# Project Assessment

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MSFFM3011 - Measure and draw site layout for manufactured furniture products (1)

### Qualification/Course code, name and release number

MSF31113 - Certificate III in Cabinet Making (6)

Version: *1.0*

Date created: *2 August 2018*

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a project based assessment and will be assessing the student on their knowledge and performance of the unit.  This assessment is in 2 parts and includes an Assessment Feedback form:   1. Project 2. Assessment Checklist   You will need to ensure there is a suitable site that can be changed for each student to measure angles, services, levels, unique and non-complying features.  Students at a TAFE Campus will be assessed by the assessor while measuring walls set up for the Task.  Off-site students can digitally record themselves and submit the digital file as evidence. Students will need to include in the digital record:   * Video of the building and room to be measured * Architectural drawings of the building or room * Full coverage of the measurement process * Video evidence to confirm measurement sizes   Model answers, sample responses or a criteria for each question are provided below.  Use these to support your judgement when determining a satisfactory result.  The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct. However, if a student provides information other than indicated below, the assessor may ask the student to clarify or resubmit their response if it does not reflect the evidence required by the unit of competency (refer to mapping if needed to confirm sufficiency of response).  The assessment feedback page must be signed by both the student and the assessor so the student displays that they have received, understood and accepted the feedback.  Complete the assessment feedback to the student and ensure you have taken a copy of the assessment prior to it being returned to the student. |
| **About this marking guide** | All tasks and activities must responded to correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each answer/response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the answer address the assessment question and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the answer sufficient in terms of length and depth?   + Currency – has the work been done so recently as to be current?   + Authenticity – is this work the student’s own authentic work? * Principles of Assessment:   + Fairness – individual student’s needs are considered in the assessment process   + Flexibility – assessment is flexible to the individual student   + Validity – any assessment decision is justified, based on the evidence of performance of the student   + Reliability – evidence presented for assessment is consistently interpreted and assessment results are comparable irrespective of the assessor conducting the assessment * Dimensions of Competency   + Task skills   + Task Management Skills   + Contingency Planning Skills   + Job Role Environment Skills |
| **Student must provide** | Appropriate approved PPE, (safety helmet, eye wear, hearing protection, safety boots, protective clothing, (hair restraint *if required),* A4 or A3 paper and folder, drawing board, calculator, pens, pencils, erasers, USB for electronic file downloading and saving.  For off-site students you will also require measuring devices *(tape measure, laser, levels)*, internet and a computer.  Off-site students will need to submit a time lapse video of the measuring assessment. |
| **Assessor must provide** | Computers, CAD Programs, student workbook. These may be hard copy or made available online.  Suitable site to measure walls, floors, ceilings, measuring devices *(tape measure, laser, levels)*. |
| **Due date and time allowed** | TBA/240 minutes/TBA  The Task within this assessment will be completed over a period of time and not on one occasion.  You are required to submit each Task as it is completed. Your teacher will provide feedback on each Task prior to your submitting the next Task.  Please communicate with your teacher to clarify any uncertainties. |

## Specific task instructions

Using the information provided and the criteria listed on the Assessment Checklist, students will need to create a Portfolio, *(using the templates provided)* to measure and draw a kitchen area for furnishings to be installed.

Simulated Environment Conditions

***Note: The assessor may direct you to use different equipment in different spaces to ensure competency is applied in new and different situations.***

## Part 1: Project

To complete this part of the assessment, the student will be required to create a Portfolio using the templates provided below. The steps required to be followed to complete the Portfolio are provided below.

Some of these steps will require the assessor to directly observe the student performing the step and this will be recorded in the Assessment Checklist (Part 2).

Prior to any undertaking any assessment for this unit, students will need to have been inducted on each tool and sign off on a Standard Operating Procedure (SOP) for each.

## Steps in the Project (including Due Dates)

1. The customer has provided you with a sample drawing of a kitchen design (*Sample Drawing Detail for Kitchen*). They would like you to measure their site and provide information to them on how this could be achieved at their site. Your assessor will provide you with the site location to be measured.

