

ART 4.5.2.4 Construct Railroad Facilities

Provide construction, major rehabilitation, and major repair of railroads. ART 4.1.7.2.4 includes all design, new construction, and modification of existing railroads to meet military traffic needs.
(FM 3-34.400) (USAES)

NO.	Scale	Measure
01	Yes/No	An inability to construct or maintain railroad facilities within the time the construction directive specifies did not degrade or delay unit operations.
02	Yes/No	Unit developed detailed plans for project.
03	Yes/No	Unit inspected railroad projects for quality control and ensured the project was completed on time.
04	Yes/No	Environmental considerations planning and procedures were present and being followed.
05	Time	To reconnoiter to determine how the local environment will affect the construction and maintenance of railroad facilities. This includes determining if existing facilities or natural resources are available near the work site; terrain features and their effect on the project; environmental considerations; problems involved in traveling to and from work site; what will be needed to keep the job site drained before, during, and after construction; and soil type and effort required to allow vehicle traffic and construction.
06	Time	To review available information in construction directive, intelligence reports, and site investigation to develop an operation plan or order.
07	Time	To plan the railroad facility construction project—includes construction estimate, construction directive, and quality control.
08	Time	To prepare a construction estimate for railroad facilities. This includes preparing a project

		activity list and a construction sequencing network; preparing material, equipment, or personnel estimates; determining work rates for activities; and preparing critical path.
09	Time	To prepare construction directive for the railroad facility and issue it to the construction unit. This directive states the exact assignment, project location, and start and completion times; specifies additional personnel, equipment, and materials available; prioritizes the entire project; and specifies type and frequency of construction reports, time needed for special procurement, and coordination instructions with user agency.
10	Time	To coordinate additional personnel, equipment, and critical items.
11	Time	To monitor construction and perform quality assurance inspections.
12	Time	To perform final inspection of finished railroad facilities and turn it over to the user.
13	Time	To construct or maintain railroad facilities.
14	Time	Of delay in scheduled arrivals in the area of operations (AO) (on average) due to interruptions in the construction or maintenance of railroad facilities by combat actions or natural disasters.
15	Percent	Of difference between planned and actual requirements for the construction or maintenance of railroad facilities in the AO.
16	Percent	Of force that become casualties due to enemy action or accidents during the construction or maintenance of railroad facilities.
17	Percent	Of increase in the throughput capability of a railroad port due to the construction or maintenance of railroad facilities.
18	Percent	Of planned construction or maintenance capability for railroad facilities completed in AO.
19	Percent	Of personnel in AO required for building and maintaining railroad facilities.
20	Percent	Of railroad construction or repair capability provided by

		host nation.
21	Percent	Of existing railroad facilities improved in AO.
22	Percent	Of railroad facilities in AO that can be used in current condition.
23	Percent	Of unit operations degraded, delayed, or modified in AO due to an inability to use existing railroad facilities.
24	Percent	Of railroad facilities in the AO damaged by enemy fire or natural disaster.
25	Percent	Of existing logistic facilities connected to existing railroads.
26	Number	Of railroad facilities in the AO requiring construction or maintenance.
27	Number	And types of railroad facilities constructed or improved in the AO.
28	Number	And types of railroad facilities in the AO damaged by enemy fire or natural disaster.
29	Number	Of kilometers of rail lines constructed or improved in the AO within a given time.
30	Number	Of instances of delays in scheduled arrivals due to the destruction or damage of railroad facilities in the AO by combat actions or natural disaster.
31	Number	Of instances in which troop movement or sustaining operations were prevented due to an inability to use rail facilities.
32	Number	Of tons per day of supplies transported.
33	Number	Of railroad facility inspections performed per month in the AO.

Supporting Collective Tasks:

Task No.	Title	Proponent	Echelon
05-3-5201	Construct a Bridge Abutment	05 - Engineers (Collective)	Platoon
05-3-5220	Construct a Wood Frame Structure	05 - Engineers (Collective)	Platoon