

ISO 37187:2026-07 (E)

Smart community infrastructures - Guidance on data exchange and sharing of city information modelling platform

Contents	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Overview of CIM platform	3
4.1 General	3
4.2 Platform architecture	3
4.2.1 General	3
4.2.2 Device layer	3
4.2.3 Data layer	4
4.2.4 Service layer	4
4.2.5 Application layer	4
4.2.6 User layer	4
4.2.7 Supporting systems	5
4.3 Implementation recommendations	5
4.3.1 General	5
4.3.2 CIM platform use cases	6
4.3.3 Scalability and open interfaces	6
5 Data framework and modelling	8
5.1 Overview	8
5.1.1 General	8
5.1.2 Data resources	8
5.1.3 Model delivery and management	9
5.1.4 Data interoperability guidance	9
5.2 Data category	9
5.2.1 General	9
5.2.2 GIS data	9
5.2.3 BIM data	10
5.2.4 IoT data	10
5.2.5 Business data	10
5.3 Data exchange and interoperability recommendations	10
5.3.1 General	10
5.3.2 Data exchange	11
5.3.3 Interactive format	11
5.3.4 Data interoperability	12
5.3.5 Interoperability content of data	12
5.3.6 Data update and data fusion	12
5.4 Data organization recommendations for modelling	12
5.4.1 General	12
5.4.2 Synthetic model	12
5.4.3 Lightweight model	15
5.4.4 Relationship between lightweight model and synthetic model	16
5.5 Model processing and expression	16
5.6 Classification coding and storage	18

5.6.1	Classification	18
5.6.2	Coding	18
5.6.3	Storage	19
6	Basic functions	19
6.1	General	19
6.2	Data collection and management	19
6.3	Data query and visualization	19
6.4	Data analysis and simulation	20
6.5	Platform operation and service	21
6.6	Platform development interface	21
6.7	Security management	22
6.8	Data exchange and sharing	22
7	Platform development and maintenance	23
7.1	General	23
7.2	Software, hardware and network environment	23
7.2.1	General	23
7.2.2	Platform software	23
7.2.3	Platform hardware	23
7.2.4	Platform network environment	24
7.3	Platform maintenance management	24
7.4	Platform security	24
8	Inspection and evaluation	25
8.1	General concept	25
8.1.1	Inspection	25
8.1.2	Evaluation	25
8.2	Basic recommendations for inspection and evaluation	25
8.3	Inspection criterion	25
8.3.1	Data	25
8.3.2	Modelling	25
8.3.3	Basic functions	26
8.3.4	Documents	26
8.4	Inspection conclusion	26
8.5	Level evaluation	26
Annex A (informative) Case studies		27
Bibliography		36