

# VT Utility Pole Data Standard

Version 1.0

Adopted December 9<sup>th</sup>, 2020

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## Version History

Date	Notes
December 9, 2020	Version 1.0 – Approved by Enterprise GIS Consortium

## Process

### Statutory Authority and Data Standard Adoption

The Vermont Center for Geographic Information (VCGI) has the [statutory authority](#) to craft and adopt Vermont GIS standards and guidelines. The State’s Enterprise GIS Consortium (EGC) has been established as the organization responsible for reviewing and approving Vermont GIS standards crafted by VCGI (in collaboration with the Vermont GIS Community). The standard will be adopted according to the EGC [Procedure](#).

### Development and Review of the Standard

The initial draft of the Standard was developed by the Vermont Department of Public Service, based on the Green Mountain Power dataset and input from Vermont Communications Union Districts (CUD)ss on additional fields that should be incorporated. VCGI provided technical assistance. A draft of the document was provided to Vermont utility pole owners before the document was submitted to the EGC for adoption.

Version 0.1.d6 was circulated for public comments on October 15,2020. Version 1.0 was issued December 4, 2020, including changes recommended by comments.

## Purpose

The purpose of the Standard is to foster a uniform system for pole information. It is designed for all utilities and telecom organizations to effectively plan and manage their infrastructure over time. The Standard identifies the type and form of information about utility poles that are most useful. This can be used to guide decisions about what information to collect and maintain on these assets.

### Applicability

This Standard is for use by all of Vermont’s pole-owning utilities and telecom organizations and their consultants or contractors.

### Maintenance

The Vermont Department of Public Service is the steward for the Standard. Individual pole owners are responsible for the datasets related to poles they own.

### Adoption

Nothing in this Standard requires its adoption, either in whole or in part, by any entity, including pole owners or other users.

## Specification

### Data Format

Data should be stored and shared in file geodatabase (fgdbs) or GeoPackage (gpkg) format.

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### Spatial Reference

When data is shared, Vermont State Plane Coordinate System (NAD1983, meters) is the preferred spatial reference. All datasets must set spatial-reference properties (e.g., shapefiles have .prj files). If vertical measurements are included, employ Vertical Coordinate System NAD\_1983, include GEOID and Vertical Datum in the projection, and where MSL is employed, use LLT, HT, and LT.

### Precision

The precision of the location measurements should be presented in the optional COLLECTDEV and DEVPREC fields if this information is available. The table below relates the precision and associated appropriate decimal places for decimal degree coordinates for different collection devices. If these fields are not populated, the precision should be assumed to be the least precise level in this table.

Collection device	Precision	Decimal places
Survey-grade specialized GPS	<1m	x.xxxxxx (6 places)
GIS-grade commercial GPS	1m	x.xxxxx (5 places)
Smartphone	10m	x.xxxx (4 places)

### Geometry Type

Point Shapefile.

### Dataset Naming

Naming convention to be used when exchanging data: Utility\_<Utility Name>\_Poles\_point  
For example: Utility\_GMP\_Poles\_point.shp

### Metadata

Information about the layer should be included in an accompanying readme.txt file (or in the Shapefile Description), on accord with the VT GIS Metadata Standard, including these items:

- Title:
- Abstract: (link/refer to standard here) ...anecdotes, other helpful info...
- Data-Revision Date:
- Point of Contact:
- Topic: utilitiesCommunication
- Metadata Date:
- Level of adoption: if adopted in part, describe how it deviates from the standard

### Attachments

The presence of hardware or line attachments on a pole should be indicated by Y/N in the appropriate fields. If specific information about attachments is compiled, it should be stored in a separate Attachments dataset. This data should be stored separately as it may contain confidential information. This table should use an appropriate key so that it can be joined to the feature class. The table should employ the naming convention: TABLE\_<Utility Name>\_Poles\_Attachments. The table should be saved as a separate table in the geodatabase or GeoPackage. Pole owners should refrain from publishing the ATTACHTP field until January 2022.

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### Key

The TAG field should relate a unique identification number for each pole, as such there should be no duplicates for this field so it can be employed as a key for joining other tables. Where the tag number is not available, the entry should be NT followed by two digits.

