

# Newsletter

issue 3

## KTS wins project down-under



Luxury high rise, Sydney

KTS's latest appointment is to undertake a feasibility study, budget and a value engineering exercise on what will be Australia's largest fully automated parking system when it is built.

The development will incorporate a four or five level automated parking system (APS) installed in the basements of the tower.

KTS is using a two stage tender process to ensure the developer has key information at an early stage of the project in order to determine any design and budget constraints.

The project is not due to be completed until 2019.



The Zibi project, Ottawa

**KTS appointed on major project for an existing client**

The Zibi project, a huge 15-hectare renewal development, will help transform Ottawa over the next 10 to 15 years.

The development was to include a circa 180-space fully automated parking system to sustainably and space-efficiently park vehicles below ground.

KTS worked with the client and their project design team on the feasibility study to evaluate several different parking technologies. A shuttle parking system was initially identified as the most suitable.

However, after a detailed cost analysis and value engineering exercise, we were able to confidently decide that as a result of civil costs associated with the installation, an APS didn't provide the best solution.

# Agreeing system performance figures - why it's important

## Case study

### Background

A vendor, who is a supplier of fully automated parking systems, enters into a contract with a client to design, manufacture, install and commission a circa 100+ space fully automated parking system.

Despite the vendor being granted practical completion by the client's representative, the client later instigated a claim against the vendor that the system could not achieve the performance figures as stated in the contract documents.

### Relevant clause in the contract:

*"The dimensions of the new automated parking facility have been designed in order to guarantee the following hourly flow rate:*

- *Entry or exit: 55 vehicles per hour*

*The new automated parking facility must always be capable of a guaranteed minimum hourly flow of 20 exiting vehicles, even in the event of a breakdown and irrespective of the nature of the breakdown in the installation and/or one of its systems and/or one of its components."*

### Dispute

Despite numerous performance tests and counter claims supported by through-put calculations, and onsite measurements, the supplier could not prove beyond reasonable doubt that the system could meet the required performance.

The client and the vendor had differing ideas as to how the performance should be measured. Had this been established, detailed and incorporated into the contract documents, site acceptance test results would have been indisputable, and any claims or counter claims could have been resolved quickly.

### Note

While most timings can be accurately measured and should be consistent, the "drive in walk out" value is a variable and depends on driver skill levels and familiarisation with the system - therefore it is imperative that this value is agreed and documented in the contract. Technical document VDI 4466 "Automatic parking systems - basic principles" could be used to determine this value.

The graph shows an example of typical sequences and different recorded timings. It shows that the "drive in walk out" value is the single greatest area of influence of overall system performance

### Sequence

