Carpentry

Level-II

Learning Guide-17

Unit of Competence: Read and Interprets plans and specifications

Module Title: Reading and Interpreting plans and specifications

LG Code: EIS CRP2 M05 LO2-LG-17

TTLM Code: EIS CRP2 M05 TTLM 0919v1

LO 2: Recognize amendments

Instruction Sheet	Learning Guide 17

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics:

- *Checking title panel of* project documentation
- *Checking Amendments to* specifications & *conveying currency information*

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, **upon completion of this** Learning **Guide, you will be able to**:

2.1. Title panel of project documentation is checked to verify latest amendments to drawing.

2.2. Amendments to specifications are checked to ensure currency of information and conveyed to others where appropriate.

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1, and Sheet 2”.
4. Accomplish the “Self-checks respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet**.**
6. Do the “LAP test” (if you are ready).

Information Sheet-1	Checking title panel of *project documentation*

2.1. Checking title panel of *project documentation*

2.1.1. Title Panels

A title panel (sometimes called a title block) is found on all drawings. It identifies which project the drawing is for and also gives some specific information about that particular drawing sheet. The title panel can be found at the bottom or the side (usually the right hand side) of the drawing sheet

The title block (T/B, TB) is an area of the drawing that conveys header-type information about the drawing, such as:

- Drawing title (hence the name "title block")
- Drawing number
- Part number(s)
- Name of the design activity (corporation, government agency, etc.)
- Identifying code of the design activity (such as a CAGE code)
- Address of the design activity (such as city, state/province, country)
- Measurement units of the drawing (for example, inches, millimeters)
- Default tolerances for dimension callouts where no tolerance is specified
- Boilerplate callouts of general specs
- Intellectual property rights warning

Traditional locations for the title block are the bottom right (most commonly) or the top right or center

Where the title panel is located and what it looks like are decided by the drafting or architectural company. They will usually incorporate company styles, colors and logo. Employees creating drawings will be required to follow company procedures by inserting and completing the title block correctly.

2.1.2. Revisions block

The revisions block (rev block) is a tabulated list of the revisions (versions) of the drawing, documenting the revision control.

Traditional locations for the revisions block are the top right (most commonly) or adjoining the title block in some way.

- **Next assembly**

The next assembly block, often also referred to as "where used" or sometimes "effectively block", is a list of higher assemblies where the product on the current drawing is used. This block is commonly found adjacent to the title block.

- **Notes panel**

The notes list provides notes to the user of the drawing, conveying any information that the callouts within the field of the drawing did not. It may include general notes, flag notes, or a mixture of both.

Some drawings have a ‘Notes’ as well as a title panel. The information in this panel is important, and must not be overlooked

Traditional locations for the notes list are anywhere along the edges of the field of the drawing.

- **General notes**

General notes (G/N, GN) apply generally to the contents of the drawing, as opposed to applying only to certain part numbers or certain surfaces or features.

- **Flag notes**

Flag notes or flag notes (FL, F/N) are notes that apply only where a flagged callout points, such as to particular surfaces, features, or part numbers. Typically the callout includes a flag icon. Some companies call such notes "delta notes", and the note number is enclosed inside a triangular symbol (similar to capital letter delta, Δ). "FL5" (flagnote 5) and "D5" (delta note 5) are typical ways to abbreviate in ASCII-only contexts.

- **Field of the drawing**

The field of the drawing (F/D, FD) is the main body or main area of the drawing, excluding the title block, rev block, P/L and so on

- **List of materials, bill of materials, parts list**

The list of materials (L/M, LM, LoM), bill of materials (B/M, BM, BoM), or parts list (P/L, PL) is a (usually tabular) list of the materials used to make a part, and/or the parts used to make an assembly. It may contain instructions for heat treatment, finishing, and other processes, for each part number. Sometimes such LoMs or PLs are separate documents from the drawing itself.

