

Idaho Technology Authority (ITA)

ENTERPRISE STANDARDS – S4000 – INFORMATION AND DATA

Category: S4232 – Idaho Parcel Data Exchange Standard

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I. DEFINITION

1. Parcel: a single cadastral unit which is the spatial extent of the current rights and interests in real property. Properties sold as single entities may be divided into multiple parcels for assessment when they fall into multiple taxing entities, such as school or fire districts. Idaho Parcel Standard Team.
2. Framework – Statewide base map datasets initially identified and described in the Strategic and Business Plans for Development and Deployment of Idaho’s Spatial Data Infrastructure (<http://gis.idaho.gov/portal/IGO/stratplan.htm>), and as subsequently modified and depicted in the Framework Diagram (http://gis.idaho.gov/portal/framework/framework_index.htm).

II. RATIONALE

A statewide Parcel Framework is a critical source of information for resource land management, community and economic development needs, infrastructure maintenance, research and analysis, homeland security, business location intelligence, public safety, and more. Many private sector and public sector entities have business needs for Parcel Framework.

III. APPROVED STANDARD(S)

See Attachment.

IV. APPROVED PRODUCT(S)

GIS software used in Idaho are capable of generating the specified file format.

V. JUSTIFICATION

Experience in other states and countries have amply demonstrated that accessible statewide cadastral information is key to realizing substantial gains in economic development, public safety, government efficiency, and citizen empowerment. The return on investment is substantial, cumulative and perpetual.

VI. TECHNICAL AND IMPLEMENTATION CONSIDERATIONS

This standard requires a minimum of information in order to share and integrate parcel information. This standard provides for two levels of sharing: basic information to the public and enhanced information to governments. Few jurisdictions will have difficulty implementing the standard if they have GIS capability. Some support will be available through the state partner managing this Framework element.

VII. EMERGING TRENDS AND ARCHITECTURAL DIRECTIONS

Although initially the data exchange file is the simple shapefile, it is contemplated to advance to geospatial database formats when sources can support it. The statewide dataset will be primarily available through Web map services.

VIII. PROCEDURE REFERENCE

The format, content and development of this standard adhere to Policy P5030 for Framework Standards.

IX. REVIEW CYCLE

Review will occur at least annually.

X. CONTACT INFORMATION

For more information, contact the ITA Staff at (208) 332-1876.

REVISION HISTORY

07/01/13 – Changed “ITRMC” to “ITA”.

Effective date is May 1, 2011.



STATE OF IDAHO

Idaho Parcel Data Exchange Standard

Part of the Cadastral Theme

Version 1.0

Effective May 1, 2011

Developed by the Parcel Workgroup,
a subgroup of the Cadastral Technical Working Group (TWG)

Revision History

07/01/13 – Changed “ITRMC” to “ITA”.

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1. **Introduction to the Parcel Data Exchange Standard**

A statewide Parcel Framework is a critical source of information for resource land management, community and economic development needs, infrastructure maintenance, research and analysis, homeland security, business development, public safety, and more. Many private sector and local, state, and federal government agencies have business needs for Parcel Framework.

A Parcel Framework standard is intended to facilitate integration and sharing of up-to-date parcel data and enhance the dissemination and use of parcel information. This standard does not instruct on how parcel databases are designed for internal use.

This standard was developed by the Parcel Workgroup, a subgroup of the Idaho Cadastral TWG, for The Idaho Map (TIM). This standard will be reviewed on a regular basis and updated as needed.

1.1. **Mission and Goals of the Standard**

The Idaho Parcel Data Exchange Standard supports a statewide dataset that is consistent with applicable state and national standards. It establishes the minimum attributes and geospatial database schema for the Parcel Framework. It will communicate with and may have similar attributes to other Idaho Framework data standards. It encourages all Idaho-based agencies with geospatial parcel data to contribute to Parcel Framework.

The Parcel Framework will be appropriately shared and beneficial to all. The fields in the Parcel Data Exchange Standard will be general enough to incorporate basic information without requiring major changes in internal data models. This standard allows for expansion to a more complex data structure and schema.

