

## Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

## **OFFICE OF THE SECRETARY**

Manila

1 0 FEB 2016

**DEPARTMENT ORDER** 

SUBJECT:

LRFD BRIDGE SEISMIC DESIGN SPECIFICATIONS 1st EDITION

2013

NO. 45

The DPWH LRFD Bridge Seismic Design Specifications (BSDS) has been prepared to address the issue on the reliability of our transport infrastructure, such as bridges, flyovers and other related highway structures in times of natural disasters. The destructive effects on public and private infrastructure of recent large-scale earthquakes demonstrate the need to update our design guidelines.

In line with the BSDS is the implementation of the DPWH Design Guidelines, Criteria and Standards (DGCS) 2015 edition Volume 5-Bridges Design, which adopts the use of the Load and Resistance Factor Design (LRFD) approach in design for construction, repair and retrofitting of highway bridges and other related highways structures. The DGCS Volume 5 presents a significant change from the 1984 guidelines, adapting to the industry's standards in the design for public infrastructure and local requirements such as geotechnical, geological and seismologic condition.

The BSDS, prepared under the Japan International Cooperation Agency (JICA) Project for Study on Improvement of Bridges through Disaster Mitigating Measures for Large-Scale Earthquakes in the Republic of the Philippines, is hereby prescribed for implementation by all Regional Offices and District Engineering Offices, Bureau of Design and Project Management Offices of the Department and their Consultants, in the preparation of design and detailed engineering documents of various infrastructure projects.

A one-year transition period is given for the adaptation and familiarization on the new guidelines, criteria and specifications during which bridge engineers have a choice of two standards: the present design method based on Load Factor Design (AASHTO 2002 edition) and the new Load and Resistance Factor Design (DGCS Vol. 5 and BSDS). After this transition period, the use of the DGCS and BSDS in all concerned Offices is mandatory.

This Order supersedes Department Order No. 180, series of 2015 and shall take effect immediately.

RØGELIO L. SINGSON

Secretary

Department of Public Works and Highways Office of the Secretary

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