

COUNTY OF SONOMA - JOB DEMANDS ANALYSIS

**JOB CLASSIFICATION:** Geographic Information Systems Technician I/II  
**DEPARTMENT:** Transportation and Public Works Department  
**PHYSICAL DEMAND STRENGTH RATING:** Sedentary/Light

**DATE COMPLETED:** July 2021  
**DIVISION:** Transportation & Operations-IT Unit

**INSTRUCTIONS TO MEDICAL PROVIDERS COMPLETING THIS FORM:**

*Please use the "Medical Provider Use Only" columns to the right of each section and the "Medical Provider's Comments & Signature" Section on the signature page to provide work restrictions by indicating whether there is some portion of each function that the employee can perform; designating whether each restriction is temporary or permanent; and, if restriction is temporary, stipulating the expected duration of work restriction(s). To finalize the form, please provide the name of the employee evaluated and additional comments, as appropriate, then sign and date where indicated.*

**FREQUENCY RATING:**

Frequency	Percentage of time per shift	Repetition (# times per shift)	8 Hr Shift	9 Hr Shift	10 Hr Shift	12 Hr Shift
Never/Not Required (N)	n/a	n/a	n/a	n/a	n/a	n/a
Occasionally (O)	1 - 33%	1 – 100	0 - 2.5	0 - 3	0 - 3.5	0 – 4
Frequently (F)	34 - 66%	100 – 500	2.5 - 5.5	3 - 6	3.5 - 7	4 – 8
Continuously (C)	67 - 100%	500+	5.5 – 8	6 - 9	7 - 10	8 - 12

**PART 1 - JOB DUTIES/FUNCTIONS:**

A. Job Duty/Function	B. Job Duty #	C. Freq Rating	D. Equipment or tools used to perform (Describe)	E. Specialized Expertise, License, Certification Required? (Describe)	F. Essential or Non- Essential	Medical Provider Use Only: For each job duty/function, indicate in this column "Can Perform", is "Temporarily Restricted" from performing, or is "Permanently Restricted" from performing.
While performing the following duties, employees in this position work in an office environment routinely using office equipment such as computers, phones, photocopiers, fax machines, etc. Employees in this position occasionally work outdoors in all types of terrain, vegetation, and weather conditions; performing field data verification.						
Works long and irregular hours, including nights, weekends, and holidays, during response and recovery phases of emergency situations and natural disasters; responds to urgent priority requests for troubleshooting; must be available to access computer or return to county site.	1	0	Computer, phone, vehicle		E	

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Using specialized software, creates, updates, and maintains geographic information databases; develops and organizes spatial and non-spatial data; performs spatial analyses using a variety of data; syncs data from different systems to ensure integrity of data; performs data quality assurance; reviews reports of data changes; compares and verifies data using interactive map tools; updates information to keep databases current.	2	C	Computer		E	
Researches maps and files to ensure that information is up to date and correct; prepares maps in a variety of digital and paper formats; prepares visual aids and graphics for presentation purposes; lifts and carries mapping paper rolls, weighing up to 25 pounds; replaces ink cartridges; notifies supervisor of needed supplies, pushes and pulls handle on large format paper cutter.	3	F	Computer, plotter, copier, plotter, large format printers, large format scanner, large format paper cutter.		E	
Communicates by phone, email, instant messaging, or in person with County and other agency staff, public safety staff, and with the public, to ask clarifying questions and obtain information, and to provide technical assistance and advice; explains and interprets GIS data and maps; works with vendors to solve issues, bugs, and work arounds; provides ongoing updates to divisional staff and management.	4	F	Computer, phone, mobile devices		E	
Performs field data verification; verifies GIS data related to the roads system, such as, roadways, right of ways, traffic signals/utilities, and culverts; manipulates data on mobile device screen, using a stylus, or fingers; carries a back pack and hurricane antenna/pole, weighing up to 10 pounds; walks on uneven or slippery terrain; drives to offsite locations.	5	O	Mobile devices; hurricane antenna and pole, backpack, vehicle	CA Driver's License	E	
Enters and retrieves data in computerized system: tracks service requests and status updates.	6	F	Computer		E	
Installs and updates computer workstations; uses small hand tools; lifts computers weighing up to 25 pounds; squats, kneels and crawls to attach cables.	7	O	Small hand tools, hand cart		N	
Participates in department training to maintain licenses/certifications and to maintain and enhance knowledge and skills required for this position; attends conferences and meetings; trains others in GIS applications.	8	O	Computer		E	

