



Practical Skill Sheets
Fire Apparatus Driver/Operator – Pumper

January 2019

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Special recognition for their technical expertise, time and effort is extended to the Driver/Operator-Pumper Curriculum Committee.

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Driver/Operator Pumper Practical Skill Guide

This document is provided to assist candidates as they ready themselves to enter the WTCS FSEO Driver/Operator-Pumper Certification Process. The primary reference materials for meeting the certification requirements is the Jones and Bartlett *Fire Apparatus Driver/Operator*, Third Edition and the requirements of NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*, 2017 Edition, Driver/Operator Job Performance Requirements (JPRs).

Requirements of the Candidate:

- Candidates must register and pay for their practical exam.
- The candidate must have a valid driver's license and show the license to the evaluator before participating in the driving portion of the practical examination.
- The candidate must have a CDL learner's permit if he/she is not an active member of a Wisconsin fire department at the time of the practical examination.
- Candidates are responsible for providing the proper PPE to be worn by driver/operators.
- If the candidate is a member of a fire department, the candidate's fire department must provide an operational pumper for the candidate to use during the driving and pumping portions of the practical examination.
- The candidate is responsible for bringing a pump chart that will be used during the pumping evolutions.
- The Driver/Operator-Pumper Practical Skills Examination is physically demanding, and the candidate is responsible for his/her own physical fitness and ability to perform the skills required.

Grading Schedule

The following criteria will be used to evaluate and determine the pass/fail status of a candidate. **All skill stations are pass/fail. Failure to meet the criteria will result in a failure.** Each item in the performance test checklist is given a rating. **Passing Criteria (Failures): 1 Critical, 2 Major, 3 General or combination of 3 Major/General.**

Critical (C) - This rating has been assigned to items, which, if omitted or performed incorrectly, would result in severe injury to, or death of, an individual. Should a candidate fail to perform any **ONE** item rated as critical **(C)**, the candidate would be unsuccessful in demonstrating the required proficiency level for that standard.

Major (M) - This rating refers to any item that is very important to the general safety of personnel and the successful completion of the evolution. Should a candidate fail to perform any **TWO** items rated as major **(M)**, the candidate would be unsuccessful in demonstrating the required proficiency level for that standard.

General—This rating, although there is no symbol, has been given to all remaining items that in combination are relevant to the successful completion of the evolution. Should a candidate fail to perform any **THREE** items rated as *general*, the candidate would be unsuccessful in demonstrating the required proficiency level for that standard.

Should a candidate fail to perform any combination of Major or General rated items resulting in a sum total of **THREE**, the candidate would be unsuccessful in demonstrating the required proficiency level for that standard. Candidates who fail the practical skills exam should reference Policy 31 in the WTCS FSEO Policy and Procedure Manual for retest information.

Each candidate will perform a total of 8 of the 15 possible evolutions. The evolutions will be selected randomly either by the FSEO or by the station examiner. Candidates should be prepared to perform any of the tests listed. The assignment of each candidate during the evolution is randomly selected at the time of the test and cannot be changed. Non-compliance can be grounds for the candidate's failure of the entire examination.

Total station time includes properly breaking down equipment and replacing to the starting point.

***Candidates will not be penalized for equipment failures or cancellations/delays due to inclement weather or other circumstances.**

Pumper Practical Skills Test Station Summary

1. **Pre-trip Inspection** – Individual Test
Individual will conduct a pre-trip inspection for 1A, 1B or 1C as randomly selected by the station examiner, and all candidates will conduct 1D.
1A Inside driver compartment
1B Outside the apparatus
1C Engine compartment
1D Fire Pumps (all candidates will inspect)
2. **Staged Driving Evolutions – Simulated Emergency Driving** – Individual Test
Individual will drive the apparatus both forward and in reverse for one of the following:
2A Serpentine
2B Diminishing Clearance
3. **Staged Driving Evolutions – Non-Emergency Driving** – Individual Test
Individual will drive the apparatus for one of the following
3A Alley Dock or Station Apparatus Backing Maneuver
3B Confined Space Turnaround
4. **Over-the Road Driving Evolutions** – Individual Test
Individual will drive the apparatus over-the-road on a predetermined route selected by the station examiner.
5. **Basic Pumping Exercises** – Individual Test
The individual will perform the following pumping exercises in order:
Single 1-1/2" or 1-3/4" handline
Single 2-1/2" handline
Pump to multiple handlines
6. **Pumping Evolutions** – Individual Test
The individual will operate the pump in one of the following evolutions:
6A Portable Master Stream
6B Relay Pumping
6C Sprinkler or standpipe system
6D Foam Operation
7. **Water Supply** – In Class Team Test*
Candidates will connect a water supply as a member of a two-person team.
7A Rural Water Supply
7B Municipal Water Supply
8. **Communications** – In Class Individual Test*
The individual will demonstrate communication techniques.

