

2.1 Introduction

Text provided by ENCON Group Inc.

The Communication section of the manual appears at the beginning of the guide because we know that good communication is crucial to the success of a land surveying firm.

This section will contain some general information and is followed, in section 2.2, by a series of checklists to help you cover some of the non-technical basics of a project.

Communication is not a significant part in the training of most land surveyors, but like business management, it can be a critical variable in both career development and the growth of a successful business. Professional qualifications, hard-won experience and technical expertise may be wasted if poor communication alienates clients, disrupts a practice or delays projects.

Poor communication can result in claims, but faulty records and inappropriate messages can make a bad situation worse. They can make it impossible for an insurer to mount an effective defence, even against claims with little or no basis in fact.

Communication may well be ‘soft science’, but the hard fact is that surveyors must communicate the right message to the right people at the right time, clearly and effectively. Like any other skill, it can be learned. Like any other business process, it can be standardized and documented. And like any other practice procedure, every member of the survey firm team can do it right. This section will point to some areas surveyors should consider.

2.1.1 Internal and Intra-office Communication

Once you have negotiated a contract, be it complex or straightforward, make sure all your employees and subcontractors understand the practical relevance of the terms in their daily work. There is no point in protecting yourself on paper if you leave yourself exposed in reality by not passing the information onto your staff. When every member of the team knows what the client expects, the chances of a claim go down.

There must be formal channels of communication between offices or departments. People are both the assets and image of the firm, so it is only fair to them and to the client to make sure that everyone has the support and advice of other members of the team on the project.

2.1.2 The Contract

A contract is critical to good practice management. In fact, it is so important that we have created an entire section in this manual to deal with the issue. However, there are few crucial points that the surveyor should consider with regard to contracts and good communications.

Every project, large or small should have some form of a contract. The contract is your opportunity to formally set out for your clients the work you are agreeing to perform for them.

The contract need not be long or contain lengthy paragraphs of complex legal terminology. Contracts may simply be a short letter outlining the parameters of the survey work. Nonetheless, a contract is essential to successful project management.

Once a contract is in place it must be referred to regularly and kept current. Any changes or additions to any portion of the document must be properly documented and communicated to everyone involved.

2.1.3 Other Client Communications

Make sure you have a clear understanding of the owner's expectations. Many people, and too many owners, do not understand the roles and responsibility of the land surveyor on a typical project. It is up to you as the professional to clearly communicate what you will and, if necessary, what you will not be undertaking on the project.

2.1.4 Communication with Other People on the Project

It is important to communicate, in writing, with other people on the project if your work overlaps. This includes client representatives, other professionals, trades people and representatives of local authorities. It is important that the roles and responsibilities of the land surveyor, including the scheduling of work and outcomes or deliverables, be clearly communicated to any other party that could affect the work's progress. Especially important is the timely communication and documentation of any changes.

2.1.5 Records

There should be a formal system of record keeping on each project and the records should include, at a minimum, the following material:

- a resume of every job site meeting and key points that were discussed;

- a copy of every memo sent to other parties involved in the project;
- all documentation related to change orders;
- a resume of all oral advice given to the owner and the contractor including notations of all telephone conversations;
- accurate records of all advice given by the surveyor to the contractor or owner or both, with written confirmation of their acceptance or rejection and the surveyor's opinion of the inherent risk.

Records should be retained at least until the end of the statute of limitations, which effectively means that the records should be kept indefinitely.

Pre-printed Forms

The burden of remembering and completing written records can be eased somewhat by providing pre-printed forms, where possible with 'pick-lists' that allow surveyors, as often as possible, to simply check off points or write in a few words.

Audio Tape/Cassettes

In some situations, it may be useful for a land surveyor to dictate site notes onto audio tape, rather than attempt to take notes on many issues. Later, those recordings can be transcribed or stored, but they will only be useful if labelled correctly and if accompanying written notes provide a summary of the tape's contents

Visual Record Keeping

Visual means, such as video, digital still photos on hard drive or CD, date-stamped are other useful ways of capturing detailed information in a short time. Images can be stored on hard drives or systematically transferred to CD-ROM for permanent storage and instant retrieval.

