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#### Introduction

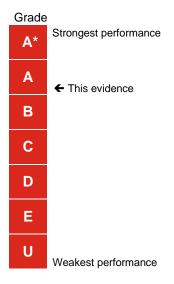
#### **Summer 2024 Results**

This document is aimed at providers and learners to help understand the standard that was required in the summer 2024 assessment series to achieve an A grade for the 8717-036 Land-based Engineering 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 A grade displays the holistic standard required across the tasks to achieve the A grade boundary for the summer 2024 series. A slightly weaker performance would have resulted in a B grade 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 (<u>Grading arrangements for VTQs
  and Technical Qualifications within T Levels in the academic year 2023 to 2024</u>),
  whilst also recognising the standards required for these qualifications.
- The exemplar evidence presented, as a whole, was sufficient to achieve the A grade. However, performance across the tasks may vary (i.e. some tasks completed to a higher/lower standard than an A 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
Task 1 Research	<ul> <li>AO1 Plan approach to meeting the project brief</li> <li>AO3 Select relevant techniques and resources to meet the brief</li> </ul>	4	6
	- AO2b Apply core skills as appropriate	4	6
	<ul> <li>AO1 Plan approach to meeting the project brief</li> <li>AO3 Select relevant techniques and resources to meet the brief</li> </ul>	8	9
Task 2 Report	- AO2a Apply core knowledge as appropriate	7	9
	- AO2b Apply core skills as appropriate	7	9
	- AO4a Use maths skills as appropriate	3	3
	<ul> <li>AO1 Plan approach to meeting the project brief</li> <li>AO3 Select relevant techniques and resources to meet the brief</li> </ul>	7	9
Task 3 Plan	- AO2a Apply core knowledge as appropriate	6	6
	- AO2b Apply core skills as appropriate	5	6
	- AO4b Use English skills as appropriate	2	3
Task 4	Evidence generated for Task 4 is not marked; it is utilised	in Task 5	

Task	Assessment Objectives	Mark achieved	Max mark available
	<ul><li>AO2a Apply core knowledge as appropriate</li><li>AO2b Apply core skills as appropriate</li></ul>	7	9
Task 5 Evaluate and present	<ul><li>AO5a Realise a project outcome</li><li>AO5b Review how well the outcome meets the brief</li></ul>	9	12
	- AO4c Use digital skills as appropriate	1	3

# Task 1 Research

Assessment number (eg 1234-033)	8717-036
Assessment title	Employer-Set Project
Candidate name	<first name=""> <surname></surname></first>
City & Guilds candidate No.	ABC1234
Provider name	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
City & Guilds provider No.	999999a

Task(s)	1
Evidence title / description	Research action plan
	Research notes
	List of references
Date submitted by candidate	DD/MM/YY

#### **Research Action Plan**

Candidate Name	Candidate Number
<first name=""> <surname></surname></first>	ABC1234
Provider Name	Provider Number
<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	999999a

Goals/Objectives	•	Resources/sources of information	Search criteria	Timeline
Find examples of each description of machine	Machinery	The Internet (Dealership websites)	Branded example for equipment described	30 minutes
Find relevant Health and Safety legislation related to working on these machines	Health and Safety	The Internet (HSE)	Dangers of working on sports turf equipment	30 minutes
Research equipment and tools required for servicing described machinery	Tools and equipment	The Internet	Service manuals for equipment described	30 minutes
The specific roles and wages of staff within the company	· ·	The internet (Job adverts from dealerships)	Job listings for each role within company	30 minutes

Research service	Service intervals	The internet (Manufacturer	Service intervals for each piece	3 hours
intervals and		manuals)	of machinery	
information for each				
piece of machinery				
Ensure that document is presentable and formatted correctly	Research document		"What you must submit on completion of this task"	1 hour

#### Research References

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<firstname> <surname> (ABC1234)

Task 1 – Research b) - References

ATV Golf Utility Vehicle (diesel) 1yo in warranty 1000h/year used daily.

ProGator compatible with TD100 Top Dresser and HD200 Sprayer

John Deere (https://www.deere.co.uk/assets/publications/index.html?id=4766cbe9#14) (accessed 22/4/24)

Service intervals (<a href="https://techinfo-omview.apps-prod-vpn.us.e06.c01.johndeerecloud.com/legacy/cceomview/omm136969\_10/Output/OMM136969\_L07.html#37958">https://techinfo-omview.apps-prod-vpn.us.e06.c01.johndeerecloud.com/legacy/cceomview/omm136969\_10/Output/OMM136969\_L07.html#37958</a>)(Accessed 22/4/24)

Every 100 Hours: Change engine oil and filter Plus-50™ II (5L £43.99) filter included in kit. Check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

<u>Every 200 Hours:</u> Check and tighten wheel bolts to correct torque. Adjust engine valve clearance.

<u>Every 200 Hours or Annually (whichever comes first):</u> Change fuel filter. (Included in filter kit)

Every 800 Hours or 24 Months (whichever comes first): Change transaxle oil. Hy-Gard™ (5L £44.99)

Every 2000 Hours or 24 Months: Change engine coolant John Deere Cool-Gard™ II (5I £24.99)

Filter Kit £36.64 inlinefilters(<a href="https://inlinefilters.co.uk/FilterKit/John-Deere-2030A-Yanmar-3TNV76-XYUV/">https://inlinefilters.co.uk/FilterKit/John-Deere-2030A-Yanmar-3TNV76-XYUV/</a>) (accessed 22/4/24)

50HP 4 Wheel Drive Tractor with Front Loader (diesel) 3 years old, no warranty 300h/y not used daily.

