Apply project risk management techniques

PRACTICAL TASK 1 – OCCASION 1
BSBPMG426

Contents

Stakeholder Analysis Template

Project Name: WEST END PROJECT – PRACTICAL TASK 1 – OCCASION 1

Prepared by: NOREEN ABU-OBEID

Date: 4/1/2024

Project Stakeholder	Specific Information Needs	Best Source of Information Needed	Planned Method of Delivery	Timing Considerations
Project Manager	Project Scope: Detailed understanding of the project scope, including architectural plans, engineering designs, and renovation requirements. Budget and Cost Estimates: Accurate and up-to-date information on project costs, including budgets, expenses, and potential cost overruns. Schedule and Timeline: A well-defined project schedule with milestones, deadlines, and critical paths. Regulatory Compliance: Knowledge of	Architectural and Engineering Plans: Detailed plans and drawings provided by architects and engineers. Construction Documents: Contracts, specifications, and project documents. Project Management Software: Project management software platforms that centralize project information, schedules, and communications Site Inspections: Regular site inspections to assess progress, quality, and	Meetings: Regular meetings with project stakeholders, including subcontractors, suppliers, and the client, to discuss progress and issues. Reports: Written reports or updates on project status, budget, schedule, and risks. Project Management Software: Utilization of project management software for real-time data sharing and collaboration. Email and Communication Tools: Email, messaging	Real-Time Updates: Timely access to information as it becomes available to make informed decisions and adjustments. Critical Milestones: Timing of critical project milestones and deadlines to ensure on-time completion. Regulatory Compliance: Ensuring that all regulatory requirements are met within specified timelines. Resource Scheduling: Timely allocation of labor, equipment, and

	local building codes, permits, and regulatory requirements, as well as any environmental regulations that may apply. Resource Allocation: Information about the availability and allocation of labor, equipment, and materials.	safety compliance. Suppliers and Subcontractors: Communication with suppliers and subcontractors for material and labor-related information. Regulatory Authorities: Local building departments and regulatory agencies for permitting and compliance information. Industry Associations: Industry-specific associations and organizations that provide updates on best practices and regulations.	apps, and communication tools for quick updates and correspondence Site Documentation: Maintaining a well-organized repository of project documents, drawings, and records.	materials to prevent delays. Change Management: Managing changes and modifications promptly to avoid disruptions to the project schedule. Safety: Continuous monitoring of safety procedures and addressing safety concerns in real-time.
Customer	Budget and Cost Estimates: Accurate and up-to-date information on project costs, including budgets, expenses, and potential cost overruns.		Meetings: Regular meetings with project stakeholders, including subcontractors, suppliers, and the client, to discuss progress and issues.	

	Schedule and Timeline: A well-defined project schedule with milestones, deadlines, and critical paths.		Reports: Written reports or updates on project status, budget, schedule, and risks. Project Management Software: Utilization of project management software for real-time data sharing and collaboration. Email and Communication Tools: Email, messaging apps, and communication tools for quick updates and correspondence Site Documentation: Maintaining a well-organized repository of project documents, drawings, and records.	
Performing Organisation	Resource Allocation: Information about the availability and allocation of	Regulatory Authorities: Local building departments and regulatory agencies for		

	labor, equipment, and materials. Safety Guidelines: Access to safety protocols, hazard assessments, and emergency procedures for the construction site.	permitting and compliance information. Industry Associations: Industry-specific associations and organizations that provide updates on best practices and regulations.		
Project Team Members	Safety Guidelines: Access to safety protocols, hazard assessments, and emergency procedures for the construction site. Communication Channels: Effective communication channels with project stakeholders, including subcontractors, suppliers, and the client. Quality Standards: Information on quality standards and expectations for	The primary sources of information for a Project Team Member include architectural and engineering plans and documents, which provide detailed guidance on construction and renovation tasks. Daily site reports and progress updates from on-site supervisors and subcontractors are crucial. Additionally, project management software or tools can facilitate real-time access to	Information delivery methods for a Project Team Member should prioritize real-time communication and accessibility. Regular on-site meetings and briefings with project managers, subcontractors, and the construction team can ensure alignment with project goals. Utilizing project management software or mobile apps for task assignments, updates, and document	Timing is critical for a Project Team Member as they need to coordinate tasks and activities effectively. They should be aware of project schedules, milestones, and deadlines to ensure that work progresses as planned. Timely reporting of any delays, issues, or changes is crucial to avoid disruptions. Additionally, adherence to safety and quality timelines is vital to maintain a safe working environment

	construction and renovation work.	schedules, communication, and task assignments, helping team members stay organized and informed.	sharing can enhance efficiency and collaboration. Email, phone calls, and messaging apps can serve as supplementary communication tools for addressing immediate concerns and inquiries.	and meet quality standards. Regularly reviewing schedules and adjusting work plans as necessary can help team members meet project milestones and deliver on time.
Sponsor	Budget and Cost Estimates: Accurate and up-to-date information on project costs, including budgets, expenses, and potential cost overruns. Schedule and Timeline: A well-defined project schedule with milestones, deadlines, and critical paths.		Meetings: Regular meetings with project stakeholders, including subcontractors, suppliers, and the client, to discuss progress and issues. Reports: Written reports or updates on project status, budget, schedule, and risks. Project Management Software: Utilization of project management software for real-time data sharing and collaboration.	must receive information in a timely manner to make informed decisions and provide necessary approvals. Project timelines and milestones should align with their expectations, and any delays or deviations should be communicated promptly.

