



1.0 Layer Name Format

1.1 HIERARCHY OF DATA FIELDS

The layer name format is organized as a hierarchy. This arrangement allows users to select from a number of options for naming layers according to the level of detailed information desired. Layer names consist of distinct data fields separated from one another by dashes. A detailed list of abbreviations, or field codes, is prescribed to define the content of layers. Most field codes are mnemonic English abbreviations of construction terminology that are easy to remember.

There are four defined layer name data fields: **Discipline Designator**, **Major Group**, two **Minor Groups**, and **Status**. The Discipline Designator and Major Group fields are mandatory. The Minor Group and Status fields are optional. Each data field is separated from adjacent fields by a dash ("-") for clarity.

The complete NCS layer name format, showing the Discipline Designator, the Major Group, two Minor Groups, and the Status fields.

A I - W A L L - F U L L - D I M S - N

1.2 BEFORE YOU BEGIN

The NCS allows you to select from a number of format options for creating layer names. It is recommended that you select the options that you wish to use for layer names on a given project, and then apply the resulting format consistently for all layer names on that project.

NOTE: For *conceptual conformance* to ISO 13567, *Organization and Naming of Layers for CAD*, the layer name format and length must be the same for all layers on a given project. See [CLG Appendix C - Complying with NCS and ISO 13567, CLG section 6.0](#) for information about ISO conformance.

1.3 DISCIPLINE DESIGNATOR, LEVEL 1

The Discipline Designator denotes the category of subject matter contained on the specified layer. The Discipline Designator is a two-character field. The first character is the discipline character, and the second character is an optional modifier. The Discipline Designator is described in greater detail in UDS Section 1.3. For a complete list of Discipline Designators see [CLG Appendix A - Discipline Designators, CLG section 4.1](#) and [UDS Appendix A - Discipline Designators, UDS section 1.6](#).

A typical layer name showing the required data fields only.

Note that only the mandatory discipline character is shown, creating a Level 1 Discipline Designator.

A - W A L L

LEVEL 1 DISCIPLINE DESIGNATORS	
A	Architectural
B	Geotechnical
C	Civil
D	Process

E	Electrical
F	Fire Protection
G	General
H	Hazardous Materials
I	Interiors
L	Landscape
M	Mechanical
O	Operations
P	Plumbing
Q	Equipment
R	Resource
S	Structural
T	Telecommunications
V	Survey / Mapping
W	Distributed Energy
X	Other Disciplines
Z	Contractor / Shop Drawings

1.4 DISCIPLINE DESIGNATOR, LEVEL 2

The optional second character is used to further define the discipline character. As an example, the Level 2 Discipline Designators for Architectural are shown:

Designator	Description
A	Architectural
AD	Architectural Demolition
AE	Architectural Elements
AF	Architectural Finishes
AG	Architectural Graphics
AI	Architectural Interiors
AS	Architectural Site
AJ	User Defined
AK	User Defined

A typical layer name showing the required data fields only.

Note that the mandatory Level 1 discipline character is supplemented by the optional discipline modifier to create a Level 2 Discipline Designator.

A D - W A L L

For a complete list of Discipline Designators see [CLG Appendix A - List of Discipline Designators, Major and Minor Groups, and Status Fields, CLG section 4.1](#) and [UDS Appendix A - Discipline Designators, UDS section 1.6](#).

1.5 MAJOR GROUP

The major group is a four-character field that identifies a major building system. The prescribed Major Group field codes (four-character abbreviations) shown on the Layer List are logically grouped with specific discipline designators. However, any Major Group may be combined with any prescribed Discipline Designator, provided that the definition of the Major Group remains unchanged. Therefore, any reasonable combination of the prescribed Discipline Designators and Major Groups is permitted.

A typical layer name showing the required data fields only. The mandatory Major Group field is highlighted:

A - **W** A L L

NOTE: The NCS recognizes that there will be instances where user-defined Major Group field codes will be required. The NCS set of Major Group field codes is not intended to be all inclusive. There will be instances when project specific Major Groups will need to be created. In these cases Major Group field codes are allowed, however, they must contain four alphabetic and/or numeric characters and/or "~", and must be fully documented on the NCS Compliance Disclosure Statement for the project or identified as project specific in the standard supplement in which they are used.

NOTE: For *conceptual conformance* to ISO 13567, *Organization and Naming of Layers for CAD*, the use of the Major Group "ANNO" is not permitted. See [CLG Appendix C - Complying with NCS and ISO 13567, CLG section 6.0](#) for information about ISO conformance.

1.6 MINOR GROUP

This is an optional, four-character field to further define the Major Groups. For example, A-WALL-FULL denotes *Architectural, Wall, Full-height*. A second minor group may be used for still further delineation of the data contained on a layer. For example, A-WALL-FULL TEXT indicates *Architectural, Wall, Full-height, Text*.

The prescribed Minor Group field codes (four-character abbreviations) shown on the Layer List are logically grouped with specific Major Groups. However, any Minor Group may be used to modify any Major Group, provided that the definition of the Minor Group remains unchanged. Therefore, any reasonable combination of the prescribed Major and Minor Groups is permitted.

NOTE: User-defined Minor Group field codes are permitted. They must contain four alphabetic and/or numeric characters and/or "~", and must be fully documented on the NCS Compliance Disclosure Statement for the project on which they are used.

NOTE: For *conceptual conformance* to ISO 13567, *Organization and Naming of Layers for CAD*, the use of certain Minor Group field codes is restricted. See [CLG Appendix C - Complying with NCS and ISO 13567, CLG section 6.0](#) for information about ISO conformance.

1.7 STATUS (PHASE)

The status field is an optional single-character field that distinguishes the data contained on the layer according to the status of the work or the construction phase. The prescribed field codes for this field are as follows:

STATUS FIELD CODES	
A	Abandoned
D	Existing to demolish
E	Existing to remain
F	Future work
M	Items to be moved
N	New work
T	Temporary work
X	Not in contract
1-9	Phase numbers

NOTE: For *conceptual conformance* to ISO 13567, *Organization and Naming of Layers for CAD*, this field may be used to denote either "Status" OR "Phase," but not BOTH. See [CLG Appendix C - Complying with NCS and ISO](#)

A typical layer name showing one optional Minor Group field:

A - W A L L - F U L L

A typical layer name showing two optional Minor Group fields:

A - W A L L - F U L L - T E X T

A typical layer name showing the location of the optional Status field:

A - W A L L - F U L L - T E X T - N

[13567, CLG section 6.0](#) for information about ISO conformance.