4052R compatible with Quik-Park™ loader *John Deere* (https://www.deere.co.uk/en/compact-utility-tractors/4-series/4052r/) (accessed 22/4/24)

Service Intervals:

John Deere (<u>https://www.deere.com/assets/pdfs/common/qrg/4r-series-compact-utility-tractors-4044r-4052r-4066r-4049r.pdf</u>) (accessed 22/4/24)

Clean or replace after every 50 hours and as required:

Cab RECIRCULATION AIR FILTER - MIU10011 (2) £5.56 x2

Tuckwells (<u>https://www.tuckwells.com/shop/john-deere-recirculation-cab-air-filter-</u>miu10011/) (accessed 22/4/24)

Cab FRESH AIR FILTER - MIU10010 £52.07

Tuckwells (https://www.tuckwells.com/shop/john-deere-cab-air-filter-miu10010/) (accessed 22/4/24)

Replace after every 200 hours or annually, whichever occurs first:

ENGINE OIL FILTER - M806419 £10.24

Tuckwells (https://www.tuckwells.com/shop/john-deere-engine-oil-filter-m806419/) (accessed 22/4/24)

ENGINE OIL - Plus-50™ II 5.4L (5L £43.99) Other oil can be used.

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Amazon(https://www.amazon.co.uk/John-Deere-Oil-Plus-50-II/dp/B0755DWXFP/ref=asc\_df\_B0755DWXFP?tag=bingshoppinga-21&linkCode=df0&hvadid=80539318953536&hvnetw=o&hvqmt=e&hvbmt=be&hvdev=c&hvlocint=&hvlocphy=&hvtargid=pla-4584138872991282&psc=1)(accessed 22/4/24)

Check after every 600 hours and replace as required:

ENGINE PRIMARY AIR FILTER - RE68048 £35.84

Tuckwells (https://www.tuckwells.com/shop/john-deere-primary-air-filter-re68048/) (accessed 22/4/24)

SECONDARY AIR FILTER - RE68049 £38.81

Tuckwells (https://www.tuckwells.com/shop/john-deere-secondary-air-filter-re68049/) (accessed 22/4/24)

Replace after every 400 hours change:

TRANSMISSION OIL FILTER - RE45864 £68.84

Tuckwells (https://www.tuckwells.com/shop/john-deere-hydraulic-filter-re45864/) (accessed 22/4/24)

PRIMARY FUEL FILTER ELEMENT - MIU802421 £52.7

Tuckwells (https://www.tuckwells.com/shop/john-deere-fuel-filter-miu802421/) (accessed 22/4/24)

FINAL FUEL FILTER ELEMENT - MIU802421 £52.7

Tuckwells (https://www.tuckwells.com/shop/john-deere-fuel-filter-miu802421/) (accessed 22/4/24)

HYDRAULIC OIL FILTER - LVA1041 £42.67

Amazon (https://www.tuckwells.com/shop/john-deere-fuel-filter-miu802421/) (accessed 22/4/24)

TRANSMISSION/HYDRAULIC FLUID - Hy-Gard™ 43.7L (5L £44.99) other oil can be used.

Amazon(https://www.amazon.co.uk/Hydraulic-Transmission-Litres-Suitable-<u>Deere/dp/B01IVI8TGO/ref=asc\_df\_B01IVI8TGO?tag=bingshoppinga-</u> <u>21&linkCode=df0&hvadid=8067676764829&hvnetw=o&hvqmt=e&hvbmt=be&hvdev=c&hvlocint=&hvlocphy=&hvtargid=pla-4584276305686478&psc=1)(accessed 22/4/24)</u>

Electrically-Powered, try-cylinder greens mower (electric) 1 year old, in warranty 150h/year used daily during golfing season April-August

Greensmaster® eTriFlex™ 3370

Toro (https://www.toro.com/en-gb/product/04591) (accessed 22/4/24)

#### Daily (to be recommended to customer):

Grease any grease points with high or low temp grease depending on location. Ensure frame of machine is solid and true with no cracks. Visual inspection of battery as well as inspection of battery compartment and terminals *Electric Mower Report* (<a href="https://www.electricmowerreport.com/maintenance/?utm\_content=cmp-true">https://www.electricmowerreport.com/maintenance/?utm\_content=cmp-true</a>) (accessed 22/4/24)

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Every 25 hours: Blade sharpening using specialist tools £35. Calibrating blade to cutting bar £15. Professional inspection of chassis and any wearing components such as bushes, pins or motor components £50 with additional cost for any replaced components

Utility vehicle mounted sprayer – 400 Litres, 6m Boom. 6 years old, requires NSTS, no warranty, 50 hectares/year used occasionally February-November

#### Service intervals:

"Requires NSTS testing at least every 3 years" NSTS (<a href="https://www.nsts.org.uk/Legislation">https://www.nsts.org.uk/Legislation</a>) (accessed 22/4/24)

<u>Pre and during season (Feb-Nov) check of:</u> Nozzle output, boom height accuracy, boom stiffness, cleanliness of tank, safety of equipment

Farmers weekly (<u>https://www.fwi.co.uk/arable/crop-management/video-how-to-properly-set-crop-sprayer</u>) (accessed 22/4/24)

55hp, 2.7m 5 gang rotary rough mower (diesel) 8 years old, 3000 hours no warranty, 350 hours from April-September

Groundsmaster® 4500 9ft (2.7m) Cutting Width *Toro* (https://www.toro.com/en/product/30885 (accessed 22/4/24)

Service intervals: Toro (<a href="https://manuals.toro.com/122866/index.html#f1413453-7c01-431d-81b9-de0f74747d45">https://manuals.toro.com/122866/index.html#f1413453-7c01-431d-81b9-de0f74747d45</a>)(accessed 22/4/24)

Every 50 hours £10 - Grease the bearings and bushings. (or after every washing). Check the battery condition. Every 100 hours £10 - Check the condition and tension of the alternator belt. Every 200 hours - Torque the wheel nuts. £10 Every 250 hours - Change the engine oil and filter. Estimated £75

<u>Every 400 hours</u> Estimated £250 - Service the air cleaner. (Service the air cleaner earlier if the air cleaner indicator shows red. Service it more frequently in extremely dirty or dusty conditions.) Check the fuel lines and connections. Replace the fuel filter canister. Replace the engine fuel filter. Check the planetary gear drive oil level (Also, check if external leakage is observed). Check the rear axle lubricant level.

