

AS-BUILT BEST PRACTICES

Times are changing. Contract owners, private or public DOT's, are requiring As-Builts to include PDF documents showing Toposhots as well as CAD showing the modified linework based on the points shot.



These best practices make for a quick turnaround and, in the end, a quicker release of your retainer. These recommendations for performing a GPS-based As-Built in the field. Reduce turnaround time and create an As-Built that will be accepted by GC, DOT, or anyone else requiring a CAD based As-Built.

As a rule, do not overshoot topo-shots. Taking topo shots one foot apart from each other creates a large file and requires the engineer to delete many points on a point by point basis. This adds up to quite a bit of time. Use the table as a guideline and do not shoot any item that do not need to be shot.

In the table below, each utility will be identified, and important points will be listed. Note, this guidance may not work for every case. Good luck with your As-Built.

Utility	Suggested Layer Name	Description	Important Points to Shoot
Drainage	AB_DRAIN	Size and Type of Pipe (Ex: RCP_12inch)	Center of manhole rims, center of catch basin rims, pipe inverts at structures, top of every straight run of pipe at an interval of 25' and at every deflection point, drainage ponds
Electrical/ Telecom	AB_ELEC	Size and number of conduits (Ex: 4_2inch)	Center of hand hole rims, sweeps – beginning, middle, and end of sweep, straight runs – top of every 3-5 sticks of conduit, corners of transformer/generator pads, top of duct banks
Gas	AB_GAS	Size and Type of Pipe (Ex: Steel_4inch)	Center of gas gate cover, center of gas valve at the nut, sweeps – beginning, middle, and end of sweep, straight runs – top of every 20 feet
Sewer	AB_Sewer	Size and Type of Pipe (Ex: PVC_6inch)	Center of manhole rims, pipe inverts at structures and building entry, top of cleanout covers, top of tanks (four corners)
Water	AB_WATER_Main	Size and location shot (Ex: Bell_6inch)	Center of water gate cover, center of water valve nut, top of every bell (will come in useful if you have a slow leak in a pressure hold test), any mechanical connection (11.25, 22.5, 45, 90), Meter pits
	AB_Water_Service	Size and location shot (Ex: Corp_2inch)	Top of water corp, top of pipe at every bend, entry into building, top curb stop cover
	AB_Water_Fire	Size of pipe and location shot (Ex: Valve_4inch)	Center of water gate cover, center of water valve nut, any mechanical connection (11.25, 22.5, 45, 90, T), top of hydrant nut
Concrete/ Pavement	AB_CONC_PAVE	Material (Ex: BIT, CONC)	Edge of pavement and concrete walks, pads, etc. Shot at any change of direction, grade breaks, and every 25 feet of straight path.

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(877) 572-3414

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