



Australian Government

MEM09227 Establish structural steel detailing project arrangements

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSATCS503A Incorporate structural steel detailing into fabrication and construction project management.

Application

This unit of competency defines the skills and knowledge required to establish structural steel detailing arrangements carried out for residential, commercial, industrial or mining projects in a manner consistent with procedures and timelines for fabrication and construction projects. The unit requires knowledge of the roles of architects, engineers, builders and fabricators and the skill to interpret project schedules and timelines and their implications for structural steel detailing.

This unit applies to structural steel detailers who are required to liaise with architects, consulting engineers, builders and fabricators at the commencement of a project to establish structural steel detailing arrangements that are consistent with the policies, procedures and timelines of fabrication or construction projects.

Design information in this unit is the information provided to the detailer and fabricator by the architects and consulting engineers for a project. For some projects, the design information may only be provided by an engineer. The design information will usually be in the form of design drawings or sketches but may also be via material lists, written instructions or computer files.

The term 'client' in this unit refers to the organisation commissioning the production of structural steel detail drawings and will normally be the fabricator of structural steel elements of a construction project. However, depending on the project the client may vary and could be the consulting engineer, or in the case of mining projects, it could be the mining company. The client may commission structural steel detail drawing from either internal or external structural steel detailers.

Work may be performed individually on a contracting/project basis or as part of a project team in response to combinations of paper-based and digital instructions.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Competency Field

Drawing, drafting and design

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Identify job requirements from specifications and other available information
2. Determine requirements for structural steel detailing	2.1 Obtain contact information 2.2 Obtain project timeline and schedules and determine delivery dates for detail drawings 2.3 Agree on procedures for making requests for further information (RFIs) 2.4 Determine requirements for attendance at team meetings and site visits 2.5 Determine detailing information requirements 2.6 Obtain design information from architect and consulting engineer 2.7 Use design information and project schedules to assess the scope and complexity of detailing tasks
3. Establish structural steel detailing arrangements for project	3.1 Communicate details of structural steel detailing team to client 3.2 Establish document control procedures 3.3 Establish steel detailing tasks and deadlines and check against construction project schedules 3.4 Assess capabilities of proprietary computer-aided design (CAD) and steel detailing software for project and make a decision to use computer based or manual structural detailing methods

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Contacts include one or more of the following:	• client • architect • consulting engineer • builder • fabricator.
Schedules include one or more of the following:	• Gantt charts • contract schedules • lists of contractors • contracted suppliers • any other lists or diagrams relevant to determining the required delivery dates for structural steel detail drawings.
Client detailing requirements include one or more of the following:	• shop detail drawings, erection diagrams and material schedules and lists • program and format for CAD files and models • downloading by the structural steel detailer of files direct to client computers and computer numerical control (CNC) machines • size and number of hard copy drawings • specification of programs and requirements for word processed documents, spreadsheets, presentations, invoices and other documentation.
Document control procedures include one or more of the following:	• numbering • access • filing • revision and updating approval procedures according to organisational procedures and client requirements.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSATCS503A Incorporate structural steel detailing into fabrication and construction project management.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>