Management**  
Department of Executive Services  
Human Resources Management Division  
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## JOB ANALYSIS

Job Title:	Rail Track and ROW Maintainer	DOT Title:	Maintenance Worker, Municipal
SVP:	5	DOT #:	899.684-046
Location of Analysis:	Light Rail Operation & Maintenance Facility, 3407 Airport Way Seattle, WA 98104	Name of Employee:	
Analyst:	Kyle Pletz, VRC, CDMS	JA Source:	Rob McCall
Presenting VRC:		Employer Contact:	Nick Keolker
Date Analysis Completed:	1/24/20	Supervisor Contact Information	Phone: 206-689-4819 E-mail: Nicholas.keolker@soundtransit.org

On-Site     Interview     Representative

### JOB DUTIES:

Responsible for providing rail service on a currently 20.4 mile route from the University of Washington Station to Angle Lake Station south of Sea-Tac Airport. Plans and/or construction are underway extending the system to the North, South and East. These positions perform skilled journey-level trades work to troubleshoot, diagnose, maintain, repair, upgrade and conduct comprehensive preventive maintenance on track, special track work, track switches, aerial and tunnel structures and supports, retaining walls, fencing and associated equipment/components.

### Essential Functions according to the employer:

All King County jobs require ability/essential function to:

Demonstrate predictable, reliable, and timely attendance.

Follow written and verbal directions to complete assigned tasks on schedule.

Read, write, and communicate in English & understand basic math.

Learn from directions, observations, and mistakes and apply procedures using good judgment.

Work independently or as part of a team and interact appropriately with others.

The responsibilities of this classification include performing a wide variety of maintenance and equipment operation duties. Assist other workers such as landscapers, signal technicians and storeroom personnel for structures in right of way or storage yards.

- Inspect, diagnose, repair, maintain, and/or replace running rails, restraining rails,
- fasteners, switch components, crossings, and all other components associated with track maintenance and construction.
- Operate service vehicles, small cranes and other vehicles used in track maintenance and inspection.
- Use rail saws, rail drills, portable ballast tampers and other specialized tools /equipment to perform inspection, maintenance and repair tasks.
- Set up work-zone traffic control areas; flag track way to provide safe rail work zones.
- Manually operate switch machines under revenue and non-revenue conditions.
- Prioritize emergency maintenance tasks in the absence of on-site supervision.
- Record and document maintenance and diagnostic data.



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- Assist other trades as necessary; respond to emergency calls as necessary.
- Perform snow and ice removal.

General Right of Way Maintenance:

1. Prune and trim trees, bushes and shrubs.
2. Perform mowing and edging at all basses, park and rides and other metro properties.
3. Drive trucks (3 ton pickup) with trailer to each job site.
4. Utilize a riding and push mower, weed eaters and weed burners for lawn maintenance.
5. Dig holes and plant plants.
6. Weed.
7. Pick up garbage on site and empty garbage bins and receptacles.
8. Perform general maintenance duties on landscape equipment.
9. Spread fertilizer as needed.
10. Discard all trimmings and garbage collected.
11. Perform general ground cleaning utilizing rakes, shovels, broom and wheelbarrow.
12. Apply paint via brush roller or spray can.
13. Scrape old paint, help with taping, pressure wash and utilizes hand tools, and paint supplies.
14. Outside work may require utilizing scissor lifts, genie booms up to 30 feet.
15. Drive pickup truck to reach job site and deliver or pick up paint, tools, and materials.
16. Able to work independently.
17. Operate, clean and maintain a variety of equipment related to preparing surfaces for paint.
18. Use stencils, line stripe equipment, scarifiers, taping and masking.
19. Ensure proper storage, handing and disposal of all hazardous materials
20. Read and interpret plans, layouts and color specifications.
21. Driving to and from job site with company vehicle.
22. Load and unload materials, paint, tools and equipment.
23. Drive safely, adhering to all the traffic signs and driving laws.
24. Perform pre-trip checks including oil, gas water and driver fill fuel tank if necessary.
25. Dump garbage and sweep.
26. Throw garbage bags up into truck and then dump garbage at base once or twice per shift.
27. Off-load materials or tools from back of truck and carry up to 60 feet to work site.
28. Pick up and deliver parts and materials required on job sites.
29. Jackhammer and dig.
30. Drive flatbed truck and larger trucks.
31. Perform traffic control duties and flagging.
32. Perform concrete prep work, mixing and pouring, and final site clean-up



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**EXPERIENCE, QUALIFICATIONS, KNOWLEDGE, SKILLS:**

**Two years** of experience maintaining **or** constructing railroad tracks and associated structures **OR** twelve months experience working in Metro Transit's Track & ROW workgroup **OR** any equivalent combination of experience and education which provides the applicant with the needed skills, knowledge and ability required to perform the work.

