

2018-2019 NACOE Research Program

NACoE Project
Number

Title

PAVEMENTS

P8	Monitoring and reporting performance of flood repairs in QLD
P10	Cost Effective design of asphalt pavements at Queensland pavement temperatures
P40	Benefits of Traffic Speed Deflectometer (TSD) data in pavement analysis
P43	Long Term Pavement Performance Project
P45	Implementation of thin asphalt surfacings in QLD
P49	Quantifying the Benefits of Geosynthetics for the Mechanical Stabilisation of Subgrade Soils
P55	TIPES evaluation protocol for innovative road surfacing products
P59	Best practice non-destructive testing in assurance of asphalt
P60	Best practice in compaction quality assurance for pavement and subgrade materials
P66	Facilitating the use of 'glassy basalt' in pavement materials
P69	Selection and use of unbound granular pavements with thin asphalt surfacing
P72	Investigate the moisture susceptibility of cement treated materials
P74	Better characterising bituminous binders to manage risk and aid development of performance-based binder specifications
P75	Transfer Gap Graded asphalt with crumb rubber to QLD and WA 1
P76	The use of recycled glass in roads
P77	Investigate the use of APT Devices to Improve the Link between Laboratory Testing and Field Performance
P78	Investigate skid resistance related operating requirements for outcome based contracts
P79	Effect of geology on Foamed Bitumen strength
P91	Calibrate and assess impacts of a new pavement temperature prediction model for QLD
P92	Suitability assessment of hydrated lime vs quicklime when stabilising subgrade materials
P93	The effect of cement/fly-ash and cement/slag blends on the UCS of lightly bound pavements
P94	Optimising the use of recycled materials in unbound and stabilised pavements in QLD

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ASSET MANAGEMENT

A20	Improved model to predict the remaining life of sprayed seal surfaces
A28	Investigate and compare life cycle cost / benefits and performance of line marking and delineation
A35	Identification of Residual Risk for each Element and Development of a Funding Allocation Methodology for Elements
A37	Effectiveness and appropriate application of pavement drains
A41	Benchmarking asset management practices and developing improvement actions

STRUCTURES

S26	TMR WIM strategy and benefits for the purpose of bridge performance assessment
S30	Review of WhichBridge utilisation in TMR
S32	Review of transverse stressing bar replacement techniques
S33	Develop new manual of repairs for non-timber bridges
S42	Bridge jacking guideline
S43	Improving Asset Management Capability Systems
S44	Implementing learnings from TMR/NACOE research projects into TMR practice and technical documents
S45	Review of TMR position in relation to Limestone addition to GP Cement
S46	Implementation of bridge jacking displacement transducers
S47	Impact of Corrosions Inhibitor admixtures on durability of concrete
S48	Pilot HV commercial risk tool
S49	Functional requirement for bridge risk and priority classification

NETWORK OPERATIONS, ROAD SAFETY, HEAVY VEHICLE & FREIGHT

Heavy Vehicles & Freight

R62	Heavy vehicle route assessment online training
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Network Operations

- R76 Development of hybrid data model prototype for the enhanced Cost of Congestion (CoC) methodology
- R77 Real-time determination of spare capacity of routes for enhanced management of congested road networks

Road Safety

- R54 Automated systems for the analysis of the status of road safety and conditions using TMR's vehicle mounted video and pattern recognition techniques
- R73 W-Beam Guardrail Underrun: Development of Treatment Warrant Guidelines
- R84 Creation of a State of the Network Exemplar Report
- R85 Review Engineering Treatments for Urban Fringe Environments
- R87 Development of Crash Reduction Factors

Other

- O10 Implementing the International Climate Change Adaptation Framework for Road Infrastructure in Queensland TMR
- P52 Performance evaluation of the spinifex in concrete