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Actively participates in department and cross-departmental advisory groups and teams, such as: safety, process improvement, new program implementation/Initiatives; participates in ad-hoc meetings with other government agencies; provides input and makes recommendations; responds to requests for information; provides information to co-workers.	9	F	Computer		E	

**PART 2: PHYSICAL DEMANDS**

Activity	Examples of Duties/Functions Requiring Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY: Permanently Restricted
1 Sitting (working in office setting)	1-9	C			
2 Walking (to meetings; off-site locations)	1,3,4,5,7,8	O			
3 Running	N/A	N			
4 Standing (working at computer; )	1-5,7,8	O			
5 Bending-Neck (looking at computer, notes)	1-9	F			
6 Bending-Waist (accessing files and supplies)	1-5,7,8	O			
7 Squatting (attaching cables, installing workstations)	5,7	O			
8 Climbing (curbs, stairs)	1,3,4,5,7,8	O			
9 Kneeling (attaching cables, installing workstations)	5,7	O			
10 Crawling (attaching cables, installing workstations)	7	O			
11 Twisting (neck) (looking from notes to computers; in meetings with multiple parties)	1-9	F			
12 Twisting (waist) (looking from notes to computers; in meetings with multiple parties)	1-9	O			
13 Repetitive Hand Use(computer use)	1-9	F			
14 Simple Grasping-Right Hand(opening drawers and doors)	1-9	F			
15 Simple Grasping-Left Hand (opening drawers and doors)	1-9	F			
16 Power Grasping-Right Hand	5	O			
17 Power Grasping-Left Hand	5	O			
18 Fine Manipulation-Right Hand (handwriting notes)	19	F			
19 Fine Manipulation-Left Hand (handwriting notes)	1,9	F			
20 Pushing and Pulling (right hand) (opening and closing doors, drawers, and cabinets)	1-5,7	O			
21 Pushing and Pulling (left hand) (opening and closing doors, drawers, and cabinets)	1-5,7	O			
22 Reaching (above shoulder level) (accessing files and supplies)	1-5,7	O			
23 Reaching (below shoulder level) (accessing files and supplies)	1-5,7	O			
24 Lifting-up to 10 lbs. (i.e., laptops; mobile devices; files)	1-9	F			
25 Lifting-11-25 lbs. (computers, rolls of mapping paper, GPS receiver case)	3,5,7	O			
26 Lifting-26-50 lbs.	N/A	N			
27 Lifting 51-75 lbs.	N/A	N			
28 Lifting 76-100 lbs.	N/A	N			
29 Lifting 100 + lbs.	N/A	N			
30 Carrying 0-10 lbs. (i.e., laptops; mobile devices; files)	1-9	F			
31 Carrying 11-25 lbs. (rolls of mapping paper)	3,5,7	O			
32 Carrying 26-50 lbs.	N/A	N			
33 Carrying 51-75 lbs.	N/A	N			
34 Carrying 76-100 lbs.	N/A	N			

**PART 3: SENSORY REQUIREMENTS**

Activity	Examples of Duties/Functions Requiring Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Functional vision, normal or corrected	1-9	C			
2 Functional color vision, normal or corrected (to look at maps; note time of day of map)	1-3,9	C			
3 Functional night vision, normal or corrected (returning to work after hours)	1,5	O			
4 Functional hearing, normal or corrected	1-9	C			
5 A sense of smell or taste	N/A	N			

**PART 4: COMPREHENSION LEVEL**

Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Follow Oral Instructions	F			
2 Follow Written Instructions	F			
3 Required to sustain concentration	F			

**PART 5: NATURE OF TASKS**

Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Follow set procedures	O			
2 Organize own work	C			
3 Able to ask questions or request assistance when needed	C			
4 Required to make decisions independently	F			
5 Required to train and/or lead other staff	O			
6 Required to direct other staff (e.g. planning, goal setting, performance)	N			

**PART 6: WORK PACE**

Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Tightly scheduled and rapid pace of work activities at high volume	O			
2 Meet time sensitive deadlines	F			
3 Long and/or irregular hours (during emergency response)	O			
4 Limited/unpredictable opportunity for breaks (during emergency response)	O			
5 Required to perform on-call or emergency work (during emergency response)	O			

