



# State of Oregon Position Description

**Company:** Department of Administrative Services  
**Organization:** HVAC - DAS  
**Service Type:**

## SECTION 1. POSITION INFORMATION

<b>Job Profile Title:</b>	Facility Energy Technician 4	<b>Job Profile ID:</b>	4035
<b>Business Title:</b>	Facility Energy Technician 4 (Unfilled)	<b>Position ID:</b>	000000040312
<b>Employee Name:</b>		<b>Company ID:</b>	10700
<b>Representation:</b>	OAS	<b>Budget Auth No:</b>	10860
<b>Location:</b>	Salem   DAS   Maintenance Shop		
<b>Supervisor:</b>	Travis Stitzel (Construction and Facility Maintenance Manager 3)		
<b>Position:</b>			
<b>Time Type:</b>	Full Time		
<b>FLSA:</b>	Non Exempt		
<b>Exempt Reason:</b>			
<b>Overtime Eligible:</b>	Yes		
<b>Employee Type:</b>	Permanent		

## SECTION 2. JOB DESCRIPTION SUMMARY

**Describe the program in which this position exists. Include program purpose, who is affected, size, and scope. Include relationship to agency mission.**

The Department of Administrative Services (“DAS”) is the central administrative agency that leads state government to implement the policy and budget decisions of the Governor and Oregon Legislature. Employing an enterprise-wide perspective, DAS serves state government by developing and upholding accountability standards to ensure productive and efficient use of state government’s financial, human and information resources.

DAS provides a stable management infrastructure and essential business services including technology, financial, procurement, publishing/distribution, human resources and facility asset management. These services support and enable state and local government agencies to carry out their missions, benefiting all Oregonians.

To accomplish its mission, DAS partners with private enterprise, citizens, customer service boards and other governmental entities to ensure efficient and effective delivery of government services. The office of the Chief Operating Officer (“COO”), a central component of DAS, unites statewide solutions through team leadership. The COO office coordinates work teams and initiatives that cross jurisdictional and agency boundaries with a goal of achieving transformative, long-term change and developing an agile

organization that is able to meet current and future challenges.

Enterprise Asset Management is comprised of the Facilities Program, including Maintenance, Operations, Planning and Construction Management, and Real Estate Services; the Statewide Fleet Administration and Parking Services Program, and the Oregon Surplus Property Program. The core focus of these programs is property management, both real and personal, for the benefit and optimal use of state government enterprise-wide to support agencies space, travel, and operational needs. We are responsible for cost effective, quality, and efficient asset life cycle management: acquisition, operation, maintenance, and disposal.

b. Describe the primary purpose of this position, and how it functions within this program. Complete this statement. The primary purpose of this position is to:

Provide skilled administration of the Energy Management System and HVAC controls within assigned state owned and/or leased buildings in the Portland area. Provide a safe, comfortable, efficient building environment for state employees and the public. Serve the needs of the state employee tenants, public and tenant agencies.

### **SECTION 3. JOB DESCRIPTION**

**List the major duties of the position. State the percentage of time for each duty. Mark "N" for new duties, "R" for revised duties or "NC" for no change in duties. Indicate whether the duty is an "essential" (E) or "Non-Essential" (NE) function.**

#### **20%-NC-E**

Set up building trends to monitor building Energy usage. Set up historical data logs from the trends to be used in analyzing energy conservation efforts using the Energy Management System (EMS) in all DAS owned and operated Facilities.

Create/modify control schemes for efficient control of Building Automation Systems, within energy management guidelines and customer requirements including sequences of operations as cooperatively written with outside Engineering firms.

Create customized control programs using mathematical formulas and sequential logic, plain English, SPL and Block programming to accomplish more efficient control of DDC/mechanical systems.

#### **10%-NC-E**

Configure Direct Digital Control systems (DDC) in state owned facilities remotely and locally using various interfacing hardware and software tools.

Maintain Ethernet Local Area Network (LAN) between Building Automation host controllers and the network switches in each building.

Maintain Public Unitary Protocol (PUP) 485 networks between host and connected unitary controllers in each building. Monitor and make changes as necessary using American Auto Matrix Solo-Pro software.

Maintain Public Host Protocol (PHP) networks for dial-in and dial-out applications (i.e. system monitoring, dial-out alarms) as well as emailing alarms to appropriate personnel for notification and response.

#### **10%-NC-E**

Troubleshoot and maintain Laboratory DDC control systems to provide the required negative space pressures, air pressures, air changes, and fume hood flows, necessary to satisfy environmental and worker safety regulations. This includes Biosafety level 3, Tier 2 Laboratories.

