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Project Management

Assessment 1

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Introduction

The new headquarters of Google at King's Cross, London, is poised to become a significant landmark, as it represents the company's first fully owned and custom-designed structure situated outside of the United States. This ambitious undertaking, developed in collaboration with Heatherwick Studio and Bjarke Ingels Group (BIG), spans across a vast expanse of 1 million square feet, with Google occupying 650,000 square feet of the space. The project features a state-of-the-art 300-meter rooftop garden, expertly crafted by Gillespies. This garden boasts a variety of features, including spacious lawns, a charming meadow, majestic trees, and even a dedicated running track. This garden showcases Google's commitment to employee well-being and sustainable design.



[Picture 1](#)

The headquarters will be part of a larger campus, including the existing building at 6 Pancras Square and a planned third tower. This will create a cohesive work environment that can comfortably house a maximum of 7,000 individuals. The development aligns with Google's overall goals of fostering creativity, collaboration, and a positive work-life balance through the provision of amenities like cafes, gyms, a multi-use games area, and rooftop terraces (Parsons, 2022).

The success of the project hinges on the seamless collaboration of various stakeholders, including municipal authorities, contractors, and the King's Cross neighbourhood. As this massive undertaking unfolds, it not only solidifies Google's presence in London but also elevates the area's growing reputation as a hub for innovative and knowledge-driven businesses. The headquarters will exemplify how a leading technology company can seamlessly integrate into and enhance an urban environment, setting new standards for corporate design in the UK (Harris, 2022).

Project Initiation

The main objective of the project is to provide a state-of-the-art headquarters that not only meets Google's operational needs, but also achieves key sustainability certifications, including LEED Platinum (Leadership in Energy and Environmental Design), BREEAM Outstanding (Building Research Establishment Environmental Assessment Method) and WELL Platinum (WELL Building Standard), made possible through the use of BIM Building Information Modelling by Atelier Ten - Building Services Design, Energy Analysis and Environmental Design (Tooher-Rudd, 2023).

The project scope includes land acquisition, site preparation, structural construction, building enclosure, interior fit-out, and the development of outdoor spaces such as gardens and rooftop terraces. It also encompasses the integration of IT systems, building management systems, and renewable energy installations.

Key deliverables include a completed and fully functional office building, with specialized areas like cafes, gyms, and event spaces, as well as landscaped outdoor amenities. The project is scheduled to follow a phased timeline, starting with site preparation and construction, and concluding with final inspections and handover within the specified timeframe.

The budget is allocated across key areas, with £500 million dedicated to construction, £120 million to technology and infrastructure, and £80 million for interior fit-out. A contingency fund of £80 million is set aside to manage unforeseen risks, such as construction delays or budget overruns. Continuous monitoring, risk management, and stakeholder engagement will be crucial to the project's success, ensuring it is delivered on time, within budget, and to the highest standards of quality and sustainability (Prynn, 2022).

Project Initiation Document (PID)



Picture 2:

Project Overview

- Project Name: Google Headquarters (KGX1)
- Address: 6 King's Boulevard, London N1C 4BU
- Completion Date: 2024 (originally planned), delayed to 2025
- Building Size: 650,000 sq ft, 11 storeys
- Purpose: A state-of-the-art office space for 4,500 employees, including a gym, pool, multi-use games area, events center, and landscaped roof terraces.

Project Objectives

- Primary Objective: To complete the construction of Google's new London headquarters, providing a high-quality, sustainable work environment that meets Google's operational needs.
- Secondary Objectives: To integrate sustainability through the use of healthy materials and to create a multifunctional space that serves both Google employees and the local community.

Scope

- In-Scope: Construction of the 11-storey building, interior fit-out, IT infrastructure, development of outdoor terraces, and the events center.
- Out-of-Scope: Future expansions or modifications post-2025, and ongoing maintenance.

