

THE ARCGIS LAND PARCEL DATA MODEL

Boundary

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
RecordBoundaryID	String	Yes					30
RecordBounds	String	Yes					30
RecordBoundaryStatus	String	Yes	Constructed	RecordBoundaryStatus			30
OffsetLeft	Double	Yes			0	0	
OffsetRight	Double	Yes			0	0	
RecordBoundaryComment	String	Yes					100
RecordDirection	String	Yes					30
RecordDistance	String	Yes					30
DirectionType	String	Yes	Unknown	DirectionType			30
DirectionUnit	String	Yes	DMS	DirectionUnit			30
DirectionQuadrant	String	Yes					10
DistanceUnit	String	Yes	US Survey Feet	DistanceUnit			30
DistanceType	String	Yes	Unknown	DistanceType			30
Radius	String	Yes					8
Delta	String	Yes					10
Tangent	String	Yes					8
Arclength	String	Yes					8
Side	String	Yes					1
RBSourceAgent	String	Yes					30
RBSourceIndex	String	Yes					30
RBSourceType	String	Yes					30
RBSourceDate	Date	Yes					8
RecordBoundaryType	Integer	Yes	1				0
Shape_Length	Double	Yes					0

Linear features representing edges of parcels and the parcel framework used to symbolize parcel boundaries and for boundary dimensions.

The primary key for the line entity.

A boundary location by reference to a legal location, a related document, or a known location.
Identifies the record boundary's status from a legal perspective.
Distance to the left of and perpendicular to a defined boundary line defining the record boundary.
Distance to the right of and perpendicular to a defined boundary line defining the record boundary.
Contains additional information about the record boundary that may be in public record.
Direction is the angle between a line and an arbitrary chosen reference line.
The quantity for the distance of a boundary. Distance is the linear measure along a line.
The 'basis of bearing' or 'basis of azimuth' for the direction.
Indicates the units for a direction.
Directions can be measured as either bearings or azimuth.
Defines the units of measure and reference plane for distance measurements.
Describes the reference surface for the distance.
The radius is the distance from the center of the curve to any point on the circular curve.
The central angle of a circular curve.
The arc length is the long chord length.
The individual or organization who determined the record boundary values.
The source from which the record boundary originated.
Documents, files, or images with some common unifying characteristic.
The date of the record boundary document or other record.
Classification of the boundary line to support the definition of subtypes.

Subtype Code	Subtype Description	Field name	Default value	Domain
1	Right of Way			
2	Subdivision Boundary	RecordBoundaryStatus	Constructed	RecordBoundaryStatus
3	Parcel	DirectionType	Assumed	DirectionType
4	Lot Line	DirectionUnit	Unknown	DirectionUnit
5	Parcel Split	DistanceUnit	US Survey Feet	DistanceUnit
6	Private Road	DistanceType	Ground	DistanceType
7	Water			

Parcel framework

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
ConveyanceID	String	Yes					64
ConveyanceDesignator	String	Yes					64
ConveyanceType	String	Yes	Subdivision	Simultaneous-ConveyanceType			30
Shape_Length	Double	Yes					0
Shape_Area	Double	Yes					0

A simultaneous conveyance is a named or numbered area of land that can be identified by a type and a designator. These types of survey systems were created at one time in one document and all of the interior lines will have equal standing with one another. A subdivision is an example of a simultaneous conveyance.

This is a primary key for the polygon feature.
The conveyance name is an identifying name or number for a specific type of conveyance.
Indicates the category or major class of the description, such as subdivision or assessor plat.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
ConveyanceID	String	Yes					64
ConveyanceDesignator	String	Yes					64
ConveyanceType	String	Yes	Subdivision	Simultaneous-ConveyanceType			30
FirstDivisionID	String	Yes					100
FirstDivisionDesignator	String	Yes					100
FirstDivisionType	String	Yes	Block	FirstDivisionType			30
Shape_Length	Double	Yes					0
Shape_Area	Double	Yes					0

The first division is the primary division of the survey system. Examples are blocks and lots. These are nested within the simultaneous conveyance and do not cross its boundaries. First divisions may or may not tessellate or uniquely divide the entire simultaneous conveyance.