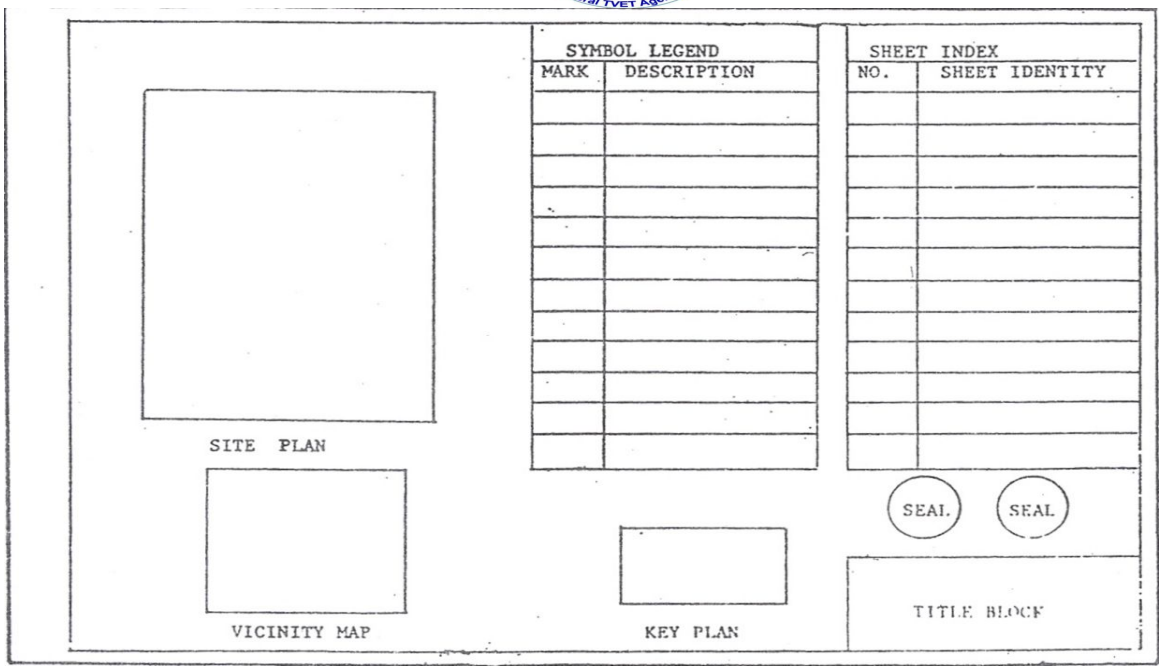
Traditional locations for the LoM/BoM are above the title block, or in a separate document.

- **Parameter tabulations**

Some drawings call out dimensions with parameter names (that is, variables, such a "A", "B", "C"), then tabulate rows of parameter values for each part number. Traditional locations for parameter tables, when such tables are used, are floating near the edges of the field of the drawing, either near the title block or elsewhere along the edges of the field.

- **Views and sections**

Each view or section is a separate set of projections, occupying a contiguous portion of the field of the drawing. Usually views and sections are called out with cross-references to specific zones of the field.



Sample of title panel

2.1.2 Project documentation

Project documentation covers documents created during and for the project itself. Examples include the overall project vision, the project plans, the schedule, and the risk analysis. The documentation process has a deeper purpose than merely creating piles of paper.

- **Documentation stimulates and structures critical thinking** in planning the project's goals, risks, and constraints. The document is the evidence and chronicle of this critical thinking.
- **It provides memory containers** for managing a level of detail that cannot be kept in people's heads. This includes the small details easily overlooked during day-to-day project work, as well as the larger things easily remembered today, but potentially lost or forgotten due to the passage of time or critical personnel changes.
- **It keeps the team and other stakeholders synced up and informed** about project changes, issues, and progress. In many projects, the documentation is often done late, done poorly, or not done at all usually because the documentation is perceived as having little or no value. And, in fact, this is true if the documents are created as an afterthought or a necessary evil. Even documents with adequate content will lose value if they are created at the wrong time during the project, or aren't used in the project management process. Here are some examples:

- **Timing:** If the project documentation is created at the wrong project stage, it may have little or no value, even if its content is quite good. Examples: a vision document created late in the project; a detailed schedule created before the stakeholders have agreed on an overall project vision.
- **Use:** If the plan, vision, or risk analysis documents are created and then rarely or never referenced, they will likely have little or no value except for generating some initial critical thinking during their creation. Examples: a risk analysis that isn't referenced to measure progress on mitigations, or updated with newly discovered

risks as they occur; a requirements document that isn't referenced later as a design completeness checklist.