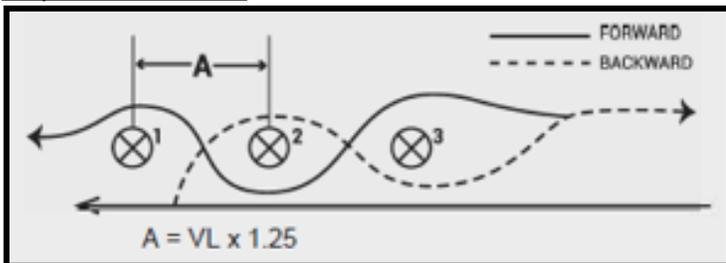
*Stations 7 and 8 will be evaluated and signed off by an instructor during the class sessions.

TEST 1 – Pre-Trip Inspection		Individual Test	
Candidate is assigned either A, B, or C, and D.			
Total Station Time		Student Name:	
10 minutes		Examiner Name:	
A. Inside driver compartment		YES	NO
1. (M) Checked that wheels are chocked			
2. Checked correct position of mirrors			
3. Checked all apparatus controls and gauges (vehicle must be turned on)			
4. (M) Checked fuel levels, verbalize when refill is required			
5. Checked all interior lights			
6. Checked horn (verbalize checked)			
7. Checked audible and visual warning devices (verbalize)			
8. Tested brake pressure by operating foot pedal			
9. Check SCBA (if applicable)			
10. Check headlights			
11. Checked windshield wipers			
12. Inspected seats for tears and adjustability			
13. (M) Checked seatbelts for operation and wear			
14. (M) Checked emergency and parking brakes			
15. Checked steering wheel adjustment and reaction			
16. Checked heater/air conditioner operation			
17. Checked clutch pedal (if applicable)			
18. Checked turrets (if applicable)			
19. Checked communication systems (if applicable)			
20. Checked and verbalized operation and monitoring of any other fixed systems			
21. Verbalized recognition and correction of system problems (if applicable)			
22. Document inspection/repair item according to department policy			
(C) Completed task within time limits with no safety violations			
B. Outside the apparatus		YES	NO
1. (M) Checked that wheels are chocked			
2. Checked body panel for rust, dents, or exposed areas needing touch-up paint			
3. (M) Checked tires for proper inflation and condition (verbalize)			
4. (M) Checked wheel lugs for tightness (verbalize)			
5. Checked all exterior lights for operation and damage			
6. Checked weather seals around cab and compartment doors for looseness, damage and deterioration			
7. Inspected windows for cracks or discoloration			
8. Checked battery terminals and cleaned as needed (verbalize)			
9. Checked battery cables for loose connections (verbalize)			
10. Checked electrolyte level and added water as needed (verbalize)			
11. (M) Checked for fuel or oil leaks			
12. Check hose lines			
13. Check portable extinguishers			
14. Check equipment inventory			
15. Operate hand and/or power tools (if applicable - verbalize)			
16. Checked and verbalized operation and monitoring of any other fixed systems			

