

REAAA - A CONDUIT FOR DISSEMINATION OF TECHNICAL KNOWLEDGE FROM INDUSTRY WORKING GROUPS

THORSTEN FROEBEL (HIGGINS) AND SARAH PATRICK (GHD)



INDUSTRY GROUPS consisting of pavement and surfacing experts from Waka Kotahi, Consultants, Contractors & Industry Association representatives (CCNZ, CETANZ, AQA)

Purpose

- Identify, develop, document, maintain & facilitate best practice for road pavement and surface design, materials & construction activities in New Zealand
- Provide a formal industry gateway for Waka Kotahi documents & directives

Objectives

- That the wider industry, inclusive of contractors, clients & consultants, is made aware of & is encouraged to use best practice for designing & constructing pavements
- That best practice methods are reviewed & revised as required, to enhance pavement performance, efficient use of materials & construction methodologies

NPTG / NSTG – CURRENT MEMBERS (AUGUST '23)



NPTG

- Bryan Pidwerbesky (Chair) Fulton Hogan
- David Alabaster Waka Kotahi
- Greg Arnold Asco Asphalt
- Allen Browne Hiway Group
- Mike Chilton AQA Rep
- Mark Cruden MC Engineering
- Andrew Deakin Bartley Cons
- Michelle Farrell CCNZ Rep
- Thorsten Froebel Higgins
- Ken Hudson Stantec
- Robert Patience Independent
- Sarah Patrick GHD
- Riaan Theron (Deputy Chair) BECA
- Danny Wyatt CETANZ rep
- Vacant Local Government Rep

NSTG

- Grant Bosma (Chair) Waka Kotahi
- David Alabaster Waka Kotahi
- Steve Booth Higgins
- Barry Coley HEB
- Bruce Chappell BECA
- Michelle Farrell CCNZ
- JJ Greyling Auckland Transport
- Martin Gribble Stantec
- Phil Herrington WSP
- Phil Muir Road Science
- Alistair Pickard WSP
- Greg Thompson Fulton Hogan
- Jeff Waters Independent

NPTG / NSTG – FOCUSED STRATEGY



**DEVELOP NEW
RESOURCE**

Working Group Leads

Riaan Theron (BECA)



**BUILD
KNOWLEDGE**

Angela Parsonage (AECOM)



**SHARE EXISTING
KNOWLEDGE**

Sarah Patrick (GHD)

NPTG / NSTG – DEVELOP NEW RESOURCES

Lead: Riaan Theron (BECA)

NPTG - Published

- B/5 (2008) – Insitu Stabilisation – Modified Pavement
- B/6 (2012) – Insitu Stabilisation – Cement Bound Subbase
- B/7 (2012) – Plant Mixed – Modified Pavement
- B/8 (2012) – Plant Mixed – Cement Bound Subbase
- B/9 (2020) – Insitu Stabilisation – Subgrade
- T/19 (2020) – Optimisation testing
- B/10 (2023) – HiLab
- UCS NZ Guideline (2022) – [CCNZ/CETANZ]

NPTG – currently drafting:

- T/24 - (Draft 2022) – Plateau Density Testing
- T/24 – (Draft 2023) update of draft after public consultation
- M/4 - classes depending on traffic loading and environment
- M/3 – starts when M/4 is finished
- Involved in NZ Pavement Design Standard

NSTG - Published

- M/10 (2014) – DG / AC / SMA
- M/10 (2020) – DG / AC
- M/27 (2020) – SMA
- M/32 (2021) – EME2
- Q/05 (2022) – Managing Bitumen Quality
- M/01 (2019) - Bitumen
- M/1A (2019) – Performance Grade Bitumen (Asphalt)

NSTG – currently drafting:

- P/11 – OGPA out for public consultation
- Involved in NZ Pavement Design Standard

Lead: Angela Parsonage (AECOM)

Objectives

- To identify research opportunities that address major problems in the industry
- To identify research opportunities that align with central & local government strategic directions
- To frame research directions to support the work towards the review & revision of best practice & specifications (steering role)

Priorities

- Intelligent compaction: Implementation benefits vs costs
- Dense graded aggregate (DGA): Where is DGA best used (rural, urban, suburban, highways, arterials). Field trials underway.
- Bitumen replacement: Support WSP, Auckland University research funded by MBIE
- Cement replacement: Natural materials and Pozzolans
- Carbon footprint of a range of pavement alternatives over 40-year analysis period

NPTG / NSTG – SHARE EXISTING KNOWLEDGE



Lead: Sarah Patrick (GHD)

Objectives

- Sharing and training of published specification and guidelines that are developed by the NPTG / NSTG
- Dissemination of knowledge through centralised portal

Priorities 2023 / 2024

- Coordinated conference attendance delivering NPTG / NSTG papers at various conferences (NZIHT / Waka Kotahi, CETANZ, CCNZ)
- Coordinate Workshops at conferences

Workshop Discussions

Treatment selection for pavements

- Are we defining the right outcome?
- Do we know understand the workflow?
- Are we enabling the workflow?
- What could we improve?



