

**POSTING IS REQUIRED**

**Classification Notice No. 1367**

To: Agency Heads and Employees  
From: Nita Henry, Executive Director  
Date: October 3, 2012  
Subject: Proposed Change to the Classification and Pay Plan

**The proposed change amends the Classification and Pay Plan by adding Building Engineer (620-J) and Lead Building Engineer (621-J).**

These classes were created as a result of a city-wide study of the Master Trades Worker classification. The study revealed the need for a new class that focused on overall maintenance and preventative maintenance of City facilities, including the utilization of building automation systems to monitor and control building systems. It was found that the industry has begun utilizing building "generalists" to handle issues that do not require construction or one specific trade expertise such as plumbing, HVAC or electrical. Newer city facilities such as the Webb Building and the Justice Center are more in need of upkeep and preventative maintenance rather than large-scale repair or additional construction. Attracting applicants with this type of background has been difficult, as departments have been using either the HVAC Mechanic or Master Trades Worker class to recruit, and neither class accurately describes this position. It was decided that a specific class should be written that would accurately describe the position when recruiting and would also accurately compensate this specific skill set.

**NEW CLASSES**

<b><u>Job Code</u></b>	<b><u>Classification Title</u></b>	<b><u>Pay Grade &amp; Range</u></b>
CJ2732	Building Engineer	620-J (\$47,289 – 69,042)
CJ2733	Lead Building Engineer	621-J (\$49,441 - \$72,184)

Per Career Service Rule 7-37 A – "If it is determined, as a result of an audit or maintenance study, that changes to the classification and pay plan are necessary, the effective date of any resulting re-allocations shall be the beginning of the first work week following approval by the Board."

The Career Service Executive Personnel Director shall provide those appointing authorities who are affected with a draft of proposed changes in the plan, and notice shall be posted on appropriate bulletin boards at least thirteen calendar days from the date of this notice.

**Public Notice of Changes:**

The scheduled time for the public hearing is **Thursday October 18, 2012 9:00 a.m.** in the CSA Board Room, Room 4.I.4, Webb Municipal Building, 201 West Colfax Avenue.

**Note:** Please submit any questions or comments on this proposal in writing to Bruce Backer [bruce.backer@denvergov.org](mailto:bruce.backer@denvergov.org), Career Service Authority, in care of Alena Martinez [alena.martinez@denvergov.org](mailto:alena.martinez@denvergov.org) by 8:00 a.m. on **Wednesday, October 17, 2012**. Please include a contact name and phone number so that we may respond directly.

If anyone wishes to be heard by the Board on this item, please call Frances Trujillo [frances.trujillo@denvergov.org](mailto:frances.trujillo@denvergov.org) at (720) 913-5609 no later than noon on **Tuesday, October 16, 2012**.



## Career Service Authority

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# Building Engineer

### GENERAL STATEMENT OF CLASS DUTIES

Performs full performance level work in the daily operation, maintenance, preventative maintenance and repairs for a City facility, including utilizing automated control systems to monitor, adjust and control various electrical and mechanical building systems.

### DISTINGUISHING CHARACTERISTICS

This class is distinguished from the Lead Building Engineer class that performs permanently assigned lead work. It is also distinguished from other single-trades classes such as HVAC Mechanic, Plumber and Electrician by broader responsibilities along with experience with Building Automation Systems (BAS).

#### ***Guidelines, Difficulty and Decision Making Level:***

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

#### ***Level of Supervision Received and Quality Review:***

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.

#### ***Interpersonal Communications and Purpose:***

Contacts with the public or employees where explanatory or interpretive information is exchanged, gathered, or presented and some degree of discretion and judgment are required within the parameters of the job function.

***Level of Supervision Exercised:***

None.

**ESSENTIAL DUTIES**

Responsible for the daily operation of, and periodic preventative maintenance on, a facility's mechanical, electrical, HVAC, and plumbing systems; including air handling units, domestic cool and hot water systems, heating and chill water systems, sump and sewage systems, diesel generators, and fire protection, pump and detection systems.

Inspects buildings, grounds and equipment for unsafe or malfunctioning systems and conditions.

Assists with installation and modification of building equipment systems.

Oversees or performs repair, testing and troubleshooting of building equipment systems.

Evaluates and recommends equipment and service upgrades.

Assists in coordinating maintenance efforts with outside contractors and technicians for contracted work.

Orders parts and supplies as required, and maintains stock and inventory control.

Provides input to supervisors and managers responsible for planning and controlling annual budgets.

Prioritizes service calls and follow-ups upon completion.