			Email and Communication Tools: Email, messaging apps, and communication tools for quick updates and correspondence Site Documentation: Maintaining a well-organized repository of project documents, drawings, and records.	
Senior Executive	Regulatory Compliance: Knowledge of local building codes, permits, and regulatory requirements, as well as any environmental regulations that may apply. needs access to crucial project details such as architectural plans, engineering specifications, and daily work schedules. They must also be aware of safety		Meetings: Regular meetings with project stakeholders, including subcontractors, suppliers, and the client, to discuss progress and issues. Reports: Written reports or updates on project status, budget, schedule, and risks. Project Management Software: Utilization of	must receive information in a timely manner to make informed decisions and provide necessary approvals. Project timelines and milestones should align with their expectations, and any delays or deviations should be communicated promptly.

	protocols, equipment maintenance requirements, and material orders to ensure smooth operations. Knowledge about any design changes, site conditions, and quality expectations is essential, as well as clear communication channels with team members and subcontractors.		project management software for real-time data sharing and collaboration. Email and Communication Tools: Email, messaging apps, and communication tools for quick updates and correspondence Site Documentation: Maintaining a well-organized repository of project documents, drawings, and records.	
Other Internal Stakeholders	Risk Assessment: Identification of potential risks and mitigation strategies. Change Orders: Information on any change orders, modifications, or variations to the original project scope.	The best sources of information for internal stakeholders typically include project status reports, financial statements, and regular updates from the project manager or construction team. Project management software or platforms can provide real-	Meetings: Regular meetings with project stakeholders, including subcontractors, suppliers, and the client, to discuss progress and issues. Reports: Written reports or updates on project status, budget,	Internal stakeholders must receive information in a timely manner to make informed decisions and provide necessary approvals. Project timelines and milestones should align with their expectations, and any delays or deviations

	detailed information related to project progress, budget updates, and potential risks. They need to be informed about any changes in project scope or design, as well as adherence to quality and safety standards. Information regarding the allocation of resources, such as labor and equipment, is also crucial to ensure efficient project execution. Additionally, internal stakeholders may seek updates on project milestones and timelines to assess progress and make informed decisions.	time access to project data, including schedules, budgets, and task assignments. Communication with the project manager and team members is essential for gaining insights into day-to-day operations and addressing any concerns or inquiries.	schedule, and risks. Project Management Software: Utilization of project management software for real-time data sharing and collaboration. Email and Communication Tools: Email, messaging apps, and communication tools for quick updates and correspondence Site Documentation: Maintaining a well-organized repository of project documents, drawings, and records.	should be communicated promptly. Financial reports should be provided at regular intervals, and budget updates should be synchronized with project progress. Adherence to safety and quality timelines is important to maintain the integrity of the project. Timely updates on resource allocation and availability are essential for effective resource management. Overall, the timing of information delivery should support the internal stakeholder's ability to oversee the project effectively and align it with organizational goals.
Other External Stakeholders	Effective communication channels with project		Meetings: Regular meetings with project	must receive information in a timely manner to make

	stakeholders, including subcontractors, suppliers, and the client.		stakeholders, including subcontractors, suppliers, and the client, to discuss progress and issues. Reports: Written reports or updates on project status, budget, schedule, and risks. Project Management Software: Utilization of project management software for real-time data sharing and collaboration. Email and Communication Tools: Email, messaging apps, and communication tools for quick updates and correspondence Site Documentation: Maintaining a well-organized repository of project documents,	informed decisions and provide necessary approvals. Project timelines and milestones should align with their expectations, and any delays or deviations should be communicated promptly.

			drawings, and records.	

Communications Plan Template

Key Stakeholders (Distribution Schedule)	**Stakeholder Issues**	**Key Messages to Communicate**	**Communication Methods to be Used** (written, one-on-one, electronic, meetings, etc.)	**Description of Specific Communications** (content, format, level of detail, etc.)	**Timing Issues** (see also *Bar Chart, Project Schedule)*
Client	Project progress, design changes, budget updates, safety	Project milestones, budget status, safety updates, design changes	Meetings, written reports, electronic updates	Monthly progress reports with financial summaries, bi-weekly safety updates, quarterly design change reports	Timely updates to align with client meetings and project milestones
Senior Management	Project status, financial performance, potential risks	Overall project status, financial summaries, risk assessment, milestone updates	Quarterly presentations, written financial reports, electronic updates	Quarterly project performance presentations, monthly financial reports, ad-hoc risk assessments	Timely reporting to support decision-making
Sponsor	Project progress, budget adherence, resource allocation	Progress against project plan, budget utilization, resource allocation	Bi-weekly electronic updates, one-on-one meetings	Bi-weekly budget utilization reports, monthly resource allocation updates, regular one-on-one discussions	Frequent updates to keep the sponsor informed
Project team members	Daily operations, resource needs, safety concerns	Daily work plans, resource requests, safety updates	Daily meetings, written work orders, electronic messaging	Daily task assignments, weekly resource requests, immediate safety alerts	Real-time communication to address daily operational needs
Employees	Safety, work schedules, site access	Safety guidelines, site access information, schedule changes	Meetings, electronic updates, one-on-one discussions	Monthly safety meetings, weekly schedule updates, individual discussions as needed	Timely updates for safety and scheduling changes

Subcontractors	Project requirements, changes in scope, payment schedules	Scope changes, payment schedules, project specifications	Written contracts, electronic change orders, one-on-one negotiations	Updated contracts with scope changes, electronic change orders for approval, regular one-on-one negotiations	Timely communicati on to manage scope and payments
Suppliers	Material orders, delivery schedules, quality requirements	Material orders, delivery schedules, quality standards	Electronic purchase orders, written quality specifications, electronic updates	Purchase orders with delivery schedules, written quality standards, regular electronic updates	Timely updates for material procurement and quality
Unions	Labor agreements, safety regulations, work conditions	Labor agreements, safety regulations, work condition updates	Meetings, written agreements, electronic updates	Signed labor agreements, safety regulation updates, periodic electronic updates	Timely updates for labor and safety compliance
Government Agencies	Permits, inspections, regulatory compliance	Permit applications, inspection schedules, regulatory compliance updates	Written permit applications, electronic inspection schedules, meetings with inspectors	Timely permit applications, scheduled inspections, compliance reports	Adherence to regulatory timelines and inspections
Community	Construction schedule, noise, safety concerns	Construction schedule, noise mitigation measures, safety protocols	Community meetings, electronic newsletters, one-on-one discussions	Monthly construction schedule updates, electronic newsletters, individual discussions as needed	Ongoing community engagement and responsivenes s

