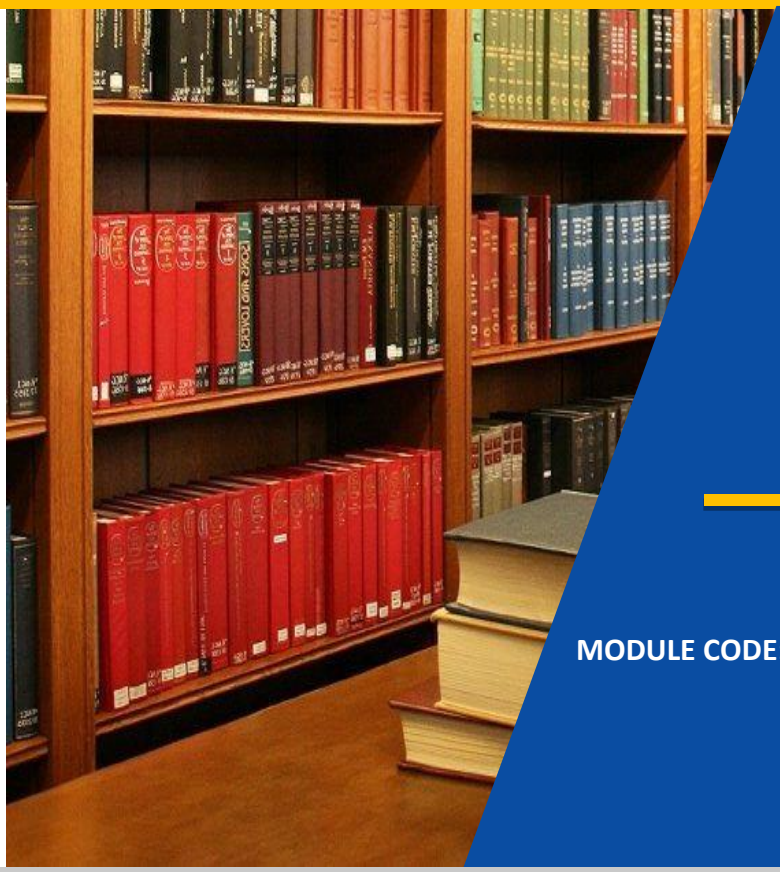
RQF LEVEL 5



TRADE: MASONRY

MODULE CODE: MASSR501

TEACHER'S GUIDE

Module name: MASONRY CONSTRUCTION SITE RECORDS

Table of Contents

LIST OF FIGURES

Acronyms

TVET: Technical and Vocation Education Training

TQF: Regulated Qualification Framework

MASSR: Masonry Construction Site Records

Introduction

This module describes the knowledge, skills and attitudes required for the mason supervisor to keep necessary records in his work.

The main goal of construction site record is to record and control the progress of construction projects. The Construction site records plans, coordinates and supervises the project from start to finish. They act on behalf of the owner, overseeing every stage of the project.

Module Code and Title: MASSR501 MASONRY CONSTRUCTION SITE RECORDS

Learning Units:

1. Identify site documents
2. Use site documents
3. Manage site records

Learning unit 1: Identify site documents

Picture/s reflecting the Learning unit 1

Source: arcalys.com

STRUCTURE OF LEARNING UNIT 1

Learning outcomes:

1.1. Differentiate site documents
1.2. Identify of data to be recorded
1.3. Select necessary documents

Learning outcome 1.1. Differentiate site documents

Duration: 7hrs

Learning outcome 1 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify properly site records to be kept in masonry.
2. Enumerate importance of site records in masonry
3. Describe properly the site documents use in masonry.

Resources

Equipment	Tools	Materials
Computer Printer		Site documents Books Chalk board White board Projector Pictures Pencil

		Pen

Advance preparation:

- Hand out 1.1. Masonry site documents
- Pictures/videos on masonry site documents

Content 1.1.1: Introduction to the site records

Records are generated when written instructions are followed. In other words, after data, information, or results are recorded onto a form, label, etc, then it becomes a record.

- ✓ A record is a collection of fields, possibly of different data types, typically in fixed number and sequence.
- ✓ Records are recorded information that is a vital information or knowledge resource for your organisation.
- ✓ Records are often created and kept because they are needed in order to conduct business, as evidence of past business, because they are required to meet legal obligations or because the community expects that they will be kept.
- ✓ Can be in any form such as: paper, any digital formats, or in other forms like Photographs,
  video footage, audio recording or microfilm.

Two categories of site records:

All records that are created during the administration of a construction project can be placed in one of the following categories:

Permanent Records, records kept by the Headquarters and State Archives for future reference, and

Temporary Records, records kept by the Region for a limited period of time after which they are discarded by the Region.

a. Permanent Records consist of the following, Records provided by Headquarters:

- ✓ Contracts

- ✓ Change Orders
- ✓ Contract Estimate Payments

b. Examples of Temporary Final Records include:

- ✓ Item Quantity Tickets
- ✓ Project Engineer's Copy of Estimates
- ✓ Project Correspondence
- ✓ The original Project Personnel and Signature Listing
- ✓ Inspector's Record of Field Tests
- ✓ Concrete Pour Records
- ✓ Approval of Source of Materials
- ✓ Quantity Computation Sheets
- ✓ Surfacing Depth Check Records
- ✓ Contractor's Payroll
- ✓ Importance of site records

The goal of maintaining site records is to provide the right information to the right person at the right time at the lowest possible cost. Records to be maintained at construction sites play an important role in construction activities. It is a document required to prove any construction activity has taken place at site during billing or any other claims. These records have all the data of various aspects of construction activities carried out at site. (Chandler, 1987)

a. For providing evidence in case of disputes: Construction site records maybe used for your own protection in disputes
b. Keeping field records may be beneficial for your client
c. Site diary helps in refreshing our memory about activities at construction site
d. Record keeping in construction projects helps you get clearer insight to what happened on site
e. To ensure continuity in administration
f. To ensure tax-payer's interest is protected at all times
g. For planning & scheduling organisation activities
h. For historical value
i. To make available needed facts, figures, correspondence etc
j. Documentation of workforce performance
k. Provide evidence about past actions and decisions
l. For accountability and transparency purpose


Theoretical learning Activity

In groups of 4, trainees brainstorm about the categories of site records


Points to Remember (Take home message)

Identification of site records categories
Importance of site records

Content 1.1.2: Site documents to be kept

A. Introduction

The documents used in construction projects can vary from project to project and according to the size of the project. The paperwork required to build a house is not going to be the same as for a large commercial project. However, there are documents that are common to every legal construction project, no matter what kind. Site supervisors must complete the daily report or site diary on a daily basis to record down what has been happening on each day during the Contractual systems; separate sets of records are typically kept by the two main parties on the construction site: the contractor and the supervisor. (Chandler, 1987)

The following are the various records that need to be maintained at construction site:

1. **Drawings and Drawing Register**

A Drawing Register is the controlled register of a list of drawings relating to a project and is used in the distribution of formal drawings to Architects, Engineers, Sub-contractors, Vendors, Fabricators, Government bodies and other parties in the form of a document identifying the information that is included in the drawings being delivered.

Changes to drawings often signify important changes to the contract and if these changes are not communicated quickly additional costs of millions could be acquired.

This Document enables the easy identification of the latest revision of each drawing and captures key drawing information such as the Drawing Number, the Drawing Revision, the Drawing Status, the Drawing Title, the Date Received, and the Originator of the Drawing, the Discipline, and the Type and is easy to maintain. (Chandler, 1987)

First and foremost, important records to be maintained on site are the working drawings approved by the clients and design engineer, based on which all the construction activities take place on site. There are different types of drawings required for construction; some of the basic required drawings are,

- Architectural drawing
- Structural drawing
- Plumbing & sanitary drawing
- Electrical drawing
- Finishing drawing etc…

2. **Contract Agreement**

Contract agreement documents including all sets of drawings, including amendments, a copy of approval of municipality, corporation or urban development authorities need to be maintained at construction sites till the completion of construction projects. This document provides permission and guidelines for all the activities carried out at the construction.

3. **Time and progress charts**

These charts help in tracking the construction activities from time to time and help in effective planning, scheduling and controlling the construction projects activities. These charts need to be approved by the concerned authorities.

4. **Work order book**

All the orders given by clients to the contractors need to be maintained with serial numbers, signatures and dates. These orders should be specific for work. This order should also have a compliance column.

5. **Work diary (logbook)**

A site diary is a document of first record; a site diary is where a competent site supervisor initially records any occurrences on site. Some items would then be further copied in secondary documents. Site diaries are also a place for supervisors to record contact details and other items specifically related to a given project for quick referencing. It is essential that a site diary must be filled out daily and incidences occur.

The roles of work diary

- A site diary is admissible in court in case of disputes as documentary evidence.
- Work cover will request to see the site diary in accident investigation.
- A site diary helps maintain and monitor hire equipment; it is crucial to record off-hire numbers to save further hire changes.
- It can be used to records attendances to allow for invoicing and charge out rates for contractors
- All lines not used must be crossed out so that daily records are not altered after an event or a work day has ended.
- A site diary is also known as construction log, site journal, company log.

Works diary of a construction project should indicate contract agreement number, name of work, amount of contract, date of commencement of work, date of completion and extension time granted.

All the relevant details need to be entered daily in the works diary. This serves an authentic record.

Following details need to be entered in this diary with due care;

- ✓ Weather at site
- ✓ Important materials brought to site with their approximate quantity
- ✓ Type of transport working at site
- ✓ Types of tools and plants being used at site important items of works completed and passed on the particular date.
- ✓ Important items of works completed and passed on the particular date
- ✓ Visits of VIPs and their remarks if any.