- Knowledge of Federal Railroad Administration Track Safety Standards and APTA Standards for Rail Transit Track Inspection and Maintenance.
- Knowledge of associated hardware, manuals, procedures, parts catalogs and other pertinent documentation.
- Knowledge of industrial safety standards and procedures including working with small cranes and lifting equipment such as track jacks, tie tongs, and rail tongs.
- Skill in reading and interpreting blueprints, schematics and drawings.
- Skill in oral and written communication including reading, writing and following instructions.
- Skill in problem solving and analyzing data to solve common and complex problems.
- Skill in mechanical tools associated with maintaining fixed track and associated structures.
- Demonstrated mechanical skills including ability to properly use hand and power tools.
- Demonstrated skill in the application of codes and compliance requirements for track and structures.
- Skill in concrete work including finishing.
- Knowledge of traffic safety techniques and procedures for establishing safe work zones.
- Ability to establish and maintain good working relationships and to work efficiently and effectively in a team environment, including skill and demonstrated values of respect and fairness in working effectively with a diverse population in varying occupations or situations.
- Ability to deal proactively and sensitively with customers.

**NECESSARY SPECIAL QUALIFICATIONS:**

- Washington State Class B CDL (Commercial driver's license) with endorsements or the ability to obtain and maintain a Class B CDL within three months of hire date (training will be provided by Rail) and an acceptable driving record.
- Ability to obtain Hi-Rail, Forklift, Aerial Lift, First-Aid/CPR and other certifications within three months of hire date (training will be provided by Rail)
- Applicants must be able to meet on-going educational and training requirements and maintain required certifications.

**Machines, Tools, Special Equipment, Personal Protective Equipment Used:**

Rake, shovel, riding and push lawn mower, blower, backpack sprayer, compressors, boom truck, chipper, scarifier, weed eater, weed burners, pole saw, hedger, hand pruner, sheers, wheelbarrow, chainsaw, various hand tools, cleaning solutions, spray bottles, chemical mixer, vacuum, paper towels, toilet tissue, garbage bags, dust mop, wet mop, broom, compactor, roto-hammer, demo gun, putty knife, rolling garbage can, utility cart, shovel hoses, light bulbs, pressure washer, personal vehicle, drill, handsaw, hack saw, mop bucket, various cleaning tools, rags, forklifts, high-lift, brushes, rollers, hand scrapers, hand sanders, hammers, screw drivers; trowels, taping supplies and equipment, spray guns, pressure washer, sand blaster, air and electrical tools, drills, chisels, needle gun, grinders, pavement grinders, line striping machines and equipment, trailer and various County trucks with both manual and automatic transmission. Tampers, rail saw, rail drill, track jack, track bolting machine sledge hammer, water jetter, ballast rake/shovel, powder actuated gun, plate compactor, roto hammer, demo gun, Swingloader, power rotary snow broom, welding equipment, plasma cutter, oxy-propane torch, grinding tools, exothermic welding equipment, track gauge, master gauge.

Hardhat, safety vest, eye protection, steel toe boots, gloves, hearing protection, fall protection, respirators.



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### PHYSICAL REQUIREMENTS

Frequency Scale	Strength	Work Pattern	
<b>N</b> = Never	<input type="checkbox"/> Sedentary	<input checked="" type="checkbox"/> Full-time	
<b>S</b> = Seldom (1-10 %, up to 48 min)	<input type="checkbox"/> Light	<input type="checkbox"/> Part-time	
<b>O</b> = Occasional (11-33%, 48 min. – 2 hr 25 min)	<input type="checkbox"/> Medium	<input type="checkbox"/> Seasonal	
<b>F</b> = Frequent (34-66%, 2 hr 26 min – 5 hr 35 min)	<input checked="" type="checkbox"/> Heavy	10	Hours Per Day*
<b>C</b> = Constant (67-100%, more than 5 hr 35 min)	<input type="checkbox"/> Very Heavy	4	Days Per Week

This is classified as a HEAVY job by the US Department of Labor.

\*On a rare occasion the worker may need to work a 12 hour shift.