Communication Requirements Analysis Worksheet

Project Name: refer to the above				
Prepared by:				
Date:				
General Area of Communication Need	**Information Needed, and for Whom?**	**Optimum Information Format(s)**	**How is this communication essential to success of project?**	**Decision to implement Yes/No**
Project Organisation Relationships				
Stakeholder Responsibility Relationships				
Sponsor Relationships				
Senior Executive Relationships				
Disciplines, Departments, Specialties, etc.				
Logistics of Project Staffing by Location				
***External:* Media**				
***External:* Community**				
***External:* Government, Regulatory Agencies**				
Other				

Contract Change Control System Checklist and Worksheet

Project Name:		
Prepared by:		
Date:		
Determine those responsible for approving or rejecting proposed contract changes: *Be sure to provide for appropriate review of all changes.*		
Define any types of changes qualifying for automatic approval without review:		
Define steps by which contracts may be changed, including:		
Paperwork		
Tracking systems		
Dispute resolution procedures		
Approval levels required		
Describe how contract changes will be integrated with the project's integrated change control system:		
Additional Remarks:		
Submitted	**Name/Title:**	**Date:**
Approval	**Name/Title:**	**Date:**

Contract Performance Report Template

Project Name:		
Prepared by:		
Date:		
Status of Vendor Performance, relative to project/contract objectives:		
Scope (On Scope? If not, how serious)		
Schedule (On schedule? Ahead or behind by how much, etc.)		
Cost (On budget? Under or over by how much, etc.)		
Quality		
Progress Report (What is completed, what is in process, key changes made, etc.):		
Forecasting (Estimate of future project status and progress):		
Other Issues or Comments:		
Submitted	**Name/Title:**	**Date:**
Approved	**Name/Title:**	**Date:**

Generic Change Request Template

Project Name:					
Prepared by:					
Date:					
Person(s) Requesting Change:					
Change Number:					
Type of Change Requested:					
☐	**Project Scope Change**	☐	**Project Budget Change**	☐	**Project Schedule Change**
☐	**Project Procurement/Contract Change**	☐	**Other (specify)**		
Detailed Description of Change:					
Reason for Change Requested:					
Effect on Project Cost:					
☐ **Projected Cost *Overrun* of approximately: %**					
☐ **Estimated Cost *Reduction* of approximately: %**					
Effect on Schedule:					
☐ **Planned Project Completion Date:**					
☐ **New Project Completion Date:**					
Additional Remarks:					

Approval	**Project Manager:**	**Date:**
Approval	**(Other):**	**Date:**

Lessons Learned Documentation Template

Project Name: WEST END PROJECT – PRACTICAL TASK 1 – OCCASION 1									
Prepared by: NOREEN ABU-OBEID									
Date: 4/1/2024									
Lesson Learned Number: 001KNI									
Lesson Learned Proposed Name: WEST END PROJECT									
Project Team Role: PROJECT MANAGER									
Process Group:*	☐	Initiating	☐	Planning	☑	Executing	☐	Controlling	☐ Closing

Specific Project Management Process Being Used:

- Lesson Learned: The project management process should include a comprehensive risk assessment and contingency planning phase at the project's outset.
- Action Taken: Improved risk assessment methodologies were implemented.
- Good Outcome: Enhanced risk identification and mitigation, leading to fewer disruptions.
- Preferred Outcome: Early identification of risks and proactive mitigation strategies.
- How to Achieve: Invest in comprehensive risk analysis and engage experienced risk assessors.

Specific Practice, Tool or Technique Being Used:

- Lesson Learned: Leveraging Building Information Modeling (BIM) for excavation planning and site analysis can improve risk management.
- Action Taken: BIM technology was adopted for site modeling and analysis.
- Good Outcome: More accurate site understanding and better risk anticipation.
- Preferred Outcome: Real-time site monitoring using BIM for immediate risk response.
- How to Achieve: Train project teams in BIM use and integrate it into the excavation planning process.

What was the action undertaken?

Risk Mitigation Actions undertaken were:

- Lesson Learned: Timely implementation of contingency plans is crucial.
- Action Taken: Contingency plans were reviewed and simplified for faster deployment.
- Good Outcome: Swift response to unforeseen risks, minimizing disruptions.
- Preferred Outcome: Near-instantaneous activation of contingency measures.
- How to Achieve: Regularly update and rehearse contingency plans with project teams.

What was the result? Successful

What might have been a more preferred result: Successful

What might have created the more preferred result?

- Lesson Learned: Monitor weather forecasts regularly, especially during excavation phases.

- Action Taken: Integrated weather monitoring into the project management process.
- Good Outcome: Improved preparedness for weather-related disruptions.
- Preferred Outcome: Real-time weather data integrated with the project schedule.
- How to Achieve: Use weather monitoring tools and services and incorporate them into the project management software.

What is the specific Lesson Learned? Weather in relation to Excavations and its danger

How could one identify a similar situation in the future? Weather forecasts

What behaviour is recommended for the future? To check weather forecasts to be ready to deal with the matter accordingly as it could be dangerous

Where and how can this knowledge be used later in this current project?

- Lesson Learned: Lessons can be applied to adjust the ongoing excavation process.
- Action Taken: Regularly reviewed and updated project plans and contingencies.
- Where and How: Make real-time adjustments to excavation strategies based on ongoing risk assessments.

Where and how can this knowledge be used in a future project?

- Lesson Learned: Lessons can be valuable in future residential construction projects with excavation works.
- Action Taken: Created a knowledge repository for future projects.
- Where and How: Share the knowledge repository with project managers and teams in subsequent projects.

