

Grand Island Fire Department Candidate Ability/Agility Test

Background

The Candidate Ability/Agility Test (Test) is a measure of an individual's ability to physically perform essential functions required in the occupation of firefighting. The Grand Island Fire Department (GIFD) has established a minimum level of acceptable performance that protects the safety of the firefighter and provides for the appropriate delivery of fire suppression, rescue, and emergency medical services for the community.

The successful completion of the Test is defined as safely accomplishing all events within the established time parameters of **6:00 to 10:20 minutes**. The six minute level was established for safety measures. This is a Pass/Fail event.

In these events, you will wear a 50-pound vest to simulate the weight of Self-Contained Breathing Apparatus (SCBA) and fire fighter protective clothing. An additional 25-pound vest will be added during the stair climb event to simulate a high-rise pack.

Throughout all events you must wear long pants, a hard hat with chin strap, work gloves and lace up footwear with no open heel or toe. Watches and loose or restrictive jewelry are not permitted. You will also wear an SCBA face-piece.

All props were designed to obtain the necessary information regarding your physical ability. The tools and equipment were chosen to provide the highest level of consistency, safety and validity in measuring your physical ability.

The events are placed in a sequence that best simulates fire scene events while allowing a walk between events. To ensure the highest level of safety and to prevent exhaustion, no running is allowed between events. This walk will allow you to recover and regroup before each event.

Safety Precautions

These guidelines will be followed when the test is conducted:

- Prior to beginning, a set of baseline vitals shall be completed to include any notions of existing injuries/illnesses.
- Throughout the evaluation process, a GIFD evaluator will monitor each candidate's "potential for injury". If, in the evaluator's opinion, any candidate exhibits signs indicating they could be at risk of injury, the test will be stopped.
- Following the candidates completion of the test, he/she must enter the Rehabilitation Area for a post assessment of vitals and monitoring before being leaving the testing facility.

Event 1-Stair climb

Equipment

This event will use an eight inch platform to simulate climbing stairs.

Purpose of Evaluation

This event is designed to simulate the critical task of climbing stairs in full protective clothing while carrying a high-rise pack of hose or firefighting equipment. This event challenges your aerobic capacity, lower body muscular endurance and ability to balance. This event affects your aerobic energy system as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, and lower back stabilizers.

Event

For this event, you must wear an additional 25 pound weight to simulate the weight of the high rise pack. You will start at a line 50 feet away approach the platform and then complete a 60 step repetition (stepping onto the platform with both feet and then back down to the floor=one step).

Failures

If at any time any part of your body, other than your feet, touches the ground or platform you will be disqualified and the test will end. You must also not stop and rest the entire test must be completed at a steady cadence.

Event 2- Hose drag

Equipment

This event uses a 100' charged 1 ¾" hand-line with a nozzle.

Purpose of Evaluation

This event is designed to simulate the critical task of dragging a charged hose-line on the fire ground. This event challenges your aerobic capacity, lower body muscular strength and endurance, upper back strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy system as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, and lower back stabilizers, biceps, deltoids, upper back and muscles of the forearm and hand grip.

Event

For this event, you must grasp the nozzle and hose-line and advance the hose 50'; set the hose on the ground and crawl back to the start line while keeping one hand on the hose at all times. From a sitting or kneeling position pull the hose-line back until you reach the nozzle.

Failure

During the hose drag if you drop the line or fall to the ground you will be disqualified and the test will end. If you fail to keep constant contact with the hose you will be disqualified and the test will end. If you fail to advance or retrieve the hose fully you will be disqualified and the test will end.

Event 3- Equipment carry

Equipment

This event uses two gasoline powered saws and a gasoline powered fan.

Purpose of evaluation

This event is designed to simulate the critical task of moving power equipment around on the fire ground. This event challenges your aerobic capacity, lower body muscular endurance, upper body strength and endurance, grip strength and endurance, and balance. This event affects your aerobic energy system as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, biceps, deltoids, upper back and muscles of the forearm and hand grip.

Event

For this event, you must pick up the power equipment and carry it 50', set it down and pick up the other power equipment and return back to the starting point setting the power equipment in the appropriate place.

Failures

If at any point you drop any part of the power equipment or fall to the floor you will be disqualified and the test will end.

Event 4-Ladder raise and extension

Equipment

This event uses two 24' fire department extension ladders. For your safety, a retractable lanyard is attached to the ladder that you raise.

Purpose of evaluation

This event is designed to simulate the critical tasks of placing a ground ladder at a fire structure and extending the ladder to the roof or window. This event challenges your aerobic capacity, lower body muscular strength, upper body strength and endurance, grip strength and anaerobic endurance, and balance. This event affects your aerobic and anaerobic energy system as well as the following muscle groups: deltoids, trapezius, quadriceps, hamstrings, glutes, calves, biceps, deltoids, upper back and muscles of the forearm and hand grip.

Event

For this event, you must walk to the top rung of the 24' aluminum extension ladder, lift the end from the ground, and walk it up until it is stationary against the wall. This must be done hand over hand fashion, using each rung until the ladder is stationary against the wall. You must not use the ladder rails to raise the ladder. Immediately proceed to the pre-positioned and secured 24' aluminum extension ladder, stand with both feet within the marked box of 36x36 inches and extend the fly section hand over hand until it hits the stop. Then, lower the fly section hand over hand in a controlled fashion to the starting position.

Failures

If you miss any rung during the raise, one warning is given. The second infraction constitutes a failure and you are disqualified and the test is over. If you allow the ladder to fall to the ground or the safety lanyard is activated because you released your grip on the ladder this constitutes a failure and you are disqualified and the test is over. If during the ladder extension, your feet do not remain in the marked boundary lines, one warning is given. The second infraction constitutes a failure and you are disqualified and the test is over. If you do not maintain control of the ladder in a hand over hand manner, or you let the rope lanyard slip in an uncontrolled manner this constitutes a failure and you are disqualified and the test is over.

