
**Building and civil engineering —
Vocabulary —**

**Part 1:
General terms**

Bâtiment et génie civil — Vocabulaire —

Partie 1: Termes généraux

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6707-1 was prepared by Technical Committee ISO/TC 59, *Building construction*, Subcommittee SC 2, *Terminology and harmonization of languages*.

This third edition cancels and replaces the second edition (ISO 6707-1:1989), which has been technically revised.

ISO 6707 consists of the following parts, under the general title *Building and civil engineering — Vocabulary*:

- Part 1: General terms
- Part 2: Contract terms

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Introduction

With the growth in the number of international construction projects and the development of the international market in construction products, there is an increasing need for agreement on a common language in the domain.

This part of ISO 6707 is a first step towards a complete set of general terms for use by the construction industry. It will be updated as further terms and definitions are agreed upon.

ISO 6707 includes terms and concepts that are commonly used in documentation governing construction work as well as terms used to specify products and works. It is important to note that when used in legislation some general construction terms have a narrower interpretation and hence the definition given in this International Standard will not apply.

The adoption of this International Standard by the various national construction industries will improve communication in the design, execution and maintenance of construction works within those industries. Its use in other standards will aid harmonization and provide a basis for specialist terminology.

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Building and civil engineering — Vocabulary —

Part 1: General terms

1 Scope

This part of ISO 6707 defines general terms to establish a vocabulary applicable to building and civil engineering.

It comprises

- a) fundamental concepts, which may be the starting point for other, more specific, definitions, and
- b) more specific concepts, used in several areas of construction and frequently used in standards, regulations and contracts.

2 Vocabulary structure

The terms are arranged within categories to allow ready comparison of related concepts and are alphabetically indexed.

Where a given preferred term designates more than one concept, each concept has been treated in a separate entry and, when used in different subject areas, cross-referenced with the other(s). Where a given term designates more than one concept within the same subject area, the concepts are listed in separate consecutive entries and the terms individually numbered.

Where a preferred US or other equivalent exists, this has been given in bold face following the preferred term and annotated by the respective country code. Where no US or other equivalent is given in bold, this signifies that the preferred term is the accepted term in the English-speaking countries. A term following the preferred term not given in boldface type is a non-preferred synonym.

In most countries, synonyms and alternative spellings exist for the preferred terms used in this part of ISO 6707, and a list of synonyms and alternative spellings is given in Annex A. To facilitate a ready comparison with US synonyms and alternative spellings, these are given in Annex B. To facilitate the locating of any term given in the Vocabulary, irrespective of preference or country of origin, the alphabetical index lists all preferred and non-preferred synonyms, without the respective country code being indicated.

Where there is no corresponding term in English to represent a concept for which a term exists in the French language, a translation of the definition is given, and the lack of a corresponding term is indicated by five dots (.....).

3 Types of building and civil engineering works

3.1 Base terms

3.1.1

construction works

construction US

everything that is constructed or results from construction operations

3.1.2

civil engineering works

civil engineering project US

construction works (3.1.1) comprising a **structure** (3.1.4), such as a **dam** (3.2.24), **bridge** (3.3.19), **road** (3.3.1), **railway** (3.3.3), runway, utilities, **pipeline** (3.2.32), or **sewerage system** (5.4.40), or the result of operations such as dredging, **earthwork** (7.1.6), geotechnical processes, but excluding a **building** (3.1.3) and its associated **site** (3.1.6) works

NOTE Associated siteworks are included in US civil engineering projects.

3.1.3

building

construction works (3.1.1) that has the provision of shelter for its occupants or contents as one of its main purposes; usually partially or totally enclosed and designed to stand permanently in one place

cf. **building** (7.1.4)

3.1.4

structure

construction works (3.1.1) having a **structure** (5.1.2)

cf. **structure** (5.1.2)

3.1.5

external works

sitework US

construction works (3.1.1) or landscape work on **land** (10.1) associated with, and adjacent to, **civil engineering works** (3.1.2) or a **building** (3.1.3)

3.1.6

site

area of **land** (10.1) or water where **construction work** (7.1.1) or other development is undertaken

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3.2 Civil engineering works

3.2.1

earthworks

result of change of existing terrain

3.2.2

excavation

result of digging, lifting and removing earth, **fill** (6.4.9) or other **material(s)** (6.1.1) from the **ground** (6.2.1)

3.2.3

embankment

section of **earthworks** (3.2.1), often formed by **cut** (3.2.5) or **fill** (6.4.9), where the formation is above or below original **ground level** (9.2.33) and whose **length** (9.2.18) usually greatly exceeds its **width** (9.2.16)

3.2.4

bund

berm US

low **embankment** (3.2.3)

3.2.5

cut

material (6.1.1) excavated in bulk

NOTE 1 Resulting in a **cut** (3.2.6).

