Job Analysis Form ALTERNATE FORMAT AVAILABLE



JOB TITLE Engineer I JOB CLASSIFICATION DICTIONARY OF OCCUPATIONAL TITLES (DOT) NUMBER: 199.267-030 DOT TITLE: Traffic Technician Phys: Light SVP=7, GED: R5 M4 L5 GOE # 05.03.06 DEPARTMENT Dept. of Transportation DIVISION # OF POSITIONS IN THE DEPARTMENT WITH THIS JOB TITLE 2 CONTACT'S NAME & TITLE Jamey Barker CONTACT'S PHONE: 206-263-6101 ADDRESS OF WORKSITE 201 S. Jackson, Seattle **VRC NAME** Thomas S. Sproger, MS, CRC **DATE COMPLETED** 8/12/10 WORK HOURS: 9 x 80 (7:00AM-4:30PM) or 4 x10 (6:00Am-4:30 PM)

DATE REVISED

OVERTIME (Note: Overtime requirements may change at the employer's discretion)
____Required, between and hours per year
XX Optional
_____Does not occur

JOB DESCRIPTION: The two Engineer 1's in Transportation Dept. set out and retrieve traffic counters, then download generate reports based on stored data. These reports are used in road revisions and maintenance planning.

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.

ESSENTIAL FUNCTIONS

1. Employees use office PC computer to receive assignments & plan work

2. Employee checks equipment in vehicle to make sure there are sufficient counters, hoses and other equipment to complete assigned work

- 3. Employee plans route using GPS, maps, computer
- 4. Employee drives to assigned locations to set out traffic counters
 - a. Operates full size van
 - b. May place or retrieve 20-30 counters per shift
- 5. Employee uses vehicle to block traffic while laying out counter and hose
- 6. Employee sets up and places vehicle counter/s and hose/hoses
 - a. Employee bends to drill 2-4 holes in roadway per counter (times 20-30/shift)
 - b Employee lays out hose and attaches to counter
 - c. Employee uses 4# sledge hammer to pound anchor nails into pavement at each end of hose
- 7. Employee logs in where and when counters were placed
- 8. Employee drives counter drop locations to retrieve counters (20-30/shift)
 - a. Employee checks counter to ensure it has been operating properly
 - b. Employee bends and uses drill to remove bolts from roadway
 - c. Employee uses claw-hammer to remove anchor nails from road
 - d. Employee rolls hoses and places them on hook near roof of van

9. Employee downloads data from each counter and uses data to generate report of vehicular traffic count, kinds of vehicles and speed of vehicles that have passed over the site.

NON-ESSENTIAL FUNCTIONS

1. May serve as flagger for road-stripe painters

PERSONAL PROTECTIVE EQUIPMENT USED

Hardhat, boots, reflective vest

OTHER TOOLS & EQUIPMENT USED

Hammer, sledge hammer, hand held power drill-driver, vehicle mounted pc

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

Light—exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently and/or a negligible amount of force constantly. A job is light if involves less than or up to the indicated pounds of force and one or more of the following apply; walking and standing to a significant degree, sitting and pushing/pulling of arm or leg controls, or constant pushing and pulling to maintain a production rate even when weight is negligible.

Standing

Health Care Provider initials if restricted_

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Continuously Frequently **Occasionally** Rarely

on concrete & asphalt surfaces for 1-5 minutes at a time for up to 1.5 hours total in a work shift. Most commonly occurs while loading/unloading equipment from van.

Walking

Health Care Provider initials if restricted

but Highly Repetitive Continuously Frequently **Occasionally** Rarely on concrete, asphalt and uneven roadside surfaces for distances of 10-15 feet for 1`-4 minutes at a time for up to 2 hours total in a work shift. Most commonly occurs while walking to back of van for equipment, then to drop site to install/remove counter and back to van to store equipment again. This sequence is performed 20-30 times a shift.

Sittina

Health Care Provider initials if restricted

Continuously **Frequently** Occasionally Rarely

Sits in vehicle seat for 30-60 minutes at a time for up to 3-4 hours total in a work shift while driving to drop or pick-up locations. Also sits in desk chair for up to 60 minutes in AM and another 60 min. in PM while using computer.

Health Care Provider initials if restricted Climbing Continuously Frequently **Occasionally** Rarely & Highly Repetitive Climbs up into vehicle (1st step is 21" from ground) and down again 50-60 times per shift.

Balancing Not Present

Health Care Provider initials if restricted Bending neck up Continuously Frequently **Occasionally** Rarely & Highly Repetitive Employee bends neck upward while retrieving hoses from overhead hooks in van. This does not take long, typically a minute or less per stop, but it occurs repetitively 20-30 times a shift.

