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Fifth edition 2017-11

Buildings and civil engineering works — Vocabulary —

Part 1: **General terms**

Bâtiments et ouvrages de 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 2, *Terminology and harmonization of languages*.

This fifth edition cancels and replaces the fourth edition (ISO 6707-1:2014), which has been technically revised. It also incorporates and revises ISO 2444:1988, which is therefore cancelled.

The main changes compared to the previous edition are as follows:

- substantial changes in the definitions of majority of the terms have been made;
- some terms and definitions from ISO 2444 (modified where necessary) have been incorporated;
- entries have been renumbered so that all terms and definitions are in Clause 3;
- the indicator for national terms, e.g. US, has been moved from before to after the term;
- GB-admitted (non-preferred) terms have been assigned to appropriate entries, rather than given in an annex;
- certain terms have been moved to ISO 6707-2, where appropriate;
- a nucleus of modular coordination terms from ISO 1791:1983 have been added.

A list of all parts in the ISO 6707 series can be found on the ISO website.

Introduction

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

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

This document 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 document will not apply.

The adoption of this document 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.

Structure of this document

Entries are presented under convenient headings. The terms are arranged within categories to allow ready comparison of related concepts.

International preferred terms are listed in **boldface type**. Where a preferred term is specific to a particular English-speaking country, e.g. the United States of America, etc., it is given below the international preferred term and is annotated with the respective country code. Where no preferred terms are listed indicating usage in a specific geographical location, this signifies that the international preferred term is the accepted term in English-speaking countries. A term beneath the preferred term(s) not given in boldface type is an admitted (non-preferred) synonym. A country code is assigned to an admitted term if it is specific to an English speaking country.

Where the international term is not used in the US or Canada, five dots (....) are placed where the US term would normally appear. |SO(6707-12017)|

In most countries, synonyms and alternative spellings exist for the international preferred terms used in this document. US synonyms and alternative spellings are given in Annex A.

Where a given preferred term designates more than one concept, each concept has been treated in a separate entry and a note to entry included to indicate that a homograph exists and to provide a reference to the other term entry.

Where terms are used in definitions to designate concepts that are defined elsewhere in this document, the relevant terms are presented in *italics* and the term number is given after the relevant term.

To facilitate the locating of any term given in the document, irrespective of preference or country of origin, the alphabetical index lists all preferred and admitted terms.

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Buildings and civil engineering works — Vocabulary —

Part 1:

General terms

1 Scope

This document contains the terms and definitions of general concepts to establish a vocabulary applicable to buildings and civil engineering works.

It comprises:

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

2 Normative references

There are no normative references in this document.

3 Terms and definitions

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp.co.7012d/iso-6707-1-2017

3.1 Terms relating to types of buildings and civil engineering works

3.1.1 Base terms

3.1.1.1

construction works

construction, US

everything that is constructed or results from construction operations

Note 1 to entry: In the US, there are homographs for the term "construction". See $\underline{3.3.5.6}$ and $\underline{3.5.1.1}$.

3.1.1.2

civil engineering works

civil engineering project, US

construction works (3.1.1.1) comprising a structure (3.1.1.4), such as a dam (3.1.2.22), bridge (3.1.3.19), road (3.1.3.1), railway (3.1.3.3), runway, utilities, pipeline (3.1.2.30), or sewerage system (3.3.4.40), or the result of operations such as dredging, earthwork (3.5.1.6), geotechnical processes (3.5.2.3), but excluding a building (3.1.1.3) and its associated site (3.1.1.6) works

Note 1 to entry: Associated siteworks are excluded except that in US civil engineering projects, they are included.

3.1.1.3

building

construction works (3.1.1.1) 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

Note 1 to entry: There is a homograph for the term "building". See <u>3.5.1.4</u>.

3.1.1.4

structure

construction works (3.1.1.1) having a structure (3.3.1.2)

Note 1 to entry: There is a homograph for the term "structure". See 3.3.1.2.