Key Deliverables

- Completion of the building structure and interiors.
- Integration of sustainable materials and energy-efficient systems.
- Creation of multifunctional spaces, including an events center and recreational areas.

Timeline

- 2018-2020: Structural construction and framework.
- 2021-2023: Building enclosure and interior fit-out.
- 2024-2025: Final systems installation, inspections, and handover.

Budget: £1 billion

Stakeholders:

- Primary: Google, local authorities (Camden), construction contractors.
- Secondary: Local community, retail tenants.

Risk Management:

- Key Risks: Delays due to design revisions, supply chain issues, and regulatory compliance.

- Mitigation: Regular project reviews, contingency planning, and stakeholder engagement.

Budget Assumptions and Cost Breakdown Structure

Given the magnitude of the Google Headquarters project at King's Cross, London, the risk of cost overruns is a key concern. These overruns could result from unforeseen construction challenges, fluctuations in material prices, changes in design specifications, or delays in the project timeline. Effective budget management, along with contingency planning, will be crucial to ensuring the project remains within its financial limits (Shah et al., 2023).

Estimated Cost: £1 billion

1. Design and Consultancy Fees (£60 million, 6%)

Architectural Design (£30 million, 3%): Fees for designing both the exterior and interior of the building.

Engineering Consultancy (£10 million, 1%): Consulting on structural, mechanical, electrical, and plumbing systems.

Project Management (£15 million, 1.5%): Overseeing the project timeline, budget, and resources.

Sustainability Consultancy (£5 million, 0.5%): Ensuring the project meets environmental and sustainability standards.

2. Real Estate Costs (£250 million, 25%)

Land Acquisition (£200 million, 20%): Purchasing prime land in King's Cross, a high-value area in London.

Legal Fees and Permits (£30 million, 3%): Securing all necessary legal permissions and regulatory approvals.

Site Preparation and Groundwork (£20 million, 2%): Preparing the land for construction, including clearing and foundation work.

3. Construction Costs (£500 million, 50%)

Structural Construction (£300 million, 30%): Building the main structure, including foundations, framework, and roofing.

Building Enclosure (£120 million, 12%): Completing the building's exterior with facade, cladding, windows, and glazing.

Interior Construction (£80 million, 8%): Constructing internal features such as partition walls, flooring, and ceilings.

4. Technology and Infrastructure (£120 million, 12%)

IT Infrastructure (£60 million, 6%): Installing essential IT systems, including network cabling, data centers, and server rooms.

Building Management Systems (£40 million, 4%): Implementing systems like HVAC and security for efficient building operation.

Sustainable Energy Solutions (£20 million, 2%): Investing in renewable energy technologies such as solar panels and energy storage.

5. Interior Fit-Out and Design (£80 million, 8%)

Office Furniture (£30 million, 3%): Furnishing the office with high-quality, ergonomic furniture.

Fixtures and Fittings (£30 million, 3%): Installing essential fixtures like lighting, bathrooms, and kitchens.

Specialty Spaces (£20 million, 2%): Creating specialized areas, including cafes, gyms, and event spaces.

6. Landscaping and Exterior Work (£40 million, 4%)

Landscaping (£20 million, 2%): Developing gardens, green spaces, and rooftop terraces for outdoor amenities.

Exterior Amenities (£20 million, 2%): Adding features like running tracks and outdoor seating areas to enhance the exterior.

7. Contingency Fund (£80 million, 8%)

General Contingency (£50 million, 5%): Reserved for unexpected expenses or cost overruns during the project.

Specific Risk Allowance (£30 million, 3%): Addressing risks such as currency fluctuations and supply chain disruptions.

8. Miscellaneous Costs (£50 million, 5%)

Insurance (£20 million, 2%): Covering potential risks, accidents, and liabilities.

Legal Dispute Reserves (£20 million, 2%): Setting aside funds for any potential legal challenges or disputes.

