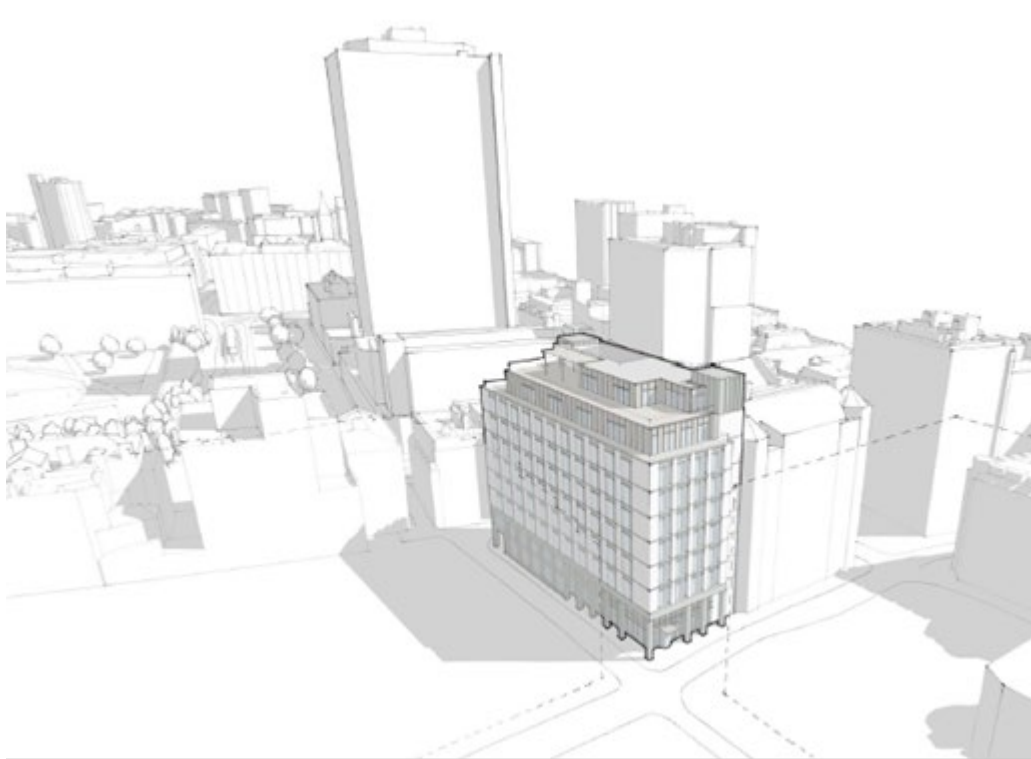


Facade Quality Control Plan

35 Fountain Street

Manchester



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Summary

This Quality Control Management Plan document has been developed to set out the quality control procedures for the design, manufacture and installation of the facade for the project.

Design Concept + Materiality

Total Reclaim has been selected by the Client to demolish the existing building envelope and internal finishes to bring the building back to the existing steel frame structure. The scope of works includes a new brickwork facade with a precast concrete band at each floor level and new punched windows, a new 2 storey roof extension constructed by glulam beams and CLT paneling to walls and floors.

The site is identified as a key site situated on Fountain Street. The proposed scheme will provide a modern visual landmark for the area and enhance Manchester's richly built environment.

The proposals for the development of 35 Fountain Street aim to provide simple, high-quality materials that are durable and maintainable, which respond to the surrounding context.

The building facade is being constructed using a white brick with a precast concrete band to each floor level. Between the brick piers a glazing system is utilised to form a recess to create a deeper brick reveal dressed with an aluminum folded sill. Perforated panels have been selected to assist with the ventilation strategy of the building. The perforated panels will be integrated within the proposed glazing system.

Roles and Responsibilities

As part of the construction process the design and construction team all have important roles and responsibilities in managing the quality of the façade materials.

