

Checklist for Submission to the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS)



Secretariat Office
for ACABAS

Checklist for Submission to the Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS) (January 2025 Version)

To streamline the vetting of the proposed design of bridges and other structures associated with or adjacent to the public road network by the ACABAS from the aesthetic, visual and greening points of view, this Checklist is uploaded to the website of the Highways Department (HyD) to facilitate the applicants to prepare their submissions and align their practices on relevant aspects. This Checklist is intended to be a living document which will be updated from time to time on a need basis.

(i) General Aspects

Put a ✓ in the appropriate boxes to show the submission has included the relevant aspects.

Information provided for understanding the existing site context, showing how the proposed structure(s) would be visually integrated and match with the surrounding environment and/or existing structure(s), including:

Project Description

- Brief introduction of the project
- Site context, constraints, and opportunities
- Design concept of the proposed structure(s) and any thematic / chromatic scheme(s)
- Balanced consideration for functionality, aesthetics, buildability (including any adoption of prefabrication, modular integrated construction (MiC), etc.), maintainability and cost-effectiveness for the proposed design
- Other planned developments in the surrounding area (if applicable)
- Maintenance party of the proposed structure(s) (with in-principle agreement from relevant maintenance party, if available)
- Include the location(s), structure type(s), structure ID (for existing structure to be involved), total length(s)
- Signed and endorsed by the Project Manager or an equivalent project officer of the Applicant, along with their professional qualification information provided

History of Submission(s) / Design Change(s) (if applicable)

- ACABAS submission history with acceptable / acceptable-in-principle / unacceptable status
- Highlight key changes to previous submission(s), and provide justification(s) for the proposed change of design if the proposal has been accepted by ACABAS
- Response-to-comment (RtC) table
- Revised details or photomontages (with highlight of the proposed change(s)) in the RtC for easy comparison and reference
- Revised photomontages on side-by-side comparison with existing site photos and previous scheme in the last submission
- Highlight or cloud the proposed change(s) in text, drawings and photomontages

Layout Plan

- General layout plan in 1:1000 or suitable scale showing the overall design and the surrounding site context
- Detailed layout plan in 1:500, 1:250 or suitable scale
- Layout plan showing vantage points of the photomontages and existing site photos

Material Schedule

- Table showing the proposed color scheme(s) with colour codes, true colour samples, finishes/textures and sizes for the proposed representative materials
- For transparent / translucent material, clearly indicate the percentage of transparency with colour and colour code (if applicable)
- Proposed materials and/or patterns of paving and street furniture (if applicable)
- Adopt balanced approach for material selection considering functionality, aesthetics, buildability (including any adoption of prefabrication, modular integrated construction (MiC), etc.), maintainability and cost-effectiveness

Representative Photomontages of the Proposed Structure(s) and Existing Site Photos

- Aerial view
- Overall view
- Driver's and/or pedestrian's view(s) and view(s) of other major sensitive receiver(s) nearby
- Interface(s) with the existing structure(s) (if applicable)
- Side-by-side comparison of existing site photos with the proposed structure(s)

Structural Design

- Representative engineering drawings
- Representative elevations and sections of the proposed structure(s)
- Special fixing details of the proposed structure(s) and use of material(s) (if applicable)
- Interface details between the proposed and existing structures (if applicable)
- Structural design should harmonize with the surrounding environment and balance aesthetics, buildability, maintainability and cost-effectiveness to achieve optimal functionality, reduce visual impacts, and enhance final sustainable aesthetic appearance as far as possible
- Consideration of using cost effective high performance materials to reduce the overall bulkiness and hence visual impacts of the proposed structure(s) (if applicable)
- Design of fall arresting system and/or other fall protection measure(s), if applicable, should be reflected in the photomontages to demonstrate its integration with the proposed structure(s)
- Sufficient headroom and clearance to carriageway(s) and other existing structure(s) where appropriate
- In-principle agreement on the structural design from Bridges and Structures Division (B&S)/ HyD and Regional Office/HyD for structures to be handed over to HyD, if available

