Inspection & Test Plan - DDA Compliant Hand Railing (Supply & Installation)

Document No.:	ITP-030	**Revision:**	**00**
Specification:	AS1428.1 - Design for Access & Mobility, General Requirements (2021)	**Date:**	4.09.02025
Other Referenced Documentation:	AS1428.2 - Design for Access & Mobility, Enhanced Requirements (1992)		
	AS4100 - Steel Structures (2020)		

Legend: HP: Hold Point, HP* Internal Hold Point, WP: Witness Point, IP: Inspection Point, SP: Surveillance Point

Item	Task/Activity Description	Reference	Acceptance Criteria	Inspection / Test			Responsibility	Verifying Documents	Date Completed	Sign-off
				Method	Frequency	Category				
1	**Preliminaries**									
1.1	Railing Components - Proprietary System	IFC Drawings Manufacturer's Drawings & Installation Recommendations Fulton Hogan Quality Management Plan	Where applicable, product to be selected based on the following criteria: i. Certified or nominated as compliant to AS1428.1 ii. Able to be erected with top of hand rail between 865mm (min.) & 1000mm (max.) iii. Extend beyond landings with rounded end or closed loop by 300mm (min.) iv. Able to withstand the load conditions (where specified) v. Have a protective coating that aligns with the atmosphere it will be erected in Details of the nominated proprietary system to be submitted for review to the Superintendent. Enter: Teambinder Material Approval number	Document Review	Each component	IP	PE/SE/SPE	This ITP		
1.2	Railing Components - Fabricated System	IFC Drawings Fulton Hogan Quality Management Plan	Fabricator is required to provide the Manufacturer's Data Record (MDR) for each component. Typically this consists of but is not limited to: i. Certificate of Compliance ii. Completed ITP iii. Weld Procedure Specifications iv. Weld Procedure Qualifications v. Welder Qualifications vi. Material Certificates and traceability vii. Quality Assurance check sheets viii. Welding Consumable batch certificates ix. Coating certificate(s) x. Non-destructive Testing (NDT) Reports xi. As-built Drawings to demonstrate compliance with dimensional tolerances of structural steel Collate: Structural Steel Quality Assurance Documentation so it can be uploaded into Teambinder (don't attach it here)	Document Review	Each component	IP	PE/SE/SPE	This ITP		

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1	**Preliminaries (Continued)**									
1.3	Fixing Detail	IFC Drawings Manufacturer's Drawings & Installation Recommendations	Fixing detail to be either positive connection via cast-in ferrules or similar. Changes to the approved Drawings shall be accompanied with a PE Certificate. Enter: Teambinder Approval number [free text box] or Attach: PE Certificate of Compliance	Document Review	Each component	IP	PE/SE/SPE	This ITP		
2	**Pre-installation Activities**									
2.1	IFC Drawings	Fulton Hogan Quality Management Plan	Check the revision of the IFC drawings are current as per the drawing register (on Teambinder)	Document Review	Prior to starting Works and at regular intervals	HP*	All	This ITP		
2.2	Materials Inspection Checklist	IFC Drawings Fulton Hogan Quality Management Plan	General inspection of railing components for defects including cracks, handling and storage damage & distortion. Bolts, nuts and washers shall be the size, material, strength grade and coating as noted on the IFC Drawings. Galvanised coating - no loss of adhesion, damage, blisters, roughness, sharp points and flux residues. Complete: Materials Inspection Checklist in ConQA	Measure Visual	Each component	IP	SE/PE/SPE	This ITP		

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3	**Installation Activities**									
3.1	Bearing / Mounting Surface Preparation	Manufacturer's Drawings & Installation Recommendations	As a minimum, ensure that the bearing surface is clean and free from loose particles and laitance.	Visual	Each post location	IP	SE/PE/SPE	This ITP		
3.2	Railing Handling	Manufacturer's Drawings & Installation Recommendations	The method of handling and erection of the railing shall ensure that the components are not stressed or deformed beyond the design limit and that there is no damage to the protective coating during these operations. Where damage exists, it shall be repaired using an approved repair procedure for both steelwork and coatings.	Visual	Each component	IP	SE/PE/SPE	This ITP		
3.3	Railing Erection	Manufacturer's Drawings & Installation Recommendations AS4100, Clause 15.2 AS4100, Clause 15.3	Place raill component into position, ensuring that it is plumb, level, square and within tolerances shown on the IFC drawings or Manufacturer's Drawings and installation recommendations. Where mounting to supports or foundations, adjust RL accordingly using suitably sized shims, levelling or jacking nuts (where applicable). Where steel to steel connections exist, holes shall be aligned so that a drift pin equal in diameter of the bolts can pass through freely. Where a misalignment is found, heating of bolts, hand flame-cutting of holes or (heat) drifting of holes shall not be permitted, only reaming, milling, drilling or machine flame or plasma cut. Internal surface of the hole to remain smooth and free from burrs. Holes shall not exceed the greater of: 1.25 x bolt dia. OR bolt dia. + 8mm Slots shall not exceed the greater of: 1.33 x (bolt dia. + 10mm) OR 2.5 x bolt dia	Measure Visual	Each component	IP	SE/PE/SPE	This ITP		

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3	**Installation Activities (Continued)**									
3.4	Fastener Tightening - Snug Tight Condition (4.6/S & 8.8/S)	IFC Drawings Manufacturer's Drawings & Installation Recommendations AS4100, Clause 14.3.3.1	Place bolts, washers and nuts as detailed on the drawings. At least 1 no. washer shall be used underneath the rotating part unless this is not part of the hand rail system. Washers shall cover the hole or slotted hole completely by 0.5 x bolt diameter. Tapered washers shall be positioned if the surfaces are on a slope of 1:20 or greater. Tighten from the stiffest section working towards the free edges with a few impacts of an impact wrench or the full effort of a person using a podger spanner. Protrusion to be at least 1 clear thread pitch and any thread run-off beyond the nut. Note: No maximum projection length is stated in	Measure Visual	Where applicable, each bolted connection	IP	SE/PE/SPE	This ITP		
4	**Post-installation Activities**									
4.1	Inspection of Coating	IFC Drawings Manufacturer's Drawings & Installation Recommendations	After installation Works are complete, inspect the steel element for damage to the coatings. Where damage exists, it shall be repaired using an approved repair procedure.	Visual	Each component	IP	SE/PE/SPE	This ITP		
4.2	As-built Survey	IFC Drawings Manufacturer's Drawings & Installation Recommendations Fulton Hogan Quality Management Plan	Provide record of dimensional measurements to demonstrate that all Works meet level and location requirements within the tolerances below: i. Top railing height = 865mm (min.) &1000mm (max.) ii. Rounded end o closed loop = extend beyond landings 300mm (min.) Attach: Survey As-builts / Survey Report / Photos	Document Review	Each component	IP	Surveyor SE/PE/SPE	This ITP		
4.3	Non-conformance Report (NCR) Closure	Fulton Hogan Quality Management Plan	Ensure that any NCRs pertaining to the lot / element / Work area that this ITP covers, have been closed.	Document Review	Once, prior to closure of this lot / element / Work area	HP*	SE/PE/SPE	This ITP		
	Final Inspection									

On behalf of Fulton Hogan, it is hereby certified that the Works represented by the item of work listed have been tested in accordance with the Project Quality Plan and conform in all respects with the requirements of the Contract.

Print Name: Position: Signature: Date: / /