CHESTERMERE

Medical Clearance Request

Dear Doctor:

The client who has made an appointment with you is currently applying for employment as a Firefighter with Chestermere Fire Services. Please review the medical conditions within this document and complete the medical opinion clearance form below.

MEDICAL OPINION – CLEARANCE

In your professional opinion, does this candidate meet the medical requirements as per the conditions outlined below?

❑ YES ❑ NO

APPLICANT'S NAME _____

APPLICANT'S RESTING HEART RATE _____

APPLICANT'S RESTING BLOOD PRESSURE _____

COMMENTS:

_____

_____

_____

_____

_____

PHYSICIAN'S SIGNATURE _____DATE _____

PRINT PHYSICIAN'S NAME_____

CLINIC NAME_____

CLINIC ADDRESS_____

CLINIC PHONE NUMBER_____

Please return the completed form to the firefighter applicant.

Please note: The applicant must present this medical clearance on their evaluation date. They will not be cleared without it. Any costs incurred in your examination of this individual or the completion of this form is the sole responsibility of the applicant.

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Medical Conditions

MEDICAL CONDITIONS AFFECTING THE ABILITY TO SAFELY PERFORM ESSENTIAL JOB TASKS

Human Resources and the Officer Group have set the pre-employment medical/fitness standards for Chestermere firefighters. The ultimate criterion is that the entry-level firefighter must execute duties and assignments in a manner which is safe to him/her and others, with expediency and accuracy.

Chestermere Fire Services medical standards follow the requirements outlined under the *National Fire Protection Association Standard on Comprehensive Occupational Medical Program for Fire Departments 2007 Edition (referred to as "NFPA 1582").*

The following information is provided as a general guideline and is not all-encompassing. A complete copy of the NFPA 1582 standard can be purchased from the National Fire Protection Association at www.nfpa.org or (617) 770-3000.

CHESTERMERE

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NFPA 1582, Chapter 5, Section 5.1 – Essential Job Tasks and Descriptions

The fire department shall evaluate the following 13 essential job tasks against the types and levels of emergency services provided to the local community by the fire department, the types of structures and occupancies comprising the community, and the configuration of the fire department to determine the essential job tasks of fire department members and candidates;

1. Performing fire-fighting tasks (e.g. hose line operations, extensive crawling, lifting and carrying heavy objects, ventilating roofs or walls using power or hand tools, forcible entry), rescue operations, and other emergency response actions under stressful conditions while wearing personal protective ensembles and self-contained breathing apparatus (SCBA), including working in extremely hot or cold environments for prolonged time periods.
2. Wearing an SCBA which includes a demand valve-type positive-pressure face piece or HEPA filter masks, which requires the ability to tolerate increased respiratory workloads.
3. Exposure to toxic fumes, irritants, particulates, biological (infectious) and non-biological hazards, and/or heated gases, despite the use of personal protective ensembles and SCBA.
4. Depending on the local jurisdiction, climbing six or more flights of stairs while wearing fire protective ensemble weighing at least 50 lb (22.6 kg) or more and carrying equipment/tools weighing an additional 20 to 40 lb (9 to 18 kb).
5. Wearing fire protective ensemble that is encapsulating and insulated, which will result in significant fluid loss that frequently progresses to clinical dehydration and can elevate core temperature to levels exceeding 102.2qF (39qC).
6. Searching, finding, and rescue-dragging or carrying victims ranging from newborns up to adults weighing over 200 lb (90 kg) to safety despite hazardous conditions and low visibility.
7. Advancing water-filled hose lines up to 2½ in. (65 mm) in diameter from fire apparatus to occupancy [approximately 150 ft (50 m)], which can involve negotiating multiple flights of stairs, ladders, and other obstacles.
8. Climbing ladders, operating from heights, walking or crawling in the dark along narrow or uneven surfaces, and operating in proximity to electrical power lines and/or other hazards.
9. Unpredictable emergency requirements for prolonged periods of extreme physical exertion without benefit of warm-up, scheduled rest periods, meals, access to medication(s), or hydration.
10. Operating fire apparatus or other vehicles in an emergency mode with emergency lights and sirens.
11. Critical, time-sensitive, complex problem solving during physical exertion in stressful, hazardous environments, including hot, dark, tightly enclosed spaces that is further aggravated by fatigue flashing lights, sirens, and other distractions.
12. Ability to communicate (give and comprehend verbal orders) while wearing personal protective ensembles and SCBA under conditions of high background noise, poor visibility, and drenching from hose lines and/or fixed protection systems (sprinklers).
13. Functioning as an integral component of a team, where sudden incapacitation of a member can result in mission failure or in risk of injury or death to civilians or other team members.

