

**T Level Technical Qualification in  
Building Services Engineering  
for Construction (8710-30)**

**8710-033 Employer-Set Project  
Exemplar – E Grade  
Summer 2023**

# Contents

**Introduction..... 2**

**Task 1.1 Research ..... 5**

**Task 1.2 Report..... 10**

**Task 1.3 Project plan ..... 17**

**Task 1.4 Presentation..... 21**

**Task 2.1 Collaborative problem-solving..... 36**

**Task 2.2 Evaluation ..... 41**

# Introduction

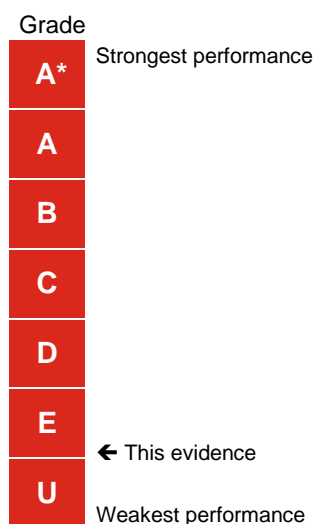
## Summer 2023 Results

This document is aimed at providers and learners to help understand the standard that was required in the summer 2023 assessment series to achieve an E grade for the 8710-033 Building Services Engineering for Construction Employer-Set Project (ESP).

Providers and learners may wish to use it to benchmark the performance in formative assessment against this to help understand a potential grade that may be achieved if a learner was to attempt the next summative assessment series.

The Employer-Set Project is graded A\* to E and Unclassified.

The exemplar evidence provided for the E grade displays the holistic standard required across the tasks to achieve the E grade boundary for the summer 2023 series. A slightly weaker performance would have resulted in an Unclassified (U) result being issued.



The Employer-Set Project brief and tasks can be downloaded from [here](#).

### Important things to note:

- We discussed the approach to standard setting/maintaining with Ofqual and the other awarding organisations before awarding this year. We have agreed to take account of the newness of qualifications in how we award this year to recognise that students and teachers are less familiar with the assessments (Vocational and technical qualifications grading in 2023 – Ofqual blog), whilst also recognising the standards required for these qualifications.
- The exemplar evidence presented, as a whole, was sufficient to achieve the E grade. However, performance across the tasks may vary (i.e. some tasks completed to a higher/lower standard than an E grade).

Marking of this Employer-Set Project is by task and Assessment Objective, below is a summary of these along with the mark achieved by the evidence presented and the maximum mark available for each aspect.

Task	Assessment Objectives	Mark achieved	Max mark available
<b>Task 1.1 Research</b>	<ul style="list-style-type: none"> <li>- AO1 Planning skills and strategies</li> <li>- AO2a Apply knowledge to the context of the project</li> <li>- AO3 Analyse contexts to make informed decisions</li> <li>- AO4c Use digital skills</li> </ul>	4	9
<b>Task 1.2 Report</b>	- AO1 Planning skills and strategies	1	6
	- AO2 Apply knowledge and skills to the context of the project	3	12
	- AO3 Analyse contexts to make informed decisions	1	2
	- AO4 Use maths, English and digital skills	2	6
<b>Task 1.3 Project plan</b>	<ul style="list-style-type: none"> <li>- AO1 Planning skills and strategies</li> <li>- AO3 Analyse contexts to make informed decisions</li> <li>- AO4a Use maths skills</li> </ul>	2	8
	- AO2 Apply knowledge and skills to the context of the project	3	16
<b>Task 1.4 Presentation</b>	<ul style="list-style-type: none"> <li>- AO1 Planning skills and strategies</li> <li>- AO3 Analyse contexts to make informed decisions</li> <li>- AO4b Use English skills</li> </ul>	3	6
	- AO2 Apply knowledge and skills to the context of the project	5	12