6. Photographs

Keeping track of progress and issues out on the jobsite is an essential part of your project. And while many things can be put into words, sometimes the power of a picture can speak volumes. Everyone involved on the jobsite should be keeping track – and that means using photography to document. Taking photos doesn't just have to be about showing your clients the site progress – they are useful for far many more reasons than that. (Harris, 1989)

Today we are taking a look at why you need to be documenting daily with your trusty camera, Smartphone and tablet photography or Aerial photography by the drones**,** while out on site.

- **The importance of construction photo documentation**
  - ✓ **Photos can provide site updates for head office**

By tracking team progress on site, construction managers can make decisions based on photos, site reports, and first-hand accounts from staff on the ground. Documenting the progress via photos here is essential in the decision-making process for those that can't attend.

✓ **Dated pictures keep a visual timeline of site progress**

When site photos are taken regularly, and always time stamped, they provide a visual timeline of your construction works from the very beginning of the projects. Here you can easily see whether you are sticking to planned schedules for delivery, are ahead or behind, and identify when important features start and end.

This documented visual timeline is especially important to keep when dealing with client and contractor disputes about schedules!

✓ **Photos can be produced as evidence to protect you from damage claims**

"This lift is all chipped! Your contractors have damaged it!"

"It wasn't my team; it must have been the plumbers"

"The plumbers said it was you!"

Avoid the he said/she said and guard yourself against fake claims. When photo-documenting the worksite before you start work, as well as during, and after, you can protect yourself from the sort of conversations like the above. You'll have proof of the condition of the site before, during, and after your contract should any situations regarding damage arise.

✓ **A picture captures all the little details**

Let's say that you need to go back in six months' time to a jobsite to make some further alterations. With photos captured already of all the details, you can check them out beforehand to know exactly what materials you will need and what you need to do before you even get onsite. This can save a lot of time and money – especially if it happens often!

✓ **Well-taken site captures are brilliant for your marketing efforts**

The pictures that you take can be used on your website, glossy brochures, and even in daily snaps for your social media accounts. The world is now documenting it's every move online – and your business should be too!

- **Site photography tips**
  - ✓ **Use scale in your pictures**

Whether it's with a measuring tape, your phone, or a hard hat, put an object in your picture that will show the image scale.

Make notes and annotations

If your picture needs explaining – then do so! Annotate your picture with arrows and free drawing if needed.

✓ **Use a flash**

If you have a dark jobsite, then you will need to invest in a flash to ensure that the image quality in your picture captures everything that you need.

✓ **Keep your photos organised**

You don't want to be sifting through every jobsite picture you've ever taken, just to find the right one. Arrange your photos in folders by project and date or milestone.

7. Purchase order

A purchase order, or PO, is an official document issued by a buyer committing to pay the seller for the sale of specific products or services to be delivered in the future.

> The advantage to the buyer is the ability to place an order without immediate payment.

A purchase order is a source document used by the purchasing department to place an order with a vendor or supplier. In other words, this is the contract that a buyer drafts to purchase goods from a seller.

8. Goods receipt note

Goods receipt note is a document created by a buyer on receipt of merchandise and which describes each good and details the quantity of each received. Record of goods received at the point of receipt. This record is used to confirm all goods have been received and often compared to a purchase order before payment is issued.

9. Approvals and inspection books

A building inspection is an inspection performed by a building inspector, a person who is employed by a city, township or county and is usually certified in one or more disciplines qualifying them to make professional judgment about whether a building meets building code requirements.

10. Work program (planner)

A plan of action aimed at accomplishing a clear site activity, with details on what work is to be done, by whom, when, and what means or resources will be used.

11. Instruction books

This instruction book provides an ideal paper line for onsite instructions to minimise professional client misunderstandings. It offers an ideal tracking mechanism for instructions that are recorded by the site foreman and signed and dated by the instructing party.

A site instruction is a formal instruction typically issued by the head or lead contractor with instructions and directives to other contractors or subcontractors. These instructions must be written and formalised because they fall outside the original project scope or plan - and hence require additional 'instruction'. Instruction types can also be customised for your specific project environment to include architect instructions, client instructions, site instructions, and more. You can also create a customised prefix and numbering scheme for each instruction type.

This tool provides team members on a construction project with the ability to capture and record all types of instructions (i.e., architect instruction, client instructions and site instructions for contractor)

Getting the format of your site instructions is important. Site instruction carries weight and importance, and can be important for legal and financial matters. In order to protect yourself against unfair claims and disputes, it’s important to keep a thorough and standardised site instruction template which you can issue every time.

In your site instructions, you will want to cover some basic logistical information which serves as evidence and organisational indicators such as:

- ✓ A form number for that particular site instruction
- ✓ The date of the instruction
- ✓ The type of instruction (contractor, subcontractor etc.

Outside of these obviously important details, your site instruction needs to contain the necessary detail for your records and so that the site instruction receiver can understand what is required of them. These additional details include:

- ✓ A description of the instruction outside of contract scope
- ✓ The reason for requesting works outside of the contract scope
- ✓ Photos of the work area (defects etc.) Which are critical to providing proof Later on, down the line

- ✓ Name the relevant subcontract or supplier being issued the site instruction
- ✓ Label and document the fore casted resources required
- ✓ Final checklist questions around whether or not an official site instruction is warranted and required
- ✓ Engineer/foreman and senior project engineer sign off for the actual issuing of the instruction

12. Site Reports

Summary of hourly- and daily- constructions and events at a worksite on every workday, prepared for the offsite project administrators. An essential document in construction projects, it records the number of workers/ employees and work equipment at the construction site, exact time the work began and ended, job progress, whether accidents if any, etc. on no-work days it reports NO-WORK DAY and serves as evidence in case of disputes.

Importance of site reports

- ✓ When the superintendent files reports, they tell the story of the project.
- ✓ They list the shortcomings and triumphs, acting as a historian for the project essentially.
- ✓ The construction daily report, while tedious, shows the transformation of the project from start to finish.
- ✓ Reporting in construction might seem like it is just for stakeholders since they are typically used to update them.
- ✓ The report was supposed to be a way to connect stakeholders who don't see the site every day and might not be familiar with the construction process to the project.
- ✓ The construction report helps everyone involved understand the performance, progress, and productivity on a project.
- ✓ They can see the cost estimate and compare it to actual cost.

 Theoretical learning Activity

- ✓ In groups of 4 trainees, brainstorm about the documents to be kept on site.
- ✓ In group of two trainees, discuss the importance of site records

✓ In pair desks, list the importance of using photographs on construction sites.

Practical learning activity

 Points to Remember (Take home message)

Description of site documents used on site
Description of site records

Learning outcome 1.1: Formative assessment

Written assessment

1. ……is a collection of fields, possibly of different data types, typically in fixed number and sequence.

(A) A purchase order
(B) A logbook
(C) A report
(D) A record

Answer 1: (D) A record

2. What are five importance of using photographs on site.

Answer 2: the following importance of photographs are:

✓ Photos can provide site updates for head office
✓ Dated pictures keep a visual timeline of site progress
✓ Photos can be produced as evidence to protect you from damage claims
✓ A picture captures all the little details
✓ Well-taken site captures are brilliant for your marketing efforts

3. Among the list below, choose the correct document used on construction site

(A) Purchase order
(B) Laptop
(C) Goods receipt notes
(D) Logbook
(E) Book

Answer 3: (A) Purchase order, (C) Good receipt notes, (D) Logbook

4. Answer by True or false? **Permanent Records,** records kept by the Region for a limited period of time after which they are discarded by the Region.

Answer 4: False

Learning outcome 1.2 : Identify data to be recorded

Picture/s reflecting the Learning outcome 2

Source: procrewschedule.com

Duration: 6 hrs

Learning outcome 1. 2. objectives:

By the end of the learning outcome, the trainees will be able to:

1. Describe properly data to be recorded on the site.

Resources

Equipment	Tools	Materials
Computer Projector	Thermometer White board Chalk board	Paper Pen/pencil Chalks Pictures

Advance preparation:

. Handouts 1.2 are available

. Computer and projector are available

CONTENT

Content 1.2.1: Description of data to be recorded on site

a. Information on workforce (number of workers, titles…)
b. Information on work done (activities, work progress…)
c. Meeting schedules and meeting notes
d. Information on plant and equipment usage
e. Information on material usage
f. Suppliers and deliveries
g. Any other aspects of recording work related Information (Ex: incident, challenges etc.)
h. Weather conditions

Theoretical learning Activity

Provide four task sheets (on information on workforce, work done, meeting schedules and meeting notes, and plant and equipment usage) to trainees in expert groups, after a given time, they will gain knowledge and come back to their colleagues in home groups. Provide a summary to the trainees for more clarification.

Repeat the same process to the other remaining four.

