

1102216

by Sean Parry

Submission date: 19-Jan-2024 11:24AM (UTC+0000)

Submission ID: 222615283

File name: 3005_Seans_Parry_1102216_183171_1472754103.pdf (1.6M)

Word count: 368

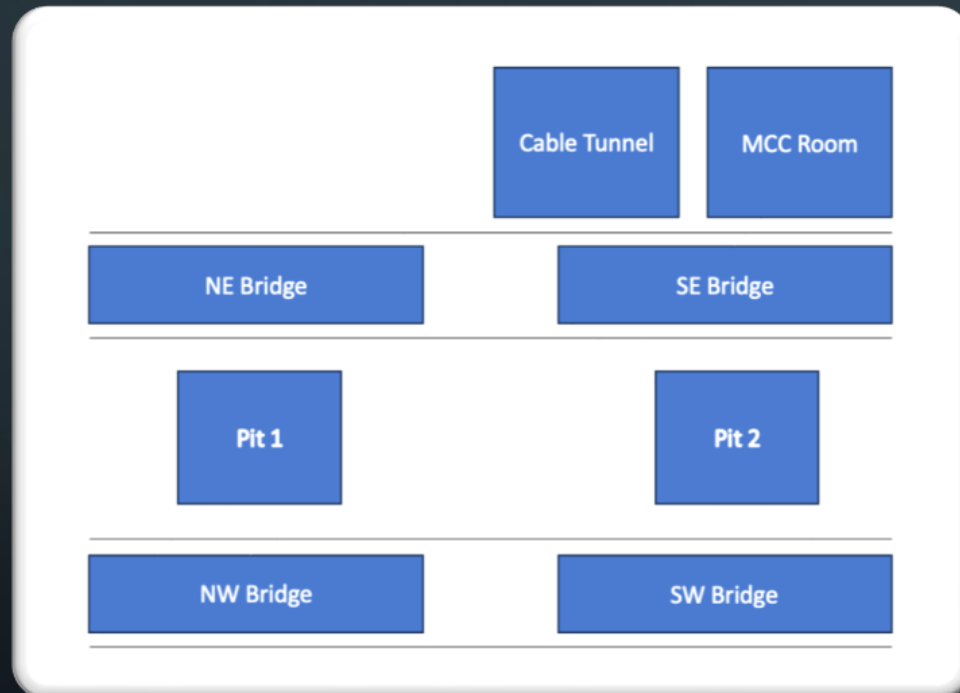
Character count: 1956



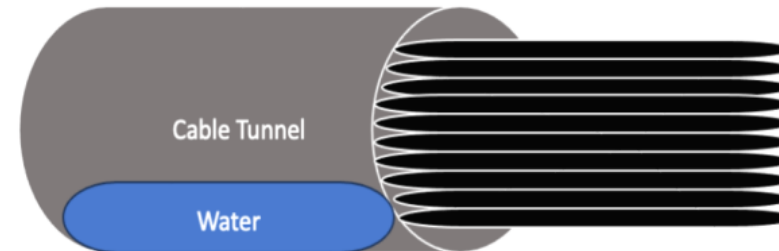
CABLE TUNNELLING WATER LEVEL PROJECT

BY SEAN PARRY

PROJECT BACKGROUND, PROBLEM DEFINITION AND CONSTRAINTS



HM Bay and Cable Tunneling Diagrams



FUNCTIONAL DESIGN SPECIFICATION

Functions

F.1-7

Requirements

Functionally test all equipment

Aesthetics

A.1-8

Design, implement and test HMI

Safety

S.1-4

Include all necessary safety devices and test operation

Diagnostics

D.1-4

Diagnose water levels

Technical Documentation

T.1-6

Desired specification achieved

Environmental

E.1-3

Some equipment currently in place

Suitability

SB.1-4

Easily adaptable

Maintenance

M.1-4

Calibrations, cleaning and backing up software

PROJECT RISKS, HEALTH AND SAFETY

The industrial code of conduct states “to strive to provide a safe, healthy and clean working environment for employees and all workers”, (Chandrasekaran, 2017).