<b>Task 2.1 Collaborative problem-solving</b>	<ul style="list-style-type: none"> <li>- AO2 Apply knowledge and skills to the context of the project</li> <li>- AO3 Analyse contexts to make informed decisions</li> <li>- AO5a Carry out tasks</li> </ul>	5	15
<b>Task 2.2 Evaluation</b>	<ul style="list-style-type: none"> <li>- AO4b Use English skills</li> <li>- AO5b Evaluate for fitness for purpose</li> </ul>	4	8

## Task 1.1 Research

<b>Assessment number (eg 1234-033)</b>	8710-033
<b>Assessment title</b>	Employer-Set Project

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	1.1
<b>Evidence title / description</b>	Research notes (with record of sources)
<b>Date submitted by candidate</b>	DD/MM/YY

## Ground source heat pumps

A ground source heat pump is a heating/cooling system for buildings that uses a type of heat pump to transfer heat to or from the ground, it is good throughout seasons. Also, one of these machines are worth from £8000 - £12000.

Ground source heat pumps are suitable for a wide variety of buildings and are particularly appropriate for low environmental impact projects. Ground source heat pumps can be installed anywhere in the UK, using a borehole or shallow trenches.

Ground source heat pumps tend to be better suited to new-build homes, as they can be planned as part of the construction process.

### Performance –

Ground source heat pumps are excellent low carbon heating systems that are popular due to their high efficiency rate and low running costs, therefore they can definitely be worth it, their huge efficiency rate is 625% more than your average gas boiler. A Ground source heat pump makes use of the ground's constant temperature and uses that to heat up your home; either for space and/or domestic water heating.

The pipework for a ground source heat pump travels underground and capture heat which then gets transported to the wet central heating system in your house, such as radiators, underfloor heating and showers.

In terms of you and your families health and safety regarding the ground source heat pump the best thing for you to do would be to get in a specialist every couple of months to make sure it is up to scratch and it working correctly and if you notice anything wrong with it then don't leave it make sure you contact a specialist immediately.

Transportation –

You will most likely have to pay a decent amount extra for your ground source heat pump to be delivered as it has great mass to it weighing in at usually 60-100kg which is not light for a machine of its kind so it will have to be transferred to the workplace via a lorry which you will have to pay for with the travel costs.

Installation process step by step -

Step 1 – assess your building, the most important first step in the design of a ground source heat pump is adequate planning and preparation.

Step 2 – excavate loop fields

Step 3 – install the pipes that go into the ground source heat pump and the ones that go underground.

Step 4 - modify the heat distribution infrastructure

Step 5 – install the heat pump as you have all the required parts of the process

Step 6 – make sure you maintain the ground source heat pump, so you do not have any future problems with it.

The best practice in using safe isolation is

- Obtain permission to start work



- Identify the source of supply using an approved voltage indicator or test lamp
- Isolate supply
- Secure isolation

Non concussive taps –

Benefits of these are that they are self closing meaning that they can't be left on and ruin your water bill, the use of these are that they control the water flow through waste outlets, also they cost around £30.

Flow reducing valves –

They reduce the flow of fluid through a system, they also reduce the amount of gas passing through a system and reduce the pressure in a system.

They have a straightforward design with low costs and have low requirements for an external power source also they're easy to maintain.

Referencing –

ground source heat pump association. [What are GSHPs | GSHPA](#)

Valli Vishnubhotla (23 February 2023) pros and cons of ground source heat pumps <https://www.greenmatch.co.uk/blog/2016/01/pros-and-cons-of-ground-source-heat-pumps>

Valli Vishnubhotla (23 February 2023) pros and cons of ground source heat pumps. Step by step <https://www.greenmatch.co.uk/blog/2016/01/pros-and-cons-of-ground-source-heat-pumps>

Safe isolation procedure <https://www.jib.org.uk/safe-isolation-procedure>

(February 9 2022) Non concussive taps <https://www.commercialwashroomsLtd.co.uk/>

Anup Kumar Dey. What is piping <https://whatispiping.com/pressure-reducing-valve>