1.2. **Relationship to Existing Standards**

This Parcel Data Exchange Standard relates to existing standards as follows:

Structures Data Exchange Standard, Version 0.9, et seq., relates to this standard because structures stand on parcels.

Cadastral Data Content Standard for the National Spatial Data Infrastructure, Version 1.4, et seq., provides a definition and structure for cadastral data sharing at all levels of government and the private sector and specifically facilitates participation in the cadastral component of the National Spatial Data Infrastructure.

Neighboring states' parcel standards provide direction for integration of regional parcel data infrastructures.

1.3. Description of the Standard

This standard describes the vision and geospatial data structure of a Parcel Framework in the state of Idaho. This standard is devised to be:

- Simple, easy to understand, and logical
- Uniformly applicable, whenever possible
- Flexible and capable of accommodating future expansions
- Dynamic in terms of continuous review

1.4. Applicability and Intended Uses

This standard applies to the Parcels element of the Cadastral theme of The Idaho Map (TIM).

When implemented, it will enable access to geometry and attribute information about Idaho parcels. It will increase interoperability between automated geographic information systems and enable sharing and efficient transfer of information for aggregation. Further, it will encourage partnerships between government, the private sector, and the public in order to avoid duplication of effort and ensure effective management of information resources. It will help improve parcel data quality as errors are identified and resolved.

This standard does not consider data sharing agreements, contracts, transactions, privacy concerns, or any other issues relating to the acquisition and dissemination of parcel data.

1.5. Standard Development Process

The Parcel Workgroup, a subgroup of the Cadastral TWG, is a voluntary group of private, city, county, tribal, state, and federal representatives. In March 2010, the Parcel Lead called for a few volunteers to begin developing the standard for TIM Parcel Framework. A team of five gathered and began working in April 2010.

The team looked to fellow TIM Framework teams to see what other standards or datasets exist or are currently in development. Two were found at the time: the draft standards for Emergency Service Zones and Structures (both of which are under the Public Safety Framework). These draft standards were used as a reference.

With input from the Parcel TWG and other stakeholders, the Parcel Standard Team wrote this Parcel Data Exchange Standard in the format required by the Idaho Technology Authority (ITA) Framework Standards Development Policy (P5030). Several iterations and a comment period ensued. The standard was presented at the Idaho Geospatial Forum in October 2010. Idaho Geospatial Council Executive Committee approved it in February 2011, and ITRMC (replaced by ITA) established it at its April meeting.

1.6. Maintenance of the Standard

This standard will be revised as needed and in accordance with the ITA Framework Standards Development Policy (P5030).

2. Body of the Standard

2.1. Scope and Content

The scope of the Parcel Data Exchange Standard is to describe a statewide layer which identifies the physical locations and attributes of parcels in Idaho. This standard describes two framework representations, one for public distribution with limited attributes, and a second with additional attributes for governments only. This approach addresses concerns regarding privacy and related issues.

2.2. Need

Parcels are a key dataset needed for resource land managers, community and business development needs, infrastructure maintenance, research, homeland security, public safety, and more. This standard provides the foundation to aggregate parcel data for centralized access and stewardship information.

2.3. Participation in the Standard Development

The development of the Parcel Data Exchange Standard adheres to the ITA Framework Standards Development Policy (P5030). The Parcel Standard Team tasked with developing this standard represents private, county, state, and federal organizations. As the standard is reviewed in accordance with Policy P5030 requirements, there will be opportunity for broad participation and input by stakeholders in the development of this standard. The process will be equally broad for input on updates and enhancements to the standard. As with all Idaho Framework standards, public review and comments on the Parcel Data Exchange Standard is encouraged.

2.4. Integration with Other Standards

The Parcel Data Exchange Standard follows the same format as other Idaho geospatial framework data standards. The parcel standard may contain some of the same attributes as other framework standards and may adopt the field name, definition, and domain from the other standards to promote consistency.

2.5. Technical and Operation Context

2.5.1. Data Environment

The data environment is a digital model, containing closed vector polygons with a specific, standardized set of attributes pertinent to the Parcel Framework. Parcel data shared under this standard must be in a format supporting closed vector polygons.

