

**Curriculum Vitae  
DAVID BORELLA**



**BEng Mech**

**Position Held:** Associate, Wilkinson Murray

**Qualifications & Affiliations:**

- Bachelor of Engineering (Mechanical)

**Special Expertise:**

- Environmental Noise Assessment, particularly construction, road, railway and infrastructure
- Computer Noise Modelling
- Design of Noise Controls for Transportation and Industrial Sources
- Noise and Vibration Monitoring

**Employment History:**

1992 – 1997	Acoustic Engineer, Renzo Tonin & Associates
1997 – 2002	Senior Acoustic Engineer, Environmental Resources Management, Sydney
2002 – 2004	Senior Acoustic Engineer, Wilkinson Murray
2006 – 2008	Director, dBAcoustics, London
2008 – Present	Associate, Wilkinson Murray

## PROJECT EXPERIENCE

David has 15 years experience in environmental and architectural acoustics incorporating project management, the provision of expert testimony, extensive noise modelling and monitoring and the provision of noise and vibration control design advice. David has been responsible for noise impact assessments and/or noise control design advice in numerous projects including:

### CONSTRUCTION & INDUSTRIAL NOISE

- Parramatta Rail Link – Project Manager for all noise and vibration issues relating to the construction of a 13km, \$880 million twin-tunnel rail link in Sydney's northern suburbs. Site design and noise mitigation advice, planning approvals, representation, technical analysis, and monitoring for 10 surface construction sites along the rail corridor, including design of acoustic sheds, prediction of regenerated noise impacts from tunnelling excavations (by tunnel boring machines, roadheaders, rock hammers) and noise prediction and management plans for each site
- Lane Cove Tunnel – Noise management plans, planning approvals, and noise mitigation recommendations as well as assessment of regenerated noise impacts resulting from construction of 4km twin road tunnels below existing suburban areas of Sydney using roadheaders, rock hammers and drills
- London Underground – Night time construction noise assessment and mitigation design for London Underground metro station refurbishments (London)
- Jindabyne Dam Spillway – assessment of potential impacts from noise, vibration and blasting resulting from construction of a major dam spillway
- ACT Motor Sports Facility – EIS for multi-purpose motor sport site
- Compliance Monitoring of Noise and Vibration from Construction of Sydney Olympics 2000 Homebush (main stadium) Complex
- Snowy Mountains Hydro-Electric Scheme Murray 2 Pipeline

### MINES & QUARRIES

Modelling and assessment of cumulative noise and vibration impacts to residences resulting from above and below-ground plant, rail and road traffic, ventilation shaft fans and motors, mechanical services plant and blasting. Studies involved extensive on-site noise monitoring, noise modelling, noise contour generation, provision of noise mitigation recommendations and reporting.

- Warkworth Mine North and West Pits Extension Environmental Assessment (EA)
- Mangoola Mine EA
- Hunter Valley South Coal Mine EIS
- Ravensworth East Coal Mine EIS
- Calga Sand Quarry EIS
- Penrith Lakes Quarry – Impacts on Residential Land Release
- Kembla Coal & Coke Tahmoor Mine – Noise from ventilation systems

## **ROAD TRAFFIC NOISE**

The preparation of EIS's incorporating ambient noise monitoring, modelling of existing and predicted future traffic noise (including that from interchanges and elevated roads), specific barrier designs, assessment of related sources (ventilation systems, toll booths), reporting and extensive consultation with communities and regional and local government authorities.

- M5 Motorway – EIS noise and vibration assessment for a 22km-long high-speed transit corridor comprising interchanges, road bridges, pedestrian underpasses, twin 4km driven tunnels, a submerged cut and cover crossing of the Cooks River and an extensive tunnel ventilation system.
- M5 East Motorway – EIS for 11km continuation of the M5 Motorway
- Noise Barrier Assessment for M2 and M4 Motorways – Post-construction compliance monitoring of effectiveness of noise barriers
- Newell Highway Upgrade – route optimisation analysis and final design of 6km section of highway connecting townships in rural New South Wales
- Widening of the Spit Bridge – traffic noise assessment of widening of bridge connecting Sydney's northern peninsula to its Central Business District
- Extension of Charles St, Parramatta – Assessment and design advice to local Council regarding widening of an existing suburban thoroughfare

## **RAIL NOISE**

The assessment of all airborne and regenerated noise impacts relating to the construction and operation of the following rail projects:

- Southern Sydney Freight Line – Detail Design Modelling / Operational Noise Management Plan
- Parramatta Rail Link EIS – a new 26km (as proposed) rail link in Sydney incorporating above- and under-ground rail segments connecting Sydney's northern and western suburbs
- Pyrmont Light Rail – Vibration isolation of rail tracks beneath residential tower

## **AIRCRAFT NOISE**

- Second Sydney Airport EIS – Optimisation of Flight Paths and Aircraft Volumes to minimise Noise to Residences
- Aircraft Noise Intrusion Prevention Designs for Sydney Residences – Design, supervision and testing of building noise controls for protection against aircraft noise intrusion for residences within the vicinity of Sydney Airport
- Strategy for Monitoring of Ground-Based Noise Sources at Sydney Airport

**ARCHITECTURAL ACOUSTICS**

Ongoing acoustic advice for design of tenancy partitions, mechanical and hydraulic services, floor and wall impact isolation, reverberation control and speech privacy.

- Quay Grand – 5-star residential tower at East Circular Quay on Sydney Harbour foreshore
- Darling Island, Sydney – 5-star residential apartments on Sydney Harbour foreshore
- Market City, Haymarket, Sydney – mixed residential/commercial tower
- HMAS Albatross, Royal Australian Navy Base – Acoustic design of naval base sleeping quarters, lecture rooms and offices within proximity of military aircraft facilities
- Telstra Call Centres – Reverberation control design for call centres throughout Sydney

**EXPERT TESTIMONY**

- Rockfort Guest House – Assessment of noise and vibration impacts upon operation of a guesthouse from demolition and construction works related to the redevelopment of Walsh Bay in Sydney's inner harbour
- Luna Park – Assessment of noise disturbance to residences from operation of the Big Dipper and other amusement rides at Luna Park, Sydney
- Port Macquarie Transport Terminal – Assessment of noise impacts to neighbouring residences from a 24-hour truck loading facility and goods storage terminal