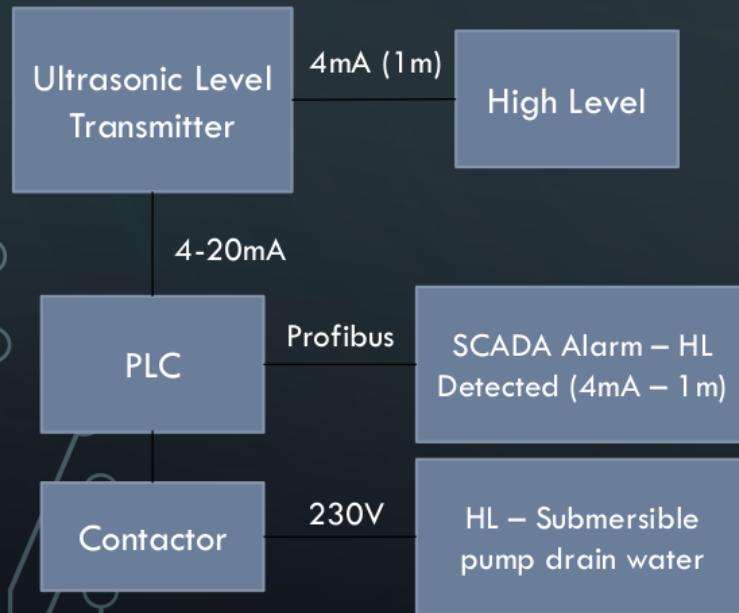
Risk Assessment									
Job Description / Permit No / Job Ref: Cable Tunnelling Water Level									
Hazards	Moving Machinery	Yes	No	Controls In Place	1	2	3		
	Pressure Systems	Yes	No		1	2	3		
	Hydraulic Systems	Yes	No		1	2	3		
	Electrical Hazards	Yes	No		1	2	3		
	Hot Temperatures	Yes	No		1	2	3		
	Noise	Yes	No		1	2	3		
	Adjacent activity	Yes	No		1	2	3		
	Slip, Trips & Falls	Yes	No		1	2	3		
	COVID-19	Yes	No		1	2	3		
	Other Hazards	Yes	No		1	2	3		
Other Hazard(s) Detail / Problem Statement: None									
Other Hazard(s) Controls Used / Implemented None									
Date: 22/12/2023									
Time:									
Tick the correct box below:									
Type of Work:	Visual Inspection	Maintenance	Installation						
Type of People:	Working Party	PICWP	SL						
Number of People:	<2	3-5	>5						

TEST PLANNING

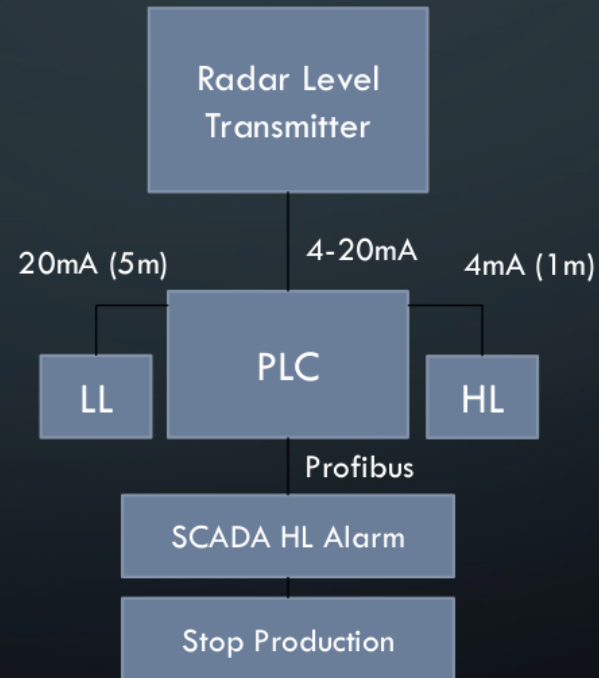
Test Planning						
Test No.	FDS Reference	Description	Expected Outcome	Actual Outcome	Pass or Fail	Evidence Reference
1	F.4	Detect no water	No water level – 5m	-	-	-
2	F.5	Detect high water level	Hi water level – 1m	-	-	-
4	F.6	Detect cable break	OA displayed	-	-	-
5	F.8	SCADA to generate alarms	Alarm raised at high level	-	-	-
6	S.1-4	Test all safety devices	Safety devices fully operational	-	-	-