Perform analysis and collect, test and balance data for environmental conditions within OSHA guidelines for indoor air quality.

**10%-NC-E**

Perform building coordinated commissioning with HVAC staff, contractors and engineering firms to ensure building systems operate as designed.

Perform control system specification and plans review, including inspection of work performed and document review.

Maintain real time trending system for archiving building systems data for troubleshooting, customer relations, and energy savings purposes using multiple 3rd party software such as MySQL and MySQL Lite as well as AAM Sage database trending. Exporting all to Microsoft Excel files and building graphs, charts etc. for tenants, building management, contracted studies and building energy analysts.

**15%-NC-E**

Maintain and administrate DDC file systems to include: Points database, SPL logic, Alarm log, Engineering unit files, Trend files, group files, Config files, NOVELL files, Users and system security files and clearances, 7zip double compressed backup restore points, graphics and animation of HVAC and other building operations. Scheduling of operational run times including calculation of optimum start and scheduling of special events and holidays for maximum energy conservation

Perform File Transfer Protocol (FTP) required for data handling and file transfer between networked building host controllers and central control workstations through use of Software.

Perform repairs to DDC systems, such as, but not limited to hard drive, floppy drive, and power supply, system controllers, head end controllers, routers, network switches, RS485 network and LAN network troubleshooting and infrastructure design and maintenance.

**15%-NC-E**

Day-to-day system troubleshooting, responding to tenant complaints of environmental issues using DDC monitoring and trending systems and making adjustments or recommendations for mechanical adjustments to the systems.

Administrate building HVAC/lighting schedules in State buildings.

Administrate building Emergency Shutdown systems in each DAS operated building to respond to environmental hazards.

**10%-NC-NE**

Retrofit existing outdated or malfunctioning Building Automation Systems with new DDC control system, within cost and spending limits, for better and more efficient control.

Work with engineering groups and project management to implement control schemes as they have laid out in specific mechanical upgrade projects such as, but not limited to: chiller, cooling tower, boiler and large DX refrigeration unit replacement projects. Integrate the mechanical systems with the DDC system.

Create and administrate multiple person to machine interfaces in a user friendly format using, graphics data base and drawing program software such as, but not limited to: AutoCAD, Visio, Paint Shop Pro, Excel, Access, and Vendor supplied visual basic, American Auto Matrix Aspect FT, Alarm Viewer, Auto Pilot, Java based applets and HTML5 interfaced web browsers.

Create, install and maintain Graphics User Interface (GUI) systems for monitoring and alarming all building DDC systems.

**10%-NC-NE**

Oversee and train subordinates in the field of HVAC controls and all types of programming, database management, networking,

alarming, trending and database maintenance.

100 %

## SECTION 4. WORKING CONDITIONS

**Describe any on-going working conditions. Include any physical, sensory, and environmental demands. State the frequency of exposure to these conditions.**

Most of this work will be performed in a field maintenance environment. Employee may work alone or with other staff as required. Employee is exposed to working in confined spaces, adverse weather conditions and risk of injury if safety rules are not followed. The employee must be capable of long hours of physical work, understanding safety measures, construction procedures, and work off ladders and scaffolding, in areas with poor lighting. Work requires operation of hand tools and power tools. Employee must use proper lifting techniques to lift or move HVAC system components. Employee must have the ability to lift up to 75 pounds. Assistance with lifting is available for the employee, if necessary.

Special Working Conditions for State Medical Examiner's Office and State Police Forensics Laboratory facility:

Staff working in this facility may have visual or sensual exposure to an assortment of Forensics Laboratory, Environmental & Biological Lab or Medical Examiner Laboratory environments that could include unsanitary evidence contaminated with body fluids from crime location, materials from Medical Examiner's lab or body evidence from deceased persons. Working in close proximity to this evidence or materials may be required to perform the duties of this job. DAS staff performing work in secure areas or labs will be escorted by Forensics or Medical staff at all times.

## SECTION 5. GUIDELINES

**List any established guidelines used in the position, such as state or federal laws or regulations, policies, manuals, or desk procedures.**

- Department Policy Manual
- Uniform Building Codes
- National Electrical Code
- State and Local Commercial and Residential Electrical Codes
- OSHA Rules
- Facilities Maintenance Safety Manual
- Uniform Plumbing Codes
- National Fire Protection Association Rules
- A.D.A. Guidelines

**How are these guidelines used?**

The various electrical codes are used to determine if the supply circuit is properly installed and safe to use. The other building codes are used for reference purposes. Department guidelines are used for service reference and procedure purposes. The codes and guidelines may also be used when monitoring the work of outside contractors and OSHA Guidelines are applied to ensure proper safety practices are adhered to.

