

Project Management
Central Transport Hub Redevelopment
Project Portfolio: Parts A, B and C

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Contents

Part A - Project Poster

Part B - Critical Reflection on Feedback

Part C - Project Management Plan

1. Introduction
 2. Project Description
 3. Scope
 4. Work Breakdown Structure
 5. Quad Chart
 6. Gantt Chart
 7. Stakeholder's Involvement
 8. Allocation of Resources
 9. Risk Analysis
 10. Conclusion
- References

PROJECT MANAGEMENT – LCLM 5003
CENTRAL TRANSPORT HUB REDEVELOPMENT – POSTER PART A

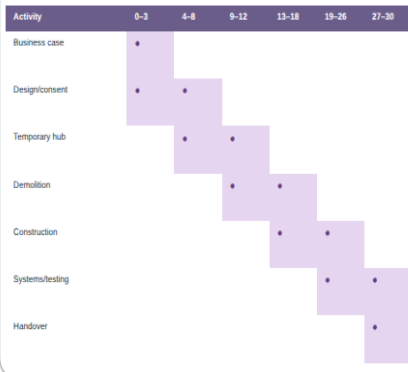
PROJECT PROPOSAL
Phased redevelopment + temporary hub

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INTRODUCTION

The city's 40-year-old transport hub closed after failing a structural inspection. Rail, bus and freight journeys are now disrupted. This project proposes a phased rebuild, supported by a temporary interchange, so essential services can continue while a safer and more inclusive hub is delivered.

GANTT CHART



RISK REGISTER

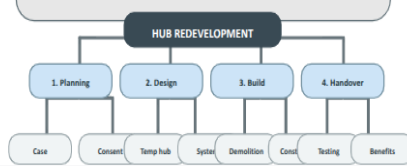
Risk	P	I	Response
Hidden defects	4	5	Early surveys + contingency
Cost inflation	4	4	Indexed contract + reserve
Service disruption	3	5	Phased works + shuttles
Planning delay	3	4	Early regulator reviews

PROJECT DESCRIPTION



The redevelopment includes structural demolition, a temporary bus-rail interchange, step-free platforms, real-time passenger systems, EV charging, cycle storage, low-carbon energy and resilient drainage. Delivery is controlled through stage gates, change control, safety assurance and regular stakeholder reporting.

WORK BREAKDOWN STRUCTURE



STAKEHOLDER ANALYSIS

Engagement protects service continuity and builds public trust.

Stakeholder	Main interest	Engagement
Council/funders	Value & compliance	Monthly board
Operators/users	Continuity & access	Fortnightly forum
Businesses/public	Disruption & information	Public updates

CONCLUSION

Phased redevelopment is recommended because it resolves the safety failure while keeping the city moving. The approach balances time, cost, sustainability and continuity, but does not compromise safety or legal accessibility. Success will be confirmed through on-time reopening, cost tolerance, passenger capacity, carbon reduction, customer satisfaction and benefits realised after handover.

GOAL

Deliver a safe, accessible and low-carbon multimodal hub within 30 months, while maintaining at least 80% of normal passenger capacity. The finished facility will improve rail-bus connections, digital information, cycle access and local freight coordination.

QUAD CHART TABLE

Power / Interest	Stakeholders	Management approach
High / High	Council and operators	Manage closely
High / Low	Funders and regulators	Keep satisfied
Low / High	Passengers and businesses	Keep informed
Low / Low	Wider suppliers	Monitor

RACI MATRIX

Deliverable	Sponsor	PM	Designer	Contractors	Operators
Business case	A	R	C	I	C
Design approval	A	R	R	C	C
Temporary hub	A	R	C	R	C
Main build	I	A	C	R	C
Testing	I	A	C	R	R
Handover	A	R	I	C	R

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Project visuals generated for this poster; figures are proposed performance targets.

Part B – Critical Reflection on Feedback

Presenting my poster gave me the chance to see whether my Central Transport Hub idea was clear to other people, rather than only making sense to me. The feedback showed that several parts worked well. The introduction explained why the old hub had closed and why a temporary interchange would be needed while the new hub was being built. My main goal was also clear because it included the thirty-month deadline, keeping services running, improving accessibility and creating a more sustainable transport hub. The WBS, Gantt chart, risk register and RACI matrix helped show how the idea could be turned into a real project plan instead of remaining only a proposal.

The main issue raised was that the project triangle was missing from the poster. I had included it in my PowerPoint, but it should also have appeared in the final poster because it explains the balance between time, cost, scope and quality. The Association for Project Management describes the triple constraint as the trade-off between time, cost and quality while still delivering the agreed scope (APM, 2026a). This is important for the hub because finishing quickly would not count as success if the project went over budget or produced an unsafe building. I therefore added a clear project triangle to the final plan. It shows the thirty-month timescale, the £180 million planning budget and the agreed customer requirements, with quality placed in the centre. This makes it easier to understand that changing one part could affect the others.

The second issue was the quad chart. On my poster, the section called 'Quad Chart' was a stakeholder power-interest table. The table itself was useful, but it had the wrong title and did not include the information expected in a proper quad chart. I corrected this by creating four sections: purpose, customers, desired end results and measures of success. The purpose explains the overall aim and objectives. Customers identify the people and organisations affected by the project, including passengers, residents, operators, funders and regulators. Desired end results describe what the completed project should provide. Measures of success explains how the results will be checked, including finishing by month thirty, maintaining at least 80% passenger capacity, staying within budget, meeting accessibility requirements and achieving good customer satisfaction.

This feedback helped me improve the content of the plan, not just its appearance. I kept the stakeholder table but moved it into the correct stakeholder section and added an engagement approach. I also linked the measures of success to the timetable, resources and risks so that progress can be checked during the project. The experience taught me that it is not enough to include project-management tools simply to make the work look detailed. Each tool must be correctly labelled, contain the right information and help with decisions. Overall, the feedback made my final plan clearer and more practical. It now shows a stronger connection between the project aims, the people affected, the main limits and the way success will be measured.

Part C – Project Management Plan

Planning basis: The hub is a realistic academic case rather than a commissioned scheme. The 30-month duration, £180 million control budget and performance targets are planning assumptions created to demonstrate the application of project-management tools. They require validation through the outline business case, surveys and stakeholder approval.

1. Introduction

The Central Transport Hub Redevelopment is proposed following the closure of a forty-year-old interchange after a failed structural inspection. The closure disrupts rail, bus and freight connections and creates an urgent need for a safe temporary solution followed by long-term renewal. This plan sets out how a phased redevelopment can be governed, scheduled, resourced and controlled while keeping essential journeys available. It applies a predictive stage-gate approach because safety approvals, procurement and construction require defined baselines, while stakeholder reviews and phased commissioning provide controlled opportunities to adapt. ISO 21502 states that delivery approaches should be selected to suit the project context rather than applied mechanically (ISO, 2020). Accordingly, formal control is combined with regular learning from users, operators and contractors.

The plan is addressed to the sponsoring local authority, transport operators, funders, regulators, delivery partners and community representatives. Its purpose is not merely to produce a building. The project must restore an integrated public service, improve accessibility and resilience, support low-carbon travel and realise benefits without exposing passengers or workers to unacceptable risk. Success is therefore assessed through the project triangle and wider outcomes, rather than completion alone (APM, 2026a).

2. Project Description

The preferred option is phased redevelopment supported by a temporary bus-rail interchange. The permanent solution includes structural demolition and reconstruction, step-free platforms, real-time passenger information, safe walking and cycling routes, cycle storage, electric-vehicle charging, low-carbon energy systems, improved drainage and coordinated freight access. A temporary hub is established before major demolition so that at least 80% of normal passenger capacity can be maintained. Delivery proceeds through business case approval, surveys, design and consent, enabling works, temporary operations, demolition, main construction, systems integration, testing, handover and benefits review.

Governance comprises a senior responsible owner (SRO), project board and project manager. The board approves stage gates, baseline changes and use of management reserve. The project manager integrates schedule, cost, quality, risk and stakeholder information and submits a monthly highlight report. Independent safety assurance is maintained because programme pressure must not weaken statutory compliance. The sponsor owns the business case and benefits, while operators accept the facility into service. This separation of sponsorship, delivery and assurance supports clear accountability (APM, 2025; ISO, 2020).

2.1 Objectives and success criteria

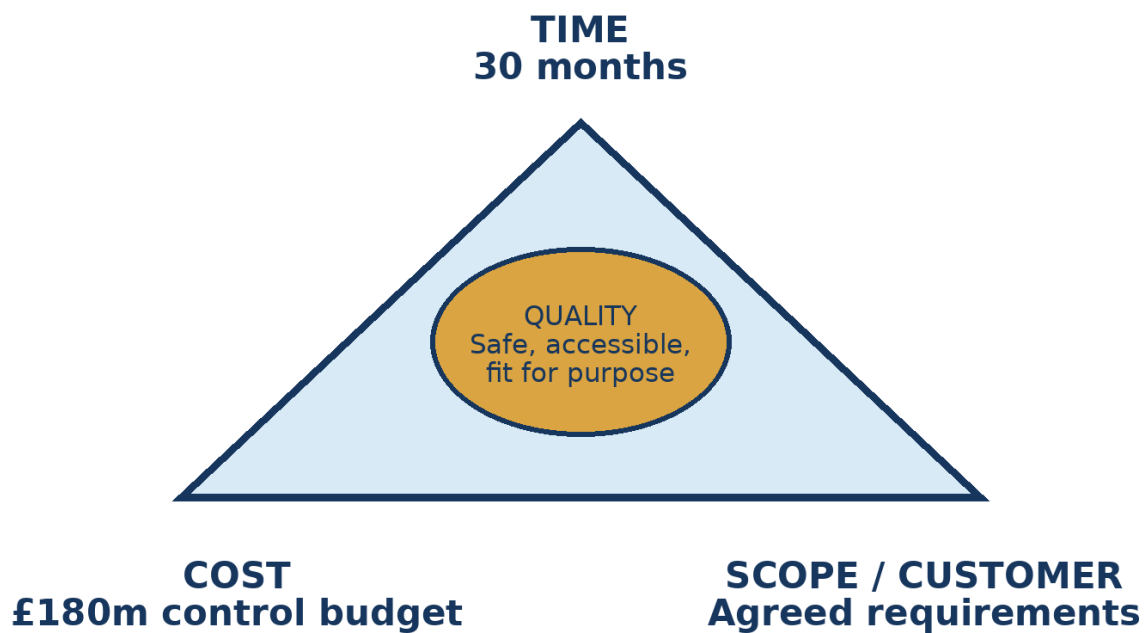
Objective	Target	Evidence/owner
Safe delivery	Zero fatalities; reportable incidents investigated and actions closed	Safety dashboard / Principal Contractor
Programme	Operational handover by the end of month 30	Accepted master schedule / Project Manager
Continuity	Maintain at least 80% of normal passenger capacity during works	Operator counts / Operations Lead
Cost	Forecast final cost within the approved £180m control budget	Monthly cost report / Commercial Lead
Quality and access	Meet approved design, statutory safety and Equality Act requirements	Inspection, testing and accessibility audit / Technical Lead
Customer outcome	At least 80% passenger satisfaction three months after opening	Independent survey / Benefits Owner
Sustainability	20% reduction in operational carbon against the approved baseline	Post-completion energy assessment / Sustainability Lead

3. Scope

Scope definition prevents uncertainty from becoming uncontrolled work. The approved product scope covers the temporary interchange; demolition and remediation; permanent rail, bus and freight interfaces; accessible passenger routes; platform and public-realm works; operational and digital systems; low-carbon energy, drainage, cycling and charging facilities; testing; staff training; handover information; and an initial benefits review. Project-management scope includes design coordination, consents, procurement, cost and schedule control, risk management, stakeholder engagement and assurance.

Excluded items are wider rail-network upgrades beyond the hub boundary, new rolling stock, unrelated highway regeneration, commercial development not required for hub operation and long-term maintenance after the defects period. These exclusions protect the baseline but do not remove interface responsibilities. Assumptions include timely land access, continued funding, workable temporary-routing arrangements and availability of utility and operator possessions. Constraints include the thirty-month target, live transport operations, planning and safety approvals, limited urban space and the £180 million control budget.

3.1 Project triangle and change control



Constraint	Approved position	Control response
Time	30-month delivery; temporary hub before demolition	Critical-path review, milestone trend analysis and recovery planning
Cost	£180m control budget including defined contingency	Monthly forecasting, commitment control and board approval for reserve
Scope/customer requirements	Safe multimodal hub, 80% continuity, accessibility and agreed facilities	Requirements traceability, user validation and formal change control
Quality (central condition)	Fitness for purpose, statutory compliance, safe and reliable operation	Design assurance, inspection/test plans, hold points and acceptance criteria

Quality sits at the centre because reducing scope, compressing time or lowering cost must not undermine safety or fitness for purpose. Any change request is logged, assessed for benefits and effects on all four dimensions, reviewed by the change control board and then approved, rejected or deferred. This follows the principle that changes to an approved baseline should be captured and evaluated before a decision (APM, 2026b). Emergency safety action may proceed immediately, but its baseline consequences are documented retrospectively.

4. Work Breakdown Structure (WBS)

The WBS decomposes the total scope into controllable deliverables. It is product-oriented so that each work package has an owner, acceptance criteria, cost code and schedule

activity. ISO 21511 recognises WBS as a basis for organising project and programme work (ISO, 2018). The dictionary beneath the hierarchy prevents duplicated responsibility and supports integrated reporting.

Level 1	Level 2 work packages	Key output
1. Governance and planning	1.1 Business case; 1.2 Governance; 1.3 Controls; 1.4 Assurance	Approved baselines and stage-gate decisions
2. Design and consent	2.1 Surveys; 2.2 Concept; 2.3 Detailed design; 2.4 Planning/technical approvals	Coordinated, approved design
3. Temporary operations	3.1 Temporary hub; 3.2 Routes; 3.3 Communications; 3.4 Operational readiness	Safe service continuity
4. Main works	4.1 Enabling works; 4.2 Demolition; 4.3 Structures; 4.4 Platforms/public realm; 4.5 MEP	Completed physical assets
5. Systems and integration	5.1 Passenger systems; 5.2 Security; 5.3 Operator interfaces; 5.4 Integration	Operational integrated systems
6. Commissioning and benefits	6.1 Test/commission; 6.2 Training; 6.3 Handover; 6.4 Benefits review	Accepted hub and measured benefits

Work-package manager's report actual cost, forecast, progress, risks and quality status every four weeks. Completion is claimed only when evidence satisfies the agreed definition of done. This avoids misleading percentage-complete reporting and links schedule progress to tangible acceptance.

5. Quad Chart

The revised quad chart directly responds to presentation feedback. It gives the board a one-page line of sight from purpose and customers to desired outcomes and measurable success.

Purpose: aim and objectives	Customers: stakeholders
Redevelop the failed hub safely within 30 months; maintain ≥80% passenger capacity; deliver integrated, accessible and lower-carbon transport; remain within the approved budget.	Passengers (including disabled users); residents and businesses; rail, bus and freight operators; local authority and funders; regulators; emergency services; contractors and workforce.
Desired end results (goals)	Measures of success
A safe temporary interchange; a modern permanent hub; step-free access; reliable passenger information; improved walking/cycling links; resilient drainage; coordinated freight access; trained operators and complete handover information.	Handover by month 30; forecast within £180m; ≥80% capacity during works; statutory approvals achieved; zero fatalities; ≥80% passenger satisfaction; 20% operational-carbon reduction; benefit review completed.

6. Gantt Chart

The baseline schedule contains overlapping design, consent and enabling activities but preserves logical dependencies. The temporary hub is operational before demolition.

Systems testing follows installation, and handover follows integrated assurance. A detailed critical-path schedule would sit below this summary and be updated monthly.

Activity	1-3	4-8	9-12	13-18	19-26	27-30
Business case/governance	●					
Surveys, design and consent	●	●	●			
Temporary hub and diversions		●	●			
Demolition/enabling works			●	●		
Main construction				●	●	
Systems/integration					●	●
Testing, training, handover						●
Benefits monitoring	Start					Baseline

The project manager chairs a four-week schedule review using milestone trend, critical-path and three-month look-ahead information. Delays are first managed within work packages; threats to key milestones require a recovery plan. Schedule compression is accepted only after evaluating additional cost, safety, quality and disruption. This prevents the time target from dominating the other project constraints.

7. Stakeholders' Involvement

Stakeholder involvement is planned according to influence, impact and information needs. Freeman (1984) argues that organisational decisions should recognise groups that can affect or are affected by objectives, while Mitchell, Agle and Wood (1997) show that stakeholder priority changes according to power, legitimacy and urgency. These ideas are relevant because passengers may have limited formal power yet experience the greatest disruption. Engagement therefore goes beyond the board and includes accessible, two-way participation.

Stakeholder	Interest/influence	Involvement and frequency
SRO, council and funders	High/high	Monthly board; stage-gate and change decisions

Operators	High/high	Weekly design/operations forum; readiness sign-off
Regulators and emergency services	High/high	Planned assurance reviews and consent submissions
Passengers and accessibility groups	High/medium	Co-design workshops, prototype trials and monthly updates
Residents and local businesses	High/medium	Monthly forum, disruption notices and complaints response
Contractors and workforce	High/high	Daily coordination, toolbox talks and four-week reporting
Wider public and suppliers	Medium/low	Website dashboard and targeted procurement communication

A stakeholder register records needs, commitments, sentiment and actions. Information is provided in accessible formats and major route changes are communicated before implementation. Complaints and survey data are reviewed as early warning indicators. The project manager owns the engagement plan, but named relationship owners remain accountable for closing commitments.

8. Allocation of Resources

Resource allocation follows the WBS and schedule rather than distributing people evenly. Early phases require survey, design, commercial and consent capability; construction increases site, safety and supervision resources; commissioning shifts capacity towards systems, testing, training and operator readiness. The project manager uses a responsibility matrix, resource histogram and rolling forecast to identify gaps. Specialist competence is verified before appointment, particularly for structural safety, accessibility, rail systems and temporary traffic management.

Resource	Indicative allocation	Control/owner
People	SRO and board; project controls; design team; commercial/legal; stakeholder team; contractor; safety and assurance; commissioning team	Competence matrix and monthly resource forecast / Project Manager
Budget	£180m planning control total: development £15m; temporary hub £12m; main works £115m;	Cost codes, commitments and

	systems £18m; contingency/reserve £20m	estimate-at-completion / Commercial Lead
Facilities/equipment	Temporary interchange, site compounds, cranes/plant, testing equipment, digital common-data environment	Logistics plan, inspection and access control / Construction Lead
Time/access	Operator possessions, road closures, working windows and approval periods	Integrated schedule and possession plan / Planning Lead

The £20 million contingency and reserve are not treated as spare budget. Quantified risk allowance is assigned to identified uncertainty, while management reserve requires board approval. Government guidance warns that project appraisers often underestimate cost and duration, so forecasts should use evidence from comparable schemes and explicit optimism-bias adjustment where robust data are unavailable (HM Treasury, 2013; HM Treasury, 2026). Value engineering is permitted where whole-life value improves, but not where it reduces legal compliance, accessibility or safety.

9. Risk Analysis

Risk management is continuous and connected to decisions. Risks are scored for probability (P) and impact (I) from 1 to 5; the initial score is $P \times I$. Scores of 15–25 is red, 8–12 amber and 1–6 green. Each risk has an owner, response, trigger and residual score. The register is reviewed monthly and before every stage gate. Quantitative schedule and cost analysis is recommended at business-case and pre-construction stages because simple scores cannot show combined uncertainty.

Risk	P×I	Response and owner	Residual
Further hidden structural defects	4×5=20	Early intrusive surveys; design contingency; emergency exclusion plan / Technical Lead	3×5=15
Cost inflation and supply volatility	4×4=16	Early market engagement; indexed contracts; alternative suppliers; contingency / Commercial Lead	3×4=12

Service disruption above 20%	3×5=15	Temporary capacity modelling; phased possessions; shuttle plan / Operations Lead	2×5=10
Consent or design delay	3×4=12	Pre-application engagement; approvals tracker; design freeze gates / Design Lead	2×4=8
Major safety incident	2×5=10	Construction phase plan; permits; independent assurance; stop-work authority / H&S Lead	1×5=5
Stakeholder opposition	3×3=9	Co-design, transparent options, complaints and commitment log / Engagement Lead	2×3=6
Systems integration failure	3×4=12	Interface register; factory/site testing; staged commissioning / Systems Lead	2×4=8
Flooding/extreme weather	3×4=12	Resilient drainage, weather allowance and emergency plan / Sustainability Lead	2×4=8

The highest residual concern is undiscovered structural condition because investigation may remain constrained while the asset is unsafe. The response therefore combines reduction through surveys with contingency and escalation. Risk appetite is zero for avoidable safety and legal non-compliance, low for operational disruption, and moderate for controlled innovation that supports carbon reduction. Issues that have already occurred are moved to an issue log with actions and due dates. Opportunities, such as combining utility works or obtaining grant funding for low-carbon systems, are also assessed so risk management supports value rather than only loss prevention.

10. Conclusion

The proposed phased redevelopment is deliverable if service continuity, safety and stakeholder needs remain integrated with cost and schedule control. The plan translates the poster concept into a governed thirty-month programme with defined scope, WBS, schedule, responsibilities, resources, engagement and risk responses. Feedback materially improved the plan: the project triangle now makes trade-offs explicit, and the corrected quad chart links purpose and customers to outcomes and measures. The next decision is approval to develop the outline business case and validate the planning assumptions through surveys, option appraisal, market engagement and consultation.

Approval should be conditional on an operational temporary-hub plan, independent safety assurance, an affordable risk-adjusted cost estimate and traceable acceptance criteria. These controls provide a stronger basis for delivering a hub that is not only on time and within budget, but safe, accessible, sustainable and valued by its users.

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