

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter, the existing literatures of short and slender HSC columns, external confinement, confined rectangular columns and confined slender RC columns are critically reviewed. Although the present study only focuses on slender circular HSC columns externally confined by steel straps, some of the literatures for short, rectangular and conventional RC columns are also reviewed in this chapter in order to highlight the necessities of this research, as well as to find the existing research gaps.

The chapter begins with an introduction of HSC and a description of the behaviour of HSC columns both subjected to concentric and eccentric loads. The effectiveness of confinement in improving the performances of columns are next reviewed. After that, the behaviour of eccentrically and concentrically loaded confined columns are discussed. Lastly, existing literature of slender confined RC columns and slender HSC columns are reviewed as the preparation for the study on slender SSTT-confined HSC columns.