Job Task Analysis

Employer: Stanislaus County

Occupation: Plan Check Engineer

Company Contact: Risk Management

1010 10th Street

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(209) 525-5770

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Analysis Provided By: Lyle Andersen, PT, CWCE

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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.

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 Plan Check Engineer, performs journey-level work in receiving and checking engineering and commercial or industrial plans for engineering requirements; to code compliance, and may act for the Director of Planning and Community Development (Building Permit Division).

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

https://www.governmentjobs.com/careers/stanislaus/classspecs

<u>Safety Requirements</u>: 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
- 2. Computer
- 3. Copy machine
- 4. Keyboard

- 5. Microfiche machine
- 6. Mouse
- 7. Telephone

All employees within the **Plan Check Engineer** 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 **Plan Check Engineer** position.

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:	Not Applicable
2.	Being around moving machinery: traffic	Seldom
3.	Exposure to marked changes in temperature and humidity: outside temperatures may seasonally vary between 28-110 degrees	Not Applicable
4.	Exposure to dust, fumes, smoke, gases, or other irritating substances (specify):	Not Applicable
5.	Driving: vehicle	Seldom
6.	Exposure to excessive noise: Hearing protection is available	Not Applicable
7.	Exposure to radiant or electrical energy:	Not Applicable
8.	Exposure to solvents or chemicals: *Refer to MSDS document.*	Not Applicable
9.	Exposure to slippery or uneven walking surfaces:	Not Applicable
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: Hand protection is available	Not Applicable
15.	Working proximity:	Not Applicable Continuous
16.	Working inside:	Continuous
17.	Working outside:	Seldom

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

FREQUENCY DEFINITIONS	<u>SELDOM</u>	OCCASIONAL	FREQUENT	CONSTANT
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

0-10 pounds: Seldom11-25 pounds: Seldom

26-100 pounds: Not Required **Maximum Force: 15** Pounds

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) 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 100+ feet when performing job tasks (e.g. up to 15 pounds of force to open/close doors, drawers, files, cabinets; cart).

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

MAXIMUM REQUIREMENT

0-10 pounds: Seldom11-25 pounds: Seldom

26-100 pounds: Not Required **Maximum Force: 15** Pounds

Assistive Devices: 4-Wheel Cart, Hand Truck. Additionally, one or more person(s) 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 100+ feet when performing job tasks (e.g. up to 15 pounds of force to open/close doors, drawers, files, cabinets; cart). *Pushing is the preferred method of moving carts*.

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

MAXIMUM REQUIREMENT

0-10 pounds: Seldom **11-25 pounds:** Seldom

26-100 pounds: Not Required **Maximum Force: 25** Pounds

Assistive Devices: One person assistance is available with weights greater than 25 pounds.

Comments: A stand-up lift is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment and supplies (e.g. documents). The employee lifts items weighing between <1 pound and 25 pounds when performing job tasks (e.g. up to 50-pound roll of building plans; books, binder, case books, research documents, files).

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

MAXIMUM REQUIREMENT

0-10 pounds: Occasional **11-25 pounds:** Seldom

26-100 pounds: Not Required **Maximum Force: 25** Pounds

Assistive Devices: One person assistance is available with weights greater than 25 pounds.

Comments: A level lift is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment and supplies (e.g. documents). The employee lifts items weighing between <1 pound and 10 pounds when performing job tasks (e.g. up to 50-pound roll of building plans; books, binder, case books, research documents, files).

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

MAXIMUM REQUIREMENT

0-10 pounds: Occasional

11-100 pounds: Not Required Maximum Force: 10 Pounds

Assistive Devices: Hand truck, 4-wheel cart. Additionally, one person assistance is available with weights greater than 10 pounds.

Comments: Weight carry is utilized with activities such as retrieving, returning, storing, adjusting, moving, and/or transporting equipment and supplies (e.g. documents). The employee carries items weighing between <1 pound and 10 pounds between 5 feet and 100+ feet when performing job tasks (e.g. roll of building plans, books, binder, case books, research documents, files to/from worksite and collaborating agency or colleagues).

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 no required when performing job tasks. Variables to overhead reaching will be the employee's height and anthropometric reach.

7.) OVERHEAD REACH:

MAXIMUM

FREQUENCY: Not Required

Comments: Overhead reach is not required to perform job tasks. 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 FREOUENCY: Frequent

Comments: Forward reach is performed to a distance of 28 inches when retrieving, returning, storing, adjusting, moving equipment and supplies (e.g. desktop work; evaluating, inspecting, calculating plans for code compliance; file; operate business machine; drive vehicle). 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 retrieving, returning, storing, adjusting, moving, and/or transporting supplies (e.g. lower storage areas holding plans and files). 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.) SOUAT: (Unloaded)

MAXIMUM

FREOUENCY: Not Required

Comments: Squatting is not required to perform job tasks. 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: Seldom

Comments: Bending forward at the waist is performed when retrieving, returning, storing, adjusting, moving, and/or transporting supplies (e.g. to/from lower storage areas holding plans and files). Maximum forward trunk flexion required is 60 degrees. Employee may 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 retrieving, returning, storing, adjusting, moving, and/or transporting supplies (e.g. to/from storage areas holding plans and files; drive vehicle). Twisting at the waist may be minimized by turning the whole body, including the feet and working from a swivel chair.

