



Technical Due Diligence Services for Real Estate

Thorough technical and environmental evaluation of your investment project from a single source.



Identifying the Prospects and Risks of Your Real Estate Investment

Before deciding to invest in any real estate venture, investors should be aware of all hidden problems and potential risks.

Challenges such as structural problems, environmental risks and legal issues can financially ruin those investing in real estate. Technical due diligence provides investors detailed information about the property prior to any commitment. Thorough independent analyses, inspections and evaluations can expose potential cost drivers and other problems. These services help investors make informed decisions by increasing the certainty about the genuine value of the real estate, allowing for the calculation and planning of future costs for the maintenance and repair of the property and identifying both the opportunities and limitations of an investment.

Technical due diligence and assistance from a single source

Thanks to extensive experience, our specialists can provide you with comprehensive technical and environmental due diligence services for an individual property or your real estate portfolio. We make sure, that your investment is safe and promising.

In addition, we also support you with technical assistance throughout the entire life cycle of your buildings and

structures – from planning and construction to operation and the sale or conversion of the property. This includes location analyses, investigations of contaminated sites and subsoil as well as construction quality assurance and further services to ensure the quality and safety of your buildings and structures.

Our technical assistance services through all phases for your buildings and structures include:

- Consulting on permits
- Location analysis
- Environmental impact analysis
- Energy concepts
- Consulting on life cycle costs
- Review of preliminary planning
- Building quality assurance
- Documentation of evidence
- Acceptance and periodic inspections
- Warranty management
- Valuation of property
- Auditing according to DGNB, BREEAM, LEED and BNB

Your benefits at a glance:

- Timely identification of risks and opportunities of your investment by a reliable independent partner.
- Comprehensive technical due diligence and expert assistance throughout the entire process.
- Reduction of uncertainty about the true value of a property.
- Identification of problems early on to avoid unexpected costs.



An Example of Our Work: Technical Due Diligence for a High-Rise Building in Germany

Before investing in a 24-storey high-rise in Musterstadt, Germany, an investor wanted to make sure that there were no hidden damages or potential risks that could lead to higher costs and other problems. That is why they turned to TÜV Rheinland to provide technical due diligence for the building.

To deem the investment free of hidden problems or potential cost drivers, our experts conducted an initial review and evaluation of the structural engineering and technical installations by examining existing documentations, taking part in meetings, conducting extensive building inspections and interviewing accompanying property managers. Our building inspections checked the structural shell, the façade and the roof as well as the windows, outside facilities, traffic routes and the main system. In addition, we examined several technical installations such as doors, elevators, building automation, exterior lighting and the heating system. To provide complete technical due diligence, our experts also inspected the fire prevention system. We then created a bilingual report in German and English documenting the monetary assessment of the reported deficiencies and risks.

The technical due diligence of the high-rise indicated that the building services were in good condition because of previous partial modernizations. The inspection revealed that the elevators had only a short residual life and that there was a high maintenance backlog concerning structure-related issues. Deficiencies included fire safety risks and problems with the façade and windows. Overall, more than 10.0 million EUR would have to be spent on the building structure and technical installations in order to ensure safety and protect the future of the investment.

The complete report enabled the investor to make an informed decision by increasing the certainty about the genuine value of the building and allowing for the calculation and planning of future costs for the maintenance and repair of the property.

Benefits for the client:

We supported the investor for the high-rise building in Musterstadt by providing:

- Extensive documentation of the object and thus knowledge of existing technical and structural conditions.
- Appropriate assessment of the current investment cost in order to determine an appropriate purchase price.
- An understanding of both opportunities and risks to strengthen informed decision-making.
- Strong arguments for the contractual regulatory and safety requirements.
- A complete technical due diligence report with high recognition value thanks to the TÜV Rheinland brand.

Our Technical Due Diligence Services for Your Project

In the following table you can find our technical and environmental due diligence services:

| Technical & Environmental Due Diligence / Condition & Risk Analysis | Residential | Retail | Industrial & Commercial | Office |
|---|--------------------|---------------|------------------------------------|---------------|
| Technical Due Diligence | | | | |
| Review and evaluation of technically relevant information and documentation | x | x | x | x |
| Completion of technical property inspections by qualified staff | x | x | x | x |
| Description and monetary valuation of identified defects on-site and the necessary measures to correct them | x | x | x | x |
| Designation of identified risks | x | x | x | x |
| Portfolio | | | | |
| Portfolio analysis and valuation | x | x | x | x |
| Representative samples, clustering | x | x | | |
| Concepts | | | | |
| Re-use concept | x | | x | x |
| Remodeling capability / multi-tenant | | | | x |
| Renovation plan | x | x | x | x |
| Optimization | | | | |
| Potential for increasing rent | x | x | | x |
| Modernization expenses, renovation potential | x | x | x | x |
| Planning optimization building services | x | x | x | x |
| Life-cycle costs | | | | x |
| Profitability analysis | | x | | x |
| Legal Requirements | | | | |
| Requirements of the Germany energy saving ordinance (EnEV) | x | x | x | x |
| Operator responsibility | x | x | x | x |
| Management of inspection intervals | x | x | x | x |
| Building laws | x | x | x | x |
| Latest technology | x | x | x | x |
| Environmental Due Diligence | | | | |
| Review and evaluation of environmentally relevant information and documents | x | x | x | x |
| Completion of environmental property inspections | | | x | |
| Sampling and analysis | | x | x | |
| Creation of environmental due diligence reports for single properties or portfolios | x | x | x | x |
| Recommendation and guidance for necessary restoration measures, as required. | | x | x | |

| Technical & Environmental Due Diligence / Condition & Risk Analysis | Residential | Retail | Industrial & Commercial | Office |
|--|--------------------|---------------|--|---------------|
| Inspection of Contaminated Sites | | | | |
| Historical analysis as part of the environmental due diligence | x | x | x | x |
| Exploratory analysis (completion of soil and / or groundwater investigations) | x | x | x | x |
| Detailed underground investigations | x | x | x | x |
| Consultation on the management of contamination risks | x | x | x | x |
| Inspection of Harmful Substances in Buildings | | | | |
| Creation of a pollutant register | x | x | x | x |
| Building structure evaluation and demolition register | x | x | x | x |
| Dismantling and removal concepts | x | x | x | x |
| Estimation of removal costs and removal management | x | x | x | x |
| Asbestos testing | x | x | x | x |
| Contract tendering, coordination and monitoring of asbestos removal | x | x | x | x |
| PCB analysis | x | x | x | x |
| Sustainability | | | | |
| Quality and potential of sustainability | | x | | x |
| Assessment of time-to-certification for a „green building“ | | x | | x |
| Renewable energies | x | x | x | x |
| Energy concepts, energy efficiency | x | x | x | x |
| Inspecting | | | | |
| Expert inspections | x | x | x | x |

Always a good sign. The TÜV Rheinland test mark.



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