NFPA 1582, Chapter 6, Section 6.2.2 – Category "A" Medical

Candidates with Category "A" medical conditions shall not be certified as meeting the medical requirements of this standard."

NFPA 1582 – CATEGORY "A" MEDICAL CONDITIONS NOT ACCEPTED

SECTION 6.3 – HEAD AND NECK

- Defect of skull preventing helmet use or leaving underlying brain unprotected from trauma.
- Any skull or facial deformity that would not allow for a successful respiratory facepiece fit test.
- Any head or neck condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.4 – EYES AND VISION

- Far visual acuity less than 20 / 40 binocular, corrected with contact lenses or spectacles, or far visual acuity less than 20 / 100 binocular for wearers of hard contacts or spectacles, uncorrected.
    - Note: Successful long-term soft contact lens wearers are not subject to the uncorrected standard; long- term is defined as six months without a problem.
- Monochromatic vision resulting in inability to use imaging devices such as thermal imaging camera.
    - Note: Candidates must pass the Farnesworth-Hue Colour Test or Ishihara Test for Colour Blindness.
- Monocular vision that restricts the candidate's ability to drive fire apparatus and other emergency vehicles.
- Any eye condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.5 – EARS AND HEARING

- Chronic vertigo or impaired balance as demonstrated by the inability to tandem gait walk.
- On audiometric testing, average hearing loss in the unaided better ear greater than 40 decibels (dB) at:
    - 500 hertz (Hz), 1000 Hz, 2000 Hz, and 3000 Hz when the audiometric device is calibrated to ANSI Z24.5,
    - Audiometric Device Testing.
- Any ear condition (or hearing impairment) that results in a person not being able to safely perform one or more of the essential job tasks.

SECTION 6.6 – DENTAL

- Any dental condition that results in inability to safely perform one or more of the essential job tasks.

SECTION 6.7 – NOSE, OROPHARYNX, TRACHEA, ESOPHAGUS AND LARYNX

- Tracheostomy.
- Aphonia.
- Any nasal, oropharyngeal, tracheal, esophageal or laryngeal condition that results in inability to safely perform one or more of the essential job tasks including fit testing for respirators such as N-95 for medical response, P-100 for particulates and certain vapors, and SCBA for fire and hazmat operations.

SECTION 6.8 – LUNGS AND CHEST WALL

- Active hemoptysis, empyema, pulmonary hypertension and tuberculosis.
- An FVC or FEV, less than 70 percent predicted independent of disease.
- Obstructive lung diseases such as emphysema, chronic bronchitis, asthma with an FEV / FVC less than 0.75, with both FEV and FVC below normal (less than 0.80).\
- Hypoxemia – oxygen saturation less than 90 percent at rest or exercise desaturation by 4 percent or to less than 90 percent.
- Asthma – reactive airways disease requiring bronchodilator or corticosteroid therapy for 2 or more consecutive months in the previous 2 years, unless:
    - A candidate who has in the past required bronchodilator, corticosteroid or anti-inflammatory therapy but does not believe he/she has asthma shall be evaluated by a pulmonologist or other expert in asthmatic lung disease such as an allergist to determine:
        - Asthma has resolved without symptoms off medications for 2 years.
        - If allergic, allergen avoidance or desensitization has been successful.
        - Spirometry demonstrates adequate reserve (FVC and FEV1 greater than or equal to 90 percent) and no bronchodilator response measured off all bronchodilators on the day of testing.
        - Normal or negative response (less than 20 percent decline in FEV1) to provocative challenge using cold air, exercise (12 METS) or methacholine. (PC20 greater than 8 is considered normal, as response at dose greater than 8 mg might not be clinically significant).
        - Challenge testing shall be performed off all anti-inflammatory medications for 4 weeks preceding the test and off all bronchodilators on the day of testing.

