



CRAIG M<sup>C</sup>LAREN

## Curriculum Vitae

### Qualifications:

Bachelor of Civil Engineering, University of New South Wales, 1985

Graduate Diploma in Traffic Engineering, University of New South Wales, 1991

Accredited Road Safety Auditor, 1998

### Affiliations:

Member, Australian Institute of Traffic Planning and Management - AITPM

Member, Institute of Transportation Engineers USA (Australian Branch) - ITE



### Fields of Special Competence:

Traffic impact assessments; traffic engineering; transport planning; special event transport planning; local area traffic management; road safety and expert evidence at Land and Environment Court, Supreme Court and Commission of Inquiry.

### Experience:

M<sup>C</sup>LAREN TRAFFIC ENGINEERING, AUSTRALIA

#### 1995 to date:

Director and experienced traffic engineer responsible for the conduct of all facets of traffic impact assessment ranging from report preparation, design advice and giving evidence at the Land and Environment Court.

SINCLAIR KNIGHT MERZ, AUSTRALIA

#### 1994 to 1995:

Executive Traffic Engineer. Responsible for the conduct of all facets of traffic impact assessment ranging from report preparation, design advice and giving evidence at the Land and Environment Court.

TRANSPORTATION PLANNING WORKSHOP, AUSTRALIA

#### 1989 to 1994:

Senior Associate. Responsible for the conduct of a vast number of traffic impact assessment report and gained invaluable experience in giving expert evidence before the Land and Environment Court.

ROADS AND TRAFFIC AUTHORITY, NSW, AUSTRALIA

#### 1988 to 1989:

Traffic Engineer, Traffic Engineering Section, involved in traffic/transport research, policy development and assisting councils in the application of the Authority's guidelines.

OVE ARUP TRANSPORTATION PLANNING, AUSTRALIA

#### 1985 to 1988:

Traffic Engineer. Involved in the preparation of traffic impact reports for a wide range of projects.

GUTTERIDGE HASKINS & DAVEY, AUSTRALIA

#### 1980 to 1982:

Trainee Civil Engineer. Involved in assisting with road and subdivision design and field surveying.

### Papers at Conferences

. "Safe & Liveable Communities, Can You Have Both?"

Georgia Institute of Transportation Engineers, St Simons Island, Georgia USA July 1999.



## Craig McLaren – Professional Experience

Professional experience includes the following:

- . Preparation of traffic impact assessment reports for a wide range of land use proposals in support of development applications, rezoning, applications, statements of environmental effects and use capability studies on both a local and regional scale.
- . Local Area Traffic Management studies including conduct of working party meetings with local residents, Council officers and Aldermen.
- . Campus studies of Hospitals and Educational establishments.
- . Traffic Engineering/Transport planning studies.
- . Car Park Design.
- . Design of access, traffic circulation and parking arrangements for a wide range of land use proposals.
- . Analysis of intersection operating characteristics using SCATES, INTANAL, SIMSET, SIDRA and INSECT computer packages.
- . Road Safety audits, investigations and studies.
- . Pedestrian and bike planning studies.
- . Road and intersection design.
- . Expert advice at the Land and Environment Court, Supreme Court, Liquor Licensing Court.

