SUMMARY

The size and population density of Singapore’s urban areas has created an increasing demand for cost-effective underground construction. This demand has created new opportunities for new method of underground construction to minimise construction cost and impacts on the public. During the construction of the North East Line (NEL), the semi top down construction method is first introduced in Singapore. The NEL consist of sixteen underground stations linked by bored and cut and cover tunnels. Two of the underground stations adopted the semi top down method construction while the other fourteen stations adopted the conventional bottom up construction method. This research is conducted to determine the feasibility of adopting semi top down construction method from the perspective of project cost and time. Ultimately, it was found that semi top down construction was not cost efficient and time saving as compared to the conventional bottom up construction method.