3.2.6**cut**

void that results from bulk **excavation** (3.2.2) of **material** (6.1.1)

NOTE 2 The result of a **cut** (3.2.5).

3.2.7**cut and fill**

earthwork (7.1.6) technique for lessening or increasing a variation in **ground level** (9.2.33) by using **material** (6.1.1) excavated from higher **ground** (6.2.1) to raise the **level** (9.2.32) of lower ground or the reverse

3.2.8

.....

excavation (3.2.2) in which the **substructure** (5.1.4) is built

3.2.9**made ground****fill** US

ground (6.2.1) that has been formed by using **material** (6.1.1) to fill in a depression or to raise the **level** (9.2.32) of a **site** (3.1.6)

3.2.10**bund wall****retaining earthworks** US

wall (5.1.7) that forms an enclosure around a storage tank and used to retain the contents in the event of tank failure

3.2.11**dumpling****mound** US

large mass of **ground** (6.2.1) intended to be excavated but temporarily left as a support during **construction work** (7.1.1)

3.2.12**trench**

long, narrow open **excavation** (3.2.2), usually with vertical sides

3.2.13**shaft**

vertical or steeply inclined **excavation** (3.2.2), usually of limited cross-section in relation to its **depth** (9.2.15)

3.2.14**borrow pit**

area within which **earthwork** (7.1.6) takes place in order to produce **material(s)** (6.1.1) for **earthworks** (3.2.1)

3.2.15**borehole**

hole, usually vertical, bored to determine **ground** (6.2.1) conditions, for extraction of water, other liquids or gases, or **measurement** (7.1.25) of groundwater **level** (9.2.32)

3.2.16**retaining wall**

wall (5.1.7) that provides lateral support to **ground** (6.2.1) or that resists pressure from a mass of other **material** (6.1.1)

3.2.17

diaphragm wall

wall (5.1.7) made of **concrete** (6.4.15) constructed in a **trench** (3.2.12) temporarily supported by **bentonite** (3.2.18) suspension

cf. **diaphragm wall** (5.1.67)

3.2.18

bentonite

clay that swells as it absorbs water; formed by the decomposition of volcanic ash

3.2.19

.....

watertight **construction** (5.5.6) consisting of a raft and **walls** (5.1.7) providing a **basement** (4.2.12)

3.2.20

.....

construction (5.5.6) for **road(s)** (3.3.1) or water in **precast concrete** (6.4.21) or steel, of cylindrical, circular or oval shape

3.2.21

water tower

civil engineering works (3.1.2) that comprises a large water tank raised above **ground level** (9.2.33)

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3.2.22

silo

structure (3.1.4) for the storage of a large volume of loose **material** (6.1.1)

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3.2.23

breakwater

long **structure** (3.1.4) in a body of water designed to protect a harbour or shore from waves

3.2.24

dam

barrier (5.2.9) constructed to retain water in order to raise its **level** (9.2.32), form a **reservoir** (3.2.38), or reduce or prevent flooding

3.2.25

flood bank

embankment (3.2.3) built up to retain or control the **level** (9.2.32) of flood water

3.2.26

cofferdam

structure (3.1.4), usually temporary, built to support the surrounding **ground** (6.2.1) or to exclude water or **soil** (6.2.2) sufficiently to permit work within it to proceed safely without excessive pumping

3.2.27

swale

slightly inclined, often heavily vegetated or paved with gravel, **stone** (6.2.4) or **concrete** (6.4.15) and at times swampy, depression, constructed to contain water and other liquids

