



# Job Task Analysis

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|------------------------------|--|
| <b>Employer:</b>             | <b>Stanislaus County</b>   |
| <b>Occupation:</b>           | Fire Prevention Specialist   |
| <b>Classification:</b>       | Fire Prevention Specialist I, II, III  |
| <b>Company Contact:</b>      | Risk Management<br>1010 10 <sup>th</sup> Street<br>Modesto, California 95354<br>(209) 525-5770   |
| <b>Date:</b>                 | January 2007   |
| <b>Analysis Provided By:</b> | Lyle Andersen, PT, CWCE<br>Andersen Physical Therapy, Inc.<br>3500 Coffee Road, Suite 3<br>Modesto, California 95355<br>(209) 549-4626 |

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## INTRODUCTION:

A complete job description is available through Stanislaus County Human Resources. The environmental factors, physical and functional demands for this Job Task Analysis were documented by Andersen Physical Therapy, Inc. The methodology for documentation consisted of on-site visits, using various measuring devices such as dynamometers and scales, as well as observation and interviews with employees and managers. A detailed record was made of the physical and functional demands of the job in terms of force pounds, weight, frequency, height, distance, anthropometric measurements, stamina, and degrees of range of motion. The determination of the frequencies of functional activities is based on standards provided by the National Institute for Occupational Safety and Health (NIOSH) and the Work Practice Guide for Manual Lifting (U.S. Department of Commerce, National Technical Information Service).

The Job Task Analysis is organized as follows: General work description; safety requirements; equipment; environmental factors; and physical/functional demands.

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**GENERAL WORK DESCRIPTION:**

The frequency of the following activities may vary according to the physical requirements of the specific job tasks that the employee may be required to perform at random intervals.

Under the general supervision of the department manager, the Fire Prevention Specialist I, II, III performs a variety of duties and support of fire Prevention and education. Inspects residential, commercial, and industrial buildings in a thorough and adequate manner. Detects fire hazards and deviations from fire codes and standards. Performs related duties as assigned.

**SPECIFIC DUTIES:** Available through the Human Resources Department at the County of Stanislaus.

<http://www.stancounty.com/personnel/PDF/JobSpecifications.pdf>

**Safety Requirements:** All employees are required to observe company safety procedures and standards to insure individual and collective safety, in addition to avoiding unnecessary risk to oneself, co-workers, customers, and property.

**Equipment:**

- |                                 |                            |
|---------------------------------|----------------------------|
| 1. Calculator.                  | 10. Keyboard/mouse.        |
| 2. Computer.                    | 11. Radio.                 |
| 3. Cones/barricade/signs.       | 12. Reel tape/measure.     |
| 4. Electrical tester.           | 13. Rulers.                |
| 5. Fire extinguisher.           | 14. Safety ladder.         |
| 6. Flashlight.                  | 15. Scaffold.              |
| 7. Hand-held electronic device. | 16. Tape (measure/pocket). |
| 8. Hydrant Diffuser.            | 17. Vehicle.               |
| 9. Hydrant Wrench.              | 18. Vertical ladder.       |

*All employees within the **Fire Prevention Specialist I, II, & III** position are required to provide physical assistance for all weight and frequency requirement needs of all job tasks in order to maintain a safe work environment. Employees must be physically capable of working in any of the job tasks within the **Fire Prevention Specialist I, II, & III** position.*

**ENVIRONMENTAL FACTORS**



**The following percentages are given in terms of an eight-hour workday:**

|                              |                              |
|------------------------------|------------------------------|
| <b>Seldom</b> = 1% - 2%      | <b>Frequent</b> = 34% - 66%  |
| <b>Occasional</b> = 3% - 33% | <b>Constant</b> = 67% - 100% |