## Task 1.2 Report

<b>Assessment number (eg 1234-033)</b>	8710-033
<b>Assessment title</b>	Employer-Set Project

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	1.2
<b>Evidence title / description</b>	Report
<b>Date submitted by candidate</b>	DD/MM/YY

## Ground source heat pump

A ground source heat pump is a heating/cooling system for buildings that uses a type of heat pump to transfer heat to or from the ground, it is good throughout seasons. Also, one of these machines are worth from £8000 - £12000. This is actually quite a good price especially considering where we are going to be placing it as the people who want it installing will definitely have the money for it.

There is quite a wide range when it comes to where a Ground source heat pump can be sited. Ground source heat pumps are suitable for a wide variety of buildings and usually they are particularly appropriate for low environmental impact projects. They can also be sited anywhere in the UK as they are quite popular in the UK, this can be done by using things such as borehole or shallow trenches.

Most of the time Ground source heat pumps tend to be better suited to new-build homes, which isn't what we are using it on in our project however, this does not mean it will not be as effective in fact it will perform the exact same as it would in a newly built home. Also, in terms of siting of the Ground source heat pump you need to take into consideration that it will have to connect to pipes underground so you will need to find a good spot in the sports pavilion that best suits the Ground source heat pump. I would place it in a good spot in the plot of land where the Ground source heat pump collector unit will be above the sports pavilion on the drawing of location site plan.

When working with something like a ground source heat pump you must be incredibly careful when it comes to health and safety as it can cost you a lot of money if it isn't looked after. The best ways for you to look after the ground source heat pump and to make sure it's safe and maintained is by making sure every couple of months getting a specialist in this line of work to come in and do check-ups with it to make sure it is

running smoothly and to make sure there is no problems with it, as it could shut down the sports pavilion if anything is wrong with it. So instead of every couple of months the owner would be best getting someone in once a month too do more frequent check ups on it as it is safer to do so. Also, there is a huge health positive in terms of bringing a Ground source heat pump in as it doesn't let out anywhere near as much fossil fuels as other machines and it is environmentally friendly. The ground source heat pump also has been used by the client as they are a great advocate of stopping fossil fuels, the client is very keen to utilise carbon neutral technologies due to increasing cost of fossil fuels this is so they can ensure the efficient use of energy and reduce operating costs. The client has expressed interest in ground source heat pump technologies as a possible alternative to traditional fossil fuels, due to the fact that the government has granted them financial stability and have supported them to buy the heat pump.

Some of the best things to practice during using safe isolation is to obtain permission to start work this is important as you will have to ask the client and sort out working hours which best suits you and the client as you can't just turn up and work it all must be planned out so you can be paid properly as well. Also, another good practice is to identify the source of supply this is important as you have to make sure there is an approved voltage indicator or a test lamp then after you have done that you will have to carefully isolate the supply then once the supply is isolated you will then be able to crack on working as there should be nothing to interrupt you whilst you are working.

A good thing to have when installing a machine like a ground source heat pump is a step-by-step guide to guide the workers through the way when installing it.

The first step to installation would be to assess your building and surroundings to make sure it is a safe place to work, and you must have

adequate planning and preparation as it is a tough machine to install so it would be easier to have planned prior to installing it. The second step would be to excavate the loop fields and check underneath the fields if there is any to check if there are any pipes that could be hit, and you must find a route to travel your own pipes through. The first step would install the pipes that go into the air source heat pump and feed the underground to where you need them to go and make sure they're secure. Next you must modify the heat distribution infrastructure to make sure nothing overheats and causes hazards like fires etc. the next step is to fully install the heat pump as all the other parts will be in place and ready. Finally, you must make sure that over time you keep getting specialists in to check up on your heat pump and keep it maintained so you have no future problems and don't have to spend money on fixing it.