### Land Use Traffic Impact Studies

- . 1998 to Current - Numerous studies for developers and councils with respect to:
  - Commercial developments (including large scale Bulky Goods stores, Fast Food etc)
  - Residential developments (eg medium density, high density and mixed development)
  - Alterations to developments.
  - Educational developments (schools, TAFE, Universities).
  - Hospitals & Medical Centres.
  - Clubs & Tourist developments (e.g. RSL, Leagues Clubs, Golf Clubs).
  - Recreational Facilities (resorts, sports centres, gymnasiums, swimming centres, racecourses).
  - Cultural & religious developments (churches, community centres).
  - Heritage sites.
  - Child Care Centres.
  - Seniors Living / Aged Care developments.
  - Guesthouses.
  - Motor showrooms.
  - Mining, quarries, concrete batching and asphalt plants.
- . Prior to 1998
  - . St Patricks Church, Blacktown, December 1998
  - . Trinity Grammar, Oatley Campus, November 1998
  - . Residential Subdivision, Oyster Bay, October 1998
  - . Red Rooster store, September 1998
  - . Bed & Breakfast development, Kurrajong, September 1998
  - . Motor Showroom, Arncliffe, September 1998
  - . Mt Druitt TAFE College, May 1998
  - . Schools at Blaxland, Lucas Heights, Windsor, Callala Bay & Lake Munmorah, March '98 to Sept. '98
  - . Hardware stores at Artarmon, Norwest and Coffs Harbour, February 1998 to August 1998
  - . Officeworks stores at Carlton, Punchbowl, Glebe and Blacktown, January 1998 to July 1999
  - . Camden High School, Camden November 1997
  - . Proposed Horse Training Stables, Rosehill Racecourse, November 1997
  - . Mixed Residential / Commercial Development in Leichhardt, October 1997
  - . Aged Pensioner Housing in Belfield, October 1997
  - . Mixed Residential / Commercial Development in Rockdale, September 1997
  - . Cordeaux Heights Primary School, August 1997
  - . Officeworks Stores at Punchbowl & Carlton, July 1997
  - . Buckland Retirement Village, July 1997
  - . Blue Haven Primary School, May 1997
  - . Ourimbah Primary School, March 1997
  - . Shellharbour Bulky Goods / Fast Food / Service Station Development, February 1997
  - . Warrimoo Public School, January 1997
  - . MULTIUSE Arena & 3,500 space Car Park, Olympic site - Homebush, January 1997
  - . Wollongong Entertainment Centre, December 1996
  - . Rosehill Racecourse modifications, November 1996 - November 1997



- . Narara Primary School, November 1996
- . Trinity Grammar Secondary School at Summer Hill. November 1996
- . BBC Hardwarestore at Gosford, November 1996
- . Camden Haven High School, November 1996 - April 1997
- . Bulky Goods Retail / Fast Food complex at Villawood, November 1996
- . BBC Hardwarestore / Restaurant at North Wollongong, September 1996
- . BBC Hardwarestore at Mascot, August 1996
- . Warehouse at Riverwood, June 1996
- . BBC Hardwarestore at Bonnyrigg, May 1996
- . Manly Hydraulics Laboratory, May 1996
- . Child Care Centre, Engadine, February 1996
- . Ramsgate RSL expansion, December 1995 - November 1997
- . AMPOL convenience stores at North Ryde, Bass Hill and Fairfield, Nov '95
- . Engadine RSL expansion, November 1995
- . Kingscliff TAFE, September 1995
- . High Density Residential Tower, Rockdale, June 1995
- . Katoomba Golf Course Redevelopment, May 1995 (review for Council)
- . Wagga Wagga TAFE - Stage 7, May 1995
- . Glenaeon School, Middle Cove, May 1995
- . Salamander Educational Centre, April 1995
- . Residential Conversion, Erskineville, Feb 1995
- . Tumby Umbi High School, Feb 1995
- . Park Beach Plaza, Feb 1995
- . Flemington Markets, Feb 1995
- . Harold Park Paceway Upgrade, Feb 1995
- . Jugiong Quarry, Feb 1995
- . Metropolitan Quarry, Jan 1995
- . Maxi Warehouse, Dunheved, Dec 1994
- . Residential Conversion, Clovelly, Nov 1994
- . Macquarie Fields TAFE, Nov 1994
- . Islamic High School, Greenacre, Nov 1994
- . Terrace Plaza, Raymond Terrace, Oct 1994
- . Kellyville Display Village, Oct 1994
- . Cleg Street Temporary Closure Traffic Management, Oct 1994
- . Mascot Advertising Exposure, Aug 1994
- . Killeaton Street Traffic Management, Oct 1994
- . Clarke & Walker, Cammeray, July 1994
- . McDonalds Wallsend, July 1994
- . Hawkesbury Hospital, July 1994
- . Shellharbour Square, July 1994
- . Dubbo Distant Education Centre, July 1994
- . Killara Primary School, June 1994
- . Warehouse, Matraville, June 1994
- . Charlestown DSS, June 1994
- . Child Care, Kirrawee, April 1994
- . Residential Conversion, March 1994
- . Pymont Casino, February, 1994
- . Warrawong Maritime Facilities, 1993-94
- . North West Sydney Educational Precinct (Nirimba), 1994
- . Tumby Umbi and Pottsville High Schools, 1994
- . St Margarets Hospital Relocation, 1994
- . Liverpool Hospital Redevelopment, 1992-94
- . BBC "Home Depot" Hardware Stores, at Thornleigh, Caringbah, Ashfield, Seven Hills, Mascot, Minchinbury and Thomastown (VIC), 1992-94
- . TAFE Colleges at Wentworth Falls, Coffs Harbour, Kingscliff, Belrose, Hornsby & Glendale, 1989-94
- . Nepean Hospital, 1993
- . Murwillumbah West High School, 1992
- . STA Surplus Lands at Randwick, Chullora and St Peters, 1990-93
- . SRA Surplus Lands at Chullora and Gordon, 1990
- . Sydney Destination Resort, Bate Bay, 1992
- . Sand Extraction Works at Chipping Norton, Moorebank and Pitt Town, 1989-94
- . ACI Glass Manufacturing sites at Waterloo and Penrith, 1990-91
- . Camden Shores Residential Canal Estate, Dunbogan, 1991
- . Prisons at Silverwater and Lithgow, 1990-93



