



Job Task Analysis

Employer:	Stanislaus County
Occupation:	Building Inspector
Classification:	I, II, III
Company Contact:	Risk Management 1010 10 th Street Modesto, California 95354 (209) 525-5770
Date:	February 2010
Analysis Provided By:	Lyle Andersen, PT, CWCE Andersen Physical Therapy, Inc. 3500 Coffee Road, Suite 3 Modesto, California 95355 (209) 549-4626

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, **Building Inspectors I & II** inspect land and site locations and the installation of mechanical, plumbing, electrical, sanitation and structural frameworks of residential, commercial, and industrial buildings, reviews building construction plans and layouts for meeting minimum building permit requirement. **Building Inspector III**, performs responsible building inspection work, trains new building inspectors, provides assistance to the Supervising Building Inspector with various special job-related assignments.

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. 20' Extension. | 7. Screwdriver. |
| 2. Computer/mouse | 8. Step ladder. |
| 3. Electrical tested. | 9. Tape (measure/pocket) |
| 4. Keyboard | 10. Vehicle. |
| 5. Reel tape/measure | 11. Vertical ladder. |
| 6. Scaffold. | |

*All employees within the **Building Inspector I, II, III** positions 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 **Building Inspector I, II, III** positions.*

ENVIRONMENTAL FACTORS



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

Seldom = 1% - 2%	Frequent = 34% - 66%
Occasional = 3% - 33%	Constant = 67% - 100%

	ENVIRONMENTAL FACTORS	MAXIMUM FREQUENCY
1.	Unprotected heights: rooftop, loading dock, ditch, ladder, stairs.....	Occasional
2.	Being around moving machinery: vehicle traffic, man-lift, tractor, truck.....	Frequent
3.	Exposure to marked changes in temperature and humidity: outside temperatures may seasonally vary between 28-110 degrees. Non-capped freezer, refrigerator room, field visit.....	Seldom
4.	Exposure to dust, fumes, smoke, gases, or other irritating substances (specify):	Occasional
5.	Driving: vehicle	Frequent
6.	Exposure to excessive noise:..... <i>Hearing protection is available</i>	Seldom
7.	Exposure to radiant or electrical energy: cell tower, energized main electrical panel.	Seldom
8.	Exposure to solvents or chemicals:..... <i>Refer to MSDS document.</i>	Not Applicable
9.	Exposure to slippery or uneven walking surfaces:.....	Frequent
10.	Working below ground:.....	Not Applicable
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:..... <i>Hand protection is available</i>	Not Applicable
15.	Working proximity:.....Alone: Closely with others:	Constant Occasional
16.	Working inside:.....	Occasional
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.*

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-35 pounds:	Not Required
36-50 pounds:	Not Required
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 15 Pounds	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one person assistance is available with forces greater than 15 pounds.

Comments: Pushing is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment, and supplies (e.g. cart, door). The employee exerts up to 15 pounds of force in a horizontal plane from waist to shoulder height of a distance up to 50+ feet when performing job tasks (e.g. push up to 15 pounds of force to travel with cart; open/close door, drawer, file, cabinet).

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-35 pounds:	Not Required
36-50 pounds:	Not Required
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 15 Pounds	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one person assistance is available with forces greater than 15 pounds.

Comments: Pulling is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment, and supplies (e.g. cart, door). The employee exerts up to 15 pounds of force in a horizontal plane from waist to shoulder height of a distance up to 5 feet when performing job tasks (e.g. pull up to 15 pounds of force to travel with cart; open/close door, drawer, file, cabinet). *Pushing is the preferred method of moving carts.*

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Seldom
11-25 pounds:	Seldom
26-35 pounds:	Seldom
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 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 stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting and/or transporting equipment (e.g. step 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; plans). *Safe lifting is performed by utilizing a posture of partial squatting and a straight back. Field staff is required to lift up to 40 pounds. Office staff may only lift up to 10 pounds.*

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-35 pounds:	Seldom
36-50 pounds:	Seldom
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 40 Pounds	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, 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. step 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; code books; files; documents; plans). *Field staff is required to lift up to 40 pounds. Office staff may only lift up to 10 pounds.*

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Occasional
11-25 pounds:	Seldom
26-35 pounds:	Not Required
36-50 pounds:	Not Required
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 20 Pounds	

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) assistance is available with weights greater than 20 pounds.

Comments: Weight carry is utilized with activities such as retrieving, returning, storing, adjusting and/or transporting equipment (e.g. step ladder, vertical ladder). The employee carries items weighing between <1 pound and 20 pounds between 5 feet and 25+ feet when performing job tasks (e.g. lift and drag to place up to 40-pound ladder for overhead access to inspect for code compliance at construction site; clip board; plans). *Field staff is required to carry up to 20 pounds. Office staff may only lift up to 10 pounds.*

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

<u>MAXIMUM REQUIREMENT</u>	
0-10 pounds:	Seldom
11-25 pounds:	Not Required
26-35 pounds:	Not Required
36-50 pounds:	Not Required
51-75 pounds:	Not Required
76-100 pounds:	Not Required
Maximum Force: 10 Pounds	

Assistive Devices: A vertical ladder, step ladder or step stool is available to bring items to eye or shoulder level. Additionally, one or more person(s) assistance is available with weights greater than 10 pounds.