|     | ENVIRONMENTAL FACTORS  | MAXIMUM FREQUENCY    |
|-----|--|----------------------|
| 1.  | Unprotected heights:   | Occasional           |
| 2.  | Being around moving machinery:   | Occasional           |
| 3.  | Exposure to marked changes in temperature and humidity: outside temperatures may seasonally vary between 28-110 degrees. | Occasional           |
| 4.  | Exposure to dust, fumes, smoke, gases, or other irritating substances (specify):   | Not Applicable       |
| 5.  | Driving: .....   | Frequent             |
| 6.  | Exposure to excessive noise:.....<br><i>Hearing protection is available</i>  | Seldom               |
| 7.  | Exposure to radiant or electrical energy:.....   | Not Applicable       |
| 8.  | Exposure to solvents or chemicals:.....<br><i>Refer to MSDS document.</i>  | Not Applicable       |
| 9.  | Exposure to slippery or uneven walking surfaces:.....  | Seldom               |
| 10. | Working below ground:.....   | Seldom               |
| 11. | Unusual fatigue factors: .....   | Not Applicable       |
| 12. | Working with explosives:.....  | Not Applicable       |
| 13. | Excessive vibration: .....   | Not Applicable       |
| 14. | Working with hands in water or other substance:.....<br><i>Hand protection is available</i>                              | Seldom               |
| 15. | Working proximity:.....<br>Alone:<br>Closely with others:  | Frequent<br>Frequent |
| 16. | Working inside:.....   | Frequent             |
| 17. | Working outside:.....  | Frequent             |

## FUNCTIONAL ACTIVITIES



The frequency of the following activities may vary according to the physical requirements of the specific job tasks the employee may be required to perform at random intervals.

### PHYSICAL AND FUNCTIONAL REQUIREMENTS

| <u>FREQUENCY DEFINITIONS</u> | <u>SELDOM</u> | <u>OCCASIONAL</u> | <u>FREQUENT</u> | <u>CONSTANT</u>   |
|------------------------------|---------------|-------------------|-----------------|-------------------|
| Percent of the Day           | 1-2%          | 3-33%             | 34-66%          | 67-100%           |
| Material Handling            | 1-4 Reps      | 5-32 Reps         | 33-250 Reps     | 251-2,000 Reps    |
| Non Material Handling        | 1-4 Reps      | 5-32 Reps         | 33-250 Reps     | 251-2,000 Reps    |
| Repetitive & Static Work     | 1-50 Reps     | 51-250 Reps       | 251-1,000 Reps  | 1,001-20,000 Reps |

#### 1.) PUSH: *Pushing activities may require use of the back in conjunction with leg and arm musculature.*

##### MAXIMUM REQUIREMENT

|                       |              |                       |                  |
|-----------------------|--------------|-----------------------|------------------|
| <b>0-10 pounds:</b>   | Occasional   |                       |                  |
| <b>11-25 pounds:</b>  | Seldom       |                       |                  |
| <b>26-100 pounds:</b> | Not Required | <b>Maximum Force:</b> | <u>25</u> Pounds |

*Assistive Devices:* Not Required.

*Comments:* Pushing is utilized with activities such as adjusting, equipment (e.g. door). The employee exerts up to 25 pounds of force in a horizontal plane between waist and shoulder height of a distance up to 3 feet when performing job tasks (e.g. push to open/close door, drawer, file, cabinet; gate).

#### 2.) PULL: *Pulling activities may require use of the back in conjunction with leg and arm musculature.*

##### MAXIMUM REQUIREMENT

|                       |              |                       |                  |
|-----------------------|--------------|-----------------------|------------------|
| <b>0-10 pounds:</b>   | Occasional   |                       |                  |
| <b>11-25 pounds:</b>  | Seldom       |                       |                  |
| <b>26-100 pounds:</b> | Not Required | <b>Maximum Force:</b> | <u>25</u> Pounds |

*Assistive Devices:* Not Required.

*Comments:* Pulling is utilized with activities such as adjusting, equipment (e.g. cart, door). The employee exerts up to 25 pounds of force in a horizontal plane between waist and shoulder height of a distance up to 3 feet when performing job tasks (e.g. pull to open/close door, drawer, file, cabinet; gate). *Pushing is the preferred method of moving carts.*

#### 3.) STAND-UP LIFT: *Lifting weighted objects between floor and waist height.*

##### MAXIMUM REQUIREMENT

|                       |              |                       |                  |
|-----------------------|--------------|-----------------------|------------------|
| <b>0-50 pounds:</b>   | Seldom       |                       |                  |
| <b>51-100 pounds:</b> | Not Required | <b>Maximum Force:</b> | <u>40</u> Pounds |

*Assistive Devices:* One or more person(s) assistance is available with weights greater than 40 pounds.

