

Target Interface / Construction Compliance Inspection Checklist

Date:	YES	NO	NOTES
Urban Assault Course (UAC)			
Common Items			
A: Targets			
1	Quantities meet DD1391, applicable TC 25-8, and CEHNC Design Guide 1110-1-23		
2	Oriented to face firing line or firing positions/points		
B: Roads, Service, Lanes			
1	Number of stations meets DD 1391, applicable TC 25-8, and CEHNC Design Guide 1110-1-23.		
2	Trails and service roads provide adequate access to targets for maintenance		
C: Line of Sight			
1	Targets can be adequately seen from pertinent firing positions to allow 90% of target to be viewed		
2	Vegetation does not obscure target positions		
3	Left and right limit markers are outside greatest angle of fire from firing positions/points		
D: Testing Results provided to the local government construction representative			
1	Secondary power cabling tests		
2	Data cabling tests including fiber optic and/or copper network (ie. Cat5e)		
3	Grounding tests results. Control building (ie. ROC) has 25 Ohms or less earth resistance		
E: Drawings			
1	Contract drawings are available on-site		
2	"As-builts" will be made available to government representative after completed construction		

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Urban Assault Course (UAC)			
UAC Station 1 Individual and Team Task Technique			
A: Miscellaneous			
1			Layout of station 1 building is IAW CEHNC DG 1110-1-23
2			Number of power outlets and type agree with CEHNC DG 1110-1-23. 6 double target outlets total are required, 2 per room
3			Rafters do not interfere with training (ie. above 7ft)
4			No tripping hazards exist in doorways
5			All enclosures and rooms are clean of unwanted dirt and debris
6			All power enclosures including the conduits or wireways on the interior of the training rooms are mounted a minimum of 7 feet above finished floor
7			Target power outlet is NEMA L14-20R and a NEMA L5-20R with wet location covers. Double target outlets have an additional NEMA L14-20R and NEMA L5-20R outlet
8			GFCI maintenance receptacle (20A, 120V) are provided with in-use weatherproof covers in adequate number of locations mounted above 7 feet above finished floor including interior conduits/wireways
9			Power outlet locations are permanently labeled (ie. SIT X) and panel schedules agree with labels
10			Power panel feeding the target, auxiliary and maintenance outlets is in a location to not interfere with training and is adequately provided with ballistic protection if forward of firing line for live firing
11			Power panel feeding the target, auxiliary and maintenance outlets has surge protection and is NEMA 3R minimum
12			Power panel feeding the target, auxiliary and maintenance outlets has a panel schedule provided
13			Handholes, pullboxes, manholes, or other materials if used within line of sight are adequately protected via berm or buried to keep from being shot or causing ricochet hazards

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Location:			
Urban Assault Course (UAC)			
UAC Station 2 Squad and Platoon Task Technique			
A: Miscellaneous			
1			Layout of station 2 building is IAW CEHNC DG 1110-1-23
2			Number of power outlets and type agree with CEHNC DG 1110-1-23. 19 single target outlets and 12 double target outlets total
3			Rafters do not interfere with training (ie. above 7ft)
4			No tripping hazards exist in doorways
5			All enclosures and rooms are clean of unwanted dirt and debris
6			All power enclosures including the conduits or wireways on the interior of the training rooms are mounted a minimum of 7 feet above finished floor
7			Target power outlet is NEMA L14-20R and a NEMA L5-20R with wet location covers. Double target outlets have an additional NEMA L14-20R and NEMA L5-20R outlet
8			GFCI maintenance receptacles (20A, 120V) are provided with in-use weatherproof covers in adequate number of locations mounted above 7 feet above finished floor including interior conduits/wireways
9			Power outlet locations are permanently labeled (ie. SIT X) and panel schedules agree with labels
10			Power panel feeding the target, auxiliary and maintenance outlets is in a location to not interfere with training and is adequately provided with ballistic protection if forward of firing line for live firing
11			Power panel feeding the target, auxiliary and maintenance outlets has surge protection and is NEMA 3R minimum
12			Power panel feeding the target, auxiliary and maintenance outlets has a panel schedule provided
13			Handholes, pullboxes, manholes, or other materials if used within line of sight are adequately protected via berm or buried to keep from being shot or causing ricochet hazards
14			Adequate handrails are provided along second floor to protect people from falling
15			Second floor has 3 single target outlets IAW CEHNC DG 1110-1-23