 Points to Remember (Take home message)

Data to be recorded on site are:

Information on Workforce
Information on work done
Information on material usage
Information on suppliers and deliveries

Learning outcome 1.2: formative assessment

Written assessment

1. Match the elements in **column A** with their correspond in **column B.** Write your answer in the reserved space

Answer	Column A	Column B
	1. means employees, volunteers, trainees or other persons whose performance of work is under the direct control of a party, whether or not they are paid by that party.	A. Material request form
	2. Is a person or company who provides goods or services on site	B. Minutes of meeting
	3. notes that are recorded during a meeting	C. Incident

	4. Is an undesired event that disrupts operations and hinders the completion of tasks.	D. Supplier
	5. formal process for gathering information from potential suppliers or a good or service	E. Workforce

Answer 1:

Answer	Column A	Column B
1 E	1. means employees, volunteers, trainees or other persons whose performance of work is under the direct control of a party, whether or not they are paid by that party.	A. Material request form
2 D	2. Is a person or company who provides goods or services on site	B. Minutes of meeting
3 B	3. notes that are recorded during a meeting	C. Incident
4 C	4. Is an undesired event that disrupts operations and hinders the completion of tasks.	D. Supplier
5 A	5. formal process for gathering information from potential suppliers or a good or service	E. Workforce

2. What information do you think is required on materials usage at the site?

Answer 2: Whatever building materials your project requires, track

- **how much is being used,**
- **how much is being wasted, and**
- **how much is unaccounted for.**

Learning outcome 3: Select necessary documents

Picture/s reflecting the Learning outcome 3

Source: armstrongarchives.com

Duration: 7hrs

Learning outcome 3 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify clearly forms used on site

2. Elaborate properly forms used on site

Resources

Equipment	Tools	Materials
Computer Projector Printer	Pen Pencil	Books Internet Pen/pencil Chalk board White board
Advance preparation: Handouts 1.3. Select site documents		

Content 1.3.1: Identification of forms used on the site

1.1. Identification of specific forms

a. Work force form (attendance list, …)
b. Equipment & plant form
c. Material request form
d. Material receipt form
e. Meeting minute form
f. Site instruction form
g. Suppliers and deliveries form
h. Measurement sheet

1.2. **Elaboration of forms for particular cases:**

a. Incident/ challenge form
   - Accident in unexpected event that causes damage, injury, or harm.
   - Challenges: something that needs great mental or physical effort t in order to be done successfully and therefore tests a person's ability.
   - Incident: something did occur and harm was caused.
   - Hazard: something could occur.
   - Near Miss: something did occur but there was no harm caused.

b. Claim form
c. Weather
d. Emergency form

Content 1.3.2: Description of material request form

A Material Request is a simple document identifying a requirement of a set of items (products or services) for a particular reason.

A Material Request can have the following purposes:

- **Purchase**: If the material being requested is to be purchased.
- **Material Transfer**: If the material being requested is to be shifted from one Warehouse to another.
- **Material Issue**: If the material being requested is to be Issued for some purpose like manufacturing.
- **Manufacture:** If the material being requested is to be produced.
- **Customer Provided**: If the material being requested is to be provided by the Customer. To know more about this, visit the Customer Provided Item page.

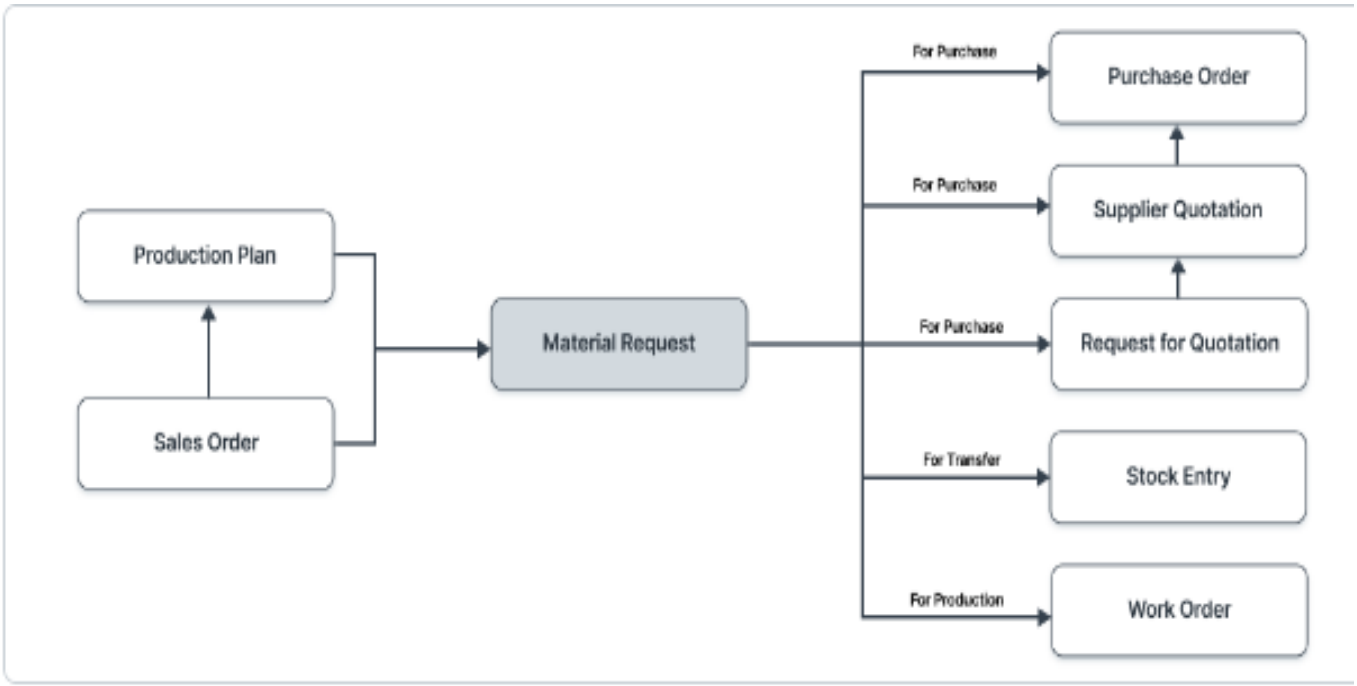


Figure 1: Material(s) request process

How to create a Material Request?

1. Go to the Material Request list, click on New.
2. Enter the required by date.

3. Select from one of the purposes as listed above.
4. You can fetch Items from a BOM, Sales Order, or Product Bundle

 Theoretical learning Activity

In group of 4 trainees, you are asked to brainstorm about the specific forms used on site

 Points to Remember (Take home message)

Specific forms used on site are:

Work force form (attendance list….)

Equipment & plant form

Material request form

Material receipt form

Meeting minute form

Site instruction form

Suppliers and deliveries form

Measurement sheet

Learning outcome 1.3: Formative assessment

Written assessment

1. Define the following terms:

a. Accident

b. challenges

Answer 1:

a) Accident in unexpected event that causes damage, injury, or harm.

b) Challenges: something that needs great mental or physical effort t in order to be done successfully and therefore tests a person's ability.

2. Answer by true or false. The importance of the attendance list is to keep a record of the people who will work on the site.

Answer 2. True

3. **Choose the best answer.**

a) Measurement sheet for construction site work counts all construction work performing on the site.

b) Measurement sheet for construction site work counts all material and the machineries work performing at the site.

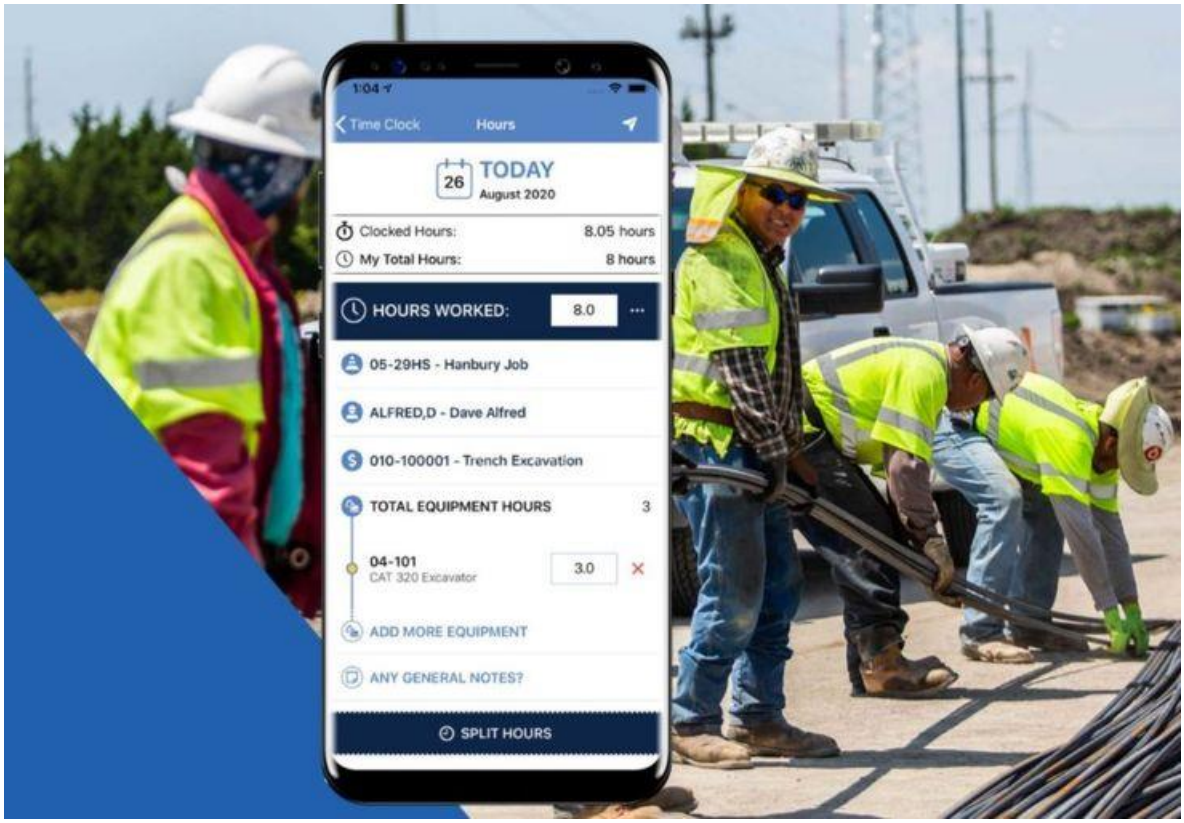
c) a) and b) are true

d) none of the above

Answer 4: c)

Learning Unit 2: Use site documents

Picture/s reflecting the Learning unit 2



Source: pinterest.com

STRUCTURE OF LEARNING UNIT 2

Learning outcomes:

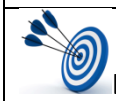
2.1. Collect data about works done

2.2. Collect data about site resources

2.3. Fill site forms

Learning outcome 2.1. Collect data about works done

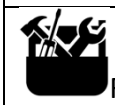

Duration: 10 hrs


Learning outcome 2.1 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Know clearly how to collect the information about site works

2. Understand properly the methods used for collecting the information about site works


Resources

Equipment	Tools	Materials
Theodolite/level Computer/tablet Projector	Tape measure Decameter Rolled	Chalks Pen/pencil


Advance preparation:

. Handouts 2.1: Collect data about works done

Content 2.1.1: Information about activities to be recorded

As a project is made up of a group of interrelated work activities, every construction project should have a series of activities that should be characterized by the following information.

a) **Quantities of works done:** this refers to how many tasks performed and how many resources used to perform works the site.

b) **Procedures of work done:** this refers to steps and techniques have been adopted to perform a certain activity.