Equipment Technicians will need to use sealed oil drums to contain both fresh and waste oil, a multitude of hand tools (spanners, screwdrivers etc) with be necessary to remove guarding or plugs to complete filter and fluid changes, a specialist ramp may be necessary to access the blades on either mower however this is a workshop tool. Necessary training and workshop tools will be provided to any technician or apprentice assigned to any service. Spill kits and mats will also be provided to ensure that the area of work is left safe whether that is in the workshop or at the County Golf Course Club. Specific testing equipment such as hydrometers and refractometers may be used to determine the condition of systems such as batteries or coolant.

Commercial viability of parts, resources and suppliers. To ensure that all necessary parts (fluids, filters etc) are available at the appropriate time for the service, the parts will be ordered well in advance and kept in stock at the dealership to allow the service plan to be efficient and be followed with the lowest cost to the customer. Multiple suppliers will be chosen for any non-branded/warranty parts to increase reliability.

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The role of different staff members and their wages. The service manager, assigns jobs to technicians and apprentices on an average wage of £40,000-£51,000, technicians will work on the customers vehicles and equipment with 1 assigned to working on sports turf equipment and another who is with NSTS (National Sprayer Testing Scheme) on an average wage of £31,000 or £12.33/h however their services are charged at £100/h (sports turf £65/h). Apprentices will work alongside technicians to aid in the completion of service tasks on an average wage of £13,384.80

(https://www.findapprenticeship.service.gov.uk/apprenticeship/1000236046) their services will be charged at £35/h. Service administrator, handles customer queries and assists in allocating time in workshop for jobs on an average wage of up to £29,000 (https://uk.indeed.com/q-agricultural-service-administrator-

jobs.html?vjk=51156f7e78f9a787&advn=9244364597790022)(accessed 22/4/24). Travel costs will be calculated at £15+£0.80/mile (£47 one way) with technician's time charged at a reduced rate of £15/h and apprentices at £9/h.

Warranty implication for the machinery which is under manufacturer warranty special attention will be taken into logging services accurately as well as using parts made or recommended by the manufacturer this ensures that the agreement for the warranty is kept between the customer and the manufacturer. On the other hand, for any items which are not in warranty, the option will be given to customers that they can use fluids and filters not recommended by the manufacturer as this may incur less cost to the customer.

Legislation health and safety biosecurity, sustainability, environmental impact.

Relevant health and safety rules will be followed under the Health and Safety at Work etc Act 1974 HSE (https://www.hse.gov.uk/legislation/hswa.htm) (accessed 22/4/24) during

every service, appropriate PPE will be provided to every technician. This includes safety glasses, steel toe boots, fire retardant overalls, nitrile gloves, eye wash kits, first aid kits and any other items of PPE. Specialist PPE will be provided when necessary, including RPE (respiratory protective equipment. Substances such as barrier cream will also be provided to combat contact dermatitis. Providing PPE is part of Personal Protective Equipment at Work (Amendment) Regulations 2022 (PPER 2022) HSE(https://www.hse.gov.uk/ppe/pperegulations-2022.htm) (accessed 22/4/24). RIDDOR – Reporting of Injuries, Diseases and Dangerous Occurrences Regulations HSE

(<a href="https://www.hse.gov.uk/riddor/index.htm?utm\_source=hse.gov.uk&utm\_medium=referral&utm\_campaign=riddor&utm\_content=home-page-info">home-page-info</a>) will be followed to ensure that any accidents during services are reported and preventative measure can be taken to make the workshop or farm/golf course a safer place to work. Waste oil will be disposed of by certified company at a rate of roughly £0.1/L (<a href="Waste oil disposal">Waste oil disposal | The Farming Forum</a>) this is to follow the "Pollution Prevention Guidelines: August 2011" <a href="Waste oil disposal">UKGOV</a>

(https://assets.publishing.service.gov.uk/media/5a74a09240f0b616bcb18074/pmho0811bucr-e-e.pdf)(accessed 22/4/24). Furthermore, to reduce the risk of transmitting diseases across workshops or farms/golf courses, technicians will be required to wash the wheels and undercarriage of their van as well as properly dispose of any waste products from the County Gold Course Club when coming into contact with infected yards. Tools which may have diseases on them from an infected yard will be required to undergo a quarantine period including the van that they are stored in. Control of Substances Hazardous to Health (COSHH) sheets will be handed to every technician and will also be in clear to read places to ensure safety in handling substances such as refrigerant, waste and fresh oil, cool and antifreeze or any other substances dangerous to health.

# **Task 2 Written Report**

Assessment number (eg 1234-033)	8717-036
Assessment title	Employer-Set Project

Candidate name	<first name=""> <surname></surname></first>
City & Guilds candidate No.	ABC1234

Provider name	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
City & Guilds provider No.	99999a

Task(s)	2
Evidence title / description	Written report
Date submitted by candidate	DD/MM/YY

#### Page 1

#### <first name> < surname> (ABC1234) Task 2 - Report

#### Recommended service requirements-

For all the five different types of equipment that the County Golf Course Club operates, the full-service requirements from the manufacturer are to be followed according to my service plan. This includes the timings of services as well as original from manufacturer parts being used for equipment, which is under warranty, this is to keep the warranty agreement with the manufacturer. Careful recording of services will also take place for any equipment which is under warranty as this will give the customer a reference to know that their equipment is being properly maintained. Furthermore, services are to be completed on days or at times in which the equipment is not being used. This will decrease downtime for the County Golf Course Club by having equipment available and in good conditions at peaks times of the year.

The **ATV Golf Utility vehicle** is under warranty so therefore I have been careful in researching the prices and availability of warranty parts and fluids, for example, manufacturer engine oil is to be used. This oil is more expensive but will keep the warranty agreement with the manufacturer. The ATV is to have 20, 100-hour services over the two years. 10, 200-hour services over the two years, 2 800 hours services over the two years and 1, 2000-hour service over the two years.

Leading to an estimated cost of £1,132.68 in parts with an estimated 32h hours of labour over the two years costing £1,600 assuming that the labour is split evenly between an apprentice charged at £35/h and a sports turf technician charged at £65/h. Travel costs will also be added at £15+£0.8/mile coming to a cost of £2,528. This is a total of £5,260.68 for the total 2 years of services to the ATV Golf Utility Vehicle.