2.2 Checklists

The following checklists have been adapted for use by Land Surveyors from “Practice Management: A Practical Guide to Professional Liability for Design Professionals” published by ENCON Group Inc. Seven individual checklists are included in this section covering the following aspects of project management.

- Client Evaluation
- Project Evaluation
- Contracts
- Agreements with Sub-Consultants
- Change Orders
- Written Records

The checklists are designed to be easily reproduced and used in conjunction with other communication tools on a project by project basis. They may be used in the form in which they appear here, or modified to suite a particular practice or project. If you would like MS Word™ format of these checklists, please contact the Professional Surveyors Canada office at info@psc-gpc.ca or 1-800-241-7200.

2.2.1 CLIENT EVALUATION Checklist

CLIENT EVALUATION

- Is this a regular client? A first time client? Is this client likely to need special attention?
- Will you be contracting with or dealing with an owner, a vendor, a purchaser, a lawyer or a realtor?
- Does the client have experience with this type of project and do they understand exactly what they need and/or want?
- Does the client have a reputation for litigation?
- Does the client have enough money?
- Is the client realistic about time and budget constraints?
- Does the client understand the professional nature of your services?
- Are there any special issues to be addressed in the professional services agreement?
- Does the client link payments for services to events beyond your control?

WARNING SIGNALS THAT THE CLIENT MAY FILE A CLAIM

- Refuses advice about scope of service or level of effort.
- Will not negotiate fair terms and compensation.
- Insists on unrealistic performance standards like “highest” and “most economical”.
- Insists on being indemnified but will not indemnify the surveyor or other consultant.
- Insists on services being performed to an unreasonable schedule.
- Refuses to (conscientiously) consider advice about contractor.
- Refuses to pay, especially when services are complete.

WHAT AN OWNER SHOULD UNDERSTAND

- The inter-relationship between the professional surveyor’s responsibilities and others involved in the project will dictate the timing of deliverables and may be outside of the surveyor’s control.
- In construction related projects, the surveyor must provide an appropriate level of field services to ensure that the contractor is building the project in conformity with the design specifications.
- If owners use their own personnel or subcontracted technical firms in the field rather than the professional’s field services, contracts must reflect this accurately and relieve surveyors of liability for such field review.
- In projects that include boundary retracement the surveyor provides a professional opinion as to the location of a boundary not a guarantee or statement of absolute fact.

2.2.2 PROJECT EVALUATION Checklist

PROJECT EVALUATION

- Are the project budgets realistic?
- Are the deadlines realistic? Are they flexible?
- What is the condition of the local economy?
- What laws, rules and regulations could have an impact on the project?
- Have required permits and approvals been either received or can they be reasonably expected?
- What is the attitude of the government and the local community about this project?
- Is this project being competitively bid? This method leads to more litigation than negotiated contracts.
- Is this a joint venture?
- Is this a school, hospital or condominium project? Again, these all attract more litigation than other projects.
- If this is a public project, has funding been approved?
- Do you understand the necessary scope of services for the project?
- Do you have the time, the experience and the expertise?
- Will there be unusual sub consultants or services to coordinate?
- Will the compensation for your services be adequate?
- Is it reasonable to expect a profit from this job?

HOW TO EVALUATE A CONSTRUCTION RELATED PROJECT

- Did the owner: describe the project requirements; state performance criteria; produce a detailed scope of work; write terms of reference?
- Does the Request for Proposal (RFP) indicate a knowledgeable owner?
- Did the owner prequalify a list of surveyors?
- Do other professionals involved in the project have a good track record and the required expertise?
- Does the contractor have a good track record on similar projects?
- Does the contractor have the financial capability for the project?
- For public projects, is there strong political support and funding in place?
- For private projects, can the owner afford it? Are there any environmental problems or political opposition?

SCHEDULING

- A realistic schedule will take into account possible sources of delay, including delays caused by client approval or legal/regulatory approvals. It is best to be conservative.
- Review client requirements carefully. If the client insists on project completion as soon as possible, do not shorten your normal schedule. The greater the pressure, the more prone you will be to errors and omissions.
- Establish a data bank of past jobs. The information should help identify activities associated with delays and people involved.

2.2.3 CONTRACTS Checklist

CONTRACTS

Properly written contracts are absolutely essential to protect the professional. This checklist is not exhaustive but it does touch on many important points. Legal advice is often warranted.