Is responsive to tenant complaints in the areas of safety, plumbing, mechanical, electrical and environmental needs through both personal contact and work order systems.

Prepares and maintains maintenance work order logs and records.

Is familiar with and conforms to all written operating procedures associated with the facility.

By position, performs snow removal duties.

Performs other related duties as assigned.

Any one position may not include all of the duties listed.  
However, the allocation of positions will be determined by  
the amount of time spent in performing the essential duties  
listed above.

**MINIMUM QUALIFICATIONS**

***Competencies, Knowledge, & Skills:***

**Engineering and Technology** – Knowledge of engineering concepts, principles, and practices, and of equipment, tools, mechanical devices, and their uses to produce motion, light, power, technology, and other applications.

**Industrial Equipment Operation** – Knowledge of principles and methods for operating industrial equipment.

**Building and Construction** – Knowledge of materials, methods, and the appropriate tools to construct objects, structures, and buildings.

**Mechanical** – Knowledge of machines and tools, including their designs, installation, uses, repair, and maintenance.

**Design** – Knowledge of developing, producing, understanding, and using plans, blueprints, models, and maps, including the use of tools and instruments to produce precision technical drawings.

**Electrical** – Knowledge of electrical equipment, components, instruments, and burglar and fire alarm systems including installation, testing, uses, repair, and maintenance.

**Electronics** – Knowledge of electronic theory, circuits, components, and material properties (excluding computers).

**Technical Competence** – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

**Technical Problem Solving** – Troubleshoots, diagnoses, analyzes, and identifies systems malfunctions to determine the source and cause of the problem.

**Reading** – Understands and interprets written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

**Writing** – Recognizes or uses correct English grammar, punctuation, and spelling; communicates information (for example, facts, ideas, or messages) in a brief, clear, and organized manner; produces written information, which may include technical material, that is appropriate for the intended audience.

**Mathematical Reasoning** – Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

**Oral Communication** – Expresses information (for example, ideas or facts) to individual or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others, attends to nonverbal cues, and responds appropriately.

**Problem Solving** – Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

**Attention to Detail** – Is thorough when performing work and conscientious about attending to detail.

**Spatial Orientation** – Knows one's location in relation to the environment; determines where other objects are in relation to one's self (for example, when using a map).

**Physical Demands** (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

Standing: remaining on one's feet in an upright position.  
Walking: moving about on foot.  
Sitting: remaining in the normal seated position.  
Lifting: raising or lowering an object from one level to another.  
Lifting: Raising or lowering an object over 50 pounds.  
Carrying: transporting an object, usually by hand, arm, or shoulder.  
Pushing: exerting force upon an object so that the object is away.  
Pulling: exerting force on an object so that it is moving to the person.  
Climbing: ascending or descending objects usually with hands/feet.  
Balancing: maintaining body equilibrium to prevent falling over.  
Stooping: bending the body by bending spine at the waist.  
Kneeling: bending legs to come to rest on one or both knees.  
Crouching: bending body downward and forward by bending legs.  
Crawling: moving about on hands and knees or hands and feet.  
Reaching: extending the hand(s) and arm(s) in any direction.  
Handling: seizing, holding, grasping, or otherwise working with hands.  
Fingering: picking, pinching, or otherwise working with fingers.  
Feeling: perceiving attributes of objects by means of skin receptors.  
Talking: expressing or exchanging ideas by means of spoken words.  
Hearing: perceiving the nature of sounds by the ear.  
Repetitive motions: Making frequent movements with a part of the body.  
Far acuity: ability to see clearly at 20 feet or more.  
Near acuity: ability to see clearly at 20 inches or less.  
Depth Perception: ability to judge distance and space relationships.  
Field of Vision: ability to see peripherally.  
Accommodation: ability to adjust vision to bring objects into focus.  
Color Vision: ability to distinguish and identify different colors.

**Working Environment:**

Exposure to extreme temperature changes.  
Exposure to noise sufficient enough to cause distraction or possible hearing loss.  
Exposure to hazardous conditions where there is danger to life, body, or health.  
Exposure to hazards from electro/mechanical/power equipment.  
Subject to injury from moving parts of equipment.  
Subject to varying and unprecedented situations.  
Subject to pressure for multiple calls, inquiries, and interruptions.  
By position, subject to burns and cuts.  
By position, subject to frequent contact with water or other liquids.

**Education Requirement:**

Graduation from high school, or possession of a GED Certificate.

**Experience Requirement:**

Three years of experience in building operations, engineering and equipment and systems maintenance including experience with Building Automation Systems (BAS).

