

LEVEL 5 ASSESSMENT SPECIFICATION

Student name:	Timothy Mills	Student ID number:	2206144
Programme:	Built Environment Programmes – Level 5. BSc (Hons) Construction Management; BSc (Hons) Civil Engineering and HND pathways.		
Module:	Project Planning		
Module code:	ACBA5001	Contribution to Overall Module Assessment (%):	60%
Lecturer:	Rhodri Thomas	Internal Verifier:	Dr Deborah Hughes
Assignment Title:	Programmes	Word count (or equivalent):	2000 or equivalent
Submission deadline:	Week Commencing 4/4/23	Return date of provisional marks & written feedback:	25/4/23
Submission method:	All written assessments, where practical and possible, must be submitted via Turnitin unless otherwise instructed by the Lecturer. (Please DO NOT put this assessment specification into Turnitin or it will match many similarities with other students' submissions.) Alternative submission method (if applicable): Late submission of the assessment will result in a late penalty mark. Penalties for late submission: Up to one week late, maximum mark of 40%. Over one week late, 0%. Only the Extenuating Circumstances Panel may approve a change to submission dates.		
Academic honesty / referencing:	Academic honesty is required. In the main body of your submission you must give credit to authors on whose research and ideas your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have used, cited or quoted in order to complete this assessment.		

Module Learning Outcomes (from module syllabus)
Determine and assess the principles and application of effective project planning and programming. Produce method statements and programme of works, analysing time, cost and resources needed for the project construction.

TASK DESCRIPTION

Coursework

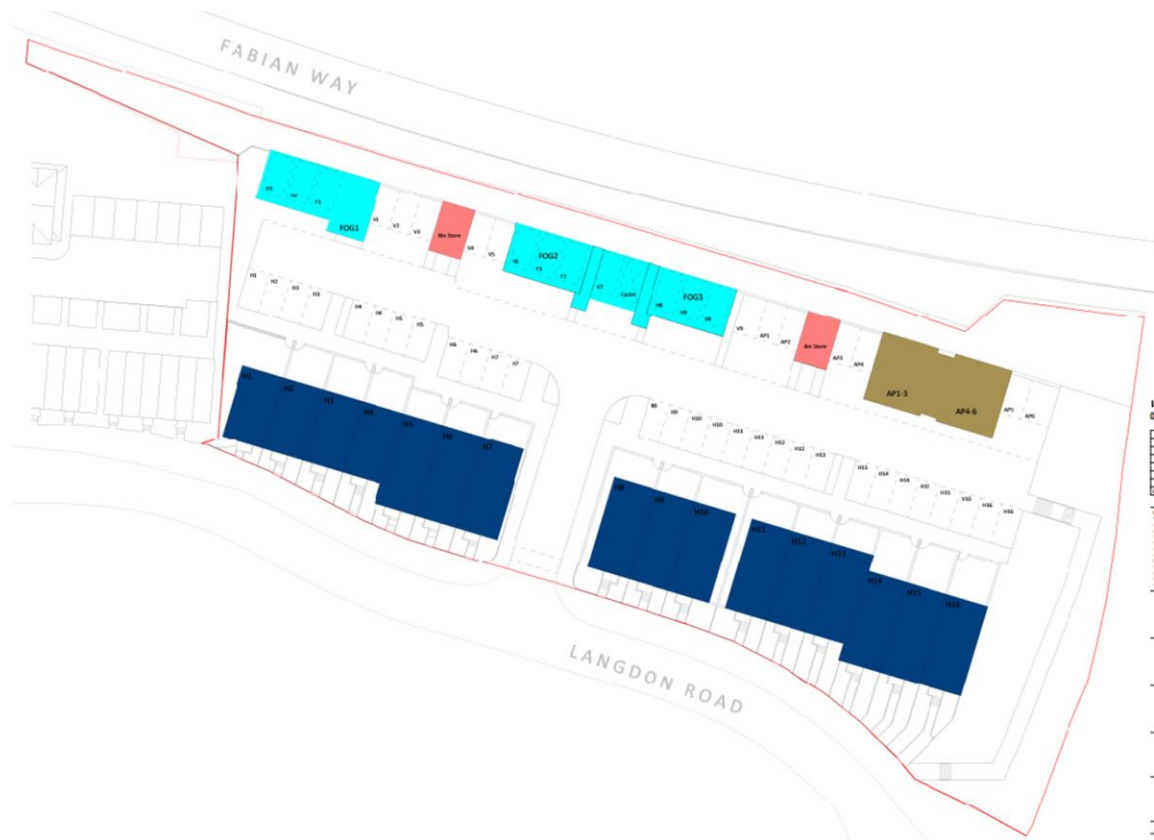
Please note this is an academic assessment that relates specifically to the module studied. It is a fictional proposal though based upon a real set of drawings.

You will need to **choose ONE** of the following scenarios to address.

1. You are to assume that a local housing developer has received planning consent for Apartments on a new development on SA1. [See attached floor plans and elevations]. The construction is described in the drawings provided on Teams. Work is proposed to start on 6th March 2023.
2. You are to assume that a local housing developer has received planning consent and has signed a Section 278 agreement to provide highway access for a housing estate on SA1. [See attached drawings. Further drawings available on Teams]. Work is proposed to start on 6th March 2023.

The following tasks are allocated a percentage to emphasise the suggested **time** you should spend on each individual task. Marks will be allocated against the set Marking Criteria indicated on page 6.

1. Produce a **detailed** work breakdown structure for **all** the **major** activities related to the construction of this project – from start until completion. (25%)
2. Produce **Construction Method Statements** for **three** of the major activities related to this project. (25%)
3. Produce a **Gantt chart** utilising suitable software showing the critical path. (25%)
4. Develop, evaluate and produce **site specific** reports for **time, cost and resources** of the work activities. (25%)



GUIDANCE FOR STUDENTS IN THE COMPLETION OF TASKS

NOTE: The guidance offered below is linked to the five generic assessment criteria overleaf.

1. Engagement with Literature Skills

Your work must be informed and supported by scholarly material that is *relevant* to and *focused* on the task(s) set. You should provide evidence that you have accessed an appropriate *range* of sources, which may be academic, governmental and industrial; these sources may include academic journal articles, textbooks, current news articles, organisational documents, and websites. You should consider the *credibility* of your sources; academic journals are normally highly credible sources while websites require careful consideration/selection and should be used sparingly. Any sources you use should be current and up-to-date, mostly published within the last five years or so, though seminal/important works in the field may be older. You must provide *evidence* of your research/own reading throughout your work, using a suitable referencing system, including in-text citations in the main body of your work and a reference list at the end of your work.

Guidance specific to this assessment: You need to show an understanding of current legislation relating to construction programmes.

2. Knowledge and Understanding Skills

At level 5, you should be able to demonstrate: sound knowledge and critical understanding of the well-established concepts and principles of the subject area and the way in which those principles have developed; knowledge of the main methods of enquiry in the discipline. *Knowledge* relates to the facts, information and skills you have acquired through your learning. You demonstrate your *understanding* by interpreting the meaning of the facts and information (knowledge). This means that you need to select and include in your work the concepts, techniques, models, theories, etc. appropriate to the task(s) set. You should be able to explain the theories, concepts, etc. meaningfully to show your understanding. Your mark/grade will also depend upon the *extent* to which you demonstrate your knowledge and understanding.

Guidance specific to this assessment: You need to show you can produce Method Statements.

3. Cognitive and Intellectual Skills

You should be able to critically analyse information, and propose solutions to problems arising from that analysis, including the critical evaluation of the appropriateness of different approaches to solving problems. Your work must contain evidence of logical, analytical thinking, evaluation and synthesis. For example, to examine and break information down into parts, make inferences, compile, compare and contrast information. This means not just describing what! But also justifying: Why? How? When? Who? Where? At what cost? At all times, you must provide justification/evidence for your arguments and judgements. Evidence that you have reflected upon the ideas of others within the subject area is crucial to you providing a reasoned and informed debate within your work. Furthermore, you should provide evidence that you are able to make sound judgements and convincing arguments using data and concepts, with an understanding of the limits of knowledge, and how this influences analyses and interpretations. Sound, valid conclusions are necessary and must be derived from the content of your work. Where relevant, alternative solutions and recommendations may be proposed.

Guidance specific to this assessment: You need to show you can analysis a Gantt chart to advise the client on time, cost and resources.

4. Practical Skills

At level 5, you should be able to use/deploy a range of established techniques within the discipline, and apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context. You should be able to demonstrate how the subject-related concepts and ideas relate to real world situations and/or a particular context. How

do they work in practice? You will deploy models, methods, techniques, and/or theories, in that context, to assess current situations, perhaps to formulate plans or solutions to solve problems, or to create artefacts, some of which may be creative. This is likely to involve, for instance, the use of real world artefacts, examples and cases, the application of a model within an organisation and/or benchmarking one theory or organisation against others based on stated criteria. You should show awareness of the limitations of concepts and theories when applied in particular contexts.

Guidance specific to this assessment: You need to show you can produce a Gantt chart. You need to show sufficient number of tasks and also correct connections between tasks.

5. Transferable Skills for Life and Professional Practice

Your work must provide evidence of the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making. This includes demonstrating: professional development to advance existing skills and acquire new competences that will enable you to assume significant responsibility within organisations; that you can initiate and complete tasks and procedures, whether individually and/or collaboratively; that you can use appropriate media to effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences; fluency of expression; clarity and effectiveness in presentation and organisation. Work should be coherent and well-structured in presentation and organisation.

Guidance specific to this assessment: This will be assessed via the quality of your Gantt chart and your ability to provide reports on the resource requirements.

STUDENT FEEDBACK FORM

This section details the *extent* to which the assessment criteria are demonstrated by you, which in turn determines your mark. The marks available for each category of skill are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Generic Assessment Criteria	Marks available	Marks awarded
1. Engagement with Literature Skills	10	
2. Knowledge and Understanding Skills	30	
3. Cognitive and Intellectual Skills	20	
4. Practical Application Skills	30	
5. Transferable Skills for Life and Professional Practice	10	

Assessment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate)		%
	Up to 1 week late (40% Max)		
	Over 1 week late (0%)		

GENERIC ASSESSMENT CRITERIA

Level 5

In accordance with the Framework for Higher Education Qualifications, at the end of Level 5 students will be expected to have developed sound knowledge and critical understanding of the well-established concepts and principles in their field of study, and of the way in which those principles have developed. They will have learned to apply those concepts and principles more widely outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context. They will have knowledge of the main methods of enquiry in the subject area, and ability to evaluate critically different approaches to problem solving. They will possess an understanding of the limits of their knowledge, and how this influences their analyses and interpretations. They will be able to use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis. They will be able to effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively. They will be able to undertake further training, develop existing skills and acquire new competences that will enable them to assume significant responsibility within organisations. They will have the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.