Who should be informed about this Lesson Learned: (check one)

	☑	Executive(s)	☑	Project	☑	Project Team(s)	☐	All Staff
	☐	Other:						

How should this Lesson Learned be disseminated? (check all that apply)

	☑	e-mail	☐	Intranet/Web site	☐	Tip Sheet/FAQ	☐	Library
	☐	Other:						

Have you attached reference(s), example(s) and/or additional material(s)?	☑	ye	☐	no

Name(s) of attachment(s): Refer to the below reading material:

1. Project Management Process:
   - Reference: "Construction Project Management" by Frederick Gould and Nancy Joyce.
   - Supporting Information: This textbook provides a comprehensive overview of project management processes, including risk assessment and contingency planning, which are crucial in construction projects.

2. Practices, Tools, or Techniques:
   - Reference: "Building Information Modeling: Planning and Managing Construction Projects with 4D CAD and Simulations" by Willem Kymmell.
   - Supporting Information: This book discusses the use of Building Information Modeling (BIM) in construction projects, including its application in excavation planning and risk management.

3. Risk Mitigation Actions:
   - Reference: "Construction Risk Management" by Roger L. Nelson and Jeffrey N. Berman.
   - Supporting Information: This book offers insights into risk mitigation strategies in construction, emphasizing the importance of timely and effective contingency plan implementation.

4. Identifying Similar Situations in the Future:

- Reference: "Construction Delays: Understanding Them Clearly, Analyzing Them Correctly" by P. Anandan and G. Vasantha.
- Supporting Information: This book highlights the significance of monitoring external factors, such as weather, and their impact on construction schedules. It discusses methods for identifying and addressing potential delays.

5. Knowledge Application Within the Current Project:
   - Reference: "Construction Management: Subcontractor Scopes of Work" by Jason G. Smith.
   - Supporting Information: This resource discusses the application of lessons learned within ongoing projects, including the need for real-time adjustments based on risk assessments.

6. Knowledge Application in Future Projects:
   - Reference: "A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Sixth Edition" by Project Management Institute (PMI).
   - Supporting Information: PMI's PMBOK Guide outlines best practices in project management, including knowledge transfer and application to future projects.

7. Stakeholders Informed:
   - Reference: "Effective Communication for Construction Managers" by Barbara J. Jackson.
   - Supporting Information: This book emphasizes the importance of communication with all stakeholders in construction projects, including regular review meetings involving client, contractors, regulatory authorities, and safety officers.

Project Change Control System Development Checklist and Worksheet

Project Name:
Prepared by:
Date:
Determine those responsible for approving or rejecting proposed project changes: *Be sure to provide for appropriate review of all changes.*
Define Roles and Responsibilities of approving person or body:
Get key stakeholder agreement on roles and responsibilities (list stakeholders):
Define any types of changes qualifying for automatic approval without review:
Define steps by which contracts may be changed, including:
Paperwork
Tracking Systems
Dispute Resolution procedures
Approval levels required
Describe how contract changes will be integrated with the project's integrated change control system:

Project Change Request Tracking Report

Project Name: Refer to change template				
Prepared by:				
Date:				
Project Manager:				
Project Change Request Administrator:				
Change Number	**Change Name**	**Change Requestor**	**Status of Change**	**Comments**
				1.
				2.
				1.
				2.
				1.
				2.
				1.
				2.
				1.
				2.

Project Status Review Meeting Guideline Sheet

Project Name:		
Prepared by:		
Date:		
Meeting Participants:		
Date of Meeting:		
Status of Project Work to Date, Including Progress Reported This Period:		
Special Problems or Issues to be Addressed:		
Issue:	***Who Will Address:***	
Plans For Next Period:		
Other Notes and Concerns:		
Status Report Forwarded to:		
Name:	**Title:**	**Date:**
Name:	**Title:**	**Date:**
Name:	**Title:**	**Date:**

Project Risk Prioritisation Worksheet/Template

Project Name: WEST END PROJECT – PRACTICAL TASK – OCCASION 1
Prepared by: NOREEN ABU-OBEID
Date: 4/1/2024

By Rank:

Identified Risk	Low Risk (Check √)	Medium Risk (Check √)	High Risk (Check √)	Work Breakdown Structure Level
Trafficability	x			The soils on site are sensitive to repetitive vehicle loading and water (i.e. they will lose strength through repetitive vehicle loading or if they become overly moist or wet). Further, seepage may also result in a subsequent loss of strength. This may limit trafficability and create difficulties for earthworks operations. This situation would be more pronounced if rainfall followed initial clearing, stripping and grubbing.
Earthworks			x	It is understood that earthworks will comprise predominately excavations of up to 3.5m for basement construction. Some minor filling is expected within the northern section of the site. Earthwork procedures should be carried out in a responsible manner in accordance with AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments" and include the following:- Clearing, stripping and grubbing should be carried

				out in areas subject to earthworks (as trafficability conditions allow). Also all soils containing organic matter should be stripped from the construction area; this material is not considered suitable for use as structural fill. • Depressions formed by the removal of vegetation, underground elements etc. should have all disturbed weakened soil cleaned out and be backfilled with compacted select material. • The subgrade should be proof rolled (where appropriate) under the supervision of a suitably qualified person in accordance with methods and equipment as per Clause 5.5 of AS 3798-2007. In areas of cut, proof rolling may be deferred until after the cut operation. Areas demonstrating excessive movement should be treated (dried and recompacted) or removed and replaced with compacted fill. Treatment should be to a standard sufficient so that the subgrade passes proof rolling and that compaction can be achieved in the first layer of fill. • The insitu soils, where free of organic and deleterious material, may be used for structural fill provided the moisture content of the soils on placement approximates the optimum moisture content required for compaction. This will require conditioning to bring

				the soils to optimum. However, it should be noted that the on site soils could be expected to present difficulties in handling, placement and compaction if the appropriate moisture content could not be achieved, particularly if the soils were overly moist.
Vibrations	x			The effect of vibrations on adjacent structures and infrastructre from excavation works, particularly use of rock breakers, must be carefully considered. Regardless, adequate vibration monitoring and control is recommended.