3.2.28

irrigation

artificial distribution of water to **land** (10.1), usually for growing crops

3.2.29**weir**

structure (3.1.4), over which water may flow, used to control the upstream water **level** (9.2.32) in a **watercourse** (10.8) or other **channel** (5.4.16), and/or to measure the **flow** (9.3.41)

3.2.30**penstock****lock gate** US

gate, usually rectangular, that moves vertically between guides

3.2.31**spillway**

passage for the discharge of excess water from a **reservoir** (3.2.38) or **channel** (5.4.16)

3.2.32**pipeline**

long continuous line of **pipe(s)** (5.4.17), including ancillary equipment, used for transporting liquids or gases

3.2.33**aqueduct**

conduit (5.4.14) for conveying water over long distances, and including the supporting **structure** (5.1.2)

3.2.34**water supply adit**

tunnel (3.3.18) driven from a **shaft** (3.2.13) to an aquifer to increase available water supply

3.2.35**culvert**

transverse **drain** (5.4.38) or waterway **structure** (3.1.4) under a **road** (3.3.1), **railway** (3.3.3) or **canal** (3.3.64), or through an **embankment** (3.2.3), in the form of a large **pipe** (5.4.17) or enclosed **channel** (5.4.16)

3.2.36**headworks**

intake and associated works at the upstream end of a **water engineering** (7.1.11) scheme

3.2.37**rising main**

water main or pressurized section of **drain** (5.4.38) or **sewer** (5.4.41) through which liquid is pumped to a higher **level** (9.2.32)

3.2.38**reservoir**

pond, lake or **basin** (3.3.67), either naturally occurring or man-made, for storage, regulation and control of water, other liquids or gases

3.3 Civil engineering works — Transport**3.3.1****road**

way mainly for vehicles

3.3.2**exit**

designated point of departure from a **road** (3.3.1)

cf. **exit** (4.4.17)

3.3.3

railway

railroad US

national or regional transport system for guided passage of wheeled vehicles on rails

3.3.4

tramway

streetcar US

local transport system for guided passage of wheeled vehicles on rails

3.3.5

aerial ropeway

cableway US

lift US

local transport system for guided passage of cabins or containers carried on **cables** (6.4.53) on intermediate supports

3.3.6

underground railway

subway US

railway (3.3.3) that operates mainly below **ground level** (9.2.33)

3.3.7

mass transit railway

railway (3.3.3) for the rapid movement of high passenger load densities in urban areas

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3.3.8

monorail

railway (3.3.3) that has a single running rail with **beam** (5.1.12) support

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3.3.9

track

assembly (5.5.5) of rails, **sleepers** (3.3.10), **fastenings** (5.5.72) and ballast or other forms of support, for passage of vehicles

3.3.10

sleeper

tie US

member providing vertical and lateral support to rails of a **railway** (3.3.3) or **tramway** (3.3.4)

3.3.11

airfield

defined area including any **building(s)** (3.1.3), **installation(s)** (5.4.3) and equipment, for the arrival, departure and movement of aircraft

3.3.12

airport

area containing an **airfield** (3.3.11) and facilities for handling passengers and cargo

3.3.13

noise barrier

structure (3.1.4) provided to deflect and absorb noise

3.3.14**noise bund****noise barrier** US

sound barrier US

noise barrier (3.3.13) in the form of an **embankment** (3.2.3)**3.3.15****subgrade**upper part of the **soil** (6.2.2), natural or constructed, that supports the **load(s)** (9.3.19) transmitted by the overlying **structure** (5.1.2) of a **road** (3.3.1)**3.3.16****road formation****grade** USsurface of **subgrade** (3.3.15) in its final shape after completion of **earthwork** (7.1.6)**3.3.17****pavement****road** (3.3.1), runway or similar **construction** (5.5.6) above the **subgrade** (3.3.15)**3.3.18****tunnel**horizontal or sloping underground enclosed way of some **length** (9.2.18)**3.3.19****bridge****civil engineering works** (3.1.2) that affords passage to pedestrians, animals, vehicles and **service(s)** (5.4.1) above obstacles or between two points at a **height** (9.2.20) above **ground** (6.2.1)