Marketing and Launch Costs (£10 million, 1%): Allocated for promotional activities and the official launch of the headquarters.

Project Timeline

2018: Project Initiation and Early Construction

Q1-Q2 2018: Project initiation, securing permits, and starting site preparation.

Q3-Q4 2018: Beginning groundwork and laying the foundation.

2019-2020: Structural Construction

2019: Construction of the structural framework, including the steel/concrete skeleton.

2020: Continued development of the building's core structure, including roofing and basic infrastructure.

2021: Building Enclosure

2021: Installation of exterior cladding, facade, and windows. The building begins to take shape externally.

2022-2023: Interior Construction and Fit-Out

2022: Interior construction, including partition walls, flooring, and ceilings. Initial installation of IT infrastructure and HVAC systems.

2023: Detailed interior fit-out, including office furniture, fixtures, and specialty spaces like cafes and event areas.

2024: Planned Completion Year (Delayed)

Q1-Q2 2024: Originally planned for final inspections, testing, and landscaping.

Q3-Q4 2024: Expected handover to Google for final preparations and staff move-in.

2025: Revised Completion

Q1-Q2 2025: Due to delays related to design revisions, supply chain disruptions, and regulatory adjustments, the project timeline extended into 2025. Final work includes landscaping, outdoor amenities, and final system checks.

Q3 2025: Project handover and official inauguration of the Google Headquarters.

The delay in completion from 2024 to 2025 is primarily due to several key factors:

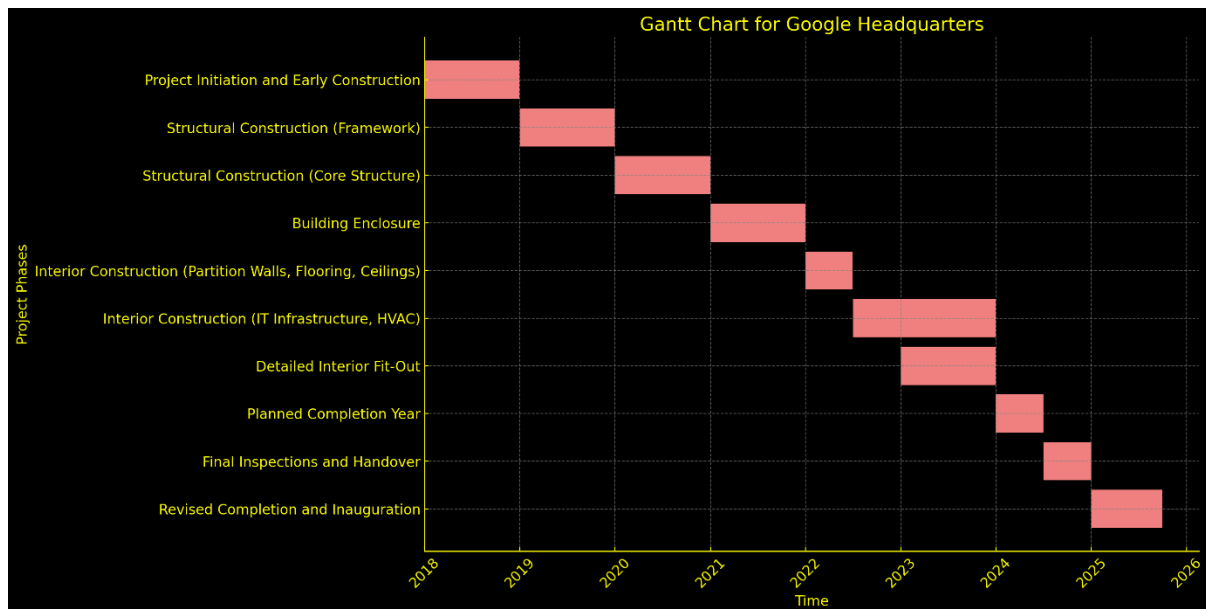
Design Revisions: Google revised the project's design to better align with long-term goals, including incorporating more sustainable features and making the headquarters a community hub (KCS, 2013).

