CENTRE FOR COMPUTATIONAL ENGINEERING
PUNJAB ENGINEERING COLLEGE
SECTOR 12, CHANDIGARH 160012 INDIA

From

The Coordinator,
Centre for Computational Engg.,
Punjab Engg. College,
Sector 12, Chandigarh.

To

The Chief Town Planner,
Punjab, Sector 18,
Chandigarh.

Memo No.PEC/CCE/07-8874
Dated: 6/8/2007

Sub: Disaster Managements and structural safety audits.

This is with reference to your memo No. 2764 CTP(PB)/SP-440 dated 20.07.07 on the above mentioned subject.

As desired, please find the relevant extract from the report of the working group on disaster management for the Eleventh Five Year Plan (2007-2012) dated December, 2006. If still you need any further data on the subject, you can arrange the downloading from the web site (planning commission nic in/aboutus/committee/wrkgrp11 wg11 distaster

Coordinator,
Centre for computational Engg.,
Punjab Engineering College,
Chandigarh.

DA : As above

DISASTER MANAGEMENT GUIDELINES

(Relevant Extract from report of the working group on disaster management for the Eleventh five year plan (2007-2012) – December, 2006)

I RECOMMENDATIONS RELATED TO ASSESSMENT OF VULNERABILITY

Assessment of vulnerability against hazard of a given magnitude should be carried out. The vulnerability of an individual or a group of individuals or of any element or an infrastructure like a flyover or a bridge, for a hazard of a given magnitude, will vary from 0 to 1 depending on the degree of preparedness. For example, an earthquake of magnitude 7 on the Richter scale may render very unsafe school children in a poorly built school (vulnerability=1) whereas the residents of an earthquake-resistant neighboring house for the same magnitude of earthquake (vulnerability=0) may be safe. This distinction is essential because existence of hazard does not automatically mean vulnerability, and vulnerability does not mean necessarily have to be 100. The question of vulnerability has to be considered not only in a physical sense but also in a comprehensive sense. Vulnerability could be physical, social, ecological, organizational educational, attitudinal, political, cultural and economical. Vulnerability assessment may also take note of medical care and casualty management that would be possible in the vicinity in case of natural or man made disaster.

II RECOMMENDATIONS RELATED TO EARTHQUAKE MITIGATION OF STRUCTURES

Housing Design and Finance: Since individual houses do not usually follow the building codes in India, it is necessary to find alternative ways to encourage and facilitate individual home builders to use disaster-resilient designs, materials and techniques in the construction of their homes. There is a need to publicise these, making people aware of the appropriate designs and the cost difference. Probably, there also needs to be some financial incentives that would assist people, particularly poor people or first-time homeowners, to incorporate safety features into their house.

Design and construction of critical facilities (schools/hospitals): This is currently an area of emphasis in Government of India. It has been observed in past disasters that schools and hospitals, which are the critical facilities at the time of disaster, were themselves badly affected. Therefore construction of all new schools and hospital should ensure that they have taken all necessary measures so that the buildings will be resilient during earthquake, cyclones and floods. The levels of schools should be raised in accordance with the flood history of a place. A holistic disaster risk management design would suggest that a wider verandah (so that cooking can be done outside the class rooms), an increased number of toilets and a water source (also above the flood level and accessible from the school) are essential elements in such a school. Mainstreaming disaster risk reduction in this way would assure not only that the school serve a disaster, reduction function, but also that they are protected against the consequences of a disaster and this development asset is preserved.

- Across the board, disaster risk reduction measures can straightway be incorporated into all infrastructure projects and other development programmes involving, construction of buildings etc, such as Sarva Shiksha Abhiyan, Indira Awas Yojana, Jawaharlal Nehru National Urban Renewal Mission etc.

III NATIONAL SCHOOL SAFETY PROJECT

1. Aims and Objectives of the Project: To strengthen the structural and non-structural earthquake preparedness and mitigation efforts in school in high

seismic risk districts and reduce the earthquake risk and vulnerability in the high risk districts prone to earthquakes.

2. Component-wise activities indicating structural and non structural measures (e.g. Infrastructure, Equipments and Stores, Capacity Building, etc): Structural safety Audit; Seismic Strengthening and Retrofitting; Training of Trainers; Development of Resource Materials; Workshops; Seminars and Training programmes; Documentation; etc.

The above recommendations have been extracted from the report of the working group on disaster management for the eleventh five year plan (2007-2012) dated December, 2006 Specific requirements for building plans approval can be discussed and finalized as per NDMA guidelines.

Department of Town & Country Planning, Punjab

Endst.No.3667-71 :- CTP(Pb)/SP-440 dated : 28-08-2007

A copy is forwarded to the :-

Senior Town Planner, SAS Nagar/Jalandhar/Patiala/Ludhiana/Amritsar.

For information and necessary action.

Chief Town Planner,
Punjab, Chandigarh.