REVIEW OF THE 3 SOLUTIONS

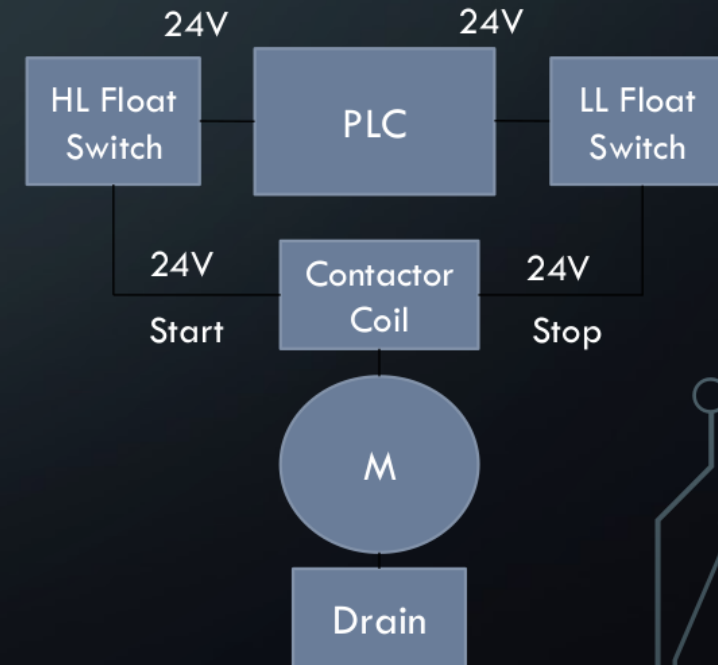
Solution 1



Solution 2



Solution 3

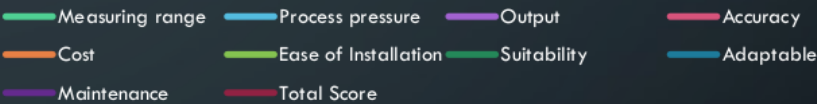


JUSTIFICATION OF CHOSEN SOLUTION

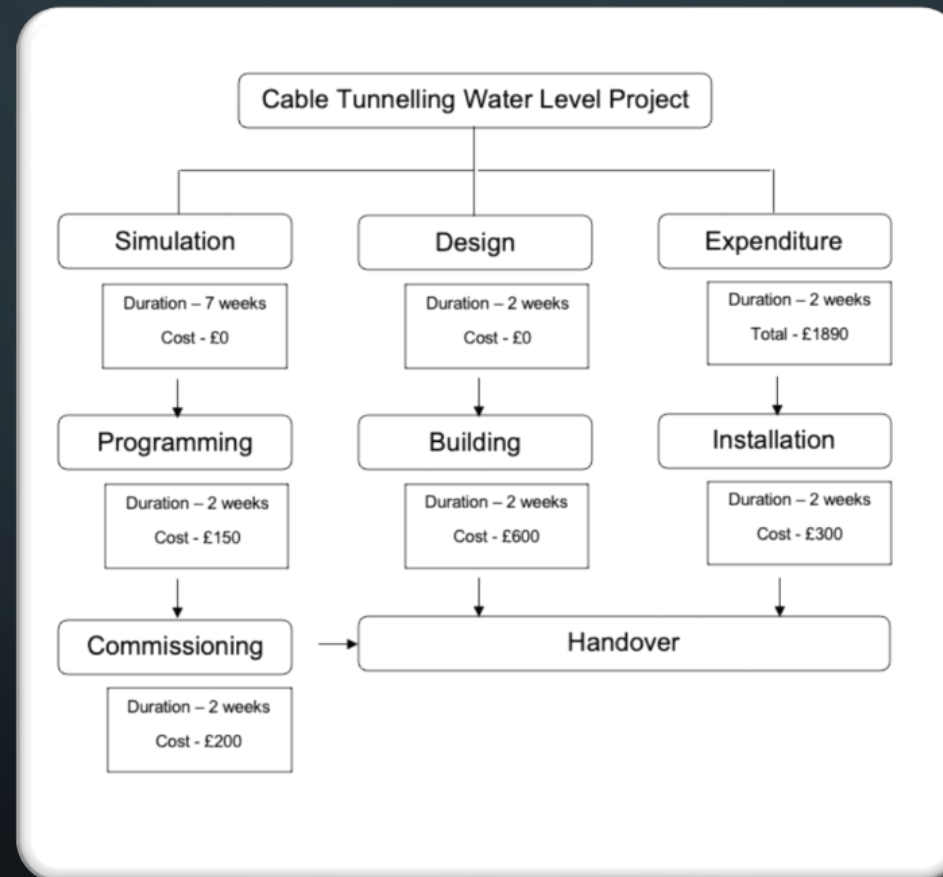
Scoring System

Specification	Solution 1	Solution 2	Solution 3
Measuring range	5	10	1
Process pressure	5	5	7
Output	10	5	3
Accuracy	8	10	0
Cost	5	4	8
Ease of Installation	3	8	3
Suitability	3	10	0
Adaptable	5	10	2
Maintenance	4	8	3
Total Score	48	70	27