As the vehicle is used daily, a convenient time for a service cannot be planned months in advance as circumstances may change closer to the time for the County Golf Course Club therefore it will be the role of the Service Administrator to organise a time which is suitable for technicians to come out and work on the vehicle or for it be brought into the workshop.

The **50hp 4-Wheel drive tractor with front loader** is 3 years old and is not under warranty. This means that it will be recommended to the customer that non genuine filters and fluids can be used. Following recommendations from the manufacturer, the 50hp tractor is to have 2, 200-hour services. One 400-hour service and a final 600-hour service. There are also 6, 50-hour services included in the manufacturers service intervals however as the vehicle is not under warranty it will be suggested that these can be completed by the operator to save the County Golf Course Club money this is because the services are very simple and not labour intensive.

From my research I estimate a cost of £800.27 for parts with an additional 5 hours of labour split between a technician charged at £100/h and an apprentice charged at £35/h giving a total labour cost of £337.50. Furthermore, travel costs are to be added at £188. This brings the cost of two years of servicing for the 50hp 4-Wheel drive tractor to £1,325.77. However, this cost can be reduced by using non-warranty parts for example, using engine and hydraulic oil not made by the manufacturer. This is something which will be discussed with the customer. As this vehicle is used weekly but not daily, a convenient time for both the County Golf Course Club and the technicians can be arranged by the Service Administrator.

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Due to the nature of **Electric tri cylinder greens mower** being electric, there are little to no service intervals recommended by the manufacturer, therefor it is recommended to the customer that the machine is greased where necessary daily, any bushes or wearing points

are checked for play and that a visual inspection of the battery and battery compartment is to be taken. Any technicians sent out to the electric mower will undergo the appropriate manufacturer training related to high powered electric systems. However, a service including blade sharpening, calibration and a full chassis inspection will be offered to the customer at an estimated cost of £90 per callout with twelve callouts (every 25 hours) over the two years. Leading to a cost of £1,080 in parts and labour and £948 in travel time. It will be suggested that all services are done according to the number of hours on the machine, but a preseason check will also be recommended in April regardless of the number of hours. The service administrator will contact the County Golf Course Club to arrange a service before and any during the golfing year.

From my research I have found that the **Utility vehicle mounted sprayer** "Requires NSTS testing at least every 3 years" this is from the NSTS website. Therefore, the technician who is capable of carrying out these tests will be assigned to the test which will be suggested to the customer, during January (before the sprayer is used), and at the end of season in November. This schedule is to take place twice during the two-year service plan. During the pre-season check a test of nozzle output, boom height accuracy, boom stiffness, cleanliness of tank and safety of the equipment will take place this will also take place during the season, in June. This schedule is also to occur twice during the two-year service plan. An estimated cost of £474 in travel and £800 in labour is associated with these tests at a cost of £1274, these checks will be recommended to the customer as they will ensure smooth and accurate operation of the sprayer and will reduce down-time during the season in which it is used.

The **55hp**, **2.7m 5-gang rotary rough mower** is not under warranty. It is recommended that the 50-hour services are to be completed by the customer to save on frequent call out charges. However, 7 100 hours services are expected to take place over the two years incurring a cost of £70 with three 200-hour services expected at a cost of £30 in labour in total. It will be recommended to the customer that these services are completed at the County Golf Course Club by the operator or that the machine is brought to the workshop for services to decrease any travel and callout cost associated with the services taking place at the club. On the other hand, a sports turf technician will conduct the two, 250-hour services at a cost of £150 in parts and £130 in labour. Although the mower will not have completed sufficient hours to technically require two 400-hour services, two will be recommended to the customer as one before each season (April) will allow the mower to run smoothly given that this is a major service costing a total of £500 plus £162.50 in labour. A total cost cannot be calculated for this machine as the customer will need to decide if it is more appropriate for the mower to be brought into the dealership for services or if it is best for a technician to come out despite the increase costs. Furthermore, the customer will need to decide whether it is best for a technician to conduct the frequent 50-hour services of if this is something which can be done by the operator as the operations of the service are simple.

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#### Legislation, health and safety and bio security-

All health and safety rules under the **Health and Safety at work Act (1974)** will be followed by technicians during every service. For example, when completing any service **personal protective equipment (PPE)** such as, safety glasses, steel toe boots, fire retardant overalls, nitrile gloves, eye wash kits and first aid kits will be provided by the dealership this allows technicians to work safely and in accordance with the latest health and safety rules. Specialist PPE will be provided if necessary for example, when working on an item like a sprayer, **Respiratory Protective Equipment (RPE)** and full body covering will be provided, this is to be organised by the service administrator after a service has been assigned to a

technician by the service manager. The long-term health of technicians is also considered, for example substances such as barrier cream and degreasing hand wash will be provided to technicians when working with any substance especially any oils or grease this is to combat contact dermatitis. Providing the correct and appropriate PPE to technicians is a part of the **Personal Protective Equipment at Work regulations (PPER 2022)**.

Comprehensive risk assessments will also be completed before any job to ensure that any risks to a technician's health or safety are minimised. Technicians will provide with an accident report logbook as part of the **Reporting of injuries**, **Diseases and Dangerous occurrences Regulations (RIDDOR)** created by the **HSE**. Any occurrences reported in these logbooks will be investigated with the aim of reducing re occurrence and to ensure the safety of technicians while completing services.

To further increase the safety of technicians, **Control of Substances Hazardous to Health (COSHH)** sheets will be provided when working with any hazardous substances such as waste or fresh oil, coolant, and antifreeze. These sheets will be posted in clear places, made easy to read and be readily available to technicians should they need to transport fluids in their van.