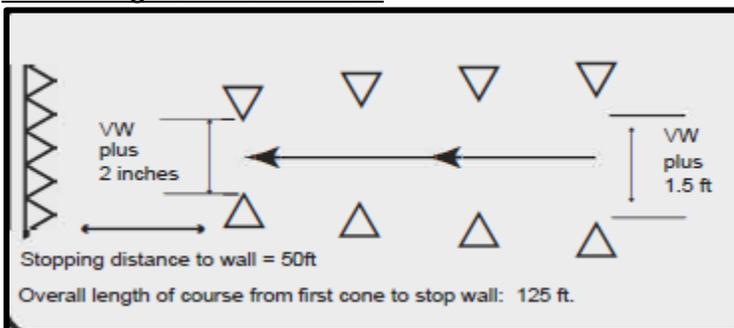
17. Verbalized recognition and correction of system problems (if applicable)		
18. Document inspection according to department policy		
(C) Completed task within time limits with no safety violations		
C. Engine compartment	YES	NO
1. (M) Checked that wheels are chocked		
2. (M) Checked under vehicle for leaks		
Candidates may verbalize steps 3-14		
3. Checked all drive belts for wear or defects; adjusted as needed		
4. Checked coolant overflow reservoir and fill as needed		
5. Checked cooling fan, cooling system hoses, and the radiator		
6. Checked coolant level, color and cleanliness and filled, if necessary		
7. Checked all oil levels		
8. Checked all hydraulic fluid levels		
9. Checked brake/master cylinder fluid level and filled it as needed (if applicable)		
10. Checked power steering reservoir and filled it as needed (if applicable)		
11. Checked the automatic transmission fluid level, both cold and hot		
12. Checked the windshield washer fluid level		
13. Checked any exposed wiring for breaks, loose connections, and insulation frays		
14. Checked the exhaust system for damage		
15. (M) Checked the air system for leaks with the air system and the engine shut off		
16. Checked the operation and monitoring of any other fixed systems		
17. Verbalized recognition and correction of system problems (if applicable)		
18. Document inspection/repair item according to department policy		
(C) Completed task within time limits with no safety violations		
D. Fire Pump	YES	NO
1. (M) Checked that wheels are chocked		
2. Opened all pump drains and flushed sediment		
3. Check pump primer oil level (if applicable)		
4. Operated pump primer with all pump valves closed (can be verbalized)		
5. (M) Ensured pump shifts from road to pump gear (can verbalize)		
6. Operated transfer valve while pumping from booster tank (applies to two-stage pumps only) (can verbalize)		
7. Operated all valves, including the pressure control device		
8. Checked all other pump panel instruments for proper operation		
9. Operated valves in auxiliary cooling system		
10. (M) Checked water level		
11. Checked water tanks for leaks		
12. Checked foam/tank and system (if applicable)		
13. Check foam tank for leaks (if applicable)		
(C) Completed task within time limits with no safety violations		

TEST 2 – Serpentine or Diminishing Clearance		Individual Test	
Candidate is assigned to either A or B			
Total Station Time		Student Name:	
12 minutes		Examiner Name:	
A. Serpentine		YES	NO
1. (C) Fastened seat belt			
2. Drove apparatus along the left side of the markers in a straight line and stopped just beyond the last barrel/cone			
3. (C) Backed the apparatus between the markers by passing to the left of #1, to the right of #2, and to the left of #3. This maneuver must be completed without stopping.			
4. (C) Drove vehicle forward and to the right of #3, left of #2, and right of #1. This maneuver must be completed without stopping.			
5. (M) Used mirrors and all applicable warning devices. Candidate may not lean out the window.			
6. (C) Completed exercise without striking a cone			
(C) Completed task within time limits with no safety violations			
Total Station Time		Student Name:	
12 minutes		Examiner Name:	
B. Diminishing Clearance		YES	NO
1. (C) Fastened seat belt			
2. (C) Proceeded from wide to narrow end without stopping			
3. (M) Stopped within 3 feet of finish line			
4. Came to complete stop in a smooth and safe manner			
5. (C) Back vehicle through course using mirrors until clear of all cones without stopping. Candidate may not lean out the window.			
6. (M) Used all applicable warning devices (forward only).			
7. (C) Completed exercise without striking cones			
(C) Completed task within time limits with no safety violations			

Serpentine Exercise:



Diminishing Clearance Exercise:



TEST 3 – Alley Dock or Confined Space Turnaround	Individual Test
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Candidate is assigned to either A or B

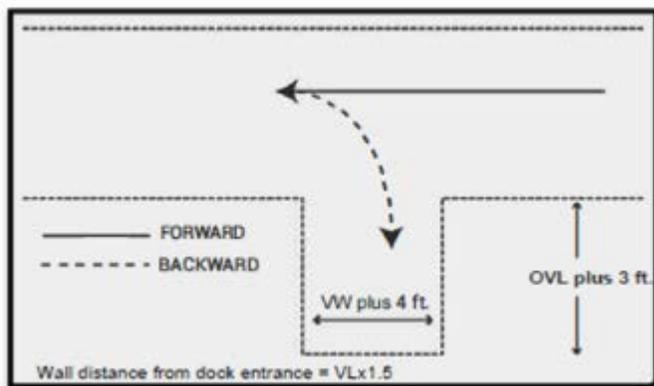
Total Station Time	Student Name:	
12 minutes	Examiner Name:	