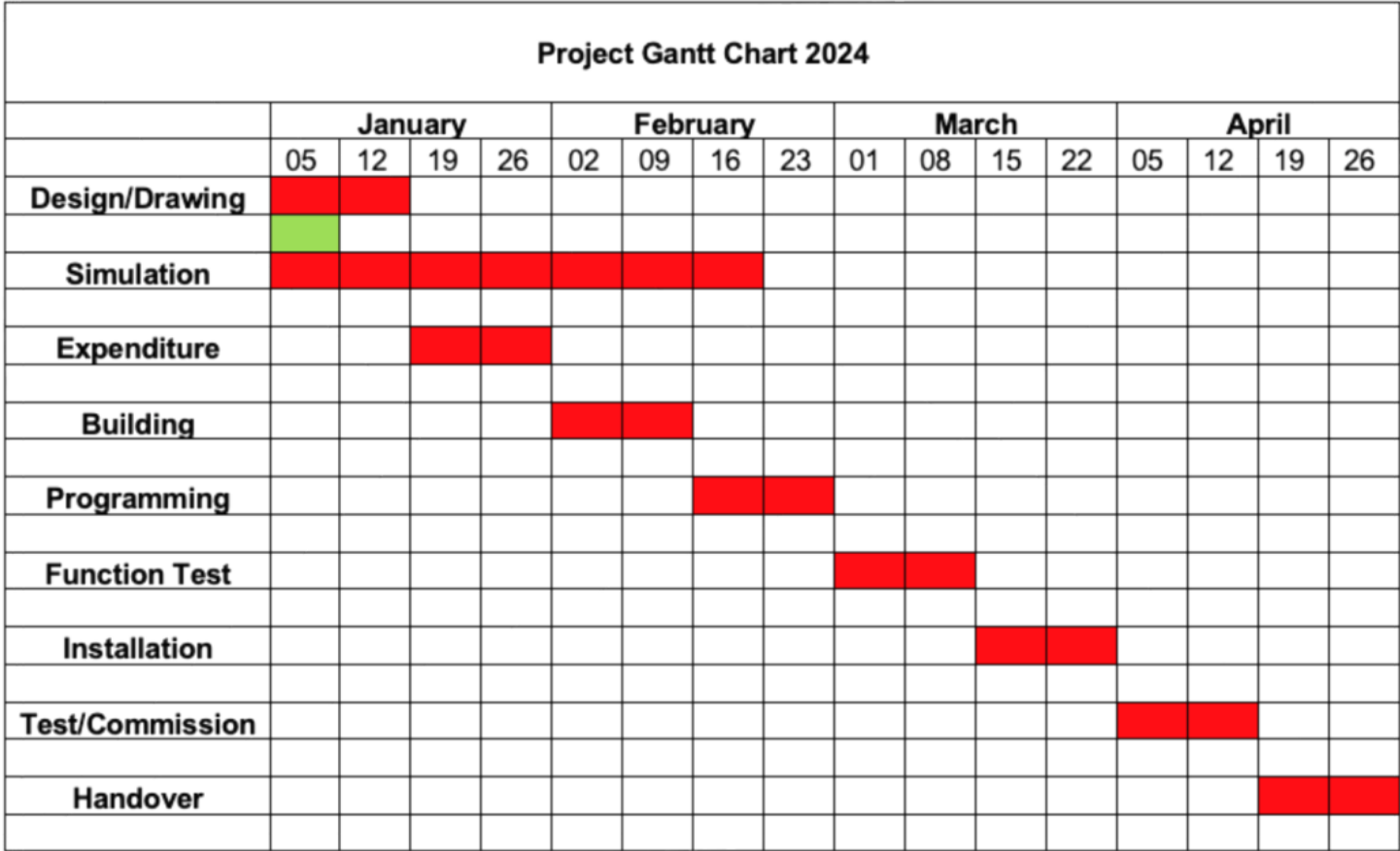
Scoring System Radar



PROJECT PLANNING AND WORK BREAKDOWN STRUCTURE



PROGRESS MADE TO DATE



FINAL GRADE

GENERAL COMMENTS

70/100

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

SEAN PARRY

70

1. ENGAGEMENT WITH LITERATURE

 NA

2. KNOWLEDGE AND UNDERSTANDING

 Project background and problem definition (8/10)
Project constraints, risks, health and safety (7/10)
Response to questions (7/10)

22

3. COGNITIVE AND INTELLECTUAL

 Functional Design Specification (7/10)
Test planning (7/10)
Project Planning and management methods (5/10)

19

4. PRACTICAL APPLICATION



Review of Solutions (7/10)
Justification of final solution (6/10)

13

5. TRANSFERABLE SKILLS



Quality of the presentation slides (8/10)
Quality of the delivery style
Good (8/10)

16