



## MEMORANDUM

**To:** Municipal officials  
**From:** VLCT PACIF Loss Control  
**Date:** October 4, 2016  
**Re:** Sample “Essential Function Job Analysis” of highway department employees in a large Vermont municipality

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Accurate and up-to-date job descriptions are important for employers as well as employees. A functional job analysis details the physical requirements of a certain job and should be used in creating that job’s official description. The following report of a functional job analysis was commissioned by VLCT PACIF to help its larger members as they improve their Highway Department job descriptions. **An equivalent report for small municipalities is also available: please use the sample that best fits your municipality.** The appropriate elements of both reports have already been incorporated into two of the Job Description Templates developed by VLCT’s Human Resources Assistance Program – one for Highway Supervisors and the other for Highway Maintenance Workers. We are providing the attached report as a reference document so VLCT members can examine their current job descriptions (directly for highway workers and indirectly for other positions) and make improvements with respect to *essential tasks and the physical requirements associated with them*. Such a review is likely to both **improve the employer’s level of ADA compliance** and become a **valuable part of an effective Transitional Return To Work program** for injured employees.

The attached report was prepared by the Vermont company Injury & Health Management Solutions (IHMS) after analyzing the essential job functions of highway maintenance employees at one of Vermont’s larger municipalities. When using this sample document to help update your own municipality’s job descriptions, please remember the following:

- It is no longer enough for a job description to say that the job has “strenuous physical demands.” Rather, it must classify and quantify the types of physical activity that the job requires and indicate how often each type is likely to occur. The IHMS report is very detailed: under the FUNCTIONAL column heading, activities are classified and measured, and the columns next to it indicate frequency: O = Occasional (up to 1/3 of work time), F = Frequent (1/3 to 2/3 of work time), and C = Constant (2/3 to all of work time). The job description can be less detailed but should still be informative: for example, it could explain a lifting requirement as “frequent lifting of 50 lbs and occasional lifting of 90 lbs.” This higher level of detail is one requirement of the ADA.
- The attached report is specific to the one large municipality that IHMS analyzed. While we hope the tasks and duties in the sample report are closely aligned with your municipality’s jobs, it is your responsibility to **review your municipality’s job requirements, tasks, and duties and tailor your job descriptions to accurately describe what your employees actually do.** Take care to fill any gaps and correct any differences between the sample and your municipality. In some cases, VLCT Loss Control staff may be able to assist with this.

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VLCT Employment  
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Assistance Center

VLCT Property and  
Casualty Intermunicipal  
Fund, Inc.

As always, feel free to contact VLCT with questions as you work through this process.

# IHMS ESSENTIAL FUNCTION JOB ANALYSIS

**COMPANY:** VLCT

**EVALUATOR:** Louise F. Lynch, PT, CEES

Job Title	Highway Maintenance Worker I&II	Dept.	Large Municipality <i>(Based on evaluation at Colchester Public Works)</i>	DOT #	899.684-046 47-4051.00
Work Hours	Monday-Friday 7 am - 3:30 pm. Lunch: 30 min. (2) 15 min breaks AM/PM. Can be up to 8 hours or more OT in emergencies, during the winter, and on some projects.				
Job Purpose	Responsible for the maintenance and repair of town highways.				
Essential Functions (EF)	<ol style="list-style-type: none"> <li>1. Driving/Plowing Town Roads</li> <li>2. General Truck Maintenance-tire change, fluids, lubrication <i>(at times, as needed)</i>.</li> <li>3. Road Repair-Trash Removal, Culverts Repair/Clean, Patching, Sweeping, Flagging, Bridge Wash, Power Washing</li> <li>4. Landscaping/Mowing-cut brush/trees, mowing, weed trimming, Zero Turn Mower</li> <li>5. Power Tool Use- jack hammer, chain saws, trimmers and all basic hand tools</li> <li>6. Heavy Equipment Operation-Backhoe, Grader, Street Sweep, Sidewalk Plow</li> <li>7. Paperwork-logs, work orders</li> </ol>				
Comments	<p>There are two classifications for the Highway Maintenance Worker position. Level I and Level II employees perform similar job tasks with the exception that the Level II position also includes all heavy equipment operation. November-April one person at a time carries the town phone and has to be available for snow emergencies.</p> <p><b>Equipment:</b> Tools (wrenches/impact gun/shovels/racks/jack hammer/chain saw/etc.), Heavy Machinery (loaders/grader/roller/sweeper/dump truck/back hoe/sidewalk plow, etc.), repair equipment, hoses, etc.</p> <p><b>Work Area:</b> Garage, Truck, Outside on town roads.</p> <p><b>Item Weights Measured:</b> Chain Saw, jack hammer (60#), culverts/pipes (&lt;100#), chains (40-70#), signs/barriers (30-45#), calcium chloride (50#), posts (95#), pail of bolts (95#), bag of cement (80#), oil (50#), plow blades (180#), plow shoes (35-75#), shovels with dirt/asphalt (30#), wood/limbs (15-50#), equipment (5-30#), hay bales (60#), Patch (55#), bags chloride (50#), Portable Post Pounder (125#), Glass Beads for painting (50#), Paint (75#). Tires (&gt;100#), etc.</p> <p><b>Work Capacity:</b> HEAVY work capacity with the ability to sit for 4 hours sustained and up to 16+ hours a day during snowstorms. Must be able to go from a Sedentary driving position for several hours to manual labor. Must be able to have the mind set to switch to another job at a moment's notice. Work in all-weather conditions.</p>				