Building Services Design

Drainage System (If applicable)

- Effective drainage discharge and compatible design with the surrounding environment
- Ensure coordinated alignment and arrangement of the drainage downpipe(s), using compatible colors to blend harmoniously with the proposed structure(s)
- Photomontages reflecting the drainage system such as downpipe, gutter, etc. along with the proposed structure(s)

Lighting System (If applicable)

- Lighting scheme(s)
- Ensure coordinated alignment and arrangement of the lighting features, electric cables, ducting and junction boxes to blend harmoniously with the proposed structure(s)
- Photomontages reflecting the lighting system and cable arrangement along with the proposed structure(s)
- Photomontages of nighttime views for the lighting scheme(s) intended to create under normal operation (and/or with special lighting effect(s) for landmark structure)
- In-principle agreement on the lighting scheme(s) from Lighting Division/HyD and Regional Office/HyD for structures to be handed over to HyD, if available

Pillar Box(es) (If applicable)

- Select location(s) for the pillar box(es) that reduce the visual impact or allow for better integration with the proposed structure(s)
- Optimize the size of the pillar box(es) to be as compact as possible while still fulfilling the functional requirements
- Location, casting materials, colour scheme and design with representative engineering drawings showing its dimensions and compartments
- Photomontages showing the pillar box(es) along with the proposed structure(s) and the surrounding environment

Landscape Design

- Tree survey and treatment plans to illustrate existing tree(s) to be affected with proposed tree treatment (if applicable)
- Compensatory tree planting plan (if applicable)
- Landscape plan (Please consider to incorporate suitable flowering species of trees and vegetation at landmark location(s) in the plan and seek comments from the maintenance parties where appropriate.)
- Consideration of appropriate landscape treatment with sustainable species allowing adequate aerial and underground spaces, sufficient clearance to carriageway(s) and maintaining traffic sight line (Please review to avoid: (i) planting trees and vegetation too close to roadside kerbs and just next to carriageways; (ii) planting trees too close to highway structures such as noise barriers/enclosures/foundations, or lamp posts/traffic signs/directional signs; (iii) proposing narrow planting strips at central dividers of high speed roads, primary distributors or district distributors taking into account potential difficulty for lane closure at fast lanes in future; (iv) proposing narrow roadside landscape verges without

maintenance access; and (v) proposing landscape areas at decks of viaducts/footbridges or underneath viaducts taking into account cost-effectiveness and maintainability considerations, unless in-principle agreements are obtained from relevant management and maintenance parties for any of the above scenarios.)

- Consideration of using thematic species to enhance the overall streetscape
- Planter, drainage and irrigation design
- Proper maintenance access to the proposed vegetation
- In-principle agreement on the landscape proposal and the proposed tree treatment from relevant vegetation maintenance party (i.e. LCSD, AFCD or Regional Office/HyD where appropriate), if available

(ii) Footbridge, Lift Tower and Subway

Please put a ✓ in the appropriate boxes to show the submission has included the relevant aspects.

Information provided for understanding the existing site context, showing how the proposed structure(s) would be visually integrated and match with the surrounding environment and/or existing structure(s), including:

