

BA (Hons) Leadership and Management Skills in the Workplace

LCLM5003 Project Management

Part C: Project Management Plan

Central Transport Hub Redevelopment

Part B - Reflections from the feedback received from tutor and peers

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Introduction

During assessment week, I gave a part A poster on the redevelopment of the Central Transport Hub that was received with feedback from both my tutors and other students. In addition to the evidence-based conclusions of Al-Mhdawi et al. (2025), this reflection outlines the strengths and considers ways to improve the plan, as well as reasons for modifications to the final plan.

Key Strength

Responses consistently made use of the project management tools in one picture, such as QUAD chart, power-interest matrix, scope statement, and risk register, and all were used in a disciplined manner. My stakeholder mapping has been noted to align with the profile of programmes of critical infrastructure, as shown by Blak Bernat, Linhares Qualharini and Souto Castro (2023), which highlights that structured stakeholder engagement correlates with delivery outcomes. Peers applauded the alignment of purpose and expected outcomes, which aligns with Project Management Institute (2025) comments on avoiding conflict issues to get infrastructure projects completed.

Areas for Improvement

Most of the improvement feedback offered by the tutor related to the readability of Figure 1 and Figure 5 (both printed at a small size), which did not provide the reader with adequate access to data on the closures and the reasoning behind risk prioritization. Peers confirmed this observation and noted a related finding on the Gantt chart that the lack of contrast between task bars, milestone markers and dependency lines. Al-Mhdawi et al. (2025) state that conveying risk information via legible visual formats lies in the heart of risk analysis because decision makers use visual cues of severity to allocate risk mitigation resources. A secondary issue was the extent to which my narrative could include the tradeoffs between speed, cost and sustainability that Blak Bernat et al. (2023) connect with structured knowledge sharing at the planning phase.

Changes to the Final Project Management Plan

I took these points into consideration to make the targeted revisions in my final plan. It was noted that the tutor had concerns regarding the readability of the chart due to its resolution, and in response to these comments I increased the resolution of the severity chart, and the probability-impact matrix, as well as incorporating larger font sizes for the axis labels and direct values on the severity bands to enhance readability. The updated Gantt chart has unique

color blocks for each work package and well-defined milestone diamonds and dependency arrows so that the reader is led down the critical path easily. Stakeholder communication artefacts are used as planning tools in action, as in the Project Management Institute (2025) and I added annotations that link the decisions made in the timelines to the impact on the stakeholders. I have added quantified scoring for the likelihood and impact of the risk in the risk register, following the suggestion in the risk framework proposed by Al-Mhdawi et al. (2025) about risk depth.

Conclusion

The feedback loop between tutor and peers has made the final plan more precise with regard to visual communication, added depth and increased risk, and provided a basis for decisions to be made on a basis of verified evidence. As identified by Blak Bernat et al. (2023) such iteration is a fundamental mechanism of infrastructure project quality, and my amended plan is fundamental to ensuring that every work package of the redevelopment programme is done in such a way.

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1. Introduction

This Project Management Plan outlines the method of delivery for the Central Transport Hub Redevelopment in the wake of the emergency closure and tutor and peer feedback from the Part A poster. The plan is based on the six core principles in the Project Management Institute (2025) standard as well as the stakeholder engagement directions from Aaltonen et al. (2024). The redevelopment includes net-zero and step-free accessibility objectives, and re-establishes the abilities for rail, bus and freight interchange. The risk register is informed by the framework of risk shaping critical infrastructure programmes identified by Al-Mhdawi et al. (2025), which categorise the different types of risk into ten categories. The stakeholder section is based on the correlation between structured stakeholder engagement and delivery outcomes found by Blak Bernat, Linhares Qualharini and Souto Castro (2023). It reflects the ten sections requested and provides a connection between each element and why the hub is strategically important for commuters, operators and the wider metropolitan economy.