3.1.1.5

external works

sitework. US

construction works (3.1.1.1) or landscape work on land (3.8.1) associated with, and adjacent to, civil engineering works (3.1.1.2) or a building (3.1.1.3)

3.1.1.6

site

area of land (3.8.1) or water where construction work (3.5.1.1) or other development is undertaken

3.1.2 Civil engineering works

3.1.2.1

earthworks

result of change of terrain

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3.1.2.2

excavation

result of digging, lifting, and removing earth, fill (3.4.4.9), or other material (3.4.1.2) from the ground (3.4.2.1)

3.1.2.3

embankment

section of *earthworks* (3.1.2.1), often formed by *cut* (3.1.2.5) or *fill* (3.4.4.9), where the *finished ground level* (3.7.2.68) is above or below original *ground level* (3.7.2.67) and whose *length* (3.7.2.10) usually greatly exceeds its *width* (3.7.2.8)

3.1.2.4

bund

berm, US

low embankment (3.1.2.3)

3.1.2.5

cut

material (3.4.1.2) excavated in bulk

Note 1 to entry: There is a homograph for the term "cut". See 3.1.2.6.

3.1.2.6

cut

void that results from bulk excavation (3.1.2.2) of material (3.4.1.2)

Note 1 to entry: There is a homograph for the term "cut". See 3.1.2.5.

3.1.2.7

cut and fill

earthwork (3.5.1.6) technique for lessening or increasing a variation in $ground\ level$ (3.7.2.67) by using $material\ (3.4.1.2)$ excavated from higher $ground\ (3.4.2.1)$ to raise the $level\ (3.7.2.39)$ of lower ground or the reverse

3.1.2.8

adit

nearly level *tunnel* (3.1.3.18) driven to underground workings

3.1.2.9

made ground

fill, US

ground (3.4.2.1) that has been formed by using material (3.4.1.2) to fill in a depression or to raise the level (3.7.2.39) of a site (3.1.1.6)

Note 1 to entry: In the US, there is a homograph for the term "fill". See <u>3.4.4.9</u>.

3.1.2.10

bund wall

retaining earthworks, US

wall (3.3.2.46) that forms an enclosure around a storage tank and is used to retain the contents in the event of tank failure

3.1.2.11

dumpling

mound, US

large mass of *ground* (3.4.2.1) intended to be excavated but temporarily left as a support during *construction work* (3.5.1.1)

3.1.2.12

trench

 $horizontal\ or\ slightly\ inclined\ long,\ narrow\ open\ \textit{excavation}\ (\underline{3.1.2.2}),\ usually\ with\ vertical\ sides$

3.1.2.13 ards.iteh.ai/catalog/standards/iso/6ffbfd23-5218-47a8-94ae-20e2bea7a12d/iso-6707-1-2017

shaft

vertical or steeply inclined *excavation* (3.1.2.2), usually of limited cross-section in relation to its *depth* (3.7.2.7)

3.1.2.14

borrow pit

area within which *earthwork* (3.5.1.6) takes place in order to produce *material* (3.4.1.1) for *earthworks* (3.1.2.1)

3.1.2.15

borehole

hole, usually vertical, bored to determine *ground* (3.4.2.1) conditions, for extraction of water, other liquids, or gases, or *measurement* (3.5.1.22) of groundwater *level* (3.7.2.39)

3.1.2.16

retaining wall

wall (3.3.2.46) that provides lateral support to the *ground* (3.4.2.1) or that resists pressure from a mass of other *material* (3.4.1.2)

3.1.2.17

diaphragm wall

wall (3.3.2.46) made of *concrete* (3.4.4.15) constructed in a *trench* (3.1.2.12) temporarily supported by *bentonite* (3.1.2.18) suspension

Note 1 to entry: There is a homograph for the term "diaphragm wall". See <u>3.3.1.63</u>.

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Note 2 to entry: In the US, there are homographs for the term "diaphragm wall". See 3.3.1.61 and 3.3.1.63.

3.1.2.18

bentonite

clay formed by the decomposition of volcanic ash swelling as it absorbs water

3.1.2.19

water tower

civil engineering works (3.1.1.2) that comprise a large water tank raised above ground level (3.7.2.67)

3.1.2.20

silo

structure (3.1.1.4) for the storage of a large volume of loose material

3.1.2.21

breakwater

mole, GB

long structure (3.1.1.4) in a body of water designed to protect a basin (3.1.3.64) or the shore from waves

3.1.2.22

dam

barrier (3.3.2.9) constructed to retain water in order to raise its *level* (3.7.2.39), form a *reservoir* (3.1.2.36), or reduce or prevent flooding

3.1.2.23

flood bank

dyke, GB

dike, GB

levee, GB

embankment (3.1.2.3) built up to retain or control the level (3.7.2.39) of flood water

3.1.2.24

cofferdam

structure (3.1.1.4), usually temporary, that is built to support the surrounding ground (3.4.2.1) or to exclude water or soil (3.4.2.2) sufficiently to permit work within it to proceed safely without excessive pumping

3.1.2.25

swale

slightly inclined, often heavily vegetated or paved with gravel, stone (3.4.2.4), or *concrete* (3.4.4.15) and at times swampy, depression, constructed to contain water and other liquids

Note 1 to entry: In the US, there is a homograph for the term "swale". See <u>3.8.8</u>.