Refer to this information provided by the customer to determine the customer’s requirements and complete the *Client Brief* provided on the following pages.

Construct a professional email to the client (your assessor):

* Advising that a Client Brief has been created for their job
* Asking them to review the details of the Client Brief
* Asking them to confirm that the details within the Client Brief are correct
* Asking them to outline any omissions or errors in the Client Brief
* Attaching the Client Brief you have created

You may choose to use the link below for guidance on creating a professional email.

<https://www.independent.co.uk/life-style/email-greeting-start-polite-business-etiquette-tips-advice-a8458086.html>

Save this Draft email and print a copy to be submitted to your assessor.

PC1.1, PC2.1, PE1, PE2, KE1

1. Work Site Evaluation Checklist PC1.1,PC2.1,PE1, PE2

1. Students will need to work with another class member to complete the provided *Work Site Evaluation Checklist*. Each student will submit an individual copy of the completed Checklist.

This is for the purpose of ensuring a student is aware of the hazards involved in entering a construction worksite. It will also show the student has the skills to identify how to manage and reduce the risk of injuries prior to entering a construction worksite.

The Work Site Evaluation Checklist will document the access, identify the evacuation plan, hazards, services, load bearing walls and non-structural walls, material types and potential changes to plans to suite the new furnishings.

1. Freehand plan *(Birdseye or looking down on view)* sketch Site Layout PC2.2, PE4, KE2

Students will draw the plan view of the worksite as a free hand sketch *(walls and property borders only)* using the page provided.

1. Free hand plan sketch of site including measurements

PC1.2, 1.3, 1.4, 2.2, PE3, PE4, KE2, KE4, KE6

Students will measure the site for the purpose of fabricating and installing furnishings.

Create a freehand sketch *(mud map)* including the measurements taken and angles of the walls, ceilings and floors, doors, windows and services of the room that will have the furnishings installed once made and fitted.

1. Free hand elevation sketch of site area

PC2.3, PE3, PE4, KE2

Students are to produce a free hand elevation sketch of the site to have new furnishing in it. Include the measurements of the angles of the walls, the ceilings, floors, windows and services including furnishings on one elevation.

1. CAD (computer aided drawing) of the walls and services to scale

PC1.5, 2.2, PE4, KE2

With the aid of CAD software, create a drawing of the walls and services, including tolerances.

1. CAD (computer aided drawing) of the walls and furnishings to scale

PC2.2, 2.3, PE4, KE2

Using the CAD file of the walls as a template, create a CAD drawing to include the furnishings to scale, including tolerances.

1. Material estimation PC1.4, PE6, KE5

Students are required to estimate material requirements for the job.

You may choose to use the supplied *Materials Guide* in this assessment for itemised costings, or you can obtain your own costings from individual research, to estimate the materials required for the furnishing project.

Perform calculations to complete the provided *Material and Cost Estimation Table* provided in this assessment.

1. Project Schedule (including trades) PE7, PE8, KE3 *(Due Week 5)*

Students are required to complete the *Project Schedule* provided for a work schedule for the project including timelines and trades.

In addition, answer the questions that follow the Project Schedule to confirm your knowledge of saving time and materials and minimizing wastage.

1. Impact on manufacturing and installation PC2.4, PE1, PE2, PE5, PE7

Students are required to identify the unique and non-complying features that impact on the manufacturing and installation of the project by completing the table *Impact on manufacturing and installation* provided. This includes identifying which trades will be effected.

Construct a professional email to your assessor:

* Advising that there are issues that impact on the manufacturing and installation of the Project
* Outlining which trades are affected, and how each trade is affected.