2.5.2. Reference Systems

The Parcel Framework will be published in the Idaho Transverse Mercator (IDTM) NAD83 coordinate system, which is the State of Idaho's single-zone coordinate system.

Data is not required to be submitted in the ITDM coordinate system but must have a defined coordinate system clearly described in the metadata.

2.5.3. Global Positioning Systems (GPS)

Some data provided might contain geometry from GPS methods, and the provided metadata should describe this, if applicable. However, geometry from a GPS is not required to meet this standard.

2.5.4. Interdependence of Themes

Parcel geometry may be coincident with other framework data, such as cadastral reference, hydrography, roads, and structures. At this time there is no enforcement of coincidence or topology relationships between Parcel Framework and other Idaho Framework elements.

2.5.5. Encoding

When data is imported into and exported from the Parcel Framework, encoding will take place to convert data formats and attributes.

2.5.6. Resolution

No specific requirements for resolution are specified in this standard. Resolution will be documented in the metadata.

2.5.7. Accuracy

No specific requirements for accuracy are specified in this standard. Accuracy will be documented in the metadata.

2.5.8. Edge Matching

No edge matching between jurisdictions is required.

2.5.9. Unique Identifier

There is no requirement for a permanent unique identifier specific to each parcel feature. However, one may be assigned.

2.5.10. Attributes

Attributes for public and intergovernmental distribution are described in Section 3 of this standard.

2.5.11. Stewardship

Perpetual maintenance and other aspects of lifecycle management are essential to Parcel Framework. Details of stewards, their roles and responsibilities, and processes are set forth in a Parcel Framework Stewardship Plan and related documents.

2.5.12. Records Management and Archiving

Details of records management and archiving for Parcel Framework are set forth in a Parcel Framework Stewardship Plan and related documents.

2.5.13. Metadata

The Parcel Framework metadata will describe the methods used to aggregate the individual parcel data contributions, processes or crosswalks performed, definition of attributes, and other required information. This metadata will conform to metadata standards of the State of Idaho (<http://ita.idaho.gov/resources.html#standards>) and accompany any files exchanged under this Standard.

3. Data Characteristics

3.1. Minimum Graphic Data Elements

The geometry of the features in Parcel Framework is closed vector polygons.

3.2. Optional Graphic Data Elements

Not applicable.

3.3. Minimum Attributes for Public Distribution

The following attributes are established for public and government distribution.

Field Name	Data Type	Length	Description	Examples
PARCEL_ID	Text	TBD	The unique identifier for that parcel as used by the source.	R3085100110
STEWARD	Text	20	The source that created the polygon and can answer questions about the history, geometry and attribution of it.	Canyon County
UPDATED	Date	N/A	The date shared	N/A
MODIFIED	Date	N/A	The date that the polygon geometry was last edited	N/A
WEBSITE	Text	255	The URL for a public internet site for further information, if available.	Canyon County http://id-canyon-assessor.governmaxa.com/propertymax/rover30.asp
FIPS	Text	6	The Federal Information Processing Standards (FIPS) code for state and county.	16027
GIS_ACRES	Double	TBD	Total acreage as calculated by GIS software.	10.208

3.4. Additional Attributes for Government Distribution

The following attributes are established for government distribution only.

