

Topic 4 Section 5

Site Organisation and Administration

Contents

Introduction	2
Commencing the Contract	2
On-site Working Relationships	3
Contract Administrative Procedures	6
Importance of Record Keeping.....	11
Section 5 – Assessments and Activities.....	16

Introduction

The following discussion of administrative structures and record-keeping requirements on site are mainly those used by a principal or owner, particularly the Queensland Department of Main Roads. The corresponding discussions for contractors can be found in Sections 4 (for administrative structure) and 12 (for record-keeping) in this topic.

The administrative structure and record-keeping requirements adopted by private owners (e.g. for subdivisional work) and by contractors will differ from those described here.

Commencing the Contract

When the contract commences, it is necessary to set up the basic administrative and technical procedures that will allow the two groups to work together.

Pre-Start Processes

In many cases, the parties to the contract reach agreement on administrative and technical procedures at an informal meeting—for example, between the superintendent, resident engineer and contractor's representative. There is an option to hold a formal pre-start conference, as described in the following discussion. This is common where government contracts are involved. However, where the work is being performed for a private owner (e.g. in a residential subdivision), the informal meeting is usually considered adequate.

Pre-Start Conference

Shortly after the issuing of the letter of acceptance, the superintendent or resident engineer will convene a pre-start conference. The matters normally discussed at this conference include:

- Appointment of resident engineer and the extent of his or her delegated responsibility
- Appointment of inspectors and the extent of their authorisation
- Appointment of the project manager (contractor's representative)
- Contractor's supervisors and their responsibilities
- Nomination of contractor's quality representative (CQR)
- Nomination of safety officers
- Award, pertinent regulations and hours of work
- *Workplace Health and Safety Act* and others that may affect the operations on site
- The system of communications between the two organisations
- Procedures for request for materials testing, measurement, survey requests, inspections and progress payments
- Contract documents and any relevant issues that require clarification.

After the pre-start conference, the superintendent will issue a written confirmation of all issues discussed at the meeting. This is made available to all of the resident engineer's staff. All staff are urged to read and fully understand the issues set out in the document.

On-site Working Relationships

The working relationships that are established between people in the resident engineer's and contractor's organisations are important, in that they will ultimately determine the outcome of the contract.

General Principles

In the administration of contracts, the following principles should always be applied:

- All staff must, at all times, aim to build and maintain good relations on site.
- There must be regular contact between the various representatives, and an established system of communication between them. The aim of this is to avoid (or at least minimise) potential differences of interpretation, especially those that could give rise to on-site disputes.
- All players expect to work with, and be guided by, the plans and specifications. If there is an error, people should interpret the specifications in terms of their intent rather than the literal meaning.
- All contractual obligations are met promptly. There should be no impediment to the flow of money, provided that the standard of work is accordance with the contract documents.
- The superintendent or resident engineer must have the principal's authority to make, and be capable of making, important decisions without unnecessary delay.

Resident Engineer's Organisation – Relationships

The resident engineer sets up and is responsible for the on-site organisation. However, the engineer's role is to maintain an impartial approach to the contractor's work. He or she is therefore mainly free from matters of daily routine.

The resident engineer is doing his or her job correctly by maintaining a broad overview of all contract work activities, including technical, administrative, personnel, etc. and should not be restricted by the fact that any one section is located on the site.

Every person employed on the job needs to fully understand his or her duties and responsibilities. This can only happen if there is a well-organised communication system. At any time, each person must know the answer to these questions:

- What action is required?
- How will it be implemented or carried out?
- Who will do what and when?
- How will the contractor react?

Everyone in the resident engineer's organisation will be involved in informal and formal working relationships on site, and will have both legal and moral obligations to people in the contractor's organisation.

Informal Relationships

People on site will build up informal relationships as the job progresses. However, everyone concerned must:

- ensure that all organisational structures continue to apply
- ensure that responsibilities are recognised and fulfilled
- recognise that either the resident engineer or the project manager can over-ride any decision, if the person who made it was acting outside their legitimate area of authority or responsibility
- recognise that all issues are still subject to the conditions of contract.