Supply Chain Issues: Global supply chain disruptions affected material availability, slowing down construction progress.

Regulatory Compliance: Adjustments required to meet updated planning permissions and regulatory standards in London also contributed to the delay.

Union Protest: Protests at Google's King's Cross HQ over layoffs and union busting highlight tensions between employees and management, particularly regarding redundancy processes and union involvement (Unite the Union, 2023).

Gantt Chart for Google Headquarters (KGX1)



Stakeholders

Internal Stakeholders include Google UK Management, responsible for ensuring that the project aligns with Google's long-term strategic goals. This team oversees key decisions regarding budget, timelines, and project scope, ensuring the headquarters meets both current and future needs. The EMEA Real Estate Team is tasked with managing the acquisition and development of the property, ensuring that the new headquarters aligns with Google's operational requirements and standards. The Internal Project Management Team coordinates the project's execution, acting as a bridge between Google's leadership and external partners, managing timelines, budgets, and overall project quality (Booth, 2022).

External Stakeholders are equally critical. The architectural design, spearheaded by Heatherwick Studio and Bjarke Ingels Group (BIG), focuses on creating a sustainable and innovative building that reflects Google's values. BDP (Building Design Partnership), serving as the lead consultant and design delivery architect, ensures that the design is meticulously implemented, handling architectural details, interior design, and lighting. The construction process is led by Lendlease, the main contractor responsible for the on-the-ground

construction activities, ensuring the building is completed on time and within budget constraints (Mairs, 2016).

Local stakeholders, such as Camden Council, play a pivotal role in the project by providing planning permissions and ensuring compliance with local regulations. Their involvement is crucial for the project's legal and regulatory alignment. Additionally, the local community and businesses around King's Cross are considered significant stakeholders, as the project impacts them directly. Google has made efforts to involve the community by designing spaces that are not only functional for its employees but also beneficial to the broader public, including retail spaces and public amenities.

Stakeholders were identified and prioritized using tools like a Power-Interest grid, which helped categorize them based on their influence and interest in the project. High-power, high-interest stakeholders, such as Google's management and Camden Council, were closely managed through regular communication, meetings, and public consultations. This strategic stakeholder management approach has been essential in addressing potential issues proactively, ensuring that the project remains aligned with its objectives and progresses smoothly towards completion (Cordell & Thompson, 2018).

Power-Interest Grid for Stakeholders

In managing the project, this matrix is an effective tool to identify and prioritize stakeholders. This stakeholder management approach, ensures that the project team allocates resources effectively, focusing on those stakeholders who can most significantly influence the project's success. This method is essential in managing the complexities of a large-scale project like the Google Headquarters in a high-profile location such as King's Cross (Cordell & Thompson, 2018).

1. High Power, High Interest: Manage Closely

These stakeholders have significant influence over the project and are highly invested in its success. They must be fully engaged and kept informed at all stages.

- **Google UK Management:** They are critical decision-makers, responsible for ensuring the project aligns with Google's strategic goals and meets the company's operational needs.
- **Camden Council:** As the local regulatory body, they have the authority to approve or deny planning permissions and ensure compliance with local regulations.

- Lendlease (Main Contractor): Responsible for the construction, their performance directly affects the project's timeline and quality.

2. High Power, Low Interest: Keep Satisfied

These stakeholders have the power to influence the project but may not be deeply interested in the day-to-day details. They should be kept satisfied through regular updates but not overwhelmed with unnecessary details.

- Google EMEA Real Estate Team: While highly influential, their focus is broader than just this project, so they are kept informed of major milestones rather than daily operations.
- Local Government Authorities: Beyond Camden Council, other governmental bodies may have regulatory influence but are not involved in the day-to-day management.