PHYSICAL DEMANDS	% Time	FREQUENCY					ACTIVITY DESCRIPTION
		N	S	O	F	C	
Sitting						X	On an automobile seat for up to 1 hr./time, 7 hrs. total while driving to/from various work sites as well as when operating a boom truck or forklift, welding, and performing track repair. *The employee can also sit for up to 10 hrs. in a shift while performing snow detail on a rare occasion.
Standing						X	On ballast, carpeted, asphalt, concrete, grass, vegetation, inclines, side hills, linoleum, frozen and uneven surfaces for up to 1 hr./time, 7 hrs. total while roadway and trackway flagging, sanding, pressure washing, trimming, edging, pulling weeds, welding, using the chipper, using the drill press, spotting for confined space entry and working on structures.
Walking						X	On ballast, dense vegetation, gravel/rocks, carpeted, asphalt, concrete, grass, vegetation, frozen surfaces, inclines, side hills, linoleum and uneven surfaces for up to 2-5 hrs./ time, 7.5 hrs. total while performing track maintenance, vacuuming, sweeping, collecting trash, inspecting sites for garbage and mopping as well as removing garbage and debris from County facilities. Performs walking inspections of tracks daily (2-4 hrs.) on side hill ballast rock.

Lifting floor – waist	N	S	O	F	C	lbs.	Up to 20 sec./time, 20 min. total with weights of 60-100 lbs. while manipulating 60-lb. bags of concrete, cold patch asphalt, and a 60-90 lb. jackhammer. The employee also lifts 50-100 lbs. when loading and unloading equipment from a pickup, such as a mower, track bolting machine and rail grinder with the
			21-100	1-20			



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							assistance of a coworker. Assistance for heavy lifting is available on most occasions.  Up to 10 min./time, 2.5 hrs. total with 1-20 lbs. while manipulating power tools as well as when using a blower, rail saw, gas powered tamper, pressure washer, weed eater and chainsaw.
<b>Lifting</b> waist-shoulder	<b>N</b>	<b>S</b>	<b>O</b>	<b>F</b>	<b>C</b>	lbs.	Same as lifting floor to waist.
		21-100	1-20				
<b>Lifting</b> above shoulder	<b>N</b>	<b>S</b>	<b>O</b>	<b>F</b>	<b>C</b>	lbs.	Up to 1 min./time, 45 min total while loading and unloading equipment, manipulating trash bags, manipulating tree limbs, pressure washing, removing graffiti, pole saw.
		1-20					
<b>Carry</b> (Dist.)	<b>N</b>	<b>S</b>	<b>O</b>	<b>F</b>	<b>C</b>	lbs.	Up to 15 min./time, 1 hr. total with weights of 60-100 lbs. while transporting 5 gallon buckets of grease and tool bags on uneven ballast (rocks), sloped surfaces and track components. May carry safety cones, cold patch, asphalt, jackhammer, bags of concrete. May carry a garbage bag for up to 2 hrs.
			1-100				
<b>Pushing/ Pulling</b>	<b>N</b>	<b>S</b>	<b>O</b>	<b>F</b>	<b>C</b>	Minimal	Up to 10 min./time with a force of up to 50 lbs. for up to 1 hr. total while roping up buckets of tools/equipment to elevated bridge decks, using power tools, moving rail carts, using vertical bolt machine.
			1-50			lbs force	

	<b>N</b>	<b>S</b>	<b>O</b>	<b>F</b>	<b>C</b>	
Climbing				X		Up to 10 min./time, 4 hrs. total while entering and exiting various County buildings (stairs) as well as when painting stairwells, cleaning facilities, removing graffiti from bridges, performing bridge inspections, climbing in/out of truck; traversing thick vegetation, track structures, etc.
Balancing					X	Up to 4 hrs./time, 7.5 hrs. while continuously traversing track ballast, side hill and inclines; also, working on steep inclines, traversing wet or slick surfaces and performing track maintenance duties on uneven ground.



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	N	S	O	F	C	
Stooping / Bending				X	X*	Up to 10 min./time, 4 hrs. total while welding and grinding when performing track repair; picking up garbage, weeding, trimming ground cover, performing equipment maintenance, loading/unloading trucks, using a blower, confined space spotting, edging, etc. *Seasonally up to 30 min./time, 6 hrs. total while inspecting, performing repairs and cleaning inside of bridges (5' ceiling).
Twisting				X		Up to 30 sec./time, 4 hrs./total while moving tools over tracks and traversing inside of bridges for maintenance, repairs and cleaning. Track and road flagging.
Squatting / Kneeling				X	X*	Up to 10 min./time, 4 hrs. total while welding and grinding when performing track repair; picking up garbage, weeding, trimming ground cover, performing equipment maintenance, loading/unloading trucks, using a blower, confined space spotting, edging, etc. *Seasonally up to 30 min./time, 6 hrs. total while inspecting, performing repairs and cleaning inside of bridges (5' ceiling).
Crawling		X				Up to 1 min./time, up to 10 min. total while performing rail inspections.
Foot Controls					X*	Up to 1 hr./time, 9 hrs. total while driving to and from various work sites as well as when operating high rail equipment, using water jetter, boom truck, excavator, swing rail or forklift. *The employee can also sit for up to 10 hrs. total while performing snow detail on a rare occasion.
<b>Reaching</b> (Level)	Forward				X	Up to 1 hr./time, 9 hrs. total while operating equipment, cleaning, shoveling, raking, sweeping, pruning, driving, unpacking supplies and emptying garbage cans.
	Below Waist			X		Up to 1 hr./time, 5 hrs. total while shoveling, raking, sweeping, pruning, unpacking supplies, welding, grinding, hammering in clips, performing track repairs.
	Above Shoulder		X			Up to 1 min./ time, 30 min. total while replacing filters, loading/unloading trucks, unpacking supplies, loading/unloading tools and equipment, vacuuming walls and elevated areas and stacking trash as well as painting and pressure washing.
Handle/Grasp					X	Up to 1 hr./time, 9 hrs. total while operating equipment such as swing rail, vacuuming, welding, grinding, shoveling, dusting, mopping as well as using spray bottles and various hand/power tools.



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	N	S	O	F	C	
Fine Finger Manipulation				X		Up to 1 hr./time, 6 hrs. total while operating radio, computer, hand tools, power tools, swing rail, forklift, excavator, loaders, etc.
Hand Controls				X		Up to 1 hr./time, 6 hrs. total while operating radio, computer, hand tools, power tools, swing rail, forklift, excavator, loaders, etc.
Repetitive Motion			X			Body part: Hands Cycles/hr. 200+
Vibratory Tasks				X		Up to 1 hr./time, 4 hrs. total while using jackhammer, powder actuated gun, bolt machine, hammers/striking tools, various saws/grinders, plate compactor, roto hammer or demo gun.
Talking				X		Up to 5 min./time, 5 hrs. total while conversing with coworkers and supervisors (in person or on radio) to ensure that all tasks and duties are completed as well as when attending meetings. Performs track inspections and confined space work with coworkers which requires constant communication.
Hearing					X	Must be able to hear at all times due to continuously working in an environment with moving machines and trains.

**Visual:**

Must be able to identify multiple hazards at all times, such as moving trains, equipment and machinery. Performs visual inspections of tracks.

ENVIRONMENTAL CONDITIONS	FREQUENCY					ENVIRONMENTAL CONDITIONS	FREQUENCY				
	N	S	O	F	C		N	S	O	F	C
Exposure to Weather					X	Noise Intensity			X	X	
Extreme Cold		X				Atmospheric Conditions				X	
Extreme Hot				X		Exposed Heights				X	
Wet and / or Humidity				X		Exposure to Electricity				X	
Proximity to Moving Mechanical Parts					X	Exposure to Toxic / Caustic Chemicals		X			
Exposure to Explosives		X				Exposure to Radiation	X				

Other: Rare confined spaces. Around moving trains and traffic.

**Analyst's Comments:**

**Possible Employer Modifications:**

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**Note:** The information for this job analysis was gathered by either on-site observation, interview and / or is representative of the labor market as indicated on page one. Additional data may have been obtained from standardized industry resources such as the DOT, GOE, COJ, OOH, WOIS and O-NET. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective, quantifiable data. For this reason, a “best estimate” may have been used.

**Analyst:**

**Presenting VRC signature:**

Kyle Pletz, VRC, CDMS

\_\_\_\_\_  
Vocational Consultant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Vocational Consultant

\_\_\_\_\_  
Date

**Employer Verification:**

**Employee Verification: (optional)**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date



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**MEDICAL PROVIDER:**

I agree that the employee can perform the physical activities described in this job analysis and can return to work.

State date employee is released to return to work if different from today's date \_\_\_\_\_

I agree the employee can perform the described job but only with modifications (describe in comments section). Modifications are needed on a permanent  or temporary  basis.

The employee **temporarily** cannot perform this job based on the following physical limitations:

**Anticipated release date:** \_\_\_\_\_

**Treatment plan:** \_\_\_\_\_

The employee is **permanently** restricted from performing the physical activities described in this job analysis based on the following physical limitations (state objective medical findings):

**Comments:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

- Attending Physician       Consulting Physician       Pain Program Physician
- IME Physican               PCE Therapist               OT / PT Therapist
- PEP Physician