Formal Relationships

Formal relationships on site are usually organised as follows:

- The resident engineer is responsible for the administration of the contract. An inspector is responsible to the resident engineer and must (where appropriate) refer matters to the resident engineer for decision.
- There may be more than one inspector on a project. Each inspector will be responsible for particular aspects of the work. The resident engineer will allocate duties and indicate who is in charge.
- The responsibilities and duties of inspectors and other staff are discussed at the pre-start conference. However, the inspector and the contractor's representative are responsible for establishing and maintaining good working relationships between the two organisations for the duration of the contract.

Legal Obligations

The legal relationship between the principal and the contractor over-rides all others.

Contractor's Legal Obligations

The contractor is legally bound to undertake the work in accordance with the contract documents.

It is the contractor's responsibility to devise or determine the actual means and methods of undertaking the work. The contractor must carry out the work:

- in accordance with the contract documents
- without causing nuisance or undue inconvenience to the public
- using sound construction practices
- in accordance with the *Workplace Health and Safety Act* and regulations.

Resident Engineer's Legal Obligations

The resident engineer and staff are required to act fairly and honestly in their dealings with the contractor and staff.

The resident engineer, inspectors and other staff have no right under the contract to dictate to, or even to advise, the contractor. This applies as long as the contractor is meeting his or her obligations.

However, in some circumstances, the resident engineer (but not the inspector) may instruct a contractor not to perform certain actions. This would be a valid course of action where:

- the contractor's proposed action would not be in accordance with the contract documents.
- there are sound technical reasons.
- there are safety reasons for the instruction.

Moral Obligations

In all forms of construction carried out by contract, the resident engineer's staff have certain moral obligations. These affect both their actions and their dealings with the contractor and the principal.

No member of the resident engineer's staff has the right to accept or expect any favour that may be construed as personal gain. The term 'favours' includes a very wide variety of goods and services, and includes discounting or other privileges. There are written guidelines to cover such situations, and all staff must abide by them.

Obligations to the Contractor

Members of the resident engineer's staff have the following moral obligations to the contractor:

- to be co-operative and helpful, and to act honestly and fairly
- to avoid disrupting or impeding progress
- to give decisions without undue delay (when required)
- to point out any matters in the plans and specification (including formal instructions) that appear to have been misinterpreted or overlooked
- to avoid discussion or disclosure of job information, problems with the contract or contractor etc., while away from the job.

Obligations to the Principal

Members of the resident engineer's staff are morally obliged to safeguard the principal's interests and reputation.

Contract Administrative Procedures

The purpose of contract administrative procedures, as discussed below, is to ensure work proceeds without disputation or misunderstanding. The main procedures used to ensure that the work proceeds as smoothly as possible are:

- briefing of inspectors
- written communication
- issue of site instructions.

Briefing of Inspectors

On large-scale construction projects, the resident engineer may take the time to conduct a formal briefing of the staff. The aim of this session is to advise staff of their duties and responsibilities. The briefing may cover such matters as:

- General areas of responsibilities of each inspector.
- On large projects, the appointment of a senior inspector, who will be responsible for administering the work of other inspectors.
- Allocation of tasks and of sections of the plans and specifications to inspectors.
- How frequently quality and quantity checks and inspections are to be carried out.
- Who will be responsible for inspection work and how it will be done, e.g. by soil testers.
- Limits of the authority of inspectors.
- Within what limits inspectors can direct the contractor's representative.
- Persons to whom inspectors are responsible, e.g. to the site engineer or another inspector, or directly to the resident engineer.
- The contractor's program, and the anticipated start and finish times and durations of the various stages of construction.
- The contractor's planning documents, including the environmental management plan, quality plan, safety plan and traffic management plan.
- Instructions applicable to specific issues, such as industrial awards, the public interest, and adjacent land owners.
- Record-keeping requirements, including 'as constructed' drawings, the job diary and photographs.
- Job safety and appointment of a health and safety officer.

These briefings should take place:

- before the start of the job.
- at the commencement of a new stage of the works.
- when the area of responsibility of an inspector is altered.
- each time a new inspector is appointed.

