Nossal High School was delivered by Kane Constructions in 2010. The design of the $15 million project was conceived as a centre for excellence for high achieving students within the Melbourne public school system. The school is designed to support collaborative, problem based learning delivered via innovative teaching and learning methods.

The school has strong links with the existing Monash University campus and has been influenced by best practice examples of schools and other building types and incorporates a variety of formal and informal areas designed to stimulate knowledge sharing, experimentation and discovery.

The classrooms were organised into four "teams", one for each of the years nine through twelve. The rooms can be used as a larger learning space or sub-divided into three intimate spaces so students can work in groups. These learning spaces move away from the traditional "eyes to the front" classroom layout to an environment that mimics tertiary learning environments that support collaborative, problem based learning.