See *Simultaneous Conveyance*
Name for the conveyance, often a numeric value.
The type of conveyance.
The primary key for the polygon feature.
An alpha, numeric, or alphanumeric designator used to identify the first division of the survey system.
The classification of the first survey system division.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
ConveyanceID	String	Yes					64
ConveyanceDesignator	String	Yes					64
ConveyanceType	String	Yes	Subdivision	Simultaneous-ConveyanceType			30
FirstDivisionID	String	Yes					100
FirstDivisionDesignator	String	Yes					100
FirstDivisionType	String	Yes	Block	FirstDivisionType			30
SecondDivisionID	String	Yes					100
SecondDivisionDesignator	String	Yes					100
SecondDivisionType	String	Yes	Lot	SecondDivisionType			30
Shape_Length	Double	Yes					0
Shape_Area	Double	Yes					0

The second survey division is the subdivision of the first division. These are nested within the first division and do not cross the first division boundaries. The second division may or may not tessellate or uniquely divide the entire first division.

See *Simultaneous Conveyance*
See *Survey First Division*
The primary key for the polygon feature.
An alpha, numeric, or alphanumeric designator used to identify the first division of the survey system.
Describes the classification of the first survey system division.

Topology

Feature class	Rank
Corner	1
Boundary	2
TaxParcel	3
SimultaneousConveyance	4
SurveyFirstDivision	5
SurveySecondDivision	6

Origin feature class	Topology rule	Comparison feature class
Corner	Must be covered by endpoint of	Boundary
Boundary	Endpoint must be covered by	Corner
Boundary	Must not have dangles	
TaxParcel	Boundary must be covered by	Boundary
SimultaneousConveyance	Boundary must be covered by	Boundary
SurveyFirstDivision	Boundary must be covered by	Boundary
TaxParcel	Must not overlap	
SimultaneousConveyance	Must not overlap	
SurveyFirstDivision	Must be covered by	SimultaneousConveyance
SurveyFirstDivision	Must not overlap	
SurveySecondDivision	Must be covered by	SurveyFirstDivision
SurveySecondDivision	Must not overlap	

This diagram depicts a portion of the ArcGIS land parcel data model. You can find this and other complete data models by going to support@esri.com and clicking the links to 'ArcGIS Desktop' and 'Data Models'.

Coded value domain

SimultaneousConveyanceType

Code	Description
Assessor Plat	Assessor Plat
Cemetery	Cemetery
Condominium	Condominium
Farm Lot	Farm Lot
French Long Lot	French Long Lot
Indian Allotment	Indian Allotment
Plat of Survey	Plat of Survey
Protraction Block	Protraction Block
Small Holding Claim	Small Holding Claim
Small Tracts Act	Small Tracts Act
Subdivision	Subdivision
Survey	Survey
Townsite	Townsite
United States Survey	United States Survey
Other	Other

Domains are used to validate attributes. This is one of many domains in this data model.

The ArcGIS Land Parcel Data Model was developed by Nancy Von Meyer of Fairview Industries in cooperation with many agencies.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
TaxParcelPIN	String	Yes					30
TaxParcelType	String	Yes	Base Parcel	TaxParcelType			30
ExemptStatus	String	Yes	Non-Exempt	ExemptStatus			10
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	

The tax parcel is a polygon defined for the purposes of supporting a real estate tax system.

Links to data in the tax roll, tax record or assessment record.
An attribute for the tax parcel use classification.
Whether the tax parcel is subject to real property tax.

Tax parcels

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
PrimaryTaxPIN	String	Yes					30
TaxPIN	String	Yes					30

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
PrimaryTaxPIN	String	Yes					30
TaxPIN	String	Yes					30

This table contains the relationship between the tax parcel polygon outlines and multiple tax records, such as those in a condominium.

Linkage to the polygon within which the multiple records are related.
ID to data contained in the tax roll, tax record or assessment record.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
TaxPIN	String	Yes					30
LandAssessedValue	String	Yes					30
ImprovementAssessedValue	String	Yes					30
TotalAssessedValue	String	Yes					30
LandArea	String	Yes					30
ImprovementArea	String	Yes					30
LandOwnerInformation	String	Yes					30
TaxBillMailingInformation	String	Yes					30
TaxBillingInformation	String	Yes					30

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
TaxPIN	String	Yes					30
LandAssessedValue	String	Yes					30
ImprovementAssessedValue	String	Yes					30
TotalAssessedValue	String	Yes					30
LandArea	String	Yes					30
ImprovementArea	String	Yes					30
LandOwnerInformation	String	Yes					30
TaxBillMailingInformation	String	Yes					30
TaxBillingInformation	String	Yes					30

The tax roll is a listing of all property and its assessed value.