13.) **TURN**:

MAXIMUM FREQUENCY: Seldom

Comments: Turning is performed when retrieving, returning, storing, adjusting, moving, and/or transporting supplies (e.g. to/from storage areas holding plans and files; site inspection and evaluation).

14.) **KNEEL**:

MAXIMUM FREQUENCY: Not Required

Comments: Kneeling is not required to perform job tasks. *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: Not Required

Comments: Stair climb is not required to perform job tasks. Public buildings provide elevators.

17.) **LADDER CLIMB**:

MAXIMUM FREQUENCY: Not Required

Comments: Ladder climbing is not required to perform job tasks. Variables to overhead climbing will vary according to the employee's height and anthropometric reach.

18.) **WALK**:

MAXIMUM FREQUENCY: Occasional

Comments: Walking is performed when retrieving, returning, storing, adjusting, moving, and/or transporting equipment and supplies (e.g. to/from parking lot; collaborating agency and/or colleague; meetings; customer counter). 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 performing job tasks (e.g. destop; meetings, customer counter work; evaluate, inspect, calculate plans for code compliance). Specific work tasks may require up to frequent standing and/or walking.

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

MAXIMUM FREQUENCY: Occasional

Comments: Static standing is performed for a maximum of 15-minute intervals when performing job tasks (e.g. meetings, interview with customer, collaborating agency and/or colleague; site inspection and evaluation; customer counter). Specific work tasks may require up to frequent sitting and/or walking.

21.) **BALANCE**:

MAXIMUM FREQUENCY: Occasional

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

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

MAXIMUM REQUIREMENT

HAND:

Right: Seldom
Left: Seldom
Both: Seldom

Either: Not Required

FOOT:

Right: Seldom
Left: Seldom
Both: Not Required
Either: Not Required

Comments: Hand controls are utilized to operate equipment (e.g. vehicle). Foot controls are utilized to operate equipment (e.g. drive vehicle). Driving vehicle may be required occasionally during infrequent episodes of off-site requirements.

23.) UPPER AND LOWER EXTREMITY COORDINATION:

MAXIMUM REQUIREMENT

Simple Grasp: Frequent
Firm Grasp: Seldom
Fine Manipulation: Frequent
Eye/Hand Coordination: Frequent
Hand/Foot Coordination: Seldom

Comments: Grasping and coordination activities are performed when retrieving, returning, storing, adjusting, moving, equipment and supplies (e.g. desktop work; operating business machines).

Simple grasping is utilized to perform job tasks (e.g. lift and manipulate objects weighing less than 5 pounds).

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

Fine manipulation is utilized to perform job tasks (e.g. keyboard, mouse, telephone; handwrite, page turn, sort, file, hand stamp, calculate, rubber band).

Eye/hand coordination is utilized to perform job tasks (e.g. keyboard, mouse, telephone; handwrite, page turn, sort, file, hand stamp, calculate, rubber band; drive vehicle).

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

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

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

MAXIMUM REQUIREMENT

Static Neutral Position: Frequent Flexing: Frequent

Rotating: Prequent
Occasional
Extending: Seldom

Comments: Neck movement is required when performing job tasks (e.g. desktop work; building plan inspection; file; retrieve and return building plans; customer service; drive vehicle). Participating in observation of work environment allowing for safe working conditions. Full cervical range of motion is required to safely perform the job tasks.



Stanislaus County

JOB TASK ANALYSIS SUMMARY

FREQUENCY DEFINITIONS	<u>SELDOM</u>	OCCASIONAL	FREQUENT	CONSTANT
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	I-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:

PLAN CHECK ENGINEER

Functional Activities	Maximum Requirements	Functional Activities	Maximum Requirements
Push (Force)	15 pounds	Stair Climb	Not Required
Pull (Force)	15 pounds	Ladder Climb	Not Required
Stand Up Lift ¹	25 pounds	Walk ¹	Occasional
Level Lift ¹	25 pounds	Sit ¹	Frequent
Weight Carry ¹	10 pounds	Stand (Static) 1	Occasional
Overhead Lift/Pull Down	0 pounds	Balance	Occasional
Overhead Reach ¹	Not Required	Hand Control	Seldom
Forward Reach	Frequent	Foot Control	Seldom
Stoop	Seldom	Simple Grasp	Frequent
Squat (Unloaded)	Not Required	Firm Grasp	Seldom
Forward Bend	Seldom	Fine Manipulation ¹	Frequent
Twist ¹	Occasional	Eye/Hand Coordination	Frequent
Turn	Seldom	Hand/Foot Coordination ¹	Seldom
Kneel	Not Required	Cervical (neck) Movement	Frequent
Crawl	Not Required		
ne critical demands of the job.			

Lyle Andersen, PT, CWCE

Preparer Signature

Contact Person

Title

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