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Urban Assault Course (UAC)			
UAC Station 3 Grenadier Gunnery			
A: Miscellaneous			
1			Emplacement size: Front wall height is 18". Front wall length is 54". Floor width is 54", Wideneded SIT floor width is 80".
2			A minimum of 29" of clearance is provided to the rear of the emplacement allowing space for the target in the down position.
3			Adequate space is available in emplacement for target mechanism.
4			Berm fill is level with the top of the protective timber at the front of the emplacement and free of holes.
5			Emplacements are sloped to the rear for drainage.
6			All emplacements and enclosures are clean of dirt and debris.
7			All power and data enclosures are mounted no higher than 2 inches from top of wall.
8			Target power outlet is (1) NEMA L14-20R and (2) NEMA L5-20R with wet location covers.
9			GFCI maintenance receptacle (20A, 120V) is provided with an in-use weatherproof cover.
10			All boxes and enclosures have weatherproof covers installed
11			A 6-foot free length coil of #6 AWG bare copper ground cable is provided above ground from the grounding rod for future bonding to target mechanism.
12			Emplacement is permanently labeled (ie. SIT X) and power center panel schedule agrees with label.
13			All data and power conduits are routed to the rear or side of emplacement.
14			Power panel feeding the SIT emplacements, façade, and limit markers has surge protection and is NEMA 3R minimum
15			Power panel feeding the SIT emplacements and façade is in a location to not interfere with training
16			Distance between termination points does not exceed 90m (295ft) in data cable length
17			Handholes, pullboxes, manholes, or other materials if used within line of sight are adequately protected via berm or buried to keep from being shot or causing ricochet hazards
18			Data cables are daisychained between targets back to control shed. Home runs of data cables from each target back to control shed is not acceptable
B: Loadcenter (LC) in SIT Emplacements and Main Façade SIT Emplacements Only			
1			120/240V is provided via feeder circuit.
2			Size of LC is maximum 13"Hx12"Wx6"D.
3			LC has SPD installed properly
4			The façade has 4 double pole circuit breakers, one for each target outlet. Typically two load centers are provided at each façade.
5			LC is properly grounded via a minimum #6 AWG bare copper ground cable to SIT ground rod.
6			Location of LC is adequate to allow lid to be opened.
7			Panel schedule is provided which indicates circuit designations and where feeder circuit originates (ie. SIT X and panelboard PB-X)
8			There are no LCs installed in front of the door. Targets cannot be installed directly in front of a LC.

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Urban Assault Course (UAC)			
UAC Station 3 Grenadier Gunnery			
C: Master Target Data Panel (MTDP)			
1			Size of MTDP is 24"x12"x6"
2			Type of MTDP/TDP enclosure is galvanized steel NEMA 4. NEMA rating is maintained after installation (ie. screws do not penetrate the enclosure).
3			The gasket is one piece and seamless in the enclosure cover.
4			Cable seal fittings are properly installed on cables entering MTDP/TDP from underground.
5			Location of MTDP/TDP is adequate to allow lid to be opened.
6			A back plate is installed that covers the entire back of the MTDP/TDP.
7			A 10"x10" space is available for target installer equipment in MTDP.
8			Data cabling is installed neatly and orderly and properly anchored or fastened in the MTDP/TDP.
9			Fiber cabling is armored and properly grounded.
10			Fiber is terminated with SC connectors.
11			Fiber is permanently tagged and labeled (ie. To SIT X or From SIT X).
12			Fiber SC connectors are terminated on a patch panel with number of ports to support total number of fiber strands terminated.
13			Fiber patch panel is mounted to the back plate.
14			Minimum 1 meter service loop of fiber cabling is provided and properly secured inside MTDP.
15			Fiber cabling has no visible microbending, pinching, or other marking to indicate fiber damage.
16			Fiber terminations allow adequate space for target installer to jumper to target installer equipment.
17			Buffer tube fanout kit and furcation unit for the fiber cabling is anchored or securely fastened.
18			A standard duplex receptacle (20A, 120V) is mounted to the back plate and properly grounded.
19			The duplex receptacle is not GFCI protected.
20			Cat5e or better cabling is shielded and properly grounded.
21			Each end of Cat5e shall be terminated on a data network surge protector with a 15V-20V clamping voltage. Each surge protector shall not be larger than 5"x5".
22			Cat5e cable is terminated on a 110-block style modular outlet. RJ-45 connector patch cable connects modular outlet to surge protector.
23			MTDP/TDP is grounded to the target ground rod via #6 AWG bare copper ground cable.

