



Field Survey Photo Guidelines

What is it?

These are the guidelines for taking and managing field survey photos.

Why is it important?

Field photos are an important part of the data provided by the field crew on every survey. EVERY field survey should include field photos. These photos are important for a number of reasons:

- 1) They help the office surveyor interpret and analyze field data.
- 2) They preserve an important legal record for boundary surveys.
- 3) They may be included as part of the quality assurance/quality control document that is provided to a client or reviewing agency.
- 4) They may be part of a deliverable to the client.
- 5) They can be used to quickly answer a questions from the client or design team about a project site.

Roles and Responsibilities

The *Project Surveyor* is responsible for the following tasks related to field survey photos:

Communicate to the Field Survey Coordinator and Survey Field Crew Party Chief and special requirements related to field photos. (For example: Take photos of both ends of a creek/road culvert.)

The *Survey Field Crew Party Chief* is responsible for following tasks:

To take photos during the field survey.

To download and rename photos after the field survey is completed.

The *Assistant Surveyor/Drafter* is responsible for the following tasks:

To review field photos when resolving boundaries.

To review field photos before and after drafting topo mapping.

Peer Review

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The *Field Survey Coordinator* or *Project Surveyor* reviews the field photos after each field survey.



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RH Guidelines
Field Survey Photos

Schedule

- Field photos need to be taken BEFORE the field survey is completed and the field crew leaves the job site.
- Field photos need to be downloaded and renamed immediately upon returning to the office on the same day of the field survey. If that isn't practical, field photos should be downloaded and renamed the following morning before starting the other work for the day.

Methods For Taking Field Photos

Field photos should be properly lit and composed (taken from the right point of view). Digital photos are inexpensive. Take more photos of a project site than you think you will need. A few extra minutes spent on the project site taking photos may save hours in the office or an extra trip back to the project site.

GPS-Enabled Cameras: We have a GPS enabled field camera for use by survey field crews on mapping projects. This camera will automatically stamp the GPS location of each photo taken with the camera as long as the GPS signal indicator shows the camera has a good satellite lock. The office software used to download photos from the camera will automatically georeference the photos and allows them to be viewed on a map. The GPS enabled field camera should be used to take photos for mapping projects whenever possible.

Route While Taking Field Photos: Whenever it is practical please follow a logical route when taking field photos of your project site. This typically involves moving from one end of the project down to the other end while taking photos. In some cases you may move in a loop while taking photos. (The Project Surveyor may give you specific instructions on how to acquire photos for a complex site.)

Tips For Good Site Photos

Remember these quick tips for good project site photos:

Think about light: Bright sources of sun and deep shadows can cause problems with the exposure of your photos. This is especially a problem if you try to capture really bright areas and really dark areas of a project site in the same photo.

Remember your point-of-view: Don't forget to look up and to look down when walking a site for project photos. Photos looking up capture important details on buildings, structures, lights, and overhead utility poles and wires. Photos looking down capture important details on utility features and hardscape



features like curb and sidewalk. Do you need to zoom in for more detail? Do you need to zoom out to capture the entire subject?

Panoramic Photographs: We can automatically create panorama photos in the office using software if needed. You can take multiple overlapping photos of a site feature for a panorama if the site feature is too big to fit into a single photo.

GPS: Make sure your camera is receiving GPS signals so your photos will be georeferenced. This allows us to plot them on a map background back in the office.

Storage and Clean-Up of Field Photos

After field photos are taken the field surveyor should complete the following steps:

- 1) Download the photos and store them in the Photos folder of the Project folder. The photos should be stored in a sub folder with the date the photos were taken as a prefix and a short description. (For example: "2014-03-19 Site Photos")
- 2) Rename the field photos. In most cases the photo file name has two (2) parts. The first part is a prefix with the date of the photo. The second is a sequential numeric ID. (For example: "20140319-011") Photos of property corner monuments should include the same date prefix in their file name, but the second element of the file name is the monument point number. Each subsequent photo of the monument is assigned a sequential numeric ID as the third element of the name. (For example: The first photo of a property corner monument with a surveyed point number of 321 would have a file name of "20140319-321-01". The second photo of this monument would have a file name of "20140319-321-02".)

Please note: The Project Surveyor may provide specific instructions to the Survey Field Crew on the type and number of photos to be taken or on the naming convention depending on the requirements of the project. Please remember that the field photos may be part of our deliverable to the client on the project. It is important that the Survey Field Crew follow the directions given by the Project Surveyor about the field photos.

Reminders On Field Photos For Specific Types Of Field Surveys

Please remember the following points about field photos on each type of project:

Boundary Surveys

A] Field photos should be taken of every found property corner monument. Provide at least the



following photos for each property corner monument:

- A close-up photo that shows the condition of the monument, the type of the monument, and any stamping or markings that help identify on the monument.
- A set-back photo showing the immediate vicinity of the monument and its setting (for example: a monument box).
- A set-back photo showing any important physical occupation near the monument (for example: a fence or block wall).

B] Field photos should be taken of every search area where a monument is not found. The photos should clearly show:

- 1) The area searched.
- 2) Any obstructions to the search or site features that cause pin-finder interference.
- 3) Any important physical occupation near the monument (for example: a fence or block wall).

Topographic Surveys

- Try to obtain photos that cover the entire portion of the project site that will need to be drafted.
- Take photos of all utility features on site. If necessary, take a set-back photo showing the location of the utility feature in its immediate surrounding and another photo that is zoomed in enough to allow proper identification of the utility type or utility markings.
- Look up. Take photos that include the tops of street lights, parking lights, signs, billboards, and overhead utility poles. Capture the location of overhead utility wires.
- Look down. Capture photos of utility features that are at ground level. Capture important paint markings and striping on hard scape surfaces like parking lots.
- Take photos of all sides of all structures.
- Take photos of complicated hardscape areas that will assist with drafting and creation of the surface model.
- Take photos of large trees or prominent areas of vegetation if these will need to be identified on the topographic survey.
- Take photos of natural drainage features like ditches, pools, puddles, and marshy areas if these need to be identified on the topographic survey or will be important for the design.
- Take photos of your survey control or temporary benchmarks.
- Walk the site recording video on the 360 degree camera.

Laser Scanning Surveys

- Try to obtain photos that cover the entire portion of the project site or feature that will be scanned and modeled
- Take detailed structure photos.



- Take photos from each scanner position if photos are collected as part of the scanning process. This will help the drafter see what the scanner “sees” from each set-up.

Control Surveys

- Obtain photos of each control point monument occupied or set during the survey. This should include:
 - a. A close-up photo that shows the condition of the monument, the type of the monument, and any stamping or markings that help identify on the monument.
 - b. A set-back photo showing the immediate vicinity of the monument and its setting (for example: a monument box).

Elevation Certificates

- Obtain photos of each location at which a finished floor elevation is measured.
- Obtain photos of each location at which a lowest adjacent grade is measured.
- Obtain photos of all sides of the structure being certified.
- Obtain photos of all crawlspaces.
- Obtain photos of all vents in the sides of buildings.
- Obtain photos of all building attachments. (Porches, decks, staircases, utility pads.)
- Take photos of all surface utility features serving the building.