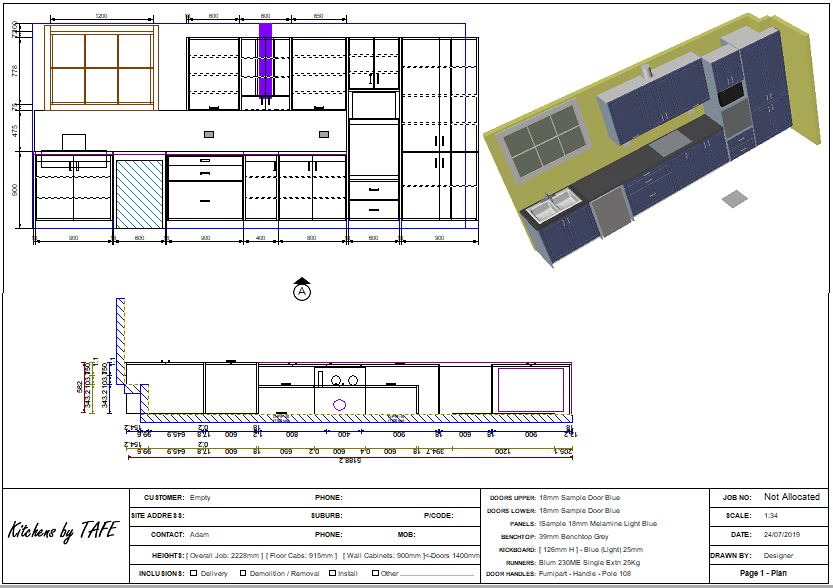
The completed Project is to be submitted for assessing no later than

Students at a TAFE Campus will be assessed by the assessor while measuring walls set up for the Task.

Off-site students can digitally record themselves and submit the digital file as evidence. Students will need to include in the digital record:

* Video of the building and room to be measured
* Architectural drawings of the building or room
* Full coverage of the measurement process
* Video evidence to confirm measurement sizes

## Sample Detail Drawing for Kitchen

This is a sample detail drawing for the kitchen to be installed in the specified area

## © TAFE NSW 2019

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Client Brief Clarify the client’s requirements for the project used in this portfolio. Use the template below (add rows if required) or create your own. Email to client to confirm.  Table 2 Client Brief   |  |  | | --- | --- | | *Client Brief* | | | Clients Name: | Mr H. Cunningham | | Address: | 565 North Clinton Drive in Milwaukee | | Contact Details: | 555 365642187 | | Email details: | hcunningham@hey.woh | | Client: | Howie Cunningham | | Site Foreman: | Author Fonzarelli | | Plumber: | Vincent Pizo's Plumbing | | Electrician: | Morks Electrical | | Builder: | Bob’s Building Services | | Project Details: House Renovations | | | Extend room | Make Kitchen area larger as per plan | | New Kitchen | Remove old Kitchen and install a new modern Kitchen | | New Bathroom | Remove old Bathroom and install modern Bathroom | |  |  | | Special Requirements | | | Project | Appliances to be new, white in colour. Wall colours and finishes | |  | To be selected. | | Bench’s | To have section for wheel chair to move under bench top | | Windows | Need more to open area and give more natural light | | Budget | | | Limited | Under 5K | |  |  | | Designer : Joanie and Chochi Date: 7/9/1958 | | |

