Bridge and Other Significant Highway Structures Inspection

Domestic Fees
$1,695 + GST

International Fees
$,1695 + GST

Duration
2 days

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Bridge and Other Significant Highway Structures Inspection

Bridges and Other Significant Highway Structures are critical high value components of the New Zealand Roading Network. Failure to inspect and identify any defects correctly could potentially result in dramatic damage and/or loss of life. At best, failure to inspect structures could be expected to result in increased maintenance costs.

Overview

This is the NZTA endorsed and certified course designed to ensure the correct requirements are met for the inspection of bridges and other significant highway structures. The course will cover in depth the requirements outlined in NZTA policy Document S6 'Bridges and Other Significant Highway Structures Inspection Policy'.

This course includes a day of bridge inspections which is assessed (day two). The successful candidates will qualify to undertake bridge inspections specifically for NZTA but also other Road Controlling Authorities. NZTA requires this training as a condition to inspecting NZTA structures.

This course forms one of several components required of Structure Inspectors set out in NZTA Policy S6, Bridges and Other Significant Highway Structures Inspection Policy. This course is not intended to qualify those personnel who have minimal or no experience. Other requirements for Structure Inspectors set out in Policy S6 include experience in the construction, inspection and maintenance of bridges and other significant highway structures over a number of years.

The focus of this course is firmly on the inspection process and the identification of defects. Successful completion of the assessment component on the second day will enable inspectors to carry out General Inspections on NZTA bridges. Treatment of defects is dealt with in the NZIHT sister course, 'Bridge Inspection and Maintenance Procedures".

Topics include

Day one:

- Course Introduction. Purpose of inspection. Definition of Structures
- Inspection policy – NZTA S6
- The role of the different parties, Inspector and Bridge Inspection Engineer
- Types of inspection. Focus on General and Principal Inspections. Responsibility for Structure Inspection
- Routine Surveillance Inspections
- Special Inspections
- Effect of environment – intervention guidelines
- Planning the inspection round
- The inspection form – standard form from NZTA S6
- Importance of recognising when more detailed study is required
- Equipment. Camera, ladder, calipers, steel rule etc
- Optimising the inspection process – adding value. Spotting loading plaques and recording
- Reporting and Records overview
- Safety
- Systematic Approach of the Inspection procedures
- Causes of Deterioration and Identification and Logging of defects in reinforced concrete
- Problem with and Identification and logging of defects in steel structures
- Problems with timber structures
- Procedure for drilling timber structures to identify concealed decay
- Hardware. Joints, bearings, holding down bolts, seismic restraints, service supports. Typical problems and logging of defects
- Approaches, Foundations and Waterways - typical problems and logging defects
- Specialist inspections/advice for particular structure types such as steel structure

Day TWO (Field Inspection):

Note; participant's will be required to provide their own

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PPE for this (safety boots, high viz jacket, long pants, long sleeve shirt and wet weather gear - if required)

Morning:

INSPECTION - Structures of different types will be inspected as a group.

Afternoon:

ASSESSMENT - Each delegate will inspect a structure and be assessed on an individual basis. Attendees will be split up to provide integrity of assessment.

On completion of this course participants will

- Understand the principles of bridge and other highway structure inspection
- Carry out bridge and highway structure inspections under supervision
- Gain an understanding of administration and management systems
- Follow NZ Transport Agency Policy to inspect structures and identify defects
- Detect potential instances of bridge failure
- Identify where more detailed or specialist inspection or technical advice is required

Please note: This course is assessed on day two and will qualify the successful candidate to undertaken bridge inspections specifically for NZTA if they also meet the required experience limit.

Pre-requisite

Before attending this course, Delegates should have at least a one years' active experience inspecting bridges or other similar structures and have a working knowledge of NZTA Policy S6.

Who should attend

Engineers and inspectors with responsibility for inspecting and determining maintenance requirements for both State Highway and Local Authority bridging.

New bridge inspectors should have some experience, experienced bridge inspectors, engineers, technical staff and asset managers wishing to upgrade their knowledge.

All course delegates should either be familiar, or make themselves familiar with NZTA Policy S6. In particular be familiar with the terminology used in the bridge inspection proforma.

Attendees will receive a copy of the Inspection Manual for Highway Structures – Inspectors Handbook to keep after the course.

Participants need to wear hi-vis clothing, safety boots and wet weather gear if required.

Additional Information

Minimum numbers apply before a course is confirmed