- **Content:** Inadequate or incomplete content decreases a document's value, even if it is created on time and used correctly. Examples: a status report for product development that doesn't track the product costs; a risk analysis that doesn't include risk mitigations.

A key reason for documenting is to reduce the risks in the project. The level of detail in even the simplest project is simply too great for the human brain to capture, remember, and manage. Properly done, project documentation is a dynamic, animated extension of the brains of the stakeholders. It allows us to focus our limited mental processing and decision making on different areas of the project at different times, without having to keep the entire detailed state of the project in our heads

2.1.2.1. Standard and Procedure of project documentation

- **Details of Project Documentation Phases**

✓ **Feasibility Report**

The purpose of a feasibility report is to investigate and showcase task requirements and to determine whether the project is worthwhile and feasible. Feasibility is verified by five primary factors – technology and system, economic, legal, operational, and schedule. Secondary feasibility factors include market, resource, culture, and financial factors.

✓ **Project Charter**

Project charter is sometimes also known as the project overview statement. A project charter includes high-level planning components of a project, laying the foundation for the project. It acts as an anchor, holding you to the project's objectives and guiding you as a navigator through the milestones. It is formal approval of the project.

✓ **Requirement Specification**

A requirement specification document is a complete description of the system to be developed. It contains all interactions users will have with the system as well as non-functional requirements.

✓ **Design Document**

The design document showcases the high- or low-level design components of the system. The design document used for high-level design gradually evolves to include low-level design details. This document describes the architectural strategies of the system.

✓ **Work Plan/Estimate**

A work plan sets out the phases, activities, and tasks needed to deliver a project. The timeframes required to deliver a project, as well as resources and milestones, are also shown in a work plan. The work plan is referred to continually throughout the project. Actual progress is reviewed daily against the stated plan and is, therefore, the most critical document to deliver projects successfully.

✓ **Traceability Matrix**

A traceability matrix is a table that traces a requirement to the tests that are needed to verify that the requirement is fulfilled. A useful traceability matrix will provide backward and forward traceability: a requirement can be traced to a test and a test to a requirement.

- ✓ **Issue Tracker**

An issue tracker manages and maintains a list of issues. It helps add issues, assign them to people, and track the status and current responsibilities. It also helps develop a knowledge base that contains information on resolutions to common problems.

- ✓ **Change Management Document**

A change management document is used to capture progress and to record all changes made to a system. This helps in linking unanticipated adverse effects of a change.

- ✓ **Test Document**

A test document includes a test plan and test cases. A test case is a detailed procedure that thoroughly tests a feature or an aspect of a feature. While a test plan describes what to test, a test case describes how to perform a particular test.

- ✓ **Technical Document**

The technical document includes product definition and specification, design, manufacturing/development, quality assurance, product/system liability, product presentation, description of features, functions, and interfaces, safe and correct use, service and repair of a technical product as well as its safe disposal.

- ✓ **Functional Document**

Functional specifications define the inner workings of the proposed system. They do not include the specification of how the system function will be implemented. Instead, this project documentation focuses on what various other agents (such as people or a computer) might observe when interacting with the system.

- ✓ **User Manual**

User Manual is the standard operating procedure for the system.

- ✓ **Transition/Rollout Plan**

The rollout plan includes detailed instructions on how to implement the system in an organization. It consists of the schematic planning of the rollout steps and phases. It also describes the training plan for the system.

- ✓ **Handover Document**

The handover document is a synopsis of the system with a listing of all the deliverables of the system.

- ✓ **Contract Closure**

Contract closure refers to the process of completing all tasks and terms that are mentioned as deliverable and outstanding upon the initial drafting of the contract. This is only applicable in cases of outsourced projects.

- ✓ **Lessons Learned**

Lessons learned in project documentation are used at midpoints of the project and at project completion to catalog significant new learning that have evolved as a result of the project. They are used to build the knowledge base for the organization and to establish a history of best and worse practices in project implementation and customer relation.