SECTION 6.9 – HEART AND VASCULAR SYSTEM

- Section 6.9.1 – Heart
  - Coronary artery disease, myocardial infarction, angina pectoris, coronary artery bypass surgery, coronary angioplasty and similar procedures.
  - Cardiomyopathy or congestive heart failure, including signs or symptoms of compromised left or right ventricular function, including dyspnea, S3 gallop, peripheral edema, enlarged ventricle, abnormal ejection fraction and/or inability to increase cardiac output with exercise.
  - Acute pericarditis, endocarditis or myocarditis
  - Syncope, recurrent
  - Condition requiring an automatic implantable cardiac defibrillator or history of ventricular tachycardia or ventricular fibrillation due to ischemic or valvular heart disease or cardiomyopathy.
  - Third-degree atrioventricular block.
  - Cardiac pacemaker.
  - Idiopathic hypertrophic sub aortic stenosis.
  - Any cardiac condition that results in the candidate not being able to safely perform one or more of the essential job tasks.
- Section 6.9.2 – Vascular System
  - Hypertension with evidence of end organ damage or not controlled by approved medications.
  - Thoracic or abdominal aortic aneurysm.
  - Carotid artery stenosis or obstruction resulting in greater than or equal to 50 percent reduction in blood flow.
  - Peripheral vascular disease resulting in symptomatic claudication.
  - Any other vascular condition that results in inability to safely perform on e or more of the essential job tasks.

SECTION 6.10 – ABDOMINAL ORGANS AND GASTROINTESTINAL SYSTEM

- Presence of uncorrected inguinal / femoral hernia regardless of symptoms.
- Any gastrointestinal condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.11 – REPRODUCTIVE SYSTEM

- Any genital condition that results in inability to safely perform one or more of the essential job tasks.

SECTION 6.12 – URINARY SYSTEM

- Renal failure or insufficiency requiring continuous ambulatory peritoneal dialysis (CAPD) or haemodialysis.
- Any urinary condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.13– SPINE AND AXIAL SKELETON

- Scoliosis of the thoracic or lumbar spine with an angle greater than or equal to 40 degrees.
- History of spinal surgery involving fusion of two or more vertebrae or rods that are still in place.
- Any spinal or skeletal condition producing sensory or motor deficits or pain due to radiculopathy or nerve root compression.
- Cervical vertebral fractures with multiple vertebral body compression greater than 25 percent; evidence of posterior element involvement, nerve root damage, disc involvement, dislocation (partial, moderate, severe), abnormal exam, ligament instability, symptomatic, and/or less than 6 months post-injury or less than 1 year since surgery.
- Thoracic vertebral fractures with vertebral body compression greater than 50 percent; evidence of posterior element involvement, nerve root damage, disc involvement, dislocation (severe – with or without surgery), abnormal exam, ligament instability, symptomatic, and/or less than 6 months post-injury or less than 1 year since surgery.
- Lumbosacral vertebral fractures with vertebral body compression greater than 50 percent; evidence of posterior element involvement, nerve root damage, disc involvement, dislocation (partial, moderate, severe), fragmentation, abnormal exam, ligament instability, symptomatic, and/or less than 6 months post-injury or less than 1 year since surgery.
- Any spinal or skeletal condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.14 – EXTREMITIES

- Bone hardware such as metal plates or rods supporting bone during healing.
- History of total joint replacement.
- Amputation or congenital absence of upper-extremity limb (hand or higher).
- Amputation of either thumb proximal to the mid-proximal phalanx.
- Amputation or congenital absence of lower-extremity limb (foot or above).
- History of more than one dislocation of shoulder without surgical repair or with history of recurrent shoulder disorders within the last 5 years with pain or loss of motion, and with or without radiographic deviations from normal.
- Any extremity condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.15 – NEUROLOGICAL DISORDERS

