

Curriculum Vitae

Chitty M C

Michael C Chitty

Qualifications:

Chartered Professional Engineer
Quality Auditor, Lloyds of London to AS 3901

Affiliations:

Fellow, Institution of Engineers, Australia
Member, Institution of Civil Engineers

Fields of Special Competence:

Professional civil engineer with thirty two years experience in Australia, Papua New Guinea and the United Kingdom on construction management of major civil engineering projects, including tunnels, bridges, aircraft and road pavements, marine works, dredging and roads. Highly experienced in project management, cost estimating, cost control, scheduling and contract administration.

RELEVANT EXPERIENCE:

SINCLAIR KNIGHT MERZ, AUSTRALIA

May 1994 to date:

Senior Executive Engineer engaged on the following projects:

- . Northparkes E26 Mine. Procurement Manager responsible for assembling tender documents, calling tenders, awarding contracts and handing over to Construction Manager for contract administration on site. Procured approximately \$50M of work for this large copper/gold mine.
- . Warringah/Lower North Shore Transport Feasibility Study for Department of Transport, NSW. Technical review of six transport options for road and rail links by tunnels between North Sydney Station and Warringah Mall, length of tunnels 25 km; value each option \$850 million.
- . Eastern Distributor Tollway Technical Audit of one of the Consortia's proposals for the design, construction, operation and maintenance of the Tollway. Audit carried out on behalf of the financiers; length of tunnels - 4 km.
- . Parramatta to Epping Light Rail Feasibility Study. Study manager of costing study for City Rail.

SINCLAIR KNIGHT, AUSTRALIA

1991 to May 1994:

- . Dalrymple Bay Coal Terminal Expansion, Mackay Qld. Owner's Representative on behalf of Ports Corporation of Qld for construction of a new off-shore berth and associated civil and mechanical works for coal handling facilities on-shore, including two new stacker reclaimers, overland conveyors, transfer towers and new rail dump hopper construction. This \$160 million project included new power reticulation to the site and the installation of new computer hardware and software in the control room for the automatic loading of ships from rail head dump

hoppers, via the stockyard and 3 km long approach jetty, to ships at the new berth.

. Major Hardstand Expansion at Hunter Valley Mine for Coal and Allied Operations Pty Ltd. Construction Manager for upgrading of Mine facilities which comprised multi-disciplinary works to the value of \$20 million. The works included a truck wash facility, a new automated refuelling facility including oil storage tanks, an extension to the bath house, a sediment control dam, major earthworks for the reconstruction of hardstand areas to receive 240 tonne 830E Dresser dump trucks and a new Workshop 21 m high to crane rail level for the servicing of vehicles. The Workshop Contract included the provision of air, grease, oils, water and power to all service and maintenance bays.

JOHN HOLLAND GROUP, AUSTRALIA

1976 to 1991:

. Malabar and North Head Ocean Outfall Tunnels. Value \$100M. Deputy project manager responsible for planning, cost control, scheduling, claims, safety, and industrial relations of two tunnels let as one Contract; the tunnels were of the same length (4500 metres) and diameter (4.50 metres). Excavation was completed using a Robbins Tunnel Boring Machine. Access to each tunnel was via a 1 km long 1 in 4 decline tunnel to a bottom station where the TBM was assembled. Excavation commenced seawards for some 4.5 km up an incline of 1 in 200. The tunnel was lined with precast concrete units, manufactured in Sydney at a casting yard in Seven Hills. At the seaward end, each tunnel was connected to 30 diffusers using short stub tunnels excavated by drill and blast methods and road header.

. Bondi Ocean Outfall Tunnel. Deputy project manager for major outfall tunnel excavated using a road header; the tunnel was lined with insitu concrete and connected to diffusers as at Malabar and North Head. Access to the outfall tunnel was via a spiral decline tunnel at a slope of 1 in 6, commencing from the existing underground pumping station.

. Study tour to Germany and the UK to assess performance of concrete slipform paving machine on Hamburg to Berlin Autobahn and rail mounted paving on M25 London Ring Road, M3 London to Southampton Motorway and also Heathrow Terminal 4 apron pavements.