Due to the expected increases in building use in the coming years, the client for this project has decided to explore into the use of water conservation technologies for the facilities within the sport pavilion, including rainwater and grey water reuse systems and with the inclusion of technologies such as, non-concussive taps and flow reducing valves.

Rainwater reuse system is a system where rainwater is collected instead of going to waste when it goes into the ground and is used to generate machines and other stuff that is powered by water. Grey water is water that is from our toilets taps and showers which is dirty water which has not yet been cleaned or filtered this is also extremely useful as it is also not going to waste like the rainwater it is going to a cause which is helpful and healthy to the environment.

A conservative technology such as a non-concussive tap can be helpful in certain ways, it can be helpful as it is a self-closing tap which means that your water can't accidentally be left on which would make your water bills expensive and it also helps save water, so it doesn't go to waste in the sewer. The main use of concussive taps is that they control the water flow through waste outlet, and they come at a cheap price of £30 which is affordable for most people and will be affordable for the client of the

sports pavilion. This is a great long-term benefit as over time your water bill won't be as high and in the grand scheme of things you will be saving a lot of water from going to waste.

Also another conservative technology is flow reducing valves these are also water saving like the non-concussive taps as they reduce the flow of fluid through a system, they also reduce the amount of gas passing through a system and they reduce pressure in a systems also, the reduce of flow through a system is good as not as much water is getting out which is efficient like the non-concussive taps as water is being saved and not wasted and the amount of gas that is passing through a system is being reduced is also good because certain gases can pollute the air which needs to be stopped as it is creating global warming which effects the planet, pressure is also reduced in the system this is good as too much pressure could mess up the systems smoothness and how it functions.

One of the best things about flow reducing valves are that they have a very simple straightforward design with lost costs to make and they also have low requirements for an external power source this means that they're easy to maintain and to keep up with, this is good as you will have no future problems with them and if you do it will be minor.

Infrared taps are also a good design of taps as there isn't anything you have to twist or push to turn it on you can just put your hand under the tap and it senses that your hand is there which is a great design for a tap. However, if you are willing to pay the extra amount of money for a fancy tap then do it but as they cos around £80 - £120 they may not be the best suited taps for you as it may not be in your price range so I would go for a cheaper normal tap like a non-concussive tap as it is cheaper and you will be saving money which you could use to buy essential items for you or your business.

On the whole though this could end up being an expensive build as there will be a lot of taps that you will need to make for the sports pavilion as there is a café/bar, main hall, toilets and changing rooms

Transportation is always a big factor when dealing with machines like a ground source heat pump as they are a big and quite heavy piece of machinery with each heat pump weighing about 60kg – 100kg which is not light for that sort of machine so it will have to be transferred via a lorry or truck then dropped off at your workplace project you can also pay people to carry it in for you and get it to the right spot so when the day comes for it to be installed then there will be no messing about and they will be able to get on with the work.

On the whole I think that investing in a ground source heat pump is a great investment especially for this client as it is for a big venue but even for people who just want it in their homes it's great as there is so many positives about it and very little negatives if any negatives at all at a price of £8000 - £12000 with a bit of saving up unless the person is already fixated with money it is most definitely a good investment as it creates a future for you and because they will be very popular in the future the price will eventually go up so getting it at this sort of price now would be a bargain.

Referencing –

ground source heat pump association. What are GSHPs | GSHPA



Valli Vishnubhotla (23 February 2023) pros and cons of ground source heat pumps <https://www.greenmatch.co.uk/blog/2016/01/pros-and-cons-of-ground-source-heat-pumps>

Valli Vishnubhotla (23 February 2023) pros and cons of ground source heat pumps. Step by step  
<https://www.greenmatch.co.uk/blog/2016/01/pros-and-cons-of-ground-source-heat-pumps>

Safe isolation procedure <https://www.jib.org.uk/safe-isolation-procedure>

(February 9 2022) Non concussive taps  
<https://www.commercialwashroomsLtd.co.uk/>