### Fields

Field	Data Type	Description
Latitude	Double	Coordinate
Longitude	Double	Coordinate
OBJECTID	Object ID	Sequential
CREATIONUR	String	The user or designer who created the facility
DATECREATE	Date	The date that the facility was created
DATEMOD	Date	The date that the facility was last modified
LASTUSER	String	The last user or designer to modify the facility
POLETAG	Text	Unique code assigned by pole owner
LOCATIONID	Text	Unique code assigned by pole owner
OWNER	Text	Pole owner Acronym
POLEHEIGHT	Long Integer	Height above ground level in decimal feet
CLASS	Text	Pole class
POLEMAT	Text	Pole Material
INSTALLDAT	Date	Installation date mm/dd/yyyy
COLLECTDEV	Short Integer	1,2,3
DEVPREC	Short Integer	1,2,3
POLEUSE	Text	Pole Use
MAINTENANC	Text	Utility responsible for service
TELROUTE	Text	Unique code assigned by pole owner
TELPOLE	Text	Unique code assigned by pole owner
JCTPOLE	Text	Y/N (Is Pole a Junction) (Default N)
SHAPE	Geometry	Table Mandatory
TRANSFRMR	text	Y/N
TRANSEXESS	Text	Y/N (Is there extra loop cable hanging)
GUYS	text	Pole to pole, Down, or N
ANCHORNEED	text	Y/N
HDWRATTACH	text	Y/N (cable amplifier, DSLAM, etc.)
RISERS	text	Y/N
CUSTDROPS	short integer	Quantity
TPTATTACH	text	Y/N (Third-party, other than ILEC)

## Attachments Table

POLEKEY	Text	Field to match in feature class (POLETAG)	
ATTACHID	Text	Unique Identifier	
ATTACHDT	Date	Date of Attachment	
ATTACHTP	Text	Telephone, Cable, Fiber, Other,	
HASBOND	Text	Y/N	
ATTACHHT	Double	Height of Attachment, Above ground level, in decimal feet	
DISTTOELEC	Double	Distance, in decimal feet, from the top attachment to the bottom of the electric safety space	
Photograph*			

\*Saved separately in file geodatabase

## References & Appendices

These tables are for acronym-translation reference.

### OWNER field

Pole Owner	Acronym
Village of Barton Electric Department	Barton
Burlington Electric Department	BED
Village of Enosburg Falls Water & Light Department Inc.	Enosburg
Green Mountain Power	GMP
Hardwick Electric Department	Hardwick
Village of Hyde Park Electric Department	Hyde Park
Village of Jacksonville Electric Company, Inc.	Jacksonville
Village of Johnson Water & Light Department	Johnson
Village of Ludlow Electric Light Department	Ludlow
Village of Lyndonville Electric Department	Lyndonville
Morrisville Water & Light Department	Morrisville
Town of Northfield Electric Department	Northfield
Village of Orleans Electric Department	Orleans
Stowe Electric Department	Stowe
Village of Swanton Electric Department	Swanton
Vermont Electric Co-op	VEC
Washington Electric Co-op	WEC
Vermont Electric Power Company	VELCO
Consolidated Communications	CCI
Vermont Telephone Company	VTel
Waitsfield and Champlain Valley Telecom	WCVT
Ludlow, Perkinsville, Northfield	TDS
Franklin Telephone	Franklin
Topsham Telephone	Topsham
Shoreham Telephone	Shoreham

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### CLASS field

The Pole Class field specifies the classification of the pole as defined in the American National Standards Institute O5 specification.

Class	Description
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
H1	H1
H2	H2
H3	H3
H4	H4
H5	H5
H6	H6
MEY	Meyers
UNK	Unknown

### POLEMAT field

Pole Material	Description
AL	Aluminum
F	Fiberglass
L	Laminate
S	Steel
W	Wood

### POLEUSE field

Pole Use	Description
DIST	Distribution
FO	Fiber Only
MB	Meter Board
ORN	Ornamental Pole
SEC	Secondary Pole
STUB	Stub-pole
TRANS	Transmission Only
UNDER	Underbuilt
PB	Push-Brace
MA	Marker Only



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COLLECTDEV field

Class	Description
1	Survey Grade
2	GIS Grade
3	Smartphone

DEVPREC field

Class	Description
1	Less than 1 meter
2	1 meter
3	10 meter