

Survey

Program:

These ODNR Design Guidelines relating to Surveying are intended to ensure compliance with minimum standards of boundary surveys per OAC 4733-37 and any requirements prescribed by ODNR to ensure project compliance and constructability.

Location and Adjacencies: N/A

Construction Systems: N/A

Sustainability: Refer to Sustainability for Capital Improvements Design Guidelines

Features:

- N/A

Design Guidelines:

The following design guidelines are intended to provide a general overall preference of ODNR for Surveying. It is not intended to be all encompassing or strictly followed to the letter as case-by-case situations may require variations to comply with changing ODNR preferences and regulatory permitting processes. All designs are to be compliant with all code requirements and industry standards.

20 Owner Development

- 2030 ODNR Surveying Professional Services Requirements
 - Surveys shall be performed under the responsible charge of a State of Ohio Registered Professional Surveyor in good standing.
 - Surveys shall be on Ohio County Coordinate System
 - Surveys shall be designed and built in Model Space
 - Surveys shall use ODNR Standard Field Codes
 - Surveys shall be drawn using Standard Layers
 - Surveys shall use ODNR Standard Title Block Template
 - Boundary and As-Built information shall be coordinated to the same Control
 - Boundary Surveys shall be performed per Chapter 4733-37 of Ohio Administrative Code
 - FEMA panel and flood classification must be stated
- Project Category Types
 - Cat 1: Vertical/Buildings
 - Cat 2: Horizontal/Civil
 - Cat 3: Dam Replacements
- Survey Control
 - Contact ODNR/REALM to determine if control is available and if so, the project shall have reference to direct measurement ties of said Control
 - Guideline intent is for all parties to work from same control information (coordinates, datum, etc.)

- It is the responsibility of the design consultant to coordinate with design surveyor to ensure that adequate site control is perpetuated throughout the project to allow for adherence to design standards
 - This would include control points On-site and Off-site of construction limits
- Both Vertical and Horizontal Control Points are required
 - Project Control Benchmarks shall be set outside of construction area
 - The Geoid Model used shall be stated in the in the definition of the coordinate basis
 - Vertical Control Benchmarks shall be a minimum of 3 permanent benchmarks with differential leveling performed
 - Control Benchmarks shall be of a permanent durable nature (not driven rebar)
- Deliverables
 - Provide an AutoCAD compatible drawing file
 - Provide an ASCII point file of all survey points in either preferred format .TXT or .CSV
 - If Boundary Survey is performed, provide a signed sealed plat of the boundary
 - Mylar or bond but must have wet seal
 - Shall be filed in the county of the project
 - Provide Field Notes and/or Data Collection Files
 - Provide Least Squares Adjustment and Traverse Adjustment reports

Reference Documents:

All Authorities having Jurisdiction's rules and regulations shall be strictly adhered to for design by ODNR consultants. This may include Ohio EPA, Ohio Building Authorities, Ohio Department of Health, County Health Departments and Local Authorities where appropriate. Should there be any conflicts or otherwise discrepancies, the ODNR design consultant shall bring it to the attention of ODNR immediately for discussion.

2021 Minimum Standard Detail Requirements For ALTA/NSPS Land Title Surveys, Copyright 2021. All rights reserved, American Land Title Association and National Society of Professional Surveyors.

2023 Ohio County Coordinate System Manual, Ohio Department of Transportation, Office of CADD and Mapping Services.

2023 Survey and Mapping Specifications, Ohio Department of Transportation, Office of CADD and Mapping Services.

Chapter 4733-37 of current Ohio Administrative Code.

Survey Considerations:

- Permitting
- USACE Property
- Archeological Requirements
- Flood Plain
- Wetlands
- Soil Conditions
- Existing Local Utilities Locations