Biosecurity will be closely monitored as technicians move between farms and the workshop. For example, when a technician is moving between farms, the workshop or golf courses etc, they will be required to wash the undercarriage and wheel of their van to reduce the risk of the transmission of any diseases which could be found at a yard. Any waste products from previous jobs are not to be kept in their van and brought to other jobs as this may transmit diseases. Furthermore, if a technician has worked at a yard which is known to have been infected with any disease it is a requirement that their van and tools undergo a quarantine period before being used on another job, this decreases the risk of any animal or plant life disease being spread which could lead to animal illness/deaths or crop failure to other farms.

#### Sustainability and environmental impact management

To decrease the impact on the environment, technicians on a job which requires multiple people to be working together will travel together in one van, reducing pollution to the environment. Also, any waste oil collected from services will be appropriately stored in technicians' vans and brought back to the workshop where it will be disposed of by a licensed company at a rough cost of £0.10/litre. This cost will need to be added to the price of any service as an environmental cost. Any waste metals such as filter housing or drain plugs which have been replace will also brought back to the workshop appropriately by technicians where a safe and secure metal disposal bin is kept. Any packaging or boxes which filters/parts as well as one time use **PPE** such as nitrile gloves of one time use respirator come in are to be taken back to the workshop where they can be recycled or disposed of safely. The safe disposal of oil, components and packing comes under the

#### Page 4

**"Pollution Prevention Guidelines"** created by the UKGOV in 2011 this also addresses both the issues of sustainability and biosecurity through recycling and proper disposal. Furthermore, spill kits and matts will help technicians to decrease pollution to the local environment and water course by preventing the spread of spilt oil.

Regular maintenance of machinery will also decrease emissions to the atmosphere by allowing engines to run more efficiently and therefore use less fuel. Regular maintenance will also increase the health of engines meaning that they will be able to run for longer, this means that the customer will not need to buy a new piece of equipment as a replacement meaning that older machines can be kept running longer leading to less waste from the disposal of broken machines. Regular maintenance will also decrease the need for callouts and the requirement for the dealership to order parts on express delivery which can often

increase carbon emissions as the method of transport may be quicker but more harmful to the environment.

#### **Consideration of staffing**

The service manager plays a key role in the operation of the dealership in that they oversee all operations in the workshop as well as coordinating all technicians, apprentices, and administrators. For example, throughout my service plan it is mentioned that the service manager is to allocate technicians or apprentices to services and call outs. Therefor the service manager will be largely linked in the smooth operation of the service plan. The service manager will also have discussions with the customer related to the proposed service plan about the preferred locations for services to take place, whether manufacturer parts and fluids are to be used on non-warranty items or not and if the proposed times for services are appropriate in relation to when the equipment is in use. The charge for the service managers time is included in the 20% margin imposed on all parts and fluids as well the labours costs for technicians and apprentices.

Technicians are responsible for the day-to-day operation of services and other jobs in the workshop or out at the golf course. Jobs will be assigned to them by the service manager, one of the four technicians will be allocated to jobs involving the sprayer operated by County Golf Course Club as they are with the National Sprayer Testing Scheme (NSTS). Technicians are charged at a rate of £100/h and are paid at a rate of £12.33/h. Technicians will be aided by one of the apprentices during most services, this decreases time for jobs such as services to take place allowing technicians to move onto more complex machinery diagnostics and testing. Apprentices are charged at a rate of £35/h and are on an average salary of £13,384.80 with hourly pay depending on time spend on block release at educational centre.

A sports turf technician will be allocated jobs related to the servicing of any sports turf equipment operated by the Country Golf Course Club for example, the greens and rough mower as well as the ATV. This allows a specialist approach to carrying out careful services as well as diagnosing any major problems before they occur, this will save the County Golf Course Club money in parts and labour. Sports turf technicians are charged at a rate of £65/h and are paid at a rate of £12.33.

The service administrator will work alongside the service manage to talk to customers and organise convenient times for servicing to take place, they will work with the customer far in and advance through the proposition of the service plan as well as closer to the time of services to ensure that the time planned is still appropriate. The service administrator will also ensure that careful recording and logging of services takes place and is kept secure to guarantee to the customer that their warranty agreement with the manufacturer will stay valid throughout the service plan. Service administrators also play a vital role in handling customer queries about services, costs, part availability and other general queries. Service administrators earn an average of £29,000.

#### Page 5

#### Consideration of resources

Parts and fluids for services will be ordered well in advance and kept in stock at the dealership. For any warranty items, the parts will be ordered directly from the manufacturer. Should any non-warranty items be needed, these will also be ordered well in advance and stocked on a dedicated shelf to ensure that the customer receives absolute reliability in the service plan. Three reliable suppliers will be chosen for any non-warranty parts, this is to further increase the reliability of the availability of parts to the customer. It will be ensured by the service administrator well in advance that multiple technicians will be available to complete any services, this further increases the reliability of the service plan.

Technicians will be provided with any specialist workshop stools which may be required for services such as a specialist ramp needed to access the blades on a mower, workshop consumable such as spill kits and matts will also be provided to technicians if a service is taking place at the County Golf Course Club this ensures that the environment at the golf course is protected by avoiding the spillage of oil leeching into the local water course or damaging the grounds of the club.

#### **Financial Considerations**

Information about prices is included throughout my service plan, for example, costs of labour and parts are listed as well as the cost of travel for technicians. To save the customer money, the option to buy non manufacturer parts for non-warranty items will be provided as well as reducing travel costs by completing services in the dealership workshop. A 20% margin is to be applied to the any costs charged to the customer apart from labour and travel time. This margin as well as labour costs will pay for the wages of administrative staff and the upkeep of the dealership.

In conclusion, through my research I have found information about the service requirements for each vehicle, any environmental implications services may have, the roles of each staff member, how to keep technicians safe and the financial implications to the customer that the proposed service plan may have.