## Sample email to client

## Work Site Evaluation Checklist

## *\* note to assessor. Area to be measured can vary.*

Table Work site evaluation checklist

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Site Evaluation Form: | | | | | | | | | |
| Site address | TAFE workshop simulation area | | | | Site date | | | TBA | |
| New work description | New Kitchen. | | | | | | | | |
| Site manager | Class trainer/assessor | | | | Contact Number | | | XYZ 94623147 | |
| Inspection Item | | | | Yes | | No | N/A | Comments | |
| Site manager (assessor) has confirmed access | | | |  | |  |  | Arranged access and confirmed by email/text | |
| Site manager (assessor) has confirmed area to be measured | | | |  | |  |  | Latest version was confirmed and area was confirmed. | |
| Appropriate PPE is selected and worn | | | |  | |  |  | Hard hat, eye protection, hearing protection, foot protection, appropriate clothing, | |
| Safe access to site is identified | | | |  | |  |  | Entrance is clear of hazards direct access through doorway. | |
| Evacuation area and plan is identified | | | |  | |  |  | Site induction has identified evacuation procedure and area. | |
| Inspection Item | | | | Yes | | No | N/A | Comments | |
| New work area is identified and confirmed | | | |  | |  |  | Walls for new furnishings are identified of detail drawings. | |
| Floor surfaces are flat, even and dry | | | |  | |  |  | Uneven floor surface is identified and barricaded. | |
| Floor coverings are in good condition | | | |  | |  |  | Floor covering will need to be removed for kitchen installation. | |
| Walkways are clear of obstructions and trip hazards, e.g. debris, electrical, building materials | | | |  | |  |  | Chairs and display cabinet will need to be moved for installation, check measure is accessible. | |
| Stairs, steps and handrails are in good condition | | | |  | |  |  | No steps or hand rails are in the area | |
| All areas are adequately lit | | | |  | |  |  | All lights are working | |
| Ventilation feels adequate, e.g. not stuffy | | | |  | |  |  | Windows can be opened, pedestal fan is available | |
| Area for new work is identified | | | |  | |  |  | Far wall straight ahead with plumbing on wall to the right hand side under windows | |
| Services are located | | | |  | |  |  | On the far wall to the right of a column and waste is in the floor. | |
| Services are isolated | | | |  | |  |  | All services are isolated. | |
| Wall style and materials are identified | | | |  | |  |  | Double brick and cement rendered. | |
| Inspection Item | | | | Yes | | No | N/A | Comments | |
| Load bearing walls are identified | | | |  | |  |  | All perimeter walls are load bearing and internal floor to ceiling walls are load bearing as it has a level above. | |
| Non-structural walls are identified | | | |  | |  |  | One wall behind the cabinetry on the right hand side is non-structural as it is not to the ceiling. | |
| Doors, windows and openings are confirmed | | | |  | |  |  | No doors affect the new furnishings, windows start 2100mm from floor and run across the full wall of new furnishings. | |
| Measuring devices required are identified.  Measurements are made. | | | |  | |  |  | Measurements were made with Tape measure/laser. Angle finders were used on the corners, levels were used to check wall plumpness and floor level. | |
| Entrance openings are measured and documented | | | |  | |  |  | Two entrance doors open to a 1000mm entrance. | |
| Comments:  Area has been confirmed and identified.  Access for furnishings from truck is straight up to a loading dock with a roller door entrance from a room behind. Trolleys will be required to move furnishings from the loading dock. | | | | | | | | | |
| Student Signature:  Student | | Date:  01/01/0001 | Assessor confirmation:  Name: Assessor  Signature: *Assessor* | | | | | | Date:  01/01/0001 |

## Free hand plan sketch of Site Layout

|  |
| --- |
| *\* Note to assessor. Area to be measured can vary.* |
| © TAFE NSW 2019 |

## Free hand plan sketch of site area, including measurements

|  |
| --- |
| *\* Note to assessor. Area to be measured can vary.* |
| © TAFE NSW 2019 |

## Free hand elevation sketch of site area

|  |
| --- |
| *\* Note to assessor. Area to be measured can vary.* |
| © TAFE NSW 2019 |

## CAD (computer aided drawing) of the walls and services to scale

|  |
| --- |
| *\* Note to assessor. Area to be measured can vary.* |
| **Scale**      Hot Water  Waste  Cold Water  © TAFE NSW 2019 |

## CAD (computer aided drawing) of the walls and furnishings to scale

|  |
| --- |
| *\* Note to assessor. Area to be measured can vary.* |
| © TAFE NSW 2019 |

## Materials Guide

The prices in this table are average estimates and are only to be used for this activity.

