



AT A GLANCE

The upscale, Tanger Outlets Complex, is a shopping mall located in Cookstown, Ontario, featuring a variety of brand-name and designer outlet stores. With plans to double the square footage of the mall from its original size, the project presented a significant and complex challenge. Mircom was carefully selected to provide a reliable fire detection and alarm solution to safe-guard the client's valuable investment.

The project was initiated by construction of the retail complex's expansion, which added an additional 152,000 square feet to the building. Mircom undertook the challenge of synchronizing the fire alarm and intelligent smoke control to ensure all parts of the system functioned in tandem and on time for the grand opening. Success was achieved through teamwork and innovation among Mircom technical and applications specialists, and Mircom's local Engineered Systems Distributor, Controltech Systems.

PROJECT BACKGROUND & SCOPE

Tanger is a publicly traded corporation that has a portfolio of outlet centers which include 46 outlet malls in 24 states in the USA and additional locations in Canada. Their portfolio amounts to more than 2,200 outlet stores, which are owned and operated by the most popular brand name retailers. Tanger centers feature brand name and designer fashions, as well as home décor, toys, electronics, food, and entertainment venues.

The Cookstown Tanger Outlets Complex expanded from its initial 156,000 square feet to a new total size of 308,000 square feet. Mircom was tasked with protecting the newly expanded mall with its FleX-Net system complete with intelligent smoke control. This required retrofitting the existing structure for compliance with FleX-Net, followed by the upgraded installation encompassing the entire 308,000 square feet.

CHALLENGE

As part of the mall's expansion plans, the client requested that the complex be outfitted with an intelligent smoke control system. This proved to be the most challenging aspect of the project, requiring highly intricate wiring, correlations, and programming operations.

An intelligent smoke control system encompasses a combination of fans, dampers, warning devices, and ancillary equipment that work together to perform the containment function for any smoke event. A properly designed and reliable smoke control system should inhibit or prevent the movement of smoke into areas leading to exits or other designated safe zones in a building. Due to the various sequences which need to happen simultaneously, smoke control by its nature is a very complex task. Mircom's FleX-Net solution successfully addressed all challenges.

THE MIRCOM SOLUTION

Mircom delivered the requirements of this project by designing a customized intelligent smoke control panel for the application. The solution was designed to display a complete map of the building with LCD and LED indicators as well as on/off switches integrated into the zone schedule to allow the smoke control graphic to act as a control and display annunciator. Creating a custom smoke control solution required technical finesse and great attention to detail.

Mircom technical and applications specialists carried out the solution by liaising with our ESD partner, Controltech Systems, to ensure that the panel was properly configured and wired, and by confirming that all required and appropriate correlations were programmed. The strong teamwork and co-operation ensured that the system was functioning flawlessly in time for the Tanger Outlets Complex Grand Opening.

BENEFITS AND VALUE ADDED

The Tanger Outlets Complex is located approximately 50 km North of Mircom's Head Office facility in Vaughan, ON. The convenient location allowed the client to benefit from the proximity of Mircom's team of technical and applications specialists.

Mircom's Head Office team also provided direct supervision of the project and support to Controltech Systems on matters such as on-site technical support, product delivery, engineering, and logistics.

SYSTEM SUMMARY

- FleX-Net 2 Nodes
- FX-2017-12NDS
- Custom Smoke Control Active Graphic Annunciator
- Integrated RAXN-LCD Network Annunciator

Within the Tanger FleX-Net solution, the FX-2000 base panel consists of one intelligent loop controller which can be wired in Class A (style 6 or 7) or Class B (Style 4). The system could be expanded using additional analog Loop Controller Modules. It is also equipped with a back-lit alphanumeric LCD display which utilizes a simple Menu system complete with directional keypad, common control switches and LED's, Alarm Queue switches, and two configurable input switches.

The FX-2000 is an incredibly powerful control panel which supports both internal and external annunciation modules. The internal annunciation modules consist of the RAX-1048TZDS-CC programmable LED annunciators, the IPS-2424DS programmable input switch modules, the FDX-008 Fan Damper Modules and the AGD-048 Adder Graphic Modules.

All input circuits can be configured for non-verified alarm, verified alarm, water-flow, latching/non-latching supervisory, monitor, trouble only, or remote switch inputs. The system has the capacity to function as a series of multiple panels together or as one single node. In addition to these adder modules the FX-2000 also supports the UDACT-300A Digital Communicator Module and the PR-300 Polarity Reversal/City Tie Module.





INSTALLATION AND TEAM

Mircom's Engineered System Distributor (ESD) partner on the project was Controltech Systems.

Mircom's head office team collaborated with Controltech Systems to successfully complete the installation. Working in conjunction with the building's electrical engineer was also integral to the project's execution and ensuring all specifications were met.

Mircom's Applications Group managed most technical aspects of the project. The Applications team assisted with installation and testing of the FleX-Net, as well as creating the schematic graphics for the intelligent smoke control system.

Cooperation amongst all parties was a crucial contributor to the success of the project, and the client was very impressed with the manner in which Mircom collaborated with the various stakeholders to meet and exceed their needs.

CONCLUSION

The completed Tanger Outlets Complex expansion represents an estimated \$70 million dollar investment in Cookstown. It has led to the creation of more than 400 full and part time retail management and sales positions. During construction, an additional 125 temporary jobs were also created.

Mircom is proud to have supplied the fire detection, alarm, and smoke control solutions to this impressive project. Safety, protection, and peace of mind to all Tanger Outlet employees and stakeholders were the ultimate objectives. The Tanger Outlets Complex project represents one more Mircom success story in striving to create safer, smarter, and more livable buildings.



About Mircom®

Founded in 1991, Mircom is a global designer, manufacturer and distributor of Intelligent Building Solutions. Reaching customers in over 100 countries worldwide, Mircom's portfolio includes: fire detection & alarm, communications & security, mass notification, nurse call, and building automation & smart technologies. Mircom's vision is to make buildings worldwide safer, smarter, and more livable.

Our global network of dedicated Sales and Service Offices, known as Mircom Engineered Systems, allows us to be a full solution provider. Through Mircom ES, we're able to provide and fully service our line-up of innovative and advanced solutions which are scalable to satisfy diverse user demands, from small & mid-size buildings to the world's most complex applications.

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