

Serving Sainsbury's Waltham Point



It is impossible to overlook the gigantic new Sainsbury's regional distribution centre situated just south of Waltham Cross as one drives anti-clockwise on the M25 between Junctions 26 and 25. At over 700,000 square feet on a site of over 40 acres, Waltham Point is one of Europe's largest warehouses. Comprising over 180 loading bays and

split approximately 50:50 into ambient and refrigerated areas, Waltham Point is a 24-hour, 364 days a year facility. Just one of three such new centres to serve Sainsbury's stores throughout London and the South East, Waltham Point has been operational since Spring 2003.

CCTV Overview

Security is a priority at Waltham Point and this is reflected in the nature and scale of the CCTV systems installed. Although a huge site, Waltham Point is a highly automated distribution facility with approximately only 300 Sainsbury's staff on-site at any one time. In addition, hundreds of lorry drivers will visit the facility daily, many of whom will be employees of Sainsbury's suppliers or self-employed drivers rather than on the Sainsbury's payroll.

Developed by Kier Group, the security requirements for Waltham Point were established in the tender specification documents issued by RGCM Limited, the primary contractor for the project. The tender was awarded to Longcross Security, formed less than two years ago and a division of the Longcross Group based in Surrey. On site since May 2002, Longcross will remain there to train staff and monitor the system until after the site is operational.



In total the installation features 102 CCTV cameras positioned around the site including 39 Molyntx Videmech external day/night Surcha minidomes, 49 internal colour Surcha minidomes and 13 static Vista colour cameras. The internal domes are positioned within the warehouse whilst the static cameras are found throughout the reception, catering and office facilities. Several of the external domes are situated within sight of a residential development and to protect the privacy of residents, each of these cameras will utilise their privacy zone function.



Fibre optic cables connect all the cameras to 6 Dedicated Micros Digital Sprite digital video recorders (DVRs) and to a VisiLynx Matrix unit from Molyntx Videmech that performs the function of a multiplexer. These are installed in a 'back-office' control room within the distribution facility.

To comply with the Data Protection Act, the system's recording capacity allows for the storage on hard disk of up to four weeks' worth of images. However, each Digital Sprite DVR also allows images to be recorded onto CD where appropriate.

Flexibility

The whole concept of the installation's design centres on flexibility and the importance of telemetry control over individual domes. Depending on the chosen configuration, images from all of the cameras on site can be sent to one of

three security points – the entry and exit gatehouses and an internal control room situated mid-way inside the building. Four Vista monitors, each of which can display up to sixteen cameras, and a VisiLynx II keyboard are installed in each of these control rooms for the use of Sainsbury's own in-house security personnel. The CCTV installation is integrated, via alarm inputs, with the intruder alarm system, also installed by Longcross. This enables, for instance, a camera to pan automatically to wherever an alarm has been activated.

Tony Francis, Technical Manager at Longcross Security, explains that flexibility is the key to the installation:

“Once the facility is up and running, Sainsbury’s own security staff will wish to have optimum control over the day to day monitoring of the cameras. By ensuring that any camera can be viewed from any monitor, and all the domes can be manipulated from any of the control points, Sainsbury’s can configure the system to suit their changing requirements on a daily basis.”

Quality images

The nature of the CCTV system installed at Waltham Point reflects the size and nature of the facility, but also the priority Sainsbury’s gives to the security of its staff and goods. “The longest cable run to a single camera is 1,410 metres,” explains Tony Francis. “Only fibre optic cabling can transmit a high quality image over such distances without degradation.”

Similarly, the choice of camera and digital recording solution reflects the size of the project and the company’s focus on the capture and recording of high quality images.

“The size of the installation requires the use of a matrix rather than a multiplexer as no multiplexer can handle such a large number of cameras. This inevitably also influenced our choice of camera”, explains Andy Mason, Longcross Project Manager for Waltham Point. “It was essential to select a dome compatible with the Visilynx Matrix. With its in-built Visilynx control protocol the Surcha Minidome became the obvious choice”.



The Surcha Minidome is highly regarded for its quality of camera and telemetry control, build, weatherproofing (IP66 for external cameras) and ease of installation. The dome features privacy zone masking for external cameras and the telemetry function offers full proportional speed at all times regardless of zoom position. This gives the operator maximum control over the dome.

Visilynx

Alongside the rows of fibre optic channels in the back office control room sits the Visilynx II Plus Matrix unit capable of supporting up to 256 cameras, 32 keyboards, 1024 alarm inputs and 128 relay outputs. Other features include 99 preset positions per camera, 256 named view combinations of camera and preset position, 64 video preset sequences, 128 timed events and 32 user IDs. Full telemetry control is provided.

“Such a list of capabilities hides one the key benefits of the system however,” explains Andy Mason. “The Visilynx II is renowned for its scalability but it is the user friendly nature of the operator keyboard that wins over customers.”

A good example of this is the ability to select individual cameras, views (a combination of individual camera and pre-set view) or zones (groups of up to eight cameras) at the keyboard using menus of text descriptions. This eliminates the need for the operator to remember numbers and their meanings or for the control room to feature lists of camera descriptions taped to the operator’s desk.

Two video loss boxes with a capacity of sixteen cameras each and a UPS system capable of supporting the whole CCTV system in the case of power failure complete the installation.

Completing the Picture

With a project management task of this scale and complexity, the advantage of using a single equipment supplier is well proven. Fragmented deliveries can be avoided and a strong relationship built between supplier and installer. Longcross Security chose Norbain SD to supply all the CCTV equipment for Waltham Project.

“We regularly use Norbain,” explains Tony Francis. “Norbain’s stock range, product availability, delivery reliability, and returns policy is second to none and highly valued when working on prestige sites such as this.”

Tony Francis’ optimism is well grounded. Offering a £10 million stock level with guaranteed 98% product availability for next day delivery for orders placed before 7pm, Norbain achieves consistently high service levels for its customers. “For projects that last weeks and months rather than days, ordering all the equipment one needs is simply out of the question. Norbain’s next day delivery policy has helped enormously as I’ve sought to manage this project as efficiently and economically as possible.”