Table Materials Guide

|  |  |  |
| --- | --- | --- |
| Materials Guide |  | Square metre rate |
| Plasterboard | 2400mm x 1200mm x 10mm standard Plasterboard | $5.00 per m² |
| Plasterboard | 2700mm x 1800mm x 10mm standard Plasterboard | $5.00 per m² |
| Bricks/blocks | Internal wall single side | $700.00 per m² |
| Rendering | Cement | $150.00 per m² |
| Concrete | 200mm thick | $300.00 per m³ |
| Tiles | Standard plain 150mm x 150mm | $150.00 m² |
| Vinyl Flooring | Middle grade commercial grade | $50.00 per m² |
| Timber flooring | Cyprus 115mm x 25mm | $5.00 per lineal metre |
| Synthetic bench top | Corian/ | $800.00 per m² |
| Stone bench top | Natural and reconstituted | $650.00 per m² |
| Laminate bench top | Any Brand Pattern or plain | $300.00 per m² |
| Timber bench top | Any special species will need to be quoted | $520.00 per m² |
| White HMR particle board Kitchen cabinets | Basic hardware & fittings | $500.00 per metre |
| Solid timber | Tasmanian oak for furnishings | $2000.00 per m³ |
| Wall Paint | Middle quality paint | $65.00 m² |
| Cabinet painted panels | Flat panels with polyurethane | $150.00 per m² |
| Timber clear coatings | Polyurethane | $50.00 per m² |
| Waterproofing | Silicon injected damp-proof course | $85.00 per m² |

## Material and Cost Estimation Table

For this part of the assessment, use information from the previous table to create an estimate of materials and costs.

Table 5 Materials and Cost Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Surface/area | Material | Square meters | Lineal meters | M² , M³ or lineal rate | Material Cost |
| Walls | Plaster board 2.4 x 1.2 x 10mm | 12 m² |  | $5 per m² | $60.00 |
| Floors | Vinyl | 18 m² |  | $50.00 per m² | $900.00 |
| Furnishing Carcases | White HMR particle board Kitchen cabinets |  | 9 L mt | $500.00 per mt | $4500.00 |
| Furnishing Tops | Laminate bench top | 5.4 m² |  | $300.00 per m² | $1620.00 |
| Splash back | Tiles | 4.5 m² |  | $150.00 per m² | $614.25 |
| Kitchen | Sundries |  |  |  | $500.00 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Total Cost = | | | | | $8194.25 |

## Project Schedule *\* note to assessor. Area to be scheduled can vary. Below is an example.*

Table 6 Project schedule

|  | Task | Trade | Date | S | U/S | Comments |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Disconnect water services | Plumber | 1/2/19 |  |  | am to make room for electrician |
| 2 | Disconnect electrical services | Electrician | 1/2/19 |  |  | pm after plumber |
| 3 | Remove wall sheeting | Plasterer or labourer | 2/2/19 |  |  | Need to notify carpenter of rotted frame to repair. |
| 4 | Remove non-load bearing wall & erect new wall | Carpenter | 3/2/19 |  |  | Rotten timber repaired |
| 5 | Remove and relocate water & waste | Plumber | 4/2/19 |  |  | am to make room for electrician |
| 6 | Remove and relocate electrical outlets and lighting | Electrician | 4/2/19 |  |  | pm after plumber |
| 7 | Remove existing floor coverings | Flooring technician | 5/2/19 |  |  | Notify floor technician about levelling to other area |
| 8 | Reline plaster board and set | Plasterer | 6/2/19 |  |  | Advise check measure when ready |
| 9 | Check measure for furnishings | Designer/Cabinetmaker | 7/2/19 |  |  | Confirm sizes and services to detail drawing |
|  | Task | Trade | Date | S | U/S | Comments |
| 10 | Install new floor coverings | Flooring technician | 8/2/19 |  |  | Need time for glue to dry. Block area to avoid walking on finished floor. |
| 11 | Install furnishings | Cabinetmaker | 11/2/19 |  |  | Ensure cabinetmaker protects floor coverings |
| 12 | Reconnect plumbing | Plumber | 13/2/19 |  |  | Check for leaks when completed |
| 13 | Reconnect electrical outlets, appliances and lighting | Electrician | 14/2/19 |  |  | Check all appliances, lights and outlets are working |
| 14 | Tile splash back | Tiler | 15/2/19 |  |  | Ensure bench tops and floors are protected |
| 15 | Paint walls | Painter | 16/2/19 |  |  | Ensure bench tops and floors are protected |
| 15 | Final clean up | Cleaner/Labourer | 18/2/19 |  |  | Check for marks and faults and organise trades to repair if needed |
| 16 | Present to site manager/owner | Designer/Cabinetmaker | 19/2/19 |  |  | Sign off or create faults list and organise trade to repair |

## Minimising Wastage

## In Steps 8 and 9 of the Project, you developed documentation outlining an estimation of materials and costs, and the project schedule. By referring to these completed documents, describe how you have minimised wastage of the following resources:

Your answer should be a minimum of 25 words but no longer than 100 words for each heading.