Written Communication

Written communication is preferred in all matters relating to the formal exchange of operational information between the two organisations. There are four reasons for this:

- To ensure all parties are meeting their contractual obligations, and to clarify verbal discussions where the need arises.
- To provide written confirmation of formal instructions or requests made by the superintendent or resident engineer.
- To keep the organisation's head office informed of progress.
- For future reference, especially during lengthy contracts.

Because of the legal implications, both the resident engineer and the contractor prefer to handle all on-site instructions in writing. The most common procedures are for the resident engineer to give an instruction to the contractor in writing, or to make a verbal instruction that is immediately followed up by a written instruction.

Where the resident engineer gives a verbal instruction, it must be recorded in the job diary. This written record remains current until the resident engineer confirms it with a written instruction. Where a conversation between the resident engineer and the contractor results in the issue of a verbal instruction, it is recorded in the diary together with the names of witnesses to the conversation.

Issue of Site Instructions or Directions

The resident engineer is authorised to issue an instruction (also known as a direction) to the contractor's representative. The inspector has no authority to issue instructions, except as delegated. Inspectors must never forget that any instructions they issue are on behalf of the resident engineer.

Procedure for Issuing Instructions

Directions may only be issued to the appointed contractor's representative. This is the person the contractor has nominated at the commencement of the contract, for the particular work being undertaken.

Only the superintendent and the resident engineer, or those inspectors authorised by the superintendent, may issue directions to the contractor's representative. The resident engineer or superintendent must, at the commencement of the contract, ensure the contractor is aware of the names of the persons who have this authority.

When Instructions are Used

The resident engineer issues a site instruction when some aspect of the job does not conform with the drawings, specifications or allied job instruction.

In such cases, the inspector should:

- point out and discuss the matter with the contractor's representative, using the contract documents for support.
- make an entry in the job diary when contractor's representative agrees to, and takes, the necessary action.

However, if the contractor's representative either disagrees or agrees but takes no action, the inspector's subsequent action will depend on whether he or she has the appropriate delegation.

If the inspector has full authority to handle the problem, he or she can issue a written site instruction which should include:

- reference to the paragraph, clause or section of the drawing or relevant contract document
- a clear description of the action required to rectify the problem.

If the inspector has not been delegated the authority, then he or she must immediately contact the resident engineer, or a person with the appropriate authority, to resolve the issue.

If a person other than the holder of appropriate authority issues a site instruction, the principal may be in breach of contract, especially if the work is delayed.

Instruction Forms

A typical site instruction form is shown below.

SITE INSTRUCTIONS	No. W 00540
Instruction to	
Re Project at	B/A No
THE FOLLOWING ITEMS REQUIRE YOUR ATTENTION	
Item	
Signed _____ //	Received _____ //
Name _____	Name _____
Designation _____ Phone: _____	Designation _____ Phone: _____

Under normal circumstances, the resident engineer issues three copies:

- An original to the contractor’s representative, who is requested to sign the instruction to acknowledgment its receipt.
- Copy no.1, to the resident engineer, who may confirm the site instruction, if necessary, in writing to the contractor. The copy will then be filed with a copy of the letter.
- Copy 2 is retained on the job.

All staff should strictly adhere to this procedure. If a dispute arises, site instructions may be used as evidence— for example, if an arbitrator is called to resolve the issue. They may also be used as verification of a claim if extra work is involved.

AS 2124 Requirements for Site Instructions

The general conditions of contract in AS 2124 state clearly how and to whom instructions must be given. The term ‘direction’ as defined in Clause 23 includes agreement, approval, authorisation, certificate, decision, demand, determination, explanation, instruction, notice, order, permission, rejection, request or requirement.

Clause 23 also states, “Except where the contract otherwise provides, a direction may be given orally but the superintendent shall as soon as practicable confirm it in writing”.

If the contractor makes a written request to the superintendent to confirm an oral direction, the contractor shall not be bound to comply with the direction until the superintendent actually confirms it in writing.

Only two people are authorised to give instructions:

- the superintendent
- the superintendent’s representative (generally the resident engineer).