Comments: Overhead lift/pull down is utilized for elevated activities (e.g. attics, ladder). The employee lifts items weighing between <1 pound and 10 pounds to a maximum height of 84 inches when performing job tasks (e.g. lift up/down attic door/lid; pull-down attic access steps; lengthening extension ladder; ladder climbing). *Variables to overhead reaching will be the employee's height and anthropometric reach.*

7.) **OVERHEAD REACH:**

MAXIMUM FREQUENCY:	Occasional
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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 to measure mechanical distance; testing electrical outlets; air pressure gauge; attic door access; ladder climb). *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:** Occasional

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 mechanical distance; air pressure gauge; ladder climb; drive vehicle; desktop work). *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 code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. stoop to reach below waist height to measure mechanical distance; air pressure gauge; inspect plumbing, trenches, foundation, vents, attic, crawl spaces, temporary bracing). *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 code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. squat to reach below waist height to measure mechanical distance; air pressure gauge; inspect plumbing, trenches, foundation, vents, attic, crawl spaces, temporary bracing). *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 code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. bend to reach near or far below waist height to measure mechanical distance; air pressure gauge; inspect plumbing, trenches, foundation, vents, attic, crawl spaces, temporary bracing). 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 code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. twist to measure mechanical distance; air pressure gauge; inspect plumbing, trenches, foundation, vents, attic, crawl spaces, temporary bracing). *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 code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. turn to measure mechanical distance; air pressure gauge; inspect plumbing, trenches, foundation, vents, attic, crawl spaces, temporary bracing).

14.) **KNEEL:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Kneeling is performed when inspecting code compliance and/or documenting utilities, structures, components, equipment and controls (e.g. kneel to measure mechanical distance; air pressure gauge; inspect plumbing, trenches, foundation, vents, attic, crawl spaces, temporary bracing). *Kneeling may be minimized or avoided by substituting alternate positions of bending, squatting, or half kneeling.*

15.) **CRAWL:**

**MAXIMUM
FREQUENCY:** Seldom

Comments: Crawling is performed when inspecting code compliance and/or documenting utilities, structures, components, equipment and controls (i.e. crawl to reach extremely low bridges areas which cannot be reached safely by walking or kneeling).

16.) **STAIR CLIMB:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Stair climb is required in order to go to/from the second story of structures or buildings during inspection). Maximum number of 24 steps is climbed. Elevators are available in public buildings.

17.) **LADDER CLIMB:**

**MAXIMUM
FREQUENCY:** Occasional

Comments: Ladder climbing is performed onto/off of step ladders or steps to access utilities, structures, components, equipment and controls (e.g. climb to measure mechanical distance; inspect plumbing, vents, attic, crawl spaces, temporary bracing, rooftops, second story) located 8 to 20 feet above floor level (i.e. climb to reach overhead areas for inspection of code compliance). *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 mechanical distance; test electrical outlet; air pressure gauge; construction elevation, site inspection; to/from office/jobsite). 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 inspection for code compliance to/from construction site (e.g. sit to drive vehicle; report and prepare work; file; customer service at permit counter; desktop work; surveillance of worksite).

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

**MAXIMUM
FREQUENCY:** Occasional

Comments: Static standing is performed for a maximum of 15-minute intervals when assisting the public (e.g. stand for site observation; inspect for code compliance; handwrite reports on site). *Specific work tasks may require up to frequent sitting and/or walking.*

21.) **BALANCE:**

**MAXIMUM
FREQUENCY:** Frequent

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

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

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

Comments: Hand controls are utilized to operate equipment (e.g. vehicle) when traveling to/from inspection site for code compliance (e.g. tape measure; drive vehicle). Foot controls are utilized to operate equipment (e.g. drive vehicle).

23.) UPPER AND LOWER EXTREMITY COORDINATION:

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

Comments: Grasping and coordination activities are performed when performing office work, driving and inspecting (i.e. construction site for code compliance).

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; desktop work; operate business machine).

Firm grasping is utilized to perform job tasks (e.g. lift and handle objects weighing 5 pounds or greater; 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; operate business machine).

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

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

24.) CERVICAL (NECK) MOVEMENT:

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

Comments: Neck movement is required when performing job tasks (e.g. drive vehicle, observe site and structure for code compliance; surveillance; 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

<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

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

BUILDING INSPECTOR I, II, III

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
<i>Push (Force)</i> ¹	15 pounds	<i>Stair Climb</i> ¹	Occasional
<i>Pull (Force)</i> ¹	15 pounds	<i>Ladder Climb</i> ¹	Occasional
<i>Stand Up Lift</i> ¹	40 pounds	<i>Walk</i> ¹	Frequent
<i>Level Lift</i> ¹	40 pounds	<i>Sit</i> ¹	Frequent
<i>Weight Carry</i> ¹	20 pounds	<i>Stand (Static)</i> ¹	Occasional
<i>Overhead Lift/Pull Down</i>	10 pounds	<i>Balance</i> ¹	Frequent
<i>Overhead Reach</i> ¹	Occasional	<i>Hand Control</i> ¹	Frequent
<i>Forward Reach</i> ¹	Occasional	<i>Foot Control</i> ¹	Frequent
<i>Stoop</i> ¹	Seldom	<i>Simple Grasp</i> ¹	Frequent
<i>Squat (Unloaded)</i> ¹	Seldom	<i>Firm Grasp</i> ¹	Occasional
<i>Forward Bend</i> ¹	Occasional	<i>Fine Manipulation</i> ¹	Occasional
<i>Twist</i> ¹	Occasional	<i>Eye/Hand Coordination</i> ¹	Frequent
<i>Turn</i> ¹	Occasional	<i>Hand/Foot Coordination</i> ¹	Frequent
<i>Kneel</i> ¹	Seldom	<i>Cervical (neck) Movement</i> ¹	Frequent
<i>Crawl</i>	Seldom		

¹ The critical demands of the job.

Lyle Andersen, PT

_____	Date: _____	_____	Date: _____
Lyle Andersen, PT, CWCE		Contact Person	
Preparer Signature		Title	
_____	Date: _____	_____	Date: _____
Contact Person		Contact Person	
Title		Title	

LA/au