Bending neck down

Health Care Provider initials if restricted_

Continuously Frequently Occasionally Rarely & Highly Repetitive Employee bends neck and back downward while affixing traffic counters to roadway and while removing them again. This may occur 50-60 times a shift for up to 2 ½ hours total per day.

Bending/Stooping

Health Care Provider initials if restricted

Continuously **Frequently** Occasionally Rarely & Highly Repetitive Employee bends neck and back downward while affixing traffic counters to roadway and while removing them again. This may occur 50-60 times a shift for up to 2 ½ hours total per day.

Kneeling

Health Care Provider initials if restricted

Continuously Frequently Occasionally Rarel	v & Highly Repetitive
on asphalt or concrete road surfaces for 1-3 n	ninutes at a time for up to 3/4 hour total in a work shift.

Most commonly occurs while pounding or removing roads spikes.

Squatting	Health Care Provider initials if restricted
Continuously Frequently Occasionally Rare	ly & Highly Repetitive

PAGE 3 KCJA Template rev. 6/8/05 on asphalt or concrete road surfaces for 1-3 minutes at a time for up to ³/₄ hour total in a work shift. Most commonly occurs while pounding or removing roads spikes or bolts.

 Crawling
 Health Care Provider initials if restricted_____

 Continuously Frequently Occasionally
 Rarely
 & Highly Repetitive

 on asphalt or concrete road surfaces for 1-3 minutes at a time for up to ¾ hour total in a work shift.
 Most commonly occurs while pounding or removing roads spikes.

Operating Controls with FeetHealth Care Provider initials if restricted_____ContinuouslyFrequentlyOccasionally Rarely& Highly Repetitiveof King County vehicle for 30-60 minutes at a time for up to 3-4 hours total in a work shift while drivingto and between traffic counter installation sites. With only two engineers for the entire King County,each is bound to cover a great deal of territory.

Reaching above shoulder heightHealth Care Provider initials if restricted_____ContinuouslyFrequentlyOccasionally Rarely& Highly RepetitiveReaches hooks at roof of van for 1-4 minutesat a time for up to 2 hours total in a work shift whilepulling down and replacing counter hoses.Performs this task with 15-30# load 25-30 times/shift.

Reaching at waist to shoulder heightHealth Care Provider initials if restrictedContinuouslyFrequentlyOccasionally Rarely& Highly Repetitiveat a time for up to total in a work shift whileImage: Continuously StructureImage: Continuously Structure

Reaching at knee to waist heightHealth Care Provider initials if restricted____Continuously Frequently OccasionallyRarely& Highly Repetitive1-4 minutes at a time for up to 1 hour total in a work shift while retrieving counters from floor of vehicle.

Reaching at floor to knee heightHealth Care Provider initials if restricted_____ContinuouslyFrequentlyOccasionally Rarely& Highly RepetitiveEmployee reaches to floor 3-5 minutes at a time for up to 2.5 hours total in a work shift while drilling
holes in road and tightening or removing hold-down screws. This also occurs while pounding nails into
pavement to hold hoses in place or removing them to remove the hoses.

Lifting 1-10 pounds

Health Care Provider initials if restricted

Continuously **Frequently** Occasionally Rarely & Highly Repetitive of traffic counters for 3-5 minutes at a time for up to 3 hours total in a work shift. Most commonly occurs with weights of 7-10 pounds at waist to floor (or floor to waist) height while installing or removing traffic counters.

Carrying 1-10- pounds

Health Care Provider initials if restricted

Continuously **Frequently** Occasionally Rarely & Highly Repetitive of vehicle counters for distances of 5-10 feet for 3-5 minutes at a time for up to 1.5-2+ hours total in a work shift. Most commonly occurs with weights of 7-10# while moving counters to and from vehicle.

Lifting 11-20 pounds

Health Care Provider initials if restricted_____

PAGE 4 KCJA Template rev. 6/8/05 Continuously Frequently Occasionally Rarely & Highly Repetitive of 50 foot single length hoses (15-16#) for 1-3 minutes at a time for up to 1 hours total in a work shift. Most commonly occurs with weights of 15#-16# at floor to waist height while lying and removing counter-hoses.

Carrying 11-20 pounds

Health Care Provider initials if restricted_ Continuously Frequently Occasionally Rarely & Highly Repetitive of 50 foot single length hoses (15-16#) for 1-3 minutes at a time for up to 1 hours total in a work shift. Most commonly occurs with weights of 15#-16# at floor to waist height while laying and removing counter-hoses.