Field Name	Data Type	Length	Description	Examples
OWNER1	Text	100	Owner of Parcel	John Smith
OWNER2	Text	100	Additional owner of parcel	Mary Smith
MAIL_ADD1	Text	100	Mailing address of owner	1234 S Paper Rd
MAIL_ADD2	Text	100	Additional mailing address of owner	Apt 5C
MAIL_CITY	Text	100	Mailing city of owner	Anaktuvuk Pass
MAIL_STATE	Text	2	Mailing state of owner	AK
MAIL_ZIP	Text	10	Mailing U.S. zip code of owner	99721-0000
MAIL_CNTRY	Text	100	Mailing country of owner	USA
SITE_ADD	Text	100	Site address of property	6789 W Stapler Ave
SITE_CITY	Text	100	City of property	Nampa
SITE_ZIP	Text	10	Zip code of property	83653-0000
CATEGORY1	Text	2	Assessed land use	01
CATEGORY2	Text	2	Assessed land use	02
CATEGORY3	Text	2	Assessed land use	03
CATEGORY4	Text	2	Assessed land use	04
CATEGORY5	Text	2	Assessed land use	05
CATEGORY6	Text	2	Assessed land use	06
CATEGORY7	Text	2	Assessed land use	07
IRR_ACRES	Double	TBD	Irrigated acreage by land use category	7.560
DRY_ACRES	Double	TBD	Dryland agricultural acreage by land use category	1.648
ZONING	Text	TBD	Zoning category	RSW
DESC1	Text	TBD	Property description	PAR #9300 of S2SE4
DESC2	Text	TBD	Property description	SEC26 3N 1E
DESC3	Text	TBD	Property description	#449100-S
DESC4	Text	TBD	Property description	
DESC5	Text	TBD	Property description	
SUBDIV	Text	TBD	Subdivision name	Happy Valley
VALUATION	Integer	TBD	Net assessed value of property	100,000

3.5. **Data Quality**

Data quality considerations for parcels include:

- a) All parcels should have Parcel IDs.
- b) All parcel polygons should close.

Appendix A: References

Idaho Geospatial Council Executive Committee, Public Safety Technical Working Group, November 2010. *Structures Data Exchange Standard*, Version 0.9. Internet. <http://gis.idaho.gov/portal>

Idaho Geospatial Council Executive Committee, Public Safety Technical Working Group, August 25, 2010. *Data Exchange Standard for Emergency Service Zones*, Version 1.0 Internet. http://gis.idaho.gov/portal/framework/framework_index.htm

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Federal Geographic Data Committee (FGDC), Subcommittee on Cadastral Data, September 2007. *State Stewardship for Parcel Data*. Internet. http://www.ncgicc.com/Portals/3/documents/StateStewardship_CadastralData_%20Sept2007.pdf

Federal Geographic Data Committee (FGDC), Subcommittee on Cadastral Data, May 2008. *Cadastral Data Content Standard for the National Spatial Data Infrastructure*, Version 1.4. <http://www.nationalcad.org/data/documents/CADSTAND.v.1.4.pdf>

Environmental Systems Research Institute (ESRI). Internet. <http://www.esri.com>

Idaho Technology Authority (ITA). *Information and Data Policy P5000, Category: P5030 Framework Standards Development Policy*. <http://ita.idaho.gov/psg/p5030.pdf>

Idaho Technology Authority (ITA). *Enterprise Standards S4000 Geographic Information Systems (GIS) Data, Category: S4220 Geospatial Metadata*. <http://ita.idaho.gov/psg/s4220.pdf>

Appendix B: Glossary

Data Customer: anyone who uses Parcel Framework. This includes public citizens, private businesses, educational institutions, non-profit organizations, and government agencies at all levels. Idaho Parcel Standard Team.

Framework: statewide base map datasets identified and described in the Strategic and Business Plans for Development and Deployment of Idaho's Spatial Data Infrastructure (<http://gis.idaho.gov/portal/IGO/stratplan.htm>) and depicted in the Framework Diagram (http://gis.idaho.gov/portal/framework/Framework_index.htm). ITA P5030.

Parcel: a single cadastral unit which is the spatial extent of the current rights and interests in real property. Properties sold as single entities may be divided into multiple parcels for assessment when they fall into multiple taxing entities such as school or fire districts. Idaho Parcel Standard Team.

Parcel Data Exchange Standard: this document which describes the vision, minimum attributes, and geospatial database schema for TIM Parcel Framework. Idaho Parcel Standard Team.

Parcel Framework: a statewide parcel layer, stored as polygons, made up of parcel data provided by Idaho-based agencies. Idaho Parcel Standard Team.

Parcel Framework Stewardship Plan: a document associated with the Parcel Data Exchange Standard governing the life cycle management of the Parcel Framework element. Idaho Parcel Standard Team.