# Task 3 Plan

Assessment number (eg 1234-033)	8717-036
Assessment title	Employer-Set Project

Candidate name	<first name=""> <surname></surname></first>
City & Guilds candidate No.	ABC1234

Provider name	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
City & Guilds provider No.	99999a

Task(s)	3
Evidence title / description	Implementation plan
	Supporting statement
Date submitted by candidate	DD/MM/YY

#### Service Plan

#### Page 1

<first name> <surname> (ABC1234) Task 3 - Plan

# The order of tasks needed to implement and run each plan and who will be involved with each process.

There are many components to a service plan for example, identification of equipment, researching the recommended service intervals, proposing a service plan, coming to an agreement with the customer, allocating technicians to services, ensuring that all technicians and anyone who may be involved with a service are safe following the **Health and Safety at Work Act (1974)**, ensuring that all technicians have the required tools and equipment and that technicians have the appropriate training and skills to operate a service on the given machine.

Firstly, it will be is job of the service administrator to organise a convenient time with the customer for a service (could a specific day of the week or time in the day). The service administrator will play the lead role in dealing with any customer queries or concerns they may have about the service plan. Furthermore, the service administrator will also oversee the recording and logging services which take place, this is a key part of keeping a warranty agreement with the manufacturer for the customer.

Secondly, it will be up to the Service Manager to allocate a technician and possibly an apprentice to a service, they will then be required to ensure that the technicians have all of the appropriate tools and equipment required for the service they will also be required to ensure that the technician is safe this can be done by providing risk assessments for services, ensuring that **Control of Substances Hazardous to Health (COSHH)** sheets are provided for technicians who may be dealing with any corrosive or harmful substance such as waste oil or grease. Appropriate PPE will also be issued before a service including fire retardant overalls, safety glasses, steel toe boots, nitrile gloves and any specialist PPE which may be necessary for working on equipment such as sprayers where full body protection may be required. Providing appropriate PPE falls under the **Personal Protective Equipment at Work Regulations (PPER 2022)**. The service manager will also organise with the technician that they have any required parts of fluid for a service.

Thirdly, after a technician arrives at the County Golf Course Club or after equipment is brought into the workshop, a risk assessment is to be filled out. This includes any hazards to the technician themself or any hazards which pose to a risk to the health of other people near the piece of equipment. The technician is also to complete a full walk around check of the equipment, ensuring that it is safe to work on and under. The technician will then observe their job card, where they can find information about the service required. During a service, technicians will ensure that any waste oils or parts are stored safely and securely in accordance with the "Pollution Prevention Guidelines: August 2011" created by the UKGOV. After completing a service, waste oil and parts will be brought back to the workshop where they will be disposed of properly and safely. Finally, the technician will record the service that they have completed and report this to the service administrator who will give that information onto the customer or the manufacturer as part of the warranty agreement. Page 2

#### Requirement for staff including training.

Each piece of equipment falls under the skillset of a different technician at the dealership. For example, the lawn mowers fall under the skillset of the sport turf technician, the 50hp tractor under the skill set of the agricultural technicians and the sprayer under the skillset of

the NSTS technician. However, the electric tri cylinder mower may require special training from the manufacturer on electrical systems, how to stay safe around batteries and high current. All necessary training will take place before the service plan is implemented to ensure that all staff meet the latest health and safety guidelines related to the equipment on which they are working.

#### Waste disposal.

Waste oil will be collected in appropriate drain tray where it will be transferred to sealed buckets and brought back to the dealership to be disposed of by a professional company, at a rate of roughly £0.10/l. The cost of the disposal of waste oil will be factored into the price of any services to decrease costs for the dealership. Any waste parts or filters will also be brought back to the dealership where they will be disposed of properly and safely by a professional waste company. This is to reduce contamination of the environment and the local water course.

#### A timetable of service activities

#### Year 1 January

ATV Golf Utility vehicle-

No service requirements

50hp 4 Wheel Drive Tractor with Front Loader-

No service requirements

Electrically powered try-cylinder greens mower-

No service requirements

Utility vehicle mounted sprayer-

(Preseason checks) Equipment to have full NSTS testing, as well as checks of nozzle output, boom height accuracy, boom stiffness, cleanliness of tank and the safety of the equipment. (carried out by NSTS technician).

55hp 5 Gang rotary mower-

No service requirements

#### Year 1 February

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

50hp 4 Wheel Drive Tractor with Front Loader-

(50h service) It is recommended that the Cab Recirculation Air Filter and Cab Fresh Air Filter are "cleaned or replaced". To be completed by operator unless stated otherwise.

Electrically powered try-cylinder greens mower-

No service requirements

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

No service requirements

#### Year 1 March

ATV Golf Utility vehicle-

(200h service) Check and tighten wheel bolts to correct torque adjust engine valve clearance. Change fuel filter.

50hp 4 Wheel Drive Tractor with Front Loader-

No service requirements

Electrically powered try-cylinder greens mower-

(25h/preseason service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

Full check of equipment including, greasing, checking battery, condition and tensions of alternator belt, re torquing wheel nuts and changing the engine oil and filter.

#### Year 1 April

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

50hp 4 Wheel Drive Tractor with Front Loader-

(50h service) It is recommended that the Cab Recirculation Air Filter and Cab Fresh Air Filter are "cleaned or replaced". To be completed by operator unless stated otherwise.

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

(50h service) Greasing grease points. To be completed by operator unless otherwise stated.

Year 1 May

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

(200h service) Check and tighten wheel bolts to correct torque adjust engine valve clearance. Change fuel filter.

50hp 4 Wheel Drive Tractor with Front Loader-

No service requirements

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

(50h service) Greasing grease points. To be completed by operator unless otherwise stated. (100h service) Checking battery, condition and tensions of alternator belt.

#### Year 1 June

ATV Golf Utility vehicle-

No service requirements

50hp 4 Wheel Drive Tractor with Front Loader-

(50h service) It is recommended that the Cab Recirculation Air Filter and Cab Fresh Air Filter are "cleaned or replaced". To be completed by operator unless stated otherwise.

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

(Mid-season check) Equipment to have checks of nozzle output, boom height accuracy, boom stiffness, cleanliness of tank and the safety of the equipment. (carried out by NSTS technician)

55hp 5 Gang rotary mower-

(50h service) Greasing grease points. To be completed by operator unless otherwise stated. Year 1 July

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

50hp 4 Wheel Drive Tractor with Front Loader-

No service requirements

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

(50h service) Greasing grease points. To be completed by operator unless otherwise stated. (200h service) Torque wheel nuts to specification

#### Year 1 August

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

(200h service) Check and tighten wheel bolts to correct torque adjust engine valve clearance. Change fuel filter.