*Comments:* A stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting and/or transporting equipment (e.g. safety ladder, vertical ladder). The employee lifts items weighing between <1 pound and 40 pounds from/to 36 inches off the floor when performing job tasks (e.g. lift to place up to 40-pound ladder for overhead access to inspect for code compliance at construction site; office documents; code books; files; plan document; fire extinguisher; hydrant diffuser). *Safe lifting is performed by utilizing a posture of partial squatting and a straight back.*

4.) **LEVEL LIFT:** *Lifting weighted objects from between waist and chest height level for a maximum horizontal distance of up to four feet.*

**MAXIMUM REQUIREMENT**

**0-50 pounds:** Seldom  
**51-100 pounds:** Not Required      **Maximum Force:** **40** Pounds

**Assistive Devices:** One or more person(s) assistance is available with weights greater than 40 pounds.

**Comments:** A level lift is utilized with activities such as retrieving, returning, storing, adjusting and/or transporting equipment (e.g. safety ladder, vertical ladder). The employee lifts items weighing between <1 pound and 40 pounds when performing job tasks (e.g. lift to place up to 40-pound ladder for overhead access to inspect for code compliance at construction site; office documents; code books; files; plan document; fire extinguisher; hydrant diffuser).

5.) **WEIGHT CARRY:** *Carrying weighted objects between waist and chest height beyond a distance of four feet.*

**MAXIMUM REQUIREMENT**

**0-50 pounds:** Seldom  
**51-100 pounds:** Not Required      **Maximum Force:** **40** Pounds

**Assistive Devices:** One or more person(s) assistance is available with weights greater than 40 pounds.

**Comments:** Weight Carry is utilized with activities such as retrieving, returning, storing, adjusting and/or transporting equipment (e.g. safety ladder, vertical ladder). The employee carries items weighing between <1 pound and 40 pounds between 5 feet and 25 feet when performing job tasks (e.g. carry to place up to 40-pound ladder for overhead access to inspect for code compliance at construction site; office documents; code books; files; plan document; fire extinguisher; hydrant diffuser).

6.) **OVERHEAD LIFT/PULL DOWN:** *Lifting weighted object from/to chest and overhead height level.*

**MAXIMUM REQUIREMENT**

**0-100 pounds:** Not Required      **Maximum Force:** **0** Pounds

**Comments:** Overhead lift/pull down is not required when performing job tasks. *Variables to overhead reaching will be the employee's height and anthropometric reach.*

7.) **OVERHEAD REACH:**

**MAXIMUM FREQUENCY:** Seldom

**Comments:** Overhead reach is performed to a maximum height of 84 inches when inspecting code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. reach overhead for attic door access; ladder climb; locate door listing labels). *A ladder (appropriate height) or step stool may be utilized to bring items to eye or shoulder level. Variables to overhead reaching will be the employee's height and anthropometric reach*

**8.) FORWARD REACH:****MAXIMUM  
FREQUENCY:** Frequent

**Comments:** Forward reach is performed up to a distance of 28 inches when inspecting code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. reach lateral or forward to measure; ladder climb; drive vehicle; desktop work; evaluate fire extinguisher, hose cabinet, fire alarm, hood and duct system). *The degree of elbow extension required for reaching will vary according to the employee's anthropometric reach.*

**9.) STOOP:****MAXIMUM  
FREQUENCY:** Seldom

**Comments:** Stooping is performed when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. stoop to reach below waist height to inspect pressure gauge, plumbing, electrical outlets, vent, attic, crawl space). *Variable to stooping will be the employee's height. Stooping of the head, trunk and knees can be minimized or avoided by substituting alternate positions of squatting, kneeling or bending when performing job tasks.*

**10.) SQUAT: (Unloaded)****MAXIMUM  
FREQUENCY:** Seldom

**Comments:** Squatting is performed when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. squat to reach below waist height to inspect pressure gauge, plumbing, electrical outlets, vent, attic, crawl space). *Squatting may be minimized or avoided by substituting alternate positions of bending or kneeling. Partial squatting is a preferred lifting posture.*

**11.) FORWARD BEND:****MAXIMUM  
FREQUENCY:** Occasional

**Comments:** Bending forward at the waist is performed when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. bend to reach below waist height to inspect pressure gauge, plumbing, electrical outlets, vent, attic, crawl space). *Maximum forward trunk flexion required is 60 degrees. Employee may minimize or avoid excessive forward bending of the trunk up to 80 degrees by using alternate positions of bending at the hips, kneeling, half kneeling, stooping, sitting or squatting.*

**12.) TWIST:****MAXIMUM  
FREQUENCY:** Occasional

**Comments:** Twisting at the waist is performed when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. twist to reach below waist height to inspect pressure gauge, plumbing, electrical outlets, vent, attic, crawl space). *Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel office chair.*

13.) **TURN:**

**MAXIMUM  
FREQUENCY:** Occasional

**Comments:** Turning is performed when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. turn to reach below waist height to inspect pressure gauge, plumbing, electrical outlets, vent, attic, crawl space).