Lifting 21-50 pounds

& Highly Repetitive Continuously Frequently Occasionally Rarely May lift/carry two to four 7# vehicle counters 50 yards from vehicle to shop or visa versa for 5 minutes at a time for up to 20 minutes total in a work shift. Most commonly occurs with four counters weighing of 28#. But worker has option to carry fewer counters and thus reduce weight. May also lift/carry 100' double hoses weighing 30-32 pounds.

Carrying 21-50 pounds

Continuously Frequently Occasionally Rarely & Highly Repetitive May lift/carry two to four 7# vehicle counters 50 yards from vehicle to shop or visa versa for 5 minutes at a time for up to 20 minutes total in a work shift. Most commonly occurs with four counters weighing of 28#. But worker has option to carry fewer counters and thus reduce weight. May also lift/carry 100' double hoses weighing 30-32 pounds.

Pushing and Pulling

Continuously Frequently **Occasionally** Rarely & Highly Repetitive pushes/pulls counters into and out of vehicle floor. This is done for 5-10 minutes at a time with a force of 7# for 1-2 hours total in a work shift. Worker also pushes and pulls rolls or hose while lifting them onto and off of van-mounted hooks.

Handling

Health Care Provider initials if restricted_

Health Care Provider initials if restricted

& Highly Repetitive Continuously Frequently Occasionally Rarely Worker handles tools and equipment for 3-5 minutes at a time for up to 2.5-3 hours total in a work shift while handling hoses and counters and tools used to install and remove them.

Operating Controls with Hands

Health Care Provider initials if restricted

Continuously **Frequently** Occasionally Rarely & Highly Repetitive of County vehicle for 30 minutes at a time for up to 3-4 hours total in a work shift while driving to and from vehicle counter drop sites.

Fingering

Health Care Provider initials if restricted_

Continuously Frequently Occasionally Rarely & Highly Repetitive Worker fingers hoses and screws while attaching or removing from counter for 1-3 minutes at a time for up to 1 hour total in a work shift while

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Health Care Provider initials if restricted_

Health Care Provider initials if restricted

Feeling

Health Care Provider initials if restricted_

& Highly Repetitive Continuously Frequently Occasionally **Rarely** Worker touches/feels hoses and screws while attaching or removing from counter for 1-3 minutes at a time for up to 1 hour total in a work shift while

Talking

Health Care Provider initials if restricted_ & Highly Repetitive Continuously Frequently Occasionally Rarely Worker may communicate with supervisors, motorists, and parts people for 3-5 minutes at a time and for up to 3/4 hour per shift.

Hearing

Health Care Provider initials if restricted

& Highly Repetitive Continuously Frequently Occasionally Rarely Worker may communicate with supervisors, motorists, and parts people for 3-5 minutes at a time and for up to 3/4 hour per shift.

Seeina

Health Care Provider initials if restricted

Continuously Frequently Occasionally Rarely

Workers must have DOT required distance and depth perception vision acuity as well as peripheral vision. Close vision is needed for operating the computer and checking and downloading data from the counters.

Working with Heightened Awareness

Health Care Provider initials if restricted

Continuously Frequently Occasionally Rarely

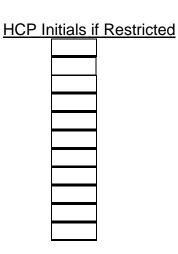
Workers must be constantly alert for vehicles that may not see or may ignore their flashers. Laying hoses across road may require moving across unguarded road lanes for 1-3 minutes at a time but for a total of 2 hours per shift. Additionally, workers must spend 2-4 hours per shift driving a motor vehicle on public roads, often in heavy traffic and that tool requires heightened awareness for virtually the entire shift.

ENVIRONMENTAL FACTORS

The noise level is Approximately <u>50-70</u> decibels. The noise is caused by <u>passing vehicles</u>.

Work environment may include the following exposure(s):

Outside weather Wet Humidity/dampness Fumes Odors Dusts Mists Gases Moving mechanical parts Vibration Working in exposed places



POTENTIAL MODIFICATIONS TO JOB

1. Added step-up to van at driver door, side slider and rear doors: Employee is of diminutive stature while step up to van is 21" and that is too far for a person of less than average height (5'8").

2. Safety Training: Excessive bending raises risk for low back strain/sprain. Recommend workers consider kneeling on one knee while installing counters rather than bending over to do it.

HCP Initials if Restricted

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.

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

CLAIM #

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 describe The recommended sch		
	Temporary until	Permanent as of	
	The employee is released to perform the describe	ed job with the following modifications:	
	Temporary until	Permanent as of	
	The employee is not released to perform the desc functions:	ribed duties due to the following job	
	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 medic	al findings:	
Print	ed or typed name and phone number of Health Care Pi	rovider	
Sign	ature of Health Care Provider	Date	