50hp 4 Wheel Drive Tractor with Front Loader-

(50h service) It is recommended that the Cab Recirculation Air Filter and Cab Fresh Air Filter are "cleaned or replaced". To be completed by operator unless stated otherwise.

(200h service) Change engine oil and filter

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

(50h service) Greasing grease points. To be completed by operator unless otherwise stated. (250h service) Change engine oil and filter

#### Year 1 September

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

50hp 4 Wheel Drive Tractor with Front Loader-

(50h service) It is recommended that the Cab Recirculation Air Filter and Cab Fresh Air Filter are "cleaned or replaced". To be completed by operator unless stated otherwise.

Electrically powered try-cylinder greens mower-

No service requirement

Utility vehicle mounted sprayer-

No service requirements

55hp 5 Gang rotary mower-

(50h service) Greasing grease points. To be completed by operator unless otherwise stated.

(100h service) Check condition and tension of alternator belt

Year 1 October

ATV Golf Utility vehicle-

(800h service) Change transaxle oil.

50hp 4 Wheel Drive Tractor with Front Loader-

No service requirement

Electrically powered try-cylinder greens mower-

No service requirement

Utility vehicle mounted sprayer-

No service requirement

55hp 5 Gang rotary mower-

No service requirement

Year 1 November

ATV Golf Utility vehicle-

(100h service) Change engine oil and filter, check transaxle oil level. Check air cleaner dust unloading valve. Check air cleaner element.

(200h service) Check and tighten wheel bolts to correct torque adjust engine valve clearance. Change fuel filter.

50hp 4 Wheel Drive Tractor with Front Loader-

(50h service) It is recommended that the Cab Recirculation Air Filter and Cab Fresh Air Filter are "cleaned or replaced". To be completed by operator unless stated otherwise.

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirement

55hp 5 Gang rotary mower-

No service requirement

#### Year 1 December

ATV Golf Utility vehicle-

No service requirement

50hp 4 Wheel Drive Tractor with Front Loader-

No service requirement

Electrically powered try-cylinder greens mower-

(25h service) Full check of equipment including, blade sharpening, calibration of blade and cutting bar, inspection of equipment and wearing components such as bushes, pins or motor brushes and state of battery.

Utility vehicle mounted sprayer-

No service requirement

55hp 5 Gang rotary mower-

No service requirement

#### Year 2 Calendar.

The year two calendar will follow the same format of servicers per month as well as pre and mid-season checks (for example the NSTS check on the sprayer although this is not necessary but it does prevent the need for a service midway through the season). However, the ATV will receive a 2000h service (Change engine coolant) in December. The 50hp tractor will receive a 400h (change Transmission filter and oi, hydraulic filter, primary fuel filter and final fuel filter) service in April. And the 55hp mower will receive a 400h service in

April of the first year however this service will be completed in February to avoid downtime in the County Golf Club Course's equipment.

#### **Supporting Statement**

#### <u> Page 1</u>

#### <first name> <surname> (ABC1234) Task 3 - Statement

The service plan I have created is the best option for the customer and the Guilds Machinery Company as it covers all areas of staff labour requirements, health and safety, environmental safety, use of tools, training, and waste disposal.

Firstly, for a service plan to be successful it must ensure the longevity and efficiency of the customers equipment. This has been ensured through my service plan in that I have considered manufacturer guidance for both warranty and non-warranty equipment. Following manufacturer guidance will ensure that equipment is kept in top condition allowing the equipment to work for the County Golf Course Club as well as reducing any issues on warranty items. This is also done by using manufacturer/warranty parts and fluids throughout all services unless the customer decides that non original parts would be better suited to the equipment. Increasing the efficiency and longevity of equipment allows the customer to spend less money on replacement equipment, less time hiring equipment for example during breakdowns, and it also allows the customer to keep equipment running for the full two years or seasons of the service plan.

For example, the utility vehicle mounted sprayer will not require a second NSTS test at the beginning of the second year, but it will occur according to my service plan. This is to ensure that the sprayer is working within environmental guidelines and working effectively at its role. Therefore, the customer will be saving money on fertiliser and other herbicides as the sprayer will be working more efficiently as well as running costs of the ATV to power it given that work can be done with less adjustments and stoppages.

Furthermore, my service plan details all Health and Safety legislation related to the agricultural engineering field, this means that all rules and regulations on risk assessment, COSHH etc are to be followed extremely carefully. Doing this benefits the Guilds Machinery Company by decreasing the chances of legal action from technicians if an accident should occur as well as legal action from the golf course due to an occurrence such as an oil spill while completing an oil change on a vehicle. Moreover, the use of appropriate tools and equipment during services allows technicians to work quickly and safely this saves the Guilds Machinery Company money on warranty jobs and the customer money on any non-warranty work. Providing the correct equipment also ensure that the chances of any oil spills or related accidents are less likely to happen given that the technicians will have the appropriate equipment to safely drain and transport waste oil and parts. Therefore increasing the safety of services for technicians as well as the environment which falls under both the Health and Safety at Work Act and the "Pollution prevention guidelines: August 2011".

Moreover, the careful consideration of the roles of different staff members at the Guild Machinery Company ensure that all operations related to the service plan will occur on time and correctly. For example, it will be the role of the service administrator to manage customer queries as well as contact customers to organise convenient times for services. This gives the customer a point of contact for any queries they have related to services. This also benefits the Guilds Machinery Company as it means that there is to be no confusion in the delegation of jobs during the service plan. It is clear in my service plan that it is the role of the service manager to delegate services to the relevant technicians, this means that as the service manager oversees all the technicians in the workshop, the technician with the correct experience or qualifications will be sent out to a service. This benefits the Guilds Machinery Company as it ensures that technicians will have the technical capability to

complete jobs and it also benefits the customer as it will decrease the time in which machinery is needed for services. This is especially important for piece of equipment like the ATV which is used every day all year round.