A. Alley dock	YES	NO
1. (C) Fastened seat belt		
2. Passed the “barricades” marking the loading dock on the left		
3. (C) Used side mirrors, backed apparatus by a left turn into the marked loading dock without stopping		
4. (C) Used side mirrors, backed apparatus by a right turn into the marked loading dock without stopping.		
5. Came to a complete stop in a smooth and safe manner		
6. (M) Used spotter when backing. (Spotter may only signal to prevent a collision.) Candidate may not lean out the window.		
7. (C) Completed exercise without striking cones and/or obstructions		
(C) Completed task within time limits with no safety violations		

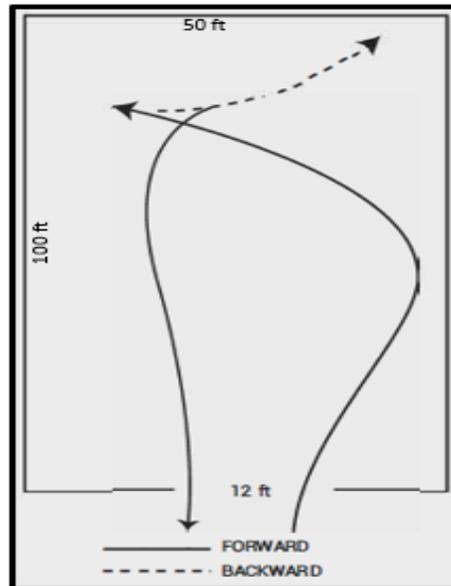
Total Station Time	Student Name:	
12 minutes	Examiner Name:	

B. Confined Space Turnaround	YES	NO
1. (C) Fastened seat belt		
2. Pulled into a designated area through opening		
3. Made confined space turnaround		
4. Backed up at least once using spotters and mirrors. Candidate may not lean out the window.		
5. Exited area through same opening		
6. (C) Completed exercise without striking cones and/or obstructions or extending over the boundary lines of the space		
(C) Completed task within time limits with no safety violations		

Alley Dock Exercise:



Confined Space Turnaround:



TEST 4 – Over the Road Driving & Positioning		Individual Test	
Candidate must participate in this evolution.			
Total Station Time	Student Name:		
20 minutes	Examiner Name:		
A. Drive Predetermined Course		YES	NO
1. Mounted fire apparatus using hand rail			
2. (C) Fastened seat belt			
3. Properly adjusted mirrors			
4. (M) Adjusted speed for weather			
5. (M) Adjusted stopping distances			
6. (C) Obeyed all traffic laws including speed limit			
7. (C) Demonstrated responsibility and concern for safety of apparatus and personnel while driving apparatus			
8. Used handrail(s) to lower self to ground/dismount apparatus			
9. Used all safety equipment provided as needed			
10. (C) A traffic accident results in immediate failure for the day			
B. Made 4 left turns			
1. (M) Activated left turn signal			
2. Checked the side view mirrors			
3. Moved vehicle to left lane if/when necessary			
4. Checked for oncoming traffic			
5. Checked to see if side street or road is clear			
6. Made safe left turns			
7. (C) Apparatus did not leave the roadway			
C. Made 4 right turns			
1. (M) Activated right turn signal			
2. Checked the side view mirrors			
3. Moved vehicle to right lane if/when necessary			
4. Checked for oncoming traffic			
5. Checked to see if side street or road is clear			
6. Made safe right turns			
7. (C) Apparatus did not leave the roadway			
D. Drove straight section of road or highway			
1. (M) Maintained vehicle speed and safe following distance			
2. Checked for oncoming traffic			
3. Checked side view mirrors			
4. Checked side streets or roads			
E. Passed through one intersection (uncontrolled intersection)			
1. Approached the intersection with caution			
2. Checked for traffic on the left, right, and left again			
3. Safely proceeded through the intersection			
F. Passed through two intersections with stop (controlled intersection)			
1. Approached intersection with caution			
2. (C) Brought the vehicle to a complete stop			
3. Checked traffic – left, right, and left again			
4. Safely proceeded through the intersection			