**Education/Experience Equivalency:**

Completion of College or Technical School coursework in Building Operator Program, Engineering Technical Training, or a professional designation in facilities management may be substituted for one year of the required experience.

**Licensure and/or Certification:**

Possession of a valid driver's license at the time of application.

Possession by the end of the probationary period of either a valid journey certificate of qualification as required in trades specialty issued by the City and County of Denver or a valid journey license issued by the State of Colorado.

By position, requires a Class-B Commercial Driver's License with appropriate endorsements.

**CLASS DETAIL**

**FLSA CODE:** Non-Exempt

**ESTABLISHED DATE:** xx/xx/2012

**ESTABLISHED BY:** Tony Gautier

**REVISED DATE:** N/A

**REVISED BY:** N/A

**CLASS HISTORY** This is a new class.



## Career Service Authority

# Lead Building Engineer

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### GENERAL STATEMENT OF CLASS DUTIES

Performs permanently assigned lead work over staff responsible for the daily operation, maintenance, preventative maintenance and repairs for a City facility, including utilizing automated control systems to monitor, adjust and control various electrical and mechanical building systems.

### DISTINGUISHING CHARACTERISTICS

This class is distinguished from the Building Engineer class that performs full performance work in the daily operation, maintenance, preventative maintenance and repairs for a City facility, including utilizing automated control systems to monitor, adjust and control various electrical and mechanical building systems. It is also distinguished from the Multiple Trades Supervisor class that supervises multiple skilled trades workers in the operation, maintenance, and repair of City facilities and equipment.

#### ***Guidelines, Difficulty and Decision Making Level:***

Guidelines are generally but not always clearly applicable, requiring the employee to exercise judgment in selecting the most pertinent guideline, interpret precedents, adapt standard practices to differing situations, and recommend alternative actions in situations without precedent.

Duties assigned are generally complex and may be of substantial intricacy. Work assignment is performed within an established framework under general instructions but requires simultaneous coordination of assigned functions or projects in various stages of completion.

Employee is responsible for determining time, place, and sequence of actions to be taken. Unusual problems or proposed deviations from guidelines, practices, or precedents may be discussed with the supervisor before being initiated.

#### ***Level of Supervision Received and Quality Review:***

Under general supervision, the employee receives assignments and is expected to carry them through to completion with substantial independence. Work is reviewed for adherence to instructions, accuracy, completeness, and conformance to standard practice or precedent. Recurring work clearly covered by guidelines may or may not be reviewed.

#### ***Interpersonal Communications and Purpose:***

Contacts with the public or employees where explanatory or interpretive information is exchanged, gathered, or presented and some degree of discretion and judgment are required within the parameters of the job function.

***Level of Supervision Exercised:***

Performs lead work over assigned staff.

**ESSENTIAL DUTIES**

Performs permanently assigned lead work over staff responsible for the daily operation of, and periodic preventative maintenance on, a facility's mechanical, electrical, HVAC, and plumbing systems; including air handling units, domestic cool and hot water systems, heating and chill water systems, sump and sewage systems, diesel generators, fuel management, and fire protection, pump and detection systems.

Evaluates and recommends equipment and service upgrades.

Coordinates maintenance efforts with outside contractors and technicians for contracted work.

Coordinates contractor, tenant and management approvals for work orders that require the use of an outside contractor.

Assist supervisors and managers in planning and controlling annual budgets.

Assists in the training of employees.

Develops or modifies work plans, methods, and procedures, determines work priorities, develops work schedules to provide adequate staff coverage, and assigns and reviews work.

Resolves problems and determines appropriate solutions.

Provides performance feedback and furnishes information for the formal performance evaluation.

Responds orally to informal grievances and relays information to the supervisor, including documenting situations that may be cause for disciplinary action.

By position, participates in snow removal duties.

Performs other related duties as assigned.

Any one position may not include all of the duties listed.  
However, the allocation of positions will be determined by  
the amount of time spent in performing the essential duties  
listed above.

**MINIMUM QUALIFICATIONS**

***Competencies, Knowledge, & Skills:***

**Engineering and Technology** – Knowledge of engineering concepts, principles, and practices, and of equipment, tools, mechanical devices, and their uses to produce motion, light, power, technology, and other applications.

**Industrial Equipment Operation** – Knowledge of principles and methods for operating industrial equipment.

**Building and Construction** – Knowledge of materials, methods, and the appropriate tools to construct objects, structures, and buildings.

**Mechanical** – Knowledge of machines and tools, including their designs, installation, uses, repair, and maintenance.

**Design** – Knowledge of developing, producing, understanding, and using plans, blueprints, models, and maps, including the use of tools and instruments to produce precision technical drawings.