Additionally, parts and fluids are to be ordered by the service administrator well in advance of services this ensures that the customer will not have to wait for parts of fluids to be delivered if they are discovered to be missing during a service. This also benefits the Guilds Machinery company as it will reduce the number of parts which need to be ordered on express delivery, incurring additional costs as well as harming the environment.

Consideration of both the County Golf Club Course and the Guild Machinery company's finances are shown throughout for example, although the simple services such as checking air filters could be completed by a technician, this pulls the machine out of service costing the golf club and also incurring a callout charge of roughly £80 it has been recommended in my calendar of activities that the operator of the vehicle completes checks such as these. This benefits the Guild Machinery Company as it creates trust and transparency between the company and the golf course which may lead to more business in the future.

In conclusion, I believe that the service plan is the best option for the customer as it covers all aspects of; finance, health and safety, labour requirements, manufacturer service intervals and the order of tasks needed to implement and run each plan.

# Task 4 Peer review

Assessment number (eg 1234-033)	8717-036
Assessment title	Employer-Set Project

Candidate name	<first name=""> <surname></surname></first>
City & Guilds candidate No.	ABC1234

Provider name	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
City & Guilds provider No.	99999a

Task(s)	4
Evidence title / description	Candidate Feedback Form
	Peer Review Form
Date submitted by candidate	DD/MM/YY

#### **Candidate Feedback Form**

Candidate Name	Candidate Number
<first name=""> <surname></surname></first>	ABC1234
Provider Name	Provider Number
<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	99999a

#### Candidate's Notes

In Task 1 it was noted that, information regarding warranty was well researched and presented. Also, information regarding health and safety legislation was also well researched and highlighted in Task 1.

However, it is noted that information regarding finances was not presented clearly in Task 2 with information about the financial implications of my service plan spread across multiple headings. Part numbers were also not included in Task 2 or Task 3 however it was researched as a part of Task 1.

Staff considerations are well detailed throughout my research and the presentation of this research. Finally, more specific research could have been put into the types of hand tools required for a service rather than precise detail in personal and environmental safety equipment.

#### **Peer Review Form**

Candidate Name	Candidate Number
<first name=""> <surname></surname></first>	ABC1234
Provider Name	Provider Number
<pre><pre><pre><pre>ovider name&gt;</pre></pre></pre></pre>	999999a
Peer Review Name(s)	
<first name=""> &amp; <first name=""> <surname></surname></first></first>	

Questions for reviewers to consider:	Feedback
service plan meet the	name>- very clearly held all important information in bold
financial impacts of the service plan been considered against the requirements of the	rst name > more detect could have been explained cleaver in the function considerations aposed to in the service requirements.  st name > - could have relided note with the funcial intack and maybe part numbers
impacts on resources and staffing been considered for the	irst name > stage considerations is well actual name or tools and equipment wasn't included enough in my opinion.  irst name > hols and equipment should have been in nor depth.

# Task 5 Evaluate and present

Assessment number (eg 1234-033)	8717-036
Assessment title	Employer-Set Project

Candidate name	<first name=""> <surname></surname></first>
City & Guilds candidate No.	ABC1234

Provider name	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>
City & Guilds provider No.	99999a

Task(s)	5
Evidence title / description	Presentation materials
	Note: Presentation recording is not included in this document. Please refer to the commentary in its place.
Date submitted by candidate	DD/MM/YY

# Task 5 – Evaluate and Present

# How well my service plan from Task 3 met the requirements of the brief

# Covered all aspects including:

- The order of tasks needed to run the service plan as well as who will be involved in each task including job roles
- Requirements for staff including training
- Information on waste disposal (key for Health and Safety)
- And an extremely detailed timetable of service activities

However, it was noted in the peer feedback task that little information was included on specific part numbers although this was researched in detail for task 1.

# Justification for improvements or adaptations required to the service plan

#### Information regarding finances and specific part prices:

Researched well and in detail during Task 1 however, this information was referred to only when analysing the wages of different members of staff within the company and creating a report of my findings in Task 2. And disregarded in my Task 3 Service Plan

#### **Next time I would:**

Ensure that all information researched is included in later reports and plans for example, the disregarded information on prices of parts.

I would also go into more detail regarding specific hand tools required for a service as well as any testing and regulations around them (for example the calibration of torque wrenches and other precision tools). Rather than focusing solely on PPE and Environmental Safety Equipment including spill kits and sealed drain buckets.

# Any challenges presented by the brief

A challenge I encountered was finding an example of a suitable sprayer which is specific to the brief (ATV mounted 6m boom 400L), I found this difficult as information related to the John Deere ATV mounted sprayer system was brief and incomplete.

This was overcome by looking away from the manufacturer I had chosen for the ATV (John Deere) and looking towards aftermarket attachments for the ATV where I found an example which matched the specification of the brief.

Secondly, I had trouble finding reliable information on how technician's travel time and services are charged as there is limited information online with a large range of prices and rates.

However, this was overcome by researching more into related industries and deciding an average amount for the prices and rates charged by different companies which gave me confidence in being able to answer this requirement of the brief.

# Conclusion

In conclusion I believe that my service plan is the best option for both the County Golf Course Club and the Guilds Machinery Company. This is because careful thought was put into the research of:

- The roles and wages of staff members
- How technicians can stay safe under Health and Safety Legislation
- How technicians can protect the environment under the latest pollution prevention guidelines
- How the service plan can have the least impact on the running time of vehicles
- The equipment and tools necessary for services.

### **Presentation commentary**

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.

This candidate demonstrated high levels of professionalism throughout the task. Technical language and terminology was used accurately and appropriately showing strong core knowledge.

The candidate's reflection on their own performance and points raised during the peer review was accurate and relevant, demonstrating a strong ability to critically evaluate their own performance. The candidate conveyed enthusiasm and positivity through the effective use of body language.

The presentation was well structured with detail presented in an ordered and professional manner. The candidate's response to questions was accurate and detailed with high levels of understanding being demonstrated.



#### 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

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

Web chat available **here**.

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