Level 5	FAIL	MARGINAL FAIL	SATISFACTORY (3 rd / Pass)	GOOD (2.2 / Pass)	VERY GOOD (2.1 / Merit)	EXCELLENT (1 st / Distinction)	EXCEPTIONAL (1 st / Distinction)
Category	0-29%	30-39%	40-49%	50-59%	60-69%	70-84%	85-100%
Engagement with literature (including reading, referencing, academic conventions and academic honesty)	Little or no evidence of reading and/or reliance on inappropriate sources. Views and findings mostly unsupported and non-authoritative. Referencing conventions used incoherently or largely absent.	Poor engagement with essential reading. No evidence of wider reading. Reliance on inappropriate sources, and/or indiscriminate use of sources. Heavily reliant on information gained through class contact. Inconsistent and weak use of referencing.	Engagement with a limited range of mostly relevant and credible sources. Some omissions and minor errors. Referencing conventions evident though not always applied accurately or consistently.	Engagement with an appropriate range of literature, including sources retrieved independently. Some over-reliance on texts. Referencing may show minor inaccuracies or inconsistencies.	Engagement with a wide range of literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing, with no/very few inaccuracies or inconsistencies.	Engagement with an extensive range of relevant and credible literature. Consistently accurate application of referencing.	Exceptional engagement with an extensive range of relevant and credible literature. High-level referencing skills consistently applied.
Knowledge and understanding (Sound knowledge and	Major gaps in knowledge with unsatisfactory, uncritical understanding of	Fragmentary knowledge, with only superficial critical understanding.	Limited but adequate knowledge and critical understanding of	Knowledge is reasonably detailed and accurate. A good critical	Knowledge is reasonably extensive. Exhibits very competent	Excellent, detailed knowledge and highly critical understanding of	Exceptionally detailed knowledge and outstanding critical

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critical understanding of the well-established concepts and principles in their field of study; knowledge of the main methods of enquiry in the discipline.)	the subject matter. Much irrelevant material. Substantial inaccuracies. Significantly flawed understanding of the main methods of enquiry in the discipline.	Some significant inaccuracies and/or irrelevant material. Incomplete or partially flawed understanding of the main methods of enquiry in the discipline.	the well-established concepts and principles within the subject area, with a few gaps in the selection of material. A narrow critical understanding of the main methods of enquiry.	understanding of the well-established concepts and principles and the main methods of enquiry, with minor gaps in the selection of material.	critical understanding of the well-established concepts and principles of the subject and the main methods of enquiry. Breadth and depth of knowledge.	the well-established concepts and principles of the subject and the main methods of enquiry.	understanding of the well-established concepts and principles of the subject and the main methods of enquiry. May go beyond established theories.
Cognitive and intellectual skills (Critical evaluation and analysis of concepts and principles; argument and judgement; the limits of their knowledge, and how this influences their analyses and interpretations.)	Wholly or almost wholly descriptive work. Little or no critical evaluation and analysis of concepts and principles. Failure to develop arguments, leading to illogical or invalid judgements. Unsubstantiated generalisations or opinion, made without use of any credible evidence.	Largely descriptive work, with superficial use of critical evaluation and analysis of concepts and principles. Weak development of arguments and judgements. Information accepted uncritically, uses generalised statements made with scant evidence and unsubstantiated opinions. Ideas sometimes illogical and contradictory.	Limited attempt at critical evaluation and analysis of concepts and principles, tending towards description. Some evidence to support arguments and judgements but these may be underdeveloped, with a little inconsistency / mis-interpretation or failure to fully recognise limits of knowledge.	Some critical evaluation and analysis of concepts and principles, though descriptive in parts. An emerging awareness the limits of their knowledge and ability to use evidence to support the argument though with some tendency to assert/state opinion rather than argue on the basis of reason and evidence. Mostly valid arguments and logical judgements.	Sound critical evaluation and analysis of concepts. Is selective in the range of evidence used and synthesises rather than describes. Ability to devise arguments that show awareness of different stances, and use evidence convincingly, to support appropriate and valid judgements.	Excellent critical evaluation and analysis of concepts and principles leading to logical, evidence-based, reasoned arguments and judgements. Explicit recognition of other stances and a strong awareness of the limits of their knowledge. A capacity for independent thought and ability to 'see beyond the question', suggesting some grasp of the broader field and wider concepts.	Outstanding critical evaluation and analysis of concepts and principles. Uses evidence exceptionally well to connect ideas, and support highly logical and persuasive, arguments and judgements. Evidence of independent thought and ability to 'see beyond the question', suggesting a clear grasp of the broader field and wider concepts. Perceptive recognition of

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							the limits of their knowledge, and how this influences their analyses and interpretations.
Practical skills (Apply underlying concepts and principles more widely outside the context in which they were first studied; use a range of established techniques; propose solutions to problems arising from analysis.)	Limited or no use of established methods, materials, tools and/or techniques. Little or no appreciation of the context of the application. Limited understanding of the application of theory to practice or making appropriate links between the two. Very weak problem-solving skills outside the context in which they were first studied.	Rudimentary application of established methods, materials, tools and/or techniques but without consideration and competence. Flawed appreciation of the context of the application. Weak understanding of the application of theory to practice, with only occasional evidence of making appropriate links between the two. Weak problem-solving skills outside the context in which they were first studied.	An adequate awareness and mostly appropriate application of established methods, materials, tools and/or techniques. Basic appreciation of the context of the application. Theoretical knowledge and understanding applied in practice, but not always making logical links between the two. Can identify problems and propose basic solutions outside the context in which they were first studied.	A good and appropriate application of established methods, materials, tools and/or techniques. Clear appreciation of the context of the application. Mainly consistent, accurate and logical application of theory to practice, making appropriate links between the two. Can identify problems and propose mostly appropriate solutions outside the context in which they were first studied.	A very good application of a range of established methods, materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive insights. Consistent, accurate and logical application of theory to practice, making appropriate links between the two. Can identify problems and propose appropriate solutions outside the context in which they were first studied. Evidence of some creativity.	An advanced application of a range of established methods, materials, tools and/or techniques. The context of the application is well considered, and insightful. Consistent, accurate and logical application of theory to practice, making well-developed links between the two. Can identify problems and propose excellent, creative solutions outside the context in which they were first studied.	Exceptional levels of application and deployment skills using established methods, materials, tools and/or techniques. Consistent, accurate and logical application of theory to practice, making highly developed links between the two. Can identify routine and non-routine problems and propose quite sophisticated, creative solutions outside the context in which they were first studied.
Transferable skills for life	Communication medium is	Communication medium is poorly	Can communicate in	Can communicate	Can communicate	Can communicate	Can communicate

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and professional practice (Effectively communicate in a variety of forms to specialist and non-specialist audiences; the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision-making.)	inappropriate or misapplied. Work is poorly structured, disorganised and/or confusingly expressed. Very weak use of language and/or very inappropriate style. Failure to work effectively as part of a group. Little or no evidence of the skills for employment requiring the exercise of personal responsibility and decision-making.	designed and/or not suitable for the audience. Work is poorly presented in a disjointed manner. It is loosely, and at times incoherently, structured, with information and ideas often poorly expressed. Weak use of language and/or inappropriate style. Flawed approach to group work, meeting only partial obligations to others. Limited evidence of the skills for employment requiring the exercise of personal responsibility and decision-making.	a suitable medium for the audience but with some room for improvement. Mostly ordered presentation and structure in which relevant ideas / concepts are reasonably expressed. Work may lack coherence in places. Can work as part of a group, meeting most obligations to others but perhaps with limited involvement in group activities. Demonstrates the basic skills for employment requiring the exercise of personal responsibility and decision-making, with some areas of minor weakness.	effectively in a suitable medium for the audience, but may have minor errors. Mostly coherent, organised work, in a suitable structure and is for the most part clearly expressed. Can work effectively independently and/or as part of a team, with clear contribution to group activities. Demonstrates the skills for employment requiring the exercise of personal responsibility and decision-making, with some areas of strength and some of minor weakness.	well, confidently and consistently in a suitable medium for the audience. Work is coherent, fluent, well-structured and organised. Can work very well autonomously and/or as part of a team, with very good contribution to group activities. Demonstrates very good skills for employment requiring the exercise of personal responsibility and decision-making, with just occasional minor weakness.	professionally confidently and consistently in a suitable medium for the audience. Work is coherent, very fluent and is presented proficiently. Can work autonomously with initiative. Where relevant can work professionally within a team, showing leadership skills as appropriate, and meeting obligations. Demonstrates excellent skills for employment requiring the exercise of personal responsibility and decision-making and an appetite for further development.	with an exceptionally high level of professionalism, highly suitable for the audience. Work is exceptionally coherent, very fluent and is presented professionally. Can work exceptionally well within a team, showing leadership skills. Demonstrates exceptional skills for employment requiring the exercise of personal responsibility and decision-making and an appetite for further development.

THIS DOCUMENT IS ALSO AVAILABLE IN WELSH

References: -

Project Resource Costs, email from Aaron Mills Architectural Services: -

From: Aaron Mills <mills583@btinternet.com>
Sent: 06 February 2023 09:19
To: timissacmills@hotmail.co.uk <timissacmills@hotmail.co.uk>
Subject: Local Pembrokeshire Labour rates.

Hi Tim,

As requested, please see the hourly rate for the requested resource below:-

Please note. These costs are indicative and are applicable to the construction industry in west Wales, predominantly Pembrokeshire. Costs can vary depending on location and the competitive nature of bids.

Role	Hourly Rate
General Labourer - Senior	£18
General Labourer - Skilled	£18
Ground Worker - Senior	£25
Ground Worker - Skilled	£18
Ground Worker - Trainee	£14
Electrical Engineer	£55
Electrical Engineer - Trainee	£30
Mechanical Engineer	£50
Mechanical Engineer - Trainee	£28
Site Surveyor	£30
Site Surveyor - Trainee	£18

Hope this helps with your assignment.
Kind regards,

Aaron Mills (Architectural Technologist)

Hire of General Waste Skip (£250) / Recycling Skip (£220) / Material Skip (£350) - [Household waste recycling by Greenacres Skip Hire](#)

Hire of Office Cabin (£1500) / Canteen (£1750) / W/C (£1750) - [Container Conversions & Converted Shipping Containers For Sale \(pentalvercontainerconversions.com\)](#)

Sub-base layer (type 1 recycled crushed concrete) = £19 per tonne (491-tonne project total) - [Home - Aggregate Suppliers - Ashville Aggregates \(aggregatessupplier.com\)](#)

Base layer (Type 2 6F2 = £19.05 per tonne (308-tonne project total) - [Home - Aggregate Suppliers - Ashville Aggregates \(aggregatessupplier.com\)](#)

Binder Course= £22 per tonne (205-tonne project total) - [GD Harries & Sons Ltd – Construction & Infrastructure Wales](#)

Finish Coarse = £120 per m² (1057m² project total) - [GD Harries & Sons Ltd – Construction & Infrastructure Wales](#)

Concrete Curbs = £10.46 per 915mm (Total Length = 446m) - [Building Materials and Supplies from Huws Gray Builders Merchants](#)