Content 2.1.2: Methods of site data collection

The Data Collection is a process by which the searcher collects the information from all the relevant sources to find answers to the research problem, test the hypothesis and evaluate the outcomes. (Harris, 1989)

i) **Site Investigation**

A site investigation simply is the process of the collection of information, the appraisal of data, assessment, and reporting with the use of interview, Questionnaire, etc...

About how the works were performed.

ii) **Field Measurement**

It is a method of collecting data for finished works.

iii) **Site Observation**

It is the methods of collecting data in construction work at the time of work is been performed. And this method is very important and precise because they provide exact data.

 Theoretical learning Activity

In groups of 4 trainees, brainstorm about the methods of site data collection

 Practical learning Activity

In a group of two, trainees are requested to take field measurements by using tape measure/decameter

Points to Remember (Take home message)

- Information about activities to be recorded
- Methods of site data collection

Learning outcome 2.1: formative assessment

Written assessment

1. List out methods used in data collection at construction site

Answer 1:

- ✓ **Site investigation**
- ✓ **Field measurement**
- ✓ **Site observation**

2. Scenario: One common challenge in site recording is accurately documenting the quantities of work done and the procedures of work performed. Without proper documentation, it can be difficult to track the progress of the project, identify potential issues or delays, and ensure compliance with project specifications.

Answer 2: To address this problem, construction managers can implement the following strategies:

- **Establish clear procedures for recording and reporting work done:** This can include setting up a standardized system for documenting the quantities of work done and

the procedures of work performed. This can include checklists, daily logs, and other tools to ensure that all work is recorded accurately and consistently.

- **Use digital tools for site recording:** Digital tools such as construction management software and mobile apps can help to streamline the site recording process, making it easier to document the quantities of work done and the procedures of work performed. These tools can also provide real-time updates on project progress and allow for collaboration and communication between team members.
- **Conduct regular site inspections:** Regular site inspections can help to ensure that work is being done according to project specifications and that all work is being documented accurately. This can help to identify potential issues or delays early on and allow for corrective action to be taken before they become major problems.
- **Provide training and support to team members:** Proper training and support can help to ensure that team members understand the importance of accurate site recording and are equipped with the necessary tools and skills to document work done and procedures performed.

Practical assessment

Provide a task to trainees on methods of site data collection (Field measurement, site investigation, site and observation) and information (quantities of work done, procedures of work done) on a construction site

Checklist	Score	
	Yes	No
Indicator: Methods of site data collection		
✓ Field Measurement		
✓ Site Investigation		
✓ Site Observation		
Indicator: Information		
✓ Quantities of work done		
✓ Procedures of work done		
Observation		

Learning outcome 2.2: Collect data about site resources

Duration: 10hrs


Learning outcome 2.2 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Identify clearly the site resources on site
2. Describe properly forms used to collect data and site resources


Resources

Equipment	Tools	Materials
Chalk boards White boards Projector Computer	Books	Site forms Pen/pencil Chalk Marker


Advance preparation:

Handouts 2.2. Collect data about site resources

Forms used to collect data on site resources

Content 2.2.1: Identification of site resources.

Site resources can be defined as those requirements needed to perform tasks in project implementation. (Hedley, G. and Garrett, C., 1983)

i) **Workforce:** In general, the workforce operators, maintenance people, and other employees' or contractors' people at the construction site who are not in a management, supervisory or technical role.

ii) **Materials used:** Some of the common construction materials include wood, concrete, steel, cement, bricks, and metal. In this modern era, engineers use the efficient technique of 'mix and match' to come up with the best construction material and build high-quality structures.

iii) **Plant and equipment use:** Plant includes machinery, equipment, appliances, containers, implements and tools and components or anything fitted or connected to those things. Some examples of plant include lifts, cranes, computers, machinery, scaffolding components, conveyors, forklifts, augers, vehicles, power tools and amusement devices.

iv) **Suppliers/deliveries:** supply charges cover the actually energy itself. Meanwhile, the delivery charges cover the infrastructure used to transfer the energy from its original source to your home.

v) **Petty cash:** petty cash is a small amount of cash that is kept on the company premises to pay for miner cash needs. Examples of these payments are office supplies, cards, flowers, and so forth. Petty cash is stored in a petty cash drawer or box near where it is most needed.

vi) **Transportation means:** the means of transportation are bus, train, airplane, ship, car, etc.

Content 2.2.2: Description of forms used to collect data on site resources

Forms used to collect data on site resources

a. Work force form
b. Material request form
c. Material receipt form
d. Equipment forms
e. Suppliers/delivery form

 Theoretical learning Activity

- ✓ In groups of 4 trainees, discuss possible resources used on site
- ✓ In pairs (each desk), describe forms used to collect data on site resources.

Points to Remember (Take home message)

Resources used on construction site
Different forms used to collect data on site resources

Learning outcome 2.2: formative assessment

Written assessment

1. Discuss site resources in construction site recording

- ✓ **Workforce:** In general, the workforce operators, maintenance people, and other employees' or contractors' people at the construction site who are not in a management, supervisory or technical role.
- ✓ **Materials used:** Some of the common construction materials include wood, concrete, steel, cement, bricks, and metal. In this modern era, engineers use the efficient technique of 'mix and match' to come up with the best construction material and build high-quality structures.
- ✓ **Plant and equipment use:** Plant includes machinery, equipment, appliances, containers, implements and tools and components or anything fitted or connected to those things. Some examples of plant include lifts, cranes, computers, machinery, scaffolding components, conveyors, forklifts, augers, vehicles, power tools and amusement devices.
- ✓ **Suppliers/deliveries:** supply charges cover the actually energy itself. Meanwhile, the delivery charges cover the infrastructure used to transfer the energy from its original source to your home.
- ✓ **Petty cash:** petty cash is a small amount of cash that is kept on the company premises to pay for miner cash needs. Examples of these payments are office supplies, cards, flowers, and so forth. Petty cash is stored in a petty cash drawer or box near where it is most needed.
- ✓ **Transportation means:** the means of transportation are bus, train, airplane, ship, car, etc.

2. **Choose the correct answer**

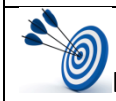
Attendance is done to one of the following forms:

a. Workforce form
b. Material request form
c. Material receipt form
d. Equipment form

Answer 2: a) workforce form

Learning outcome 2.3. Fill site forms


Duration: 10 hrs


Learning outcome 2.3 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Understand properly the format of site documents
2. Fill correctly site forms


Resources

Equipment	Tools	Materials
Computer Projector Chalk board White board	Books	Pen/pencil Papers Chalks


Advance preparation:

- Handouts 2.3: Fill site forms
- Forms to be filled are available
- Videos on how to fill site forms.

Content 2.3.1 : Formats of site documents to be filled

1. **Daily diary (workforce & work done form)**

Daily Activity Report and Time Record

Paid With ☐ **Hourly** Employee *or* Paid With ☐ **Regular** Employee

(***Check One***. Destination of time sheet depends on which one you check.)

Employee Name: Employee Name **Program:** Program Name

Month Type Month Year **Prog. Acct. No.** **Employee Number:**

Day	Activities and Location	Total Hours Worked	Authorized Overtime Hours	Sick Leave Hours	Annual Leave Hours	Other Hours	Explain Other
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
	Totals for first half of month	**Total Hours Worked**	**Authorized Overtime Hours**	**Sick Leave Hours**	**Annual Leave Hours**	**Other Hours**	
		0	0	0	0	0	

Employee's Certifying Signature

Supervisor's Verifying Signature

Full-Time employees please COPY this page, sign and turn in COPY on 15th of each month, then complete and turn in ORIGINAL form on the last day of the month.

Daily Activity Report and Time Record (Page 2)

Paid With ☐ **Hourly** Employee *or* Paid With ☐ **Regular** Employee

(***Check One***. **Destination of time sheet depends on which one you check.)**

Month: Type Month Year **Employee Name:** Employee Name

Day	Activities and Location	Total Hours Worked	Authorized Overtime Hours	Sick Leave Hours	Annual Leave Hours	Other Hours	Explain Other
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
Totals for Entire Month		Total Hours Worked	Authorized Overtime Hours	Sick Leave Hours	Annual Leave Hours	Other Hours	
		0	0	0	0	0	

Hours Annual Leave 0
(Approved Leave Request Must be Attached)

Hours Sick Leave 0
(Approved Leave Request Must be Attached)

Hours Military Leave 0
(For Active Duty Only)

Hours Leave W/O Pay 0
(Approval Must be Attached

Other Hrs. Leave W/Pay 0
(Administrative Leave Must be Approved by Ex. Dir.)

