



Existing Building Structural Renovation Strategy Course

10 – 14 May 2027
Singapore

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Ref: 566_143697 **Date:** 10 – 14 May 2027 **Location:** Singapore **Fees:** 6500 Euro

Overview

Existing Building Structural Renovation Strategy Course is a five-day advanced course for structural and civil engineers, architects, owners, facilities teams, consultants, and reviewers who leave with a Structural Renovation Strategy. Participants connect existing building evidence, change-of-use demands, structural alteration impacts, adaptive reuse decisions, strengthening and retrofit options, temporary stability, multidisciplinary interfaces, and delivery controls. The course turns disconnected building upgrades into a traceable renovation pathway. Agile Leaders Training Center presents structural renovation through practical decision artifacts.

Who Should Attend

- Teams responsible for existing building alteration, structural renovation, and adaptive reuse
- Functions evaluating change-of-use demands, openings, removals, extensions, and added loads
- Personnel comparing repair, strengthening, retrofit, and load-redistribution options
- Groups coordinating architectural, building services, construction, and structural interfaces
- Reviewers overseeing phasing, temporary stability, specifications, quality, and monitoring

The course assumes participants can interpret existing drawings, condition information, and engineering calculations, and it leaves out project-specific analysis, final design, heritage conservation planning, permits, and professional certification.

Departments and Industries

The course supports departments and industries responsible for existing assets, renovation investment, technical assurance, and alteration delivery.

- Structural engineering, civil engineering, architecture, and design review
- Property, facilities, asset management, and capital projects
- Commercial buildings, hospitality, healthcare, and education facilities
- Industrial plants, logistics facilities, utilities, and transport buildings
- Engineering consultancy, construction supervision, procurement, and quality assurance

Learning Objectives

By the end of this course, participants will be able to:



- Analyze renovation objectives, constraints, records, and condition evidence
- Evaluate change-of-use demands and structural alteration impacts
- Compare strengthening, retrofit, repair, and load-redistribution options
- Apply temporary stability, phasing, and constructability controls
- Build multidisciplinary specifications, quality, and monitoring requirements
- Prioritize actions in a Structural Renovation Strategy

Course Agenda

Day 1: Renovation Brief and Existing Evidence

- Renovation Objective and Constraint Brief
- Existing Drawing and Record Reliability Register
- Condition Evidence and Information-Gap Map
- Existing Structural System and Load-Path Diagram
- Change-of-Use Demand and Performance-Criteria Matrix

Day 2: Alterations and Structural Impacts

- Opening, Removal, Extension, and Added-Load Change Screen
- Wall, Column, Slab, Beam, and Foundation Interface Map
- Vertical and Lateral Load-Path Disruption Review
- Movement, Robustness, and Stability Risk Register
- Structural Alteration Question and Decision Log

Day 3: Strengthening and Retrofit Options

- Concrete, Steel, Masonry, and Timber Intervention Catalogue
- Local Repair, Member Strengthening, and System Retrofit Matrix
- Section Enlargement, Added Steel, and Composite Strengthening Option Map
- Foundation Strengthening and Load-Redistribution Options
- Multi-Criteria Renovation Option Appraisal

Day 4: Delivery Controls and Interfaces

- Occupied-Building Access and Renovation Phasing Plan
- Temporary Stability, Propping, and Sequence Checklist
- Architecture, Building Services, and Structure Interface Register
- Structural Renovation Specification Content Map
- Inspection, Test, Monitoring, and Handover Plan

Day 5: Structural Renovation Strategy Practice

- Exercise: Define the Renovation Brief and Evidence Gaps
- Exercise: Screen Alterations and Load-Path Impacts
- Exercise: Compare Strengthening and Retrofit Options
- Exercise: Resolve Phasing, Temporary Stability, and Interfaces
- Capstone Exercise: Structural Renovation Strategy

Practical Exercises

The course uses suggested activities to integrate evidence, alteration decisions, intervention choices, and delivery controls.

- Suggested activity: organize drawings, records, observations, information gaps, renovation objectives, and change-of-use demands for an existing building case.
- Suggested activity: map openings, removals, added loads, extensions, affected load paths, stability concerns, and multidisciplinary interfaces.
- Suggested activity: compare repair, member strengthening, system retrofit, foundation, and load-redistribution options using a multi-criteria appraisal.
- Suggested activity: combine phasing, temporary stability, specifications, quality controls, monitoring, risks, assumptions, and priorities in a Structural Renovation Strategy.

FAQs

Who suits the existing building structural renovation course and what does it assume?

It suits engineering, architecture, owner, facilities, consultancy, and review teams responsible for alteration, adaptive reuse, strengthening, or upgrades, and assumes they can interpret existing drawings, condition information, and engineering calculations.

How does structural renovation differ from a building condition assessment course?

Structural renovation converts evidence into alteration, strengthening, phasing, interface, and delivery decisions, while condition assessment concentrates on establishing and reporting the present condition and significance of findings.

How are structural renovation options compared for an existing building?

Options are compared against the renovation objective, load-path effects, condition evidence, change-of-use demand, constructability, temporary stability, multidisciplinary interfaces, durability, quality controls, monitoring, and future operation.



Why does adaptive reuse require a structural alteration review?

Adaptive reuse can change occupancy demands, imposed loads, layouts, openings, services, and performance expectations, so the review traces their effects through members, connections, foundations, and the vertical and lateral load paths.

What belongs in a Structural Renovation Strategy?

The strategy records objectives, evidence, assumptions, alteration impacts, option appraisal, selected interventions, phasing, temporary stability, interfaces, specifications, quality controls, monitoring, risks, priorities, and limitations.

Conclusion

Participants take back a Structural Renovation Strategy linking existing evidence, alteration impacts, intervention choices, interfaces, and delivery controls. It changes isolated upgrade proposals into a traceable basis for renovation planning and project decisions. The strategy supports coordinated action without replacing project-specific analysis, final design, heritage planning, permits, or professional certification.