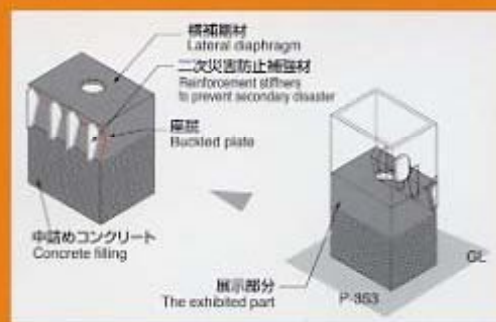


C-1 板パネルの局部座屈

Local buckling of stiffened plate of steel pier



■ **損傷内容** / 橋脚基部の中詰めコンクリートと直上の横補剛材間で板パネルの局部座屈が発生し、梁の張り出しが大きい海側に大きく傾斜した

■ **位置** / 3号神戸線 神P-353 (神戸市中央区)

■ **構造形式** / 矩形鋼製橋脚 1.5m×2.0m

■ **竣工時期** / 昭和44年度

■ **適用基準** / 鋼道路橋設計示方書(昭和39年)ほか

■ **復旧方法** / 上部工および橋脚梁部を仮受けした後、損傷した橋脚基部を切断・撤去し、新しい部材(板厚30mm、材質SM490YB)と取り替えた。また、橋脚内部の中詰めコンクリートの設置範囲を従来より高くした

■ **展示物紹介** / 撤去した部分(取り付けられている補強材は復旧までの二次災害を防止するためのもの)

■ **展示物諸元**

鋼製橋脚 1.5m×2.0m
板厚 30mm(SM50B)

■ **Damage descriptions** / Local buckling of the stiffened plate occurred between the concrete filling portion at the column base and the lateral diaphragm just above there, and resulted in a significant residual inclination toward the south in which direction the beam had large overhang.

■ **Location** / P-353 on the Kobe Route #3 (Chuo-ku, Kobe)

■ **Structural configuration** / Steel rectangular pier with a cross section of 1.5 m × 2.0 m

■ **Completion** / 1969

■ **Major standards applied** / Design Specifications for Highway Steel Bridges (1964)

■ **Restoration** / After underpinning the superstructure and pier beam members, the damaged column was cut at the base and removed out, and subsequently a new member (thickness: 30 mm; material: SM490YB) was installed. The level of the concrete filling the pier was raised from the previous setting.

■ **Descriptions of the exhibits** / Removed portion (The attached stiffeners were of temporary retrofit against secondary disasters until the complete restoration.)

■ **Specifications of the exhibits**

Steel pier: 1.5 m × 2.0 m
Thickness: 30 mm (SM50B)