The clerks of works and inspectors do not have this power, unless they are the superintendent’s representative who has been delegated this authority.

Importance of Record Keeping

It is extremely important to establish and maintain records that document the both the progress of the work and the problems experienced.

Types of Site Records

Site records that are, or may become, important are as follows:

- Correspondence. Whenever the resident engineer gives a direction, or responds to or raises a question, it must be put into writing. Always ensure that all correspondence from the contractor gets an answer.
- Minutes of meetings. There may be numerous meetings during the course of a contract. Where these are formal meetings, one person should record the minutes and distribute them shortly after the meeting has been held. Compared to other meetings held during the course of the contract, the pre-start meeting is more important and the minutes taken at this meeting must be exact.
- The daily progress report is the most important document prepared on the field construction site (for more information, see later in this section).
- ‘As constructed’ drawings are updated regularly, to provide a record of any changes made to the work, as compared to the plans and specifications.
- Photographs (or video) can be very useful. While it may take 30 minutes to describe a problem in writing, it may only take a few seconds to take a photograph or video. A photograph may capture on film details that might be overlooked in a written report. The value of photographs has been proven on many past occasions where construction disputes have arisen and need to be resolved.

Job Diary

Both the resident engineer and the contractor keep a job diary. It provides a complete record of all construction and contractual events that occur over the period of contract. If a person who is responsible for the job diary keeps it up to date, it can provide:

- a means of communication between parties.
- a complete record of events
- a source of information that may be helpful in:
 - resolving claims
 - minimising disputes.
 - determining extensions of time
 - assessing losses due to unforeseen circumstances.

Therefore one of the inspector’s most important duties is to maintain the diary on a day-to-day basis, ensuring that it covers all significant happenings on the job.

The resident engineer must decide, at the commencement of the job, what the details are to be entered in the diary. These details will vary according to the nature of the contract. Typical headings are shown below.

JOB		CONTRACT No.	
DAY		WEATHER A.M.:	
DATE		P.M.:	
PLANT ON JOB			

Description	Hrs Worked	Location	Work Done	At Chainages

MEN EMPLOYED

Description	Hrs Worked	Location	Work Done	At Chainages

REQUESTS RECEIVED/ISSUED

1.
2.
3.
4.

Materials Delivered.....

Materials Ordered

Lost Time

Potential Extras

Site Instructions Issued.....

Because of its importance, the diary should always be kept in a secure place.

The job diary should be:

- up-to-date
- readable
- unbiased
- signed by the resident engineer.

Updating the Diary

One person should be responsible for bringing the diary up-to-date at the end of each day. Records must be entered on a daily basis, so that information is recorded while it is still fresh in the mind of the person making the diary entry.

Readability

The inspector should make rough notes in a notebook, then neatly rewrite the recorded information in the diary. Alternatively, the field notes may be recorded in a notebook computer and downloaded to the site office computer system.

Unbiased Record

The job diary must provide an unbiased record of all job happenings. The job diary is valuable in legal proceedings only to the extent that it deals in facts that can be verified.

Signature

The resident engineer should sign the diary each day or on each visit. If there are a number of pages, he or she should initial each one.

Diary Formats

Check lists for typical diary formats are shown on the following pages.