- Ataxias of heredo-degenerative type.
- Cerebral arteriosclerosis as evidenced by a history of transient ischemic attack, reversible ischemic neurological deficit, or ischemic stroke.
- Hemiparalysis or paralysis of a limb.
- Multiple sclerosis with activity or evidence of progression within previous 3 years.
- Myasthenia gravis with activity or evidence of progression within previous 3 years.
- Progressive muscular dystrophy or atrophy.
- Uncorrected cerebral aneurysm.
- All epileptic conditions including simple partial, complex partial, generalized, and psychomotor seizure disorders other than allowed in 6.15.1.1.
- A candidate with epileptic conditions shall have had complete control during the previous 5 years.
    - To be medically qualified a candidate shall meet all of the following:
        - No seizures for 1 year off all anti-epileptic medication or 5 years seizure free on a stable medical regimen.
        - Neurologic examination is normal.
        - Imaging (CAT or MRI scan) studies are normal.
        - Awake and asleep EEG studies with photic stimulation and hyperventilation are normal.
        - A definitive statement from a qualified neurological specialist that the candidate meets the criteria specified in 6.15.1.2(1) through 6.15.1.2(4) and that the candidate is neurologically cleared for fire-fighting training and the performance of a fire fighter's essential job tasks.
    - Dementia (Alzheimer's and other neurodegenerative diseases) with symptomatic loss of function or cognitive impairment (e.g., less than or equal to 28 on Mini-Mental Status Exam).
    - Parkinson's disease and other movement disorders resulting in uncontrolled movements, bradykinesia, or cognitive impairment (e.g., less than or equal to 28 on Mini-Mental Status Exam).
    - Any neurological condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.16 – SKIN

- Metastatic or locally extensive basal or squamous cell carcinoma or melanoma.
- Any dermatologic condition that would not allow for a successful respiratory face piece fit test.
- Any dermatologic condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.17 – BLOOD AND BLOOD-FORMING ORGANS

- Hemorrhagic states requiring replacement therapy.
- Sickle cell disease (homozygous).
- Clotting disorders.
- Any haematological conditions that results in inability to safely perform one or more of the essential job tasks.

SECTION 6.18 – ENDOCRINE AND METABOLIC DISORDERS

- Type 1 diabetes mellitus, unless a candidate meets all of the following criteria:
    - Is maintained by a physician knowledgeable in current management of diabetes mellitus on a basal/bolus (can include subcutaneous insulin infusion pump) regimen using insulin analogs.
    - Has demonstrated over a period of at least 1 year the motivation and understanding required to closely monitor and control capillary blood glucose levels through nutritional therapy and insulin administration. Assessment of this shall take into consideration the erratic meal schedules, sleep disruption, and high aerobic and anaerobic workloads intrinsic to fire fighting.
    - Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms, as indicated on the International Clinical Diabetic Retinopathy Disease Severity Scale.
    - Has normal renal function based on a calculated creatinine clearance greater than 60 mL/min and absence of proteinuria. (Creatinine clearance can be calculated by use of the Cockroft-Gault or similar formula. Proteinuria is defined as 24-hour urine excretion of greater than or equal to 300 mg protein or greater than or equal to 300 mg of albumin per gram of creatinine on a random sample).
    - Has no autonomic or peripheral neuropathy. (Peripheral neuropathy is determined by diminished ability to feel the vibration of a 128 cps tuning fork or the light touch of a 10-gram monofilament on the dorsum of the great toe proximal to the nail. Autonomic neuropathy might be determined by evidence of gastroparesis, postural hypotension, or abnormal tests of heart rate variability.)
    - Has normal cardiac function without evidence of myocardial ischemia on cardiac stress testing (to at least 12 METS) by ECG and cardiac imaging.
    - Has a signed statement from an endocrinologist knowledgeable in management of diabetes mellitus as well as the essential job tasks and hazards of firefighting as described in 5.1.1 that the candidate meets the following criteria:
        - Is being successfully maintained on a regimen consistent with 6.18.1(1)(a) and 6.18.1(1)(b).