- Footbridge and/or link bridge (If applicable)
 - Representative layout of the overall structure(s) with blow up plans showing key details including location(s) and dimension(s) of the proposed columns/walls, existing columns/walls, modified parts of the existing structure(s) and width of the pedestrian circulation path at deck and ground levels
 - Representative elevations and sections showing different sides of the footbridge, link bridge and/or staircase(s) / escalator(s) / ramp(s)
 - Clearly indicate the proposed materials and dimensions of the representative structural members in the engineering drawings
 - Arrangement of suspension / stay cables and associated tower/saddle/anchorage structure(s) (if applicable)
 - Ceiling and cantilever design of roof(s)/cover(s) compatible to the surrounding environment and adjoining structure(s), if any, with any special fixing details between different materials / structures
 - Paving design compatible to the surrounding environment and adjoining structure(s), if any, for deck and ground levels as well as staircase(s)
 - Tactile paving design and arrangement
 - Railing and handrail design compatible to the surrounding environment and adjoining structure(s), if any
 - Connection and interface details of linking platform(s) with existing structure(s) (if applicable)
 - Soffit design and corbel support arrangement
 - Proper ending and edge treatment (such as chamfers for corners) for structural members
 - Proper drainage arrangements for the roof(s)/cover(s) and deck(s) of the footbridge and/or link bridge
 - Proposed pedestrian flow at both deck and ground levels
 - Photomontages (with at least two colour scheme options including the recommended option) showcasing key views, including the overall perspective, pedestrian and driver views of the proposed structure(s) as well as views for different entrances, to provide a comprehensive visual representation of the proposed design with the surrounding environment
 - Associated elements such as lighting, drainage, cladding and landscape design, railway protection measures and anti-corrosion measures for structural steelworks should be reflected in the photomontages and/or drawings where appropriate

Lift tower (If applicable)

- Representative layout of the overall structure(s) with blow up plans showing key details including location(s) and dimension(s) of the proposed columns/walls, existing columns/walls, modified parts of the existing structure(s) and width of the pedestrian circulation path at deck and ground levels (Please ensure that the proposed door opening direction(s) of the lift will facilitate the smooth pedestrian flow at deck and ground levels.)
- Representative elevations showing different sides of the lift tower
- Clearly indicate the proposed materials and dimensions of the representative structural members in the engineering drawings
- Façade design including arrangement of louver, glazing and opaque panels for lift tower to optimize functionality, enhance aesthetics, and ensure effective ventilation while maintaining a cohesive architectural expression
- Optimize the extent of glazing panels (with self-cleansing coating) and louver panels with due consideration of the long term appearance of the structure(s) (taking into account potential difficulty of cleansing works inside the lift tower in future) while ensuring both visually pleasant appearance and functionality over time
- Cantilever and canopy design with lighting for lift entrance compatible to the proposed and/or existing structure(s)
- Proper placement and arrangement of lift control and button panel(s)
- Ramp design and tactile paving arrangement for lift entrances
- Proper drainage arrangement for the maintenance-free roof of the lift tower
- Photomontages (with at least two colour scheme options including the recommended option) showcasing key views, including the overall perspective and different sides of the lift tower with the surrounding environment
- Associated elements such as lighting, drainage, cladding and landscape design should be reflected in the photomontages and/or drawings where appropriate

Subway (If applicable)

- Representative layout of the overall structure(s) with blow up plans showing key details including location(s) and dimension(s) of the proposed columns/walls, existing columns/walls, modified parts of the existing structure(s) and width of the pedestrian circulation path at subway and ground levels
- Representative elevations and sections showing different sides of the subway and staircase(s) / escalator(s) / ramp(s)
- Clearly indicate the proposed materials and dimensions of the representative structural members in the engineering drawings
- Ceiling, cantilever and wall design compatible to the surrounding environment and adjoining structure(s), if any, with special fixing details between different materials / structures
- Paving design compatible to the surrounding environment and adjoining subway, if any, and existing pavement at ground level
- Tactile paving design and arrangement
- Railing and handrail design compatible to the existing and proposed structure(s)
- Connection and interface details with the existing structure(s) (if applicable)
- Proper drainage and pump room arrangement (including any flood monitoring and warning measures for high flooding risk areas where appropriate) and water proofing

provision for the subway

- Photomontages (with at least two colour scheme options including the recommended option) showcasing key views including pedestrian perspective that reflect the internal and entrance design of the subway structures, providing a comprehensive visual representation of the proposed design with the surrounding environment
- Associated elements such as lighting, drainage, cladding and landscape design should be reflected in the photomontages and/or drawings where appropriate

(iii) Covered Walkway

Please put a ✓ in the appropriate boxes to show the submission has included the relevant aspects.