Asset owner



Supplier

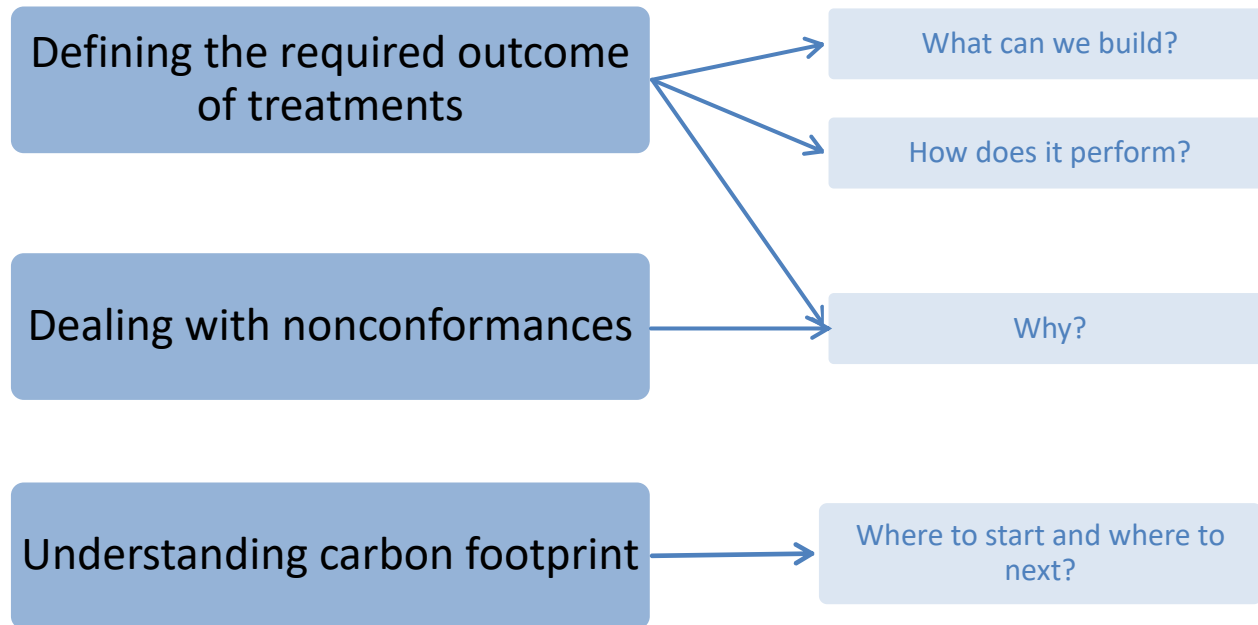


Constructor



Designer

Workshop Discussions



- The need for regional work packages
- Procurement/delivery improvements
 - Design input during construction
 - Timely supplier engagement/input
- New technologies and appropriate risk allocation
 - Barriers to adoption
 - Benefit and risk owners

REAAA OBJECTIVES



Objective 1

Provide opportunities for networking and knowledge sharing

What we do:

- Events including the annual **REAAA Roadshow** and the **Low Volume Roads Workshop**
- **Seminars**, online **webinars** and panel **debates** on topical issues in the road industry
- Quarterly **newsletters** and **REAAA NZ website** <https://www.reaaa.co.nz/>
Sharing best practice



Objective 2

Nurture and develop young professionals

- Young professionals provided opportunities to share their skills in the **Young Presenters Competition** and compete for a prestigious award
- Sponsor the **Rising Star Award** at the Low Volume Roads Workshop for international study tour and attendance at international road conferences
- Offer Special **Young Member rates and Free Student membership** and benefits



Objective 3

Advance technical expertise in road engineering

- Technical expertise is developed through **collaboration with professional bodies** including REAAA international parent body, Australian road organisations, PIARC and professional institutions
- Presentation of Waka Kotahi NZ Transport Agency **research papers** at the Roadshow
- Participating in REAAA and PIARC's **technical committees**

Subject matter expertise we cover includes:



Road asset management, design and construction



Pavements, surfacing and unsealed low volume roads



Road safety, geometric design and road-related technology



Climate change impacts on sustainable development



Waste minimisation and recycling of materials in road construction

CROSS SECTOR ALIGNMENT – VALUE TO REAAA MEMBERS?