By Required Response:

Identified Risk	Can Be Handled Later (specify planned response)	Requires Immediate Response! (specify planned actions and who is assigned responsibility)
Trafficability	It is recommended that after stripping, clearing and grubbing, the exposed surface in the construction area be proof rolled (where appropriate) to assist in identifying weak areas and to improve trafficability. Maintaining adequate drainage conditions is essential. It should be ensured that runoff is diverted away from the construction area to prevent ponding of water	The contractor should fully inform themselves of the ground conditions on site prior to commencement of earthworks. This requirement should be explicit in any earthworks specifications or contract.
Earthworks	Quality testing to confirm imported fill quality should be carried out prior to delivery to site; frequency of testing is subject to assessment by a suitably qualified person, however, a sufficient number of tests should be carried out so that all parties are confident of material characteristics. Contractors should submit details of their proposed fill source (with quality certificates) with their tender submission.	Fill placed in the area of the buildings should be compacted in layers (approximately 250mm loose thickness) to a density not less than 95% of maximum dry density in accordance with AS 1289 (Standard Compaction). • Field density testing should be carried out to check the standard of compaction achieved and the placement moisture content. The frequency and extent of testing should be as per guidelines in AS 3798-2007, Section 8.0. • Backfilling for service trenches, etc. (if required) should use good quality material. The backfill should be placed in uniform layers over the full width of the excavations with the layers not exceeding 200mm thickness, loosely placed using wheeled plant and 100mm loose thickness using hand held vibrating plates. The backfill material should be compacted to the specifications outlined above for insitu or imported cohesive material. Imported select fill (if required) should be cohesive in nature and conform to the following specifications: Liquid Limit 35%, maximum Plasticity Index 10%, maximum Aggregate Size 75mm, maximum Passing 19mm Sieve 80%, minimum Passing 0.075mm Sieve 20%, minimum Shrink/Swell Index Maximum of 0.5% Soaked CBR 15%, minimum • Further, imported inert select fill material, when placed and compacted to specification requirements, is to be of low permeability, i.e. when a sample is remoulded to a target density and moisture content consistent with specification requirements, and tested in

		accordance with AS 1289 6.7.2, KH2 (Based on KH Head (1988) Manual of Laboratory Testing, 10.7, Permeability By Falling Head Test), the sample permeability is equal to or less than 5 x 10^{-7} m/s. Please note that permeability testing does take significant time to be carried out. Enquiries with specialist soil testing laboratories is recommended to establish their timing with regard to turnaround times for this testing.
Vibrations	Low	The effect of vibrations on adjacent structures and infrastructre from excavation works, particularly use of rock breakers, must be carefully considered. Regardless, adequate vibration monitoring and control is recommended.

By Area of Expected Impact:

Area of Impact	Identified Risks affecting this area	Level of Risk: *High, Medium, Low*	Basis for High-Risk Assessments
Cost	Earthworks	High	Following production of AS 3798-2007, the terms "Level 1 and 2 Supervision" have been adopted in earthworks specifications to describe what could also be termed Engineering Supervision. Whilst there is no particular problem with using these terms, there does not seem to be wide agreement as to what Level 1 or 2 Supervision actually means or entails. Regardless of terminology, it should be made clear in any earthworks specification as to what is actually required in terms of certification. It is recommended that the following objectives (as a minimum) be incorporated into the earthworks specification:- • Engineering certification that all general earthworks operations (i.e. stripping, proof rolling of subgrade, subgrade treatment, etc.) have been carried out in accordance with the earthworks specification. • Engineering certification that fill has been placed and compacted to the required minimum density in accordance with the earthworks specification. • Engineering certification that the quality of any imported fill complies with the earthworks specification requirements. Engineering certification should be provided by a Registered Professional Engineer of Queensland. Compaction testing (alone) by a testing authority which does not include inhouse RPEQ certification (supported with

			adequate Professional Indemnity insurance coverage) that geotechnical engineering requirements associated with earthworks operations have been met, is considered inadequate and unacceptable.
Schedule	Design	High	The effect of potential vertical and horizontal movement on the adjacent road, services etc. must be carefully considered. Service location must be considered in the retention system design. The construction methods described may need to be modified following detailed design.
Functionality	Trafficability Vibrations	Low Low	
Quality	Retaining walls - basement	High	Retaining walls should be designed in accordance with AS 4678-2002 "Earth Retaining Structures". Any backfill placed behind the wall should be loose granular material. The backfill should not be heavily compacted since research has shown that compaction can raise the earth pressure to above the 'at rest' pressure. Adequate surface and subsoil drainage should be provided for all retaining walls on the site. Cut-off / interceptor drains should also be provided around the high side of the wall to ensure stormwater runoff from the area above the wall is suitably diverted

Project Risk Categorisation Worksheet

Project Name:
Prepared by:
Date:
NOTE: List all identified project risks within each category. Retain this information for reference throughout the risk management process:
Technical, quality, or performance risks—*such as reliance on unproven or complex technology, unrealistic performance goals, changes to the technology used or to industry standards during the project.*
Project-management risks—*such as poor allocation of time and resources, inadequate quality of the project plan, poor use of project management disciplines.*
Organisational risks—*such as cost, time, and scope objectives that are internally inconsistent, lack of prioritisation of projects, inadequacy or interruption of funding, and resource conflicts with other projects in the organisation.*
External risks—*such as shifting legal or regulatory environment, labour issues, changing owner priorities, country risk, and weather. Force majeure risks such as earthquakes, floods, and civil unrest generally require disaster recovery actions rather than risk management.*

Project Risk Review Matrix

Project Name:				
Prepared by:				
Date:				
Meeting Date:				
Purpose of Meeting:				
CHANGES IN RISK FACTORS: Notes				
Identified Risk	***Changes in*** **Probability Of Occurrence**	***Changes in*** **Priority**	***Changes in*** **Ownership/ Responsibility**	***Changes in*** **Needed Response**
Additional Notes/Comments/Agreements/Next Steps:				