3.1.2.26

irrigation

artificial distribution of water to land (3.8.1), usually for growing crops

3.1.2.27

weir

structure (3.1.1.4) over which water can flow, used to control the upstream water *level* (3.7.2.39) in a *watercourse* (3.8.8) or other *channel* (3.3.4.16), and/or to measure the *flow* (3.7.3.41)

3.1.2.28

penstock

lock gate, US

sluice gate, GB

gate, usually rectangular, that moves vertically between guides

3.1.2.29

spillway

waste weir, GB

passage for the discharge of excess water from a reservoir (3.1.2.36) or channel (3.3.4.16)

3.1.2.30

pipeline

long continuous line of *pipes* (3.3.4.17), including ancillary equipment, used for transporting liquids or gases

3.1.2.31

aqueduct

conduit (3.3.4.14) for conveying water over long distances, and including the supporting *structure* (3.3.1.2)

3.1.2.32

water supply adit

adit (3.1.2.8) from a shaft (3.1.2.13) to an aquifer to increase available water supply

3.1.2.33

culvert

transverse drain (3.3.4.38) or waterway structure (3.1.1.4) under a road (3.1.3.1), railway (3.1.3.3), or canal (3.1.3.61), or through an embankment (3.1.2.3), in the form of a large pipe (3.3.4.17) or enclosed channel (3.3.4.16)

3.1.2.34

headworks

intake and associated works at the upstream end of a water engineering (3.5.1.11) scheme

3.1.2.35

rising main

water main or pressurized section of a *drain* (3.3.4.38) or *sewer* (3.3.4.41) through which liquid is pumped to a higher *level* (3.7.2.39)

3.1.2.36

reservoir

pond, lake, or *basin* (3.1.3.64), either naturally occurring or man-made, for storage, regulation, and control of water and other liquids or gases

3.1.3 Civil engineering works — Transport

3.1.3.1

road

way mainly for vehicles

3.1.3.2

evit

designated point of departure from a road (3.1.3.1)

Note 1 to entry: There is a homograph for the term "exit". See <u>3.2.4.18</u>.

3.1.3.3

railway

railroad, US

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

3.1.3.4

tramway

streetcar, US

local transport system for guided passage of wheeled vehicles on rails

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3.1.3.5

aerial ropeway

cableway, US

lift, US

local transport system for guided passage of cabins or containers carried on *cables* (3.4.4.54) on intermediate supports

3.1.3.6

underground railway

subway, US

railway (3.1.3.3) that operates mainly below ground level (3.7.2.67)

3.1.3.7

mass transit railway

railway (3.1.3.3) for the rapid movement of high passenger load densities in urban areas

3.1.3.8

monorail

railway (3.1.3.3) that has a single running rail with beam (3.3.1.11) support

3.1.3.9

track

assembly (3.3.5.5) of rails, fastenings (3.3.5.84), and support, for passage of vehicles

3.1.3.10

sleeper

tie. US

member providing vertical and lateral support to rails of a railway (3.1.3.3) or tramway (3.1.3.4)

Note 1 to entry: In the US, there is a homograph for the term "tie". See 3.3.1.22.

3.1.3.11

airfield

defined area including any *buildings* (3.1.1.3), *installations* (3.3.4.3), and equipment, for the arrival, departure, and movement of aircraft dards/so/66b6(23-5218-4788-94ae-20e2bea7a12d/so-6707-1-201

3.1.3.12

airport

area containing an airfield (3.1.3.11) and facilities for handling passengers and cargo

3.1.3.13

noise barrier

structure (3.1.1.4) provided to deflect and absorb noise

Note 1 to entry: In the US, there is a homograph for the term "noise barrier". See 3.1.3.14.

3.1.3.14

noise bund

noise barrier, US

sound barrier, US

noise barrier (3.1.3.13) in the form of an embankment (3.1.2.3)

Note 1 to entry: In the US, there is a homograph for the term "noise barrier". See 3.1.3.13.