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Urban Assault Course (UAC)			
UAC Station 3 Grenadier Gunnery			
D: Façade			
1			Façade layout is IAW CEHNC 1110-1-23. (see drawing FAC-A-01).
2			Center post and beams across to the two SIT emplacements atop has adequate ballistic protection for outlets and future wiring by others
3			4 weatherproof power outlets are installed on the center post for the two SITs atop the façade (two NEMA L14-20R and two NEMA L5-20R) with wet location covers
4			2 Cat5e cables terminated with male RJ45 connectors are installed in a single gang weather proof enclosure with a blank cover and mounted on the center post for the two SITs atop the façade.
5			2 weatherproof power outlets are installed on the center post for the SIT on the bottom level of the façade (one NEMA L14-20R and one NEMA L5-20R) with wet location covers
6			Cat5e cable terminated with a male RJ45 connector is installed to a single gang weather proof enclosure with a blank cover and mounted on the center post for the SIT on the bottom level of the façade.
7			Grounding cables (#6 AWG minimum bare copper) are installed to all the metal SIT coffins and terminated to the ground system
8			In each metal SIT coffin a 6 foot length of ground cable (#6 AWG minimum bare copper) is terminated to the coffin and left coiled for future connection to the target mechanism
9			Each SIT has ballistic protection to keep from being shot
10			All metal parts are grounded properly
11			The façade has 4 double pole circuit breakers, one fore each target outlet. Typically two load centers are provided at the façade.
12			A rubber matting is provided on the front of the façade to prevent the wood from shattering from the impact of grenades IAW CEHNC 1110-1-23.
D: Control Shed			
1			Control shed location and orientation is IAW CEHNC DG 1110-1-23 and does not interfere with training
2			MTDP is clear of unwanted dirt and debris
3			MTDP rating is IAW CEHNC DG 1110-1-23
4			All conduit/cable entries into MTDP have conduit/cable sealed IAW enclosure rating
5			A #6 AWG bare copper conductor is installed between ground rod and MTDP back plate.
6			Cables and termination points in MTDP are permanently labeled identifying destination (ie. SIT X)
7			120V, 20A dedicated power receptacle is provided within the MTDP and the receptacle is not GFCI nor on a GFCI

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Date:	YES	NO	NOTES
Urban Assault Course (UAC)			
UAC Station 4 Urban Offense/Defense Building			
A: Miscellaneous			
1			Layout of station 4 building is IAW CEHNC RDG 1110-1-23
2			Number of power outlets and type agree with CEHNC RDG 1110-1-23. 42 single target outlets total
3			No tripping hazards exist in rooms or doorways
4			All enclosures and rooms are clean of unwanted dirt and debris
5			All power enclosures including the conduits or wireways on the interior of the training rooms are mounted a minimum of 7 feet above finished floor
6			Target power outlet is NEMA L14-20R and a NEMA L5-20R with weatherproof covers
7			GFCI maintenance receptacle (20A, 120V) are provided with weatherproof covers in adequate number of locations mounted above 7 feet above finished floor including interior conduits/wireways
8			Power outlet locations are permanently labeled and panel schedules agree with labels
9			Power panel feeding the target, auxiliary and maintenance outlets is located in the electrical room
10			Power panel feeding the target, auxiliary and maintenance outlets has surge protection
11			Power panel feeding the target, auxiliary and maintenance outlets has a panel schedule provided
12			Wireways/conduits are completely enclosed from power panel to power outlets
13			Lighting is controlled via lighting contactor and panic buttons or switches provided in each room
14			Lighting contactor is installed inside the electrical room or switches are recess mounted or protected from physical damage
15			Lighting is adequate in appropriate locations

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Date:	YES	NO	NOTES
Location:			
Urban Assault Course (UAC)			
Limit Markers			
A: Miscellaneous			
1			Limit marker locations are visible from pertinent firing positions
2			Lighted or heated for night firing. Red lighting is used on the face of the limit marker or limit marker face is illuminated with white lighting shining upon it
3			120V, 20A, duplex GFCI receptacle is provided near the base of the limit marker
4			Controls are provided In the Control Shed or locally at the LM or nearby location
5			Any ground light, receptacle, and control switch are located or protected to avoid direct fire.