80 Tonne Roller = £150 per day or £50 per day - [DIY tools for hire at A1 Servicing in Pembrokeshire](#)

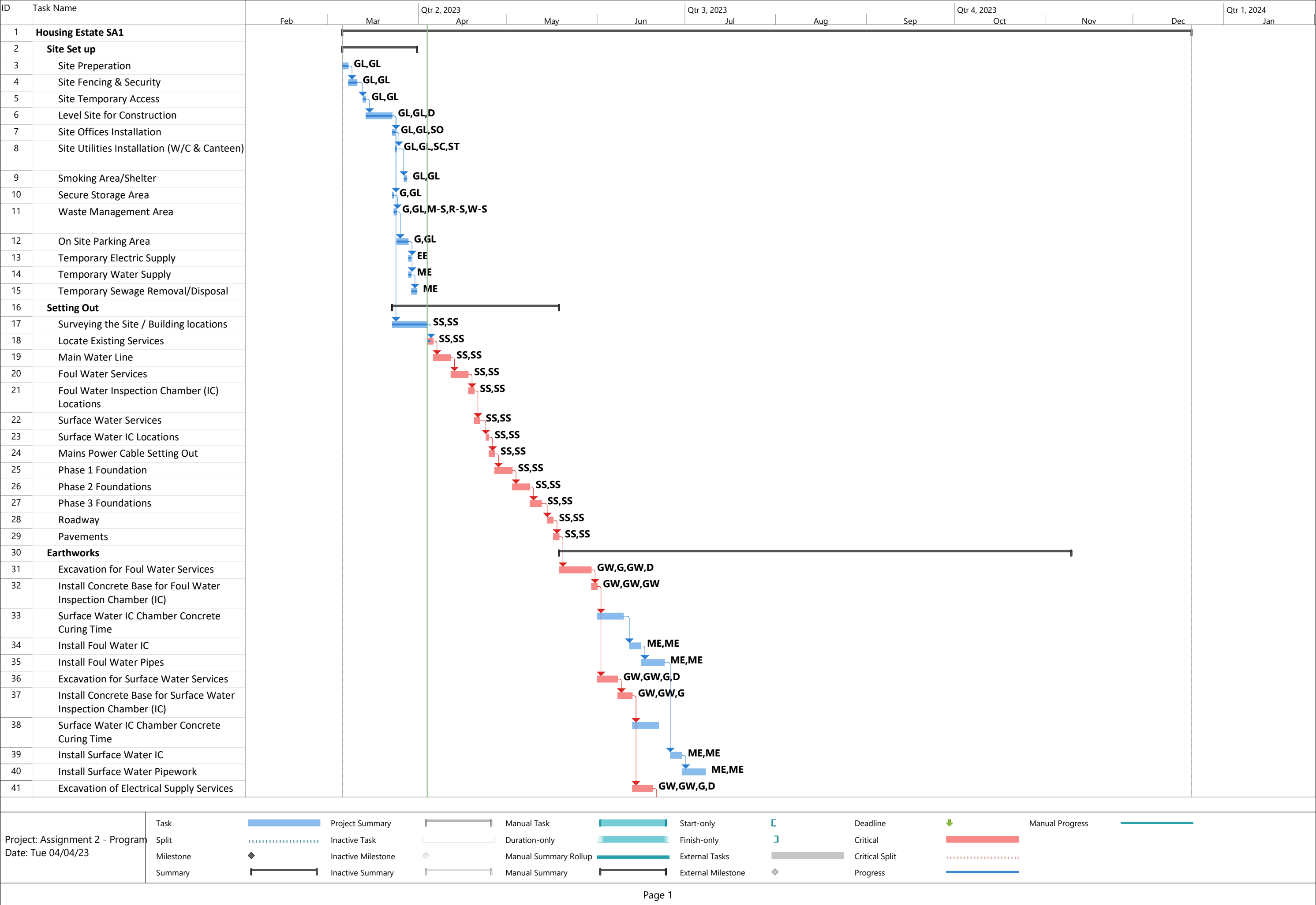
3.5Tonne Dogger = £320 per week or £80 per day - [DIY tools for hire at A1 Servicing in Pembrokeshire](#)

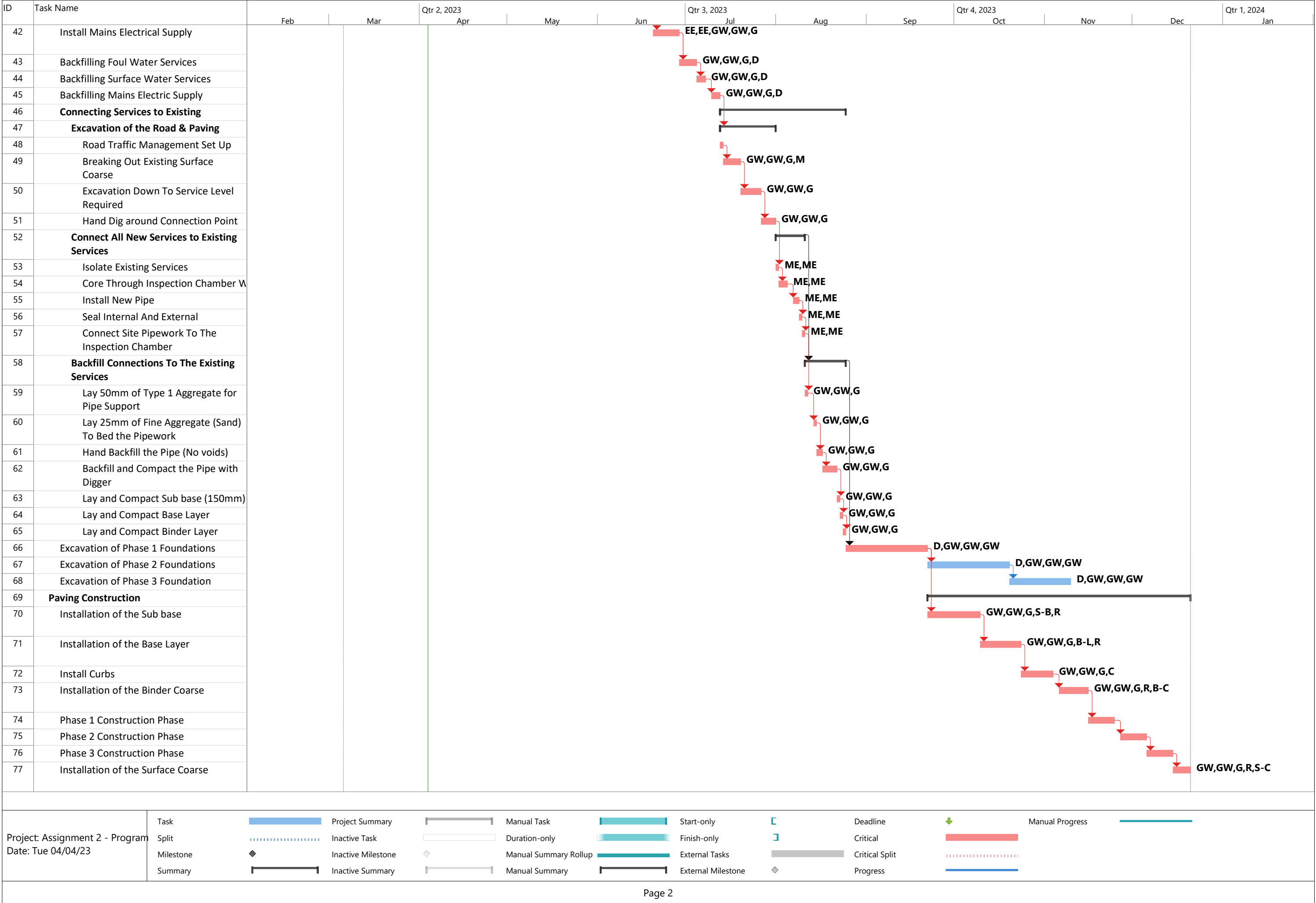
Medium Demolition Hammer - £75 per week - [DIY tools for hire at A1 Servicing in Pembrokeshire](#)

ID	Task Name	Predecessors	Start	Finish	Duration	% Complete	Resource Names	Cost
1	Housing Estate SA1		Mon 06/03/23	Wed 20/12/23	208 days	11%		£184,784.88
2	Site Set up		Mon 06/03/23	Fri 31/03/23	19.5 days	100%		£13,036.00
3	Site Preperation		Mon 06/03/23	Tue 07/03/23	2 days	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled	£528.00
4	Site Fencing & Security	3	Wed 08/03/23	Fri 10/03/23	3 days	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled	£792.00
5	Site Temporary Access	4	Mon 13/03/23	Mon 13/03/23	1 day	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled	£264.00
6	Level Site for Construction	5	Tue 14/03/23	Wed 22/03/23	7 days	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled,Digger	£2,408.00
7	Site Offices Installation	6	Thu 23/03/23	Thu 23/03/23	1 day	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled,Site Office[£1,500.00]	£1,764.00
8	Site Utilities Installation (W/C & Canteen)	7	Fri 24/03/23	Fri 24/03/23	0.5 days	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled,Site Canteen[£1,750.00],Site Toilets[£1,750.00]	£3,632.00
9	Smoking Area/Shelter	8	Mon 27/03/23	Mon 27/03/23	1 day	100%	General Labourer 1 - Senior,General Labourer 2 - Skilled	£264.00
10	Secure Storage Area	6	Thu 23/03/23	Thu 23/03/23	0.5 days	100%	General Labourer 4 - Skilled,General Labourer 3 - Senior	£132.00
11	Waste Management Area	10	Thu 23/03/23	Fri 24/03/23	1 day	100%	General Labourer 4 - Skilled,General Labourer 3 - Senior,Material Skip[£350.00],Reycling Skip[£220.00],General Waste Skip[£250.00]	£1,084.00
12	On Site Parking Area	11	Fri 24/03/23	Tue 28/03/23	2 days	100%	General Labourer 4 - Skilled,General Labourer 3 - Senior	£528.00
13	Temporary Electric Supply	12	Tue 28/03/23	Wed 29/03/23	1 day	100%	Electrician Engineer	£440.00
14	Temporary Water Supply	12	Tue 28/03/23	Wed 29/03/23	1 day	100%	Mechanical Engineer	£400.00
15	Temporary Sewage Removal/Disposal	14	Wed 29/03/23	Fri 31/03/23	2 days	100%	Mechanical Engineer	£800.00
16	Setting Out		Thu 23/03/23	Thu 18/05/23	41 days	22%		£15,744.00
17	Surveying the Site / Building locations	6	Thu 23/03/23	Mon 03/04/23	8 days	100%	Senior Site Surveyor,Trainee Site Surveyor	£3,072.00
18	Locate Existing Services	17	Tue 04/04/23	Wed 05/04/23	2 days	50%	Senior Site Surveyor,Trainee Site Surveyor	£768.00
19	Main Water Line	18	Thu 06/04/23	Tue 11/04/23	4 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£1,536.00
20	Foul Water Services	19	Wed 12/04/23	Mon 17/04/23	4 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£1,536.00
21	Foul Water Inspection Chamber (IC) Locations	20	Tue 18/04/23	Wed 19/04/23	2 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£768.00
22	Surface Water Services	21	Thu 20/04/23	Fri 21/04/23	2 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£768.00
23	Surface Water IC Locations	22	Mon 24/04/23	Mon 24/04/23	1 day	0%	Senior Site Surveyor,Trainee Site Surveyor	£384.00
24	Mains Power Cable Setting Out	23	Tue 25/04/23	Wed 26/04/23	2 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£768.00
25	Phase 1 Foundation	24	Thu 27/04/23	Tue 02/05/23	4 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£1,536.00
26	Phase 2 Foundations	25	Wed 03/05/23	Mon 08/05/23	4 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£1,536.00
27	Phase 3 Foundations	26	Tue 09/05/23	Fri 12/05/23	4 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£1,536.00
28	Roadway	27	Mon 15/05/23	Tue 16/05/23	2 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£768.00
29	Pavements	28	Wed 17/05/23	Thu 18/05/23	2 days	0%	Senior Site Surveyor,Trainee Site Surveyor	£768.00
30	Earthworks		Fri 19/05/23	Thu 09/11/23	125 days	0%		£96,503.00
31	Excavation for Foul Water Services	29	Fri 19/05/23	Mon 29/05/23	7 days	0%	Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Ground Worker 1 - Senior,Digger	£3,752.00
32	Install Concrete Base for Foul Water Inspection Chamber (IC)	31	Tue 30/05/23	Wed 31/05/23	2 days	0%	Ground Worker 4 - Senior,Ground Worker 5 - Skilled,Ground Worker 6 - Trainee	£912.00
33	Surface Water IC Chamber Concrete Curing Time	32	Thu 01/06/23	Fri 09/06/23	7 days	0%		£0.00
34	Install Foul Water IC	33	Mon 12/06/23	Thu 15/06/23	4 days	0%	Mechanical Engineer,Mechanical Engineer Trainee	£2,496.00
35	Install Foul Water Pipes	34	Fri 16/06/23	Fri 23/06/23	6 days	0%	Mechanical Engineer,Mechanical Engineer Trainee	£3,744.00
36	Excavation for Surface Water Services	32	Thu 01/06/23	Wed 07/06/23	5 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger	£2,680.00
37	Install Concrete Base for Surface Water Inspection Chamber (IC)	36	Thu 08/06/23	Mon 12/06/23	3 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£1,368.00
38	Surface Water IC Chamber Concrete Curing Time	37	Tue 13/06/23	Wed 21/06/23	7 days	0%		£0.00
39	Install Surface Water IC	35	Mon 26/06/23	Thu 29/06/23	4 days	0%	Mechanical Engineer,Mechanical Engineer Trainee	£2,496.00
40	Install Surface Water Pipework	39	Fri 30/06/23	Fri 07/07/23	6 days	0%	Mechanical Engineer,Mechanical Engineer Trainee	£3,744.00