- Be sure the contract is written.
- Be very careful in modifying the standard forms. Consult your lawyer if you intend to use non-standard contract forms or in developing a standard form for your firm.
- Make sure you know the implications of the contract on your insurance coverage.
- Any changes to the services to be performed should be in writing and made on the basis of an amendment or supplement to the original agreement with the client.
- The contract realistically defines the surveyor's services, including both field and office based services and appropriate provisions for research in case of boundary retracements.
- The contract is compatible with the contracts of other parties involved in the project. There should be no inconsistencies and no doubling up of duties and responsibilities.
- The contract should accurately define the surveyor's responsibilities with realistic targets and an acknowledgement that there are many elements beyond the surveyor's control.
- The contract should not include express warranties or guarantees that would nullify the surveyor's professional liability coverage.
- The contract should include no indemnify clauses by which the surveyor assumes others' liability. In law, consultants are responsible for their errors and omissions and those of their sub consultants and employees; they should not assume other liabilities through the contract.
- The contract should describe the client's requirements and the information and data, which the client will supply to the surveyor.
- There should be provision for an equitable adjustment of fees if the owner suspends and later resumes the project. Is there a financial penalty for termination at the owner's convenience?
- Is there a non-payment clause? Can you stop work without liability for consequential or other damages?
- The contract should distinguish between Basic and Additional services and stipulate adequate remuneration in each case.
- The contract should cover transfer of ownership of your documents, and protect you against the consequences of misuse by others in the present and subsequent projects.

2.2.4 AGREEMENTS WITH SUB CONSULTANTS Checklist

AGREEMENTS WITH SUB CONSULTANTS

There should be written contracts with all sub consultants. The agreements between the professional surveyor and each of the independent consultants should describe in detail the separate duties and responsibilities of each. Because almost all design and construction projects involve multiple contracts, they should be similarly constructed to avoid conflicts and ambiguities.

The following points of coordination deserve attention:

- quality control requirements and responsibilities
- design criteria and standards, drawing or CADD file format
- schedule requirements
- budget requirements and any construction cost limitations
- terms and timing of payment
- use and ownership of documents
- terms and provisions for termination
- dispute resolution provisions
- insurance requirements, including certificates of insurance
- limitation of liability provisions

2.2.5 CHANGE ORDERS Checklist

CHANGE ORDERS

- Construction contracts should contain provisions for preparing and executing documentation related to changes.
- Use standard change order forms.
- Use the same care in preparing change orders as was taken in preparing the original documents.
- If the time needed to respond to changes affects construction scheduling, inform the contractor and client immediately.
- Communicate all changes and the reasons for them to the contractor and affected sub consultants.
- Do not act on any change orders until the client approves them in writing.
- Document all telephone calls about changes.
- File correspondence so it remains accessible.

2.2.6 WRITTEN RECORDS Checklist

WRITTEN RECORDS

Records should be kept indefinitely, because there is no time limit on the surveyor's professional liability. There should be a formal system of record keeping on each project. When beginning a new project, it is good practice to check the contract to see what documentation is required. Prepare a checklist of all contract notice and record retention requirements. The field records should include, at a minimum, the following material:

- Field notes and field data records compliant with all current guidelines and regulations prescribed by the relevant surveyors association.
- A resume of every job site meeting and the key points that were discussed.
- A copy of every memo and correspondence sent to and received from other parties involved in the project.
- All documentation related to change orders and claims for extras.
- A resume of all oral advice given to the client and to the contractor including notations of all telephone conversations.
- Accurate records of all advice given by the surveyor to the contractor or client or both, with written confirmation of their rejection and the surveyor's opinion of the inherent risk.
- Complete report on all site visits.
- A description of all circumstances surrounding instances of lack of cooperation on the part of any other party.
- Updated and revised plans and instructions, including a running account of all known revisions and changes made to the original plans and instructions.
- A complete set of progress schedules and updates.
- A daily job site log which includes:
 - The author's name
 - Relative stage of completion
 - The date and time
 - Employees on the job and their responsibilities
 - Weather conditions
 - Equipment on the job
- Any problems encountered during the reporting period.
- Photographs to document progress or failures/deficiencies
- Any change to your mandate must be documented, including its impact on fees.