Date	Weather Rainfall	Plant Description	On Hours Worked	Job Work Done	At Chainages	Instuctions Issued	Requests Received	Remarks	Date
11/7/04	Morning Showery Heavy showers Afternoon Rainfall 1"	Cat 12 John Deere FL/Loader D4 S/F Roller Tandem D6 D6	3 ½ 3 ½ 3 ½ 3 ½ 3 ½ 3 ½	E/W fill E/W fill E/W fill Stripping Swamp section	19300 – 19700 19300 – 19700 19300 – 19700 19700 - 20400	1629 Layers not to exceed 6 inches Compaction not to spec.		Progress – very slow Disagreement on compaction standard. Soil tester required urgently. Informed Engineer	11/7/76
12/7/04	Wet Rainfall ½"			No Work					12/7/76
13/7/04	Wet Rainfall ½"			No Work				Overnight rain made materials unworkable. Some drying out of materials will be necessary.	13/7/76
14/7/04	Fine and Cloudy	Cat 12 Cat 12 D4 S/F Roller Tandem John Deere x 2 E/Scoop	7 3 5 ½ 3	Blade mixing – Drying Batters Rolling Drying out	19300 – 19700 19300 – 19700 19300 – 19700 19300 – 19700			Fill not trimmed prior to rain – pools in center. Considerable drying out required. Problem area 19300 - 19500	14/7/76
15/7/04	Fine	Cat 12 Cat 12 J.Deere Scraper x 2 D6 Dozer D6 Scraper D4 S/Foot Fordson Vib. Roller	10 10 9 ½ 9 ½ idle 4 9 5	Blade mixing Batters E/W fill E/W fill E/W fill E/W fill E/W fill	18700 – 19500 18700 – 19300 18700 – 19300 18700 – 19300 18700 – 19300 18700 – 19300 18700 – 19300	163D No further filling 19300 – 19500 until dried out and stability achieved in fill material already place.	20 Engineer to inspect before midday Monday	Fill must come out at 19300 – 19500. Water penetrated from top and sides. Informed Engineer of request.	15/7/76

Typical Diary Format

Records Required	Reason
PLANT ON JOB Contractor's	The number, type, condition and balance of the plant used may affect the duration, quality or cost of job.
MEN EMPLOYED Operators Labourers Specialists	Similar to above Disputes may arise on continuity of contract work.
WEATHER General description Rainfall (location extent)	May determine whether an extension of time is justified.
JOB CONDITIONS Related to weather How job affected	Confirms whether extensions of time are justified.
WORK DONE (use sub-headings) Drainage Earthworks Graveling Notes under headings show:- Start date or time Location (chainages) Plant used Progress against program (at least fortnightly)	Separate sub-headings make for better continuity. Location identifies area of work. Plant used may indicate that job conditions did not in fact stop work. From this information, progress may be assessed against the program and programmed completion date.
MATERIALS SUPPLIED BY DEPARTMENT Date ordered Date received Condition at point of delivery Method of transfer to job Storage method.	Extension of time against delay may be claimed. Disputes may arise regarding responsibility for damage.
INSPECTIONS (Acceptance only) Date and/or time Location Result	Disruption through undue delay may be claimed.
INSTRUCTIONS ISSUED Number Date and/or time By whom originated Brief reference to content	Reference to this record may determine quality, quantity or time problem.
REQUESTS RECEIVED Date and/or time Brief description Action taken Result	Reference to this record may determine quality, quantity or time problem.
UNUSUAL EVENTS Accidents Industrial problems Landowner problems Removal or relocation of Services Access to site.	Unusual events often influence the whole job and could lead to claims from other persons or Departments.

Section 5 – Assessment Activities

For information on how these assessment activities may be used as part of the learning process, see the section on 'Assessment' in the 'Topic Descriptor' section at the front of this topic.

Theory Questions

The following questions allow you to assess your progress in understanding the material presented in Section 5. The questions may be of any of the following types:

- multiple choice (identify correct answer or answers)
- multiple choice (identify incorrect answer or answers)
- fill in the gaps in a sentence or statement
- identify a sentence or statement as TRUE or FALSE
- write a few sentences or a short paragraph.

Answers to the questions are shown in the separate 'Answer' section.

Question 1

When would the resident engineer or another person with the correct authority issue a site instruction?

Question 2

Three copies of a site instruction are made. Where are these copies kept?

Question 3

It is important that records be kept during the course of a contract. Name three methods that may be used to keep records of job progress.

Question 4

A job diary provides a complete record of all construction and contractual events that occur over the period of the contract. What factors are important when keeping a job diary?

Question 5

Name three principles of contract administration.

Question 6

Name three ways in which the resident engineer's staff are morally obliged to the contractor:

Question 7

Name the three main contract administration procedures.

Question 8

Who issues a site instruction, and when?

Question 9

Name the four reasons to use written communication when dealing with the contractor and the resident engineer or his/her staff.

Question 10

Give three reasons why site records are important
