All Fields marked with * are mandatory.

Change Request #:	69
Assigned OGC Document #:	10-052
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Document Name/Version:	*City Geography Markup Language (CityGML) Encoding Standard / 1.0.0
OGC Project Document:	*08-007r1

If this is a revision of a previous submission and you have a Change Request Number, then check here: ☐
Enter the CR number here: [＿＿＿＿]
Enter the Revsion Number that you are revising here: [＿＿＿＿]

Title:	*Compression archive format
Source:	*Special Interest Group 3D (SIG 3D)
Work item code:	
Category:	* B (Addition of feature)

Reason for change:	*

As with any plain-text XML encoding of any content, CityGML instance documents quickly grow in file size . This makes CityGML files slow to transfer over the Internet and the storage of CityGML documents costly. Since XML generally compresses well, file compression can be used to considerably reduce file size and speed up file distribution. Well-known file compression methods such as GZIP are available for this purpose. Furthermore, the OGC has proposed a binary XML encoding format (Binary Extensible Markup Language (BXML) Encoding Specification, OGC Best Practices Doc. No. 03-002r9) which not only addresses space reduction but also scanning-costs as well as costs for the conversion of text-encoded numerical coordinate and observation values.

However, CityGML instance documents often contain references to other files (local or remote) such as additional (City)GML content

documents, texture images, or prototypical library objects referenced by core:ImplicitGeometry in any proprietray format (e.g., VRML, X3D, DXF, 3ds, etc.). What is needed in addition to file compression is a compression archive format for CityGML documents and their related files. The format shall define a standardized way how to handle CityGML archives, on which applications can rely. For example, the format should include a fixed content structure (e.g., a single root CityGML document and a fixed subfolder structure for different types of related files), and define allowed compression methods such as legacy ZIP as well as MIME types and file extensions. The archive format of OGC KML (i.e., KMZ) may serve as example.

Summary of change: 🔵	* 1. Define a CityGML compression archive format which bundles and compresses CityGML instance documents and their related files in a standardized way. 2. Identify, examine and propose suitable file compression methods for single CityGML instance documents.
Consequences if not approved: 🔵	Compression of CityGML instance documents and their related files is required in order to reduce file size and speed up transfer time. Without a standardized compression archive format, different proprietary and application-specific solutions may emerge which strongly affects data interoperability.
Clauses affected: 🔵	* requires an additional clause
Additional Documents affected: 🔵	
Supporting Documentation: 🔵	
Comments: 🔵	
Status: 🔵	Assigned
Disposition: 🔵	Reffered