ID	Task Name	Predecessors	Start	Finish	Duration	% Complete	Resource Names	Cost
41	Excavation of Electrical Supply Services	37	Tue 13/06/23	Mon 19/06/23	5 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger	£2,680.00
42	Install Mains Electrical Supply	41	Tue 20/06/23	Wed 28/06/23	7 days	0%	Electrician Engineer,Electrician Engineer Trainee,Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£7,952.00
43	Backfilling Foul Water Services	42	Thu 29/06/23	Tue 04/07/23	4 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger	£2,144.00
44	Backfilling Surface Water Services	43	Wed 05/07/23	Fri 07/07/23	3 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger	£1,608.00
45	Backfilling Mains Electric Supply	44	Mon 10/07/23	Wed 12/07/23	3 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger	£1,608.00
46	Connecting Services to Existing		Thu 13/07/23	Thu 24/08/23	31 days	0%		£29,839.00
47	Excavation of the Road & Paving	45	Thu 13/07/23	Mon 31/07/23	13 days	0%	Road Traffic Management ,Digger	£11,787.00
48	Road Traffic Management Set Up		Thu 13/07/23	Thu 13/07/23	1 day	0%		£0.00
49	Breaking Out Existing Surface Coarse	48	Fri 14/07/23	Wed 19/07/23	4 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Medium Demolition Hammer[£75.00]	£1,899.00
50	Excavation Down To Service Level Required	49	Thu 20/07/23	Wed 26/07/23	5 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£2,280.00
51	Hand Dig around Connection Point	50	Thu 27/07/23	Mon 31/07/23	3 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£1,368.00
52	Connect All New Services to Existing Services		Tue 01/08/23	Thu 10/08/23	8 days	0%	Road Traffic Management	£8,192.00
53	Isolate Existing Services	51	Tue 01/08/23	Tue 01/08/23	1 day	0%	Mechanical Engineer,Mechanical Engineer Trainee	£624.00
54	Core Through Inspection Chamber W	53	Wed 02/08/23	Fri 04/08/23	3 days	0%	Mechanical Engineer,Mechanical Engineer Trainee	£1,872.00
55	Install New Pipe	54	Mon 07/08/23	Tue 08/08/23	2 days	0%	Mechanical Engineer,Mechanical Engineer Trainee	£1,248.00
56	Seal Internal And External	55	Wed 09/08/23	Wed 09/08/23	1 day	0%	Mechanical Engineer,Mechanical Engineer Trainee	£624.00
57	Connect Site Pipework To The Inspection Chamber	56	Thu 10/08/23	Thu 10/08/23	1 day	0%	Mechanical Engineer,Mechanical Engineer Trainee	£624.00
58	Backfill Connections To The Existing Services	52	Fri 11/08/23	Thu 24/08/23	10 days	0%	Digger,Road Traffic Management ,Roller	£9,860.00
59	Lay 50mm of Type 1 Aggregate for Pipe Support	57	Fri 11/08/23	Fri 11/08/23	1 day	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
60	Lay 25mm of Fine Aggregate (Sand) To Bed the Pipework	59	Mon 14/08/23	Mon 14/08/23	1 day	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
61	Hand Backfill the Pipe (No voids)	60	Tue 15/08/23	Wed 16/08/23	2 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£912.00
62	Backfill and Compact the Pipe with Digger	61	Thu 17/08/23	Mon 21/08/23	3 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£1,368.00
63	Lay and Compact Sub base (150mm)	62	Tue 22/08/23	Tue 22/08/23	1 day	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
64	Lay and Compact Base Layer	63	Wed 23/08/23	Wed 23/08/23	1 day	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
65	Lay and Compact Binder Layer	64	Thu 24/08/23	Thu 24/08/23	1 day	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
66	Excavation of Phase 1 Foundations	58	Fri 25/08/23	Thu 21/09/23	20 days	0%	Digger,Ground Worker 4 - Senior,Ground Worker 5 - Skilled,Ground Worker 6 - Trainee	£10,720.00
67	Excavation of Phase 2 Foundations	66	Fri 22/09/23	Thu 19/10/23	20 days	0%	Digger,Ground Worker 4 - Senior,Ground Worker 5 - Skilled,Ground Worker 6 - Trainee	£10,720.00
68	Excavation of Phase 3 Foundation	67	Fri 20/10/23	Thu 09/11/23	15 days	0%	Digger,Ground Worker 4 - Senior,Ground Worker 5 - Skilled,Ground Worker 6 - Trainee	£8,040.00
69	Paving Construction		Fri 22/09/23	Wed 20/12/23	64 days	0%		£59,501.88
70	Installation of the Sub base	66	Fri 22/09/23	Mon 09/10/23	12 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Sub Base[1],Roller	£17,267.00
71	Installation of the Base Layer	70	Tue 10/10/23	Mon 23/10/23	10 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Base Layer[1],Roller	£12,100.88
72	Install Curbs	71	Tue 24/10/23	Fri 03/11/23	9 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Curbs[1]	£10,230.00
73	Installation of the Binder Coarse	72	Mon 06/11/23	Wed 15/11/23	8 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Roller,Binder Coarse[1]	£9,460.00
74	Phase 1 Construction Phase	73	Thu 16/11/23	Fri 24/11/23	7 days	0%		£0.00
75	Phase 2 Construction Phase	74	Mon 27/11/23	Tue 05/12/23	7 days	0%		£0.00
76	Phase 3 Construction Phase	75	Wed 06/12/23	Thu 14/12/23	7 days	0%		£0.00

ID	Task Name	Predecessors	Start	Finish	Duration	% Complete	Resource Names	Cost
77	Installation of the Surface Coarse	76	Fri 15/12/23	Wed 20/12/23	4 days	0%	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Roller,Surface Course[1]	£10,444.00





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WORK OVERVIEW

Actual Work

536 hrs

Remaining Work

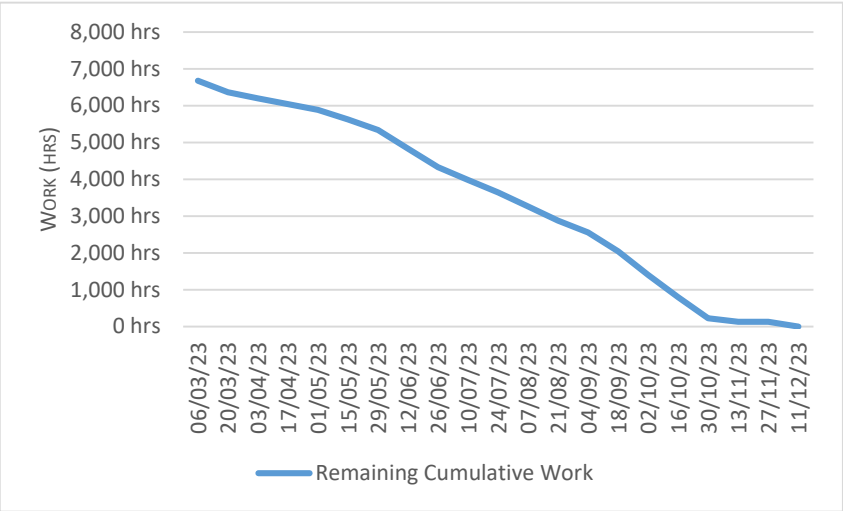
6,328 hrs

% Work Complete

8%

WORK BURNDOWN

Work burndown shows how the remaining hours decrease as the project progresses.