- . Nestlé Site, Abbotsford, 1991
- . D9 site, The Rocks, 1990
- . Shopping Centres at Ryde and Leichhardt, 1990-93
- . Shell/Circle K Convenience Stores, various locations, 1989-90
- . Various residential developments, 1986-93
- . Various commercial developments, 1986-93
- . Motels at Cronulla and Greenwich, 1989
- . Private Moorings at Walsh Bay, 1989
- . World Square, Sydney, 1987
- . ABC Headquarters, Ultimo, 1987
- . Commonwealth Centre, Sydney, 1987
- . Paddys Market Redevelopment and Transport Design Guidelines, 1987
- . Harbord Diggers Club extension, 1987
- . Darling Harbour Casino Study, 1986
- . Randwick Private Hospital, 1986

**Land Use Capability / Feasibility Studies / Rezoning Studies**

- . Site development studies for schools at Warnervale East, Tuncurry, Mungerie Park, Horsley, Beaumont Hills, Boambee Valley, Horningsea & Hoxton Park, Nov '98 to Current
- . Supermarket & residential redevelopment, Bankstown, November 1997
- . Jannali Girls High School, October 1997
- . Buckland Retirement Village, October 1995
- . BBC "Hardware House", various locations, March 1995
- . Jakarta Waterfront, Jakarta, 1994
- . Surplus Defence Lands at Penrith, Randwick, Rydalmere and Zetland, 1991-93
- . Castle Hill Primary School, 1990
- . SRA Surplus Land, Chullora, 1990
- . STA Surplus Land, Chullora, 1990
- . IBM Site, Castle Hill, 1990
- . Tamworth Regional Sporting Complex, 1990
- . Commercial/Civic Centre, Glendale, 1989

**Local Area Traffic and Parking Management Studies**

- . Roselands Shopping Centre, March 1998
- . Various roads in Bexley, Arncliffe & Bardwell Park, April 1997 - August 1997
- . Moate Avenue Temporary Kerbside Replacement Parking, June 1997
- . Shark Park & Environs - Peak Event Traffic Management Plan, April 1997 - Current
- . Chapel Street Traffic Calming, April 1997
- . Riverview Road, Earlwood, February 1997 - June 1997
- . Various locations in Canterbury LGA, November 1996 - February 1997
- . Homer Street Traffic Calming Study, August 1996
- . William Street Traffic Management Study, June 1996
- . Taxi Depot / Service Station, Bondi, November 1995
- . Commercial development - Pacific Highway, Pymble, August 1995
- . Restaurant - Ward Avenue, Kings Cross, July 1995
- . Turramurra High School, June 1995
- . Erskineville Factory Conversion, Feb 1995
- . Southern Railways at Sydney Airport (Domestic/International), Feb 1995
- . Dance Studio, Camperdown, Jan 1995
- . Birrong Bowling Club, Nov 1994
- . Leisure Facilities, Raymond Terrace, Oct 1994
- . Bankstown RSL, Sept 1994
- . Bankstown Co-op Club, July 1994
- . Medical Centre, Blacktown, July 1994
- . Ramsgate RSL, 1993
- . Lane Cove Precincts Traffic Study, 1994
- . Barcom Avenue Road Closure, 1994
- . Liverpool Hospital and Environs, 1992-93
- . Victoria Street, Darlinghurst, 1989-93
- . Bexley LATM Review, 1991
- . Whale Beach Kiosk, 1991
- . St Leonards LATM Study, 1990
- . Partial Closure, Barcom Avenue, Darlinghurst, 1990 & Strathfield LATM Study, 1986