## Materials:

By calculating the area needed and reducing the percentage of wastage. Selecting the smaller sheet size for the plaster board reduced the amount of waste. Ensuring the trades worked in a sequence and stuck to that also reduced materials as errors were reduced by not duplicating a procedure.

## Time:

Sequencing the trades in order of fabrication and monitoring that, ensured the job ran on time and any errors were picked up early which reduced back tracing to repair.

## Money:

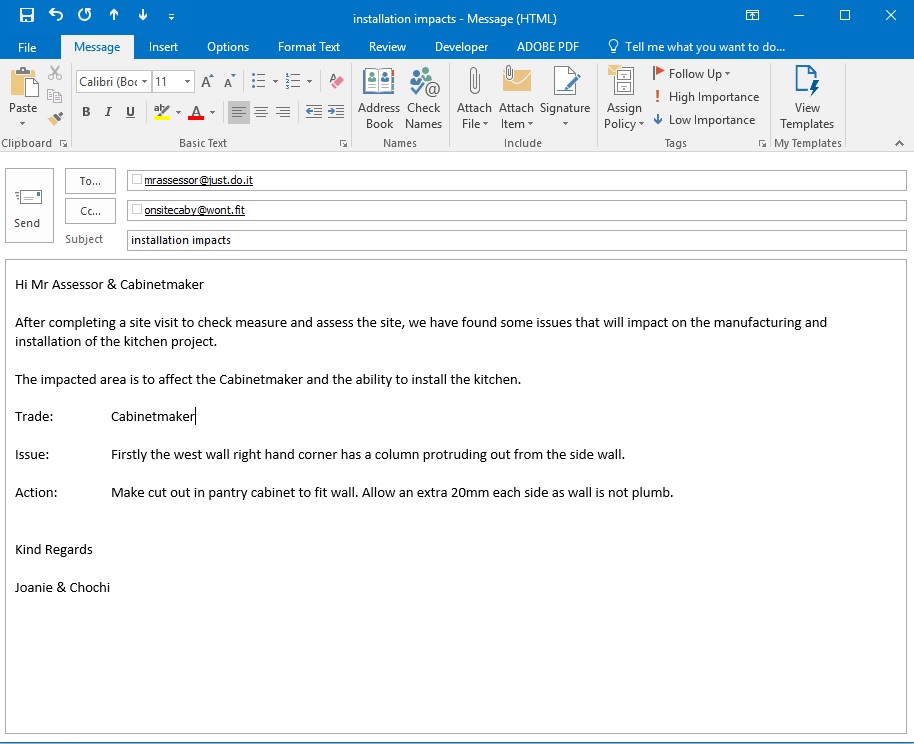
The reduction of materials by reducing material quantities. Communication with contractors, to ensure they turn up on the scheduled time and complete work to meet the schedule.

## Impact on manufacturing and installation *\* note to assessor. Area to be measured can vary. Below is an example.*

Table 7 Impact on manufacturing and installation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Location | Impact | Action | Notify | Comfirmation |
| 1 | West wall right hand corner | Column in corner | Make cut out in cabinet to fit | Cabinetmaker | Email 1.1.01 |
| 2 | West wall plumbing | Floor waste | Pipe needs to be extended | Plumber | Email 1.1.01 |
| 3 | West wall window | Ducting | Hole needs to be cut for ducting. | Glazier | Email 1.1.01 |
| 4 | Floor | Uneven floor | Remove carpet and pack floor for vinyl | Flooring Team | Email 1.1.01 |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |
| 7 |  |  |  |  |  |
| 8 |  |  |  |  |  |
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| 12 |  |  |  |  |  |
| 13 |  |  |  |  |  |

## Confirmation email of issues



## Part 2: Assessment Checklist

The student’s copy of the Assessment Checklist will be used by you to capture evidence of their performance in any type of project. This checklist outlines all the required criteria you will be marking the student on. All criteria must be met. The following checklist contains benchmark responses for you to use when assessing to ensure reliability of judgement. You may ask questions during the demonstration or if appropriate directly after the assessment has been completed noting that both the question and student response needs to be captured on the checklist.