14.) **KNEEL:**

**MAXIMUM  
FREQUENCY:** Seldom

**Comments:** Kneeling is performed when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. kneel to reach below waist height to inspect pressure gauge, plumbing, electrical outlets, vent, attic, crawl space). *Kneeling may be minimized or avoided by substituting alternate positions of bending, squatting, or half kneeling.*

15.) **CRAWL:**

**MAXIMUM  
FREQUENCY:** Not Required

**Comments:** Crawling is not required when performing job tasks.

16.) **STAIR CLIMB:**

**MAXIMUM  
FREQUENCY:** Occasional

**Comments:** Stair climb is required in order to go to/from the above story structures during inspection). Maximum number of 24 steps per story is climbed.

17.) **LADDER CLIMB:**

**MAXIMUM  
FREQUENCY:** Seldom

**Comments:** Ladder climbing is performed onto/off of safety ladders or steps to access utilities, structures, components, equipment and controls (e.g. climb when inspecting for code compliance and/or documenting utilities, structures, components, equipment and controls *Variables to overhead climbing will vary according to the employee's height and anthropometric reach.*

18.) **WALK:**

**MAXIMUM  
FREQUENCY:** Frequent

**Comments:** Walking is performed when inspecting code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. walk to measure distance; test electrical outlet; site inspection; to/from office/job site). Walking length varies between 3 feet and 600+ feet depending on job task.

19.) **SIT:**

**MAXIMUM  
FREQUENCY:** Frequent

**Comments:** Sitting is performed for a maximum of 120-minute intervals when traveling or performing documentation office work for code compliance (e.g. sit to drive vehicle; file; customer service at plan check and permit counter; desktop work). *Specific work tasks may require up to frequent sitting and/or walking.*

20.) **STAND: (Static)**

**MAXIMUM  
FREQUENCY:** Occasional

**Comments:** Static standing is performed for a maximum of 15-minute intervals when evaluating work site or assisting customers (e.g. stand for site observation; inspect for code compliance; handwrite reports on site).

21.) **BALANCE:**

**MAXIMUM  
FREQUENCY:** Frequent

**Comments:** Good balance is required for safe walking, standing, climbing, reaching and lifting.

22.) **HAND/FOOT CONTROL:**

|                | <b><u>MAXIMUM REQUIREMENT</u></b> |
|----------------|-----------------------------------|
| <b>HAND:</b>   |                                   |
| <b>Right:</b>  | Frequent                          |
| <b>Left:</b>   | Frequent                          |
| <b>Both:</b>   | Frequent                          |
| <b>Either:</b> | Not Required                      |
| <b>FOOT:</b>   |                                   |
| <b>Right:</b>  | Frequent                          |
| <b>Left:</b>   | Seldom                            |
| <b>Both:</b>   | Not Required                      |
| <b>Either:</b> | Not Required                      |

**Comments:** Hand controls are utilized to operate equipment (e.g. tool, vehicle) when inspecting site for code compliance (e.g. tape measure; valve, hydrant wrench; drive vehicle). Foot controls are utilized to operate equipment (e.g. drive vehicle).



**23.) UPPER AND LOWER EXTREMITY COORDINATION:**

| <u>MAXIMUM REQUIREMENT</u>     |            |
|--------------------------------|------------|
| <b>Simple Grasp:</b>           | Frequent   |
| <b>Firm Grasp:</b>             | Seldom     |
| <b>Fine Manipulation:</b>      | Occasional |
| <b>Eye/Hand Coordination:</b>  | Frequent   |
| <b>Hand/Foot Coordination:</b> | Frequent   |

**Comments:** Grasping and coordination activities are performed when performing documentation for code compliance inspection (e.g. desktop work, drive, inspect).

**Simple grasping** is utilized to perform job tasks (e.g. lift and manipulate objects weighing less than 5 pounds; remove/replace electrical power covers; drive vehicle; screw driver operation).

**Firm grasping** is utilized to perform job tasks (e.g. lift and handle objects weighing 5 pounds or greater; ladder climb; screw driver operation).

**Fine manipulation** is utilized to perform job tasks (e.g. handwrite, tape measure, keyboard, mouse, page turn).

**Eye/hand coordination** is utilized to perform job tasks (e.g. drive vehicle, handwrite, keyboard, mouse, page turn, sort, file; screw driver operation).

