

Glossary

AAR	after action review
AFJPAM	Air Force joint pamphlet
AFJMAN	Air Force joint manual
aggregate	a clustered mass of individual soil particles varied in shape, ranging in size from a microscopic granule to a small crumb, and considered the basic structural unit of soil
AR	Army regulation
atomize	to reduce to a fine spray
Atterberg limits	water contents at certain critical stages in soil behavior; they can be used to describe the plasticity of a soil and if the soil is cohesive or cohesionless
attn	attention
ballast	a heavy substance (such as wet sand) used to increase the weight of rollers
base course or base	important element in a road structure; it functions as the primary load-bearing component of the road, ultimately providing the pavement (or surface) strength; therefore, it is made of higher quality material than subbase material
BCY	bank cubic yard(s)
binder	a material that produces cohesion in loosely assembled substances; for example, tar, cement, and cohesive soil material passing a Number 40 sieve
borrow pit	an area where material is excavated for use as fill at another location
CCY	compacted cubic yard(s)
cfm	cubic feet per minute
chock	motionless or for blocking the movement of a wheel
clay	a cohesive soil, which exhibits plasticity within a range of water contents and whose particles are less than 0.005 millimeters in size
coefficient	any of the factors of a product considered in relation to a specific factor; especially a constant factor of a term as distinguished from a variable
cohesion	the act or state of sticking together tightly
cycle time	cycle time is the time required for a machine to complete one cycle of operation
DA	Department of the Army

desired dry density	usually expressed as an acceptable density range but stated as a single value when used to determine soil stabilizing requirements
DEUCE	deployable universal combat earthmover
dredging	method of moving material from below a body of water
efficiency factor	a percentage factor (60-minute working hour = 100 percent) used to adjust production estimates for normal production delays
EM	engineer manual
EVW	empty vehicle weight
F	Fahrenheit
finishing	the final grading of an embankment or other earthwork or the smoothing of a wearing surface after it is placed
FM	field manual
FMTV	family of medium tactical vehicles
fpm	foot, feet per minute
FSN	federal stock number
ft	foot, feet
gantry	a triangular frame on top of a crane superstructure, which carries sheaves for the boom support lines; also, a platform (usually supported by towers) made to carry a traveling crane on parallel tracks
gap graded	<i>see</i> soil gradation
GPM	gallons(s) per minute
gradation	<i>see</i> soil gradation
granular	consisting of particles having a bulky shape
gravel	<i>see</i> soil
GVW	gross vehicle weight
heaped	material piled above the sides of a restricting container (such as an excavator bucket, a scraper bowl, or a dump-truck carrying box)
HM	hazardous material
hopper	Usually, a funnel-shaped receptacle for holding and loading material (grain, sand, crushed rock, or coal); also, any of various other receptacles for the temporary storage of material
HQ	headquarters
HW	hazardous waste
in situ	soil in its natural (undisturbed) state
in-place mixing	mixing done at the construction site
inst	institute
kph	kilometers(s) per hour
lb	pound(s)
LCY	loose cubic yard(s)

lift	the depth of material that may be placed or compacted at one time
load time	the time it takes the loading equipment to actually load the haul unit, plus any time lost by the loading equipment while waiting for the haul unit to be spotted
loam	a general agricultural term, applied most frequently to sandy, silty topsoils that contain a trace of clay
M-Kg	meters to kilograms
MPH	mile(s) per hour
MSDS	material safety data sheet
NA	not applicable
NATO	North Atlantic Treaty Organization
NAVFAC	naval facility
NSN	national stock number
No.	number
OMC	optimum moisture content
OPLAN	operation plan
OPORD	operation order
optimum moisture content	the moisture content at which the soil's highest density can be obtained for a given amount of compactive input energy; soils compacted at moisture contents below optimum do not compact as completely as those at optimum moisture; those above optimum approach a plastic stage and begin to act like liquids, distributing an applied force equally in all directions and not moving particles into the voids
outriggers	stabilizers used on cranes and backhoes to prevent tipping while loading or digging
pcf	pounds per cubic foot
PCSA	Power Crane and Shovel Association
PI	plasticity index
pintle	a pivot pin (usually upright) on which another part turns
plasticity	the ability of a soil to deform without cracking or breaking; <i>see also</i> optimum moisture content
POL	petroleum, oils, and lubricants
psi	pound(s) per square inch
push loading	loading a scraper with dozer (push tractor) assistance
push tractor or pusher assistance	a dozer pushing a scraper during earthmoving operations
rimpull	the usable force developed between the driving tires and the travel surface
ripping	digging or tearing hard material using shanks (teeth) mounted on a dozer, grader, or other machine; the number of shanks mounted on the back of a dozer can usually be changed to engage one, two, or three shanks

ROPS	rollover protective system
rpm	revolution(s) per minute
RPR	rimpull required
SCIP	scarify and compact in place
SEE	small emplacement excavator
shore	(1) to give support to; brace; (2) a prop for preventing sinking or sagging; (3) a prop placed against or beneath equipment to restrict movement
shoulder	that part of the top surface of an approach embankment, causeway, or cut immediately adjoining the roadway that accommodates stopped vehicles in emergencies and laterally supports base and surface courses
side casting	to push or throw to the side, using with the blade or bucket
soil	soil is classified by particle size and type; gravel has large, coarse, blocky-shaped particles, while clay has small, fine, platy-shaped particles; sand and silt have particle sizes between these two extremes; (for earthmoving, soil is placed in three categories: rock, soil, and rock soil)
soil gradation	soil is either well-graded or poorly graded; well-graded soil is capable of being tightly compacted; it contains a variety of particle sizes; during compaction, smaller particles are worked between and around larger particles to reduce the percentage of voids, making the soil denser and stronger; poorly graded soil is difficult or impossible to compact; it contains a high percentage of similar-size particles (called uniformly gapped) or a poor relationship of the percentage of sizes (called gap -graded); such soil has a relatively high percentage of voids after compaction; therefore, it lacks density and strength
SOP	standing operating procedure
sq	square
STP	soldier training publication
struck	a full load of material that is level with the top of its container, (such as a scraper bowl or a dump-truck body)
tandem	a group of two or more arranged one behind the other or used or acting in conjunction
TB	technical bulletin
TC	training circular
tine	a slender, pointed projecting part or; a prong
TM	technical manual
torque	a force that produces or tends to produce rotation or torsion (such as an auto engine delivers to the drive shaft)
TRADOC	United States Army Training and Doctrine Command
US	United States
USAES	United States Army Engineer School

USCS	Unified Soil Classification System
vpm	vibrations per minute
windrows	a long, low ridge of material scraped to the side, using a blade, when moving earth
yd	yard(s)