Event 5- Forcible Entry

Equipment

This event uses a mechanized device located 39 inches off the ground that measures cumulative force and a 10 pound sledgehammer.

Purpose of Evaluation

This event is designed to simulate the critical tasks of using force to open a locked door or to breach a wall. This event challenges your aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, glutes, triceps, upper back, trapezius, and muscles of the forearm and hand.

Event

For this event, you must use a 10 pound sledgehammer to strike the measuring device in the target area until the buzzer is activated. During the event, you must keep your feet outside the toe-box at all times. After the buzzer is activated, place the sledgehammer on the ground. This concludes this event.

Failures

If you do not maintain control of the sledgehammer and release it from both hands while swinging, it constitutes a failure and you are disqualified and the test is over. If you step inside the toe-box, one warning is given, the second infraction constitutes a failure and you are disqualified and the test is over.

Event 6- Search

Equipment

This event uses an enclosed search maze that has obstacles and narrowed spaces.

Purpose of Evaluation

This event is designed to simulate the critical task of searching for a fire victim with limited visibility in an unpredictable area. This event challenges your aerobic capacity, upper body muscular strength and endurance, agility, balance, anaerobic endurance and kinesthetic awareness. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: muscles of the chest, shoulder, triceps, quadriceps, abdominals and lower back.

Event

For this event, you must crawl through a tunnel maze that is approximately 4' high, 4' wide and 64' in length with two 90° turns. At a number of locations in the tunnel, you must navigate around, over and under obstacles. In addition, at two locations, you must crawl through a narrowed space where the dimensions of the tunnel are reduced. Your movement is monitored through the maze. If for any reason, you choose to end the event, call out or rap sharply on the wall or ceiling and you will be assisted out of the maze. Upon exit from the maze, the event is concluded.

Failures

A request for assistance that required the opening of the escape hatch or opening of the entrance/exit covers constitutes a failure and you are disqualified and the test is over.

Event 7- Rescue

Equipment

This event uses a weighted mannequin equipped with a harness with shoulder handles.

Purpose of Evaluation

This event is designed to simulate the critical task of removing a victim or injured partner from a fire scene. This event challenges your aerobic capacity, upper and lower body strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, trapezius, deltoids, latissimus dorsi, biceps, and muscles of the forearm and hand.

Event

For this event, you must grasp a 165 pound mannequin by the handles on the shoulder of the harness (either one or both are permitted), drag it 35 feet to a pre-positioned point, make a 180° turn and continue an additional 35 feet to the finish line. You are permitted to drop and release the mannequin and adjust your grip. The entire mannequin must be dragged until it crosses the marked finish line.

Failures

There are no failures for this event.

Event 8- Ceiling Breach and Pull

Equipment

This event uses a mechanized device that measures overhead push and pull forces and a pike pole. The pike pole is a commonly used piece of equipment that consists of a 6 foot long pole with a hook and point attached to one end.

Purpose of Evaluation

This event is designed to simulate the critical task of breaching and pulling down a ceiling to check for fire extension. This event challenges your aerobic capacity, upper and lower body muscular strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, deltoids, trapezius, triceps, biceps, and muscles of the forearm and hand.

Event

For this event, you must remove the pike pole from the bracket, stand within the boundary established by the equipment frame, and place the tip of the pike pole on the area of the hinged door in the ceiling. Fully push up the 60 pound hinged door in the ceiling with the pike pole three times. Then, hook the pike pole to the 80 pound ceiling device and pull the pole down five times. Each set consists of three push and five pulls. Repeat the set four times. You are permitted to stop and, if needed, adjust your grip. Releasing your grip or allowing the pike pole to slip, without the pike pole hitting the ground, does not result in a warning or constitute a failure. You are permitted to re-establish your grip and resume the event. If you do not successfully complete a repetition, the protector calls out "MISS" and you must push or pull the apparatus again to complete the repetition. This event and the total test time ends when you complete the final pull stroke repetition as indicated by a proctor who calls out "TIME".

Failure

One warning is given if you drop the pike pole to the ground. If you drop the pike pole you must pick it up without assistance and resume the event. The second infraction constitutes a failure and you are disqualified and the test is over. If your feet do not remain within the marked boundary lines, one warning is given. The second infraction constitutes a failure and you are disqualified and the test is over.

Each candidate will be allowed a brief recovery period prior to the start of the final event, aerial climb. The recovery period will be five minutes and will be equal for all candidates.

Event 9- Aerial Climb

Equipment

This event uses an aerial ladder mounted on a truck chassis and extended to approximately 75'. The candidate will also be tether to a safety line using a life safety belt.

Purpose of Evaluation

This event is designed to simulate the critical task of climbing ladders working at heights. This event challenges your aerobic capacity, lower body muscle strength and endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes and muscles of the forearm and hand.

Event

For this event you will shed your weight vest and don a life safety belt that is tethered to a safety line. You will climb up on the rear of the truck and start your ascent to the top of the ladder. During the ascent you must keep one foot and one hand on the ladder rungs at all times maintaining a steady rate of climb. You are permitted to stop one time during the climb for a maximum of five seconds. Once you reach the top rung and grasp the top rung with both hands you will descend the ladder in the same manner that you ascended. There is no time limit for this event.

Failures

If you stop for longer than five seconds or stop more than one time this constitutes a failure and you are disqualified and the test is over. If you fail to reach the top and grasp the top rung this constitutes a failure and you are disqualified and the test is over.