**Hand/foot coordination** is utilized to perform job tasks (e.g. drive vehicle, ladder climb).

*Depending on individual hand dominance, one hand may be used more frequently than the other when performing job tasks.*

**24.) CERVICAL (NECK) MOVEMENT:**

| <u>MAXIMUM REQUIREMENT</u>      |            |
|---------------------------------|------------|
| <b>Static Neutral Position:</b> | Frequent   |
| <b>Flexing:</b>                 | Occasional |
| <b>Rotating:</b>                | Frequent   |
| <b>Extending:</b>               | Occasional |

**Comments:** Neck movement is required when performing job tasks (e.g. drive vehicle, observe site and structure for code compliance, desktop work). *Participation in the observation of the work environment allows for safe working conditions. Full cervical range of motion is required to safely perform the job tasks.*

{End of Report}



# Stanislaus County

## JOB TASK ANALYSIS SUMMARY

| <b><u>FREQUENCY DEFINITIONS</u></b> | <b><u>SELDOM</u></b> | <b><u>OCCASIONAL</u></b> | <b><u>FREQUENT</u></b> | <b><u>CONSTANT</u></b> |
|-------------------------------------|----------------------|--------------------------|------------------------|------------------------|
| Percent of the Day                  | 1-2%                 | 3-33%                    | 34-66%                 | 67-100%                |
| Material Handling                   | 1-4 Reps             | 5-32 Reps                | 33-250 Reps            | 251-2,000 Reps         |
| Non Material Handling               | 1-4 Reps             | 5-32 Reps                | 33-250 Reps            | 251-2,000 Reps         |
| Repetitive & Static Work            | 1-50 Reps            | 51-250 Reps              | 251-1,000 Reps         | 1,001-20,000 Reps      |

The following is a summary of the physical demands of the Job Task Analysis that were obtained for the position of:

### Fire Prevention Specialist I, II, III

| Functional Activities                | Maximum Requirements | Functional Activities                        | Maximum Requirements |
|--------------------------------------|----------------------|--|----------------------|
| <i>Push (Force)</i> <sup>1</sup>     | 25 pounds            | <i>Stair Climb</i> <sup>1</sup>              | Occasional           |
| <i>Pull (Force)</i> <sup>1</sup>     | 25 pounds            | <i>Ladder Climb</i> <sup>1</sup>             | Seldom               |
| <i>Stand Up Lift</i> <sup>1</sup>    | 40 pounds            | <i>Walk</i> <sup>1</sup>                     | Frequent             |
| <i>Level Lift</i> <sup>1</sup>       | 40 pounds            | <i>Sit</i> <sup>1</sup>                      | Frequent             |
| <i>Weight Carry</i> <sup>1</sup>     | 20 pounds            | <i>Stand (Static)</i> <sup>1</sup>           | Occasional           |
| <i>Overhead Lift/Pull Down</i>       | Not Required         | <i>Balance</i> <sup>1</sup>                  | Frequent             |
| <i>Overhead Reach</i> <sup>1</sup>   | Seldom               | <i>Hand Control</i> <sup>1</sup>             | Frequent             |
| <i>Forward Reach</i> <sup>1</sup>    | Frequent             | <i>Foot Control</i> <sup>1</sup>             | Frequent             |
| <i>Stoop</i> <sup>1</sup>            | Seldom               | <i>Simple Grasp</i> <sup>1</sup>             | Frequent             |
| <i>Squat (Unloaded)</i> <sup>1</sup> | Seldom               | <i>Firm Grasp</i> <sup>1</sup>               | Seldom               |
| <i>Forward Bend</i> <sup>1</sup>     | Occasional           | <i>Fine Manipulation</i> <sup>1</sup>        | Occasional           |
| <i>Twist</i> <sup>1</sup>            | Occasional           | <i>Eye/Hand Coordination</i> <sup>1</sup>    | Frequent             |
| <i>Turn</i> <sup>1</sup>             | Occasional           | <i>Hand/Foot Coordination</i> <sup>1</sup>   | Frequent             |
| <i>Kneel</i> <sup>1</sup>            | Seldom               | <i>Cervical (neck) Movement</i> <sup>1</sup> | Frequent             |
| <i>Crawl</i>                         | Not Required         |  |                      |

<sup>1</sup> The critical demands of the job.

Lyle Andersen, PT

\_\_\_\_\_  
 Lyle Andersen, PT, CWCE  
 Preparer Signature

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 Contact Person  
 Title

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