

INSPECTOR OF WORK (IOW) VS RESIDENT ENGINEER (RE)

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Resident Engineer (RE)

In Malaysia, the position of resident engineer (RE) is usually employed by a consulting firm to provide engineering services and expertise to clients in a specific location or region. They cooperate closely with clients, contractors, and governmental organizations to ensure the project conforms to regional regulations, standards, and requirements. The Resident Engineer is also responsible for monitoring the Inspector of Works and serves as the main point of contact between the client or consultant and the contractor on site.

Their key responsibilities are to ensure that projects are carried out according to design plans, providing technical advice and support to the construction team, and coordinating with consultants, contractors, and clients. They must keep the client or consultant fully up to date on the works and keep detailed records of all matters which may affect the engineer's instruction, certificates or other actions under the contract. They are also responsible for monitoring project progress, and handling on-site issues related to quality control and safety. Resident engineers play a crucial role in ensuring that infrastructure development in Malaysia is executed effectively, safely, and to a high quality standard.

Inspector of Work (IOW)

An Inspector of Work (IOW) in Malaysia is responsible for supervising construction works to ensure that contractors adhere to the approved plans, specifications, standards, and regulations^[1]. IOWs are usually employed by clients, governmental organizations, consulting firms, or contractors, play a significant role in ensuring the quality and safety of construction work.

Their main responsibilities are to inspect compliance with building standards and regulations, maintain updates on the construction progress, and report any deficiencies or deviations from the approved designs. They also collaborate with the project's architects, engineers, contractors, and other stakeholders to handle any issues that may arise during the construction.

Generally, IOW specifically works under the Resident Engineer supervision. In Malaysia, registered IOWs under the Board of Engineers Malaysia (BEM) are classified into four main engineering branches: Civil, Electrical, Mechanical, and Chemical^[2]. To register with BEM as an IOW, candidates must hold a minimum Diploma in Engineering or Diploma in Engineering Technology accredited by the Engineering Technology Accreditation Council (ETAC)^[2].

According to *Table 1* below shows a summary difference between Inspector of Work and Resident Engineer:

Table 1: Inspector of Work (IOW) vs Resident Engineer (RE)

	Inspector of Work (IOW)	Resident Engineer (RE)
Minimum Qualification	i. Education: Diploma in Engineering or Diploma in Engineering Technology (accredited by ETAC) ii. Experience: 2 years of site work experience in the construction industry iii. Registration: Inspector of Works with the Board of Engineers Malaysia (BEM)	i. Education: Degree in Engineering (accredited by EAC/MQA) ii. Experience: 5-10 years of experience in relevant engineering projects. iii. Registration: Graduate Engineer with the Board of Engineers Malaysia (BEM)

Responsibilities	<ul style="list-style-type: none"> i. Inspect construction works for compliance with drawings, specifications, standards, and safety requirements. ii. Check that work materials meet quality standards and are used correctly. iii. Maintain detailed site records (inspection findings, job progress reports, daily logs). iv. Witness site tests (e.g., concrete cube tests, pile load tests) and report results. v. Report deviations/non-conformances to the RE/Engineer and assist in implementing corrective actions. 	<ul style="list-style-type: none"> i. Coordinate with clients, consultants, contractors, and authorities to ensure smooth project delivery. ii. Organize and participate in site meetings to update stakeholders, address issues, and facilitate coordination. iii. Monitor contractor's resource allocation and progress to ensure timely completion. iv. Supervise construction activities to ensure compliance with design specifications, local codes, and safety regulations. v. Maintain detailed project records and provide reports to the Engineer/consultant. vi. Review and recommend on contractual matters (e.g., variation orders, claims) to the Engineer but final approval rests with the Professional Engineer (Engineer/SO).
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Conclusion

In summary, the main differences between a Resident Engineer and an Inspector of Works in Malaysia lie in their qualifications, roles, and responsibilities within a construction project. A Resident Engineer has a more comprehensive role encompassing the coordination and management aspects, while an Inspector of Works primarily focuses on quality control and assurance on-site during construction works. Ultimately, the construction industry prioritizes both safety and quality in every completed project. Therefore, every construction personnel must carry out their duties and responsibilities strictly parallel with Code of Conduct to ensure that the buildings are safe and fit for occupancy.

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References:

- [1] Ar Ridha Razak. (2018). *IOW Roles and Responsibility in Malaysia*. Scribd. Retrieved on 28th August 2025 from <https://www.scribd.com/document/393988816/IOW-roles-and-responsibility-in-Malaysia>
- [2] Board of Engineers Malaysia. (n.d.). *Registration*. Retrieved on 28th August 2025 from <https://bem.org.my/Landing/register>