3. Low Power, High Interest: Keep Informed

These stakeholders are very interested in the project but have less influence over its outcome. They should be kept informed and their concerns addressed to ensure ongoing support.

- Local Community and Businesses: The local community is directly impacted by the project and is highly interested in how it will affect the area. Engagement through public consultations and community benefits is essential.
- Future Building Occupants (Google Employees): While they do not have decision-making power, their work environment depends on the project's outcome, so their needs and feedback are considered during design and construction.

4. Low Power, Low Interest: Monitor

These stakeholders have limited power and interest in the project. They should be monitored for any changes in status but do not require intensive management.

- Wider Public and Non-Directly Affected Businesses: These groups have minimal involvement and are monitored for any emerging concerns that could affect the project's public perception.

Project Organisation Structure

The management of the Google Headquarters project at King's Cross follows a well-defined organisational structure, with the Project Board leading the way. This board consists of senior representatives from Google UK Management, the EMEA Real Estate Team, lead

architects from Heatherwick Studio and Bjarke Ingels Group, the main contractor Lendlease, and a representative from Camden Council.

Google UK Management plays a crucial role in providing strategic direction and making important budget and timeline decisions. The EMEA Real Estate Team efficiently manages all real estate aspects, from site acquisition to coordinating with local authorities. The Lead Architects ensure that the building's design meets the high standards set by Google in terms of aesthetics, functionality, and sustainability. As the main contractor, Lendlease oversees construction, making sure it stays on schedule and within budget. Camden Council prioritises adherence to local regulations.

Maintaining project control involves regular progress reporting, risk management reviews, quality control inspections, and engaging with stakeholders. The Project Board convenes on a regular basis to assess progress reports, which provide updates on budget, timelines, and potential risks. Ensuring work meets the required standards through quality control inspections, and addressing potential issues before they impact the project through risk management reviews. Effective stakeholder engagement is essential for addressing community concerns and ensuring compliance with regulations.

These mechanisms guarantee that the project is in line with Google's strategic objectives, is completed within the designated timeframe, and meets the expected high standards.

Conclusion

Finally, the Google Headquarters project at King's Cross, London, entails a substantial investment in both infrastructure and the community, necessitating a meticulous and well-thought-out approach to assure its successful completion. The key aspect of this undertaking is efficient project management, which entails the synchronisation of many contractors, suppliers, and stakeholders. Given the intricate nature of the project and the limited time available, it is crucial to uphold a well-defined and unchanging project timeline. This entails overseeing the prompt delivery of supplies, navigating disruptions in the global supply chain, and ensuring effective cooperation with local authorities, such as Camden Council, to obtain necessary approvals and comply with local rules.

Ensuring high quality is also a crucial factor, considering the project's significance as Google's main headquarters in Europe. The building must not only adhere to Google's rigorous criteria for sustainability and innovation, but also embody its corporate identity.

Implementing rigorous quality control methods is necessary throughout the building and fit-out processes. This includes conducting thorough inspections, testing materials, and continuously monitoring construction practices. An indispensable quality assurance staff is necessary to supervise these endeavours, guaranteeing that any problems are swiftly recognised and resolved.

Stakeholder engagement is equally crucial. Regular and ongoing communication with stakeholders, including the local community and authorities, is essential in order to promptly resolve issues and prevent possible delays. This entails frequent gatherings and open communication, which can foster backing for the idea and alleviate resistance. Effectively managing stakeholder expectations is essential for maintaining the project's momentum and ensuring its success.

Ultimately, a strong risk management system is crucial in order to protect against exceeding the budget and experiencing delays in the timeline. The project necessitates the implementation of a thorough risk management strategy, which encompasses provisions for typical construction obstacles such as disruptions in the supply chain, shortages in labour, and unexpected site circumstances. Consistently conducting risk assessments and making necessary modifications to the risk management approach will effectively maintain the project's progress, guaranteeing the achievement of its objectives while adhering to the budget and timeline.

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