Gibert-Ash being the main contractor have full responsibility for the delivery of the 35 Fountain Street project. Working with the design team we have appointed the relevant sub-contractors to deliver a high-quality building and facade.

Bennetts Architects are the delivery architects for the project and are responsible for checking and coordinating other design consultants and subcontractors' information. For the façade packages Bennetts will be ensuring the materials and detailing achieve the design intent.

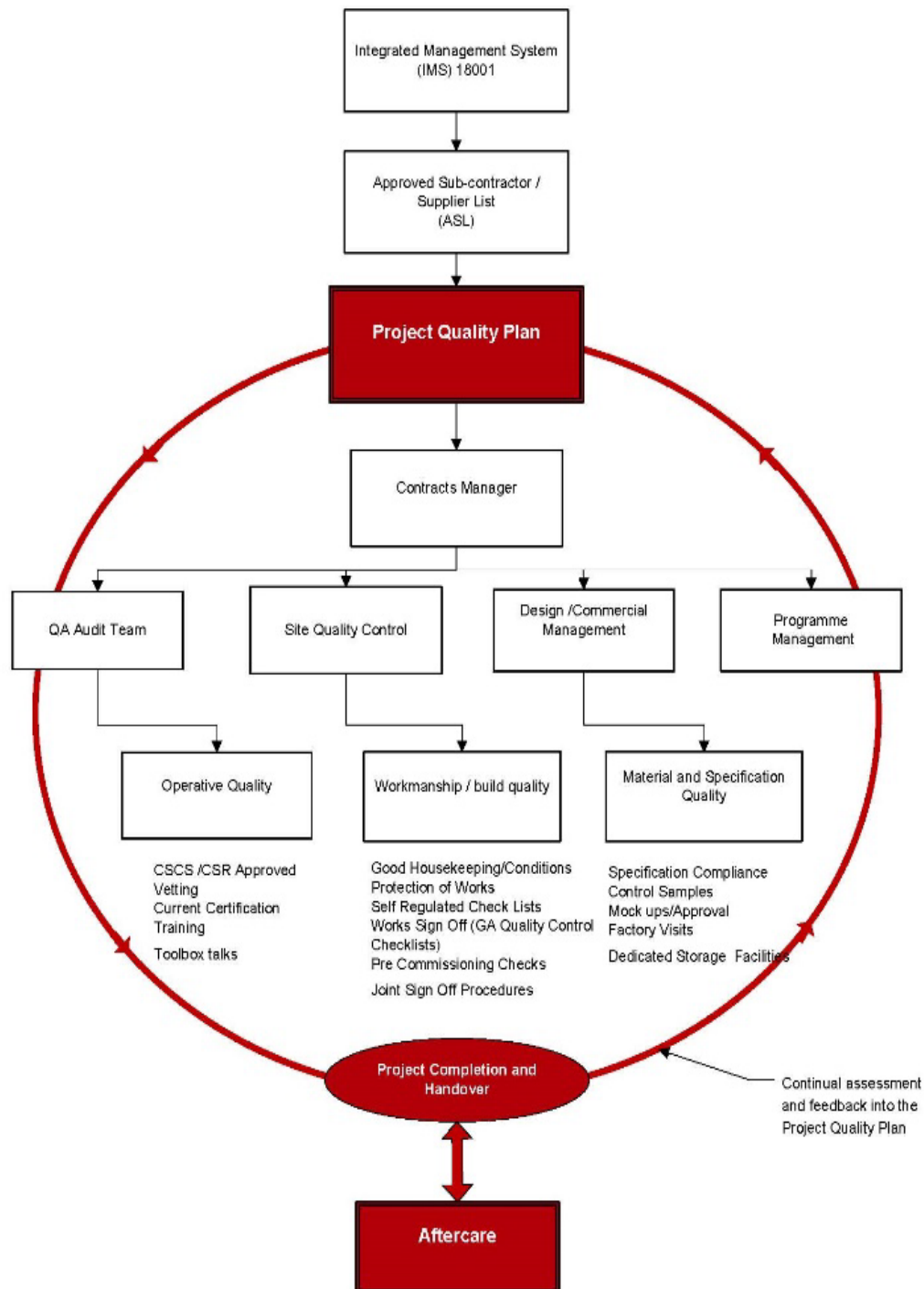
It is Gilbert-Ash's intent to deliver a high-quality product and a number of sample panels will be produced not only for sign off for planning but to act as a quality benchmark throughout the project.