Particular attention is given to safety and is discussed at monthly safety meetings and all new employee orientations.

## SECTION 6. WORK CONTACTS

With whom, outside of co-workers in this work unit, must the employee in this position regularly come in contact?

Who	How	Purpose	How Often?
State Employees, Managers/ Supervisor, General Public, Contractors, Building Security, Information/Consulting, Consultants/Project Managers, Agency Staff	In Person, by mail, email or telephone	Building Assignments, Ordering and replacing equipment and supplies, Work Assignments, Information, Building Duties	Daily

## SECTION 7. POSITION RELATED DECISION MAKING

Describe the typical decisions of this position. Explain the direct effect of these decisions.

The position determines its own work priorities and plans how to perform assignments. The employee decides on a daily basis the best way to proceed with a project or troubleshoot a problem. When resolving problems, this employee decides the most appropriate way of servicing or repairing the problem to avoid inconveniencing customer agencies, while ensuring that prudent precautions and safety practices are followed. Because it works independently, the position is often required to make immediate and critical decisions. If proper servicing, repair and installation practices are not followed, it may result in dissatisfied customers, additional costs, and may expose the department to potential liability.

## SECTION 8. REVIEW OF WORK

Job Profile	Position ID	How	How Often	Purpose of Review
Construction and Facility Maintenance Supervisor 2	3160801	In Person, by mail, email or telephone	Quarterly	Performance Evaluation
Construction and Facility Maintenance Supervisor 2	3160801	In Person, by mail, email or telephone	Daily	Work is reviewed daily

## SECTION 9. OVERSIGHT

What are the oversight activities for this position?

## SECTION 10. ADDITIONAL POSITION RELATED INFORMATION

List any knowledge and skills needed at time of hire that are not already required in the classification specification:

This position is subject to a criminal records check, which may require fingerprints. If you are offered employment, the offer will be contingent upon the outcome of a criminal records check (FBI). Any history of criminal activity will be reviewed and could result in the withdrawal of the offer or termination of employment.

You are responsible to promote and foster a diverse and discrimination/harassment-free workplace; establish and maintain professional and collaborative working relationships with all contacts; contribute to a positive, respectful and productive work environment; maintain regular and punctual attendance; perform all duties in a safe manner; and comply with all policies and procedures. Working in a team oriented environment requires participative decision making and cooperative interactions among staff and management. You are to be aware of Affirmative Action and the department's Diversity strategies and goals.

Additional skills, abilities and requirements:

- Employee is required to possess and maintain a valid driver's license issued by the state where the employee resides.
  - Restricted Energy Technician LEB/LEA license, Required, State of Oregon Building Codes
  - Employee is required to serve week-ends and holidays in a rotational on-call status. An employee assigned on-call status is required to be available for work outside his/her working hours and not subject to restrictions which would prevent the employee from using the time while on-call effectively for the employee's own purposes (SEIU Bargaining Contract, Article 34, Section 2).
  - Employee must possess good communication skills, knowledge of practical mathematics and some physics and chemistry. Training in the theory and hands-on laboratory work on pneumatic and electronic heating and air conditioning, and refrigeration systems are also essential.
  - Ability to learn to operate a personal computer and software programming needed to monitor and modify energy management system software to meet the information and troubleshooting needs of the program. Employee must have knowledge of basic programming language and ability to read and write program language.
  - Employee may be required to work with a Computer Integrated Facilities Management System (CIFMS). This would include creating and completing work tasks in a windows based environment. Recording daily time to each individual work task.
- Behavioral expectations
- Prepare for and attend staffing meetings, bringing issues and solutions for the team to resolve.
  - Obtain agreement through the use of consensus when appropriate, giving and receiving feedback.
  - Commit to support and help other team members.
  - Share in leadership, and actively support decisions made by the management team.
  - Participate in cross-functional or problem solving teams as needed.
  - Adheres to all DAS policies and EAM policies, processes, procedures, and safety practices.

## SECTION 11. BUDGET AUTHORITY

If this position has authority to commit agency operating money, indicate the following:

Operating Area	Biennial Amount	Fund Type
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## SECTION 12. ORGANIZATIONAL CHART

See Organizational Chart (attach copy or view within Workday).

## SECTION 13. SIGNATURES

Employee	Date
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Manager	Date
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Appointing Authority	Date
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