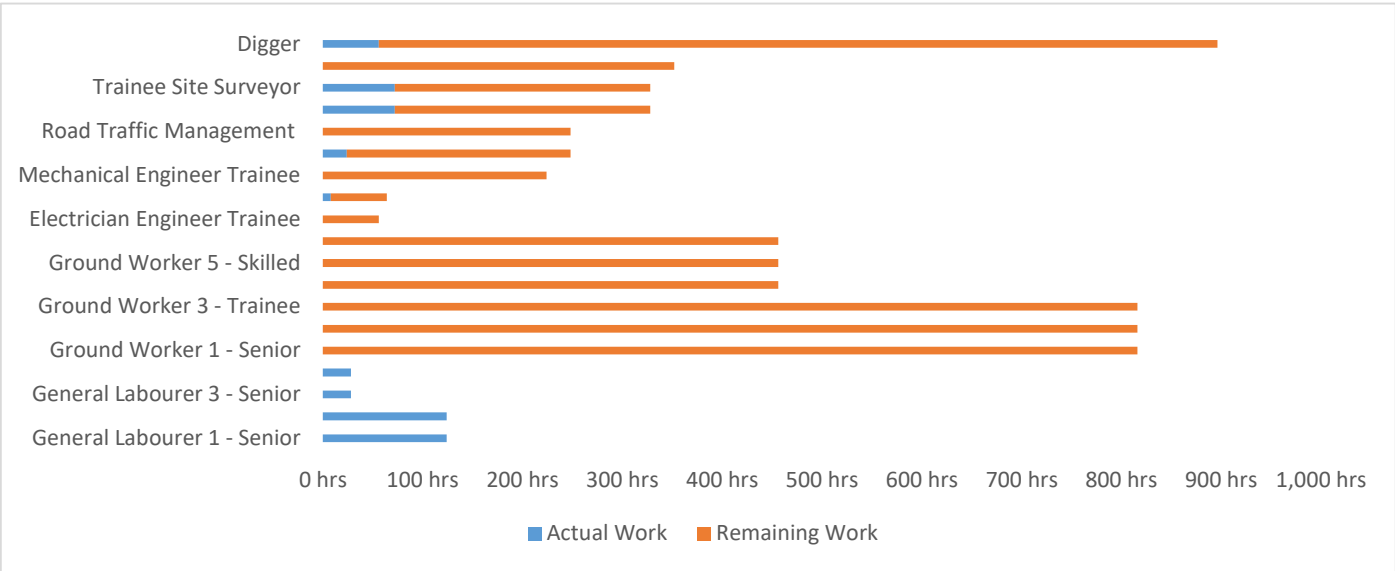


Mon 06/03/23

Wed 20/12/23

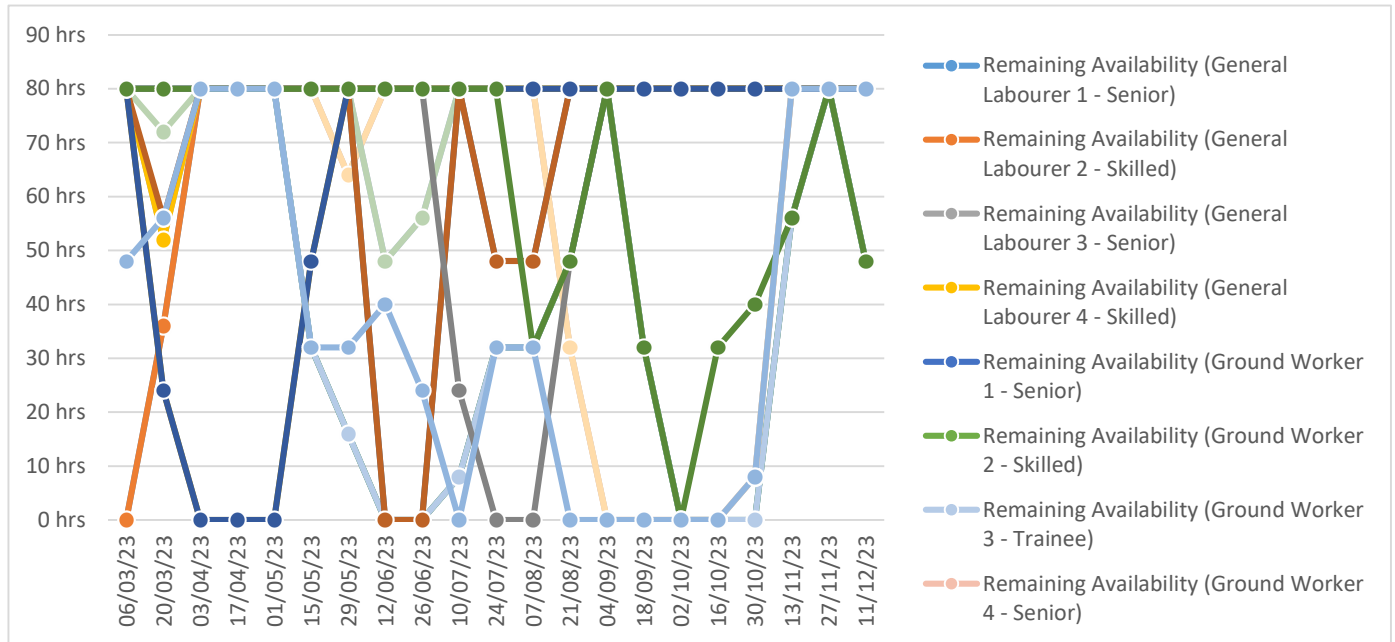
RESOURCE STATS

Shows work stats for all your resources.



REMAINING AVAILABILITY

Shows remaining availability for all work resources.



CRITICAL PATH

Name	Start	Finish	% Complete	Remaining Work	Resource Names
Site Preperation	Mon 06/03/23	Tue 07/03/23	0%	32 hrs	General Labourer 1 - Senior,General Labourer 2 - Skilled
Site Fencing & Security	Wed 08/03/23	Fri 10/03/23	0%	48 hrs	General Labourer 1 - Senior,General Labourer 2 - Skilled
Site Temporary Access	Mon 13/03/23	Mon 13/03/23	0%	16 hrs	General Labourer 1 - Senior,General Labourer 2 - Skilled
Level Site for Construction	Tue 14/03/23	Wed 22/03/23	0%	168 hrs	General Labourer 1 - Senior,General Labourer 2 - Skilled,Digger
Surveying the Site / Building locations	Thu 23/03/23	Mon 03/04/23	0%	128 hrs	Senior Site Surveyor,Trainee Site Surveyor
Locate Existing Services	Tue 04/04/23	Wed 05/04/23	0%	32 hrs	Senior Site Surveyor,Trainee Site Surveyor
Main Water Line	Thu 06/04/23	Tue 11/04/23	0%	64 hrs	Senior Site Surveyor,Trainee Site Surveyor
Foul Water Services	Wed 12/04/23	Mon 17/04/23	0%	64 hrs	Senior Site Surveyor,Trainee Site Surveyor
Foul Water Inspection Chamber (IC) Locations	Tue 18/04/23	Wed 19/04/23	0%	32 hrs	Senior Site Surveyor,Trainee Site Surveyor
Surface Water Services	Thu 20/04/23	Fri 21/04/23	0%	32 hrs	Senior Site Surveyor,Trainee Site Surveyor
Surface Water IC Locations	Mon 24/04/23	Mon 24/04/23	0%	16 hrs	Senior Site Surveyor,Trainee Site Surveyor
Mains Power Cable Setting Out	Tue 25/04/23	Wed 26/04/23	0%	32 hrs	Senior Site Surveyor,Trainee Site Surveyor
Phase 1 Foundation	Thu 27/04/23	Tue 02/05/23	0%	64 hrs	Senior Site Surveyor,Trainee Site Surveyor
Phase 2 Foundations	Wed 03/05/23	Mon 08/05/23	0%	64 hrs	Senior Site Surveyor,Trainee Site Surveyor
Phase 3 Foundations	Tue 09/05/23	Fri 12/05/23	0%	64 hrs	Senior Site Surveyor,Trainee Site Surveyor
Roadway	Mon 15/05/23	Tue 16/05/23	0%	32 hrs	Senior Site Surveyor,Trainee Site Surveyor
Pavements	Wed 17/05/23	Thu 18/05/23	0%	32 hrs	Senior Site Surveyor,Trainee Site Surveyor
Excavation for Foul Water Services	Fri 19/05/23	Mon 29/05/23	0%	224 hrs	Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Ground Worker 1 - Senior,Digger
Install Concrete Base for Foul Water Inspection Chamber (IC)	Tue 30/05/23	Wed 31/05/23	0%	48 hrs	Ground Worker 4 - Senior,Ground Worker 5 - Skilled,Ground Worker 6 - Trainee

Excavation for Surface Water Services	Thu 01/06/23	Wed 07/06/23	0%	160 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger
Install Concrete Base for Surface Water Inspection Chamber (IC)	Thu 08/06/23	Mon 12/06/23	0%	72 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Excavation of Electrical Supply Services	Tue 13/06/23	Mon 19/06/23	0%	160 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger
Install Mains Electrical Supply	Tue 20/06/23	Wed 28/06/23	0%	280 hrs	Electrician Engineer,Electrician Engineer Trainee,Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Backfilling Foul Water Services	Thu 29/06/23	Tue 04/07/23	0%	128 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger
Backfilling Surface Water Services	Wed 05/07/23	Fri 07/07/23	0%	96 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger
Backfilling Mains Electric Supply	Mon 10/07/23	Wed 12/07/23	0%	96 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Digger
Road Traffic Management Set Up	Thu 13/07/23	Thu 13/07/23	0%	0 hrs	
Breaking Out Existing Surface Coarse	Fri 14/07/23	Wed 19/07/23	0%	96 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Medium Demolition Hammer[£75.00]
Excavation Down To Service Level Required	Thu 20/07/23	Wed 26/07/23	0%	120 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Hand Dig around Connection Point	Thu 27/07/23	Mon 31/07/23	0%	72 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Isolate Existing Services	Tue 01/08/23	Tue 01/08/23	0%	16 hrs	Mechanical Engineer,Mechanical Engineer Trainee
Core Through Inspection Chamber Walls	Wed 02/08/23	Fri 04/08/23	0%	48 hrs	Mechanical Engineer,Mechanical Engineer Trainee
Install New Pipe	Mon 07/08/23	Tue 08/08/23	0%	32 hrs	Mechanical Engineer,Mechanical Engineer Trainee
Seal Internal And External	Wed 09/08/23	Wed 09/08/23	0%	16 hrs	Mechanical Engineer,Mechanical Engineer Trainee
Connect Site Pipework To The Inspection Chamber	Thu 10/08/23	Thu 10/08/23	0%	16 hrs	Mechanical Engineer,Mechanical Engineer Trainee
Lay 50mm of Type 1 Aggregate for Pipe Support	Fri 11/08/23	Fri 11/08/23	0%	24 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Lay 25mm of Fine Aggregate (Sand) To Bed the Pipework	Mon 14/08/23	Mon 14/08/23	0%	24 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Hand Backfill the Pipe (No voids)	Tue 15/08/23	Wed 16/08/23	0%	48 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee

Backfill and Compact the Pipe with Digger	Thu 17/08/23	Mon 21/08/23	0%	72 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Lay and Compact Sub base (150mm)	Tue 22/08/23	Tue 22/08/23	0%	24 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Lay and Compact Base Layer	Wed 23/08/23	Wed 23/08/23	0%	24 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Lay and Compact Binder Layer	Thu 24/08/23	Thu 24/08/23	0%	24 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee
Excavation of Phase 1 Foundations	Fri 25/08/23	Thu 21/09/23	0%	640 hrs	Digger,Ground Worker 4 - Senior,Ground Worker 5 - Skilled,Ground Worker 6 - Trainee
Installation of the Sub base	Fri 22/09/23	Mon 09/10/23	0%	384 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Sub Base[1],Roller
Installation of the Base Layer	Tue 10/10/23	Mon 23/10/23	0%	320 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Base Layer[1],Roller
Install Curbs	Tue 24/10/23	Fri 03/11/23	0%	216 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Curbs[1]
Installation of the Binder Coarse	Mon 06/11/23	Wed 15/11/23	0%	256 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Roller,Binder Coarse[1]
Phase 1 Construction Phase	Thu 16/11/23	Fri 24/11/23	0%	0 hrs	
Phase 2 Construction Phase	Mon 27/11/23	Tue 05/12/23	0%	0 hrs	
Phase 3 Construction Phase	Wed 06/12/23	Thu 14/12/23	0%	0 hrs	
Installation of the Surface Coarse	Fri 15/12/23	Wed 20/12/23	0%	128 hrs	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee,Roller,Surface Course[1]

PROJECT COST OVERVIEW

MON 06/03/23 WED 20/12/23

COST

£184,784.88

REMAINING COST

£174,112.88

% COMPLETE

11%

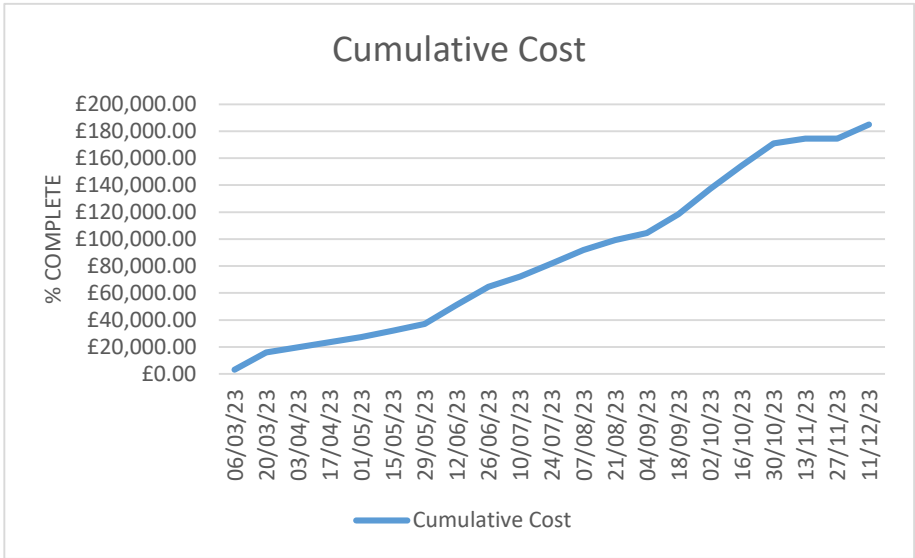
COST STATUS

Cost status for top level tasks.