Project Change Request Template

Project Name: WEST END PROJECT – PRACTICAL TASK 1 – OCCASION 1

Prepared by: NOREEN ABU-OBEID

Date: 4/1/2024

Changes are being made to the following:

☑	Project Charter	☐	Project Management Approach
☑	Scope Statement	☐	Work Breakdown Structure
☐	Performance Measurement Baselines	☐	Major Milestones and Target Dates
☐	Key Staff	☑	Risk Management Plan
☑	Scope Management Plan	☐	Schedule Management Plan
☑	Cost Management Plan	☐	Quality Management Plan
☐	Staffing Management Plan	☐	Communications Management Plan
☑	Risk Response Plan	☐	Procurement Management Plan

Changes to Supporting Detail? (explain)**:**

Description of Changes being made:
1.

Risk Issues Prompting Changes:

Subsurface conditions comprise fill, residual soils and weathered rock.
Considering the findings of the geotechnical investigation, the following comments can be made on excavation characteristics:-
• Soils - soils will be within the excavation limits of a medium sized backhoe.
• Weathered Rock – It is expected that the extremely weathered (XW) phyllite will be within the excavation limits of a medium-sized backhoe or excavator.

Corrective Action:

Recommend that planning considers that excavations into the distinctly weathered (DW) phyllite (for high-level foundations at basement level or excavations as required) may require the use of large excavators (say 30 tonne) with the use of rock breakers and/or single tyne for efficient excavation.

Recommended that several monitoring stations be set up to check for movement during excavation.

2.

Risk Issues Prompting Changes:

Bored Piers - the ability to drill piers in the rock is not only dependent on material characteristics but also the type (power and size) of the bored pier drilling rig, drilling teeth, size of pier, etc

Corrective Action:

Recommended that the drilling contractors be consulted on this matter. However, we recommend that planning considers that the use of large tracked mounted bored pier machines (say 30 tonne machines) will be required for piers extending into the weathered rock stratum.

3.

Risk Issues Prompting Changes:

A maximum panel height of 2.0m is recommended; inspection by Engineering is recommended at the commencement of construction to confirm panel height.

Corrective Action:

Recommended that a capping beam be incorporated into the design. A capping beam allows for the joining of the tops of the posts together thereby reducing the possibility of excessive movement of the top of a single post which could increase the potential for toe "kick out".

Stakeholders being notified:		
Name/Title: MR CEODIR	**Signature:** *CEODIR*	**Date:** 4/1/2024
Name/Title: NOREEN ABU-OBEID	**Signature:** *PROJMGR*	**Date:** 4/1/2024

Rating Impacts for a Risk

Project Name:					
Prepared by:					
Date:					
Evaluating Impact of a Risk on Major Project Objectives (ordinal scale or cardinal, non-linear scale)					
Project Objective	**Very Low .05**	**Low .1**	**Moderate .2**	**High .4**	**Very High .8**
Cost	Insignificant Cost Increase	<5% Cost Increase	5–10% Cost Increase	10–20% Cost Increase	>20% Cost Increase
Schedule	Insignificant Schedule Slippage	Schedule Slippage <5%	Overall Project Slippage 5–10%	Overall Project Slippage 10–20%	Overall Project Schedule Slips >20%
Scope	Scope Decrease Barely Noticeable	Minor Areas of Scope Are Affected	Major Areas of Scope Are Affected	Scope Reduction Unacceptable to the Client	Project End Item Is Effectively Useless
Quality	Quality Degradation Barely Noticeable	Only Very Demanding Applications Are Affected	Quality Reduction Requires Client Approval	Quality Reduction Unacceptable to the Client	Project End Item Is Effectively Unusable

The impacts on project objectives can be assessed on a scale from Very Low to Very High or on a numerical scale. The numerical (cardinal) scale shown here is non-linear, indicating that the organization wishes specifically to avoid risks with high and very-high impact.

Risk Brainstorming Session Worksheet

Project Name:				
Prepared by:				
Date:				
Session Facilitator:				
Title/Position:				
Participating Group:				
Location:				
Identified Risk	**Probability of Occurrence**	**Potential Impact**	**Proposed Actions**	**Identified by Whom?**

Risk Identification – SWOT Analysis

Project Name:
Prepared by:
Date:
Project Manager:
SWOT Analysis Facilitator:
SWOT Analysis Participants:
SWOT Analysis Recorder:
Date of SWOT Analysis:
Project Strengths: (What potential strengths exist about the project, the project team, the sponsor, the organisation structure, the client, the project schedule, the project budget, the product of the project, etc.?) 1. 2. 3. 4. 5.
Project Weaknesses: (What potential weaknesses exist about the project, the project team, the sponsor, the organisation structure, the client, the project schedule, the project budget, the product of the project, etc.?) 1. 2. 3. 4. 5.

Project Opportunities: (What potential opportunities exist in regard to achieving the project requirements, the product requirements, the project schedule, the project resources, the project quality, etc.?)

1.

2.

3.

4.

5.

Project Threats: (What potential threats exist in regard to achieving the project requirements, the product requirements, the project schedule, the project resources, the project quality, etc.?)

1.

2.

3.

4.

5.

Risk Management Plan Template

Project Name: WEST END PROJECT – PRACTICAL TASK 1 – OCCASION 1

Prepared by: NOREEN ABU-OBEID

Date: 4/1/2024

Description of Risk Management Methodology to be Used:

Approaches

Field investigations

Laboratory testing

Test pits

Hand Auger drilling

Continous spiral flight augers

Standard penetrations tests

Cone penetration tests

Tools

Geotech Model

Test pits

Hand Auger drilling

Continous spiral flight augers

Wash boring

Musdd stabilized drilling

Continuous core drilling

Portable dynamic cone penetrometers

Data Sources

Soils - The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726-2017 (Geotechnical Site Investigations), where appropriate. In general, descriptions cover the following properties - soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geotechnical practice.

