

**Department of Human Resources**

Employee Health & Safety Division
Disability Services Section
500 4th Avenue, Room 500
Seattle, WA 98104
(206) 477-3350
(206) 296-0514 FAX
www.kingcounty.gov

Employee :

Claim # :

JOB ANALYSIS

Job Title:	Rail Operator		
Department:	Transportation	Division:	Rail
DOT Title:	Streetcar Operator	DOT #:	913.463-014
SVP:	3	Requestor:	Jeff Casem
Worksite Address:	3407 Airport Way South Seattle, WA 98134	Office Contact Name/ Phone/ Email:	Terry Rhoads 206-903-7671 terry.rhoads@soundtransit.org
Original Analyst:	Kyle Pletz, VRC, CDMS	Analysis Date:	06-19-2019
Update Analyst:		Update Date:	

☐ On-Site ☐ Interview ☐ Representative

JOB DUTIES:

This is a safety sensitive position and the employee is subject to random drug testing and other conditions as required to maintain a Commercial Driver's License (CDL). This position provides the safe on-time operation of Light Rail vehicles and providing professional customer service in the transport of the public in the greater Metropolitan King County area. This position operates light rail vehicles on an approximately 20.4 mile line from Angle Lake in Sea-Tac to the University of Washington in Seattle. Operators enjoy sitting in locked cabs that have operator-controlled heating and air conditioning systems.

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.
1. Pick up and drop off passengers at designated locations; assist passengers with special needs including offering assistance in boarding or de-boarding disabled passengers.
 2. Provide information to passengers regarding service area; communicate via a two-way radio and operate other specialized transportation equipment and systems.
 3. Prepare and submit accident and incident reports; and other documentation as determined by management.
 4. Couple and uncouple light rail vehicles, move and spot vehicles in the yard, visually inspect light rail vehicles and report maintenance or repair needs verbally and/or in writing.
 5. Observe and report on a regular basis any system or component malfunction or failure to vehicle maintenance staff.
 6. Troubleshoot and operate malfunctioning light rail vehicles.
 7. Operate track switches and provide hand signals or traffic flagging.
 8. Perform other duties as assigned.
 9. Observe and report on a regular basis any trackway system or component anomaly/malfunction to the Link Control Center (LCC)



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EXPERIENCE, QUALIFICATIONS, KNOWLEDGE, SKILLS:

MINIMUM QUALIFICATIONS:

Must be a current Full-Time Bus Transit Operators or a Part-Time Bus Transit Operator who is on the Part-Time Operator to Full-Time Operator recruitment list. If qualified, as established by record review and driving abstract, positions will be offered by seniority to full-time transit operators first then, if needed, to part-time operators currently on the part-time to full-time operator list.

A one hundred twenty (120) day probationary rule will apply to all Rail Operator positions. This probationary period will commence upon the successful completion of Rail Operator training and placement into a Rail Operator position. An Employee who came from a Bus Transit Operator position who fails to qualify as a Rail Operator will be returned to his/her Transit Operator position with no loss of seniority.

- Knowledge of safe driving techniques and principles for public transportation vehicles
- Knowledge of operating public transportation passenger vehicles; skill in operating rail vehicles
- Knowledge of federal, state and local roadway laws relating to the operation of passenger-carrying light rail vehicles.
- Skill in preparing and completing reports including accident, incident, and other documentation
- Skill in operating a two-way radio and public address system
- Skill in reading, understanding and following schedules; skill in following oral and written instructions
- Skill in oral and written communications
- Skill in establishing and maintaining courteous and effective relations with the general public and co-workers
- Skill in performing multiple tasks simultaneously
- Skill in working with a variety of individuals from diverse backgrounds
- Skill in troubleshooting, analyzing and solving problems
- Ability to comprehend and apply precise verbal and written instructions
- Customer service skills
- Washington State Class B driver's license or the ability to obtain and maintain a Class B license with passenger (P) endorsement and a Light Rail Vehicle (LRV) operator certification is required.
- Some licenses, certifications and other requirements determined to be necessary to meet the business needs of the employing unit may be required.
- Non-standard work hours including evenings, weekends and holidays are required

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

Safety vest, gloves, rail cars, switches, keypad, radio, overhead pantograph, keys, flashlight, computer terminal, couplers, pen, pencil and reports.