**PART 7: COMPLEXITY/VARIABILITY**

Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Variable and unpredictable workflow	F			
2 Attention divided by issues requiring multi-tasking	F			
3 Work requires precise attention to detail	C			
4 Use of judgment in routine matters	C			
5 Requires use of judgment in adapting procedures from one task to another	F			
6 Possible legal ramifications associated with work activities or work product	O			

**PART 8: INTERACTIONS WITH OTHERS**

Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Works with others (e.g., co-workers, other departments/agencies, public)	F			
2 Interactions limited to giving/receiving information	O			
3 Interactions exceed giving/receiving information (e.g., advises, persuades, justifies)	O			
4 Interactions occur under circumstances of emotional stress	O			
5 Risk of confrontation with violent or assaultive clients or customers	N			

**PART 9: ENVIRONMENTAL FACTORS/WORKING CONDITIONS:**

Activity	FREQUENCY RATING Never, Occasional; Frequent, or Constant	MEDICAL Can Perform	PROVIDER Temporarily Restricted	USE ONLY Permanently Restricted
1 Work Inside	C			
2 Work Outside	O			
3 Extreme Heat (above 100 degrees)	O			
4 Extreme Cold (below 32 degrees)	O			
5 Excessive Noise (must raise voice to be heard)	N			
6 Vibration (e.g., jack hammer, hammer drill, chainsaw, etc.)	N			
7 Dust, Vapors, Fumes, Smoke	O			
8 Silica, asbestos, etc.	N			
9 Solvents (e.g., gas, turpentine, etc.)	N			
10 Grease, oils	N			
11 Acidic, Caustic Solutions	N			
12 Pesticides	N			
13 Explosives (e.g., dynamite, bomb, etc.)	N			
14 Cleaning supplies, abrasives	N			
15 Other Chemicals (e.g. drugs and other contraband)	N			
16 Human Blood, Body Tissues, or Fluids	N			
17 Human Wastes	N			
18 Animal Blood, Body Tissues, or Fluids	N			
19 Animal Wastes	N			
20 Biological Toxins (e.g., poison ivy, poison oak, anthrax, etc.)	N			
21 Insect Bites (e.g., ticks, mosquitos, spiders, etc.)	O			
22 Biomedical Waste	N			
23 Ionizing Radiation	N			
24 Non-Ionizing Radiation	N			
25 Electrical Energy	N			
26 Walking on uneven, slippery, or rough surfaces	O			
27 Proximity to moving mechanical parts (e.g., equipment, machinery)	N			
28 Proximity to moving vehicles or objects	O			
29 Heights (e.g., rooftop, ladders, scaffolding, etc.)	N			
30 Contact with water, other liquids, humid conditions - not weather related	N			
31 Work Below Ground: (e.g., excavation, trench, etc.)	N			
32 Potential exposure to airborne infectious diseases (e.g. clinics, labs, corrections)	N			
33 Operates non-commercial motor vehicles (cars, trucks)	O			
34 Operates commercial vehicles – CDL Class _____ Endorsements _____	N			
35 Operates passenger van to transport clients, inmates, etc.	N			
36 Pulls non-commercial trailers or equipment	N			
37 Operates heavy equipment	N			
38 Other:	N			

**PART 10: MEDICAL SCREENING, SURVEILLANCE AND VACCINATION REQUIREMENTS: Not Applicable**

Please check each of the medical screening, surveillance, and vaccination requirements that apply to the position, and indicate if the requirement applies pre-employment/pre-placement only, or whether there are additional requirements after hire.

Medical Screening, Surveillance or Vaccination	Pre-Hire	Post-Hire	Frequency (one time, annual, etc.)
1 Audiometric Testing			
2 DOT Commercial Driver Drug and Alcohol Screening			
3 DOT Commercial Driver Physical Exam			
4 Respirator Physical Exam			
5 Respirator Questionnaire – Short			
6 Respirator Questionnaire – Standard			
7 Blood lead level			
8 Hazardous Waste/Emergency Worker physical			
9 Heavy metal screen (mercury, lead, arsenic)			
10 HINT Hearing Noise Sensitivity Testing			
11 Tuberculosis skin test			
12 Vaccine: MMR			
13 Vaccine: Hepatitis B			
14 Vaccine: Influenza			
15 Vaccine: Meningococcal			
16 Vaccine: Pneumococcal			
17 Vaccine: Rabies			
18 Vaccine: Rabies Titer			
19 Vaccine: Tdap			
20 Vaccine: Chickenpox			



**PART 11: ADDITIONAL INFORMATION, PICTURES, ETC.**