Information provided for understanding the existing site context, showing how the proposed structure(s) would be visually integrated and match with the surrounding environment and/or existing structure(s), including:

- Compliance with HyD's Guidance Notes BS/GN/047 "Guidance Notes on Design of Covers for Walkways and Passenger Shelters" or its replacement guideline
- Representative layout of the overall structure(s) with blow up plans showing key details including location(s) and dimension(s) of the proposed columns, existing columns, modified parts of the existing structure(s) and width of the pedestrian circulation path
- Representative elevations and sections showing different sides of the covered walkway
- Clearly indicate the proposed materials and dimensions of the representative structural members in the engineering drawings
- Ceiling and cantilever design compatible to the surrounding environment and adjoining structure(s), if any, with special fixing details between different materials / structures
- Paving design compatible to the surrounding environment and adjoining pavement
- Connection and interface details between the proposed covered walkway and the existing structure(s) (if applicable)
- Adequate headroom for the cover(s) providing effective sun shading and rain sheltering
- Proper ending and edge treatment for structural members
- Proper drainage arrangement for the cover(s) of the covered walkway
- Connectivity to the adjoining covered walkway(s) and entrance(s) of building / PTI (if applicable)
- Total extent of transparent or translucent panels to be limited to about one-third of the walkway width (paragraph 3.1 of HyD's Guidance Notes BS/GN/047) or to be avoided as far as practicable if used for passenger shelter purpose (paragraph 3.2 of HyD's Guidance Notes BS/GN/047)
- Sufficient clearance between the covered walkway to nearby carriageway
- Photomontages (with at least two colour scheme options including the recommended option) showcasing key views, including the overall perspective, pedestrian and driver views of the proposed structure(s) as well as views for different interfaces with the existing structure(s) to provide a comprehensive visual representation of the proposed design with the surrounding environment
- Associated elements such as lighting, drainage and landscape design and anti-corrosion measures for structural steelworks should be reflected in the photomontages and/or drawings where appropriate

(iv) Viaduct and Noise Barrier / Enclosure

Please put a ✓ in the appropriate boxes to show the submission has included the relevant aspects.

Information provided for understanding the existing site context, showing how the proposed structure(s) would be visually integrated and match with the surrounding environment and/or existing structure(s), including:

Viaduct (If applicable)

- Representative layout of the overall structure(s) with blow up plans showing key details including location(s) and dimension(s) of the proposed columns/walls, existing columns/walls, and the modified parts of the existing structure(s)
- Representative elevations and sections showing different sides of the viaduct structures
- Clearly indicate the dimensions of the representative structural members in the engineering drawings
- Arrangement of suspension / stay cables and associated tower/saddle/anchorage structure(s) (if applicable)
- Soffit design and corbel support arrangement
- Proper ending and edge treatment (such as chamfers for corners) for structural members
- Connection and interface details between the proposed and existing structures (if applicable)
- Arrangement of parapets and barriers
- Proper drainage arrangement
- Photomontages showcasing key views, including the overall perspective, pedestrian and driver views of the structures as well as views for different interfaces with the existing structure(s) to provide a comprehensive visual representation of the proposed design with the surrounding environment
- Associated elements such as traffic sign/directional sign, gantry, parapet/barrier, noise barrier/enclosure, movement joints and any associated maintenance / noise mitigation measures, lighting, fall arrest system/fall protection measure(s), maintenance facilities, landscape, railway protection measures, anti-corrosion measures for structural steelworks as well as preventive measures against illegal occupation underneath viaducts should be reflected in the photomontages and/or drawings where appropriate

Noise Barrier / Enclosure (If applicable)

- Compliance with EPD & HyD's guideline "Guidelines on Design of Noise Barriers" or its replacement guideline
- Representative layout showing extent of the noise barrier/enclosure with length(s)
- Representative elevations and sections showing different sides of the noise barrier/enclosure
- Clearly indicate the proposed materials and dimensions of the representative structural and panel members in the engineering drawings
- Connection and interface details between the proposed and existing structures (if

applicable)

