PART I EXISTING CONDITIONS

Chapter 1 Site Survey

Site Inventory and Observations Photographic Information

Site Inventory and Observations

Description

A site inventory and observations are integral to the design process. Some of the things they provide are:

- Document and evaluate the condition of existing context and site features as part of the development of a base plan.
- Provide a basis for the development of the site's opportunities and constraints.
- Observe and document any social or cultural factors that should be considered during the design development phase.
- Provide up-to-date site information in order to prepare accurate contract documents.

Assessing Site Conditions

In order to accurately assess existing site conditions, several visits to the site may be necessary throughout the various phases of the project, often with a different focus, depending on what phase the project is currently in. Site visits at various times of the day, days of the week and seasons of the year, and in varying weather conditions, may be required to gain a comprehensive picture of how the site may be used. Take plenty of field notes and document existing conditions with photos (see Photographic Information topic).

Some observations of user behavior and analysis can help to understand a site. An observation should indicate adjacent buildings, their use, entries and views into and from the project area.

Observing a space for visible clues as to what users do—and don't do—which can be done even when no one is present. Clues such as:

- Cigarette butts around a bench;
- A short-cut path worn across a lawn;
- Raised gardening beds full of weeds.

All tell a story. The location of these clues should be included on a site plan.

A systematic observation and recording of actual use should be scheduled at different hours of the day and different days of the week. Times and days might be determined in consultation with staff (at a staffed facility), or by casual observation at a more public facility, to ensure the major use periods are being covered. For each observation period, record all that is happening, as follows:

- Locate on a site plan the exact location of each user
- Number each of the located users
- Record against numbers in a field notebook the age, gender, and activity of each user
- Add arrows to indicate movement. Circle designated users to indicate people in a group

It is important to use a new copy of the site plan for each visit, as these activity maps will be used like stop frames in a movie. When all the observations are completed, the data can be aggregated onto one comprehensive site plan (typical pattern of use), aggregated by different variables (e.g., dot map of male/female use, adult/child use), displayed as bar graphs (e.g., of different activities, overall use by adults/teens/children), or displayed as a line graph (e.g., use throughout day). All the data recorded by this method is quantitative and is much more accurate than asking people.

However, this form of observation provides no information as to what people *feel*—why they come to this place. Interviews with users are essential to learn *why* they come to the space, *how often* they come, what they *like*, what they'd like to *change*, whether they *feel different* after being there (if yes, what it is about the place that helps them feel different). There are two basic ways of wording questions in an interview: multiple choice or open-ended. It is good to use both types.

- An example of a multiple-choice question is: "Do you come here more than once a day/once a day/once every few days/about once a week/less often?" You check the appropriate box corresponding to the response on the interview form; data is quantitative.
- An open-ended question might ask, "How do you feel after spending time in the garden?" Write down all that the respondent says. This provides richer, more qualitative answers.

Acceptable Practices

The physical site features should be inventoried and evaluated. Record quantity, condition (good, fair, poor), location, and any remarks for each of the site elements. Examples of site elements include but

6 SITE SURVEY

are not limited to: adjacent land use; public transportation; recreation equipment; curbs; walls; fence; etc.

Practices to Avoid

- Avoid rushing through a site visit. Well spent time during a site visit is always better than having to make repeat visits to gather information that could be gathered in a single, comprehensive site visit.
- Avoid scheduling too little time for a site visit. Often, a good deal of information can be gathered about how a site is being used, by just spending some time there and observing what takes place during the course of a day.
- Avoid making quick judgments about how a site is used based on one limited visit.

Photographic Information

Description

Photo documentation of every phase of a project, from existing conditions through completion, can save time, money, help answer questions and provide a basis for resolving disputes. With digital photography and the ease of storing photos, it is always better to take more photos than less.

The hardest photo to take is the existing condition "before" shot, after the project has been completed.

A systematic approach to site photography will provide an organized catalogue of photos that will be easy to access, as the need arises. An organized library of photos can provide many advantages, some of which include:

- A documentation of existing conditions prior to the start of construction.
- A good reference during the preparation of contract documents that can minimize additional site visits.
- Help respond to requests for information from contractors during the bidding process.
- Help respond to questions during the construction process.
- Confirm construction practices and document conformance or deviations with the contract documents.
- Resolve disputes and provide accountability, such as whether damage to existing site elements to remain occurred during the construction process.
- Documentation of how site elements have been constructed as well as underground utilities that will not be visible after the project has been completed.
- Provide before and after pictures of the project. After a project is completed, it is very easy to quickly forget how the site looked prior to the project being undertaken.
- Do not limit your photos to just your site. Document existing conditions of adjacent sites, sidewalks and streets, in detail, as often issues are raised by other owners during the construction process.