Proper project documentation is undoubtedly a mandatory element in managing projects, but it is also extremely useful in keeping projects moving at a speedy pace, ensuring all stakeholders are as informed as possible, and helping the organization make better improvements in future projects.

Self-Check -1	Written Test

Directions: choose the correct Answer for the questions listed below. Use the Answer sheet provided in the next page:

1. an area of the drawing that conveys header, type information about the drawing
   A. title panel
   B. title block
   C. drawing title
   D. all of the above
2. where the title block is located and what look like are decided by the----------
   A. Drafting /Architect company
   B. Construction company
   C. Consultants company
   D. Owner
3. ---------- is the main body or main area of the drawing sheet excluding the title block & revision block
   A. General notes
   B. Flag notes
   C. Field of the drawing
   D. List of materials
4. ---------- conveys all documents creates during or for the project it self
   A. Project documentation
   B. Construction project
   C. Site plan
   D. Drawing sheet
5. A key reason for documenting is?
   A. To reduce the risk in the project
   B. To capture, remember and manage
   C. To properly done
   D. All of the above

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

1. ----------
2. ----------
3. ----------
4. ----------
5. ----------

Information Sheet- 2	*Checking Amendments to* specifications & *conveying currency information*

2.2. *Checking Amendments to* specifications & *conveying currency information*

2.2.1. Specification

A specification is a written description of the building to be constructed. It supplements the information on the drawings and, like the drawings, it is a legal part of the contract between the client and the builder. A specification might only be a few pages long for a small project such as an addition to a house, or it might be a multi-volume set of bound books for a big project such as a shopping mall or high-rise building. For a large commercial or industrial project there may be a specification for the architectural features, and additional specifications for the plumbing, electrical and mechanical requirements of the job. For house construction, one specification booklet is usually sufficient

- **The purpose of a specification**

Drawings are the best way to convey most of the information required for a building project, but a specification is needed to explain anything that cannot be included clearly in the drawings.

Specifications are commonly used to communicate the following.

- ✓ Fixture and fittings to be used, where things like dimensions, colour or model number are important – for example 'Acme 'De Luxe claw foot bath, 1675mm, white'
- ✓ To provide instructions to the builder or trades people for how something is to be done. For example, drawings might show that internal walls are to have a plaster finish, but it is the specification that tells the plasterer how – 'bring walls to a reasonable flat surface by the application of a cement render flaot coat while the plaster is setting'. Instructions can also relate to regulations – 'all lintels shall be galvanised treated, in accordance with BCA Clause 3.3.3.4'.
- ✓ To provide instructions to the builder about things that may not be part of the finished building but that nevertheless need to happen during the project – for example, safety barriers, disposal of rubbish or protection or adjoining properties.

Specifications usually include a clause about making good any damage to footpaths, fences and any other amenities in the vicinity of the project. There will also be a clause that deals with the general quality of the materials and workmanship to be used. This usually reads something like: All materials are to be new and of best quality and all work is to be carried out to best practice and to the relevant Australian Standard® where one applies

- **Layout**

The specification for a house is divided into sections (like short chapters) that each deal with a specific trade that will be involved in the project. The sections are usually arranged in the same order that the job will be done in – starting with excavator, concreter and bricklayer through to painter, floor coverer and landscaper at the end. Each section may contain detailed descriptions specific to that job or it may just contain general instructions about workmanship, quality and so on. In that case, it will refer to a schedule at the end of the specification. The schedule will have details for a particular job; for example, sizes of skirting,

paint finishes, types of doors, brand of stove, color of bath and so on. A section called 'preliminaries' at the start of the specification deals with general things, such as the extent of the work, temporary services, the job sign, site sheds and toilets, temporary fences or hoardings and access for the client during construction. In project-home building – where the same model is built over and over for different clients – they may use a standard specification and add to that an addendum that includes the selections and specific details for each client.

