This case study was written at the time when OneSteel was part of BHP. In that context, in some instances within this case study, reference may be made to BHP.

MIGRANT RESOURCE CENTRE

FREMANTLE

A recently completed addition to the Fremantle Migrant Resource Centre in Western Australia comprises two storeys of much needed offices, interview and meeting rooms over a carparking area.

The freestanding structure is tucked in behind two single storey limestone buildings, originally a duplex and stables, and is a vindication of architect Murray Slavin's contention that the new can be slotted successfully into an historic context.

The three level steel portal frame, with its traditional roof pitches and weathercock atop a tower, was prefabricated which overcame restrictions such as a small site (the construction site was the footprint of the building), a tight construction schedule and the requirement to retain existing mature trees. The Portugese weathercock is a reference to the affiliation of the Portugese community to the centre.

Steelwork is aesthetically detailed and has been accomplished by fixing the cladding to the inside of the fire engine red steel frame on the second level and wrapping it over the frame on the third level, thereby stepping it out. Beams are mitred at the corner joints and connected to columns with 2M16 studs. Stormwater drainage pipes run down the flanges of 150UC23.4 columns, a feature of the building's facade.

Steel stud wall framing is used and enclosed with Custom Orb Colorbond® in white on the roof and tower and grey on the walls below, achieving a subtle stratification.

A colourful staircase consisting of steel stringers and laminated timber treads provides access to the office from the carpark below.

Structural

Steel members are simply supported and designed to AS4100 with lateral resistance provided with tie-rod bracing. The floor consists of 250PFC edge beams and 250UB25.7 floor beams spanning 5000mm and at 2500mm centers with timber floor joists in between.

Under the Building Code of Australia the building is classified as two storey requiring no fire protection.

Air conditioning units were retrofitted to the structure. Supported by the perimeter beams and with steel's flexibility the six 20mm dia penetrations to the steel web floor members were easily accommodated for the chilled air hoses to service the building.

Construction

Foundations were over a tip which required excavation and filling with clean sand. Pad footings were then utilised for the steel columns.

Erection

All steelwork was erected in one day by a mobile crane using slings to protect paintwork, as a result very litle touchup of steel members was required.

The project achieved its twelve week construction program and was completed in December 1995.

Surface Treatment

Steel beams and columns were sand blasted to Class 2.5 with 75microns of inorganic Zinc Silicate, followed by Dulux Duspec system No. 62 (two coats of super enamel).

Project Participants

Owner:	Fremantle Migrant Resource Centre
Construction funding:	WA Lotteries Commission
Architect:	Slavin Architects
Engineer:	Bruechle Gilchrist & Evans
Builder:	Merym Pty Ltd
Fabricator:	Metro Lintels