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**OPERATION
&
MAINTENANCE MANUAL**

**CONTRACT: AUDEMARS PIGUET
35/37 KING STREET
MANCHESTER**

CLIENT: PORTVIEW

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SECTION 1

PREFACE

Due to the relatively straightforward and static nature of the package of work i.e. steelwork with associated works, the O & M Manual is relatively simple being limited to minor maintenance / generally maintenance free. However, key items of routine inspection are covered in the following sections.

SECTION 2

SCOPE OF WORKS

The works comprise: -

- 1, decking steelwork
- 2, stair and balustrade
- 3, glass balustrade to roof top
- 4, plant screens (6 Monthly checks)
- 5, table support steel

Please refer to the "As-Built" working drawings for the full extent of the works; all as listed in the attached Drawing Register and Issue Sheet.

SECTION 3

DETAILED SPECIFICATION

Specification & Standards

Weldable Structural Steels	BS4360:1986
Metal Arc Welding of carbon and carbon manganese steels	BSEN 1090 EX2
Protective coating of iron and steel structures corrosion	BS5493:1977
National Structural Steelwork Specification Edition 5	

Design Codes & Standards

1. Building Regulations 1991 Part B, M & K
2. BS5395: Part 1: 2000
3. BS5395: Part 2: 1984
4. BS5395: Part 3: 1985

SECTION 4

SCHEDULE OF SUPPLIERS

<u>Mild Steel</u>	<u>BARRETT STEEL</u> <u>310 Cutler Heights Lane Bradford BD4 9 HZ</u>
<u>Bolts:</u>	<u>BAPP INDUSTRIAL SUPPLIES</u> <u>Unit 8-9 Trafalgar Centre Rochdale OL16 2UX</u>
<u>Paint:</u>	<u>HMG Paints Ltd</u> <u>Riverside Works, Collyhurst Rd, Manchester M40 7RU</u>
<u>GLASS PANELS:</u>	<u>SPECISLIST GLASS PRODUCTS LTD</u> <u>UNIT 2 Milnsbridge Business Centre, HUDDERSFIELD HD3 4NY</u>
<u>GALVANIZING:</u>	<u>MANCHESTER GALVANIZING</u> <u>Green Lane, Heywood, OL 10 2 DY</u>

SECTION 5

MAINTENANCE, INSPECTION & CLEANING

5.1 Maintenance of Steel

By the nature of the material and its construction, maintenance of this element should not be required during the anticipated life of this structure.

However, the steelwork should not be modified or adapted in any shape or form without first consulting the project designer for the steelwork and/Technical Manager.

5.2 Maintenance of Paintwork to Steelwork

It is recommended that inspection for damage to paintworks is undertaken at regular intervals, the incidence of which must be at the discretion of the building user and would be largely dependent upon the amount and type of activity taking place which may give rise to damage to the paint system.

Should damage occur the paintworks should be repaired as soon as is practicable and be carried out in accordance with the Manufacturer's recommendations. The affected areas are to be lightly abraded down to a sound surface and reinstated to the original surface thickness with the application of touch up paint, feathering in the edges.

5.3 Maintenance of Galvanising to Steelwork

All installed balustrade steel to be visually inspected at regular intervals for any indication of breakdown or deterioration to the galvanised surface protection treatment.

Should the galvanised surfaces be damaged then the affected areas are to be lightly abraded down to a sound surface and reinstated to the original surface thickness with the application of zinc rich Galvafrid (or similar cold solution) feathering in the edges.

5.4 Maintenance of glass

All installed glass panels to be visually inspected at regular intervals for any indication of breakdown or deterioration, Glass can be cleaned using household cleaning products

Routine cleaning	Soap or mild detergent and water	Sponge, rinse with clean water, wipe dry. If necessary. Follow polish lines
All finishes	Preferably warm	
Fingerprints	Soap and warm water or organic solvent (eg. Acetone, alcohol, methylated spirits)	Rinse with clean water and wipe dry Follow polish lines
Stubborn stains and	Mild cleaning solutions, e.g.	Use rag, sponge or fibre brush

discolouration	(jiff, specialty stainless steel cleaners)	(soft nylon or natural b bristle. An old toothbrush can be use full). Rinse well with clean water and wipe dry. Follow polish lines.
Lime deposits from hard water	Solution of one part vinegar to three parts water	Soak in solution then brush to loosen. Rinse well with clean water
Oil or grease marks	Organic solvents (e.g. acetone, alcohol, methylated spirits, proprietary "safety solvents" baked on grease can be softened beforehand using ammonia	Clean after with soap and water, rinse with clean water and dry. Follow polish lines

5.5Maintenance of Bolted Connections

All bolts, connections, clips and any fastening appliances are to be visually inspected at regular intervals for tightness with annual spot checks to be carried out using the appropriate spanner where applicable.

SECTION 6

REPLACEMENT OF DAMAGED OR FAILED COMPONENTS

Due to the nature of the work, it is not anticipated or recommended that spare components are stocked. No description of routine replacement is contained within the manual.

During the 6 monthly checks, defective items will be captured and recorded by the maintenance team and like-for-like materials will be used to replace/repair.

Replacement of the panels on the acoustic screen will need to be to approved drawings (sent with O&M manual)

Acoustic screen panels are grade s275 mild steel ,galvanized and powder coated ,RAL 9005 semi-gloss

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