Name	Actual Cost	Remaining Cost	Baseline Cost	Cost	Cost Variance
Housing Estate SA1	£10,672.00	£174,112.88	£92,304.00	£184,784.88	£92,480.88

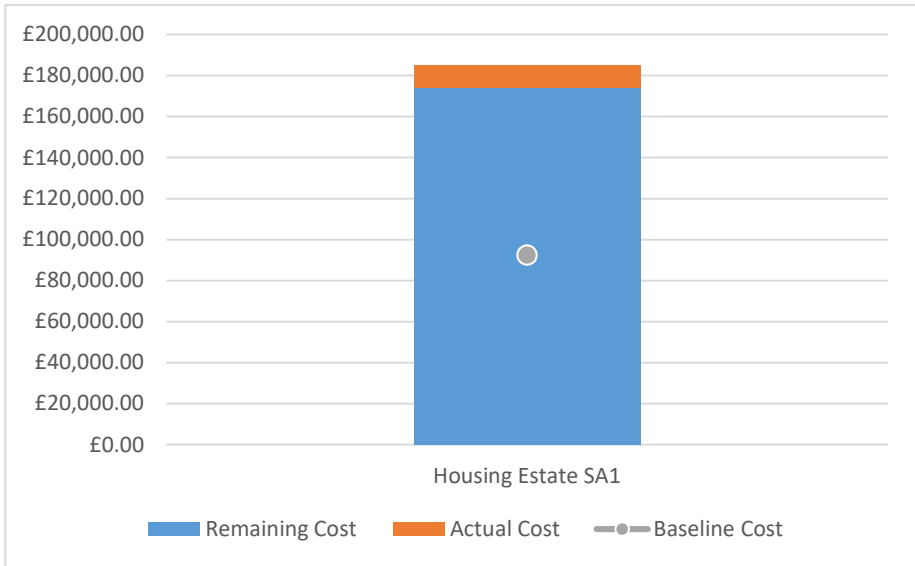
CUMULATIVE COST

Shows the expected spendature progress through the project.



COST STATUS

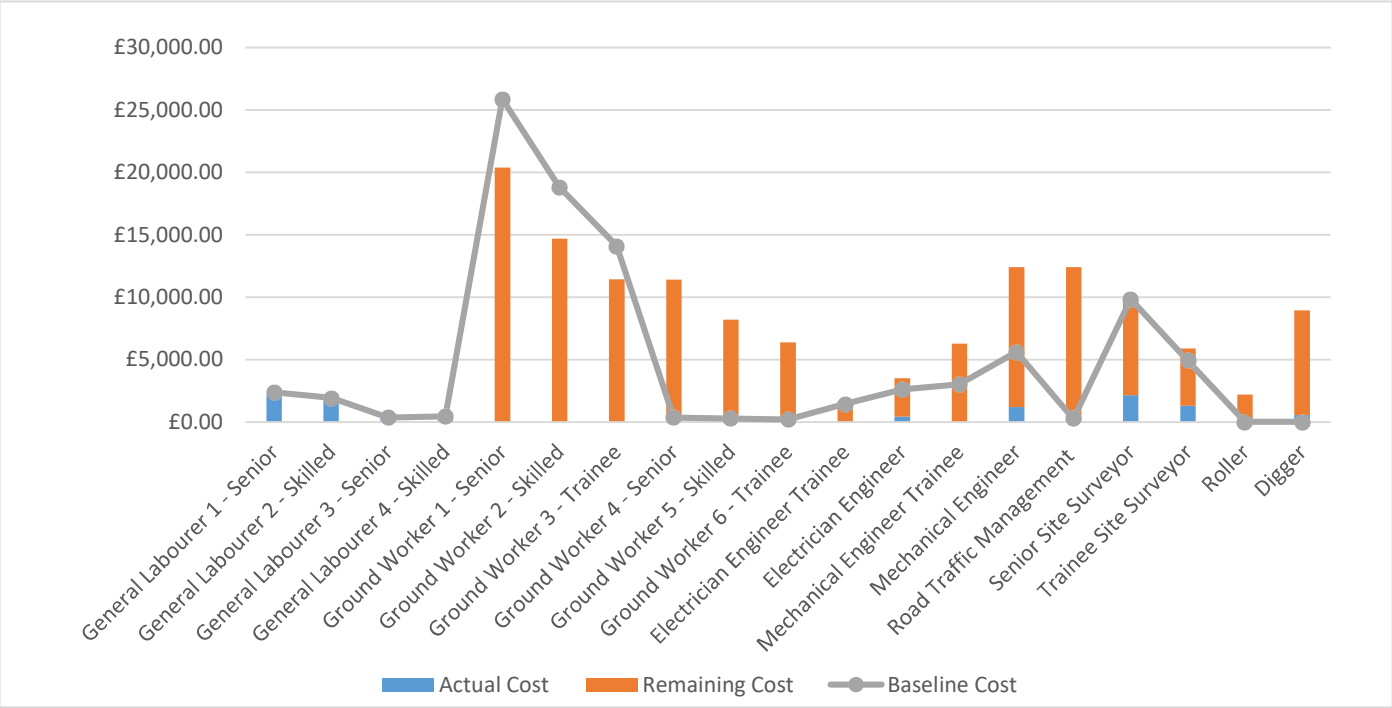
Cost status for all top-level tasks.



RESOURCE COST OVERVIEW

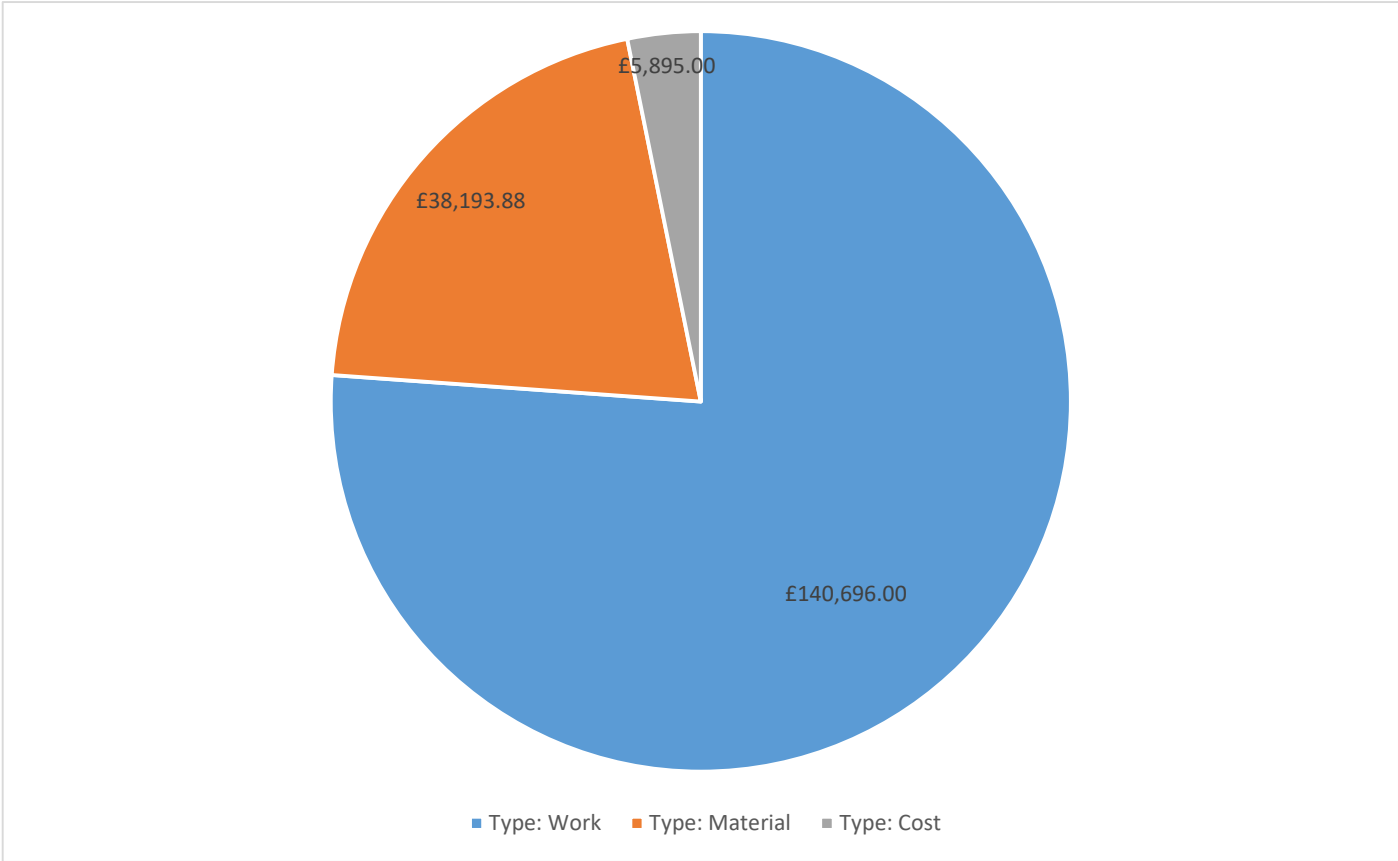
COST STATUS

Cost status for work resources.



COST DISTRIBUTION

How costs are spread out amongst different resource types.



COST DETAILS

Cost details for all work resources.

Name	Standard Rate	Regular Work	Actual Work	Remaining Cost	Cost
General Labourer 1 - Senior	£18.00/hr	124 hrs	124 hrs	£0.00	£2,232.00
General Labourer 2 - Skilled	£15.00/hr	124 hrs	124 hrs	£0.00	£1,860.00
General Labourer 3 - Senior	£18.00/hr	28 hrs	28 hrs	£0.00	£504.00
General Labourer 4 - Skilled	£15.00/hr	28 hrs	28 hrs	£0.00	£420.00
Ground Worker 1 - Senior	£25.00/hr	816 hrs	0 hrs	£20,400.00	£20,400.00
Ground Worker 2 - Skilled	£18.00/hr	816 hrs	0 hrs	£14,688.00	£14,688.00
Ground Worker 3 - Trainee	£14.00/hr	816 hrs	0 hrs	£11,424.00	£11,424.00
Ground Worker 4 - Senior	£25.00/hr	456 hrs	0 hrs	£11,400.00	£11,400.00
Ground Worker 5 - Skilled	£18.00/hr	456 hrs	0 hrs	£8,208.00	£8,208.00
Ground Worker 6 - Trainee	£14.00/hr	456 hrs	0 hrs	£6,384.00	£6,384.00
Electrician Engineer Trainee	£30.00/hr	56 hrs	0 hrs	£1,680.00	£1,680.00
Electrician Engineer	£55.00/hr	64 hrs	8 hrs	£3,080.00	£3,520.00
Mechanical Engineer Trainee	£28.00/hr	224 hrs	0 hrs	£6,272.00	£6,272.00
Mechanical Engineer	£50.00/hr	248 hrs	24 hrs	£11,200.00	£12,400.00
Road Traffic Management	£50.00/hr	248 hrs	0 hrs	£12,400.00	£12,400.00
Senior Site Surveyor	£30.00/hr	328 hrs	72 hrs	£7,680.00	£9,840.00
Trainee Site Surveyor	£18.00/hr	328 hrs	72 hrs	£4,608.00	£5,904.00
Roller	£50.00/day	352 hrs	0 hrs	£2,200.00	£2,200.00
Digger	£80.00/day	896 hrs	56 hrs	£8,400.00	£8,960.00

METHOD STATEMENT

LANGDON RD, SWANSEA, SA1 8RB

MODULE: - PROJECT PLANNING

MODULE CODE: - ACBA5001

STUDENT NAME: - TIMOTHY ISSAC MILLS

TASK: - CONNECTING TO EXISTING SERVICES

DOCUMENT NUMBER: - D100101-10-MS-0001

DOCUMENT NUMBER	COMPANY RESPONSIBLE	DOCUMENT TYPE	CREATION DATE
D100101-10-MS-0001	COASTAL HOUSING GROUP	MS	01/03/2023

PROJECT	PROJECT NUMBER
LANGDON ROAD DEVELOPMENT	100101

CLIENT	LOCATION
COASTAL HOUSING GROUP	SITE OFF 207-211 LANGDON RD, SWANSEA SA1 8RB

DOCUMENT REVISION / PREPARED / CHECKED / APPROVAL					
ISSUE	DATE	PREPARED BY	CHECKED BY	APPROVED BY	APPROVAL CODE
I01	06/03/2023	TM	RT	DH	A
I02					
I03					

Approval Codes	
A	Accepted And Proceed For Site Issue.
B	Accepted With Minor Comments That Will Not Affect The Construction Method, Incorporate Comments Before Issuing On-Site.
C	Rejected, Comments Affecting The Construction Method, Incorporate Comments, And Reissue For Approval.