Form approved 11/4/13

By signing below I hereby certify the total number of hours reported represents all hours worked during month.

Employee Signature

Supervisor Signature

2. Requests for information (RFI)

Request for information (Original)	No: _____
To: _____	
_____	
Attention: _____	Date: _____
Project: _____	
The following information is requested by the dates indicated to prevent delay to the contract works program.	

Description	Date required
Purpose These forms are to be used in lieu of verbal requests and in addition to requests recorded in site meeting minutes. The original copy is to be signed by site staff and issued to the architect.	

3. Confirmation of verbal instructions (CVI)

To	**Site/Contract**
Attention of:	Contract:

Issue Date:	Issue No: CVI

4. Confirmation of instruction

This work will be charge date: ☐ Schedule of rates prices ☐ Day work rates ☐ ☐ Specified price of: ☐ Price to be agreed. Our quotation will follow As	Please note: We are making the necessary arrangements to carry out this work and request that your formal written instructions be issued within 5days. ☐ We will not proceed with this work until a formal written instruction is received.
Issued by:	Confirmation of Instruction
Signature:	Please proceed with the works as detailed on
Date:	this instruction. Signature:
For and on behalf of Eiro tech Engineering	Date:

Original distributed	Hand	Fax	Post	For and on behalf of:

Distribution

☐ Contract File ☐	☐ ☐ ☐	☐	

5. Drawing register

A drawing register is used to record this information and, in addition to showing the project title and number, should record the following for each drawing:

a) Title of drawing
b) Drawing reference number
c) Source
d)Scale

e) Date received
f) Number of copies received
g) Date of distribution
h) To whom distributed
i) Details of amendments (modifications).

(The drawing register may later prove to be a useful document when the final account is being prepared.)

DRAWING REGISTER				
ContractTitle:IBMKosovoProjectCommonCrossingPointMutivoda"Measured Price Construction Contract"				
ContractNo:UNOPS-PRPC-IBM-97057-2017-001				
Work Area: Common Crossing Point-Mutivoda				
Section: Architectural Drawings				
Drawing info			Issued for Construction	
#	Drawing Name	Drawing No	Rev No	Rev Date
1	Site Clearance	MTV_AD_001	Rev A	12.12.2016
2	Site Plan Hard Landscaping	MTV_AD_002	Rev A	12.12.2016
3	Site Plan- General Presentation	MTV_AD_002.1	Rev A	12.12.2016
4	Site Plan-Building with Coordinates	MTV_AD_003	Rev A	12.12.2016
5	Site Layout Plan for Construction on Phases	MTV_AD_004	Rev A	12.12.2016
6	Site Layout Plan for Construction	MTV_AD_004.1	Rev A	12.12.2016
7	SitePlan3DView	MTV_AD_005	Rev A	12.12.2016
8	Site Fence-Detail	MTV_AD_006	Rev A	12.12.2016
9	Service Block Fence &Gate	MTV_AD_007	Rev A	12.12.2016
10	Urban Furniture-Bench, Garbage Container, Waste Bins	MTV_AD_008	Rev A	12.12.2016
11	Administration Building (AB_a)-Foundation	MTV_AD_009	Rev A	12.12.2016
12	Administration Building (AB_a)- Ground Floor with Furniture	MTV_AD_010	Rev A	12.12.2016
13	Administration Building (AB_a)-Ground Floor Ceiling Plan	MTV_AD_011	Rev A	12.12.2016
14	Administration Building (AB_a)- Ground Floor without Furniture	MTV_AD_012	Rev A	12.12.2016

6. Minutes of meeting- minutes

PROJECT PROGRESS MEETING Meeting Minutes- 013

Project Name:	**PROPOSED BAKHRESA GRAIN MILLING PHASE 2 (SILOS, SERVICE GARAGE & PARKING)**		
Date of Meeting:	26TH JUNE, 2019	**Start Time:**	1105 hrs.
Location:	BGM Phase 2 Site Offices	**End Time:**	1200 hrs.
Chair:	Soita WAMBETE	**Minute Taker:**	Andrew Kaita KAGAZI

ATTENDANCE

Present	**Organization**	
1. Julius NDUNGA	Bahkresa Grain Milling (BGM)	JD
2. Fred ODHIAMBO	Bahkresa Grain Milling (BGM)	FO
3. Soita WAMBETE	Quest Africa Ltd (QA)	SW
4. Andrew Kaita KAGAZI	Quest Africa Ltd (QA)	AKK
5. Raphael AMUTETE	Quest Africa Ltd (QA)	RA
6. Bruce MACDONALD	Roko Construction (RC)	BM
7. Christian BIKAMIRO	Roko Construction (RC)	CB
8. Eric TUYIZERE	Roko Construction (RC)	ET

AGENDA

7. Approvals and inspections books

Remote Group			
Quality Control Checklist			
Project		**Rebero 6 Villas**	
Villa nr:			
Area			
Date			
Discipline	**Concrete Slab Pre-pour Inspection**		
Nr	**Inspections**	**Passed Y/N**	**Comments**
1	All Props plumb and secured		
2	All Shutter boards level and secured		
3	All Shutter boxes square and straight		
4	Shutter boards oiled and or greased		
5	No voids anywhere for Concrete water to drain		
6	Bottom steel as per Eng. Details		
7	Top Steel as per Eng. Details		
8	All splicing as per Eng. Details		
9	Binding wire utilized as per Eng Details		
10	All side and bottom Spacers as per Eng Details		
11	All External Side Shutter support to Beams Checked and secured		
12	All Corners Squared and checked		
13	Depth of Beam Shutters Confirmed		
14	Bottom Steel to Beams as per Eng Details		
15	Top Steel to Beams as per Eng Details		
16	All Stirrups installed as per Eng Details		

8. Work program (planner)

Contract: AN Other
Location: Anywhere

PROGRESS CHART

Period: _____

Activity	14/7	15/7	16/7	17/7	18/7	19/7	20/7	21/7	22/7	23/7	24/7	25/7	26/7	27/7	Remarks
Fixing carpenter	- - - -	- - - -	- - - -	- - - -	- - - -										
	———	———	———	———	———										
Plumber		- - - -	- - - -	- - - -						- - - -					Delay caused by late material arrival.
	———	———	———						———						
Electrician															
Wall tiler				- - - -	- - - -			- - - -	- - - -						Team size reduced.
				———	———			———							
Floor tiler			- - - -	- - - -	- - - -										
			———	———	———										
Painter										———	- - - -	- - - -	- - - -		Worked Saturday to complete.
											———	———			

Proposed ——— Actual - - - -

9. Instructions book

PENN & SCALES, ARCHITECTS 2 Board St, Perth WA 6000	CONT. VAR DOCUM. NO.	
	INSTRUCTION DOCUM. NO.	
	OP. CTR. NO.	
	CONTR. NO.	
SITE INSTRUCTION	IR	No. 505
TO:	DATE	
	BUDGET CODE	
	APPROX VALUE	
	S/C NAME	
	ADJ. ADV. NO	

DESCRIPTION		ACTION BY

☐ Submit quotation of costs. Do not proceed without approval.	Instruction issued by:	Date:
☐ Proceed with the work. Submit quotation of costs later. ☐ Instruction only. Does not involve a contract variation.	Instruction issued by:	Date:

10. Site Reports

Creating daily reports for construction is one of the most important parts of the job for any contractor. Not only do they keep you up-to-date with project progress and delays, they also protect you and your company from expensive legal action and inform owners and management about the happenings on a construction site. (Hedley, G. and Garrett, C., 1983)

Luckily, the days of collecting pen and paper (or even worse, memorized) daily reports are gone. Top construction firms have turned to mobile apps like Raken to capture and share their daily reports.

Parts of a Daily Report for Construction

There are a few key components that make up a good daily report for construction sites. They are summarized below, followed by a daily report example which brings them all together.

Project and Day Info

Good construction daily reporting documentation requires consistency and organization. Standardize the project and date naming convention to make it easy to find old reports.

Weather Reporting

Bad weather? Beautiful day? It's important to record because it might impact the Work for that day or week.

Work Logs

Make sure to track who was on site and what they did.

Notes, Issues, and Concerns

Something behind schedule? Make a note to explain what went wrong.

Photos and Attachments

Seeing believes. Did your delivery arrive on time? Snap a photo to prove it.

Site Safety Observations

Safety first. Be sure to record went wrong and what can improve for next time

Daily Survey

Be sure to get all your critical questions answered such as “did the weather cause delays?”

Weekly site report

A weekly site report, which summarises resources used etc over the period, may be produced as a complementary record to the daily site diary.

	Weekly site report (Original copies to be returned weekly by mail with progress reports)	**138800**

CONTRACT: _____ **CONTRACT no:** _____

Weather and lost time: _____ **Date:** _____

Visitors to site: _____

Important instructions received: _____

(Name the instructing party)

No. of workers on site:

SUBCONTRACTORS:

DEMOLITION		PLUMBER		PLASTERER, FIBRO	
EXCAVATOR		ROOFER, METAL		TILER, VITREOUS	
REINFORCING FIXER		ROOFER, A/CEMENT		TILER, VINYL	
CONCRETOR		ELECTRICIAN		PAVIOR	
DRAINER		MECHANICAL		PAINTER	
STRUCTURAL STEEL		GLAZIER		CLEANER, BRICK	
BRICKLAYER		PLASTERER, HAND		CLEANER	
CARPENTER		SPRINKLERS			
FORMWORKER		SUSP. CEILINGS			

Other trades: _____

Number of tests taken: _____ Number of items delivered: _____ Number of items used: _____

PLANT ON SITE (MECHANICAL)	HOURS WORKED	DOWNTIME	PLANT HIRED FROM (COMPANY)

SITE REPORT (PROGRESS/DELAYS)

Project manager's signature:

11. Query and request forms

QUERY REQUEST FORM

Date:

Requester's Name: **Phone:**

Who is the report for? **Phone:**

Date Needed:
(We will contact you with an estimated time of completion)

Requestor's Priority (1 Low—5 High):

Is this query for user to: **Run as needed?** ◯ **One-time only?** ◯

Is this a new query? **Yes:** ◯ **No:** ◯

If "No", Existing Query Name to Modify:

How will data be used?