Figure 1.1 Existing wall on adjacent property documenting condition before the start of construction.

A camera with 6 megapixels or more is sufficient for almost all project photo documentation. An image can be zoomed in on the computer screen to a fairly high level of quality before becoming too pixilated. The highest optical zoom will help with detailed photos and close-ups,



Figure 1.2 Existing sidewalk adjacent to site. Documenting the existing trees, street light and utility pole provides information that can prove helpful throughout all phases of the project.

more so than digital zoom, which provides less digital quality. Most all cameras have variable quality settings that can be adjusted.

With higher megapixel cameras, it is best to shoot most photos at a medium setting, to keep the digital file size manageable for attachments to e-mails, which is often necessary for quick sharing of photos.

Assessing Site Conditions

Photographs taken during an initial site visit, as part of preparing a proposal or starting a design project, should be comprehensive and detailed. Think ahead and take photos that can be used later to create a digital visualization of your proposed design. As the design is not yet developed during these early visits, all design opportunities of the existing site should be photographed.

There can be a tendency to take many overall photos but not many detailed photos. This can lead to trips back to the site to confirm information that could have been contained in the initial photo series. Particularly useful can be photos that document specific details like whether a fence is installed in a curb or individual footings, is a curb or pavement in good shape or poor shape, is the pavement sinking in a particular area, does the drain appear to be clogged, etc. These are all examples of the type of photos that can help inform decisions during the schematic, design development and construction documentation phases.

Detailed photos that document the condition of existing site elements to remain and be protected can be invaluable if a question arises as to whether something was damaged during construction.

Whenever possible or appropriate, notes should accompany photos to explain why a particular photo is being taken. In the field, being able to note important information quickly is key. For specifically taken



Figure 1.3 Photos of existing conditions and proposed design visualizations. *Source:* Photos courtesy of Mark K.Morrison Associates.





Figure 1.4 Detailed photos are useful during the design development phase. Here the overview photo shows the corner condition in context with a detailed close-up of the wall condition.

photos, note the date, time, photo number, location, and description or reason the photo is being taken and why it is important. Develop a set of abbreviations to make this process go quickly in the field and expand those notes once back in the office.

Although identifying the location and direction a photo is being taken on a site plan is very helpful, this can be time consuming and not every photo needs that level of detail. Another approach is to take the site photos sequentially as you walk through the site, including enough context to relate the photo back to the plan and identify any close-up detail photos and their location. In this way, you can identify locations and elements on the site plan back at the office, just as if you were walking through the site with the plan in your hand.

Acceptable Practices

A project should be photo documented throughout all phases of a project, including but not limited to:

- Community or scope meetings
- Existing site prior to design or construction
- Existing conditions at time of bid
- Site preparation, access, staging areas, safety and security measures
- Demolition and removals
- Underground or unforeseen conditions
- Materials delivered to the site
- Excavation, compaction, installation of new materials
- Formwork and reinforcing
- Progress photos at regular intervals during the construction phase
- Completed project and any ribbon cutting or opening ceremonies

It is advisable to make sure the time and date stamp feature of your camera is set properly (but not to be displayed on the image). It is also a good idea to note weather-related factors that can be a factor during construction and provide important and comprehensive back-up for the photos. Saving the digital photos in computer folders labeled chronologically and by category can save time when needing to look back for specific photo documentation.

A set of existing site photos, progress photos during construction and completed project photos, all taken from the same vantage point, can be very valuable for comparison purposes. Be aware of where previous photos have been taken from and take subsequent photos from the same location and in the same direction.



Figure 1.5a







Figure 1.5c Photos of existing conditions (Figure 1.5a), during construction (Figure 1.5b), and this photo after completion taken from relatively the same location and in the same direction.



Figure 1.6 Using a ruler to confirm measurements in the field can be very effective, particularly when coupled with the ability to zoom in closer with a digital image.

For detailed photos and close-ups provide a ruler or object (like a pen) for scale and measurement. Photo documentation of specific measurements can provide valuable information and back-up during all phases of the project

Practices to Avoid

- Do not delay downloading your photos, take care of this task as soon as possible.
- Do not just download photos without organizing them into specific folders.
- Do not set the camera to record the date and time on the image, this time stamp can cover important information that you may need to see.

References

OTHER RESOURCES:

• Landscape Architectural Graphic Standards, First Edition, Hoboken, NJ: John Wiley & Sons, 2007.