Table 8 Assessment Checklist

| TASK # | Instructions | S | U/S | Date | Assessor Comments |
| --- | --- | --- | --- | --- | --- |
| **1**  **2**  **3**  **4**  **5**  **6**  **7**  **8**  **9**  **10** | Complete a Client Brief to determine customer requirements  Construct a professional email to be sent to the customer to confirm the Client Brief  Complete the Work Site Evaluation Checklist for the site, ensuring you include access and safety of the site.  Complete a free hand sketch in plan view of the site.  Complete a freehand sketch of the room to be furnished, including the measurements needs to be drawn.  Create a freehand sketch in an elevation view of the walls, doors, windows and furnishings of the room, including the furnishings to be installed once made and fitted.  Create a CAD drawing of the walls and services of the room (to scale) to have the furnishings fitted.  Using the CAD file of the walls, create a drawing to include the furnishings to scale.  Using the Materials Guide supplied, estimate the materials and costs for the furnishing project in the room that has been measured and drawn.  Complete a Project Schedule for the project including timelines and trades. Describe how materials, time and money was minimised on the project.  Student is to identify the unique and non-complying features that will impact on the manufacturing and installation of the project. This is done by completing the table provided *Impact on manufacturing and installation.*  Construct a professional email outlining these impacts and the trades affected. |  |  |  | *As site dimensions will vary across Delivery locations, it is ESSENTIAL that the assessor record on the student’s Assessment Checklist, the dimensions of the site, as measured by the student. These will be required to check the student’s sketches and detailed drawings.*  *Student will fill in all sections of the Client Brief template as per the benchmark response provided*  *Student will construct a professional email for the customer, as per the benchmark response provided.*  *Student produces a completed Work Site Evaluation Checklist for the site, as per the completed benchmark response. All sections of the Checklist are to be completed.*  *The student will need to produce a freehand sketch of the property boarders and building walls. Use the benchmark sample as a guide. Digital evidence may be needed for off-site students.*  *The student will need to produce a freehand sketch of the room to be furnished.*  *Measure all walls and angles in corners and walls for plum for relevant New Furnishings. Include measurements taken and angles of walls, ceilings and floors, doors, windows and services.*  *Use the completed benchmark as a guide.*  *Digital evidence may be needed for off-site. Measurements and irregularities for off-site students will need to be confirmed by digital media.*  *The student will need to produce a freehand sketch in an elevation view of the room to be furnished.*  *Items to be included wall, doors and windows and furnishings. Use the completed benchmark as a guide for other areas measured. Digital evidence may be needed for off-site. Measurements for off-site students will need to be confirmed by digital media.*  *The student will need to produce a Computer aided drawing of the room to be furnished. It will need to include walls and services, including tolerances. Also to include an indication of the angle of the corners and plumb of the walls.*  *Use the completed benchmark as a guide for other areas measured.*  *The student will need to produce a Computer aided drawing of the room to be furnished. It will need to include walls, doors, windows and services, an indication of the angle of the corners and plumb of the walls and include the furnishings to scale, including tolerances.*  *Use the completed benchmark as a guide for other areas measured.*  *The estimate will need to include materials to perform the renovation and costs.*  *Use the completed benchmark sample as a guide for other areas measured.*  *The Project Schedule will need to include all tasks to be completed and all trades required to perform the renovation. Use the completed benchmark as a guide for other areas measured.*    *Examples of the features that may impact on the manufacturing and installation have been provided in the completed sample benchmark table.*  *In the email, ensure it is set out in a professional manner and outlines both the features that will impact and the trades that will be affected. A completed sample benchmark email is provided.* |