Information needed:

Please e-mail request to: *GBC-IRE-Reports*. If you have any questions, please contact Cynthia Giles at 753-2247 or Brandis Senecal at 753-2108.

 Theoretical learning Activity

In group of 4 learners, discuss the formats of each site form.

 Practical learning Activity

In pair, trainees are requested to fill a work program (planner) for a residential building of five rooms.

 Points to Remember (Take home message)

Format of site forms
Fill site forms

Learning outcome 2.3: formative assessment

Written assessment

1. Basing on its uses,
   a) write-down at least five (5) most important information that are found in a workforce form
   b) Show the format of workforce form.

Answer 1:

a) Basic information that are at mostly found on workforce form

✓ Space for date
✓ Space for presence's names
✓ Space for presence's function
✓ Space for arrival approval (Time and signature)
✓ Space for departure approval (time and signature)

b) The general format of workforce form is shown below:

Logo of the Company	Company address		Date: ……. /……../…….			
WORK FORCE FORM						
No	Names	Function	Arrival		Deparature	
			Time	Signature	Time	Signature
Approved by: Names and Signature						

2. Identify four important points that effective meeting minutes should include

Answer 2:

- ✓ **The names of the participants**
- ✓ **Agenda Items/ Agenda of the meeting**
- ✓ **Calendar or due dates**
- ✓ **Decision made by the Participant**
- ✓ **Future Decision**

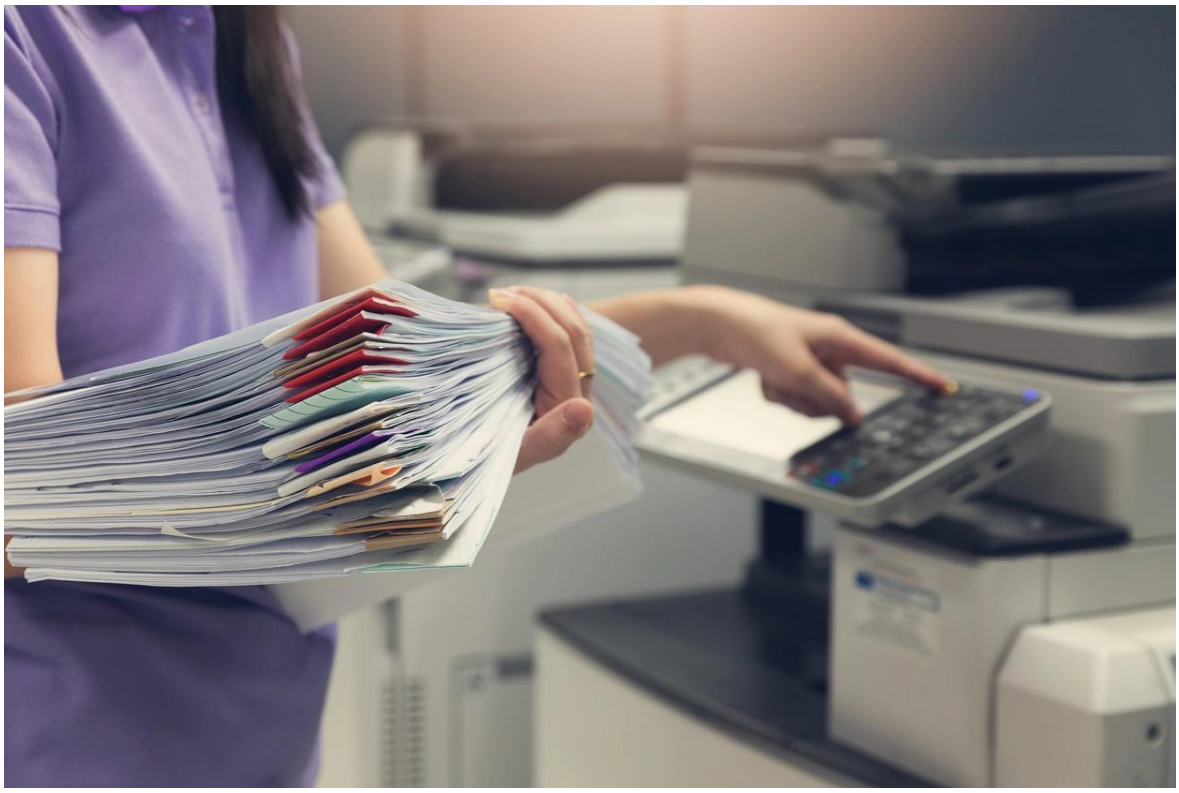
Practical assessment

Find a workplace in which filling site documents can be applied. Each trainee is requested to pick randomly a form and go to the place for filling up its data accordingly.

Checklist	Score	
	Yes	No
Indicator: Site documents to be filled		
✓ Daily diary (Workforce& work done forms)		
✓ Requests for Information (RFI) –		
✓ Confirmation of verbal instructions (CVI).		
✓ Drawing register –		
✓ Minutes of meeting – minutes		
✓ Approvals and inspections books		
✓ Work program (Planner)		
✓ Instructions book		
✓ Site Reports		
✓ Query and request forms		
Observation		

Learning Unit 3: Manage site records

Picture/s reflecting the Learning unit 3



Source: bmiimaging.com

STRUCTURE OF LEARNING UNIT

Learning outcomes:

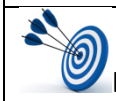
3.1. Arrange site documents

3.2. Safeguard site documents

3.3. Report site records

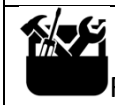
Learning outcome 3.1. Arrange site documents


Duration: 4 hrs


Learning outcome 3.1 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Know clearly the management of site documents
2. Describe properly the record life cycle
3. Identify properly the methods of site documents arrangement


Resources

Equipment	Tools	Materials
Computer Projector Shelves Chalk board White boards	Files Books	Pen/pencil Chalks


Advance preparation:

- Handouts 3.1: Arrange site documents
- Files are available at the workplace
- Shelves are available at the workplace

Content 3.1.1: Records management

Managing records on a project is an essential activity that makes it possible to handle and use project documentation in the way that ensure smooth capturing of documents and papers by seniors, team members, and other stakeholders. Being a part of overall document management, records management allows a project manager to direct and control document flows throughout the project lifecycle, while ensuring that every single document or record serves the operational needs and helps teams capture and retrieve necessary information. It creates a framework for running project activities and procedures and paves the way for analysis, lessons learned, historical reviews, etc. (Heap, 1987)

1. Definition

Project Records Management is a process of creating, directing and controlling document flows within a project, through using an administrative system, to provide effective development, versioning, filing, storing and retrieving of records, while ensuring that every record designed is utilized administratively and legally. The process creates a framework for managing the project activities and delivering necessary information to teams.

As a process, project records management is **characterized** by the following items:

- Inputs: any essential information to be recorded and saved for the project · Resources: equipment, systems, software, communication tools, HR etc.
- Guidelines: document management policies, document standards, filing procedures, etc.

- Outputs: document flow, files, catalogues, record sheets, etc.

When you start managing your project, first you must be sure that there's a framework for documenting and filing events occurring within the project (the inputs). By using systems and software (the resource), your teams can record activities and events and create documents. They follow prescribed procedures for event recording and documenting (the guidelines). Finally running the process allows you to develop necessary documentation, files and records (the outputs). In this regard, project records management seems to be cyclical – when records are created, treated, filed and documented.

The process of managing project files and records is **important** because of the following aspects:

- Supporting ease and efficiency of the project activities
- Allowing teams can find required information you when they need
- Protecting the project data from unauthorized access and use

- Saving time and effort
- Reducing costs, including space costs
- Keeping files up-to-date and versioned

Three Steps

Step 1. Create Project Files

When you create a project file, you must be sure you do it in accordance with the standards and requirements of file management within your organization. There're five common requirements to project file creation:

- **Prompt.** A file is to be created as early and quickly as possible.
- **Simple.** File content should have a structure that is as simple as possible.
- **Separate.** Every file is a single and separate record; two or more files can't be combined; if there's a need to combine the content of several files, a new file should be created.
- **Up-to-date.** When a project file is updated, a versioning number as well as the date revised should be added to the file header.
- **Confidential.** A file should be maintained with complete confidentiality; only authorized personnel can access the file and its content.

In any project and program these 5 requirements should be treated with great care because otherwise the project/program is likely to fail with creating reliable, comprehensive, complete and relevant project files.

Step 2. File Project Documents

Once you have created a file according to your file management policy and requirements, now you can proceed with filing project documents. It means you must put all your documents and white-papers into respective files. Below I list the key **documents and data** you should add to your project files:

- Official mail and email correspondence, including letters, attachments, pictures
- Papers of project meetings
- Project request, proposal, brief.
- Stakeholder contact details
- Change and variance requests
- Project diary
- Issue logs/risk logs/decisions made
- Status reports and summaries
- Procurement papers
- Team guidelines, instructions, notes, etc.
- Handover/closure documents

You should be sure that every piece of this data is put into a file. There should be version control to ensure that the project files are updated and changed properly.