**Development Control Plans / Urban Design Studies / Public Domain Improvement Studies**

- . Royal Botanic Gardens, Sydney, July 1998 to Current
- . Parramatta Road Corridor Study – Housing Strategy, Strathfield, October 1998
- . Rose Bay Urban Design Study, February 1998

**Special Event Transport Planning**

- . Shark Park & Environs - Peak Event Traffic Management Plan, April 1997 - Current
- . Manly Wharf Opening Celebration, 1990
- . Tamworth Regional Sports Complex, 1990
- . Riverside Oaks Golf Course, 1990

**Road Safety Studies**

- . Stage 3 audit of proposed golf cart crossing for Barnwell Park Golf Course, December 2008.
- . Stage 3 audit of proposed balcony for Big John's Restaurant, Sans Souci. November 2008.
- . Stage 3 Detailed Design & Stage 4 : Pre-Opening Audit of the Proposed Eastern Ring Road & its Impact on the existing Exit Driveway serving the Castle Hill Day Surgery premises Castle Hill, Sept 2008
- . Stage 5 audit of the options for parent set-down / pick-up activities around Berowra Public School, July 08.
- . Stage 3 & 4 audit of roundabout for shopping centre expansion, Grafton October 2006 / December 07.
- . Stage 5 audit of Caves Beach Public School – road safety evaluation, March 2006.
- . Stage 5 audit of access road to Tallowa Dam for proposed enlargement of dam, Oct 2005.
- . Stage 5 audit of access road to Wolgan Valley, Lithgow for proposed resort development, July 2005.
- . Stage 5 audit of Bulahdelah Central School – road safety evaluation, May 2004.
- . Stage 3 audit of Linden bends on the Great Western Highway for the RTA in October 2001.
- . Stage 5 pedestrian safety audits of 64 roundabouts in Canterbury LGA, Aug 2001.
- . Speed zoning studies, various locations, October 1999
- . Stage 5 audit of Alison Road, Kensington, May 2000
- . Stage 5 audit of Liverpool Road, The Kingsway, Broadway & Parramatta Road, Woodville Road and Eastern Valley Way, August 1999
- . Stage 5 audit of 100 road bridges & culverts over irrigation canals & rivers in Leeton / Griffith for Murrumbidgee Irrigation - March to July 1998
- . Stage 5 audit of various roads in Bexley, Arncliffe & Bardwell Park, April 1997 - August 1997
- . Stage 5 audit of Chuter Avenue between Ramsgate Road and Barton Street, July 1997
- . Stage 2 draft design audit of Homer Street between William Street to Minnamorra Avenue, April 1997
- . Stage 5 audit of Homer Street between Minnamorra Avenue to Cooks River, Earlwood, May 1997
- . Stage 5 audit of Wollongong Road from Forest Road to the Princes Highway, July 1997
- . Stage 5 audit of Preddy's Road and New Illawarra Road from Forest Road to Bexley Road, July 1997
- . Stage 5 audit of Southern Cross Drive and South Dowling Street from General Holmes Drive to Oxford Street, January 1997
- . Stage 5 audit of Sandringham St, The Grand Pde, General Holmes Dr from Rocky Point Road to Botany Road, December 1996
- . Stage 5 audit of Lane Cove Rd, Ryde Rd, Mona Vale Rd from Blaxland Rd to M<sup>C</sup>Carrs Creek Road, December 1996
- . Willoughby Bike Path audits, November 1996
- . Stage 5 audit of O'Riordan St / Joyce Dr from General Holmes Dr to Botany Rd, November 1996
- . Stage 5 audit of Bourke Rd, Coward St and Kent Rd from O'Riordan St to Ricketty St, November 1996
- . Stage 5 audit of The Horsley Drive from Hume Hwy to Wallgrove Road, November 1996
- . Stage 5 audit of Druitt Lane from Hume Hwy to Wollondilly Shire Boundary, November 1996
- . Stage 3 - detailed design audit of Haldon Street, Lakemba, July 1996
- . Stage 5 audit of Beamish Street, Campsie, June 1996
- . Stage 5 audit of Alford's Point Rd, Old & New Illawarra Rds from Alma St to Heathcote Rd, June '96
- . Stage 5 audit of Menangle Road from Campbelltown to Wollondilly Shire Boundary, May 1996
- . Stage 5 audit of Narellan Road from Campbelltown to Narellan, March 1996
- . Newell Highway (320 km length) from Tocumwal to Marsden for RTA Southern Region, July '95
- . West Wyalong "Green Corridor" Bicycle Path for RTA Southern Region, July '95
- . North Deniliquin Roundabout for RTA Southern Region, July '95
- . Speed surveys - before and after conditions at road safety billboard locations (F3, F4, F5), 1991

