

Checklist for Glass Balustrade Plan Submissions

(This checklist is **not** required to be submitted to the BD)

□ : information to be shown on plan and given in supporting document

○ : information to be accompanied with the submission

Part A – Administration

Typical Items		Requirements	Reference
1.	Statutory Forms	<ul style="list-style-type: none"> ○ Form BA4 (for appointment of AP/RSE/RGE) ○ Form BA5 (for application for approval) ○ Form BA6 (Stability Certificate if applicable) ○ Form BA16 (Application for exemption/modification as necessary) 	ADM-8 B(A)R 18A and 29(1)
2.	Fee for plan processing	○ Payment required when fees are charged according to total number of plans submitted	APP-55
3.	Plans and Documents	○ 2 signed sets of plans and 1 signed set of all documents	ADM-8 APP-141

Part B – Documents

Typical Items		Requirements	Reference
1.	Design Document: Part I – Synopsis and Essential Information	<ul style="list-style-type: none"> □ Approved GBP and superstructure plan (parent structure) □ Design standards and references □ Design approach (e.g. ultimate limited state) □ Description of the glass balustrade system: <ul style="list-style-type: none"> ● spanning of glass ● load path ● load transfer, etc. □ Building materials/components and workmanship specifications: <ul style="list-style-type: none"> ● structural sealants, with BD CDB reference no. (if applicable), etc. □ Design data for glass balustrade system: <ul style="list-style-type: none"> ● design thickness of glass panes ● adoption of composite action for laminated glass ● design strength of glass/steel/stainless steel/aluminium ● allowable deflection limits, etc. □ Summary of reaction forces, loading capacity for fixing brackets and adequacy check of assumed loading on parent structures 	ADM-8 ADM-19 ADM-20 APP-53 APP-110
		<ul style="list-style-type: none"> □ Specifications on design loads: <ul style="list-style-type: none"> ● horizontal imposed loads ● wind loads 	Table 3 of B(C)R ADM-8 ADM-19 APP-110

Typical Items	Requirements	Reference	
	<input type="checkbox"/> BD pre-accepted structural computer program (if applicable): <ul style="list-style-type: none"> • BD reference no. • RSE's statement 	ADM-6	
	<input type="checkbox"/> Information on the computerised calculations: <ul style="list-style-type: none"> • assumptions made and justifications on parameters used such as material properties, boundary conditions, etc. • input data with computer-generated graphics or hand sketch showing the framing and layout of the system, nodes & elements, joint fixity, etc. 	ADM-8 ADM-19	
2.	Design Document: Part II – Detailed analysis and design	<input type="checkbox"/> Glass: <ul style="list-style-type: none"> • minimum glass pane thickness • the glass pane or top handrail should be designed to resist the most unfavorable condition of horizontal imposed load or wind pressure • for free-standing glass balustrade at area with congregation of people, the top handrail should be designed to bridge over the failed glass unless the remaining intact layer of glass pane of laminated glass can resist the working load • for laminated glass with composite action, maximum degree of composite action = 70% For laminated glass without composite action, load sharing is in accordance with individual pane's stiffness • deflection of glass pane should be checked under the most unfavorable loading conditions <input type="checkbox"/> Supporting members (steel/stainless steel/aluminium): <ul style="list-style-type: none"> • design for bending, shear and deflection • welding design • fixing brackets with anchor bolts or cast-in embeds <input type="checkbox"/> Supporting parent structures: <ul style="list-style-type: none"> • adequacy check of assumed loading on parent structures 	Table 3 of B(C)R ADM-8 ADM-19 APP-53 APP-110

Part C – Plans

Typical Items		Requirements	Reference
1.	Plans properly indexed and space reserved at the lower right corner for official stamps of approval	<input type="checkbox"/> Plans to be properly indexed and each drawing to bear a title and number <input type="checkbox"/> Vertical space (90mm wide x 200mm high) or horizontal space (245mm wide x 80mm high) for accommodating official stamps of approval, curtailed check and true copy certification by the BA on every plan at the lower right corner	ADM-8 ADM-10
2.	Plans showing the layout and arrangement of glass balustrade	<input type="checkbox"/> Plans including the panel arrangement and setting out <input type="checkbox"/> The location of fixing brackets with setting out	ADM-8 APP-110
3.	Plans and sections in appropriate scales for readability	<input type="checkbox"/> Scale to follow B(A)R 13: <ul style="list-style-type: none"> • avoid excessive large scale shop drawing details • plans and sections/elevation to be in a scale not less than 1:100 except that a scale of not less than 1:200 may be accepted for cases of very extensive works 	B(A)R 13
4.	General Notes	<input type="checkbox"/> Design codes and standards: <ul style="list-style-type: none"> • design code of practices • construction standards <input type="checkbox"/> Design loading <input type="checkbox"/> Location/general layout of glass balustrade tallying with the latest approved GBP and superstructure plans with the approval date	ADM-8 ADM-19 APP-53 APP-110
5.	General Notes on Material Specifications and quality control standards	<input type="checkbox"/> Glass: <ul style="list-style-type: none"> • a schedule of glass type and thickness • ultimate design strength of glass (state if deviates from the code) • type and fritted pattern (if applicable) of glass pane • laminated glass (if applicable) with type (e.g. PVB) and thickness of interlayer material, and adopting (state the percentage, e.g. 70%) composite action • CDB reference no. of structural sealant <input type="checkbox"/> Structural steel, stainless steel and aluminium (if applicable): <ul style="list-style-type: none"> • a schedule of major structural steel members indicating the member mark, steel grade, general dimensions and thickness • corrosion protection specification for steel • protection against bimetallic action <input type="checkbox"/> Cast-in embeds (if applicable): <ul style="list-style-type: none"> • a schedule of design loads 	ADM-8 ADM-19 ADM-20 APP-53 APP-110

Typical Items		Requirements	Reference
		<input type="checkbox"/> Drilled-in anchors (if applicable): <ul style="list-style-type: none"> • design and material specifications • product name, model no. and CDB reference no. • a schedule of drilled-in anchors indicating the anchor type, embedment length, loading capacity and test load 	
6.	Structural details of glass balustrade	<input type="checkbox"/> Typical elevations showing arrangements of all types of glass balustrade, end panel, fixing brackets and span direction of glass panes <input type="checkbox"/> Typical details of all types of fixing brackets to the parent structures (e.g. slabs, beams, curbs, plinths, etc.), height from FFL and clamping details (reference to Figures 6.1 and 6.2 of Code of Practice for the Structural Use of Glass 2018) <input type="checkbox"/> Top handrail details (if applicable)	ADM-8 ADM-19 APP-53 APP-110