



## CASE STUDY

### APN OUTDOOR XTrack TV Perth Central Train Station

Digital Pylon Signage



**Yap!out**  
outdoor digital signage



# APN OUTDOOR XTrack TV Perth Central Train Station

## Digital Pylon Signage

### A Landmark Project for OOH Digital Signage in Perth – APN Outdoor XtrackTV

They say that Rome wasn't built in a day ... important work takes time. So is true for the three \*XtrackTV Out of Home (OOH) digital mono pole signage screens recently installed at the Perth Transport Authority's (PTA) Perth Central Railway Station.

The city's central rail nerve centre sees 24,000 city commuters each day of the week – some 168,000 a week. APN Outdoor commissioned Yap!digital to manufacture and install three new OOH digital advertising screens on Platforms 4&5, 6&7 and 8&9.

Our scope of works included extensive preliminaries and the manufacture and installation of 2 single sided and 1 double sided mono-pole LED digital sign structures that stand 3.6m high above the platforms. With digital screen face dimensions of 2.8m high x 4.5m wide, utilising P5 outdoor high resolution LED screens, the screens really pack a punch.

The PTA site bears many of the hallmarks of modern day transport hubs; running a busy 24/7 schedule to keep passengers on the move through the network. The challenges of large scale modifications to rail platforms infrastructure is not to be underestimated, and

with the devil in the detail, meticulous planning and creative methodologies were the critical attributing factors to the project's success.

From conception to installation the project took 18 months. The 4 phases were:

- Stage 1: Pre-planning
- Stage 2: Rail Safety Plans & Methodology
- Stage 3: Manufacturing & Installation
- Stage 4: Commissioning

### Stage 1 – Pre-planning

Our works were planned to precise detail after several consultation meetings with various PTA infrastructure heads of departments so we could understand the strict works and access controls that are unique to a 24/7 high risk environment such as a high voltage electric Rail environment. With a robust methodology review process we were able to refine our works plan to ensure that we made the best of every opportunity in design, manufacture, installation and deployment.





## Stage 2 - Rail Safety Plans & Methodology

One of the key elements of the planning process involved Skilled Rail who endorsed the Rail Safety Plans. This submission included High Voltage shut downs, the Yap!digital methodology, OH&S and council permits. The full scope of preliminaries included:

- Compilation of S&L OSH docs and methodology;
- Noise Management Plan;
- Sub surface scans;
- Perth Station Rail Safety Plan;
- GPS Survey Location Works;
- Engineering;
- Access vehicle & transportation of structures;
- Excavation methodology;
- Installation methodology.

## Stage 3 - Manufacturing & Installation

There were a couple of really tricky aspects to this project and the Perth Central Station works location.

### a. Small Night-Works Windows:

Our team had to operate between 12am – 4am on only 3 nights of works of the week. This made deliveries to site and the staging of works critical to minimise disruption to PTA daily operations. Key from PTA's perspective was that day-to-day passenger operations must run as per normal without disruption from our works.

### b. Site Access and Facilities:

Another tricky aspect of the site was getting materials and equipment in and out, plus there was

no onsite water was available due to the danger with water around high voltage electricity. Our team devised creative & efficient methodologies for the transportation of materials - especially whilst having to work around the odd rock concert or two with peak passenger volumes of 60,000 people.

### c. Excavation:

Works involved excavating footings 2.4m deep into the existing concrete platforms, placing reinforcement and installing new engineered concrete footings, make good of tiling and stainless steel inspection cover plates.

### d. Other Sub-contractors:

Downer Electrical was commissioned by APN to put in place the power and communications required for the digital signs. Downer worked in parallel with our site team to maximise works relating to the power and communications.

### e. Manufacturing:

We manufactured precise steel galvanised mono poles and digital screen sub-frames for the P5 digital screens to be mounted to. These frames had to be very precise so that the digital screens would sit nice and flush as any uneven framework would look unsightly when the digital screens were affixed to the frames. The frames were manufactured in our Midvale facility where, once ready, the digital screens were fitted and tested by APN's screen partner BSV.