Step 3. Archive and Destroy Project Records

Once all of your project documents and relevant data have been filed, your next step is to manage the records and move them to archive. Archiving project records means making documents no more available within the given environment while ensuring that the records are retrievable for further projects and lessons learned.

When you project is over, you may need to destruct the records, instead of archiving them. Anyway, you must refer to the archiving and destructing procedures of your organization when treating your project records.

2. Records life cycle

A basic concept in Records Management is the records life cycle. The life of a record goes through phases starting from when it is created or received by the Agency, through to its use, maintenance and temporary storage before finally being destroyed or archived permanently.

Life-cycle of a Record is summarized in the following steps:

a) Creation &receipt; capture into record management system
b) Distribution &use
c) Storage and maintenance
d) Retention and disposition

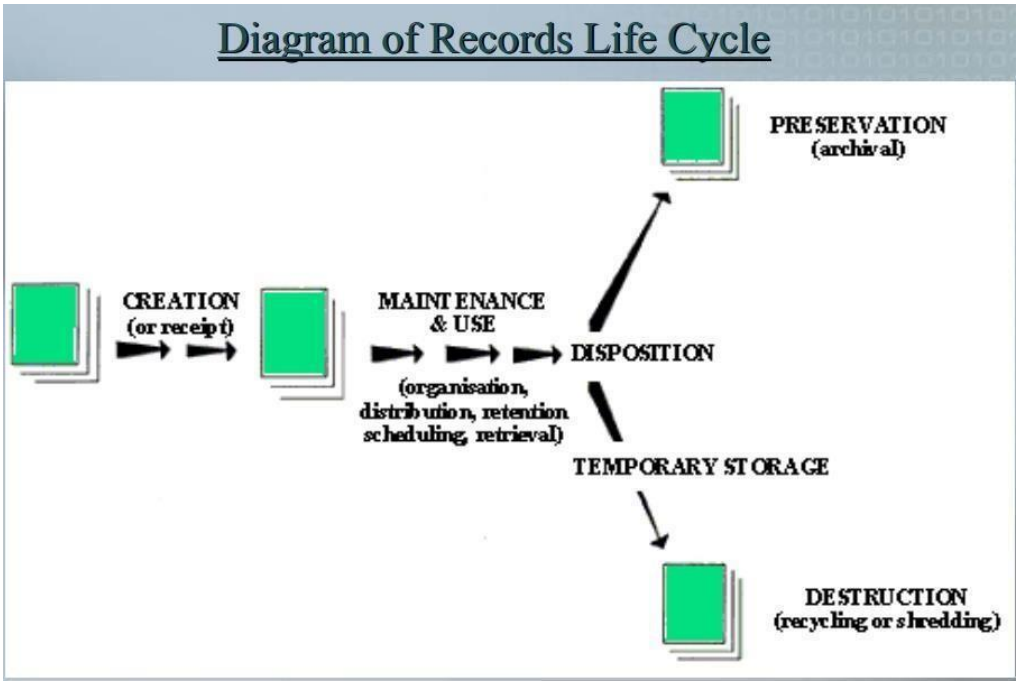


Figure 2: Diagram of records life cycle

Content 3.1.2: Description of Records Management Program

Benefits of a Records Management Program

Some benefits maybe:

a) To increase efficiency and productivity;
b) To protect the organization from litigation;
c) To have evidence of transactions/ events for audit purposes;
d) To preserve the institutional memory of the organization;
e) To facilitate the resumption of operations in the event of a disaster; and
f) To ensure that employee benefits can be supported via information maintained in personal records

1. Records Centres and Archives

The difference between a **record centre and an archive** is that a **Records centre** is a building specially designed for low-cost storage and maintenance of semi- current records pending their ultimate destruction or transfer to an archive repository. **An Archive** may be either a collective of records, usually but not necessarily non-current records of continuing value selected for permanent preservation or a building housing such a repository.

The Purpose and Functions of the Records centre (and an Archive, as well), is to ensure that correspondence is properly arranged and stored, so that they can be located easily and promptly.

2. Methods of document arrangement

i) **Chronological method**: arrangement based on time
ii) **Subject method:** arrangement according to the name of subjects
iii) **Alphabetical filling:** based on alphabets
iv) **Numerical filling:** arranged according to town, districts, region, countries, Zones…
v) **Geographical filling:** according to town, districts, regions, country, zones, …

 Theoretical learning Activity

In group of 2, you are requested to list and differentiate methods of documents arrangement used in site records.

 Practical learning Activity

In group of 4, trainees are requested to arrange their portfolios based on subjects (modules), chronological (time of assessment), and numerical methods.

Points to Remember (Take home message)

Methods of documents arrangement

a) Chronological method
b) Subject method
c) Alphabetical filling
d) Numerical filling
e) Geographical filling

Learning outcome 3.1: formative assessment

Written assessment

1. DCG construction and consultant ltd is possessing documents in their offices as follows:

1. Photographs taken in Rwamagana issued on 2/February/2022
2. Drawings done in GASABO on 1/January/2022
3. Logbook started being filled on 8/January/2022 in Kayonza
4. Site reports done on 3/February/ 2022 in Kicukiro
5. Minutes of meeting scheduled on 5/January/ 2022 in Nyarugenge

Arrange these above documents by the method below:

a) Chronological method
b) Alphabetical filling
c) Geographical filling

Answer 1: Note that the answers are in bold

a) Chronological method.

Chronological	Subjects	Alphabetical	Numerical	Geographical
1-Jan	Drawing	Drawing	2	GASABO
5-Jan	Minute of meeting	Minute of meeting	5	Nyarugenge
8-Jan	Logbook	Logbook	3	Kayonza
2-Feb	Photographs	Photographs	1	Rwamagana
3-Feb	Site reports	Site reports	4	Kicukiro

b) Alphabetical filling

Chronological	Subjects	**Alphabetical**	Numerical	Geographical
1-Jan	Drawing	**Drawing**	2	GASABO

8-Jan	Logbook	**Logbook**	3	Kayonza
5-Jan	Minute of meeting	**Minute of meeting**	5	Nyarugenge
2-Feb	Photographs	**Photographs**	1	Rwamagana
3-Feb	Site reports	**Site reports**	4	Kicukiro

c) Geographical filling.

Chronological	Subjects	Alphabetical	Numerical	**Geographical**
1-Jan	Drawing	Drawing	2	**GASABO**
8-Jan	Logbook	Logbook	3	**Kayonza**
3-Feb	Site reports	Site reports	4	**Kicukiro**
5-Jan	Minute of meeting	Minute of meeting	5	**Nyarugenge**
2-Feb	Photographs	Photographs	1	**Rwamagana**

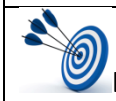
Practical assessment

In a group of two, trainees are taken into a library of the school to arrange books according to different methods.

Checklist	Score	
	Yes	No
Indicator: Methods of document arrangement		
✓ Chronological method		
✓ Subject method		
✓ Alphabetical method		
✓ Numerical method		
✓ Geographical method		
Observation		

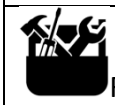
Learning outcome 3.2. Safeguard site documents


Duration: 10 hrs


Learning outcome 3.2 objectives:

By the end of the learning outcome, the trainees will be able to:

1. understand properly the ways of keeping safe data storage


Resources

Equipment	Tools	Materials
Shelves Chalk board Computer Projector Printer	Files Books	Internet Site documents Pens/pencils chalks


Advance preparation:

Handout 3.2: Safeguard site documents

Shelves

Files

Computer

Flash disk

Content 3.2.1: Safeguard site documents

1. Introduction

Safeguarding site documents is crucial in any construction project. The documents provide information on the project's progress, specifications, and plans, which are essential to ensure that the project is completed successfully. Therefore, it is necessary to bind, file, and store the documents securely to prevent any loss or damage. This requires the use of appropriate binding materials, filing systems, and electronic storage methods. (Heap, 1987)

2. METHODS USED

- **Binding:** The binding process involves securing the documents together using binding materials such as binders, folders, or spiral binding. The choice of binding material depends on the type and size of the document. For instance, a large blueprint may require a ring binder, while a small document can be secured using a folder. The binding material should be durable enough to protect the documents from wear and tear.
- **Filing:** Filing involves organizing the documents in a logical and systematic manner. This ensures that the documents are easily accessible and can be retrieved quickly when needed. The filing system should be easy to use and understand by all project team members. The documents should be labelled correctly, and the filing system should be regularly updated to reflect any changes.
- **Electronic Data Storage:** Electronic data storage involves storing the documents in a secure digital format such as a cloud-based platform or a server. The advantage of electronic data storage is that it provides easy access to the documents from anywhere and at any time. It also allows for easy sharing and collaboration among project team members.

Theoretical learning Activity

In group of 4 trainees, discuss the methods of safeguard storage.

Points to Remember (Take home message)

Ways of keeping Safe data storage

Binding

Filing

Electronic data storage (scanning, mailing, photocopying….)

Learning outcome 3.2: formative assessment

Written assessment

1. What does binding mean in site safeguard site documents?

   Answer 1: binding: all documents come bound with high quality protective front and back gloss covers.

2. Why is filing important in safeguarding site documents?

   Answer 2: Filing is important because it aims at keeping documents in a safe place and being

3. How is electronic data storage done?

   Answer 3: Electronic data storage is done by scanning, mailing, photocopying documents to keep them.

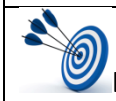
Practical assessment

Each trainee is requested, bind his/her quizzes of one module, file them in on folder and scan the cover page before uploading it to their email.

