

LOCAL ROADS AUTHORITY: EAST LoTHIAN COUNCIL

TA1

TECHNICAL APPROVAL OF HIGHWAY STRUCTURES – APPROVAL IN PRINCIPLE

FORM TA1 (Form of certificate to be used by the DESIGN FIRM for Approval in Principle of highway structures)

TECHNICAL APPROVAL AUTHORITY: EAST LoTHIAN COUNCIL TRANSPORTATION DIVISION

Name of Project			
Name of Bridge or Structure			
Structure Ref No		Date	

1. HIGHWAY DETAILS

- 1.1 Type of highway
- 1.2 Permitted traffic speed⁽²⁾
- 1.3 Existing restrictions⁽³⁾

2. SITE DETAILS

- 2.1 Obstacles crossed

3. PROPOSED STRUCTURE

- 3.1 Description of structure
- 3.2 Structural type
- 3.3 Foundation type
- 3.4 Span arrangements
- 3.5 Articulation arrangements
- 3.6 Types of road restraint systems
- 3.7 Proposed arrangements for maintenance and inspection / Inspection for Assessment⁽¹⁾
- 3.7.1 Traffic management
- 3.7.2 Access
- 3.7.3^(A) Intrusive or further investigations proposed
- 3.8 Sustainability issues considered. Materials and finishes/Materials strengths assumed and basis of assumptions^(1&4)
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- 3.9 Risks and hazards considered⁽⁵⁾

3.10^(D) Estimated cost of proposed structure together with other structural forms considered, including where appropriate proprietary manufactured structure, and the reasons for their rejection including comparative whole life costs with dates of estimates

3.11^(D) Proposed arrangements for construction

3.11.1 Traffic management

3.11.2 Service diversions

3.11.3 Interface with existing structures

3.10^(A) Year of construction

3.11^(A) Reason for assessment

3.12^(A) Part of structure to be assessed

4. DESIGN/ASSESSMENT⁽¹⁾ CRITERIA

4.1 Live loading, Headroom

4.1.1 Loading relating to normal traffic under AW regulations and C&U regulations⁽⁶⁾

4.1.2 Loading relating to General Order traffic under STGO regulations⁽⁷⁾

4.1.3 Footway or footbridge live loading

4.1.4 Loading relating to Special Order Traffic, provision for exceptional abnormal loads indivisible loads including location of vehicle track on deck cross-section⁽⁸⁾

4.1.5 Any special loading not covered above

4.1.6 Heavy or high load route requirements and arrangements being made to preserve the route, including any provision for future heavier loads or future widening

4.1.7 Minimum headroom provided

4.1.8 Authorities consulted and any special conditions required

4.2 List of relevant documents from the TAS

4.2.1 Additional relevant standards

4.3 Proposed departures from Standards given in 4.2 and 4.2.1

4.4 Proposed methods for dealing with aspects not covered by Standards in 4.2 and 4.2.1

5. STRUCTURAL ANALYSIS

5.1 Methods of analysis proposed for superstructure, substructure and foundation

5.2 Description and diagram of idealised structure to be used for analysis

5.3 Assumptions intended for calculation of structural element stiffness

5.4 Proposed earth pressure coefficients (k_a , k_0 , or k_p) to be used in the design / assessment⁽¹⁾ of earth retaining elements

6. GEOTECHNICAL CONDITIONS

6.1 Acceptance of recommendations of the Section 8 of the Geotechnical Report to be used in the design/assessment⁽¹⁾ and reasons for any proposed changes

6.2 Geotechnical Report Highway Structure Summary Information (Form C)⁽⁹⁾

6.3 Differential settlement to be allowed for in the design /assessment1 of the structure

6.4^(D) If the Geotechnical Report is not yet available, state when the results are expected and list the sources of information used to justify the preliminary choice of foundations⁽¹⁰⁾

7. CHECKING

7.1 Proposed Category

7.2 If Category 3, name of proposed Independent Checker

7.3^(D) Erection proposals or temporary works for which an independent check will be required, listing parts of the structure affected with reasons for recommending an independent check

8. DRAWINGS AND DOCUMENTS

8.1 List of drawings (including numbers) and documents accompanying the submission⁽¹¹⁾

8.2^(A) List of construction and record drawings (including numbers) to be used in the assessment

8.3^(A) List of pile driving or other construction records⁽¹²⁾

8.4^(A) List of previous inspection and assessment reports

9. THE ABOVE IS SUBMITTED FOR ACCEPTANCE

Signed Date

DESIGN / ASSESSMENT⁽¹⁾ TEAM LEADER

Name Engineering Qualifications
(CEng, MICE, MIStructE or equivalent)

NAME of FIRM / ORGANISATION

10. THE ABOVE IS AGREED BY THE TECHNICAL APPROVAL AUTHORITY SUBJECT TO THE AMENDMENTS AND CONDITIONS SHOWN BELOW.

Signed Date

FOR TECHNICAL APPROVAL AUTHORITY

Name Engineering Qualifications
(CEng, MICE, MIStructE or equivalent)

Position held TAA.....

The bracketed superscript items in Form TA1 refer to the following: -

Notes

- D. Indicates clauses to be used in Design AIP only*
- A. Indicates clauses to be used in Assessment AIP only*
- 1. Delete as appropriate*
- 2. For a bridge, give over and/or under*
- 3. Include weight, width and any environmental restrictions at or adjacent to the bridge*
- 4. From record drawings or intrusive investigation*
- 5. e.g. Risks and Hazards required to be considered under CDM such as construction methods, future demolition, jacking for bearing replacement*
- 6. e.g. HA Loading*
- 7. e.g. HB or SV Loading*
- 8. Include the following as applicable:*
 - a) Gross weight of the vehicle in tonnes and vehicle No*
 - b) Axle load and spacing (longitudinally and transversely)*
 - c) Air cushion in tonnes over area applied in m x m*
 - d) Single or twin tyres and wheel contact areas*
- 9. Include the Geotechnical Report Highway Structure Summary Information Form C listing relevant design/assessment parameters*
- 10. When the results of the ground investigation become available, an addendum to the AIP, covering section 6, shall be submitted to the TAA.*

The addendum shall have its own sections 8, 9 and 10 to provide a list of drawings, documents and signatures
- 11. Include, without limitation:*
 - a) Technical Approval Schedule (TAS)*
 - b) General Arrangement Drawing*
 - c) Relevant extracts from the Geotechnical Report (Section 8), Inspection Report, Intrusive Investigation Report, Previous Assessment Report (or reference for Report)*
 - d) Departures from Standards*
 - e) Methods of dealing with aspects not covered by Standards*
 - f) Relevant correspondence and documents from consultations*
- 12. Include details of previous structural maintenance and/or strengthening works*
- 13. CEng, MICE, MIStructE or equivalent*
- 14. AIP is valid for three years after the date of agreement by the TAA. If the construction has not yet commenced within this period, the AIP shall be re-submitted to the TAA for review*