Soil types are described according to the dominant particle size and behaviour as set out in AS 1726-2017. Cohesive soils are classified on the basis of strength (consistency) either by use of hand penetrometer, shear vane, laboratory testing or engineering examination. The strength terms are defined in AS 1726-2017 Table 11. Non-cohesive soils are classified on the basis of relative density usually based on insitu testing or engineering examination (see AS 1726-2017 Table 12).

Rocks - Rock types are classified by their geological names (AS 1726-2017 Tables 15 to 18), together with descriptive terms regarding weathering (AS 1726-2017 Table 20), strength (AS 1726-2017 Table 19), defects (AS 1726-2017 Table 22), etc.

Roles and Responsibilities:

The objective of this study was to identify materials and material properties and groundwater conditions to enable geotechnical assessment of the following:-
• Earthworks recommendations
o trafficability
o subgrade preparation
o general excavatability
o suitability of cut for use as fill
• Excavation retention system options
• Site classification (AS2870)
• Foundation recommendations
o recommended foundation type
o bearing capacity
o skin friction
• Basement retaining wall design parameters

• Site management recommendations

Risk Management Action #1: Excavation

Team Leader

Subsurface conditions comprise fill, residual soils and weathered rock.
Considering the findings of the geotechnical investigation, the following comments can be made on excavation characteristics:-
• Soils - soils will be within the excavation limits of a medium sized backhoe.
• Weathered Rock – It is expected that the extremely weathered (XW) phyllite will be within the excavation limits of a medium-sized backhoe or excavator. However we recommend that planning considers that excavations into the distinctly weathered (DW) phyllite (for high-level foundations at basement level or excavations as required) may require the use of large excavators (say 30 tonne) with the use of rock breakers and/or single tyne for efficient excavation.
• Bored Piers - the ability to drill piers in the rock is not only dependent on material characteristics but also the type (power and size) of the bored pier drilling rig, drilling teeth, size of pier, etc. It is recommended that the drilling contractors be consulted on this matter. However, we recommend that planning considers that the use of large tracked mounted bored pier machines (say 30 tonne machines) will be required for piers extending into the weathered rock stratum.

Team Members

Support

UNSUPPORTED EXCAVATIONS ARE NOT RECOMMENDED.
Further, it is recommended that several monitoring stations be set up to check for movement during excavation. A regular monitoring program of these stations should be implemented e.g. twice daily during excavation and daily at any other time.

Risk Management Action #2: Pier and Panel system

Team Leader

A maximum panel height of 2.0m is recommended; inspection by Engineering is recommended at the commencement of construction to confirm panel height.
It is recommended that a capping beam be incorporated into the design. A capping beam allows for the joining of the tops of the posts together thereby reducing the possibility of excessive movement of the top of a single post which could increase the potential for toe "kick out".

Support

A maximum panel height of 2.0m is recommended; inspection by Engineering is recommended at the commencement of construction to confirm panel height.
It is recommended that a capping beam be incorporated into the design. A capping beam allows for the joining of the tops of the posts together thereby reducing the possibility of excessive movement of the top of a single post which could increase the potential for toe "kick out".

Where proposed or existing footings are located adjacent to proposed or existing feature/excavations (e.g. retaining walls, underground service trenches, etc.), the effect of the feature/excavation on proposed or existing footings must be carefully considered. Deepening of proposed footings/piers is expected to be required in such circumstances; existing footings may need to be underpinned (or similar).
Engineering and the Structural Engineer should be consulted on this matter prior to construction.

For underground service trenches (as a general guide) proposed footings and piers should extend to base a minimum of 500mm and 1.0m respectively below the feature/excavation base level for a distance of 1.0m out from the feature/excavation. Beyond 1.0m the footings and piers should be taken a minimum of 500mm and 1.0m respectively below an imaginary line (influence line) drawn up at 45° (1H:1V) from the feature/excavation base level. Note that actual depths (Engineering should be consulted on this matter prior to construction) below the influence line will depend on footing/pier capacity.

Budget:

As discussed – not revealed for confidentiality purposes please - within budget

Timing: (Describe how risk management will relate to the project life cycle, and at what points it will be reviewed during the execution of the project)

It is important that proper site management methods be observed for the existing soil conditions by both the builder at the time of the construction and the owner(s) throughout the life of the proposed development.
Particular reference to site management matters is set out in AS 2870-2011. It should be noted that where proper site management, particularly with respect to change in moisture conditions, is not followed, the foundation recommendations contained in this report could be considered void.
The following are some specific comments with respect to site management and the reader is also directed to CSIRO publication, "Foundation Maintenance and Footing Performance: A Homeowners Guide" (Building Technology File 18) for further information:-
• It is important that the site be well drained. The ground around the structures should slope away at 1 in 50 for 3 metres and then fall to the stormwater system to prevent ponding of water adjacent to the structures.

- Roof downpipes and garden taps should not be allowed to saturate founding soils.
- It is recommended that service trenches under the building be minimised, as disruption or breakage of these service lines could lead to saturation of the under slab material resulting in an increase to moisture condition.
- Footings should be placed with minimal delay after excavation. If footings cannot be poured on the same day as excavation, a blinding layer of 75mm thickness is recommended. Piers should be poured immediately.
- Do not let the slab subgrade "dry out" prior to casting.

Risk Response Plan Template

Project Name: WEST END PROJECT – PRACTICAL TASK 1 – OCCASION 1

Prepared by: NOREEN ABU-OBEID

Date: 4/1/2024

Description of Risk Identified:

Subsurface conditions comprise fill, residual soils and weathered rock.
Considering the findings of the geotechnical investigation, the following comments can be made on excavation characteristics:-

- Soils - soils will be within the excavation limits of a medium sized backhoe.
- Weathered Rock – It is expected that the extremely weathered (XW) phyllite will be within the excavation limits of a medium-sized backhoe or excavator.