FUNCTIONAL	O	F	C	COMMENTS	EF
<b>STRENGTH</b>				<b>HEAVY</b>	
Lifting (in pounds)	80*	50	25	See weights above- 80# chosen for cement. Some weights are higher others are lower. Weights and items above 80 pounds are typically handled by 2 or more employees.	2,3,4,5
*Floor to Waist					
*Waist to Overhead	50	25	--	Back of the truck is 42" (shovel and lift), tools and signs stored overhead.	2,3,4,5
Carrying (in lbs.)Up to 50 feet	80*	50		Carts not available in field—Can be up to 500'	2,3,4,5,
Pushing (0"-overhead)	50	35	5	Steering (L) controls (R) and levers on truck/machinery—equipment on the truck, up to 43" to truck, overhead to pull on limbs, etc. Constant on controls when driving.	1,2,3,4,5,6
Pulling (0"-overhead)	50	35	5	Hand rails to get on/off trucks, carts, equipment.	1,2,3,4,5,6
<b>POSITION</b>					
Sitting			X	Trucks/Machinery-up to 4 hours sustained—long winter hours up to 16 hours	1,6,7
Standing		X		More in spring/summer and certain tasks—flagging the most - 4+ hours sustained	2,3,4,5
Walking		X		More spring/summer-uneven and slippery ground—2-3 miles	2,3,4,5
<b>MOBILITY</b>					
Spinal Rotation/Neck Especially		X		To check side mirrors/plows when driving machinery at least 60 degrees.	1,2,3,4,5,6
Climbing		X		Steps 15-28" into truck and machinery/equipment, uneven terrain and hills	1,2,3,6
Balancing/Coordination		X		Slippery surfaces, on equipment, uneven terrain	1,2,3,4,5,6
Stooping/Crouch/Kneel-Low Level Work		X		To perform low level repair work- can be occasional when using machinery or driving. More in Spring and Summer.	2,3,4
Reaching • forward/outward			X	(R) Static to drive (<20") on Left 21-30" to controls.	1,2,3,4,5,6,7
• overhead		X		Grab bars on equipment up to 65", signs-overhead, equipment-overhead to 72"	2,3,4,5
<b>DEXTERITY (varies)</b>					
Handling		X		Requires a HEAVY capacity of at least 51# frequently-for most tasks. Current work force dominant hand (115#-150#). Need at least 80# to meet job demands.	1,2,3,4,5,6
Fingering/Pinching/Fine Dexterity	X			Computer work, small controls and repair and sign work to turn bolts and small parts Strength: 20# to tighten sign bolts. Move levers and push buttons on controls.	1,6,7
<b>COMMUNICATION</b>					
Talking-clarity	X			On radio and in person to ensure completion of task accurately and for safety	1,2,3,4,5,6
Hearing		X		Radio and fellow employees, car horns	
Seeing					
• Near (<20")			X	To observe controls	1,2,3,4,5,6
• Far (>20")			X	For safe driving	1,2,3,4,5,6

SKILLS			
Problem Solving/Critical Thinking		X	
Judgment/Decision Making			
Spatial Orientation/Depth Perception		X	
Peripheral Vision		X	
Reaction Time			X

Troubleshooting problems, thinking on ones feet, safety	1,2,3,4,5,6
To ensure safety of self and others	1,2,3,4,5,6
Vital for plowing and machine operation for safety	1,2,3,4,5,6
For safe driving and equipment operation and accident avoidance	
To prevent accidents especially when driving and flagging	1,2,3,4,5,6

\*I- Entry Level/II-Semi-Skilled/III-Skilled with Less Supervision/IV-Skilled with Lead under supervisor  
 O = Occasional (1-33% of shift) F = Frequent (34-66% of shift) C = Constant (67-100% of shift) Final 06/09/16 LL