- Balanced approach to the extent, size, and design of transparent, translucent and opaque panels (with self-cleansing coating where appropriate) considering maintenance operations, long-term appearance (in particular taking into account potential difficulty of lane closure at fast lanes for cleansing works in future), and natural lighting penetration (In view of higher potential risk for exposure to dust generated from heavy vehicles, transparent / translucent panels may not be suitable for use at lower portion of noise barrier/enclosure.)
- Proper drainage arrangement
- Photomontages (with at least two colour scheme options including the recommended option) showcasing key views, including the overall perspective, pedestrian and driver views of the proposed structure(s) as well as views for different interface(s) with the existing structure(s) to provide a comprehensive visual representation of the proposed design with the surrounding environment
- Associated elements such as drainage and lighting design, fall arrest system / fall protection measure(s) (such as wire-type barriers for noise enclosure roof), fire breakers, fire breaking panels, anti-bird collision measure, and anti-corrosion measures for structural steelworks should be reflected in the photomontages and/or drawings where appropriate

(v) Retaining Wall Structures

Please put a ✓ in the appropriate boxes to show the submission has included the relevant aspects.

Information provided for understanding the existing site context, showing how the proposed structure(s) would be visually integrated and match with the surrounding environment and/or existing structure(s), including:

- Compliance with GEO Publication No. 1/2011 “Technical Guidelines on Landscape Treatment for Slopes” or its replacement guideline
- Representative layout of the overall structure(s) with key details including location(s) and dimensions of the proposed structure(s) and modified parts of the existing structure(s) / slope(s)
- Representative elevations and sections showing the whole extent of the proposed structure(s)
- Clearly indicate the proposed materials, pattern(s), joints and weep holes on the wall surface in the relevant drawings
- Consideration for the integration of the wall pattern(s) with weep hole locations for a coordinated design
- Consideration of thematic pattern(s) on the proposed retaining wall compatible with the surrounding environment and/or reflecting the character of the local district where appropriate
- Connection and interface details of the proposed retaining wall with the existing structure(s) (if applicable)
- Proper ending and edge treatment for the proposed structure(s)
- Proper drainage arrangement
- Proper maintenance access to different portions of the proposed retaining wall and

associated slope(s)

- Photomontages showcasing key views, including the overall perspective, pedestrian and driver views of the proposed structure(s) as well as views for different interfaces with the existing structure(s) to provide a comprehensive visual representation of the proposed design with the surrounding environment
- Associated elements such as railing, drainage, and landscape design should be reflected in the photomontages and/or drawings where appropriate

Remarks

For the avoidance of doubt, the Applicant is drawn attention to the following:

- (i) It is the Applicant's responsibilities to ensure compliance with all relevant statutory or other legal requirements applicable to the bridge(s) and/or associated structure(s) under the submission concerned.
- (ii) It is the Applicant's responsibilities to ensure the design of the bridge(s) and/or associated structure(s) under the submission concerned in compliance with relevant standards and requirements of relevant statutory authorities and Government bureaux / departments and relevant comments from future management and maintenance parties on such design.
- (iii) It is the Applicant's responsibilities to ensure compliance with the terms and conditions, or in such form, as may be prescribed by the Lands Department, Planning Department and/or other relevant Government bureaux / departments on the land where the bridge(s) and/or associated structure(s) under the submission concerned is/are located at, and associated land use.

Enquiries

Enquiries on this Checklist should be addressed to Secretary of ACABAS (Senior Landscape Architect, Landscape Division, Highways Department (Tel.: 3155 5703) (Email: sladu.lsc@hyd.gov.hk) (Fax: 2310 8438)).

Details of the Applicant's Representative (Project Manager or equivalent):

Project Title:

Company Name of the Applicant:

Name of the Applicant's Representative:

Post Title:

Professional Qualification:

Signature:

Date (DD/MM/YYYY):