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3.3.20**arch bridge****bridge** (3.3.19) that has one or more **arch(es)** (5.1.8) as its main **structure** (5.1.2)**3.3.21****bow string bridge****bridge** (3.3.19) that has an **arch** (5.1.8) and its **tie** (5.1.23) as the main **structure** (5.1.2)**3.3.22****cantilever bridge****bridge** (3.3.19), the main **structural member(s)** (5.1.3) of which are **cantilever(s)** (5.1.18)**3.3.23****cable stayed bridge****bridge** (3.3.19), the main **structural member(s)** (5.1.3) of which are cantilevered **beam(s)** (5.1.12) in a **deck** (5.1.38), supported by a tower and one or more inclined **cable(s)** (6.4.53) connected to the top of the tower**3.3.24****suspension bridge****bridge** (3.3.19), the main **structural members** (5.1.3) of which are catenary **cables** (6.4.53) from which the **deck** (5.1.38) is suspended**3.3.25****floating bridge****bridge** (3.3.19) supported by water

3.3.26

movable bridge

bridge (3.3.19) over a waterway, the **deck** (5.1.38) of which can be moved

3.3.27

bascule bridge

movable bridge (3.3.26), the **deck** (5.1.38) of which is counterbalanced and hinged on a horizontal axis

3.3.28

vertical lift bridge

drawbridge US

movable bridge (3.3.26), the **deck** (5.1.38) of which can be raised vertically

3.3.29

swing bridge

movable bridge (3.3.26), the **deck** (5.1.38) of which can be rotated about a vertical axis

3.3.30

skew bridge

bridge (3.3.19) where the angle between the longitudinal axis and the lines of support is not a right angle

3.3.31

viaduct

bridge (3.3.19) composed of a large number of spans

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3.3.32

.....

bridge (3.3.19) crossing a **space** (4.1.1) at a **great height** (9.2.20)

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3.3.33

footbridge

bridge (3.3.19) for the use of pedestrians

3.3.34

railway platform

elevated **structure** (3.1.4) for entraining and detraining passengers and goods

3.3.35

highway

parkway US

freeway US

way over which the public has the right to pass, this right possibly being restricted to specific classes of **traffic** (10.5)

3.3.36

carriageway

roadway US

that part of the **road** (3.3.1) or **highway** (3.3.35) constructed for use by vehicular **traffic** (10.5), including auxiliary **traffic lane(s)** (3.3.50), passing places and **lay-by(s)** (3.3.37)

3.3.37**lay-by****stopping lane** US

emergency lane US

part of the **highway** (3.3.35) set aside for vehicles to allow them to draw out of the **traffic lane(s)** (3.3.50) and wait for short periods**3.3.38****motorway****interstate highway** US

freeway US

parkway US

limited access **road** (3.3.1) with dual **carriageways** (3.3.36) that is not crossed on the same **level** (9.2.32) by other **traffic lane(s)** (3.3.50), for the exclusive use of certain classes of motor vehicles**3.3.39****vehicle restraint system****guardrail** US

barricade US

structure (5.1.2) that provides a level system of containment for errant vehicles so as to limit damage or injury**3.3.40****hard shoulder****emergency lane** US

service lane US

surfaced strip, adjacent to and abutting a **carriageway** (3.3.36), intended for use by vehicles in the event of difficulty or during obstruction of the carriageway**3.3.41****road safety fence****road safety rail** US**vehicle restraint system** (3.3.39) installed alongside or on a **central reserve** (3.3.49) or a **road** (3.3.1) in the form of one or more horizontal members mounted on **posts** (5.1.56)**3.3.42****road safety barrier****barricade** US**vehicle restraint system** (3.3.39) alongside a **carriageway** (3.3.36) in the form of a continuous low **wall** (5.1.7) or similar **construction** (5.5.6)**3.3.43****crash cushion****impact barrier** US

energy-absorbing device installed in front of a rigid object to reduce the severity of impact of a vehicle

3.3.44**arrester bed****safety ramp** AU**emergency ramp** USarea of **land** (10.1) adjacent to a **road** (3.3.1), filled with a particular **material** (6.1.1) and designed to decelerate and arrest errant vehicles, generally located on long downhill portions of a road**3.3.45****cycle track****bicycle path** USway or separated part of a **road** (3.3.1) for use only by pedal cycles