2. Project Description

The Central Transport Hub was constructed over 40 years ago and closed as part of the recent structural review and assessment, which was determined to not meet the requirements for safety and accessibility. A project can be defined as a temporary endeavor to accomplish a value, which applies to this redevelopment project as it not only adds to mobility, but also enhances long time social and environmental performance as outlined by PMI (2025). The redevelopment includes demolition and redesign and rebuild of the interchange, the addition of digital systems for passenger flow and 100% step-free access. The programme is designed to last for 36 months and has an envelope of costs consistent with the sector benchmark study from Boston Consulting Group (2024) Decarbonised urban transport assets. These benefits of rebuilding as opposed to repairing are seen in social, economic, and environmental returns, and in Dindar (2025), the transport regeneration yields better returns than if repair is done piecemeal. It adopts a hybrid predictive and iterative delivery model that works with the Project Management Institute (2025) delivery and measurement domains. Success measures consist of restoring capacity, step-free access, ridership recovery and carbon reduction evidenced across the operating footprint.

3. Scope

This includes demolition of the unsafe structure, complete redesign and reconstruction of the interchange, implementing step-free accessibility and testing and commissioning before the interchange reopens with new facilities. Boundaries do not include any general development of the wider rail network, developments on neighbouring commercial sites, procurement of rolling stock, longer term work on the hubs and other road schemes unrelated to the tunnel. According to prebanic and Vukomanovic (2023), there is always a correlation between clear scope boundaries and infrastructures that are delivered successfully and their framework guides the scope statement adopted. The structured decomposition of scope will reduce time to complete project and reduce scope creep as confirmed by Odedairo (2024), this therefore guides the exclusion list. Change control is managed using a formal change request process, supported by an impact assessment matrix and goes through sign-off by the local authority and central funders before it is incorporated into the baseline. According to Kroh and Schultz (2023), sceptical stakeholders are able to voice their concerns over scope in an urban infrastructure project and the plan allows for the scheduling of consultation windows at each phase gate to test scope decisions against the community's expectations.

4. Work Breakdown Structure

The Work Breakdown Structure breaks down the redevelopment into five level one work packages: Programme initiation and design, Demolition and site preparation, Structural rebuild and civil works, Digital systems and accessibility integration and Testing, commissioning and handover. Each package gives rise to level-two deliverables within the scope boundaries following a hierarchical decomposition that Odedairo (2024) found to be a key factor to improve the reliability of the schedule and cost control for a complex construction project. The Work Breakdown Structure appears as a tree in Figure 1 and the five packages, level-two deliverable and delivery leads appear in Table 1. The structure allows to cover the scope completely; avoiding overlapping packages. But Blak Bernat, Linhares Qualharini and Souto Castro (2023) show the connection between structured knowledge management and the performance of virtual teams and the WBS provides a shared context to the team for scope, sequencing and accountability. The decomposition also aligns with Al-Mhdawi et al. (2025) ten categories risk taxonomy, where each category of risk corresponds to a package, including construction, technical, safety and financial risks.

