SWARCO McCain

CANADA

FEATURED DEPLOYMENT

CITY OF NORTH VANCOUVER, BRITISH COLUMBIA

SWARCO McCain transforms North Vancouver, British Columbia's traffic system with cutting-edge traffic management and intelligent solutions

OVERVIEW

SWARCO McCain and Innovative Traffic Solutions, Inc. modernized North Vancouver's traffic management solutions with cutting-edge Intelligent Traffic Systems (ITS) while seamlessly transitioning the city from a closed-loop/hardware-based system to a cloud-based central traffic management system. SWARCO McCain's complete solution enhanced remote monitoring and control of traffic signals, paving the way for a more responsive and efficient traffic management system in line with the city's future innovations.

LOCATION

North Vancouver, located across the harbor from downtown Vancouver, British Columbia, has a mix of urban and suburban traffic volume. Its dense network of roads, closely intertwined with major city thoroughfares, facilitates easy access to and from nearby urban areas and presents a significant flow of vehicles, especially during peak hours. Additionally, routes such as Highway 99 and the Lougheed Highway, among others, attract a considerable amount of recreational and tourist traffic, further adding to the overall vehicular movement in the city.

THE CHALLENGE

The city relied on an outdated Siemens database management software used as a repository for controller timing. The Siemens' database software system often presented inaccurate or default values/timings. This aging software system, along with the city's legacy traffic management solutions such as cabinets and controllers, lacked modern features, which prevented the city from future innovations. A critical upgrade was needed not only to modernize the city's traffic management solutions but also to enable the integration of ITS. Moreover, transitioning from a hardware-centric approach to a software-driven solution required extensive training to solidify advanced and dynamic traffic management capabilities.

SOLUTION

SWARCO McCain partnered with Innovative Traffic Solutions, Inc., to advance North Vancouver's traffic management, addressing key timing issues at several intersections. The timing conversion solution involved replacing the city's outdated cabinets with SWARCO McCain's ITS Cabinets. To further enhance this solution, SWARCO McCain integrated its MyCity TMS[1], along with 35 McCain ATC eX NEMA Controllers, all powered by the McCain Omni eX® Intersection Control Software. Furthermore, SWARCO McCain's *Transparity* Adaptive improved North Vancouver's arterial traffic management by autonomously optimizing signal timing, adjusting to real-time traffic conditions, and providing various synchronization strategies that are crucial to the city's transition to a cloud-based communications system.

In addition, the team provided essential support in configuring its network and communications solutions, ensuring successful end-to-end data transmission as the city transitioned to a fully remote accessible system communicating through an IP Network. Lastly, SWARCO McCain provided training, consisting of its software, ATC controllers, and ITS Cabinets. This comprehensive solution ensured a seamless transition from traditional hardware to advanced network-based traffic management solutions.

THE RESULTS

North Vancouver now features a modern traffic management system that facilitates the city's future initiatives, including smart city innovations, transit sustainability, Vision Zero, and other efficient, safer urban planning efforts. This system has positioned the city to utilize controllers compatible with existing NEMA and ATC cabinet standards. Moreover, in recent revisions, the City of North Vancouver is exploring the deployment of modern and future-ready solutions, such as SWARCO McCain's ATC Cabinet Series.

[1]Formerly known as Transparity® TMS

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