2.2.2. Amendments

An amendment is a change to a project that is decided after the drawings have been finalized. Amendments are sometimes called revisions. These changes could happen because the client requests them (for example, the client may want an extra window in the study) or because the builder realizes something will work better if it's done slightly differently. Either way, they need to be shown on paper so that everyone knows about them, they are constructed correctly and there are no arguments later. So obviously it is important to use the latest version of the plans. If this means that the building will vary from the way it was shown in the original contract documents, a written instruction will be issued by the architect/client and, if necessary, the drawings will be amended (changed) and re-issued.

Sometimes changes, (amendments), might be made to the specification. Amendments could relate, for example, to changes to materials or products used or methods of carrying out specified work. They should be clearly marked so that everyone who needs to notices them. Amendments usually have to be signed or initialed by both the builder and the client to show they both agree. On rare occasions, the specification may conflict with the drawings. For example, the specification may call for the front door to have a glass panel in the top half, yet the elevation may show no glass in the door. In this case, the builder should contact the architect or client and ask for clarification.

- **General Provisions for amendment of specifications**

1. An amendment of a complete specification is not allowable at any time:
2. An amendment of a complete specification is not allowable after the relevant time, that is:
    i. after acceptance of a standard patent; or
    ii. after a decision to certify an innovation patent;
3. An amendment of a complete specification for an innovation patent is not allowable until after the patent has been granted, unless it is an amendment proposed in response to a formalities direction.
4. An amendment of a complete specification for an innovation patent is not allowable if it would result in the specification claiming:
5. An amendment of a complete specification relating to the deposit requirements of sec 6(c) is not allowable if the amendment would result in the specification not including each of the matters specified in sec 6(c).
6. An amendment of a complete specification is not allowable if the Commissioner has given a copy of the amendment request to a person identified below and that person has not been given a reasonable opportunity to be heard with respect to the amendment:

An amendment of a complete specification is not allowable if making the amendment would be contrary to other major part of specification

That is, a complete specification must not be amended where relevant Court proceedings are pending or when an appeal has been made against a decision of the Commissioner, except where the amendments are directed by the Court

Self-Check -2	Written Test

Directions: Saying True or False for the questions listed below. Use the Answer sheet provided in the next page:

1. Amendment is a change to a project that is decided after the drawing have been finalized
2. Changes / amendments might not be made to specification rather than drawing
3. Specification are best way to convey most of the information required for the builder than drawing
4. One of the purpose of specifications is to provide instruction to the builder

Note: **Satisfactory rating - 3 points** **Unsatisfactory - below 3 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

1. ----------
2. ----------
3. ----------
4. ----------
5. ----------

Operation Sheet 1	Techniques of *Checking title panel of* project documentation

1.1. The techniques of *Checking title panel of* project documentation;

Step 1- Check the availability of title block/ title panel on the drawing sheet

Step 2- List out all information should be included in the title panel

Step 3- Review the information on the title panel

Step 4- Check the measurements and units

Step 5- Check the availability of all necessary documents

LAP Test	Practical Demonstration

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within 8-12 hours.

Task one: Review all Information's on title block
Task two: List out the information that amended
Task three: List each measurements

Table of Answer keys for the self checks provided on each information sheets

UNIT OF COMPETENCY: Read And Interpret Plan And Specification							
LO: 2 LG: 17 Recognizes amendments							
Self check: 1		Self check:2		Self check:3		Self check:4	
Multiple choice		True or False					
1	D	1	True	1		1	
2	A	2	False	2		2	
3	C	3	True	3		3	
4	A	4	True	4		4	
5	D	5		5		5	

List of Reference Materials

References hand and power tools

- Design drawings and technical specifications AUTHORS: Rod Davis and Ross Stafford
- Designing Buildings
- Architectural Working Drawings8Ch
- Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices
- Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring By Devices Henry V. Oppermann, Chief NIST Weights and Measures Division Gaithersburg, MD 20899-2600
- Ethiopian Building Cod Standards ministry of work and urban development
- **Engineering drawing abbreviations and symbols**
- From Wikipedia, the free encyclopedia
- READ AND INTERPRET PLANS AND SPECIFICATIONS CERTIFICATE II IN BUILDING AND CONSTRUCTION (PATHWAY – PARAPROFESSIONAL) CPCCCM2001A LEARNER'S GUIDE on BUILDING AND CONSTRUCTION

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