. Sydney Opera House, Forecourt and Lower Concourse Reconstruction. Construction Manager for construction management contract which involved coordination of Consultants, packaging contracts, calling and letting of tenders and the administration of the contracts on behalf of the Client - Value \$25M.

. F4 Freeway, Church Street Parramatta to Mays Hill 4.5 km. Project Manager responsible for construction of all continuous reinforced concrete pavements by CMI slipform paving machine.

. F3 Freeway, Wyong By-Pass 11.4 km. Project Manager for construction of 4 lane freeway including access ramps, all in unreinforced concrete using CMI paver.

Chitty MC

- . F3 Freeway, Calga Interchange to Mooney Mooney Bridge. Project Manager responsible for earthworks, bridges and unreinforced concrete pavement.

- . SH86 Lithgow to Mudgee. Project Manager for unreinforced concrete pavement over the Range. These two lane carriageways were constructed under traffic.

- . Chief Estimator, NSW Branch 1979 to 1983 responsible for all building, civil and mechanical engineering tenders. Tenders prepared in this period included tunnels, roads, freeways, breakwaters, wharves, jetties and dams. The largest tender prepared during this period was for Bayswater Power Station (\$60 million).

- . Contracts Manager, Perth WA 1976 to 1978 responsible for construction of a new berth in Bunbury and dredging of the mouth of the Mandurah River, south of Perth.

- . Project Manager initially in Melbourne, working on preparation of major heavy civil engineering tenders, particularly hard rock tunnels and dams. Tenders included the construction of 5 km of water supply tunnel for the Upper Thompson Dam Scheme involving excavation by tunnel boring machine.

PEARSON BRIDGE PTY LTD, AUSTRALIA

1974 to 1976:

- . Kings Cross Road Tunnel. Contracts Manager, responsible for the construction of project to very tight programme. Tunnel constructed by cut and cover methods for the RTA.

- . Bondi Junction Plaza Access Tunnel for a private developer. Construction Manager responsible for all elements of construction on congested site. Tunnel excavated by drill and blast methods.

JOHN MOWLEM & CO LTD, UNITED KINGDOM

1966 to 1974:

- . 300 000 dwt Tanker Terminal at Milford Haven for British Petroleum. Project Manager for construction of works which involved a substantial dredging contract using drill and blast techniques and cutter suction dredges.

- . ESSO Terminal Repairs. Project Manager for major repairs using a heavy lifting barge crane towed from Hamburg for the operation.

- . Queen Elizabeth Dock, Hull, Yorkshire. Project Manager for the construction of this project which involved a large dredging contract to form the new dock, continuous sheet piled walls and an extensive land reclamation project using spoil from the dredging operation.

- . King William Street bridge. Project Manager on reconstruction of an extension of London Bridge into the City of London.

- . Wharves at Lae, Bougainville and Milne Bay in Papua New Guinea. Construction Manager for the construction of these three wharves. The Lae Wharf involved extensive dredging works and the provision of a land reclamation area using dredged spoil.

DUNCAN LOGAN CONTRACTORS LTD, UNITED KINGDOM

1963 to 1966:

. Tay Road Bridge, Dundee across the 2.4 km wide Firth of Tay. Project Engineer on the construction of this major bridge. Responsibilities included the construction of a temporary bridge across the fast flowing river, construction of piers using cofferdams and the construction of the high level deck, in reinforced concrete.

MOTT HAY & ANDERSON, CONSULTING ENGINEERS, UNITED KINGDOM

1960 to 1963:

. Dartford to Purfleet Road Tunnel. Project engineer involved on supervision of works on the tunnel approaches and the lining of the road tunnel.

. Underground RC Bunkers. Design of structures built for the RAF as part of the early warning radar system for the UK.

1955 to 1960:

Articled pupil to Borough Engineer, Sheerness, Kent and City Engineer, Winchester, Hants. Completed the ICE Examinations leading to Graduate Membership. Completed studies at Southampton University.

Languages:

English

French (good understanding)

Professional Activities:

. The Institution of Engineers, Australia:

- Chairman, Sydney Division 1987
- Chairman, College of Civil Engineers 1992 & 1993
- Vice President, Professional Affairs, 1993 & 1994.