3.1.3.15

subgrade

upper part of the soil (3.4.2.2), natural or constructed, that supports the loads (3.7.3.19) transmitted by the overlying structure (3.3.1.2) of a road (3.1.3.1), runway, or similar hard surface

3.1.3.16

road formation

grade, US

surface of subgrade (3.1.3.15) in its final shape after completion of earthwork (3.5.1.6)

Note 1 to entry: In the US, there is a homograph for the term "grade". See 3.7.2.67.

3.1.3.17

pavement

road (3.1.3.1), runway, or similar construction (3.3.5.6) above the subgrade (3.1.3.15)

3.1.3.18

tunnel

horizontal or sloping underground enclosed way of some *length* (3.7.2.10)

3.1.3.19

bridge

civil engineering works (3.1.1.2) that affords passage to pedestrians, animals, vehicles, and *services* (3.3.4.1) above obstacles or between two points at a *height* (3.7.2.36) above *ground* (3.4.2.1)

Note 1 to entry: In the US, there is a homograph for the term "bridge". See <u>3.5.3.10</u>.

3.1.3.20

arch bridge

bridge (3.1.3.19) that has one or more arches (3.3.1.7) as its main structure (3.3.1.2)

3.1.3.21

bow string bridge

bridge (3.1.3.19) that has an arch (3.3.1.7) and its tie (3.3.1.22) as the main structure (3.3.1.2)

3.1.3.22

cantilever bridge

bridge (3.1.3.19), the main *structural members* (3.3.1.3) of which are *cantilevers* (3.3.1.17)

3.1.3.23

cable stayed bridge talog/standards/iso/6ffbfd23-5218-47a8-94ae-20e2bea7a12d/iso-6707-1-2017

bridge (3.1.3.19) with one or more towers and inclined *cables* (3.4.4.54) that are connected to the top or the shaft of the tower and support the *deck* (3.3.1.35)

3.1.3.24

suspension bridge

bridge (3.1.3.19), the main *structural members* (3.3.1.3) of which are catenary *cables* (3.4.4.54) from which the deck (3.3.1.35) is suspended

3.1.3.25

floating bridge

bridge (3.1.3.19) supported by water

3.1.3.26

movable bridge

bridge (3.1.3.19) over a waterway, the *deck* (3.3.1.35) of which can be moved

3.1.3.27

bascule bridge

movable bridge (3.1.3.26), the deck (3.3.1.35) of which is counterbalanced and hinged on a horizontal axis

3.1.3.28

vertical lift bridge

drawbridge, US

movable bridge (3.1.3.26), the deck (3.3.1.35) of which can be raised vertically

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3.1.3.29

swing bridge

movable bridge (3.1.3.26), the deck (3.3.1.35) of which can be rotated about a vertical axis

3.1.3.30

skew bridge

bridge (3.1.3.19) where the angle between the longitudinal axis and the lines of support is not a right angle

3.1.3.31

viaduct

bridge (3.1.3.19) composed of a large number of spans

3.1.3.32

footbridge

bridge (3.1.3.19) for the use of pedestrians

3.1.3.33

railway platform

elevated *structure* (3.1.1.4) for entraining and detraining passengers and goods

3.1.3.34

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 (3.8.5)

Note 1 to entry: In the US, there is a homograph for the term "parkway". See 3.1.3.37.

Note 2 to entry: In the US, there is a homograph for the term "freeway". See 3.1.3.37.

3.1.3.35

carriageway

roadway, US

part of the *road* (3.1.3.1) or *highway* (3.1.3.34) constructed for use by vehicular *traffic* (3.8.5), including auxiliary *traffic lanes* (3.1.3.49), passing places, and *lay-bys* (3.1.3.36)

3.1.3.36

lay-by

stopping lane, US

emergency lane, US

part of the *highway* (3.1.3.34) set aside for vehicles to allow them to draw out of the *traffic lanes* (3.1.3.49) and wait for short periods

Note 1 to entry: In the US, there is a homograph for the term "emergency lane". See 3.1.3.39.

3.1.3.37

motorway

interstate highway, US

freeway, US

parkway, US

limited access road (3.1.3.1) with dual carriageways (3.1.3.35) that is not crossed on the same level (3.7.2.39) by other traffic lanes (3.1.3.49), for the exclusive use of certain classes of motor vehicles

Note 1 to entry: In the US, there is a homograph for the term "parkway". See $\underline{3.1.3.34}$.

Note 2 to entry: In the US, there is a homograph for the term "freeway". See 3.1.3.34.