Checklist	Score	
	Yes	No
Indicator: Safe Data Storage		
✓ Binding		
✓ Filing		
✓ Electronic data storage		
Observation		

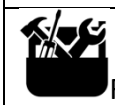
Learning outcome 3.3. Report site records


Duration: 10 hrs


Learning outcome 3.3 objectives:

By the end of the learning outcome, the trainees will be able to:

1. Understand properly the content of site report


Resources

Equipment	Tools	Materials
Computer Projector Chalk board White board	Books Files	Chalk Notebooks Pens/pencils Internet


Advance preparation:

Handouts 3.3. Report site records

Content 3.3.1: Content of site report

The content of a site report typically includes information on work progress, workforce, stock situation, Supply status, weather conditions, material usage, work quality and financial situation

- **Work progress** refers to the current status of the project or operation. It includes information on deadlines, milestones, and any issues or challenges that may affect the progress of the work. This information helps stakeholders to identify potential risks and take corrective action to ensure that the project is completed on time and within budget.
- **Workforce** refers to the people involved in the project or operation. This includes information on the number of workers, their roles and responsibilities, and any training or development programs in place. Understanding the workforce is important for ensuring that the right people are in the right roles, and that they have the necessary skills and knowledge to perform their tasks effectively.
- **Stock situation** refers to the availability and condition of materials, equipment, and other resources required for the project or operation. It includes information on inventory levels, delivery schedules, and any issues with quality or availability. This information helps stakeholders to identify potential bottlenecks or delays in the project, and take corrective action to ensure that the necessary resources are available when needed.

The principles of supply status involve monitoring and managing inventory levels, forecasting demand, and identifying potential risks that could impact the supply chain. Effective supply chain management involves collaboration between suppliers, manufacturers, and distributors to ensure a smooth flow of materials and timely delivery. It is also essential to have contingency plans in place to mitigate any disruptions in the supply chain caused by unforeseen events such as natural disasters, transportation delays, or geopolitical risks.

- **Weather conditions** are another critical factor that can impact material supply and production processes in various industries. Adverse weather conditions such as heavy rain, snow, or extreme temperatures can cause delays in transportation, affect the quality of raw materials, and disrupt production schedules. The principles of managing weather conditions involve monitoring weather forecasts, assessing potential risks, and implementing measures to mitigate
- **Materials Usage:**

The materials usage section of a site report should outline the types and quantities of materials used in the construction project. This section should also include information on

the quality of the materials used, as well as any issues or challenges encountered during material procurement and installation. This information is essential in determining the efficiency and effectiveness of the materials used in the project.

- **Work Quality:**

The work quality section of a site report should provide an assessment of the quality of workmanship and construction techniques used in the project. This section should include information on any defects or deficiencies found during the construction process, as well as any corrective measures taken to address these issues. This information is crucial in evaluating the overall quality of the construction project and identifying areas for improvement.

- **Financial Situation:**

The financial situation section of a site report should provide a detailed overview of the project's financial performance. This section should include information on project costs, revenue, and profitability, as well as any budget variances or cost overruns. This information is essential in evaluating the financial viability of the project and determining the effectiveness of cost management strategies.

Content 3.3.2: Parts of site report

Header: In the context of site reporting, a header typically refers to the top section of a report that contains important information such as the report title, date, author, company or organization name, and other relevant details. The header usually appears on every page of the report and provides a consistent format for the report, making it easier to read and understand.

Project details:

the various aspects of a construction project that are typically included in project details.

- **Project Title:** This is the name or title given to the construction project. It should be descriptive and unique to identify the project from others.
- **Project Start Date**: This is the date when the construction project officially starts. It is the day when the project team mobilizes on site to begin work.
- **Completion Date:** This is the anticipated or actual date when the construction project will be completed. It is important to establish a realistic completion date to ensure that the project is completed within the allocated budget and timeframe.
- **Project Manager's Names:** These are the names of the individuals who are responsible for managing the construction project. Project managers oversee all

aspects of the project and ensure that it is completed on time, within budget, and to the required quality standards.

- **Report Number:** This is a unique identifier assigned to the construction project report. It helps to keep track of different reports related to the project, such as progress reports, financial reports, and safety reports.
- **Reporting Period:** This is the time period covered by the construction project report. It could be a weekly, monthly, or quarterly report depending on the project duration and reporting requirements.

Site details

Details in construction site reporting can vary depending on the specific project and the requirements of the reporting party, but generally include the following:

- Work Completed: This section includes details on the work that has been completed during a specific reporting period. It should provide a comprehensive overview of the progress made, including the tasks that have been finished, any milestones that have been reached, and any challenges that have been encountered.
- Work in Progress: This section provides an update on the tasks that are currently underway and the expected completion dates. It should include information on the progress of each task, any issues that have arisen, and any changes that have been made to the schedule.
- Materials Used: This section provides information on the materials used during the reporting period, including the quantities and types of materials. This information is important for tracking costs and ensuring that the project is staying within budget.
- Labour and Equipment: This section provides information on the labour and equipment used during the reporting period. It should include details on the number of workers on site, the hours worked, and any equipment used.
- Safety and Quality: This section provides information on safety and quality issues that have arisen during the reporting period. It should include details on any accidents or incidents that have occurred, any safety training that has been provided, and any quality control measures that have been implemented.
- Budget and Schedule: This section provides an overview of the project's budget and schedule. It should include details on any changes to the budget or schedule, any issues that may impact the budget or schedule, and any steps taken to address these issues.

 Theoretical learning Activity

Within groups, discuss parts of site report

 Points to Remember (Take home message)

- Parts of site report
- Content of site report

Learning outcome 3.3: formative assessment

Written assessment

1. Describe a checklist that is relevant to weather reporting

Answer 1:

a) **Weather conditions**: sunny, thunderstorm, …
b) **Temperature**: Depending on where you are in the world, different temperatures are used.
c) **Wind speed**: This tells us how fast the wind is going.
d) **Chance of rain**: Also known as 'chance of precipitation', this tells you the likelihood that there is going to be rain at the certain points during the day.
e) **Location and time**: The good thing about weather reports is that they are very local. Weather can change from city to city, town to town and even village to village.

2. Discuss in details about parts of site report

Answer 2:

Parts of site report

- ✓ **Header:** a header typically refers to the top section of a report that contains important information such as the report title, date, author, company or organization name, and other relevant details.
- ✓ **Project details**: include project title, project start date, completion date, projects managers names

- ✓ **Report details**: These include report number, Reporting period (daily date, weekly dates….), Report Author, Reviewer
- ✓ **Site details**: These include overall site information (Safety& health, security issues, damages, supervision information
- ✓ **Construction activities**: This include Work that is carried out, progress made, planned work & achieved work, difficulties that affected, Quality of work done, labour& subcontractors, financial issues

Summative assessment

Integrated situation	Resources
GAHINI HOSPITAL in KAYONZA district Eastern province award STAR CONSTRUCTION the project of Rehabilitation of Laboratory (15x10x3.5m), to be rehabilitated in 3 months due to unsatisfactory of the existing one. In the meantime, while the project was in progress, insufficient data have been observed by the client (GAHINI HOSPITAL) therefore Gahini Hospital requested all necessary site data for the project. As a mason supervisor from star construction ltd you are requested to: a) Identify the project documents on site b) State the content in each document c) Fill the content in each document d) Arrange and manage these site records e) Communicate these site records to the concerned parties Assignment duration 6 hours	- Printer - Notebooks - Format Papers - Plain papers - Computer - Pens and pencils - Shelves - Files - Calculator - Office and its accessories

Assesment Criterion 1: Quality of Process

Checklist	Score	
	Yes	No
Indicator: Site documents are differentiated		
✓ Daily diary (Logbook)		
✓ Requests for Information (RFI)		
✓ Confirmation of verbal instructions (CVI)		
✓ Drawing register		
✓ Minutes of meetings		
✓ Approvals and inspections books		
✓ Planner (Work program)		
✓ Instruction books		
✓ Site Reports		
✓ Query and request forms		
✓ Purchase order		
✓ Goods receive note		
Indicator: Data about works done are collected		
✓ Quantities of works done		
✓ Procedures of work done		
✓ Site investigation		
✓ Site observation		
Indicator: Data about site resources are collected		
✓ Workforce		
✓ Materials used		
✓ Plant and equipment in use		
✓ Suppliers/deliveries		
✓ Petty cash		
✓ Transportation means		
Indicator: Site forms are filled		
✓ Site forms are filled with all necessary information:(ExampleLogbook is filled with: Works done, workers, weather conditions, materials, Equipment,…)		
Indicator: Site documents are arranged		
✓ Filing		
✓ Soft storage		
✓ Shelving		
✓ Binding		
Indicator: Site documents are safeguarded		
✓ Documents free from rain		
✓ Documents free from dust		
✓ Documents free from sun		

Indicator: Report is complied		
✓ Report contains all necessary information		
✓ Report is precise		
Observation		

Assesment Criterion 2: Quality of product

Checklist	Score	
	Yes	No
Indicator: All necessary site records are well done		
✓ Site data are well recorded		
✓ Site documents are well managed		
Observation		

Assesment Criterion 3: Relevance

Checklist	Score	
	Yes	No
Indicator: instructions are respected		
✓ Materials are well used: no waste of materials		
✓ Time is respected:6 hours		
Observation		

Assesment Criterion 4: Safety

Checklist	Score	
	Yes	No
Indicator: Personal protection equipment is used during data collection		
✓ Helmet		
✓ Reflector jacket		
✓ Safety shoes on site		
Observation		

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Hedley, G. and Garrett, C. (1983). *Practical Site Management* (2nd ed.). London: An illustrated Guide.