Anup Kumar Dey. What is piping <https://whatispiping.com/pressure-reducing-valve>

## Task 1.3 Project plan

<b>Assessment number (eg 1234-033)</b>	8710-033
<b>Assessment title</b>	Employer-Set Project

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	1.3
<b>Evidence title / description</b>	Programme of works Supporting statement
<b>Date submitted by candidate</b>	DD/MM/YY

### Project plan 1.3

Step 1 – make sure your workplace is a suitable place for a ground source heat pump you can either check yourself or the best way is to bring in a professional to survey the area to make sure it's suitable for the ground source heat pump also they will let you know whether it can be placed inside or outside. Doing this will take 1 person to come out and inspect the area, this should take 15 – 30 mins. Alongside this you must make sure that there has been adequate planning gone into the installation, so it is easier to install it when you get to that stage.

Step 2 – the second step would be to excavate the loop fields and check underneath the fields to make sure there is no hidden pipes that could be hit, and you must find a route for your pipes to travel through, this could take up to 2 days to do with 2 men.

Step 3 – next step is to install the pipes that go into the ground source heat pump and feed them underground to where you need them to go and make them secure this should take no longer than 24 hours with 2 workers

Step 4 – now modify the heat distribution infrastructure to make sure nothing overheats and causes hazards like fires etc. this should only take 15 minutes with 1 person on the job.

Step 5 - the next step is to fully install the heat pump as all the other parts will be in place and ready. This should take an hour or 2 hours; it is best to do it with 2 people as it will be more efficient.

Step 6 - Finally, you must make sure that over time you keep getting specialists in to check up on your heat pump and keep it maintained so

you have no future problems and don't have to spend money on fixing it. Now you have a fully functioning ground source heat pump. This would take 10 minutes.

### Water conservations

Also, the client wanted some new waster conservation methods to be installed into the project due to the increase in building use in the coming years. the client for this project has decided to explore into the use of water conservation technologies for the facilities within the sport pavilion, including rainwater and grey water reuse systems and with the inclusion of technologies such as, non-concussive taps and flow reducing valves.

The installation for these two technologies is simple but the positives for these are that a non-concussive tap can be helpful in certain ways, it can be helpful as it is a self-closing tap which means that your water can't accidentally be left on which would make your water bills expensive and it also helps save water.

Also flow reducing valves reduce the flow of fluid through a system, they also reduce the amount of gas passing through a system and they reduce pressure in a systems also, the reduce of flow through a system is good as not as much water is getting out which is efficient like the non-concussive taps as water is being saved and not wasted and the amount of gas that is passing through a system is being reduced is also good because certain gases can pollute the air.

### Support statement 1.3

As part of my supporting statement, in terms of on or offsite storage all the necessary tools and materials were all sorted by the company who took on this job who had their own storage plot within their company and they also got materials off other companies this was all planned before the job was started. Also, before any work was done at all, every health and safety regulation were gone over and followed. There was a provision of electrical, heating and water supplies. I excavated the loop fields to make sure there was going to be no problems during the installation, this is also linked to the health and safety in the criteria and it can be a health hazard if the loop field isn't excavated. In step 3 I installed the pipes that go underground this is linked to the criteria where it says provision of heating and water supplies as they have a big part when it comes to pipes. Step 4 can be linked to waste management, as if the heat distribution infrastructure isn't changed it can create waste and it is also linked to health and safety as it can create hazards like fires, this only had one person on the job as it is simple to complete. Step 1 can be linked to specialist plant requirements as it needs to know where it is being placed for the installation of the collector unit.

My supporting statement for my water conservations is quite simple as it is simple to get the materials is easy, in my paragraph about non concussive taps there is actually a link to the criteria where it says waste management as the main function of these taps is to save water so it doesn't go to waste as it turns off by itself which is a good function it also links in with health and safety as if a tap is left on it could flood an area of the building.