**Electrical** – Knowledge of electrical equipment, components, instruments, and burglar and fire alarm systems including installation, testing, uses, repair, and maintenance.

**Electronics** – Knowledge of electronic theory, circuits, components, and material properties (excluding computers).

**Technical Competence** – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

**Technical Problem Solving** – Troubleshoots, diagnoses, analyzes, and identifies systems malfunctions to determine the source and cause of the problem.

**Reading** – Understands and interprets written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

**Writing** – Recognizes or uses correct English grammar, punctuation, and spelling; communicates information (for example, facts, ideas, or messages) in a brief, clear, and organized manner; produces written information, which may include technical material, that is appropriate for the intended audience.

**Mathematical Reasoning** – Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

**Oral Communication** – Expresses information (for example, ideas or facts) to individual or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others, attends to nonverbal cues, and responds appropriately.

**Problem Solving** – Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

**Attention to Detail** – Is thorough when performing work and conscientious about attending to detail.

**Spatial Orientation** – Knows one's location in relation to the environment; determines where other objects are in relation to one's self (for example, when using a map).

**Leadership** – Influences, motivates, and challenges others; adapts leadership style to a variety of situations.

**Teaching Others** – Helps others learn through formal or informal methods; identifies training needs; provides constructive feedback; coaches others on how to perform tasks; acts as a mentor.

**Conflict Management** – Manages and resolves conflicts, grievances, confrontations, or disagreements in a constructive manner to minimize negative personal impact.

**Physical Demands** (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

Standing: remaining on one's feet in an upright position.

Walking: moving about on foot.

Sitting: remaining in the normal seated position.

Lifting: raising or lowering an object from one level to another.

Lifting: Raising or lowering an object over 50 pounds.

Carrying: transporting an object, usually by hand, arm, or shoulder.

Pushing: exerting force upon an object so that the object is away.

Pulling: exerting force on an object so that it is moving to the person.

Climbing: ascending or descending objects usually with hands/feet.

Balancing: maintaining body equilibrium to prevent falling over.

Stooping: bending the body by bending spine at the waist.

Kneeling: bending legs to come to rest on one or both knees.

Crouching: bending body downward and forward by bending legs.

Crawling: moving about on hands and knees or hands and feet.

Reaching: extending the hand(s) and arm(s) in any direction.

Handling: seizing, holding, grasping, or otherwise working with hands.

Fingering: picking, pinching, or otherwise working with fingers.

Feeling: perceiving attributes of objects by means of skin receptors.

Talking: expressing or exchanging ideas by means of spoken words.

Hearing: perceiving the nature of sounds by the ear.

Repetitive motions: Making frequent movements with a part of the body.

Far acuity: ability to see clearly at 20 feet or more.

Near acuity: ability to see clearly at 20 inches or less.

Depth Perception: ability to judge distance and space relationships.

Field of Vision: ability to see peripherally.

Accommodation: ability to adjust vision to bring objects into focus.

Color Vision: ability to distinguish and identify different colors.

### **Working Environment:**

Exposure to extreme temperature changes.

Exposure to noise sufficient enough to cause distraction or possible hearing loss.

Exposure to hazardous conditions where there is danger to life, body, or health.

Exposure to hazards from electro/mechanical/power equipment.

Subject to injury from moving parts of equipment.

Subject to varying and unprecedented situations.

Subject to pressure for multiple calls, inquiries, and interruptions.

By position, subject to burns and cuts.

By position, subject to frequent contact with water or other liquids.

### **Education Requirement:**

Graduation from high school, or possession of a GED Certificate.

**Experience Requirement:**

Four years experience in building operations, engineering and equipment and systems maintenance including experience with Building Automation Systems (BAS).

**Education/Experience Equivalency:**

Completion of College or Technical School coursework in Building Operator Program, Engineering Technical Training or a professional designation in facility management may substitute for one year of the required experience.

**Licensure and/or Certification:**

Possession of either a valid journey certificate of qualification as required in trades specialty issued by the City and County of Denver or a valid journey license issued by the State of Colorado as required in trade specialty required at the time of application.

Possession of a valid driver's license at the time of application.

By position, requires a Class-B Commercial Driver's License with appropriate endorsements.

**CLASS DETAIL**

**FLSA CODE:** Non-Exempt  
**ESTABLISHED DATE:** xx/xx/2012  
**ESTABLISHED BY:** Tony Gautier  
**REVISED DATE:** N/A  
**REVISED BY:** N/A  
**CLASS HISTORY** This is a new class.