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| CLIENT | Mansell Construction Services Ltd |
| PROJECT | Newport School, Leyton, London E10 |
| ARCHITECT | NPS London Ltd |
| VALUE | £2 million |
| WORK SCOPE | Refurbishment of Newport School including construction of a new infill block |



NLG Associates were appointed by Mansell Construction as lead building services design engineers for the refurbishment of Newport School in Leyton.

The Brief

The scheme comprised of two key phases.

1. The first phase was the complete modernisation of all existing buildings services, future proofing the school for the next 30 years.
2. The second phase involved the construction of a new multi-level school block, connecting to both of the school's existing two structures.



Challenges

- Newport school's existing services were substantially dated, with sections of the heating system dating back half a century and would not cater for the increased heating demand required for the new school block.
- During the feasibility report NLG Associates highlighted that the majority of soil waste and potable water distribution pipes in both existing blocks were no longer fit for use.
- The construction of the new school block would result in a significant increase to the site's electrical requirement and NLG Associates were keen to implement changes to help reduce running costs.
- The school's existing fire alarm and sound system needed modernising.
- NLG Associates were required to assess and reconfigure where applicable the sites existing underground drainages systems. This was vital for Newport School to comply with the DDA requirement by providing ramped access to the new school block.



Outcomes

- All existing boilers were replaced with energy efficient gas fired boilers.
- Lower running costs were archived during the cold periods as NLG Associates were able to section off the heating systems, allowing the school to regulate the heat across all three buildings.
- The new school block also included a natural ventilation system that prevents overheating by solar gain in the summer months.
- As the selected pipe work was already being replaced, Newport School were able to request slight changes to service routes allowing them to adapt their buildings for future demand with tailored services to suit.
- This was achieved by securing Newport School an upgraded electrical supply and introduced energy efficient light designs across all three buildings including energy saving light bulbs where applicable.
- The school's existing fire alarm and sound system were also modernised whilst being incorporated into the new block.

“NLG Associates are a multi-disciplined practice with building services at its core.”

Abdul Chaudhry, D&B Manager, Mansell Construction