**Pedestrian and Cycleway Studies**

- . Bicycle path integration and assessment of options in spot locations for Kogarah Council, 2005
- . West Wyalong Bicycle Path Extension, June 2002
- . Pedestrian safety audits of 64 roundabouts in Canterbury LGA, Aug 2001
- . The Strand Arcade, George Street, Sydney - November 1996 - June 1997
- . Darling Harbour Cycleway Concept Plan, June 1994
- . Penrith Plaza, 1993



- . Westfield Shopping Centre, Hurstville, 1991
- . Macquarie Street, Liverpool, 1990

**Public Transport Studies & Urban Road Corridor Studies**

- . Coast Road, Tweed Heads, 1992
- . Comparative Assessment of Transit Mall Alternatives, Hurstville, 1990
- . Route Selection Study for Articulated Bus Services, 1988

**Conceptual Road and Car Park Design**

- . Camden Haven High School, October 1994
- . Shellharbour Square, July 1994
- . Nepean Hospital - roundabout entrance, 1993
- . Liverpool Hospital Redevelopment, 1992-93
- . BBC Hardware Stores, various locations, 1992-Current
- . Murwillumbah West High School, 1992
- . Roundabout Design, Macquarie Shopping Centre, Ryde, 1990
- . Maritime Museum, Darling Harbour, 1987
- . Wollongong Hospital, 1987
- . Benelong Point Carpark, 1987
- . Sydney Opera House Forecourt, 1987
- . Roundabout at the Sydney Opera House Entry in Macquarie Street, 1987
- . Wheat Road Darling Harbour, 1986
- . Entertainment Centre Carpark Extension, 1986

**Expert Evidence at Land and Environment Court**

- . 1998 to Current - Numerous Appeals for developers and councils with respect to:
  - Commercial developments (including large scale Bulky Goods stores, Fast Food etc)
  - Residential developments (eg medium density, high density and mixed development).
  - Schools.
  - Child Care Centres.
  - Seniors Living / Aged Care developments.
  - Alterations to developments
  - Land Acquisition Cases.
  - Valuation & shop rental cases.
- . Prior to 1998
- . S102 Appeal, Epping
- . Residential Development, Dee Why, July 1998
- . Coffs Harbour S94 Appeal, June 1998
- . Medium Density Residential, Jannali, October 1997
- . Serviced Apartments, Bondi, August 1997
- . Retirement Village, Blaxland, July 1997
- . Residential Development, Bondi, June 1997
- . Mixed Residential / Commercial in Narrabeen, March 1997
- . Video Ezy, Glebe, June 1996
- . Child Care Centre, Springwood, May 1996
- . Serviced Apartments, Bondi, April 1996
- . Video Ezy, Leichhardt, March 1996
- . Castlecrag Primary School, January 1996
- . Sutton Street subdivision, Woodford, July 1995
- . Palm Beach subdivision, Palm Beach, July 1994
- . Pitt Town Sand Extraction, Pitt Town, 1993
- . Moorebank Sand Extraction, Moorebank, 1993
- . Dalcross Private Hospital, Killara, 1992
- . Coffee Lounge, Randwick, 1990