### f. Transportation to Site:

The last and most critical aspect of the project was transporting the poles and new 4.5m(W) x 2.8m(H) digital header section of the signs in to Perth Central Railway and lifting into place. Several hurdles were encountered with this stage of the project; namely limited works windows, limited tunnel width and the

ever present overhead 25000 volt high voltage cable! Our project manager worked closely with PTA project managers to ensure creative transportation jigs were used on a Road Rail Vehicle to get the header sections to the platforms in one piece to save time on site. PTA had valid concerns about how the header sections would be safely lifted, given their significant weight. Our team's solution was robust lifting jigs and methodologies that were pre-tested in our factory to satisfy PTA that the methodologies were sound.

### g. Climate Control Software:

Final works involved other project stakeholders to achieve integration of the control software in one of PTA's IT portals so that the control software was in a climate controlled protected environment. All 4 digital screens display synced television commercials that are controlled via Scala digital signage software from APN's head office in Sydney.





## Stage 4 - Commissioning

Commissioning on site included energising of the signs by Downer Electrical and attendance by BSV, APN's screen partner, to ensure the digital signs control equipment was networked correctly and that the web cameras and other ancillary equipment was fully operational after transport and installation to site. BSV worked with PTA's IT team to ensure that if PTA announcements are made over the PTA passenger information system (PAS) that the sound to the digital screens shuts off whilst passenger announcements are made. This was a critical requirement for PTA. PTA also have the ability to adjust the volume of the audio on the signs.

These \*XtrackTV structures were designed to be seen 'cross track' – as the name suggests, above the trains as the trains enter and depart to Perth Central Station. Ongoing, Yap!Digital will service the signs when required. Without a doubt, this site was the most complex works location our team has worked on to date, and we are proud of the result with zero site incidents.

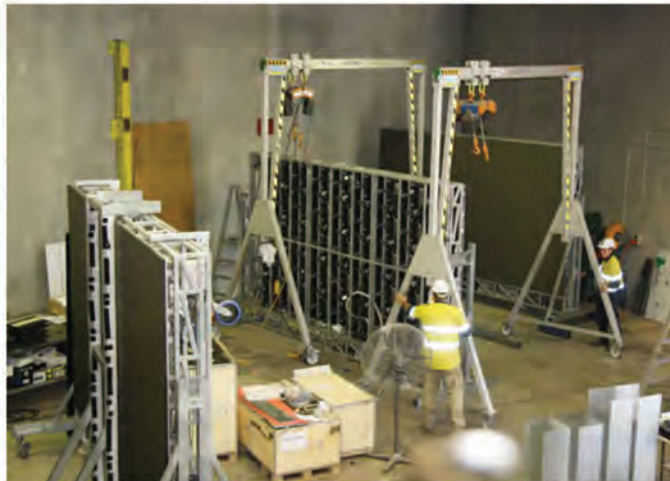
*\*XtrackTV is a new product to the OOH industry, a platform where TV commercials can be displayed. Perth has been added to APN's national portfolio of Xtrack sites along with Brisbane, Sydney, Melbourne and Adelaide.*

To speak to the PTA about this project specifically, contact:

**Cam East, Project Manager | Network & Infrastructure**  
**Public Transport Authority of Western Australia**  
**Mob: 0478 313 732**  
**Email: [cameron.east@pta.wa.gov.au](mailto:cameron.east@pta.wa.gov.au)**



**Public Transport  
Authority**



**Yap!out**  
outdoor digital signage





We're ready to start talking!  
Speak up now about your next project or idea.

**P** (08) 9274 5151

**E** [tim@signsandlines.com](mailto:tim@signsandlines.com)

[tim@yapdigital.com.au](mailto:tim@yapdigital.com.au)

**M** 0407 775 031

**[yapdigital.com.au](http://yapdigital.com.au)**

Yap!digital, 5 Meliador Way, Midvale, Perth WA 6056