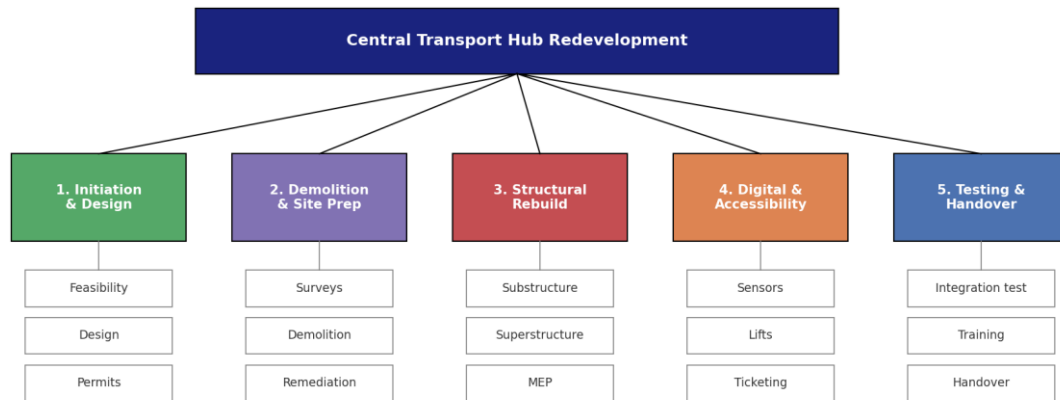


Figure 1: Work Breakdown Structure hierarchical tree

Table 1: Work Breakdown Structure deliverables and leads

Level-1 Work Package	Level-2 Deliverables	Delivery Lead
1. Programme initiation and design	Feasibility review; stakeholder mapping; concept design; detailed design; permits and consents; procurement strategy	Project Manager
2. Demolition and site preparation	Site surveys; utilities isolation; controlled demolition; waste segregation; ground remediation; site security setup	Site Engineer
3. Structural rebuild and civil works	Substructure works; superstructure rebuild; platforms and concourse; MEP first fix; envelope and cladding; internal finishes	Construction Manager
4. Digital systems and accessibility integration	Passenger-flow sensors; wayfinding and signage; step-free lifts and ramps; ticketing integration; assistive technology; cyber-security controls	Digital Systems Lead
5. Testing, commissioning and handover	System integration testing; safety commissioning; operator training; snagging and defects; formal handover to operator; post-opening review	Commissioning Manager

5. Quad Chart

A Quad Chart represents a summary of the project definition in 4 cells in the purpose, customer, desired end result and measure of success. The four-cell approach can be used to summarize the project brief into one single image and the Project Management Institute (2025) considers the summary artefacts as central to the value delivery orientation. Aaltonen et al. (2024)

recommend that artefacts that are directed towards the stakeholders should be seen as active planning tools, which is the case with the Quad Chart in Table 2 that is present during phase gate reviews. The chart also provides a way to communicate with the broader stakeholder community as one visual can convey the project purpose without the need for a technical brief.

Table 2: Quad Chart for the Central Transport Hub Redevelopment

PURPOSE (Aims / Objectives)	CUSTOMERS (Stakeholders)
Restore safe multimodal interchange; meet net-zero, digital and inclusive design targets within the thirty-six-month programme window.	Local authority; transport operators; commuters; freight and logistics firms; businesses; regulators; community groups.
DESIRED END RESULT (Critical Success Factors)	MEASURES OF SUCCESS (Criteria)
On-time, on-budget reopening with full accessibility, embedded digital systems and reduced lifecycle emissions.	Capacity restored to baseline; step-free access at every platform; ridership recovery within twelve months; carbon reduction targets met.

Timely and cost-effective reopening with full access and integrated digital systems and low lifecycle emissions. Capacity was restored to baseline and step-free access made at all platforms, while step-free access targets led to ridership recovery within 12 months and for carbon reduction targets.

6. Gantt Chart

The Gantt Chart is a breakdown of the Work Breakdown Structure into a thirty six month schedule in five sequential with overlap phases. Maravas and Pantouvakis (2025) show that the use of visualisation with moving Gantt bars and dependency arrows helps focus attention on the critical path and can facilitate reallocating resources in real-time. Figure 2 shows the phase level schedule for the CP that passes through phases 3 and 4.