During the construction phase there will be continuous inspections and snagging of each element to ensure the installations are of the highest standard.

Subcontractors will have their own QA procedures documents reviewed to ensure the quality required is achieved. This documentation will include off-site management and transportation procedures.

Responsibility Organogram

Below is an overview of the site quality control process for the external façade system proposed for 35 Fountain Street project.

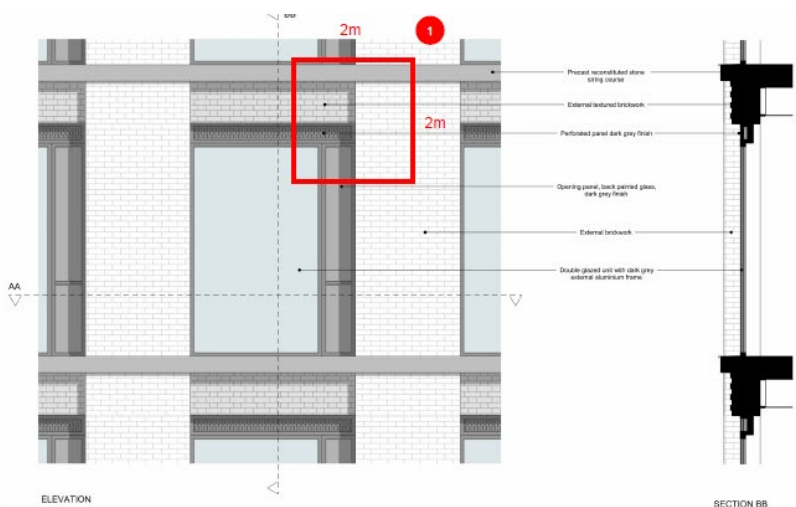


Façade materials proposed

External Envelope - Finishes Schedule

Item	Description	Application	Manufacturer / Product, or EA	Finish / Colour	Samples & mock-ups	Status	Notes
1	Handset brickwork	EWS 01	Traditional Brick and Stone (TBS) Klinkers 65mm	Frosted white	1m sample panel with mortar showing running bond 1m sample panel with mortar showing recessed flemish bond Planning mock-up, scope TBC		Allowance for cut bricks to form recessed flemish bond to spandrels and tops of the lift overrun and stair cores. Allowance for specials on all corners to achieve required geometry.
2	Precast concrete	EWS 01	Techcrete	Mix: C190 AE	Colour samples to be provided to agree final colour to match chosen brickwork and mortar Planning mock-up scope TBC		Finish to match with selected brickwork and mortar.
3	Cement mortar	EWS 01	TBC	Off-white TBC	Colour samples to be provided to be matched with chosen brickwork Mortar to be used for brickwork and planning mock-ups		~~Programme implications on the use of lime mortar to be discussed with contractor and agreed.~~ All pointing done to nominal 10mm joints with flush finish. Refer to details for soft joint requirements.
4	Timber stick curtain wall	EWS 02 EWS 03	TBC	Timber species TBC	Timber species samples to be provided with relevant matt finish applied for approval Planning mock-up scope TBC		Timber stick system subject to potential VE, refer to item #5 for alternative finishes required.
5	Aluminium stick curtain wall	EWS 02 EWS 03	TBC	Aluminium PPC finish, refer to item #6	See item #6		Internal and external PPC finishes may differ.
6A	Polyester Powder Coating (PPC) Window frames, louvre covers and cladding panels	EWS 01 EWS 02 EWS 03 EWS 04 EWS 05 EWS 06	TBC	Interpon D2525 D2525 YM260F RAL 8019 X-Pro HR smooth matt	Colour samples to be provided for approval Planning mock-up scope TBC		Colour samples required on each substrate (aluminium/steel). Matching finish will be required on all associated visible fixings.
6B	Polyester Powder Coating (PPC) Window cills and drips	EWS 01 EWS 02 EWS 03 EWS 04 EWS 05 EWS 06	TBC	Interpon D2525 D2525 YC202E RAL 9002 HR smooth matt	Colour samples to be provided for approval Planning sample, TBC		Matching finish will be required on all associated visible fixings.
7	Polyester Powder Coating (PPC) Architectural louvres	Louvre panels	Gilberts, or; Colt	Interpon D2525 D2525 YC202E RAL 9002 HR smooth matt	Colour samples to be provided for approval Planning sample, TBC		Where different louvre products are required, finishes will still be required to match.