Where I talk about flow reducing valves its also links in with the criteria which is waste management as it reduces the amount of gas that can pass through a system this is also linked with health and safety as it can be a health hazard, but this tap can also make sure there is no flood as it turns itself off.

## Task 1.4 Presentation

<b>Assessment number (eg 1234-033)</b>	8710-033
<b>Assessment title</b>	Employer-Set Project

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	1.4
<b>Evidence title / description</b>	Presentation slides  Note: Presentation recording is not included with this document. Please refer to the Observation Record below the presentation slides for commentary
<b>Date submitted by candidate</b>	DD/MM/YY

# Task 1.4 presentation

---

## Ground source heat pump



## What is a ground source heat pump?

---

- A ground source heat pump is a heating/cooling system for buildings that uses a type of heat pump to transfer heat to or from the ground.
- Can range between £8000 - £12000





Where can a ground source heat pump be located?

- Most of the time Ground source heat pumps tend to be better suited to new-build homes.
- They are usually sited underneath the building at the area you are installing.



# Performance

---

- A ground source heat pumps is extremely efficient at an efficiency of 400%.
- It keeps up this efficiency all year round
- Performs at its best around a newly built home but will be just as effective on our project.



The  
benefits of  
a ground  
source  
heat  
pump.

- 
- Has health benefits as it doesn't let out anywhere near as much fossil fuels as other machines
  - They save space
  - overtime money will be saved and you will make profit



## How to minimise disruption

Must be prepared for the project so no time is wasted for example:

- Prepare an adequate plan and make sure it is in depth enough so there is no problems.
- Prepare all materials before starting
- Make sure you have all of the required tools
- Arrange certain times for workers to start working



## Water conservation technologies – non concussive taps

---

- Main use is that it controls the water flow through waste outlets.
- a self closing tap, so water doesn't carry on running.
- Water bills don't go up as the tap can't be left on.
- Saves water so it doesn't go to waste.
- Only £30 to buy one.



## Water conservative technologies – flow reducing valves.

- They reduce the flow of fluid through a system.
- Is a water saving tap as well as the non concussive tap.
- They have a simple design
- They have low requirements for an external power source meaning that they're easy to maintain.

## Water conservative technologies – infrared taps

- These taps are motion censored.
- They have an extortionate price compared to the other taps at £80 - £120.
- Wouldn't recommend these taps unless you have a lot of money.

## My conclusion

- On the whole I think buying a ground source heat pump is a good investment and you should definitely buy it as a long term investment
- I also think that out of the 3 taps the best option is the non concussive tap because of all of the benefits it comes with





Thank you!

# Employer-Set Project - Observation Record (Task 1.4)

8710-30 T Level Technical Qualification in Building Services Engineering for Construction

8710-033 Core: Employer-Set Project (Summer 2023)

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds Candidate No.</b>	ABC1234
<b>Date</b>	DD/MM/YY

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds Provider No.</b>	999999a

Record observation notes below to inform external marking. **Notes must be detailed, accurate and differentiating. They should identify areas of strength and weakness to distinguish different levels of performance quality for each of the prompts below.**

<b>Structure/detail</b>
The presentation was structured logically and sequentially.

<b>Techniques</b>
The learner was reading from the presentation - that made his techniques weaker than they should be. The learner was also hesitant on some occasions.

<b>Terminology</b>
The learner used the right terminology when needed yet was hesitant.

### Theories and concepts

The learner showed a fair understanding of different theories and concepts.

### Communication

The learner was able to fairly communicate during the presentation and when answering the questions.

Tutor questions to candidate	Candidate responses
Why have you chosen the location for the ground source collector?	Loads of space, no disruption for anyone around.
Can you explain the benefits of water saving devices such as infrared taps?	They work on sensors, no need to press or tap anything.
Can you briefly describe the installation of the ground source collector circuit?	Dig underground, place the pipes, wire anything that needs to be wired, and wire it all to the GSHP.

**Any other aspects**

<first name> started good with his presentation yet he was hesitant when answering questions.