G. Railroad crossing (if available)	YES	NO
1. Approached crossing with caution		
2. Checked tracks – left and right		
3. Stopped if necessary		
4. Proceeded across tracks when safe to do so		
H. Curve in roadway – right or left		
1. Slowed vehicle before entering curve		
2. Adjusted speed as required		
3. (M) Maintained safe control of vehicle		
I. Entered limited access highway (if available)		
1. Checked traffic while on entrance ramp		
2. Adjusted speed of vehicle to match flow of traffic		
3. (M) Activated turn signal		
4. Checked side view mirrors		
5. Moved vehicle from acceleration lane to highway safely		
J. Changed lanes on limited access highway (if available)		
1. (M) Activated turn signal		
2. Checked side and rear-view mirrors		
3. Safely completed lane change		
K. Exited limited access highway (if available)		
1. (M) Activated turn signal		
2. Checked side and rear-view mirrors		
3. Safely moved vehicle into deceleration lane		
4. Slowed vehicle and exited safely		
L. Downgrade		
1. Used brakes and/or lowered gear		
2. Used auxiliary braking systems appropriately		
M. Upgrade		
1. Downshifted standard transmission to maintain engine rpm and speed (if applicable)		
N. Underpass or low clearance		
1. Approached with caution		
2. Checked to see if underpass height is marked		
3. (M) Stopped to check for proper clearance if it's not apparent		
4. Proceeded only when sure it was safe to do so		
(C) Completed task within time limits with no safety violations		

TEST 5 –Pumping Single and Multiple Handline		Individual Test	
Candidate completes tasks in order listed below.			
Station examiner will tell candidate the length of the line and the type of nozzle, tip size or flow.			
Target Time	Student Name:		
20 minutes	Examiner Name:		
Requirements		YES	NO
1. Pumper properly positioned at water source			
2. (C) Sets parking brake			
3. Properly dismounts apparatus (in traffic if applicable)			
4. (C) Properly engages pump and selects proper gear in transmission			
5. (C) Sets wheel chocks			
6. Deployed traffic and scene control devices			
7. Uses safety equipment as needed			
8. Operates in the protected work area as directed			
9. Assembles hoselines, nozzles, valves and appliances as needed			
10. Verifies water supply or draft, maintaining proper intake pressure			
11. (M) Opens tank-to-pump			
12. Operates the volume/pressure transfer valve (multistage pumps only)			
13. (M) Opens discharge and throttles to proper pump discharge pressure			
14. Charges a single 1 ½” or 1 ¾” handline to proper discharge pressure			
15. (M) Proper use of pump controls and gauges			
16. (M) Properly sets pressure control device			
17. (C) Does not run out of water			
18. Switches over from water tank to external water source (hydrant or draft)			
19. Closes tank to pump valve			
20. Charges a single 2 ½” handline to proper discharge pressure			
21. (M) Opens discharge and throttles to proper pump discharge pressure			
22. (M) Properly sets pressure control device			
23. Charges both handlines to proper discharge pressure			
24. (M) Opens discharge and throttles to proper pump discharge pressure			
25. (M) Properly sets pressure control device			
26. Operate auxiliary cooling system			
27. Monitor intake/inlet pressure			
28. Properly shuts down handline(s)			
29. Properly refills water tank			
30. Reduces pressure and disengages pump			
31. Properly shuts down the operation			
(C) Completed task within time limits with no safety violations			