Links to data contained in the tax roll, tax record or assessment record.
Assessed value of the land.
Assessed value of any improvements.
Property value determined by the assessment authority for taxation.
Land area for assessment purposes.
The total area to which the assessment is applied.
The name of the owner or taxpayer to support queries and annotation.
Mailing address information, to be expanded for project needs.
Information such as tax amounts, tax years, or payment information.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
TaxPIN	String	Yes					30
CornerID	String	Yes					30
CornerType	String	Yes	Other	CornerClassification			100
CornerLabel	String	Yes					60
CornerLocLabel	String	Yes					100

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
CornerID	String	Yes					30
CornerType	String	Yes	Other	CornerClassification			100
CornerLabel	String	Yes					60
CornerLocLabel	String	Yes					100

A corner is a legal location. It may mark the extremity of parcel or a parcel framework polygon. A corner may have multiple monuments that serve as physical markers for the legal location of the corner.

Primary key for the feature class polygon.
A named corner classification.
A name describing the legal location.
Any number of alternative names or aliases for the corner.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
CornerPointID	String	Yes					30
CornerID	String	Yes					30
MonumentType	String	Yes					30
MonumentDataSet	Date	Yes			0	0	8
CPSourceAgent	String	Yes					100
CPSourceIndex	String	Yes					100
CPSourceType	String	Yes					100
CPSourceDate	Date	Yes			0	0	8
CornerPointStatus	String	Yes					100

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
CornerPointID	String	Yes					30
CornerID	String	Yes					30
MonumentType	String	Yes					30
MonumentDataSet	Date	Yes			0	0	8
CPSourceAgent	String	Yes					100
CPSourceIndex	String	Yes					100
CPSourceType	String	Yes					100
CPSourceDate	Date	Yes			0	0	8
CornerPointStatus	String	Yes					100

A monument is a point feature that marks the ends of record boundaries or the extremities of a parcel or a parcel framework polygon. A corner may or may not be a monument and it is possible that there is only one monument per corner.

A primary key for the point feature.
Points to the corner point feature to identify which corner the monument is attached to.
Describes the material, composition, and other characteristics of the physical corner marker, if present.
The date the monument was set.
The individual or organization that established the monument.
Identifies the record where information about the monument is kept.
The type of source for the monument information.
The monument record or file.
Describes the monument's relationship to other monuments at the same corner.

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
CornerCoordinateID	String	Yes					30
CornerPointID	String	Yes					30
XCoordinate	Double	Yes			0	0	
YCoordinate	Double	Yes			0	0	
ZCoordinate	Double	Yes			0	0	
CoordinateValue	String	Yes					30
CoordinateStatus	String	Yes	Active	CoordinateStatus			30
CSourceAgent	String	Yes					100
CSourceIndex	String	Yes					100
CSourceType	String	Yes					100
CSourceDate	Date	Yes			0	0	8
CSourceComments	String	Yes					100
XAccuracy	Double	Yes			0	0	
YAccuracy	Double	Yes			0	0	
ZAccuracy	Double	Yes			0	0	
Reliability	String	Yes					30
AccuracyComments	String	Yes					30
HorizontalDatum	String	Yes	NAD83	HorizontalDatum			30
CoordinateSystem	String	Yes					30
VerticalDatum	String	Yes	North American Vertical Datum of 1988	ElevationDatum			60
CoordinateMethod	String	Yes	Total Station	CoordinateMethod			30
CoordinateProcedure	String	Yes	Other	CoordinateProcedure			30
VerticalUnits	String	Yes	International Feet	ElevationUnits			30

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	OID						
Shape	Geometry	Yes					
CornerCoordinateID	String	Yes					30
CornerPointID	String	Yes					30
XCoordinate	Double	Yes			0	0	
YCoordinate	Double	Yes			0	0	
ZCoordinate	Double	Yes			0	0	
CoordinateValue	String	Yes					30
CoordinateStatus	String	Yes	Active	CoordinateStatus			30
CSourceAgent	String	Yes					100
CSourceIndex	String	Yes					100
CSourceType	String						