CONTENTS

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1. HEALTH AND SAFETY



All site personnel shall comply with all the site rules provided during the site induction.

During the site-specific task, all personnel involved should ensure that the correct Personal Protective Equipment is worn at all times:-

- Hard Hat.
- Eye protection.
- Ear protection.
- Gloves.
- Work boots with steel toe caps.
- Hi-Visibility jacket.

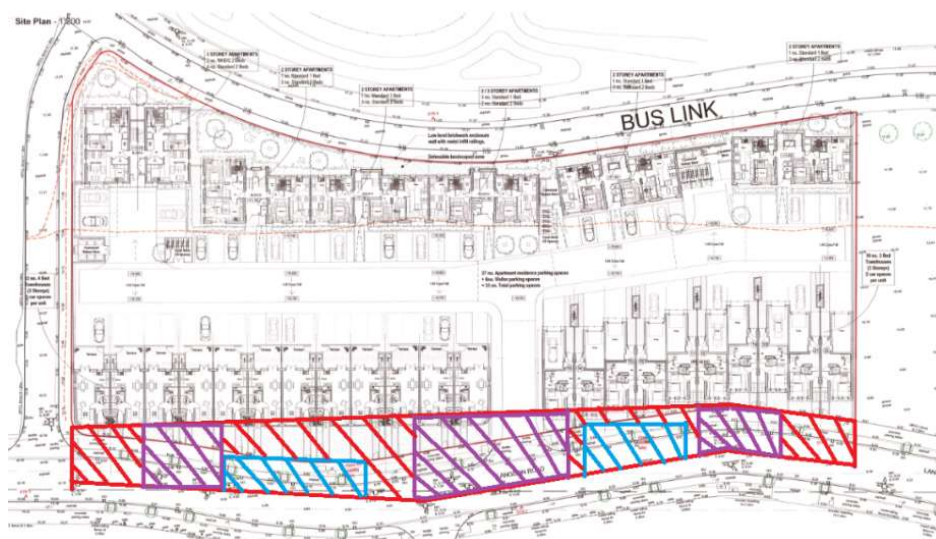
Each individual is responsible for their own and others' safety. Take 5 minutes before each task to ensure that all safety measures are in place before proceeding with the task. This can reduce or eliminate any potential risks/hazards.

2. CONSTRUCTION METHOD

TRAFFIC MANAGEMENT SET-UP

Working Area showed as a red hatch in the below image.

Traffic lights are to be erected at 8:00 am on Monday the 10th of July, Locations are to be at the further west and east sections of the site on Langdon Road. The area on the road will then be cordoned off using traffic cones and barriers are to be used around the working area. There is parking available (hatched in blue below) within the working area for the teams to have direct access to tools from their vehicles.



EXCAVATION.

Excavation of the existing road should take place following the traffic management setup. Heavy machinery will be brought to the working location. The excavation area is shown in a purple hatch in the above image.

During the excavation, the only workforce present in the excavation area should be a competent and qualified person who is in control of the machinery & a banksman to ensure the excavation is being done in a controlled manner and cover any blind spots that the machine operator cannot see.

Excavation to begin with the removal of the existing surface course using a jackhammer, this will break the surface and allow for ease of further excavation. The contractor is responsible for the removal of the waste material from the removal of the surface course.

Excavation to locate the existing services through all other courses to commence using the digger. All soil removed is to be located nearby in preparation for the backfilling stage.

Indicated levels shown on the drawings are to be used as guides. It is the contractor's responsibility to excavate with care and attention.

Once the trench is created and dig around the inspection chambers to ensure no damage is created. The trench should then be inspected by authorized personnel to ensure it is safe for the task to begin.

CONNECTING TO THE EXISTING INSPECTION CHAMBER.

Ensure all services that are being connected to are isolated before breaking into any existing infrastructure.

Core a hole through the body of the inspection chamber of the required size and at the required level shown on the proposed drawings.

Slide the new open-ended pipe into the newly cored hole, Leave the new pipe as flush as possible to the internal of the chamber. Use a water-resistant sealant to ensure no leakages can get between the new pipe and the newly cored hole. Use the same method on the external of the chamber, to prevent ingress into the Inspection chamber.

Connect the newly run pipework from the site to the newly installed pipe in the existing inspection chamber. Install a flanged coupling to allow for any potential settlement.

BACKFILLING AND MAKING GOOD.

Place an approximately 50mm bed of Type 1 gravel underneath the pipe with 20mm of fine aggregate (sand) to allow support for the pipework.

With the pipework still accessible hand move soil to ensure the arch of the pipe is filled to ensure there are no voids created during the backfilling.

With the digger, place the remaining soil back into the trench ensuring good compaction during different stages of layering.

Once to the underside of the previous road construction, replicate the layers to make the existing road as was.

This includes a 150mm sub-base, 150mm of Coarse Layer, 70mm Binder Layer, and 50mm Finishing layer.

3. RISK ASSESSMENT

Hazards	L	S	DR	Control measures/action required	L	S	RR
Ongoing Traffic	4	5	20	Traffic Management is to be put in place to ensure traffic control is minimized during the task.	4	1	4
Confined Space	4	5	20	All trenches are to be supported to minimize collapsing. All personnel working within the trench are to be confined space trained.	4	1	4
Slip and trips	3	3	9	Only the required personnel are working in the designated area at the time of the task. Make sure the work area is clear at all times during the task and that only the equipment required to do the task is available.	2	2	4
Manual handling	3	2	6	Limit the amount of lifting or supporting of loads by hand or bodily force	2	1	2
Lifting operations	3	2	6	Competent, qualified personnel to lead lifting operations.	3	1	5
Environmental factors and adverse weather conditions	3	5	15	Follow risk assessment and method statements, limiting the construction activities that are impacted by weather during adverse conditions.	3	2	6
Large Machinery	2	5	10	Competent & qualified personnel to use machinery during the task. Banksman to be present at all times	2	2	4
Likelihood (L): (5) Frequent; (4) Probable; (3) Occasional; (2) Improbable; (1) Remote.				Severity (S): (5) Catastrophic, i.e. deaths; (4) Major, i.e. broken bones (3) RIDDOR Reportable; (2) Serious; (1) Minor.			
Degree of Risk (DR): Likelihood X Severity.				Residual Risk (RR): Likelihood X Severity after control measures applied.			

Likelihood	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5
		1	2	3	4	5
	Consequences					

Acceptability of risk guidance	
High risk: 15 – 25	High risk activities should cease immediately. Further effective control measures to mitigate risks must be introduced.
Medium risk: 8 – 12	Medium risks should only be tolerated for the short-term and only whilst further control measures to mitigate the risks are being planned and introduced.
Low risk: 1-6	Low risks are largely acceptable. Where it is reasonable to do so, efforts should be made to reduce risks further.

4. RESOURCE AND SCHEDULE TIME TAKEN

The task for connecting services to the existing is due to start on the 13/07/2023 and to be complete on the 24/08/2023.

The resource required for the task is as follows: -

- Ground Worker – Senior
- Ground Worker – Skilled
- Ground Worker – Trainee
- Mechanical Engineer
- Mechanical Engineer – Trainee
- Traffic Management Team

Equipment required for the task: -

- Roller
- Digger

✦ Connecting Services to Existing	Thu 13/07/23	Thu 24/08/23	31 days		£29,839.00
✦ Excavation of the Road & Paving	Thu 13/07/23	Mon 31/07/23	13 days	Road Traffic Management ,Digger	£11,787.00
Road Traffic Management Se	Thu 13/07/23	Thu 13/07/23	1 day		£0.00
Breaking Out Existing Surface Coarse	Fri 14/07/23	Wed 19/07/23	4 days	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee, Medium Demolition Hammer[£75.00]	£1,899.00
Excavation Down To Service Level Required	Thu 20/07/23	Wed 26/07/23	5 days	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£2,280.00
Hand Dig around Connection Point	Thu 27/07/23	Mon 31/07/23	3 days	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£1,368.00
✦ Connect All New Services to Existing Services	Tue 01/08/23	Thu 10/08/23	8 days	Road Traffic Management	£8,192.00
Isolate Existing Services	Tue 01/08/23	Tue 01/08/23	1 day	Mechanical Engineer,Mechanical Engineer Trainee	£624.00
Core Through Inspection Chamber Walls	Wed 02/08/23	Fri 04/08/23	3 days	Mechanical Engineer,Mechanical Engineer Trainee	£1,872.00
Install New Pipe	Mon 07/08/23	Tue 08/08/23	2 days	Mechanical Engineer,Mechanical Engineer Trainee	£1,248.00
Seal Internal And External	Wed 09/08/23	Wed 09/08/23	1 day	Mechanical Engineer,Mechanical Engineer Trainee	£624.00
Connect Site Pipework To The Inspection Chamber	Thu 10/08/23	Thu 10/08/23	1 day	Mechanical Engineer,Mechanical Engineer Trainee	£624.00
✦ Backfill Connections To The Existing Services	Fri 11/08/23	Thu 24/08/23	10 days	Digger,Road Traffic Management ,Roller	£9,860.00
Lay 50mm of Type 1 Aggregate for Pipe Support	Fri 11/08/23	Fri 11/08/23	1 day	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
Lay 25mm of Fine Aggregate (Sand) To Bed the Pipework	Mon 14/08/23	Mon 14/08/23	1 day	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
Hand Backfill the Pipe (No vc	Tue 15/08/23	Wed 16/08/23	2 days	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£912.00
Backfill and Compact the Pipe with Digger	Thu 17/08/23	Mon 21/08/23	3 days	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£1,368.00
Lay and Compact Sub base (150mm)	Tue 22/08/23	Tue 22/08/23	1 day	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
Lay and Compact Base Layer	Wed 23/08/23	Wed 23/08/23	1 day	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00
Lay and Compact Binder Lay	Thu 24/08/23	Thu 24/08/23	1 day	Ground Worker 1 - Senior,Ground Worker 2 - Skilled,Ground Worker 3 - Trainee	£456.00

4a) Image Showing the task breakdown, resource allocated and time scheduled to complete.

5. COST ASSOCIATED WITH TASK

Task total cost = £29,839.00. This cost includes total resource cost and total equipment cost.

The total hour's allocation for the task is 1,168 hours to be undertaken in 31 days.

With 496 hours allocated to the excavation of the road and paving to be done over 13 days. 192 hours allocated to the main activity of connecting the services to the existing in a period of 8 days and 480 hours allocated to completing the overall task of backfilling and making good in a 10-day period.

The majority of the cost of this overall task is the excavation of the road, this is down to the time period required to complete. The longer individual tasks take to complete the greater the cost due to the cost of resources per hour.

✦ Connecting Services to Existing	1,168 hrs	31 days	£29,839.00
▷ Excavation of the Road & Paving	496 hrs	13 days	£11,787.00
▷ Connect All New Services to Existing Services	192 hrs	8 days	£8,192.00
▷ Backfill Connections To The Existing Services	480 hrs	10 days	£9,860.00

5a) Image taken from the schedule showing overall hour allocation with timescale and overall costs.