### **Court Appointed Traffic Engineering Evidence at Land and Environment Court**

- . **Tavern** ... JPR Legal v Marrickville Council, Dec 2008 to April 2009.
- . **Islamic School Expansion** ... Arkana College v Hurstville City Council, Nov 2007.
- . **School Annex** - NEWCASTLE GRAMMAR SCHOOL V NEWCASTLE CITY COUNCIL, July 2007.
- . **Child Care Centre** ... LEICHHARDT ats UNIVERSAL CHILDCARE : 153-159 Balmain Road, Leichhardt, June – Nov 2007.
- . **Child Care Centre** ... MOSMAN ats UNIVERSAL CHILDCARE : 74-82 Bradleys Head Rd, Mosman. (Appeal Did Not Proceed)
- . **Proposed Residential Development** – Car parking Quantum. FIVEX PTY LTD -Vs- WOOLLAHRA MUNICIPAL COUNCIL, April 2007.
- . **Proposed Car Stacker & Garage** ... ROBINSON Vs LEICHHARDT COUNCIL : 40 Cove St, Birchgrove, Dec 2006
- . **Child Care Centre** ... MAMARI Vs PARRAMATTA CITY COUNCIL : 1 CLIFF AVE, WINSTON HILLS, Nov 2006.
- . **Extended Hours of trading of café** ... MILLET Vs LEICHHARDT COUNCIL : 731-735 DARLING ST, ROZELLE, Oct 2006.
- . **Islamic School Expansion** ... HB Noori -Vs- STRATHFIELD COUNCIL, Oct 2006.
- . **Townhouse car parking** ... CITY OF SYDNEY -ats- LIENTAGE INVESTMENTS PTY LTD : 41-43 FORSYTH ST, GLEBE, Aug 2006.
- . **Mixed Residential / Retail High Rise Development, Burwood** ... PROGRESS & SECURITIES BUILDING PTY LIMITED Vs BURWOOD COUNCIL, Aug – Dec 2006.
- . **Mixed Residential / Retail Development, Ulladulla** ... MINISTER FOR PLANNING -ats- ELDERSLIE PROPERTY INVESTMENTS PTY LTD, May 2006
- . **Child Care Centre** ... BAZOUNI & KURUC -Vs- HOLROYD COUNCIL, May 2006
- . **Child Care Centre** ... JOHN WILLIAM HEPBURN -Vs- HORNSBY COUNCIL, May 2006
- . **Child Care Centre** ... QUINN HOMES -Vs- PARRAMATTA CITY COUNCIL, March 2006
- . **Child Care Centre** ... DOUNIS Vs KOGARAH COUNCIL, 2005
- . **Subdivision** ... MIRVAC HOMES (NSW) Pty Limited V BLACKTOWN CITY COUNCIL, 2005.
- . **Medium Density** ... SUTHERLAND SHIRE COUNCIL & TILT DEVELOPMENTS, 2004
- . **Medium Density** ... SUTHERLAND SHIRE COUNCIL & ARCHIWORCS, 2004

### **Expert Witness at Liquor Licensing Court**

- . Bass Hill Plaza objection, May 1996
- . Emus Plains Cellars, Emu Plains, 1990

### **Supreme Court**

- . Kathryn Davies Vs Ku-ring-gai Council, Concerning roundabout impact on resident driveway, Feb 2003.

### **Commission of Inquiry**

- . Raymond Terrace Retail Expansion, Raymond Terrace, June 1994

### **Consumer, Trader & Tenancy Tribunal**

- . Driveway access WOOD & ORS -Vs- JESSICA INVESTMENTS PTY LIMITED & ORS, July 2004

### **Papers at Conferences**

- . "Safe & Liveable Communities, Can You Have Both?"  
Georgia Institute of Transportation Engineers, St Simons Island, Georgia USA July 1999.