Note: HELMET AND GLOVES ARE REQUIRED

TEST 6 – Pumping a Portable Master Stream, Relay, Sprinkler/Standpipe, or Foam		Individual Test	
Candidate is assigned to either A, B, C or D. Station examiner will tell candidate the length of the line and the type of nozzle, tip size or flow.			
Total Station Time		Student Name:	
10 minutes		Examiner Name:	
A. Pumping Evolutions - Portable Master Stream		YES	NO
1. (C) Ensures pump is engaged or engages pump and selects proper gear in transmission			
2. (M) Places pump in proper series/pressure or parallel/volume position (if applicable)			
3. (M) Charges master stream line(s) to correct discharge pressure			
4. Proper use of pump controls and gauges			
5. (M) Monitor intake/inlet pressure			
6. (M) Properly sets pressure control device			
7. (M) Properly reduces pressure			
8. (M) Properly shuts down line(s)			
9. (M) Properly disengages pump			
(C) Completed task within time limits with no safety violations			
Total Station Time		Student Name:	
10 minutes		Examiner Name:	
B. Pumping Evolutions - Relay Pumping		YES	NO
1. (C) Ensures pump is engaged or engages pump and selects proper gear in transmission			
2. (M) Place pump in proper series/pressure or parallel/volume position (if applicable)			
3. (M) Charges supply line(s) to correct discharge pressure			
4. Proper use of pump controls and gauges			
5. (M) Monitor intake/inlet pressure			
6. (M) Properly sets pressure control device			
7. (M) Properly reduces pressure			
8. (M) Properly shuts down relay operation			
9. (M) Properly disengages pump			
(C) Completed task within time limits with no safety violations			
Total Station Time		Student Name:	
10 minutes		Examiner Name:	
C. Pumping Evolutions - Sprinkler Stream		YES	NO
1. (C) Ensures pump is engaged or engages pump and selects proper gear in transmission			
2. (M) Charges line(s) to correct discharge pressure			
3. Proper use of pump controls and gauges			
4. (M) Properly sets pressure control device			
5. (M) Monitor intake/inlet pressure			
6. (M) Properly reduces pressure			
7. (M) Properly shuts down standpipe/sprinkler operation			
8. (M) Properly disengages pump			
(C) Completed task within time limits with no safety violations			

Total Station Time				
10 minutes	Student Name:			
	Examiner Name:			
D. Pumping Evolutions – Foam			YES	NO
1. (C) Ensures pump is engaged or engages pump and selects proper gear in transmission				
2. (M) Activates foam system or install proportioning appliances				
3. (M) Charges line(s) to correct pump discharge pressure				
4. (M) Sets appropriate foam proportioning rate				
5. Proper use of pump controls and gauges				
6. (M) Properly sets pressure control device				
7. (M) Monitor intake/inlet pressure				
8. (M) Properly reduces pressure				
9. (M) Properly shuts down foam operation				
10. (M) Properly disengages pump				
(C) Completed task within time limits with no safety violations				

Note: HELMET AND GLOVES ARE REQUIRED

TEST 7 – Water Supply		Team Test	
Each team can choose either A or B.			
As a member of a team, students will establish a water supply using either a municipal or static water supply.			
Total Station Time		Student Name:	
10 minutes		Examiner Name:	
A. Rural Water Supply		YES	NO
1. (M) Don full PPE (SCBA not required)			
2. (M) Mounts and dismounts the apparatus safely			
3. (M) Checks for hazards prior to exiting the vehicle			
4. Sets up and operates in safety area using traffic safety devices			
5. Selects a dump site			
6. Places a tarp on the ground where the tank will be (if applicable)			
7. (M) Sets up portable tank as a member of a team			
8. Places drain tube facing downhill (if applicable)			
9. Removes the pump intake cap			
10. Removes section of hard suction from storage area on vehicle			
11. Threads hard suction onto pump intake			
12. (M) Tightens connection			
13. (C) Attaches strainer to other end of hard suction			
14. (M) Places hard suction into water source and ensures at proper depth			
15. Attaches water transfer equipment between tanks (if applicable)			
16. (M) Dumps water from apparatus into tank			
17. (C) Observes all safety precautions			
(C) Completed task within time limits with no safety violations			
Total Station Time		Student Name:	
10 minutes		Examiner Name:	
B. Municipal Water Supply		YES	NO
1. (M) Don full PPE (SCBA not required)			
2. (M) Mounts and dismounts the apparatus safely			
3. (M) Checks for hazards prior to exiting the vehicle			
4. Sets up and operates in safety area using traffic safety devices			
5. Removes and hand lay supply hose(s) to hydrant			
6. Remove cap(s) from hydrant			
7. (C) Installs gate valve(s) on hydrant			
8. Places hydrant wrench on the valve stem operating nut of the hydrant			
9. (C) Visually inspects the hydrant			
10. (C) Tests flow the hydrant			
11. Tightens caps not in use			
12. Connects the hose to the hydrant outlet			
13. Connects supply line to pumper intake			
14. Slowly charges the line when instructed			
15. Shuts down hydrant, remove hose lines			
16. (M) Checks for proper draining of hydrant using ungloved hand			
17. Breaks down equipment, roll up hose and replace on staging tarp			
18. (C) Observes all safety precautions			
(C) Completed task within listed time limits with no safety violations			