▣ Excavation of the Road & Paving	496 hrs	13 days	£11,787.00
Road Traffic Management	104 hrs		£5,200.00
Digger	104 hrs		£1,040.00
Road Traffic Management Set Up	0 hrs	1 day	£0.00
▣ Breaking Out Existing Surface Coarse	96 hrs	4 days	£1,899.00
Ground Worker 1 - Senior	32 hrs		£800.00
Ground Worker 2 - Skilled	32 hrs		£576.00
Ground Worker 3 - Trainee	32 hrs		£448.00
Medium Demolition Hammer			£75.00
▣ Excavation Down To Service Level Required	120 hrs	5 days	£2,280.00
Ground Worker 1 - Senior	40 hrs		£1,000.00
Ground Worker 2 - Skilled	40 hrs		£720.00
Ground Worker 3 - Trainee	40 hrs		£560.00
▣ Hand Dig around Connection Point	72 hrs	3 days	£1,368.00
Ground Worker 1 - Senior	24 hrs		£600.00
Ground Worker 2 - Skilled	24 hrs		£432.00
Ground Worker 3 - Trainee	24 hrs		£336.00

5b) Image taken from the schedule showing a breakdown of hour allocation with timescale and costs for excavation of the road & paving

▣ Connect All New Services to Existing Services	192 hrs	8 days	£8,192.00
Road Traffic Management	64 hrs		£3,200.00
▣ Isolate Existing Services	16 hrs	1 day	£624.00
Mechanical Engineer Trainee	8 hrs		£224.00
Mechanical Engineer	8 hrs		£400.00
▣ Core Through Inspection Chamber Walls	48 hrs	3 days	£1,872.00
Mechanical Engineer Trainee	24 hrs		£672.00
Mechanical Engineer	24 hrs		£1,200.00
▣ Install New Pipe	32 hrs	2 days	£1,248.00
Mechanical Engineer	16 hrs		£800.00
Mechanical Engineer Trainee	16 hrs		£448.00
▣ Seal Internal And External	16 hrs	1 day	£624.00
Mechanical Engineer	8 hrs		£400.00
Mechanical Engineer Trainee	8 hrs		£224.00
▣ Connect Site Pipework To The Inspection Chamber	16 hrs	1 day	£624.00
Mechanical Engineer	8 hrs		£400.00
Mechanical Engineer Trainee	8 hrs		£224.00

5c) Image taken from the schedule showing a breakdown of hour allocation with timescale and costs for connecting all new services to existing services.

♣ Backfill Connections To The Existing Services	480 hrs	10 days	£9,860.00
<i>Digger</i>	<i>80 hrs</i>		<i>£800.00</i>
<i>Road Traffic Management</i>	<i>80 hrs</i>		<i>£4,000.00</i>
<i>Roller</i>	<i>80 hrs</i>		<i>£500.00</i>
♣ Lay 50mm of Type 1 Aggregate for Pipe Support	24 hrs	1 day	£456.00
<i>Ground Worker 1 - Senior</i>	<i>8 hrs</i>		<i>£200.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>8 hrs</i>		<i>£144.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>8 hrs</i>		<i>£112.00</i>
♣ Lay 25mm of Fine Aggregate (Sand) To Bed the Pipework	24 hrs	1 day	£456.00
<i>Ground Worker 1 - Senior</i>	<i>8 hrs</i>		<i>£200.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>8 hrs</i>		<i>£144.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>8 hrs</i>		<i>£112.00</i>
♣ Hand Backfill the Pipe (No voids)	48 hrs	2 days	£912.00
<i>Ground Worker 1 - Senior</i>	<i>16 hrs</i>		<i>£400.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>16 hrs</i>		<i>£288.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>16 hrs</i>		<i>£224.00</i>
♣ Backfill and Compact the Pipe with Digger	72 hrs	3 days	£1,368.00
<i>Ground Worker 1 - Senior</i>	<i>24 hrs</i>		<i>£600.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>24 hrs</i>		<i>£432.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>24 hrs</i>		<i>£336.00</i>
♣ Lay and Compact Sub base (150mm)	24 hrs	1 day	£456.00
<i>Ground Worker 1 - Senior</i>	<i>8 hrs</i>		<i>£200.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>8 hrs</i>		<i>£144.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>8 hrs</i>		<i>£112.00</i>
♣ Lay and Compact Base Layer	24 hrs	1 day	£456.00
<i>Ground Worker 1 - Senior</i>	<i>8 hrs</i>		<i>£200.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>8 hrs</i>		<i>£144.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>8 hrs</i>		<i>£112.00</i>
♣ Lay and Compact Binder Layer	24 hrs	1 day	£456.00
<i>Ground Worker 1 - Senior</i>	<i>8 hrs</i>		<i>£200.00</i>
<i>Ground Worker 2 - Skilled</i>	<i>8 hrs</i>		<i>£144.00</i>
<i>Ground Worker 3 - Trainee</i>	<i>8 hrs</i>		<i>£112.00</i>

5d) Image taken from the schedule showing a breakdown of hour allocation with timescale and costs for connecting all new services to existing services.

6. DOCUMENT READ AND SIGNED

[illegible]

METHOD STATEMENT

LANGDON RD, SWANSEA, SA1 8RB

MODULE: - PROJECT PLANNING

MODULE CODE: - ACBA5001

STUDENT NAME: - TIMOTHY ISSAC MILLS

TASK: - SITE PREPARATION, FENCING AND
SECURITY

DOCUMENT NUMBER: - D100101-10-MS-0002

DOCUMENT NUMBER	COMPANY RESPONSIBLE	DOCUMENT TYPE	CREATION DATE
D100101-10-MS-0002	COASTAL HOUSING GROUP	MS	10/03/2023

PROJECT	PROJECT NUMBER
LANGDON ROAD DEVELOPMENT	100101

CLIENT	LOCATION
COASTAL HOUSING GROUP	Site Off 207-211 Langdon Rd, Swansea SA1 8RB

DOCUMENT REVISION / PREPARED / CHECKED / APPROVAL					
ISSUE	DATE	PREPARED BY	CHECKED BY	APPROVED BY	APPROVAL CODE
I01	13/03/2023	TM	RT	DH	A
I02					
I03					

Approval Codes	
A	Accepted And Proceed For Site Issue.
B	Accepted With Minor Comments That Will Not Affect The Construction Method, Incorporate Comments Before Issuing On-Site.
C	Rejected, Comments Affecting The Construction Method, Incorporate Comments, And Reissue For Approval.

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1. HEALTH AND SAFETY



Information replicated from the method statement for connecting to existing services.

Removed from this method statement for word count purposes.

2. CONSTRUCTION METHOD

SITE PREPARATION

Upon arrival at the site, ensure all the correct PPE is worn as highlighted in section 1.

To begin the site clearance the aim of this is to remove any items or obstacles that could affect the project start.

For the proposed site ensure that all the access points are clear and available for the workforce to begin.

Clear the boundary of the site to allow for the site fencing and security to install around the perimeter.

Remove all general waste.

Move all large items/rocks to the southeast area of the site in preparation for their removal once the construction begins.

SITE FENCING AND SECURITY

Once the site preparation is complete, the installation of the site fencing and security is permitted to begin.

Upon site arrival, the working vans will park on the roadside on Langdon road. The workforce has to have due care and attention when retrieving equipment from the vehicles during the site fencing and security erection as the road and paths are used regularly by pedestrians.

The workforce can begin to lay the Fence feet at an estimated 3.5m spacing. Lay the first three so the fencing panels can be installed.

Install the first 3.5m(W) x 2.5m(H) fence panel into the middle hole location on the fencing feet.

Once the first fence panel is installed the second can be located next to the last hole location as the first fence.

To provide stability between fence panels, install 2no. intermediate fence ties. One shall be located at an approx. height of 2.75m and the second at a height of 1m.

The next foot can be placed 3.5m away from the fence created and the process can repeat, with the installation of the fence panel and then the ties.

At the site entrance planned location at the south of the site, a double site gate shall be installed, instead of the permanent fencing panels.

For Security, an onsite fenced area where all the materials and equipment are to be stored is located on the southwest of the site. This method is done in the same manner as above.

There shall be double security cameras with motion sensors installed at each corner location of the site capturing the entire fence line.

Additional double security cameras shall be installed at each corner of the site storage area.

Upon completion of the Fencing and the security camera, the site should be left and a padlock shall be put on the front gate with only the required personnel responsible for the access code/key.

3. RISK ASSESSMENT

The risk assessment would be in a similar manner to the 'connecting to existing services' method statement.

It has been removed for word count purposes.

4. RESOURCE AND SCHEDULE TIME TAKEN

The 2no. tasks are the first 2 tasks required to be completed in the site setup, the tasks are works that need to be completed prior to any major construction that shall be done on-site. The 2 tasks are scheduled to take 5 days. Once these tasks are complete the beginning of the construction work can commence with creating the temporary access at the location of the temporary site gate.

The resource required for the 2no. tasks are as follows: -

- General Labour Worker – Senior
- General Labour Worker – Skilled

Site Set up	Mon 06/03/23	Fri 31/03/23	19.5 days		£7,156.00
Site Preparation	Mon 06/03/23	Tue 07/03/23	2 days	General Labourer 1 - Senior, General Labourer 2 - Skilled	£528.00
Site Fencing & Security	Wed 08/03/23	Fri 10/03/23	3 days	General Labourer 1 - Senior, General Labourer 2 - Skilled	£792.00
Site Temporary Access	Mon 13/03/23	Mon 13/03/23	1 day	General Labourer 1 - Senior, General Labourer 2 - Skilled	£264.00
Level Site for Construction	Tue 14/03/23	Wed 22/03/23	7 days	General Labourer 1 - Senior, General Labourer 2 - Skilled, Digger	£2,408.00
Site Offices Installation	Thu 23/03/23	Thu 23/03/23	1 day	General Labourer 1 - Senior, General Labourer 2 - Skilled	£264.00
Site Utilities Installation (W/C & Canteen)	Fri 24/03/23	Fri 24/03/23	0.5 days	General Labourer 1 - Senior	£72.00
Smoking Area/Shelter	Fri 24/03/23	Mon 27/03/23	1 day	General Labourer 1 - Senior, General Labourer 2 - Skilled	£264.00
Secure Storage Area	Thu 23/03/23	Thu 23/03/23	0.5 days	General Labourer 4 - Skilled, General Labourer 3 - Senior	£132.00
Waste Management Area	Thu 23/03/23	Fri 24/03/23	1 day	General Labourer 4 - Skilled, General Labourer 3 - Senior	£264.00
On Site Parking Area	Fri 24/03/23	Tue 28/03/23	2 days	General Labourer 4 - Skilled, General Labourer 3 - Senior	£528.00
Temporary Electric Supply	Tue 28/03/23	Wed 29/03/23	1 day	Electrician Engineer	£440.00
Temporary Water Supply	Tue 28/03/23	Wed 29/03/23	1 day	Mechanical Engineer	£400.00
Temporary Sewage Removal/Disposal	Wed 29/03/23	Fri 31/03/23	2 days	Mechanical Engineer	£800.00

4a) Image Showing the task breakdown, resource allocated, and time scheduled to complete.

5. COST ASSOCIATED WITH TASK

The total cost for the entire site setup is £7,156.00. The cost of both tasks combined is £1,320. This cost includes total resource cost, the equipment cost is assumed that the contractor has the equipment and materials to do the tasks.

The total Hour allocation for both tasks is 80 hours to be undertaken over a period of 5 days.

32 hours are allocated for a skilled and senior general labourer to complete the site preparation & 48 hours for both skilled and senior general labourer to complete the site fencing and security.

▴ Site Set up	388 hrs	19.5 days	£7,156.00
▴ Site Preperation	32 hrs	2 days	£528.00
<i>General Labourer 1 - Senior</i>	16 hrs		£288.00
<i>General Labourer 2 - Skilled</i>	16 hrs		£240.00
▴ Site Fencing & Security	48 hrs	3 days	£792.00
<i>General Labourer 1 - Senior</i>	24 hrs		£432.00
<i>General Labourer 2 - Skilled</i>	24 hrs		£360.00

5a) Image was taken from the schedule showing overall hour allocation with timescale and overall costs for the setup with a breakdown for each activity.

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