8	Polyester Powder Coating (PPC) External doors	EWS 01 EWS 02 EWS 03 EWS 04	TBC	Finish to match item #6	See item #6		Refer to 31 series information on External Doors for ironmongery requirements, allow for stainless steel.
9	GRC cladding panels	EWS 05	Techcrete	Mix: C190 AE	See item #2 Planning sample, TBC		GRC finish to match precast concrete finish, refer to item #2 for requirements.
10	Steel balustrade	EWS 06	TBC	Finish to match item #6	See item #2 Planning sample, TBC		
11	Plant space blockwork	EWS 07	TBC	Unpainted	N/A		
12	Clear glazing	EWS 01 EWS 02 EWS 03 EWS 05	TBC	Refer to performance requirements and cladding specification	Glazing sample to be provided for approval prior to production Planning mock up scope TBC		
13	Back-painted/Fritted glazing	EWS 01 EWS 05	TBC	RAL 8019 to match item #6	Glazing sample to be provided for approval prior to production Planning mock up scope TBC		Solid frit, refer to FMDC specification

Proposed Sample Panel



Mockup

2x2m mockup of typical façade bay corner that captures the majority of details, interfaces and materials for the mid levels and core, including:

- Brickwork
- Textured brickwork
- Concrete String course
- Cill / drip detail
- Window framing / glazing
- Back painted opening panel
- Perforated ventilation grill

Quality Assurance

Quality Sign-Off Procedures and Management

Quality sign-offs will be coordinated with the design team who will regularly inspect the works. Close liaison with the services designers and supply chain will ensure that the mechanical and electrical services are signed off at each stage of the installation and problems dealt with if or when they arise.

Sign-offs and any hold points will be based on a room by room and then element by element basis. Sign-off sheets will be logged and kept for inspection by the team.

Controlling the Interfaces

Excellence in quality is a result of a clear understanding of the process of evolution from design to construction, and the ability to visualise the interface of materials in their final built state. It is this interface between various building materials where challenges occur which can impact on quality. To ensure the control of quality with regards to the interface of materials, our Design Manager will work proactively alongside our craft specialists, our subcontractors and the design team to ensure that the benefit of our experience has a positive impact on buildability, costs and quality at all interface locations, realising the vision for excellence on this project.

Controlling Subcontractor Quality

To control the quality of our subcontractors, only those contractors who have proven track records and who can demonstrate their commitment to quality will be selected for the project. Our proposed subcontractors for the project have already demonstrated their commitment to quality in the previous projects we have worked together on.

We believe the foundation for excellence in quality is dedication to building strong and sustainable relationships with our clients and our supply chain. We will seek out and

assemble a tried and tested integrated supply chain team whose ethos and vision for quality reflects our own, and where our relationship is strengthened based on successful project delivery.