- Has achieved stable control of blood glucose as evidenced by Hemoglobin A1C consistently less than 8 when monitored at least twice yearly. This shall include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring.
- Does not have an increased risk of hypoglycemia due to alcohol use or other predisposing factors.
- Has had no episodes of severe hypoglycemia (defined as requiring assistance of another) in the preceding 1 year, with no more than one episode of severe hypoglycemia in the preceding 5 years.
- Is certified not to have a medical contraindication to fire-fighting training and operations.

➢ Insulin-requiring Type 2 diabetes mellitus, unless a candidate meets all of the following criteria:
  - Is maintained by a physician knowledgeable in current management of diabetes mellitus.
  - Has demonstrated over a period of at least 3 months the motivation and understanding required to closely monitor and control capillary blood glucose levels through nutritional therapy and insulin administration. Assessment of this shall take into consideration the erratic meal schedules, sleep disruption, and high aerobic and anaerobic workloads intrinsic to fire fighting.
  - Has a dilated retinal exam by a qualified ophthalmologist or optometrist that shows no higher grade of diabetic retinopathy than microaneurysms, as indicated on the International Clinical diabetic Retinopathy Disease Severity Scale.
  - Has normal renal function based on a calculated creatinine clearance greater than 60 mL/min and absence of proteinuria. (Creatinine clearance can be calculated by use of the Cockroft-Gault or similar formula. Proteinuria is defined as 24-hour urine excretion of greater than or equal to 300 mg protein or greater than or equal to 300 mg of albumin per gram of creatinine in a random sample.)
  - Has no autonomic or peripheral neuropathy. (Peripheral neuropathy is determined by diminished ability to feel the vibration of a 128 cps tuning fork or the light touch of a 10-gram monofilament on the dorsum of the great toe proximal to the nail. Autonomic neuropathy can be determined by evidence of gastroparesis, postural hypotension, or abnormal tests of heart rate variability.)
  - Has normal cardiac function without evidence of myocardial ischemia on cardiac stress testing (to at least 12 METS) by ECG and cardiac imaging.
  - Has a signed statement from an endocrinologist knowledgeable in management of diabetes mellitus as well as the essential job tasks and hazards of firefighting as described in 5.1.1 that the candidate meets the following criteria:
    - Is maintained on a stable insulin regimen and has demonstrated over a period of at least 3 months the motivation and understanding required to closely monitor and control capillary blood glucose levels despite varied activity schedules through nutritional therapy and insulin administration.

- Has achieved stable control of blood glucose as evidence by Hemoglobin A1C less than 8 when monitored at least twice yearly, which must include evidence of a set schedule for blood glucose monitoring and a thorough review of data from such monitoring.
- Does not have an increased risk of hypoglycemia due to alcohol use or other predisposing factors.
- Has had no episodes of severe hypoglycemia (defined as requiring assistance of another) in the preceding 1 year, with no more than one episode of severe hypoglycemia in the preceding 5 years.
- Is certified not to have a medical contraindication to fire-fighting training and operations.
- Any endocrine or metabolic condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.19 – SYSTEMIC DISEASES AND MISCELLANEOUS CONDITIONS

- Any systemic condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.20 – TUMORS AND MALIGNANT DISEASES

- Malignant disease that is newly diagnosed, untreated, or currently being treated, or under active surveillance due to the increased risk for reoccurrence.
- Any tumor or similar condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.21 – PSYCHIATRIC CONDITIONS

- Any psychiatric condition that results in the candidate not being able to safely perform one or more of the essential job tasks.

SECTION 6.22 – CHEMICALS, DRUGS, AND MEDICATIONS

- Those that require chronic or frequent treatment with any of the following medications or classes of medications:
  - Narcotics, including methadone.
  - Sedative-hypnotics.
  - Drugs that prolong prothrombin time, partial thromboplastin time, or international normalized ratio (INR).

- Beta-adrenergic blocking agents, high-dose diuretics, or central acting antihypertensive agents (e.g., clonidine).
- Respiratory medications: inhaled bronchodilators, inhaled corticosteroids, systemic corticosteroids, theophylline, and leukotriene receptor blockers/antagonists.
- High-dose corticosteroids for chronic disease.
- Anabolic steroids.
- Any chemical, drug, or medication that results in the candidate not being able to safely perform one or more of the essential job tasks.

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