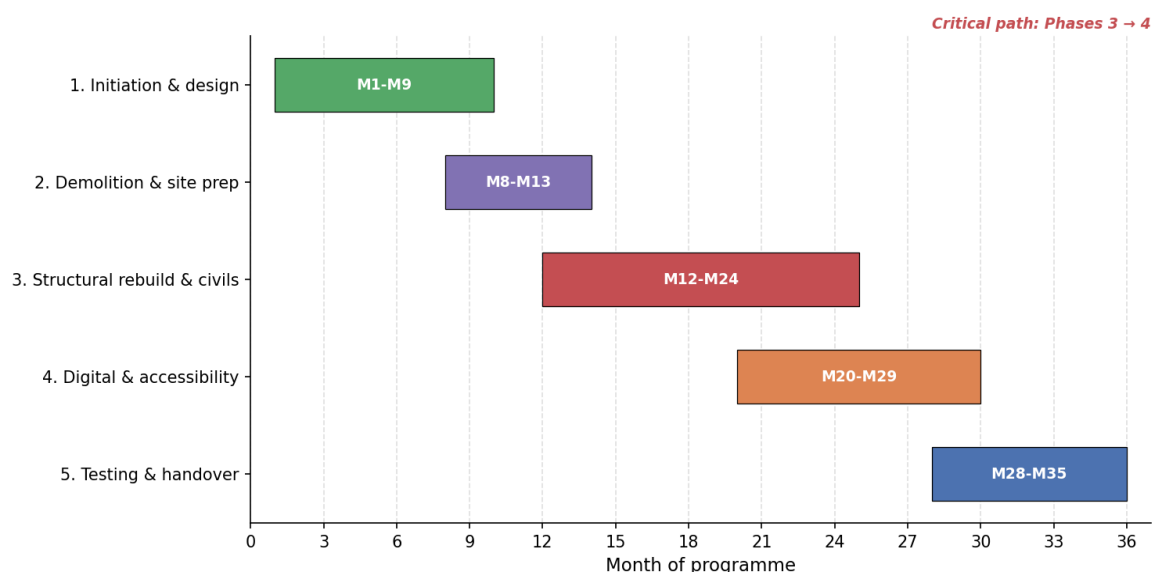


Figure 2: Gantt Chart for the Central Transport Hub Redevelopment

Any delay to the structural rebuild and digital systems integration packages will delay the reopening date as these are the critical path packages. According to Odedairo (2024), the Work Breakdown Structure orientation choice has material impact on the completion time, the Gantt schedule is similar with the above Work Breakdown Structure deliverable orientation, which is used to ensure protection of the critical path. There are milestones at the end of each phase and phase gate reviews check readiness to progress. Operational reviews take place weekly and programme reviews are conducted each month, allowing progress to be tracked and early action to be taken to facilitate recovery.

7. Stakeholders' Involvement

Stakeholder involvement is based on a power-interest analysis and proportionate engagement plan based on Aaltonen et al. (2024) theoretical direction of the field. The approach below is informed by the results from the Structural Equation Modelling presented by Blak Bernat, Linhares Qualharini and Souto Castro (2023) which shows the correlation between structured engagement and delivery outcomes. As illustrated in Figure 3, the stakeholders were plotted on the power-interest matrix and the engagement strategy outlined in Table 3.

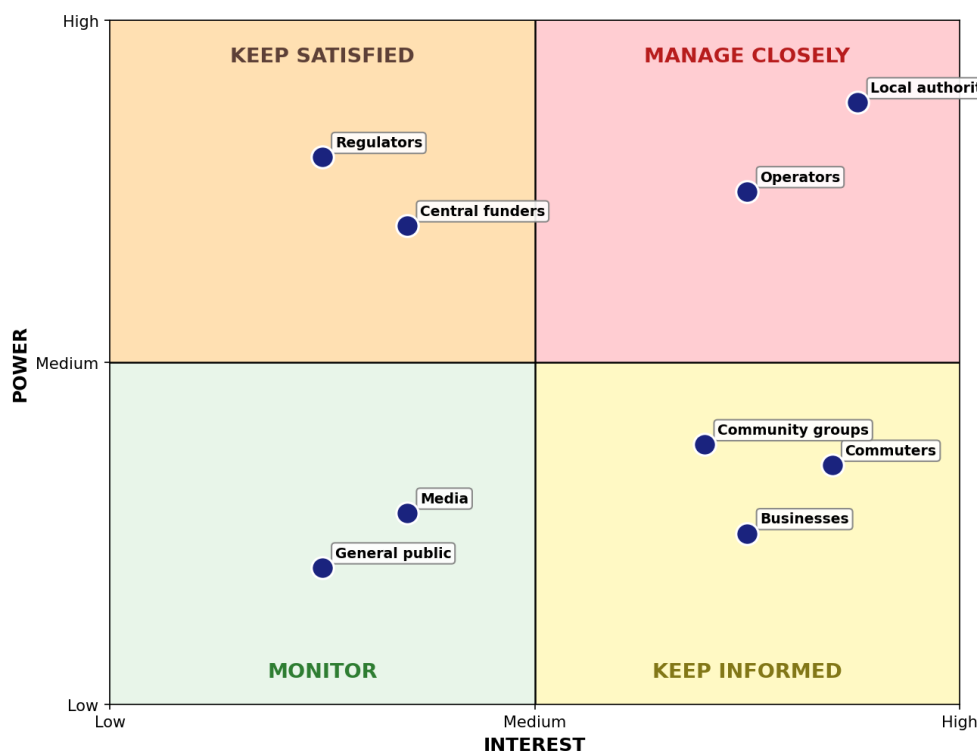


Figure 3: Power-Interest matrix of primary stakeholders

Table 3: Stakeholder Engagement Strategy by Power-Interest Quadrant

Quadrant	Stakeholder Group	Engagement Strategy
Manage Closely (High Power, High Interest)	Local authority planners; freight and passenger operators	Fortnightly working sessions; joint decision forums; shared risk and issues log; co-authored design changes
Keep Satisfied (High Power, Low Interest)	Regulators; central funders	Quarterly assurance reports; formal phase gate submissions; structured briefings on scope and cost variance
Keep Informed (Low Power, High Interest)	Commuters; business groups; community associations	Public-facing digital dashboard; targeted consultation events; social-media response protocol; monthly newsletter
Monitor (Low Power, Low Interest)	General public; media outlets	Website updates; press releases at key milestones; proactive engagement escalation if interest rises

Local authority planners and freight/passenger operators are in the ‘manage closely’ quadrant and have fortnightly engagement sessions during delivery. Regulators/regex and central funders fall in keep satisfied quadrant with quarterly assurance reports/phase gate. The keep-informed quadrant is for commuters, business groups and the wider community, and the plan operates a digital dashboard made public to the community, as well as targeted consultation events. The social media response categorisation by Chung et al. (2023) is used as a basis for the design of the dashboard and acts as a proof of the effectiveness of social media response strategies for community engagement. The plan considers critical voices to be design intelligence and not opposition, and as Kroh and Schultz (2023) demonstrate, critical voices can be productive factors in urban innovation for green transformation. The evidence from Lehtinen and Aaltonen (2024) showing the value adding effects of community-focused online engagement throughout the project's life cycle informs the community-facing programme.

8. Allocation of Resources

Resource allocation refers to the allocation of human, financial, material and technological resources throughout the thirty six month programme. Table 4 provides an overview of the resource envelope by WP and illustrates the cost and schedule integration principles of Odedairo (2024) and the resource guidance found in the Project Management Institute (2025) standard. The budget is distributed among work packages and contingency reserve (see figure 4).

Table 4: Resource Allocation Summary by Work Package

Work Package	Human Resource (FTE)	Budget Share	Key Material / Technology
1. Programme initiation and design	9 (PMO core)	8%	BIM software; design review platform
2. Demolition and site preparation	18	12%	Heavy plant; waste handling systems
3. Structural rebuild and civil works	62	48%	Steel; concrete; cladding; MEP components
4. Digital systems and accessibility	24	20%	Passenger-flow sensors; lifts; assistive tech
5. Testing, commissioning and handover	15	7%	Testing rigs; training materials; snagging tools
Contingency reserve	-	5%	Applied under change control procedure

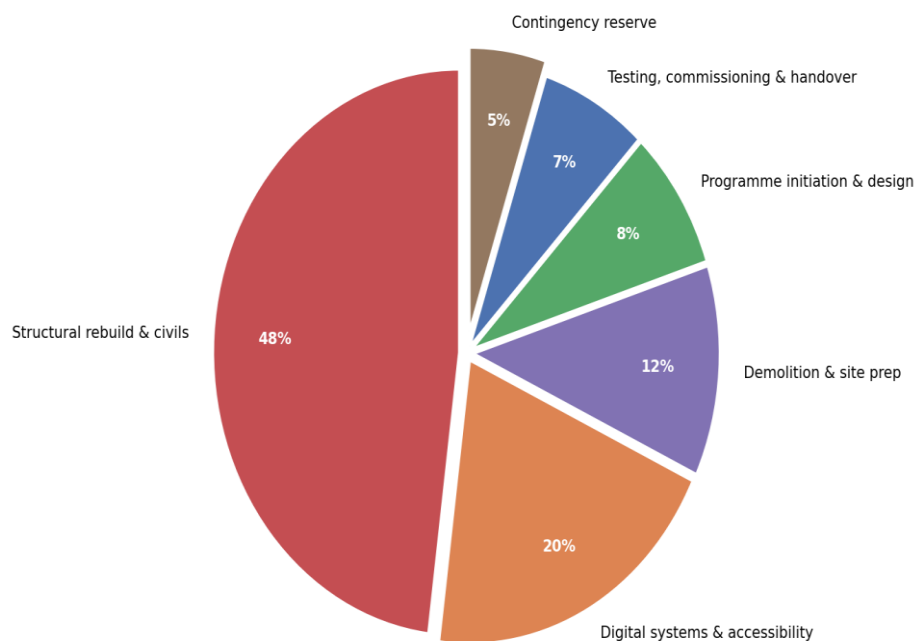


Figure 4: Budget allocation across the five work packages and contingency reserve

HR consists of nine full time staff with a core PMO plus a pool of 42 engineering and design specialists that exist during the design and rebuild stages, plus a rotation of contractors for civil and digital work. The financial resources are centralized under a phased drawdown aligned with the framework proposed by Al-Mhdawi et al. (2025) with a five percent contingency reserve to cover critical infrastructure programmes. Material resources consist of material, namely steel, concrete, digital hardware and finishing parts, purchased via framework

arrangements with rolling call off. Technological resources include Building Information Modelling, project management software and dynamic Gantt as suggested by Maravas and Pantouvakis (2025), and cloud collaboration platforms. A levelled histogram approach is used for resource smoothing over the levelled civil works period thereby avoiding an over allocation of the shared engineering pool.

9. Risk Analysis

The methodology adopted for risk analysis is based on the probability impact matrix approach, where the risks are scored based on the probability and consequences with a 1–5 matrix and then plotted on 10 categories taxonomy verified by Al-Mhdawi et al. (2025). Figure 5 maps the identified top risks to the heat map and Table 5 identifies the top risks with scores and the owner of mitigation.

Figure 5: Risk probability-impact heat map for the top seven risks

Table 5: Top Risks with Probability, Impact, and Mitigation Owner

Risk	Category	Prob.	Impact	Score	Owner
R1: Cost escalation on structural rebuild	Financial	4	5	20	Commercial Manager
R2: Schedule slippage on digital integration	Technical	4	4	16	Digital Systems Lead
R3: Regulatory delay on permits and consents	Legal	3	5	15	Project Manager
R4: Stakeholder opposition from community	Political	3	4	12	Communications Lead
R5: Supply chain disruption on materials	Market	4	3	12	Procurement Manager
R6: Health and safety incident on site	Safety	2	5	10	HSE Officer
R7: Cyber-attack on digital systems	Technical	2	4	8	Digital Systems Lead

The documents in the mitigation column are informed by the work of Jiang et al. (2025), who show that vulnerabilities-based risk strategies significantly mitigate impacts of adverse events in public-private infrastructure projects. The lack of risk management can have significant repercussions on the results of construction projects, as demonstrated by Karim, Cheema and

Mushtaq (2023); hence the need for a dedicated risk officer position inside the project management office. High scoring risks are cost escalation, schedule slippage, regulatory delay, stakeholder opposition and supply chain disruption each with a response plan identified. The plan includes risk review as a recurrent agenda item at each phase gate, demonstrating the client's commitment to having appropriate risk management in place as an evidence-based enabler to infrastructure project success, as demonstrated by Prebanic and Vukomanovic (2023). Structured knowledge management is correlated to continued risk visibility by virtual teams and the plan includes a common risk register shared with all delivery leads and accessible electronically.

10. Conclusion

The Central Transport Hub Redevelopment plan includes a disciplined approach to project management, a defined scope, a deliverable oriented Work Breakdown Structure, a Quad Chart, a Gantt chart with a critical path, a stakeholder engagement plan based on power-interest, a phased resource envelope and a risk register based on probability-impact. The plan is based on the six core principles of the Project Management Institute (PMI) (2025) and the empirical approach of modern research on stakeholders (Aaltonen et al., 2024) and on risks (Al-Mhdawi et al., 2025). Dindar (2025) reaffirms the strategic importance of transport regeneration for social, economic and environmental impacts at the city scale, and the above tools ensure schedule, budget and social value is safeguarded throughout a thirty-six-month delivery window of the hub.

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