Procurement of our subcontractors and materials is an important link in the quality chain. We have a well-established approved list of subcontractors and suppliers. Coupled with our experienced subcontractors, we will ensure that materials are ordered in sufficient time, so that samples can be supplied and approved, and that deliveries meet the programme requirements. Our construction programme allocates adequate time for the various elements of the project to ensure that the control of quality is never compromised.

A procurement schedule based on the needs of the agreed contract programme will be established. The schedule will sequence completion dates for the following quality related procedures so that project completion is not jeopardised:

- Final design information
- Provision of shop drawings
- Approval of shop drawings
- Material order date
- Manufacturing period
- Start on site date -timely delivery to control quality.

We will ensure through our subcontractor audits, that similar control mechanisms exist within the subcontractor companies bringing further continuity throughout the supply chain and improving the build quality.

Together with our subcontractors, through the life of the project, we will constantly give practical, historical evidence-based advice, in relation to the life cycle of proposed materials. Where appropriate alternative materials can be sourced, they will be offered for approval where they are found to be beneficial in enhancing best value in respect of life cycle or a reduction in costs.

Control of Materials on Site

Working collaboratively with the client and the design team, we have developed a schedule of all material samples that are required, either as loose samples, or for construction mock up panels. An area on site including a sample room will be provided for the display of all control samples during the project period. Where manufactured items are required, we will ensure that control samples are provided by our subcontractor's. When samples are being prepared, we will focus on getting the

interface detail between the various building materials correct and approved. Once approved by the client and design team, these samples will be the benchmark against which the quality of the end product will be assessed.

The control of materials on site is critical to achieving excellence in build quality. Any product delivered to site will be checked against the specification for correctness and compliance in respect of quality as per our IMS.

In the event of non-compliance or non-suitability, the particular product will be labelled as being "In Quarantine" and will be stored in such a manner that it cannot be incorporated into the works. Immediately as any damaged or non-compliant items are identified, the suppliers will be notified to replace the same item and to remove the reject from the quarantine area.

Where necessary, and generally with manufactured items, we will visit the manufacturer's premises to check that the product meets with the specification and is of an acceptable quality. As a matter of course, the design team and client are always invited and welcome to participate in these visits.

Whenever possible we will maximise off-site fabrication to provide better-finished quality, reduce on-site works, waste and double handling and improve the speed of construction. All off-site fabrication, including any mock-ups, will be done against a detailed programme incorporated into our subcontractor's orders. For major specialist equipment, Factory Acceptance Tests (FATs) will be performed to ensure that the item conforms to the agreed design, operates as expected and that the required documentation is available.

Our site management team and our subcontractors are responsible for the quality control of materials on site. Materials will be checked before they are off-loaded or assembled within the building to ensure that they meet the specification and are of the correct quality. Quality control check sheets will be used through all phases of construction to ensure that the follow-on trade or element of work, can progress in the knowledge that abortive work does not occur. Our specialists will operate this procedure in conjunction with our subcontractors and the IMS team. Sign-offs will be required from all parties providing a clear audit trail.

We employ a self-certification or self-snagging system for each of our subcontractor packages. All contractors will firstly self-snag and certify their own works to ensure quality prior to that element being offered to ourselves for inspection. When we are satisfied with the element of work then we will offer the area up for inspection by the Client. Sign-off procedures will be implemented by us to make sure that works are completed and ready for final inspection by all parties.

Quality Check Template

QLTY - Quality Check



Project Name	111 – 35 Fountain Street.
Site Address	Manchester
Mobile User	
Date Submitted	

INTRODUCTION

Audit date	
Auditee	
Weather	

SITE AUDIT

Site Diary	Yes/No
are Drawings satisfactory	Yes/No
IMS Procedures	Yes/No

CORRECTIVE ACTION

Corrective Action		
Details:	To be resolved by:	Follow Up:

Auditee	