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PHYSICAL REQUIREMENTS

Frequency Scale	Strength	Work Pattern
N = Never	<input type="checkbox"/> Sedentary	<input checked="" type="checkbox"/> Full-time
S = Seldom (1-10 %, up to 48 min)	<input checked="" type="checkbox"/> Light	<input type="checkbox"/> Part-time
O = Occasional (11-33%, 49 min. – 2 hr 40 min)	<input type="checkbox"/> Medium	<input type="checkbox"/> Seasonal
F = Frequent (34-66%, 2 hr 41 min – 5 hr 20 min)	<input type="checkbox"/> Heavy	8 Hours Per Day
C = Constant (67-100%, more than 5 hr 20 min)	<input type="checkbox"/> Very Heavy	5 Days Per Week
		FLSA Exempt <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Work Pattern (continued)

Days, shifts and route may vary as they are bid upon three times per year. Currently only full time positions are utilized. The employee must be available for day and night work, weekend and holiday work, and split shifts.

Overtime is optional, in accordance with business demand. Note: Overtime requirements may change at the employer's discretion. On a very rare occasion overtime may be required if there is not a relief driver available.

Job Demand	Frequency and Weight (lbs)					Activity Description
	N	S	O	F	C	
Lifting floor – waist		1-13				Up to 3 sec./time, 5 min. total with 3-8 lbs. while picking up lost and found items as well as when using a backpack with rulebook and radio. The employee may choose to add personal items to the backpack. Rarely up to 5 sec./time, 10 sec. total while using a switch bar (13 lbs.).
Lifting waist–shoulder		1-13				Up to 3 sec./time, 5 min. total with 3-8 lbs. while picking up lost and found items as well as when using a backpack with rulebook and radio. The employee may choose to add personal items to the backpack. Rarely up to 5 sec./time, 10 sec. total while using a switch bar (13 lbs.).
Lifting above shoulder		1-13				Rarely up to 5 sec./time, 10 sec. total while using a switch bar (13 lbs.).
Carry (Distance/Surface)		1-13				Up to 200', 1 min./time, 2 min. total while transporting a switch bar (13 lbs.) or lost and found items.



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Job Demand	Frequency and Weight (lbs)					Activity Description
	N	S	O	F	C	
Pushing/Pulling (Distance/Surface)		50-75			1	Up to 2-2.5 hrs./time, , with a force of 1lb., 8 hrs. total while operating the rail car using the master control. When coupling the rail cars the employee needs to push/pull with up to 75 lbs. of force up to 25 sec./time, up to 1 min. total. The employee also needs to be able to raise and lower the coupling cover (10 seconds) with up to 50 lbs. of force during each coupling. The employee also needs to be able to push and pull with up to 75 lbs. of force to manually throw switches for up to 15 min. total in a shift.

Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Sitting					X	On rail car driver's seat for up to 2-2.5 hrs./time, 8 hrs. total while operating a rail car
Standing		X*				On rubber coated rail car floor, ballast rock or flat cement surfaces for up to 5 min./time, 10 min. total while manipulating breakers, manipulating overhead pantograph and performing pre-trip inspections. *On rare occasion, the operator may have to stand at switch crossing and wait as cars pass for up to 1 min./time, 60 min. total while throwing a rail switch.
Walking		X				On rubber coated bus floor, ballast rock or flat cement surfaces for distances of up to 400 yards for up to 10 min./time, 40 min. total while inspecting a 90-foot rail car (may have 3 cars to inspect), inspecting interior of rail car every trip for lost and found items (approximately 12 vehicle inspections).
Perform Work on Ladders	X					
Climbing		X				Up to 1 min./time (3 steps to 4 flights), 10 x total, while entering and exiting the rail car (3 steps) 21 times per day. The employee may also climb/descend up to 4 flights of stairs when ambulating to/from a relief point. At the base the employee may need to climb/descend 6 flights when walking between the rail facility and the yard. An elevator is available for employees who are unable to climb stairs. The employee enters and exits the rail cars 6 times for pre-trip inspections which require stepping in/out of the rail car, without a platform, which requires traversing a 24" step.
Balancing		X				Up to 8 min./time, 10 min. total occurs while traversing ballasted areas (crushed rock) in the yard as well in the right of way. On a very rare occasion the employee may need to traverse ballasted areas in order to throw a switch.



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Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Stooping / Bending		X				Up to 30 sec./time, 20 min. total while checking the train operator display (TOD), inspecting track brakes (6 of them per car), inspecting/manipulating couplers, performing visual vehicle inspections, looking for lost and found items, inspecting track brakes, operating the couplers and operating switches.
Twisting at Neck			X			Up to 10 sec./time, 1 hr. total while turning the head shoulder-to-shoulder while observing traffic, street signs, traffic lights, pedestrians, potential hazards and using side cameras.
Twisting at Waist			X			Up to 10 sec./time, 1 hr. total while observing traffic, street signs, traffic lights, pedestrians, potential hazards and using side cameras.
Squatting / Kneeling		X*				Up to 30 sec./time, 5 min. total while inspecting track brakes, manually operating switches and obtaining lost and found items. *The employee can alternate with bending/stooping or kneeling as needed.
Crawling	X					
Reach waist to shoulder					X	Up to 2 hrs./time, 8 hrs. total while operating rail car controls which include, operating LVR controls, operating master controller and multiple buttons.
Reach above shoulder		X				Up to 10 sec./time, 1 min. total while releasing/throwing a manual switch.
Reach below waist		X				Up to 5-10 min./time, 15 min. total while checking access panels, manipulating couplers and operating controls (such as lights) when performing pre-trip inspections.
Keyboarding		X				Up to 10 min./time, 20 min total while completing accident/security/incident reports; completing time cards.
Wrist Flexion/Extension		X				Coupling and manually throwing switches up to 25 sec./time, 2 min total.
Handle/Grasp						Up to 2 hrs./time, 8 hrs. total while operating rail car controls which include, operating LVR controls and operating master controller; opening/closing cab door.
Forceful Grasp		X				When coupling the rail cars the employee needs to push/pull with up to 75 lbs. of force up to 25 sec./time, up to 1 min. total. The employee also needs to be able to raise and lower the coupling cover (10 seconds) with up to 50 lbs. of force during each coupling. The employee also needs to be able to push and pull with up to 75 lbs. of force to manually throw switches for up to 5 min. total in a shift.
Fine Finger Manipulation					X	Up to 32 min./time, 7 hrs. total while using a radio, various control buttons, operating master controller, using intercom, bell button and typing in a code for each trip.



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	N	S	O	F	C	
Hand Controls					X	Up to 2 hrs./time, 8 hrs. total in a work shift while operating rail car controls which may include: radio, buttons, master controller (1 pound of force), bell button and breakers.
Foot Controls	X					
Repetitive Motion				X		Body Part: hands Cycles/hr: 250+
Vibratory Tasks – High	X					
Vibratory Tasks – Low	X					
Talking				X		Up to 5 min./time, 4 hrs. total while conversing with relief Operators and using the radio. On a rare occasion the employee talks using the microphone to notify passengers of upcoming stops and streets when the automated system fails. Also, speaks with passengers and answers questions via the intercom for emergency situations only.
Hearing					X	Up to 2.5 hrs./time, 8 hrs. total while listening for traffic hazards such as horns as well as monitoring the radio on a continuous basis.
Visual – Near Acuity					X	Up to 2.5 hrs./time, 8 hrs. total while observing gauges/controls, clock; reading run card, and reading the rulebook. The employee may also drive at night.
Visual – Far Acuity					X	Up to 2.5 hrs./time, 9 hrs. total while operating light rail cars, observing traffic, rail signals, street signs, pedestrians, traffic lights, potential traffic hazards, etc.. The employee may also drive at night.
Visual – Depth Perception					X	Up to 2.5 hrs./time, 9 hrs. total while operating light rail cars, observing traffic, rail signals, street signs, pedestrians, traffic lights, potential traffic hazards, etc.. The employee may also drive at night.
Visual – Color Discrimination					X	Up to 2.5 hrs./time, 8 hrs. total while observing traffic, rail signals, street signs, pedestrians, traffic lights, potential traffic hazards
Visual – Accommodation						Up to 2.5 hrs./time, 9 hrs. total while operating light rail cars, observing traffic, rail signals, street signs, gauges/controls, pedestrians, traffic lights, potential traffic hazards, etc.. The employee may also drive at night.
Visual – Field of Vision						Up to 2.5 hrs./time, 9 hrs. total while operating light rail cars, observing traffic, rail signals, street signs, gauges/controls, pedestrians, traffic lights, potential traffic hazards, etc.. The employee may also drive at night.
Exposure to Weather		X				
Extreme Cold		X				
Extreme Hot		X				
Wet and / or Humidity			X			Wet floors in coaches.
Proximity to Moving Mechanical Parts			X			



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	N	S	O	F	C	
Exposure to Explosives	X					
Atmospheric Conditions		X				
Exposed Heights			X			Rail platforms.
Exposure to Electricity		X				
Exposure to Toxic / Caustic Chemicals		X				Cleaning compounds and lost and found items.
Exposure to Radiation	X					
Noise Intensity		<input type="checkbox"/> Very Quiet <input checked="" type="checkbox"/> Quiet <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Loud <input type="checkbox"/> Very Loud				The noise level is approximately 50-90 decibels. The noise can moderately loud at times and is caused by traffic, the coach noise and passengers.
Other:					X	The employee is exposed to traffic dangers and the general public, which may include angry, intoxicated, unsanitary or hostile persons. There is the potential for exposure to bodily fluids, hypodermic needles, etc.

