ROAD ASSET MANAGEMENT



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TRAINING CENTER

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GENTEX Training Center LLC | Orlando - FL, USA
Info@gentextraining.com

Introduction

Road Asset Management Training Course prepares engineers, planners and asset managers to maintain road networks at the right standard for the lowest whole-life cost. Participants learn how to inventory assets, measure condition, forecast deterioration and translate that evidence into investment programmes. The programme covers pavement and bridge management systems, condition surveys, deterioration modelling, lifecycle costing, prioritisation and works programming. Furthermore, it addresses performance targets, data governance and reporting to funders and the public. As a result, delegates can build a defensible, evidence-based works programme. Gentex Training Center delivers the programme through modelling workshops and applied network case work.

Road Asset Management Course Objectives

- Build and maintain a road asset inventory and register.
- Apply pavement and bridge management system frameworks.
- Conduct condition surveys and interpret visual and mechanical data.
- Model pavement and asset deterioration over time.
- Apply lifecycle costing and whole-life cost comparison.
- Prioritise works using risk, condition and economic criteria.
- Prepare multi-year works programmes and budget submissions.
- Apply treatment selection and pavement rehabilitation strategies.
- Set service levels, performance targets and key performance indicators.
- Apply asset data governance, valuation and financial reporting.

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Course Methodology

The course combines technical briefings with hands-on workshops and applied network case studies. Participants build an asset register extract, run a deterioration and lifecycle comparison, and prepare a prioritised works programme. In addition, structured peer review and panel discussion sharpen judgement, and each day closes with an applied asset task.

Who Should Take This Course

- Highway, pavement and bridge engineers.
- Road authority asset managers and network planners.
- Maintenance and works programming staff.
- Transport economists and infrastructure investment analysts.
- Local government engineers and municipal road managers.
- Consultants and contractors delivering road maintenance services.

Road Asset Management Course Outlines

Day 1: Asset Management Framework and Road Inventory

- Asset management principles and the ISO 55000 framework.
- Road network hierarchy, function and classification.
- Asset inventory, registers and linear referencing systems.
- Data capture methods, mobile mapping and GIS integration.
- Asset valuation and depreciation approaches.

- Roles, responsibilities and asset management policy.
- Workshop: building a road asset register structure.

Day 2: Condition Assessment and Deterioration Modelling

- Pavement condition indicators and roughness measurement.
- Visual condition surveys and distress identification.
- Structural assessment, deflection testing and FWD analysis.
- Bridge and structures inspection and condition rating.
- Deterioration modelling and remaining life estimation.
- Condition data quality, sampling and verification.
- Workshop: analysing condition data and modelling deterioration.

Day 3: Lifecycle Costing and Treatment Selection

- Whole-life costing principles for road assets.
- Treatment options: preservation, rehabilitation and reconstruction.
- Pavement management system treatment selection logic.
- Unit rates, cost estimation and cost escalation.
- Comparing interventions on net present cost.
- Trigger levels and intervention criteria setting.
- Workshop: running lifecycle cost comparison across treatments.

Day 4: Prioritisation, Programming and Budgeting

- Risk-based prioritisation and criticality assessment.
- Multi-criteria analysis and weighted scoring models.

- Economic appraisal, benefit-cost ratio and HDM-4 application.
- Developing multi-year and annual works programmes.
- Budget preparation, funding submissions and affordability.
- Backlog and deferred maintenance analysis.
- Workshop: building a prioritised multi-year works programme.

Day 5: Performance Management, Data and Reporting

- Service levels, standards and performance measures.
- Key performance indicators for road asset management.
- Asset management plans and strategic planning cycles.
- Data governance, systems integration and assurance.
- Financial reporting, valuation and disclosure requirements.
- Reporting network condition and investment needs to stakeholders.
- Workshop: presenting an asset management plan to a review panel.

Conclusion

By successfully completing Road Asset Management Training Course, participants will have acquired the knowledge to measure road condition, model deterioration and plan maintenance investment with evidence. They will understand asset inventories, condition assessment, lifecycle costing, treatment selection, prioritisation, programming and performance reporting, and they will know how to justify works programmes to funders. As a result, delegates improve network performance and whole-life value. Gentex Training Center builds the programme around current asset management practice.

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FAQs for the Road Asset Management course

Q1 What is the "Road Asset Management" course about?

It covers how road networks are maintained and funded on an evidence basis. You learn asset inventories and condition surveys, deterioration modelling, lifecycle costing and treatment selection, prioritisation and works programming, and performance reporting to funders.

Q2 What are the key benefits of the "Road Asset Management" course?

You gain a defensible works programme rather than reactive patching. You also improve condition data reliability, compare treatments on whole-life cost, prioritise by risk and economic return, reduce deferred maintenance backlog, and justify funding requests with evidence.

Q3 What skills will I gain from the "Road Asset Management" course?

You will gain road asset inventory and condition assessment, pavement and asset deterioration modelling, lifecycle costing and treatment selection analysis, and works prioritisation, programming and asset performance reporting.

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Q4 What tools, methods, or standards are covered in the "Road Asset Management" course?

The course covers the ISO 55000 asset management framework, linear referencing and GIS asset registers, pavement condition indicators and roughness measurement, visual distress surveys, deflection testing and FWD analysis, bridge condition rating, deterioration modelling and remaining life estimation, whole-life costing and net present cost comparison, pavement management system treatment selection, HDM-4 economic appraisal and benefit-cost ratio analysis, multi-criteria prioritisation and weighted scoring, multi-year works programming, backlog analysis, and service level and key performance indicator frameworks for asset valuation and reporting.

Q5 How is the "Road Asset Management" course applied in real-world practice?

Graduates apply it to build and maintain asset registers, commission and interpret condition surveys, run deterioration and lifecycle models, select cost-effective treatments, prioritise works by risk and economics, prepare multi-year maintenance programmes and budget submissions, set service levels and performance targets, and report network condition and investment needs to councils, funders and the public.