Tutor signature	Date
X _____	DD/MM/YY

If completing electronically, double click next to the 'X' to add an electronic signature once the record is **finalised**.

## Task 2.1 Collaborative problem-solving

<b>Assessment number (eg 1234-033)</b>	8710-033
<b>Assessment title</b>	Employer-Set Project

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	2.1
<b>Evidence title / description</b>	Collaborative problem-solving group discussion notes Draft email  Note: Collaborative discussion recording is not included with this document. Please refer to the Observation Record below for commentary
<b>Date submitted by candidate</b>	DD/MM/YY

---

Costs less money (money saving)

Car parking - away from parking

Wont have to take a lot of time to install so its better to have

toilets and Showers

additional / costs for option 1

option 1 - more dangerous for people because of cars, fresh equipment, charges for installation costing more money, will have a new build with an extra room, will be rushed

option 2 - a ready built, is not in use, can be used for the home team.

## Task 2.1 Collaborative Problem-solving

Good morning my name is <first name>,

I am writing to renewable Retrofit Ltd to inform you about your recent contract to do with the facility you are thinking about regarding having a dressing room for away teams when sports are played. I have been given two options to choose from, option 1 being that you will build a completely new building as a temporary facility for any away teams that you play or option two which is to use a part of the building that is already built that just isn't being used. After a discussion with my colleagues, we concluded that definitively option 2 is the better alternative as, it will not cost a lot of money to make as it is already built, also after temporary use it can be upgraded and potentially even be made into the home changing rooms, so it doesn't go to waste again. This is far better than option 1 as it would cost a lot of money which doesn't need to be spent in the first place, also money is lost in car parking revenue which isn't good as you cant make up any of the money you spent in building it, there is also lost match revenue that come with this so this is even more money lost on top of the costs of the installation and connection of the supplier especially when you are going to have to spend money at some point to take it all down which is pointless as with option 2 you can just use a free building that is going to no use anyway. Also, with option 2 I see no risks regarding the plan as all of it comes with benefits, the only possible risk is that it could be an old part of the building which may need a little bit of construction on but other than that option 2 is the far superior out of the 2.

Hope to hear from you soon,

<first name> <surname>.

## Employer-Set Project - Observation Record (Task 2.1 Collaborative problem-solving)

8710-30 T Level Technical Qualification in Building Services Engineering for Construction

8710-033 Core: Employer-Set Project (Summer 2023)

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds Candidate No.</b>	ABC1234
<b>Date</b>	DD/MM/YY

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds Provider No.</b>	999999a

Record observation notes below to inform external marking. **Notes must be detailed, accurate and differentiating. They should identify areas of strength and weakness to distinguish different levels of performance quality for each of the prompts below.**

### Communication skills

<first name> was able to communicate with other group members.

### Collaboration/contribution

<first name>'s contribution was minimal. He was taking notes and listening more than getting involved in the discussion.

### Methods to solve the problem

<first name> has shown fair methods to solve problems.



**Any other aspects**

<first name> was more a listener during the task than a talker.

Tutor signature	Date
<p>X</p> <hr/>	DD/MM/YY

If completing electronically, double click next to the 'X' to add an electronic signature once the record is **finalised**.

## Task 2.2 Evaluation

<b>Assessment number (eg 1234-033)</b>	8710-033
<b>Assessment title</b>	Employer-Set Project

<b>Candidate name</b>	<first name> <surname>
<b>City &amp; Guilds candidate No.</b>	ABC1234

<b>Provider name</b>	<provider name>
<b>City &amp; Guilds provider No.</b>	999999a

<b>Task(s)</b>	2.2
<b>Evidence title / description</b>	Evaluation
<b>Date submitted by candidate</b>	DD/MM/YY

## Task 2.2 – evaluation

In task 1.1 research notes, I feel that I did well as I think I wrote a good amount for the work I had to do I feel like I met the requirement needed to complete that task to get a good final score when it gets marked. Also, on task 1.1 I learned a lot of knowledge that I didn't already know which is good because my knowledge is being expanded as time goes on as before I did the exam, I didn't even know what a ground source heat pump was, overall, I think 1.1 went well but wasn't my strongest exam.

