INTRODUCTION

This document has been prepared as a guide for Survey Firms in the preparation of documents for the design and construction of new structures and the remodeling of existing structures on the campuses of Indiana University.

Changing technology and changes in State or University policies will require continuing revisions of these standards. Surveyors are required to ensure that they are working with the latest version of the standards.

A surveyor registered in the state of Indiana is required to provide a site survey and inventory of existing site, landscape and utility conditions that include the following:

DRAWING PREPARATIONS:

At the beginning of each project, a new Base Map including Utilities and use of the established IU Control Network (for IU Bloomington) is required. The IU Control Network is referenced to Indiana State Plane Coordinate System (NAD 83) (2011) – feet units for Bloomington (IUB) campus. The Base Map and IU Control Network reference drawing with relevant data are available upon request. A Project or Team Leader and Project Number are required for any information to be released. To request information for your project, go to the VPCPF Consultants & Contractors page and use the University Site/Utilities Map Request link.

The west zone is used for Bloomington (IUB) and Gary (IUN). The east zone is used for Richmond (IUE), Kokomo (IUK), South Bend (IUSB), New Albany (IUSE), Columbus (IUPUC), and Indianapolis (IUPUI). A minimum of 3 IU control points are required to be referenced for each project or survey on the IUB campus. A minimum of 3 temporary benchmarks are required for all campuses except IUB.

State elevation datum on each drawing, using NAV88 (US survey feet) using Geoid 12A and reference location ID of each control point used, if applicable.

AutoCAD release 2011-2014 files on CD-ROM or DVD in .dwg format.

Drawing shall note all dimensions and elevations in English units at full scale.

Property boundaries, easements, rights-of-ways, deed restrictions and legal description.

Show North arrow including the direction of magnetic north.

Include Legend of Symbols and Abbreviations used on the drawing.

Seal: Affix seal of Indiana Registered Professional Surveyor.

SITE & LANDSCAPE EXPECTATIONS:

One foot contour intervals, with appropriate spot elevations on paving or other hard surfaces such as concrete pads, building corners, finished floor elevations, steps top and bottom of walls and curbs shall be to the nearest .01 foot.

Existing site features such as walls, fences, asphalt pavement, gravel, sign, and outcroppings, trees indicating type, size, and canopy, shrubs and other significant vegetation shall be to the nearest 0.10 foot.

Mean elevation of water in any excavation, well, or nearby body of water.

Location of flood plain and flood level of streams or adjacent bodies of water.
UTILITY EXPECTATIONS:

The following information is to be included in the completed survey and based on record information from the IU Utility Information Group and surface evidence. Incomplete or unknown information requiring the surveyor to employ techniques of subsurface exploration to locate features or utilities will be an additional service subject to Owner approval. Surveyor must call for utility locates and coordinate a field meeting with IU Utilities as part of the survey procedure.

- **Domestic Water**: piping location and size; valve boxes, meter pits;
- **Fire Protection**: piping location and size including water main connection size; post indicator valves, fire hydrants and valves including ownership of each;
- **Sanitary Sewer**: piping location and size, direction of flow; manhole location, size, depth and invert pipes including size. Note if piping is combined sanitary and stormwater sewer. Sanitary lift stations and septic fields are to be identified;
- **Stormwater Sewer**: piping location and size, direction of flow; manholes, catch basins, inlets and outlets, and overflow structures including location and size; culvert pipes; rain gardens, retention and detention structures including underground tanks. Note if piping is combined sanitary and stormwater sewer. Stormwater lift stations are to be identified;
- **Electric**: underground cable and ductbanks, include elevation, configuration and size of ductbank; overhead power poles and cable; configuration and size of manholes and vaults, transformers, traffic control signals, street lighting poles, ownership;
- **Natural Gas**: piping location and size, pressure; ownership; main valves and lateral shutoff valves, meter locations;
- **Telecommunications**: fiber optic, telephone, cable TV; underground cable and ductbanks; overhead cable and poles; junction boxes and handholds;
- **Central Steam and Condensate Distribution**: underground piping location and size; system pressure, manhole size and depth. Include location and size of meters, traps and tunnels;
- **Central Chilled Water Distribution**: piping location and size, valves, vents and drains.