COGNITIVE and BEHAVIORAL REQUIREMENTS

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

This is classified as a **SENDERARY** job by the US Department of Labor. This is an exempt position which may require overtime work.

COGNITIVE DEMANDS	FREQUENCY					ACTIVITY DESCRIPTION
	N	S	O	F	C	
Articulating and comprehending information in conversations					X	Radio communications, passenger communications, fare enforcement, police interaction, employee/supervisor interaction, etc.
Reading, comprehending, and using written materials					X	Signs, train orders, schedules, run cards, incident/security/accident reports, etc.
Understanding and solving problems involving math and using the results		X				Reading run cards and clock to determine if they are on schedule. Complete time cards.



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	N	S	O	F	C	
Using technology/instruments/tools & information systems					X	Train cabs have multiple instruments and information systems. A computer may be used for time cards, incident/accident/security reports, etc.
Remembering spoken instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Remembering written instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Remembering visual information					X	Must be able to identify track signals, traffic signals and signage. Visually inspects switches, track conditions and crossings.
Recalling information incidental to task at hand Memorizing facts or sequences					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules. Completing incident/security/accident reports, etc.
Remembering simple instructions					X	Following basic work assignments such as schedule, procedures, etc.
Remembering detailed instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols, standard operating procedures and schedules. Completing incident/security/accident reports, etc.
Effectively learning and mastering information from classroom training			X			8 weeks of training to become a Rail Operator and annual certifications. There are also individual trainings for new rail cars.
Effectively learning and mastering information from on-the-job training		X				40 hours of on-the-job training.
Learning from past directions, observations, and/or mistakes		X				Must be able to successfully complete ride checks.
Using common sense in routine decision making					X	Required as this is a safety sensitive position which requires transporting members of the general public.
Recognizing and anticipating potential hazards and taking precautions					X	Required as this is a safety sensitive position which requires transporting members of the general public. The employee must be able to safely identify signage, traffic, switches, rail hazards, etc. in an ever-changing environment, while operating a rail car.
Thinking critically and making sound decisions					X	Required as this is a safety sensitive position which requires transporting members of the general public. The employee must be able to safely identify signage, traffic, switches, rail hazards, etc. in an ever-changing environment, while operating a rail car.
Integrating ideas and data for complex decisions	X					



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Determining and following precise sequences					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Coordinating and compiling data and information				X		Completing defect card which involves recording faults (error codes) and malfunctions.
Performing repetitive or short-cycle work					X	Operating hand controls.
Working under specific instructions					X	Employee follows instructions on a daily basis regarding work activities, protocols and schedules.
Completing complex tasks		X				Competing accident/security/incident reports. Coupling/uncoupling cars.
Directing, controlling, or planning for others as necessary for basic tasks		X				Conveying information to other Operators, such as minor defects.
Multi-tasking					X	Operating rail car while identifying traffic, signs, switches, safety hazards, track obstructions, etc.
Planning, prioritizing, and structuring daily activities	X					
Maintaining predictable and reliable attendance					X	Required at all times as the rail cars are set to very precise schedules.
Being punctual					X	Required at all times as the rail cars are set to very precise schedules.
Taking rest periods at set times or only at times determined by breaks in job responsibilities					X	Required at all times as the rail cars are set to very precise schedules.
Adjusting to a flexible schedule of work days and or shifts			X			Holidays have different schedules. Track maintenance, bridge inspections, accidents, rail blockages can affect schedules.
Receiving criticism and accepting limits appropriately			X			Work performance is reviewed by superiors and feedback is provided accordingly.
Maintaining emotional control and organization under increased stress					X	Required at all times as the rail cars are set to precise schedules.
Maintaining socially appropriate affect, temperament, and behavior					X	Continuously interacts with the general public.
Monitoring own quality of performance and altering behaviors to correct mistakes or improve outcome					X	Required at all times as the rail cars are set to very precise schedules.
Working independently and/or unsupervised				X		The employee works at multiple locations, including rail cars without direct supervisor presence.



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Adapting to frequent interruptions, changes in priorities, or changes in work location				X		Holiday schedules have different schedules. Track maintenance, bridge inspections, accidents, rail blockages can affect schedules.
Responding effectively to emergency situations		X				Employee responds to emergency situations such as accidents, rail blockages, passenger health issues, security incidents, etc.

Analyst's Comments:

Possible Employer Modifications:

Update Comments (*if applicable*):



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Analyst:

Kyle Pletz VRC, C.DMS

Vocational Consultant

6/19/19
Date

Vocational Consultant

Date _____

Employee Verification: (optional)

Name David Venn

06-19-2019
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. 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 basis 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 Physician ☐ PCE Therapist ☐ OT / PT Therapist ☐ PEP Physician