Moving onto task 1.2 I also though this went quite well, I didn't quite meet the word requirement, but I feel in the words I wrote I wrote in detail which might make up for that, I think that any questions that were asked were answered correctly and in detail, with this task I took on knowledge that was written in my task 1.1 but also added extra knowledge that I knew. Also, doing this task improved my knowledge as I am now better at writing detailed reports than I used to be before the exam, again though I feel this wasn't my strongest exam as I believe there was another that was stronger.

When it comes to task 1.3 the project plan, I feel this did very well as I had in depth analysis of a step-by-step guide on how to build and install a ground source heat pump. Also, I feel that I showed that my knowledge about water conserving taps has increased as I wrote big, detailed paragraphs on how they work explaining all their benefits and negatives and I came to a conclusion to which one is overall the best, along with task 1.2 I feel this was one of my strongest tasks because of the sheer detail I went into. I also feel that I met the requirements of the project brief answering all questions that were asked and answering them in detail.

Task 1.4 my presentation I am stuck with thinking whether I did well or not as I feel I did a great paragraph going into detail on every little piece of information I had from my previous projects 1.1, 1.2 and 1.3 these tasks really helped me go into detail as I had a lot of work to look at but on the other hand I feel that my presentation went bad when it came to

presenting is as I am not a very confident speaker in unfamiliar environments yet like being on front of a camera or other people, this is a skill that I am sure can be improved over the years as I get older and more confident, I feel I answered all of the question in the brief correctly. I gained a lot of knowledge whilst doing this task. I feel this wasn't one of my better tasks.

Task 2.1 my collaborative task, I feel hat this went well like a few of the others as I feel as a group we gelled well and showed good communication when it came to talking about option 1 and 2 and I feel that we went into good d4etail and gave great reasoning to our choice of option, communication is a good skill to have which we all showed as it is a vital life skill for future endeavours that you take in your life In the future as it shows you are confident and can work well in a team, I also feel that I work a lot better in a team that by myself as we can bounce off of each other and one person may come up with an Idea that the others couldn't think of or see which could for example save money or make a job easier when you get older, being able to work in a team is great also as a lot of the time you will be working with other people and getting feedback off of them and also giving feedback back to them.

Overall, I think that my task 1.2 the report went the best out of all of them as it was written in detail even though I dint meet the required number of words I feel that a met all of the requirements and I gained a lot of knowledge from the task. Although I think I did good on other tasks I think that this one just edged it compared to the others.

## Get in touch

The City & Guilds Quality team are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

Monday - Friday | 08:30 - 17:00 GMT

T: 0300 303 53 52

E: [technicals.quality@cityandguilds.com](mailto:technicals.quality@cityandguilds.com)

W: <http://www.cityandguilds.com/tlevels>

Web chat available [here](#).

The T Level is a qualification approved and managed by the Institute for Apprenticeships and Technical Education.

Copyright in this document belongs to, and is used under licence from, the Institute for Apprenticeships and Technical Education, © 2023. 'T-LEVELS' is a registered trademark of the Department for Education. 'T Level' is a registered trademark of the Institute for Apprenticeships and Technical Education. 'Institute for Apprenticeships & Technical Education' and logo are registered trademarks of the Institute for Apprenticeships and Technical Education.

We make every effort to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement, and the right is reserved to change products and services from time to time. City & Guilds cannot accept responsibility for any loss or damage arising from the use of information in this publication.

City & Guilds is a trademark of the City & Guilds of London Institute, a charity established to promote education and training registered in England & Wales (312832) and Scotland (SC039576). City and Guilds Group Giltspur House, 5–6 Giltspur Street London EC1A 9DE