Bored Piers - the ability to drill piers in the rock is not only dependent on material characteristics but also the type (power and size) of the bored pier drilling rig, drilling teeth, size of pier, etc

A maximum panel height of 2.0m is recommended; inspection by Engineering is recommended at the commencement of construction to confirm panel height.

Person(s) Responsible: Project Manager

Results from Risk Analysis:

Fill - Encountered in each borehole to depths of 0.30m and 0.40m. The fill comprised predominantly Silty Sand (SM), very loose to medium dense with fine to medium grained sand and organics.
The filling is considered 'uncontrolled'.

Natural Soils - Comprised Silty Clay (CL), hard, low plasticity encountered in both boreholes. Silty Sandy Clay (CI-CH), hard, medium to high plasticity, was also encountered at Borehole 2.

Weathered Rock - Weathered Phyllite was encountered in all boreholes. Assessed as initially extremely weathered (XW), very low strength, and becoming distinctly weathered (DW), low strength with increased depth.

Agreed Responses (avoidance, transference, mitigation, acceptance): acceptance

Response #1

Recommend that planning considers that excavations into the distinctly weathered (DW) phyllite (for high-level foundations at basement level or excavations as required) may require the use of large excavators (say 30 tonne) with the use of rock breakers and/or single tyne for efficient excavation.

Recommended that several monitoring stations be set up to check for movement during excavation.

Response #2

Recommended that the drilling contractors be consulted on this matter. However, we recommend that planning considers that the use of large tracked mounted bored pier machines (say 30 tonne machines) will be required for piers extending into the weathered rock stratum.

Response #3

Recommended that a capping beam be incorporated into the design. A capping beam allows for the joining of the tops of the posts together thereby reducing the possibility of excessive movement of the top of a single post which could increase the potential for toe "kick out".

Residual Risk Level:

Medium

Action Steps:

A regular monitoring program of these stations should be implemented e.g. twice daily during excavation and daily at any other time.
A maximum panel height of 2.0m is recommended; inspection by Engineering is recommended at the commencement of construction to confirm panel height.
It is recommended that a capping beam be incorporated into the design. A capping beam allows for the joining of the tops of the posts together thereby reducing the possibility of excessive movement of the top of a single post which could increase the potential for toe "kick out".

Where proposed or existing footings are located adjacent to proposed or existing feature/excavations (e.g. retaining walls, underground service trenches, etc.), the effect of the feature/excavation on proposed or existing footings must be carefully considered. Deepening of proposed footings/piers is expected to be required in such circumstances; existing footings may need to be underpinned (or similar).
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Budget & Time for Response: Within budget and time (not revealed details due to confidentiality reasons)

Contingency/Fallback Plans:

It is important that proper site management methods be observed for the existing soil conditions by both the builder at the time of the construction and the owner(s) throughout the life of the proposed development.
Particular reference to site management matters is set out in AS 2870-2011. It should be noted that where proper site management, particularly with respect to change in moisture conditions, is not followed, the foundation recommendations contained in this report could be considered void.
The following are some specific comments with respect to site management and the reader is also directed to CSIRO publication, “Foundation Maintenance and Footing Performance: A Homeowners Guide” (Building Technology File 18) for further information:-

- It is important that the site be well drained. The ground around the structures should slope away at 1 in 50 for 3 metres and then fall to the stormwater system to prevent ponding of water adjacent to the structures.
- Roof downpipes and garden taps should not be allowed to saturate founding soils.
- It is recommended that service trenches under the building be minimised, as disruption or breakage of these service lines could lead to saturation of the under slab material resulting in an increase to moisture condition.
- Footings should be placed with minimal delay after excavation. If footings cannot be poured on the same day as excavation, a blinding layer of 75mm thickness is recommended. Piers should be poured immediately.
- Do not let the slab subgrade "dry out" prior to casting.

Schedule Change Control System Development Checklist and Worksheet

Project Name:
Prepared by:
Date:
Determine those responsible for approving or rejecting proposed schedule changes: *Be sure to provide for appropriate review of all changes.*
Define categories of schedule changes qualifying for automatic approval without review:
Describe how schedule change control will be integrated with the integrated change control system:
Define steps by which schedule documents may be changed, including:
Paperwork
Tracking Systems
Dispute Resolution Procedures
Approval Levels Required

Schedule Change Request Template – TO PROJECT MANAGER

Project Name: WEST END PROJECT – PRACTICAL TASK 1 – OCCASION 1

Prepared by: NOREEN ABU-OBEID

Date: 4/1/2024

Person(s) Requesting Change: Engineer

Change Number: 0001KNI

Detailed Description of Schedule Change:

Excavation :

Subsurface conditions comprise fill, residual soils and weathered rock.
Considering the findings of the geotechnical investigation, the following comments can be made on excavation characteristics:-

- Soils - soils will be within the excavation limits of a medium sized backhoe.
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Pier and Panel system:

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Reason for Schedule Change Requested:

Due to soil survey and Geotechnical report findings

Effect on Project Cost:

☐ **Projected Cost *Overrun* of approximately:** 5 **%**		
☐ **Estimated Cost *Reduction* of approximately: %**		
Overall Effect on Schedule:		
☐ **Planned Project Completion Date:** still met within planned project completion date		
☐ **New Project Completion Date:**		
Additional Remarks:		
Approval	**Project Manager:** Noreen Abu-Obeid	**Date:** 4/1/2024
Approval	**(Other):**	**Date:**

Workaround Planning Worksheet

Project Name:
Prepared by:
Date:
Description of Emerging Risk Identified:
Person(s) Responsible:
Results from Risk Analysis (if applicable):
Description of Plan to Respond (avoidance, transference, mitigation, acceptance):
Description of Residual Risk Level:
Action Steps:
Budget & Time for Response:
Contingency/Fallback Plans:
Additional Notes: