

<p>Name: _____ Organization: _____</p> <p>POC Name: _____ Organization: _____</p> <p>Phone: _____</p> <p>1. Courses will be evaluated to identify any safety hazards/concerns. Deficiencies found during the inspection will be annotated and corrective actions initiated by the responsible organization. Physical training structures will inspected annually for structural integrity and maintained to standard.</p> <p>2. This evaluation will also assist in standardizing courses used at TRADOC activities.</p> <p>3. Obstacle Category: Conditioning and Endurance.</p> <p>Note: Surface refers to the area beneath and around obstacles to include travel lanes and at least 6 feet to the sides of obstacles presenting a fall hazard. Impact absorbing material depth under obstacles is 18 inches for sand, 12 inches of shredded rubber, and 24 inches for saw dust. Sand and sawdust must be tilled or turned at least annually to combat settling and ensure impact absorbance.</p> <p>4. Standards for conditioning/endurance courses are a combination of those found in Engineer Drawing DEF 028-13-95, Obstacle Course Layout Plan; FM 7-22, Army Physical Readiness Training, and TRADOC Regulation 350-6.</p>

Figure C-1. IMT conditioning/endurance course evaluator information checklist

Table C-1
General administrative inspection criteria checklist

	AREA	STANDARD	NO	NO GO
1	Training requirement	a. Training event is supported by TSP, program of instruction, or lesson plan.		
		b. SOPs are published and on hand at each course.		
2	Administrative	Condition service logs are maintained on all ropes used for surmounting and suspension.		
3	Risk management	a. Generic risk assessment worksheet maintained onsite.		
		b. Daily risk assessment worksheet is onsite during training identifying hazards associated with personnel, equipment, and environment.		
4	Inspections	a. Copy of last safety inspection report conducted by professional safety staff onsite.		
		b. Copy of daily pre-operations inspection maintained at site.		
		c. Existing deficiencies are documented and maintained by the responsible organization.		
		d. Copy of current work orders maintained by responsible organization.		
5	Accident trends	A list of all injuries sustained on obstacles is maintained by responsible organization and safety office.		
	Remarks:			

Table C-2
General inspection criteria checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. No protruding nails or splinters that may cause injury when obstacle is negotiated.		
		c. All timbers are connected securely together to prevent movement when put under stress.		
2	Wall boards	a. All boards are securely attached to structure with proper hardware (bolts and nuts).		
		b. All boards free of protruding nails, splinters, rot, or damage.		
		c. Edges of boards rounded/smooth where used to support individual's weight.		
3	Hardware	a. All bolts, nuts, and washers in place and of the designated type, size, and placement.		
		b. All anchors are made of three or more galvanized guy wire.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow adjustment.		

		d. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
4	Fiber ropes	a. All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections.		
		b. All ropes designed for surmounting are 1.5 inches in diameter.		
		c. Ropes are securely mounted to supporting timbers with ends tied and taped.		
		d. Ends of ropes are tied in a knot or wrapped to prevent fraying.		
		e. Condition/service logs are maintained on all ropes used for surmounting and suspension.		
5	Design	Professional safety staff reviews obstacle construction plans.		

	AREA	STANDARD	GO	NO GO
6	Fall protection	a. The surface under conditioning obstacles will be free of any tripping hazard and covered with sand or saw dust.		
		b. Any obstacle requiring negotiation at an elevated level (in excess of 6 feet) will have impact absorbing material beneath it and around it at least 5 feet from the edges.		
		c. Forged steel hooks are used to fasten nets to its supports.		
		d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of a 400 pound (180 kg) bag of sand 30 or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c)(4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site for inspection.		
		e. All nets are suspended below high obstacles (in excess of 10 feet) have padding or small mesh material to prevent limbs from penetrating net		
		f. All padding is in good condition with no tears, holes, or loose material to trip personnel when dismounting.		
		g. All pole-vaulting pads are placed properly at base of designated high obstacles.		
7	Padding	a. All safety padding attached to timbers is in good condition without signs of damage.		
		b. All pads are securely attached to the timber supports to prevent movement when impacted.		

8	Base contain-ment box	a. Base containment box is adequate to contain all absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box extends far enough from dismount point of obstacle to prevent creating a tripping hazard.		
		d. Containment box is filled with either 18 inches of sand, 12 inches of shredded rubber, or 24 inches of sawdust.		
9	Surfaces	All surfaces beneath low obstacles are free of hazards that have the potential to cause injury when crawled upon.		
10	Condition	a. Designated course is free of tripping hazards.		
		b. Course surface is well maintained to prevent injury in case of falls.		
		c. Course surface is raked and policed prior to each use.		
		d. Course surface is free of large rocks, stones, or concrete materials that may cause injury in the event of a fall.		
11	Safety	Safety Office staff conducts semiannual inspections.		
	Remarks:			

Table C-2
General inspection criteria checklist, continued

C-2. Obstacle specific design criteria

The following criteria supplement sketches found in FM 7-22, and DA Corps of Engineer Drawing DEF 028-13-95, Obstacle Course Layout Plan.

- a. Climbing ropes that are 1 1/2 inches wide and either straight or knotted.
- b. Walls 7 or 8 feet high.
- c. Ground covering should be maintained to prevent excessive erosion and compaction.
- d. This criteria applies to the following specific obstacle courses:
 - (1) Obstacles for jumping (see figure C-2).

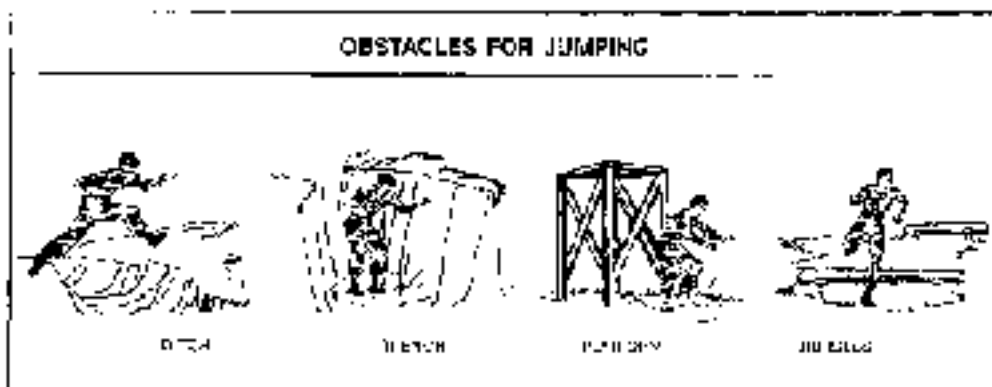


Figure C-2. Obstacles for jumping

(2) Obstacles for dodging (see figure C-3).

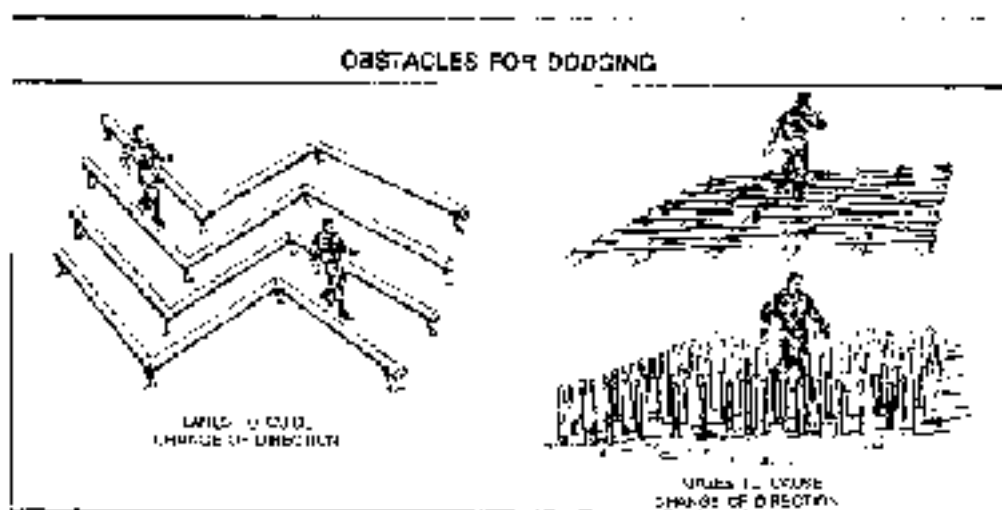


Figure C-3. Obstacles for dodging

(3) Obstacles for climbing and surmounting (see figure C-4).

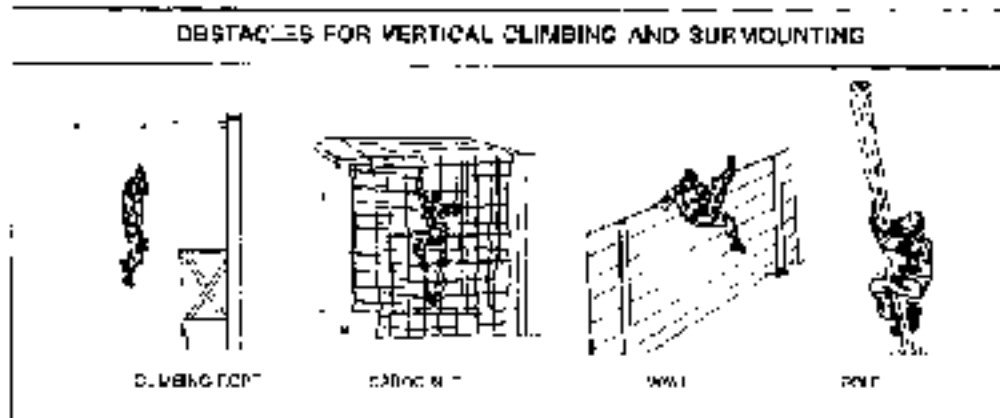


Figure C-4. Obstacles for vertical climbing and surmounting

(4) Horizontal traversing (see figure C-5).

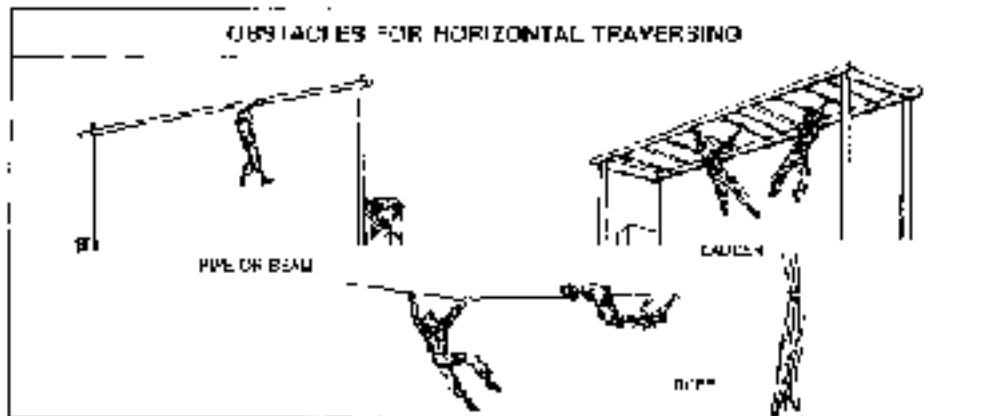


Figure C-5. Obstacles for horizontal traversing

(5) Obstacles for crawling (see figure C-6).

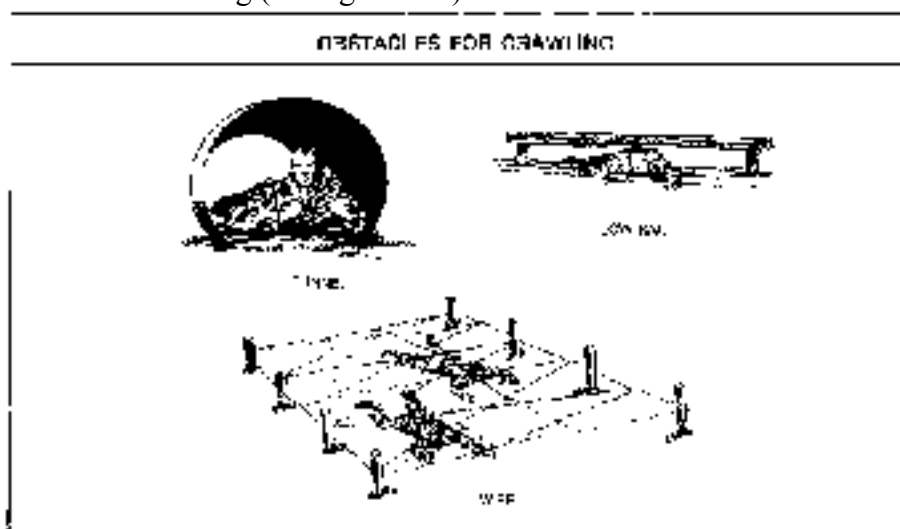


Figure C-6. Obstacles for crawling

(6) Obstacles for vaulting (see figure C-7).

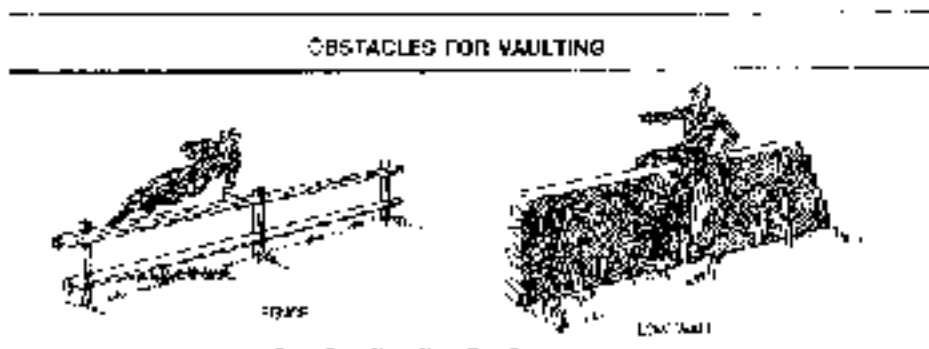


Figure C-7. Obstacle for vaulting

(7) Obstacles for balancing (see figure C-8).

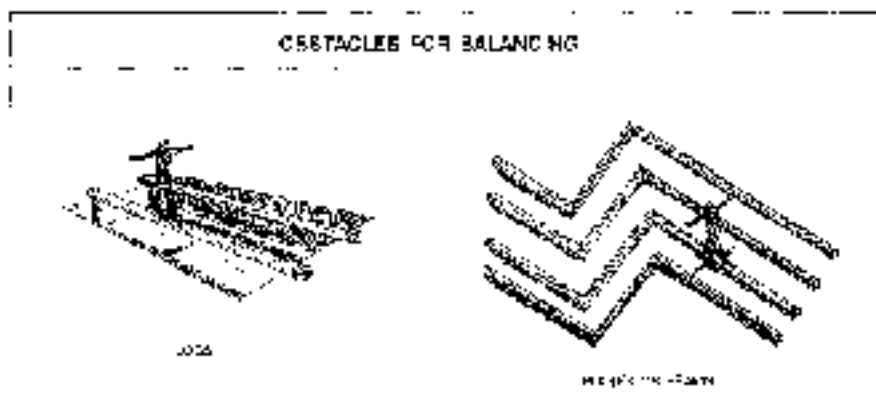


Figure C-8. Obstacle for balancing

C-3. IMT obstacle course checklist

Figure C-9 provides an obstacle course inspection and standardization criteria.

- a. See table C-3 for the IMT obstacle course administrative general inspection criteria.
- b. See table C-4 for the IMT obstacle course general inspection criteria.

IMT Obstacle Course Evaluator Information	
Obstacle Course: _____	
Location: _____	Date of Inspection: _____
Inspector:	
Name: _____	Organization: _____
POC:	
Name: _____	Organization: _____
Phone: _____	
<ol style="list-style-type: none"> 1. Courses will be evaluated to identify any safety hazards/concerns. Deficiencies found during the inspection will be annotated and corrective actions initiated by the responsible organization. 2. This evaluation will also assist in standardizing courses used at TRADOC activities. 3. Obstacle categories: standard, nonstandard, and other. <p>Note: Where indicated on checklist, “fall protection” refers to devices or systems emplaced beneath obstacles and at least 6 feet to the sides of obstacles presenting a fall hazard, to prevent injury during falls; “fall arrest systems” are devices attached to personnel to limit the distance of falls; and “surface” refers to the area beneath and around obstacles, to include travel lanes. Impact absorbing material depth under obstacles is 18 inches for sand, 12 inches of shredded rubber, and 24 inches for saw dust. Sand and sawdust must be tilled or turned at least annually to combat settling and ensure impact absorbance.</p> <ol style="list-style-type: none"> 4. Standards for Conditioning/Endurance Courses are a combination of those found in FM 7-22; Engineer Drawing DEF 028-13-95, Obstacle Course Layout Plan; and TRADOC Regulation 350-6. 	

Figure C-9. IMT obstacle course evaluator information

Table C-3
IMT obstacle course administrative general inspection criteria

	AREA	STANDARD	GO	NO GO
1	Training requirement	a. Training event is supported by TSP, program of instruction, or lesson plan.		
		b. SOPs are published and on hand at each course.		
2	Administrative	a. All ropes used for surmounting and suspension have condition service logs available.		
		b. Weight testing logs are maintained for nets.		
3	Risk Management	a. Generic risk assessment is completed and maintained on training site.		
		b. Daily risk assessment is completed and onsite during training, identifying hazards associated with personnel, equipment, and environment.		
4	Inspections	a. Copy of last professional safety staff's safety inspection report is onsite.		
		b. Copy of daily inspection is maintained at training site.		
		c. A list of all current deficiencies is maintained by the responsible organization.		
		d. Copies of current work orders are maintained by the responsible organization.		
5	Accident trends	A list of all injuries sustained on obstacles is maintained by the responsible organization and safety office.		
	Remarks:			

Table C-4
IMT obstacle course general inspection criteria

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. There are no protruding nails or splinters to cause injury when obstacle is negotiated.		
		c. All timbers are securely connected together without excess separation between joints.		
2	Wall boards	a. All boards are securely attached to structure with proper hardware.		
		b. All boards free of protruding nails, splinters, rot, or damage.		
		c. Edges of boards rounded/smooth where used to support individual's weight.		
3	Hardware	a. All bolts, nuts, and washers are in place and of the designated type/size/ placement.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
4	Fiber ropes	a. All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excessive wear, or contact with the ground.		
		b. All ropes designed for surmounting are 1.5 inches in diameter.		
		c. Ropes are securely mounted to supporting timbers with ends tied/taped.		
		d. Ends of ropes are tied in a knot or wrapped to prevent fraying.		
		e. Condition/service logs are maintained on all ropes used for surmounting and suspension.		
5	Design	Obstacle adheres to blue print specifications.		
	Remarks:			

Table C-4
IMT obstacle course general inspection criteria, continued

	AREA	STANDARD	GO	NO GO
6	Fall protection	a. All nets meet American National Standards Institute (ANSI) load bearing standard for personnel (ANSI 10.11/OSHA 1926.105) 3.5-inch nylon mesh, 17,500 pounds impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall. (See 29 CFR 1926.105 (a).)		
		c. Forged steel hooks are used to fasten nets to its supports.		
		d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c) (4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site for inspection.		
		e. All nets are suspended below high obstacles (in excess of 10 feet) have padding or small mesh material to prevent limbs from penetrating net.		
		f. Pole-vaulting pads are in good condition with no tears, holes, or loose material, which can trip personnel when dismounting.		
		g. All pole-vaulting pads are placed properly at base of designated high obstacles.		
7	Padding on timbers	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
8	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
		d. Containment box is filled with either 18 inches of sand, 12 inches of shredded rubber, or 24 inches of sawdust.		
9	Surfaces	All surfaces beneath low obstacles are free of hazards with the potential to cause injury.		
10	Course condition	a. Designated course is free of tripping hazards.		
		b. Course surface is well maintained to prevent injury in case of falls.		

		c. Course surface is raked and policed prior to each use.		
		d. Course surface is free of large rocks, stones, or concrete materials that may cause injury in the case of a fall.		
11	Safety	Professional safety staff reviews obstacle construction plans and conducts semiannual inspections.		
	Remarks:			

C-4. Obstacle course specific inspection criteria

a. The accompanying checklists and sketches supplement FM 7-22 and DA Corps of Engineer Drawings DEF 028-13-95, Obstacle Course Layout Plan, and TRADOC Regulation 350-6. They serve as minimum construction/safety standards for obstacle courses used by IMT facilities.

b. The “jump and land” and “swinger” are not included and will not be used. These obstacles are conducive to lower extremity injuries.

c. Safety equipment (nets, pads, and ground covering) should be procured from reliable sources, inspected and tested frequently, and replaced before deterioration/failure.

d. Tables and figures are provided for specific courses.

(1) See table C-5 and figure C-10 for “the tough one.”

Table C-5.
The tough one checklist

	AREA	STANDARD	GO	NO GO
1	W o o d timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Regulation 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are connected securely together without excess separation between joints.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type, size, and placement.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	F a l l protection	a. All nets meet ANSI load bearing standard for personnel (ANSI 10.11/OSHA 1926.105) 3.5-inch nylon mesh, 17,500 pounds impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall. (See 29 CFR 1926.105 (a).)		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c) (4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site for inspection.		
		e. Pole-vaulting pads are in good condition with no tears, holes, or loose material, which can trip personnel when dismounting.		
		f. Pole-vaulting pads are placed properly at base of designated obstacles.		
5	B a s e containment	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		

	box	b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		

Remarks:

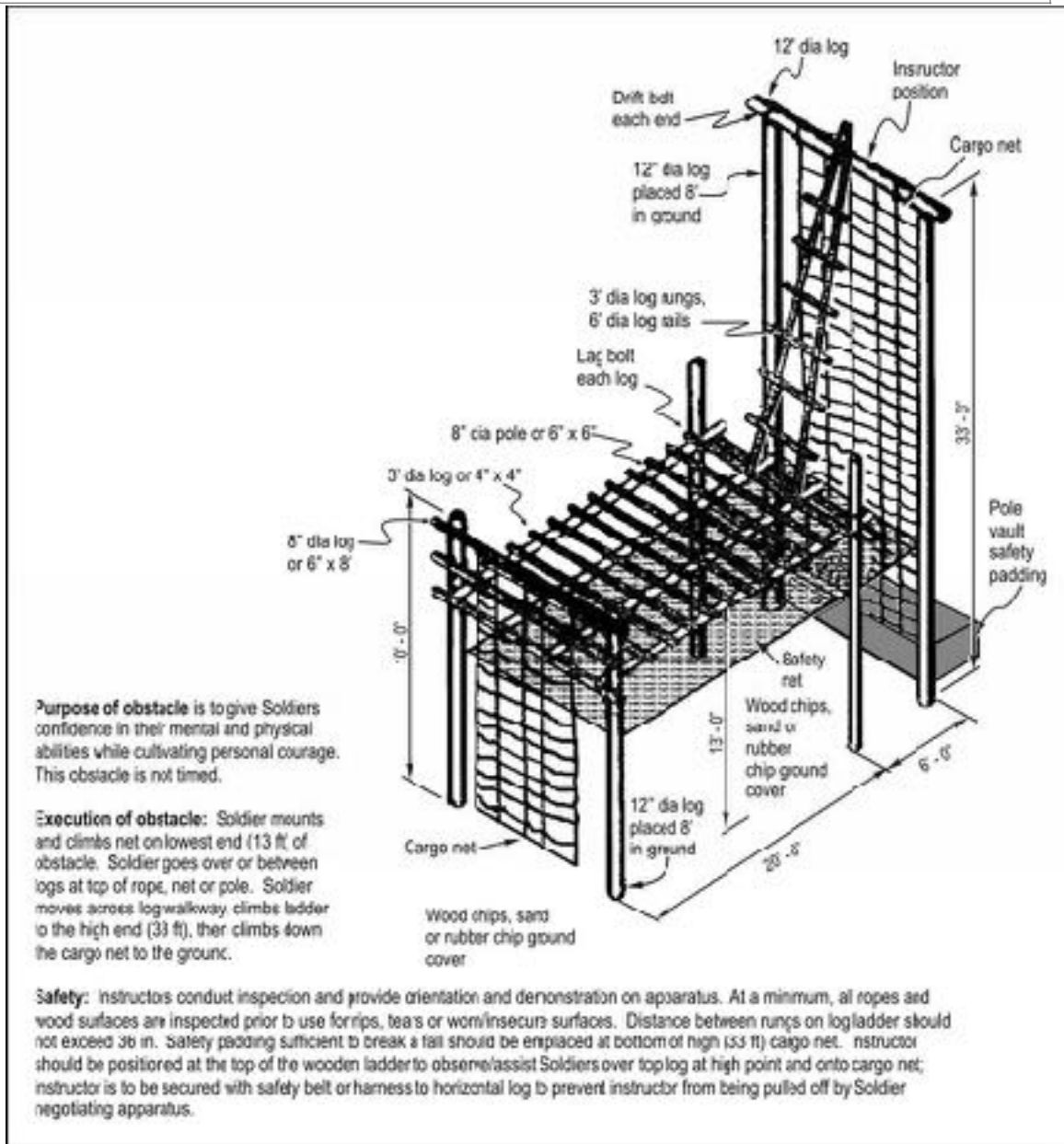


Figure C-10. The tough one

(2) See table C-6 and figure C-11 for the “inverted rope descent/the slide for life.”

Table C-6
Inverted rope descent/the slide for life

	AREA	STANDARD	GO	NO GO
1	Wood Timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Regulation 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are connected securely together without excess separation between joints.		
2	Hardware	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
3	Fiber ropes	a. All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excessive wear, or contact with the ground.		
		b. All ropes designed for surmounting are 1.5 inches in diameter.		
		c. Ropes are securely mounted to supporting timbers with ends tied and taped.		
4	Design	Professional safety staff reviews obstacle construction plans.		

Table C-6
Inverted rope descent/the slide for life, continued

	AREA	STANDARD	YES	NO
5	Fall protection	a. All nets meet ANSI load bearing standard for personnel (ANSI 10.11/ OSHA 1926.105) 3.5-inch nylon mesh, 17,500 pound impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from edge of obstacle. (See 29 CFR 1926.105 (a).)		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c)(4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site		
		e. All nets suspended below high obstacles (excess of 10 feet) have padding or small mesh material to prevent limbs from penetrating mesh.		
		f. Pole-vaulting pads are in good condition with no tears, holes, or loose material, which can trip personnel when dismounting.		
		g. Pole-vaulting pads are properly placed at base of designated obstacles.		
6	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
	Remarks:			

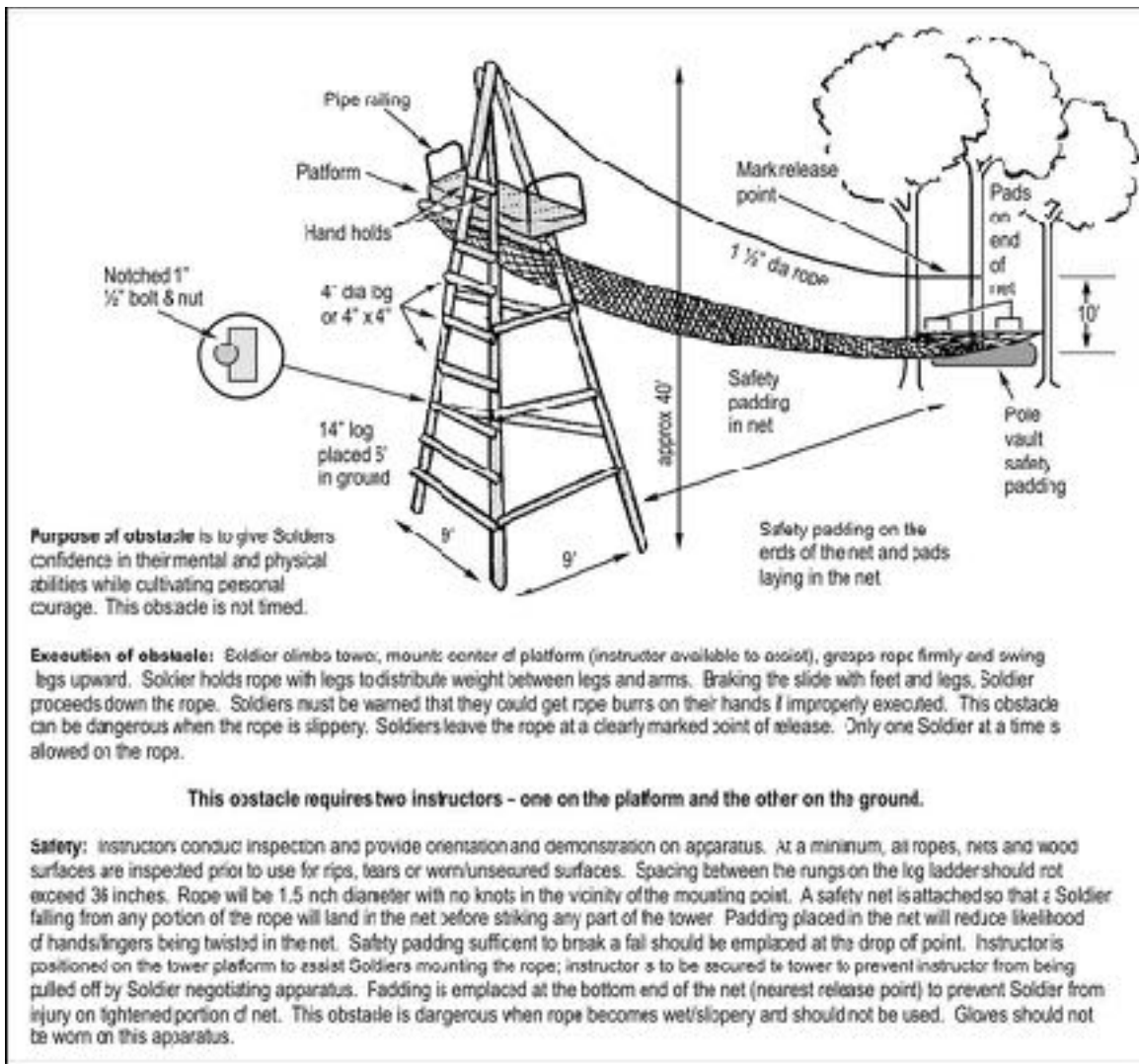


Figure C-11. Inverted rope descent/the slide for life

(3) See table C-7 and figure C-12 for the “confidence climb.”

Table C-7
Confidence climb checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Regulation 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2	Hardware	a. All bolts, nuts, and washers are in place and of the designated type and		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Fall protection	a. Pole-vaulting pads are in good condition with no tears, holes, or loose material, which can trip personnel when dismounting.		
		b. All pole-vaulting pads are properly placed at base of designated obstacles.		
5	Base contain-ment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

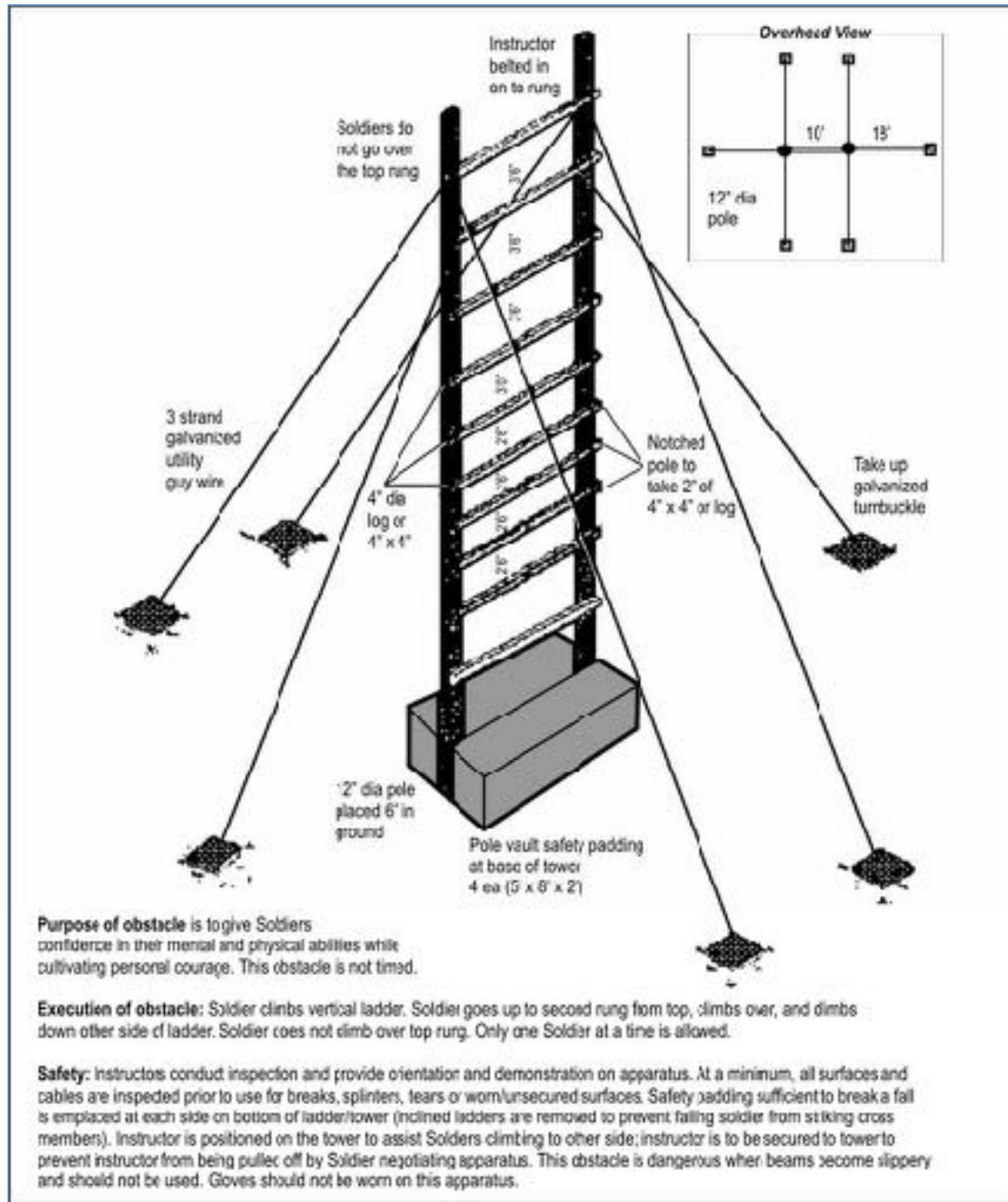


Figure C-12. Confidence climb

(4) See table C-8 and figure C-13 for the “skyscraper.”

Table C-8
Skyscraper checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2	Hardware	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Fall protection	a. All nets meet ANSI load bearing standard for personnel (ANSI 10.11/ OSHA 1926.105) 3.5-inch nylon mesh, 17,500 pounds impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall. (See 29 CFR 1926.105 (a).)		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/ working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c)(4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site for inspection		
		e. All nets suspended below high obstacles (excess of 10 feet) have padding to prevent limbs from penetrating net.		
		f. Pole-vaulting pads are in good condition with no tears, holes, or loose material, which can trip personnel when dismounting.		

g. Pole-vaulting pads are properly placed at base of designated obstacles.

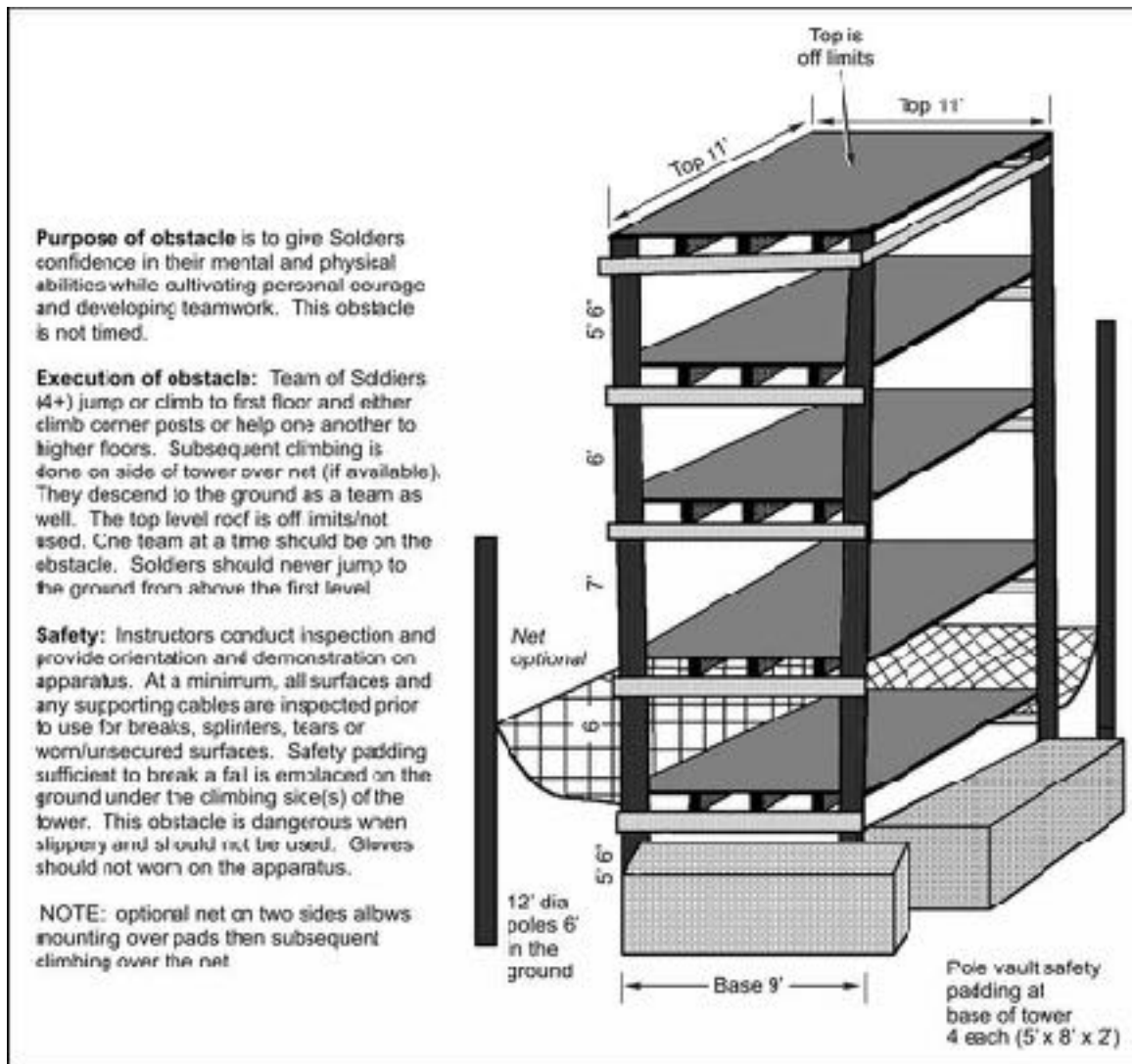


Figure C-13. Skyscraper

(5) See table C-9 and figure C-14 for the “belly robber.”

Table C-9
Belly Robber checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier’s ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
Remarks:				

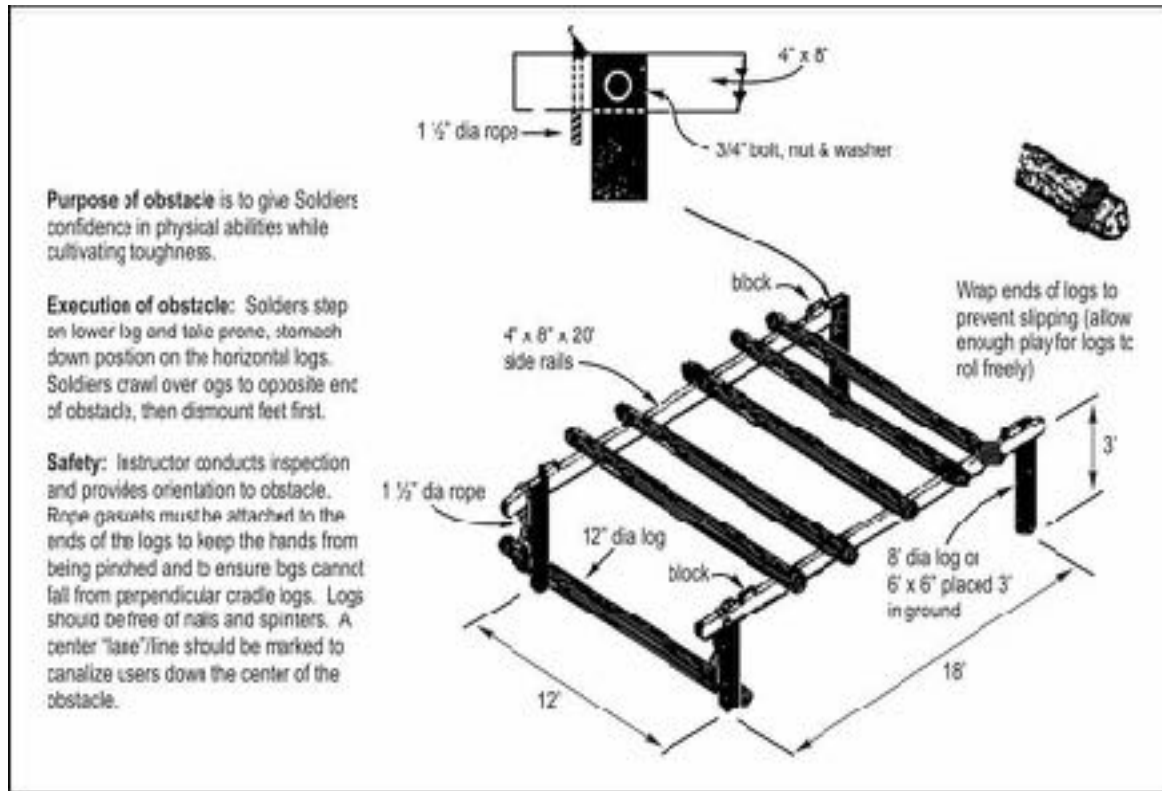


Figure C-14. Belly robber

(6) See table C-10 and figure C-15 for "the Tarzan."

Table C-10
The Tarzan checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Regulation 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. Rungs on horizontal ladder are modified to support gender integrated training (diameter is reduced to accommodate smaller hand sizes).		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
Remarks:				

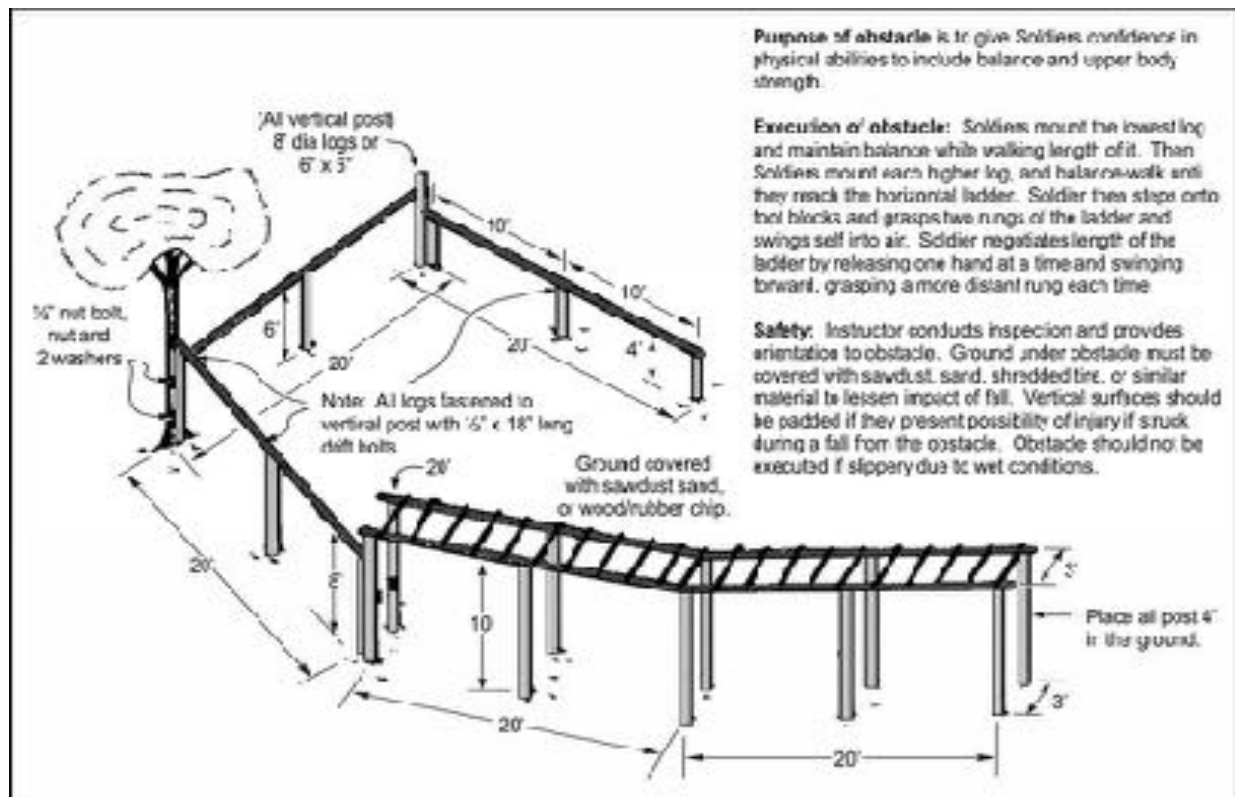


Figure C-15. The Tarzan

(7) See Table C-11 and Figure C-16 for the “Low belly over.”

Table C-11

Low belly over checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. No signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		

2	Hardware	All bolts, nuts, washers are in place and of the designated type/size.		
3	Fiber ropes	All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excessive wear, or contact with the ground.		
4	Design	Professional safety staff reviews obstacle construction plans.		
5	Padding on timbers	a. All padding on timbers is in good condition no signs of damage. b. Pads are securely attached to the timber supports to prevent movement when impacted.		

Remarks:

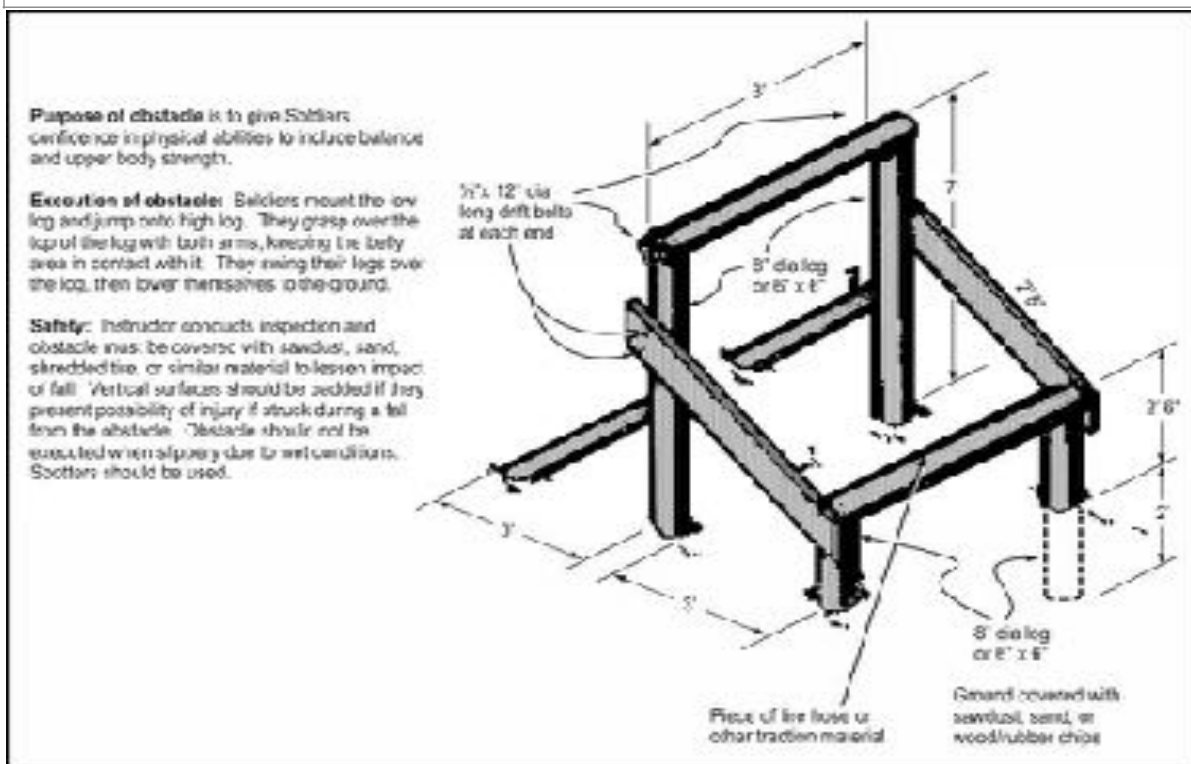


Figure C-16. Low belly over

(8) See table C-12 and figure C-17 for “the dirty name.”

Table C-12
The dirty name checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		

		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Padding on timbers	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
5	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without injury.		
Remarks:				

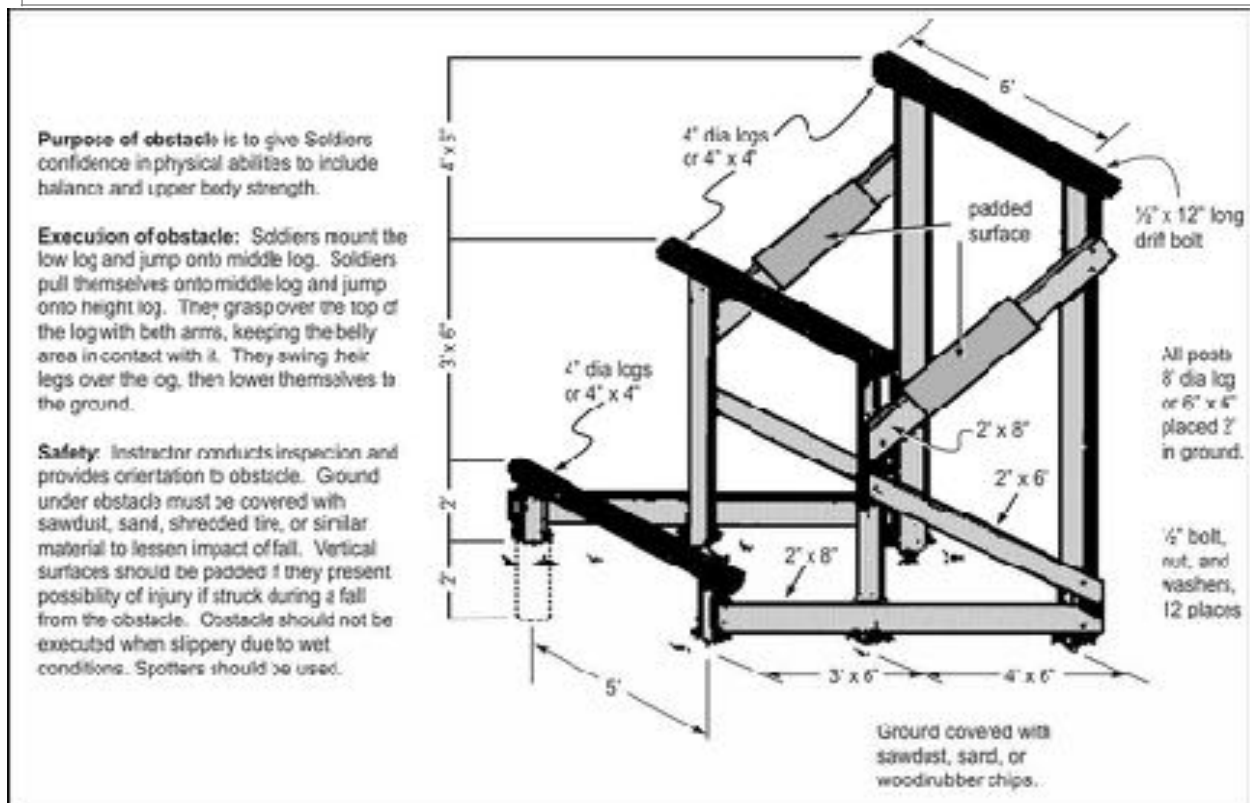


Figure C-17. The dirty name

(8) See table C-13 and figure C-18 for “the tough nut.”

Table C-13
The tough nut checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All wire/bolts are of the designated type and size.		
3	Design	a. Professional safety staff reviews obstacle construction plans.		
		b. Center height of "X" does not exceed 30 inches.		

Remarks:

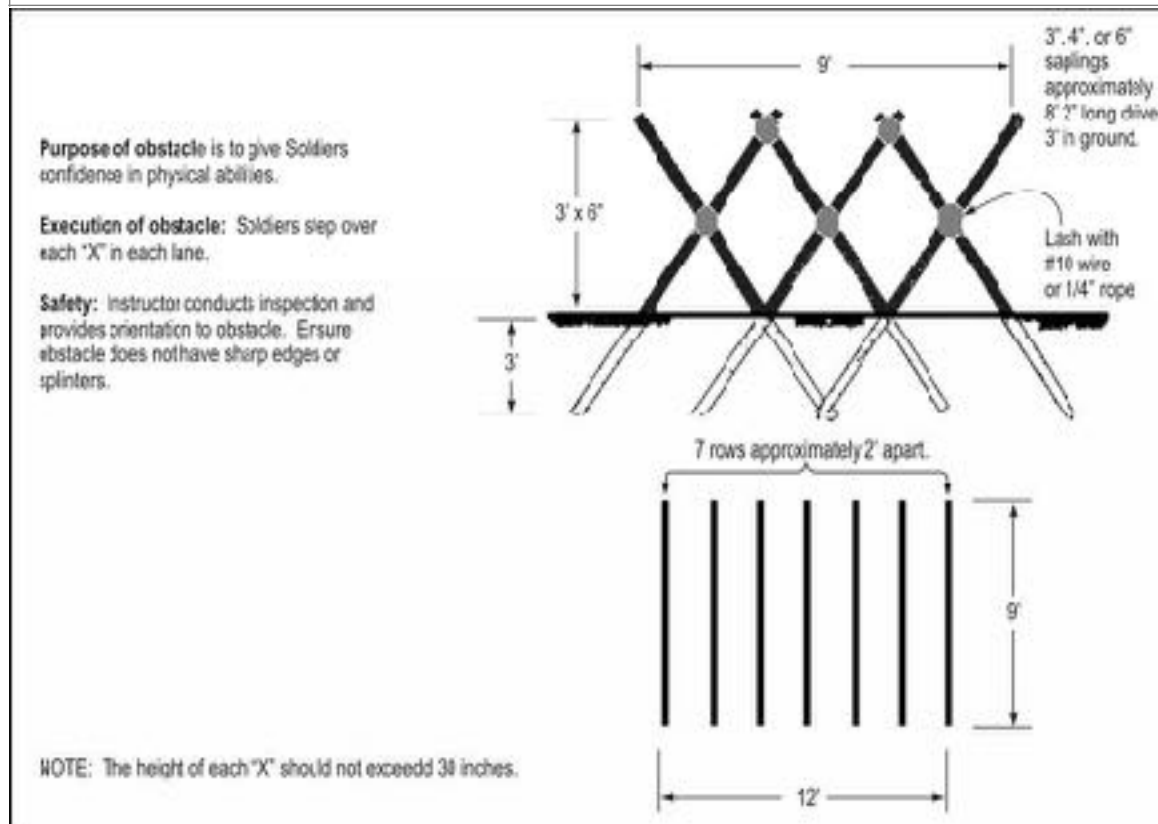


Figure C-18. The tough nut

(9) See table C-14 and figure C-19 for the “belly crawl.”

Table C-14
Belly crawl checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
2	Hardware	All wires, screws, or nails are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Surfaces	All surfaces beneath low surfaces are free of hazards with the potential to cause injury.		
Remarks:				

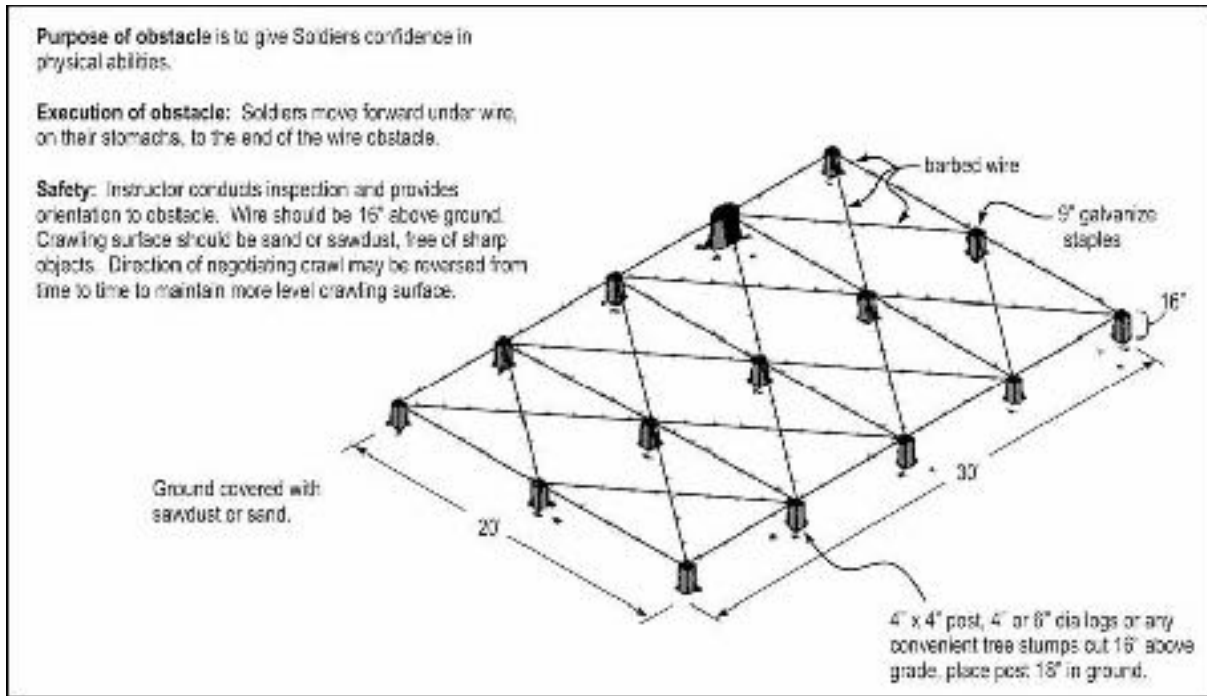


Figure C-19. Belly crawl

(10) See table C-15 and figure C-20 for the “inclining wall.”

Table C-15
Inclining wall checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2	Wall boards	a. All boards are securely attached to structure with proper hardware.		
		b. All boards free of protruding nails, splinters, rot, or damage.		
		c. Edges of boards rounded/smooth where used to support individual's weight...		

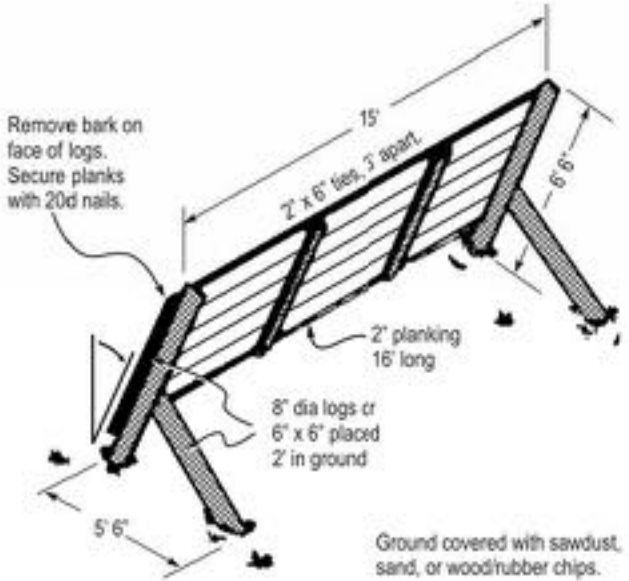
3	Hardware	a. All bolts, nuts, and washers in place and of the designated type, size, and placement.		
		b. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
4	Design	Professional safety staff reviews obstacle construction plans.		
Remarks:				
<p>Purpose of obstacle is to give Soldiers confidence in physical abilities.</p> <p>Execution of obstacle: Soldiers approach the underside of the wall, jump up and grasp the top and pull themselves over the top. Soldiers slide or jump down the incline to the ground.</p> <p>Safety: Instructor conducts inspection and provides orientation to obstacle. Wire should be 16" above ground. Crawling surface should be sand or sawdust, free of sharp objects. Direction of negotiating crawl may be reversed from time to time to maintain more level crawling surface.</p> 				

Figure C-20. Inclining wall

(10) See table C-16 and figure C-21 for the “swing, stop, and jump.”

Table C-16**Swing, stop, and jump checklist**

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		

		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. Surmounting ropes have knots at ends or are taped to prevent fraying.		
3	Fiber ropes	All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excess wear, or contact with the ground.		
4	Design	Professional safety staff reviews obstacle construction plans.		
5	Padding on timbers	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
6	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		

Remarks:

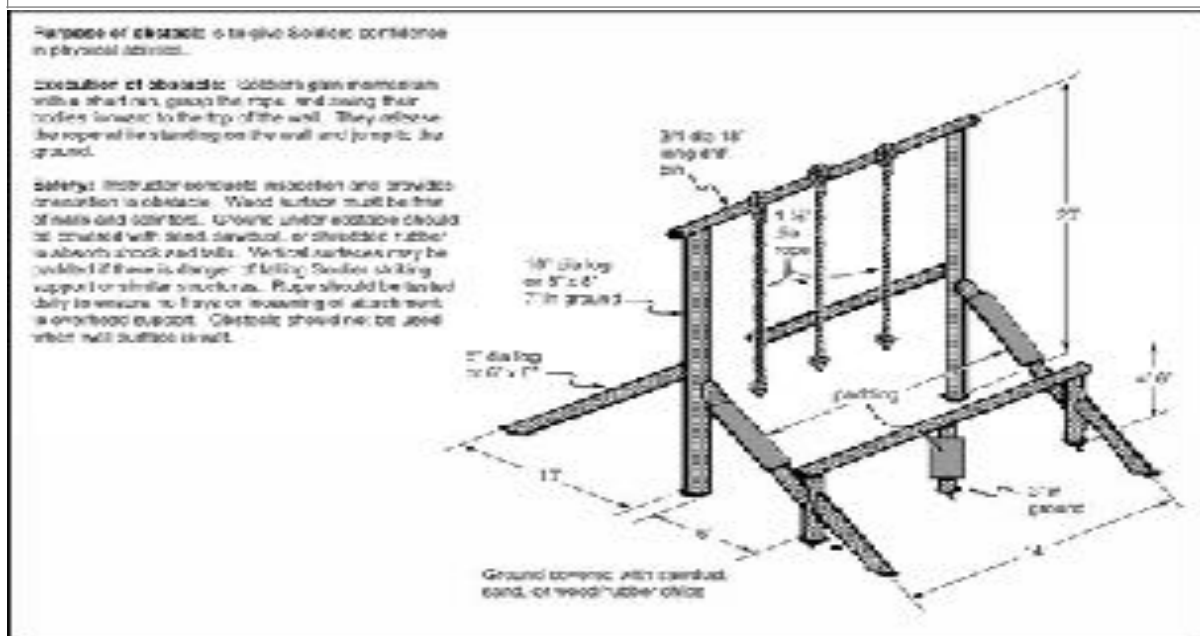


Figure C-21. Swing, stop, and jump

(11) See table C-17 and figure C-22 for the “six vaults.”

Table C-17

Six vaults checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		

Remarks:

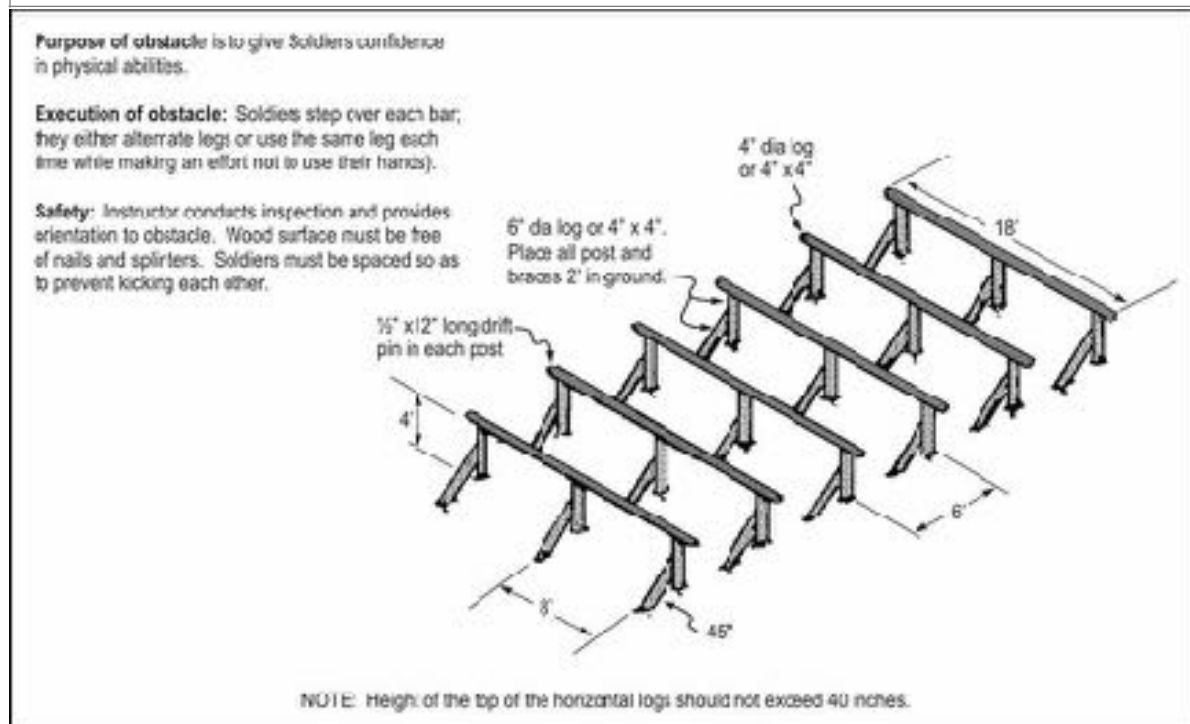


Figure C-22. Six vaults

(12) See table C-18 and figure C-23 for the “easy balancer.”

Table C-18
Easy balancer checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

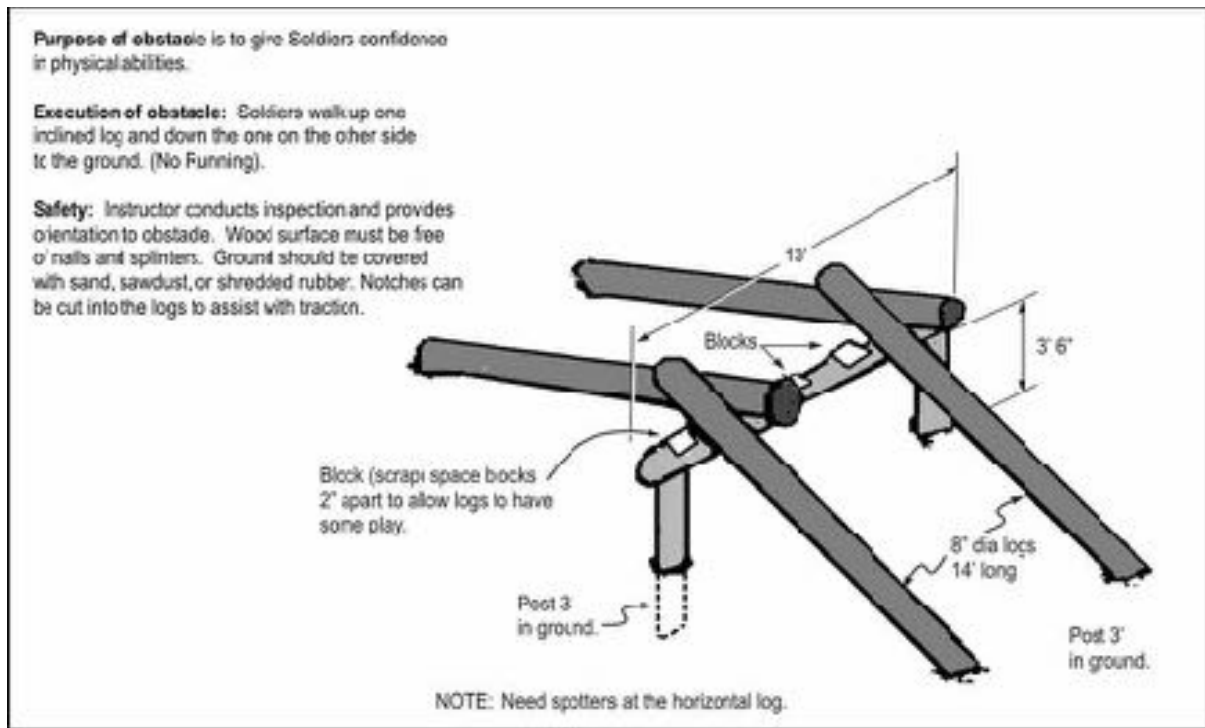


Figure C-23. Easy balancer

(13) See table C-19 and figure C-24 for the “low wire.”

Table C-19
Low wire checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2	Hardware	All wire, nails, or screws are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Surfaces	All surfaces beneath low obstacles are free of hazards with the potential to cause injury.		
Remarks:				

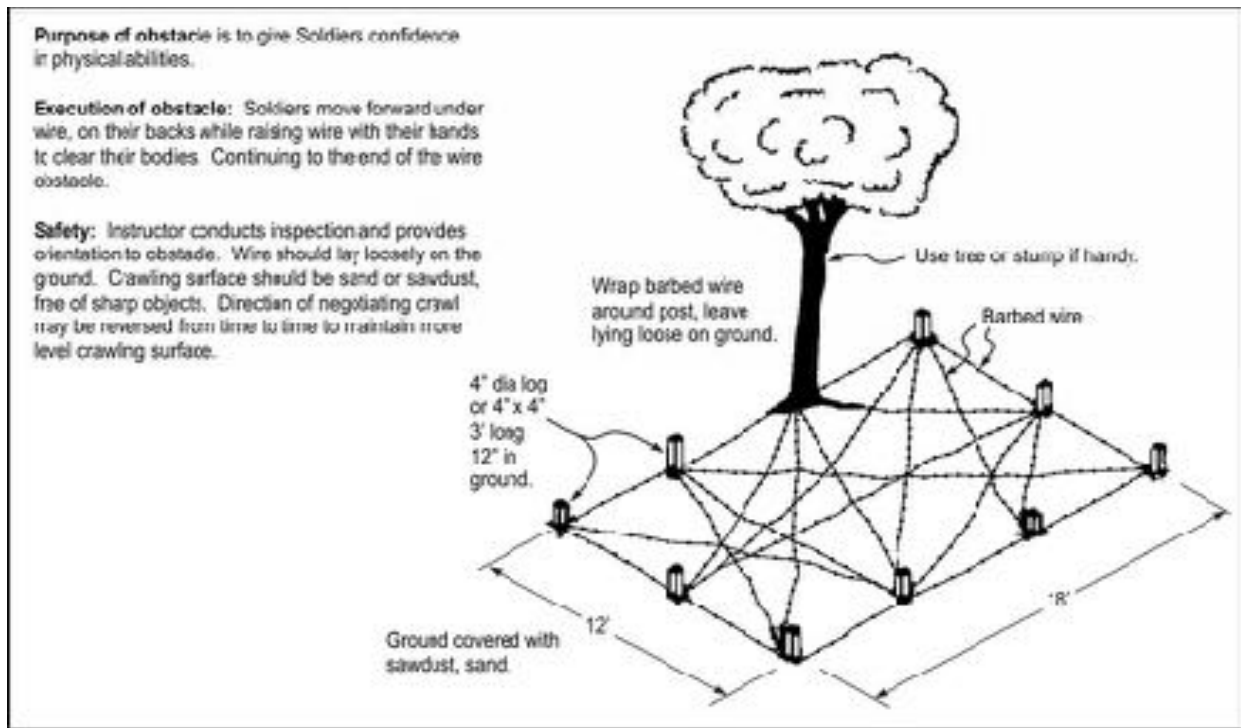


Figure C-24. Low wire

(14) See table C-20 and figure C-25 for “the belly buster.”

Table C-20

The belly buster checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	a. All bolts, nuts, and washers are in place and of the designated type/size.		

		b. Soldiers are warned to keep hands and fingers away from parts of log resting on cradle.		
		c. Soldiers are informed not to rock or roll log while others are negotiating obstacle.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

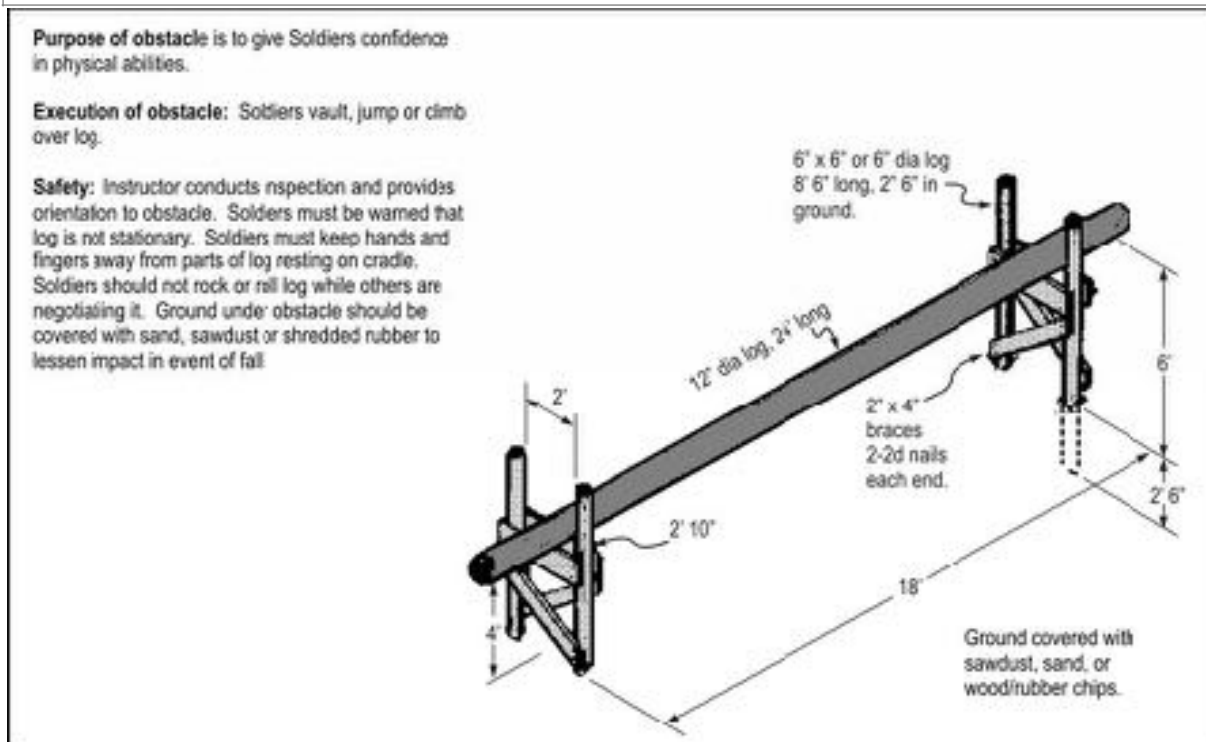


Figure C-25. Belly buster

(15) See table C-21 and figure C-26 for “the belly buster.”

Table C-21
Hip-hip checklist

	AREA	STANDARD	GO	NO GO
1	Wood Timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		

		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Surfaces	All surfaces beneath low obstacles are free of hazards with the potential to cause injury.		
Remarks:				

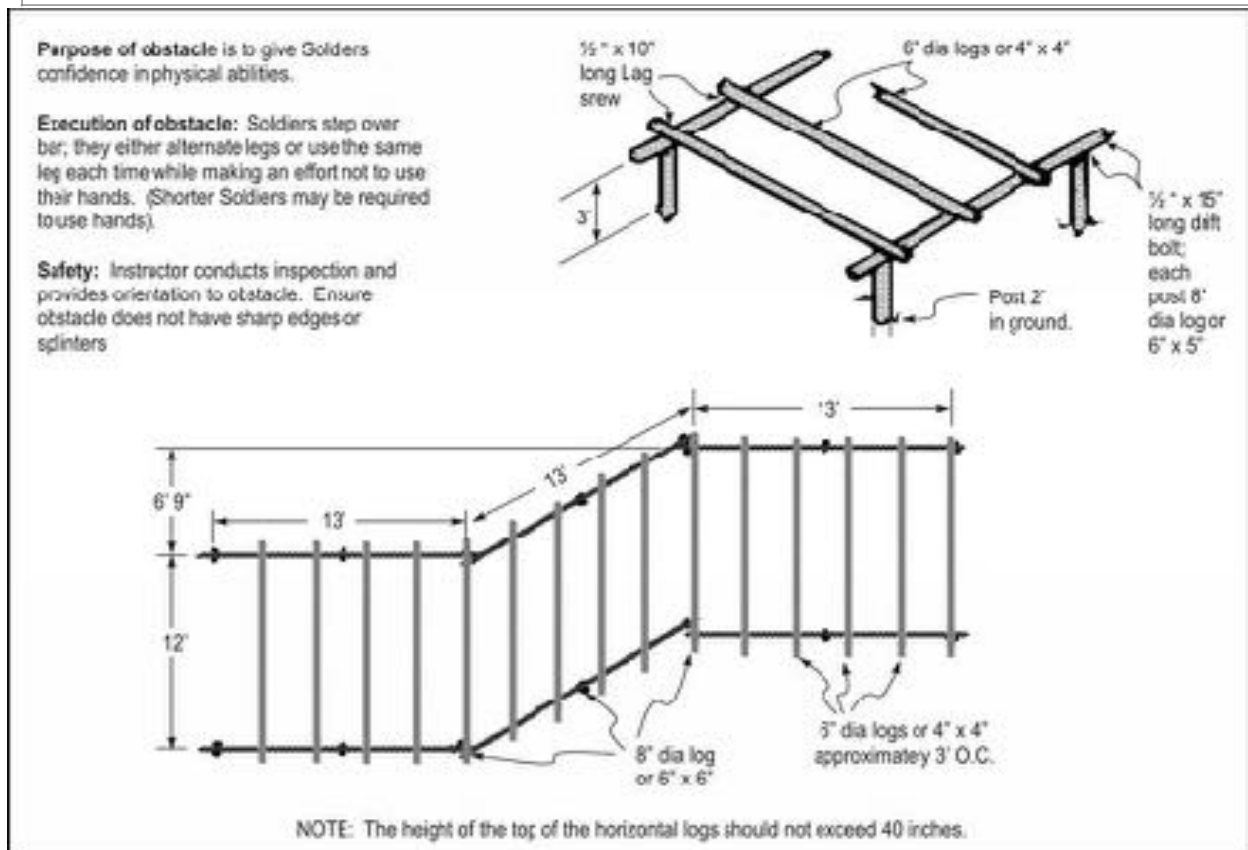


Figure C-26. Hip-hip

(16) See table C-22 and figure C-27 for the “reverse climb.”

Table C-22

Reverse climb checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Padding on timbers	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
5	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without injury.		
Remarks:				

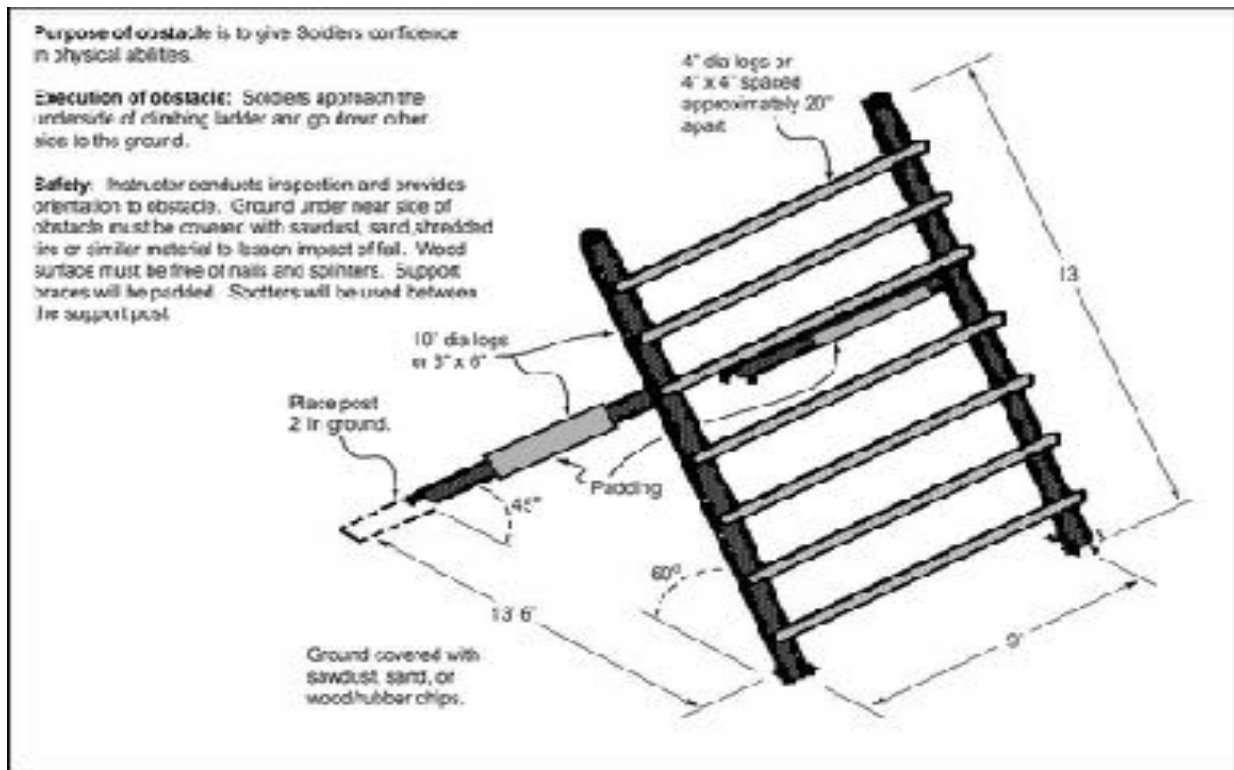


Figure C-27. Reverse climb

(17) See table C-23 and figure C-28 for “the weaver.”

Table C-23

The weaver checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and		
3	Design	Professional safety staff reviews obstacle construction plans.		
4	Base containment box	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		

Remarks:

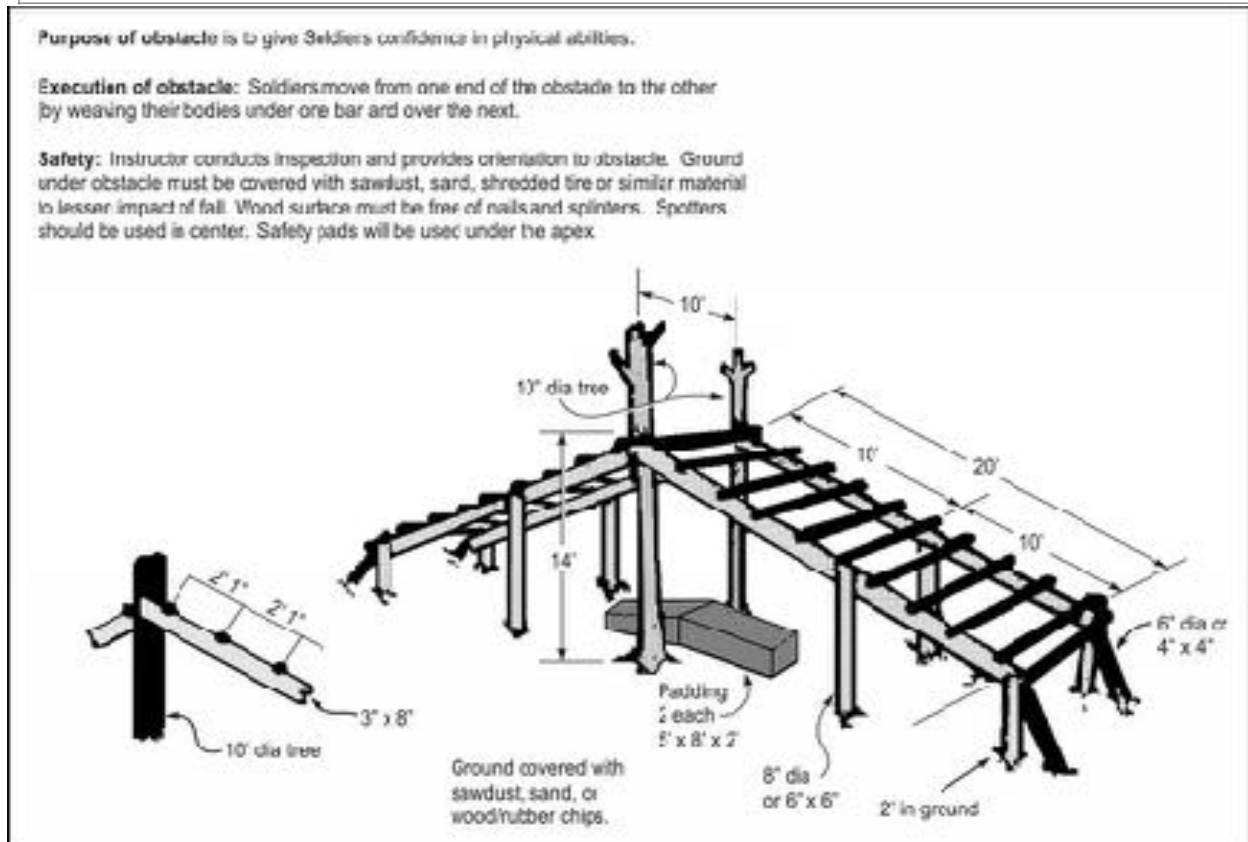


Figure C-28. The weaver

(18) See table C-24 and figure C-29 for the “balancing logs.”

Table C-24
Balancing logs checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
2	Hardware	All bolts, nuts, and washers are in place and of the designated type and size.		

3	Design	Professional safety staff reviews obstacle construction plans.		
Remarks:				

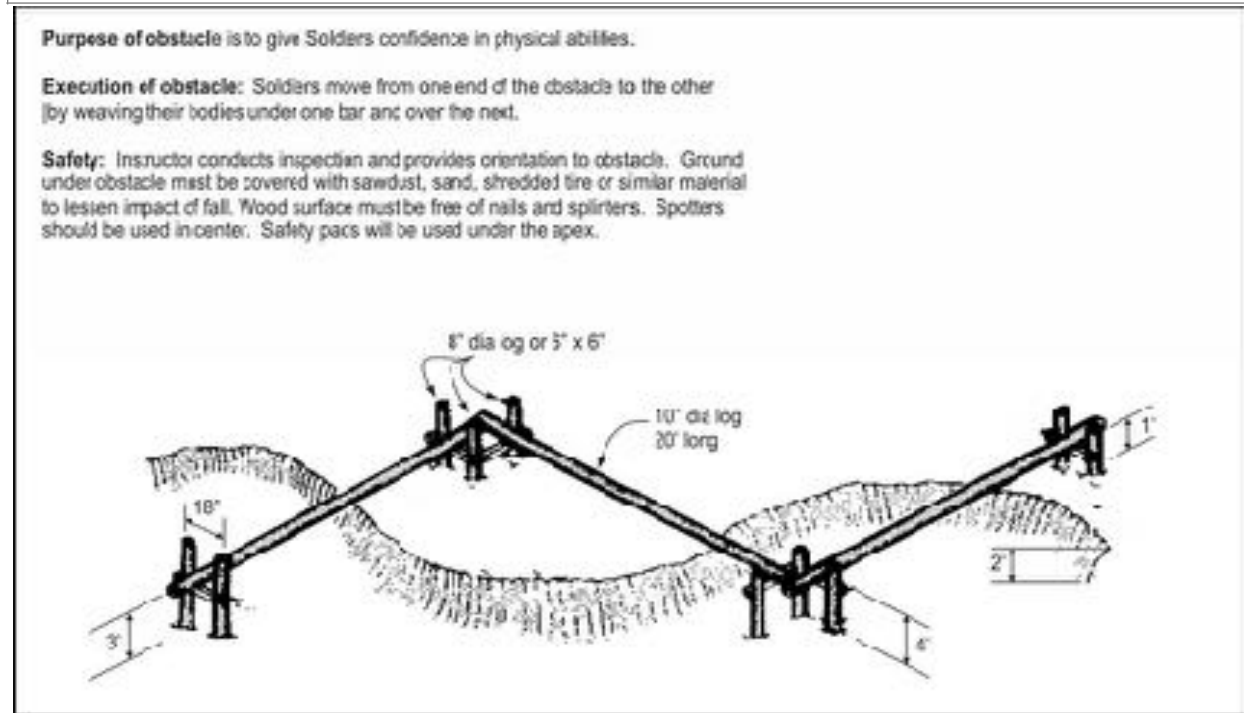


Figure C-29. Balancing logs

(19) See table C-25 and figure C-30 for the “island hoppers.”

Table C-25
Island hoppers checklist

	AREA	STANDARD	GO	NO GO
1	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
2	Design	Professional safety staff reviews obstacle construction plans.		

Remarks:

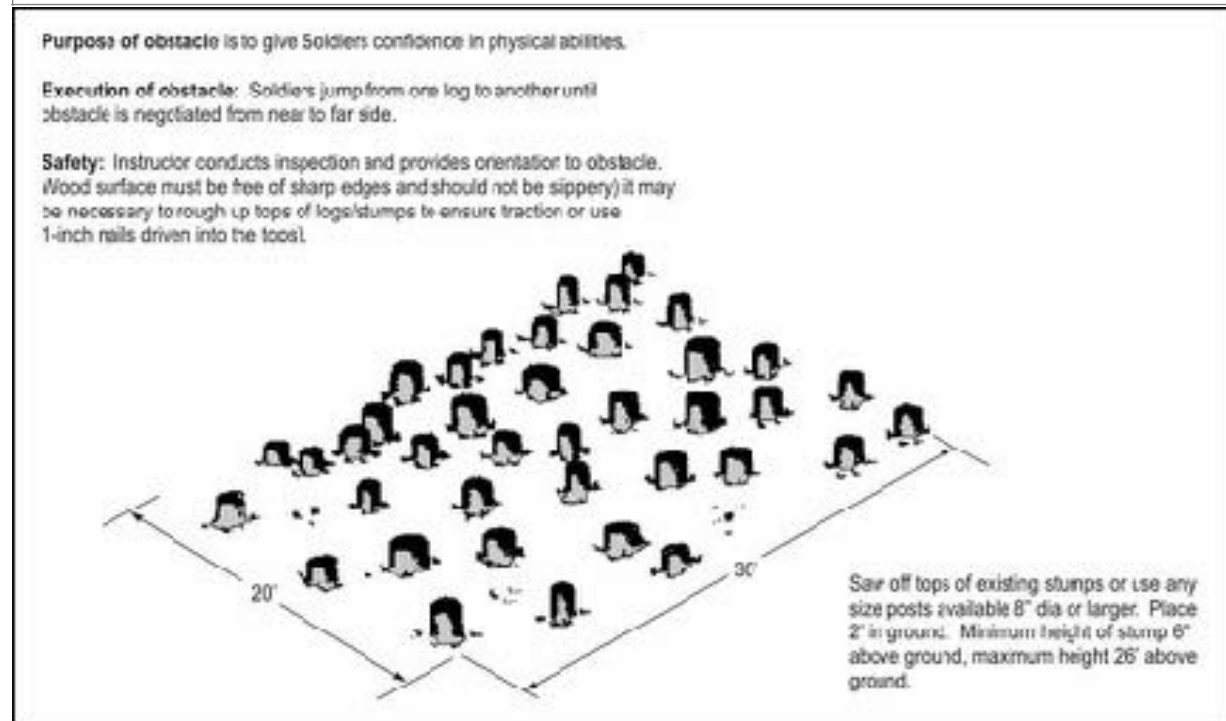


Figure C-30. Island hoppers

(20) See table C-26 for the “fitness tower.”

Table C-26
Fitness tower checklist

	Area	Standard	GO	NO GO
1	Adminis- tration	Copies of engineer drawings are maintained at the local safety office/facility engineers.		
2	Wood timbers	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Regulation 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are connected securely together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect Soldier's ability to negotiate obstacle.		
3	Hardware	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
		f. All attachment points are tested to ensure each will support 1.5 times usage weight.		
		g. Certified rappel masters inspect all ropes used for rappelling prior to each use.		
		h. Ropes used for surmounting are all 1.5 inches in diameter.		
4	Design	Professional safety staff reviews obstacle construction plans.		
5	Fall protection	a. All areas in and around tower facility are covered with non-compressed wood chips, mulch, sawdust, or shredded tire rubber.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall. (See 29 CFR 1926.105 (a).)		
		c. Forged steel hooks are used to fasten net to its supports.		

		d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c)(4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site for inspection.		
		e. Nets with padding are placed beneath all suspended bridges.		

Table C-26
Fitness tower checklist, continued

	AREA	STANDARD	GO	NO GO
6	Rappel- ling	a. Instructors working at the top of tower are secured to tower with fall arrest system/attached harness.		
		b. Only certified and current rappel masters conduct rappel operations.		
		c. All anchor points have been tested to a minimum of 5,400 pounds dead weight. (29 CFR 1926.104 (b))		
		d. All anchor points are secure and free of damage.		
		e. Top edge of rappel wall is padded to protect rope from cuts or abrasion.		
		f. Protective padding at top of rappel wall is tightly secured on all edges.		
		g. Rappel wallboards are free of damage, rot, protruding nails, and secured to tower with proper hardware.		
		h. Rappel landing area is free of obstructions and hazards.		
		i. Landing areas extends an uninterrupted distance of 15 feet from base of tower.		
		j. Landing area is cushioned with 24 inches of noncompressed wood chips, mulch, sawdust, 18 inches of sand, or 12 inches of shredded tire rubber.		
		k. Landing area cushioning material held in place by a containment barrier (timbers/sand bags).		
7	Ladders	a. All ladders are inspected for structural integrity.		

	b. Rungs spacing on ladders do not exceed 36 inches.		
	c. Nets are placed under all rope bridges.		
	d. Nets are weight tested after initial installation and before being used as a fall protection system, whenever relocated, after major repair and every 6 months. The drop-test shall consist of 400 pound (180 kg) bag of sand 30 + or - 2 inches (76 + or - 5 cm) in diameter dropped into the net from the highest walking/working surface at which employees are exposed to fall hazards, but not from less than 42 inches (1.1 m) above that level. When the commander can demonstrate that it is unreasonable to perform the drop-test required by 29 CFR 1926.502 (c)(4)(i), the commander (or a designated competent person) shall certify that the net and net installation is in compliance with 29 CFR 1926.502(c)(4)(i) by preparing a certification record prior to the net being used as a fall protection system. The certification record must include an identification of the net and net installation for which the certification record is being prepared; the date that it was determined that the identified net and net installation were in compliance with 29 CFR 1926.502 (c)(3) and the signature of the person making the determination and certification. The most recent certification record for each net and net installation shall be available at the training site for inspection.		
	e. Nets used for fall protection have padding installed to prevent limbs from passing through webbing.		
Remarks:			

C-5. Fall Protection

a. Fall protection will be provided for those obstacles designated as high, or have the ability to cause injury during a fall, or required by design.

b. The areas under and around obstacles will be covered with an impact reducing material appropriate for preventing serious injury in the event a Soldier falls while negotiating subject obstacle.

c. When purchasing fall protection equipment required for an obstacle, installations will ensure equipment meets or exceeds standards without creating a greater hazard. Where impact-reducing material is required, sand, wood chips, saw dust, or shredded tire rubber is sufficient.

d. Below are required essential items of fall protection, identified by obstacle.

(1) “The tough one”

(a) Wood chips/sand/or shredded rubber beneath obstacle.

- (b) Pole vault safety pad placed at base of obstacle.
 - (c) Safety net placed beneath obstacle, extended 8 feet out from point of potential fall. All netting will be rated for outside use and meet OSHA specifications for fall protection.
 - (d) Eye bolt or hook for instructor safety harness positioned at top of obstacle.
- (2) “Inverted rope descent/slide for life”
- (a) Instructor platform with eye bolt or metal hook to secure safety harness.
 - (b) Net placed beneath the length of descent rope.
 - (c) Padding placed on net beneath descent rope.
 - (d) Pads at end of net near release point.
 - (e) Pole vault pad at the base of release point.
 - (f) The area under and around (minimum of 6 feet) obstacles covered with impact reducing material.
- (3) “Confidence climb”
- (a) Eye bolt or hook for instructor’s safety harness at top of obstacle.
 - (b) Pole vault padding on both sides at base of obstacle (4 each @ 5 feet x 8 feet x 2 feet).
 - (c) Ground around base of obstacle covered with impact reducing material.
- (4) “Skyscraper”
- (a) Pole vault padding at base of tower.
 - (b) Netting extended from first level (optional).
- (5) “Belly robber” Ground beneath obstacle covered with impact reducing material.
- (6) “The Tarzan” Ground beneath obstacle covered with impact reducing material.
- (7) “Low belly over”
- (a) Ground covered with impact reducing material.

- (b) Tops of side rails covered with padding.
- (8) “The dirty name”
 - (a) Padding on tops of upper side braces.
 - (b) Ground beneath obstacle covered with impact reducing material.
- (9) “The tough nut” Ground beneath obstacle covered with impact reducing material (optional).
- (10) “Belly crawl” Ground beneath obstacle covered with impact reducing material.
- (11) “Inclining wall” Ground beneath obstacle covered with impact reducing material.
- (12) “High step over” Ground beneath obstacle covered with impact reducing material.
- (13) “Swing, stop, and jump”
 - (a) Padding on tops of front support logs.
 - (b) Ground beneath obstacle covered with impact reducing material.
- (14) “Six vaults” Ground beneath obstacle covered with impact reducing material.
- (15) “Easy balancer” Ground beneath obstacle covered with impact reducing material.
- (16) “Low wire” Ground beneath obstacle covered with impact reducing material.
- (17) “The belly buster” Ground beneath obstacle covered with impact reducing material.
- (18) “Hip-hip” Ground beneath obstacle covered with impact reducing material.
- (19) “Reverse climb”
 - (a) Padding on the tops of rear support logs.
 - (b) Ground beneath obstacle covered with impact reducing material.
- (20) “The weaver”
 - (a) Pole vault padding beneath center of obstacle.
 - (b) Ground beneath obstacle covered with impact reducing material.

(21) “Balancing logs” Ground beneath obstacle covered with impact reducing material.

(22) “Island hopper” Ground beneath obstacle covered with impact reducing material.

e. Safety equipment (nets, pads, and ground covering) should be procured from reliable sources. If shredded rubber is used, get samples prior to purchasing. Several companies are selling shredded rubber contaminated with petroleum products that may cause allergic reaction in some people, and tires with steel belts that may cause cuts and abrasions. When procuring netting, ensure provider includes design specifications and usage restrictions.

f. To ensure maximum life of safety equipment, inspect on a regular interval, store away from extreme weather conditions when possible, and maintain equipment using hardware and materials recognized by American National Standards.

g. See figure C-31 for required obstacle information.

Obstacle information

Total number of obstacles: _____

Number of standard obstacles: _____

Number of nonstandard obstacles: _____

Number of modified obstacles: _____

Total injuries occurring at each obstacle course:

Remarks:

**Appendix C
Figure C-31 Obstacle Information**

D-1. Rappel tower site inspection criteria

The minimum inspection criteria for towers and other facilities utilized for military rappelling training is shown in figure D-1 and table D-1.

Name, title, organization, and phone number of inspectors:

Date of inspection:

Name and location of tower:

Date of tower construction:

Built by:

Owned by:

Last date of any MAJOR modifications:

(If applicable, list modification, and by who performed, in addition to date; otherwise state not applicable.)

Date of previous inspection:

Name, title, and organization of previous inspector:

Is a copy of previous inspection available?

Name, title, organization, and phone number of local point of contact:

Date of last structural inspection:

Date of last anchor point load test:

Signature of inspectors:

Figure D-1. Rappel tower site inspection information

Table D-1

Rappel tower inspection criteria checklist

	AREA	STANDARD	YES	NO	NA
1	Inspect	a. Is the tower structurally sound? Do structural support members appear serviceable, free from deterioration, breaks, or damage?			
		b. Are there any signs of insect infestation? [29 CFR 1910.141(a)(5)]			
		c. Are bolts that connect structural members or support cables serviceable and properly connected/tightened?			

	d. Are stairs or ladders firmly attached to the tower?			
	e. Do stairs/fixed ladders comply with OSHA standards? [29 CFR 1910.24 and 29 CFR 1910.27]			
	f. Are all areas marked in yellow that pose a potential trip hazard or head hazard? [29 CFR 1910.144(a)(3)]			
	g. Are the tower platform and all rappel rope stations accessible without having to climb over any obstacles (guard rails, support cables, etc.)?			
	h. Is the tower deck free of slip/trip hazards such as water, protruding nails/bolts/splinters, loose equipment, etc.? [29 CFR 1910.141(a)(3)(ii) and 29 CFR 1910.141(a)(3)(iii)]			
	i. Are the tower deck and any open areas (above 4') not actively being used for rappelling, guarded with guardrails? [29 CFR 1910.23(c)(1)]			
	j. Are all guard rails a minimum of 42" high and capable of withstanding a side force of 200 pounds? [29 CFR 1910.23(e)(1) and 29 CFR 1910.23(e)(3)(iv)]			
	k. Are toe boards or similar barriers installed in all areas where personnel could pass underneath? [29 CFR 1910.23(c)(1)]			
	l. Do all tower rope stations have primary and secondary anchor points?			
	m. Are all anchor points in serviceable condition and free of corrosion, sharp edges, burrs, or grooves that could cut or damage ropes?			
	n. Have all anchor points been designed to ensure that they will accommodate a dead weight of at least 5400 pounds for each Soldier attached? [29 CFR 1926.104, (b)]			
	o. Is the rappel wall face area free of protruding nails, bolts, or splinters?			
	p. Is the rappel wall face area free of broken, loose, decayed, or missing boards?			
	q. Is padding material in place on all edges that ropes and/or personnel cross?			
	r. Is the edge padding in good condition and securely fastened?			
	s. Is the edge padding free from protruding nails, bolts, or other fasteners that could fray or cut ropes or injure rappellers?			
	t. Are all structural areas of the tower properly padded that a rappeller might contact during rappel operations?			
	u. Is the structural padding in serviceable condition, securely fastened, and free from protruding nails, bolts, or fasteners?			
	v. Is the landing area free of obstructions and hazards?			
	w. Does the landing area extend an uninterrupted distance of 15 feet from the tower base and at least 2 feet beyond the width of the base with cushioning material in the event of a fall?			
	x. Is the landing area adequately cushioned in case of a fall (24 inches of non-compressed wood chips, mulch, or sawdust; 12 inches of commercially produced shredded rubber; or safety pads that offer similar fall protection)?			

		y. Has the cushioning material in the landing area been loosened up prior to use and, if large numbers of students are rappelling, are procedures in place and equipment available to loosen it up again during training?			
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Table D-1**Rappel tower inspection criteria checklist, continued**

	AREA	STANDARD	YES	NO	NA
2	Physical security and fire protection criteria	a. Is there a positive locking device on the ladder/steps or a locked fence around the tower that denies unauthorized access to the tower?			
		b. Is there a prominently displayed warning sign that discourages unauthorized use of the tower (for example, WARNING: OFF LIMITS TO UNAUTHORIZED PERSONNEL)?			
		c. Are NO SMOKING signs posted at the tower to preclude potential ignition of cushioning materials?			
3	Risk Management and training considerations	a. Is there a current risk management worksheet on file and available onsite?			
		b. Has the risk management worksheet been reviewed, approved, and signed at the appropriate level?			
		c. Is the tower within 1 hour of an advanced trauma life support facility?			
		d. Are certified combat life support or medical personnel and a dedicated medical vehicle onsite to render emergency medical aid and evacuation, if required?			
		e. Is training conducted in accordance with Training Circular 21-24 and the appropriate TSP?			
		f. Is there a current SOP available that delineates requirements for instructors, students, support personnel, and other requirements?			
		g. Are properly “certified” instructors available to conduct rappel training? (IF NO, DO NOT CONDUCT RAPPEL TRAINING!) Name(s): Location and date of certification:			
4	Ropes and equipment	a. Are rappel ropes serviceable and properly inspected and stored?			
		b. Are rope inspections and usage properly documented on DA Form 5752-R (Rope Log (Usage and History))?			
		c. Are snap links serviceable (no excessive rust, sharp edges, improper gate opening and closing, excessive pin movement, missing pins, etc.)?			
		d. Are properly sized, serviceable, heavy leather gloves, and protective headgear available for rappellers?			