TEST 8 – Communications		Individual Test	
Candidate completes tasks below. Instructor Evaluator will read a scenario to each candidate independently.			
Total Station Time	Student Name:		
5 minutes	Examiner Name:		
Report of Emergency (Scenario from Instructor Evaluator)		YES	NO
1. Answers telephone and identifies self and Department			
2. Is prepared to obtain information			
3. Asks appropriate questions			
4. (M) Writes down necessary information			
5. Provides safety information to caller			
6. Ends call courteously			
7. Contacts dispatch via radio (if applicable)			
8. (C) Provides accurate information to dispatch			
9. Notifies in-house staff via telephone or intercom (if applicable)			
(C) Completed task within time limits with no violations			

APPENDIX A

Driving Course Specifications

Utilize this sheet to design your driving course in relation to the vehicles you have assigned. Please set up your course per calculations outline below.

Key

VW = Vehicle Width (measured as width of bumper)

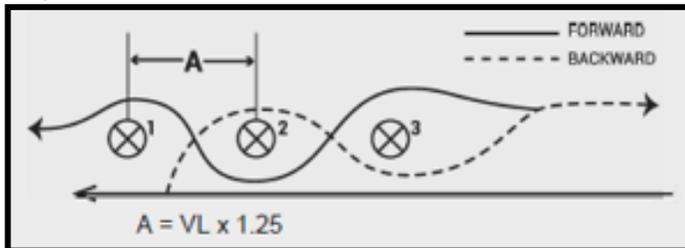
VL = Vehicle Length (measured bumper to tailboard)

OVL = Overall Vehicle Length (measured from forward-most point to rear-most point)

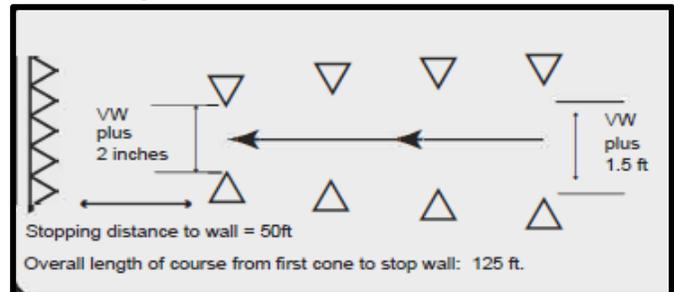
Cone distance = measured from edge of base to edge of base

Exercise	Dimensions
Alley Dock	Depth of Dock: VL plus 3 feet Width of Dock: VW plus 4 feet Wall distance from dock entrance: OVL multiplied by 1.5
Serpentine	Distance between cones: VL multiplied by 1.25
Confined Space Turnaround	Entrance Width: 12 feet Pumper: 50 feet wide x 100 feet long Aerial: 75 feet wide x 125 feet long
Diminishing Clearance	Wide Entrance: VW plus 1.5 feet Narrow Point: VW plus 2 inches Distance from end of cones to wall = 50 feet

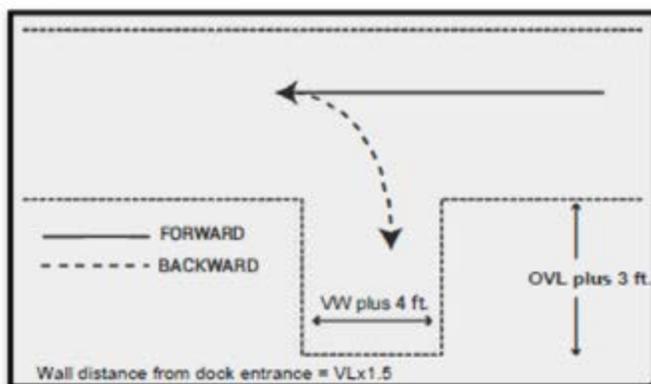
Serpentine Exercise:



Diminishing Clearance Exercise:

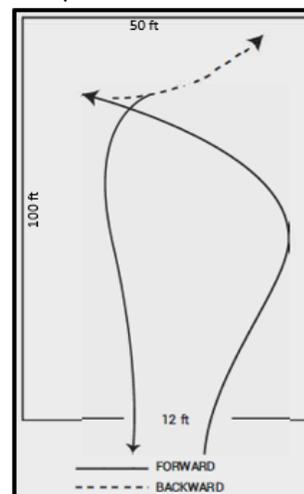


Alley Dock Exercise:



Confined Space Turnaround:

Pumper:



Aerial:

