

PROJECT FACT SHEET

Customer: Major Projects Victoria

Contractor: Lend Lease

Project: Electrical & Communications works

Completion: 02-05-2012

Project Profile: Wholesale Market is a hub in the national distribution system for fresh produce, providing industry with essential logistics and scale efficiencies.

Nilsen Scope of Works: The scope of work performed by Nilsen as part of the Melbourne Market Relocation Project is outlined as follows:

1. Electrical Services Works

Design review, manufacture, supply, installation, and testing of electrical and associated services including the following, Low Voltage Power Systems, MATV, UPS, and a Lightning Protection System.

2. Communications System Works

Design review, manufacture, supply, installation, termination and testing of the Communications Racks, Active Equipment, WAPs, Fibre and Copper Cabling systems.

3. High Voltage Works

Design review, manufacture, supply, installation, termination and testing of the complete High Voltage Infrastructure system comprising of the HV Main Switchboard, PLC, 10 off HV Kiosks and approx 2900m of HV cabling.

4. Other Works Packages include:

- Embedded Metering System
- Check Metering System
- Cbus Lighting Control System

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- Public Address System
- Traffic Signalling for the Intersections
- Active Filtering
- Standby Generator System
- Motorised Retractable Cable reel system , controlled via CBus

Project Challenges:

- Nilsen had to ensure that the Project requirements were met in relation to Harmonic mitigation and PFC capabilities and as such installed an Active Filtering system on all Low Voltage Main Switchboards.
- Nilsen had to ensure that voltage drop and fault loop impedance issues were managed due to the inherently long route lengths of the Submains and sub circuits on the Project.
- Nilsen had to design and install the infrastructure required to support any Meter Embedded Metering Retailer's Software and Hardware Systems.
- Nilsen had to design and install IP65 rated Communication Cabinets, also with A/C within the Flower Market and Trading stands to deal with these potentially wet and humid conditions.

Added value accrued to customer because of Nilsen involvement:

1. Efficient Problem Resolution

Nilsen in undertaking any project employs a proactive approach in seeking firstly to prevent and secondly to minimise the potential impact of any project impeding issues. A number of initiatives that were implemented in relation to the MMRP Project include:

- Active participation in the design review process to ensure that any constructibility and maintainability issues were identified and addressed;
- Working closely with suppliers and sub-contractors to utilise their experience and specialist skill sets to obtain the most efficient outcomes.

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2. Project Goals and Outcomes

Nilsen ensured that project goals and outcomes were achieved for both itself and the client by applying the following systems and initiatives:

- Undertaking of a Risk Assessment during the tender bidding process;
- Working closely with suppliers and sub-contractors early in the process to streamline the supply chain as efficiently as possible

3. Safety Leadership

- Nilsen maintained an active Safety Culture during the Project, comprising of Daily pre-start meetings, Weekly Toolbox meetings and an Employee Training program, all of which was monthly audited and assessed by the Main Contractor.
- Nilsen was the leading contractor regarding Safety on the Project as reflected within the Main Contractors Monthly Safety Matrix which assesses performance on compliance with SWMS, PPE, and Housekeeping, Supervision / Management and Injury / Incident reporting amongst other criteria.
- Nilsen's high standard of Safety management and site execution was used as an example by the Main Contractor to assist in lifting the standard of the other contractors on the Project.

4. Innovation

- Nilsen trained members of their Project Team to be High Voltage Operators and Thermographic Imaging operators to streamline the commissioning process.
- Nilsen utilised a soft-wiring system for the Administration Building lighting to increase efficiencies.
- All in ground conduits were surveyed before backfilling with a site GPS coordinate system for alignment and depth to ensure compliance with the documents and for future identification.

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Referees: Rod Mounsey – Lend Lease OHS Manager

Awards and Nominations: Commendation – NECA Awards of Excellence (Vic) – Commercial Large (2013)

