1.3—DESIGN PHILOSOPHY

1.3.3—Ductility

Revise Article 1.3.3 as follows:

The structural system of a bridge shall be proportioned and detailed to ensure the development of significant and visible inelastic deformations at the strength ~~and extreme event~~ limit state~~s~~ before failure. The structural system of a bridge shall be proportioned and detailed to ensure a significant inelastic deformation capacity at the extreme event limit state to prevent collapse.

Energy-dissipating devices may be substituted for or used to supplement conventional ductile earthquake resisting systems and the associated methodology addressed in these Specifications or the *AASHTO Guide Specifications for Seismic Design of Bridges.*

~~For the strength limit state:~~

~~$\eta_D \geq 1.05$ for nonductile components and connections~~

~~$= 1.00$ for conventional designs and details complying with these Specifications~~

~~≥ 0.95 for components and connections for which additional ductility enhancing measures have been specified beyond those required by these Specifications.~~

For all ~~other~~ limit states:

$\eta_D = 1.00$

C1.3.3

Add a new last paragraph as follows:

A value of 1.0 is being used for η_D until its application is better defined.

1.3.4—Redundancy

Revise Article 1.3.4 as follows:

Multiple-load-path and continuous structures should be used unless there are compelling reasons not to use them.

~~For the strength limit state:~~

η_R ~~≥ 1.05 for nonredundant members~~

~~= 1.00 for conventional levels of redundancy, foundation elements where ϕ already accounts for redundancy as specified in Section 10.5~~

~~≥ 0.95 for exceptional levels of redundancy beyond girder continuity and a torsionally closed cross section.~~

For all ~~other~~ limit states:

$\eta_R = 1.00$

C1.3.4

Add a new last paragraph as follows:

A value of 1.0 is being used for η_R until its application is better defined.

1.3.5—Operational Importance

Revise Article 1.3.5 as follows:

~~For the strength limit state:~~
η_I ~~≥ 1.05 for important bridges~~
~~= 1.00 for typical bridges~~
~~≥ 0.95 for relatively less important bridges.~~
For all ~~other~~ limit states:
η_I = 1.00

C1.3.5

Add a new last paragraph as follows:

A value of 1.0 is being used for η_I until its application is better defined.

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