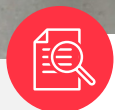


## CASE STUDY



# How Fraser Valley RF Solutions Boosted Indoor Cellular Coverage for Two Very Different Environments with iBwave



## Overview

**Fraser Valley RF Solutions**, led by Rob Villeneuve, helps businesses and communities across British Columbia solve indoor connectivity challenges. From large commercial spaces to residential complexes, their expertise ensures reliable mobile coverage where it matters most.

Two recent projects highlight their versatility:

- › **A motorcycle dealership in Langley**, where poor indoor coverage disrupted customer experience and business operations.
- › **A residential underground parking garage in North Vancouver**, where weak signals prevented residents from using mobile devices, EV charging, and car-share apps.

Fraser Valley RF Solutions used **iBwave Mobile Survey** and **iBwave Design** to assess, design, and validate solutions that transformed user experience.



## The Challenges

### High Road Motorsports, Langley, BC

Thick concrete walls blocked outdoor signal, leaving the building with poor coverage.

- › **Customer Frustration:** Staff and customers had difficulty making calls indoors.
- › **Business Impact:** Suppliers and customers struggled to reach employees, hurting operational efficiency.
- › **Coverage Gaps:** Phones and other devices could not reliably connect inside the building.



### Residential Parking Garage, North Vancouver, BC

The outdoor signal could not penetrate into the underground garage.

- › **Weak Underground Signal:** Residents could not use mobile services in the garage.
- › **Smart Mobility Impact:** EV charging and car-share apps failed due to unreliable connectivity.
- › **Safety Concerns:** Limited indoor signal also created potential issues for emergencies.



## The Solution



Fraser Valley RF Solutions applied a structured approach to both deployments:

- › **Seamless Network Surveying:**  
Using the Epiq Solutions Prism Scanner with iBwave Mobile Survey, Rob mapped LTE signal strength before installation and verified results afterwards.
- › **Predictive Design:**  
At the dealership, Rob simulated the antenna placement with iBwave Design to ensure maximum coverage efficiency before physical installation.





### › Smart Booster Deployment:

At **High Road Motorsports**, a SureCall Fusion 5s booster with rooftop and indoor antennas was installed to provide broad coverage across showroom, sales, and warehouse areas.

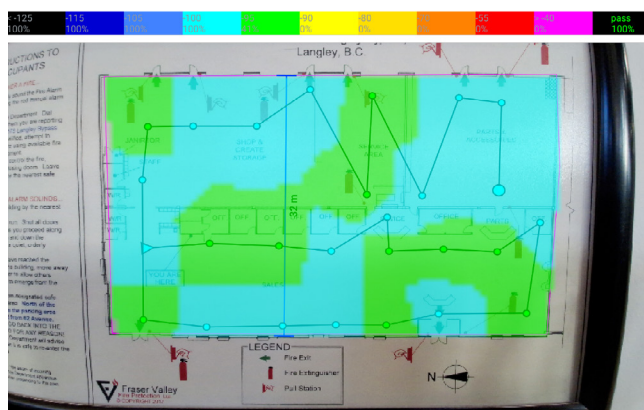
At the **North Vancouver garage**, a SureCall Fusion Professional 2.0 eight-band booster was deployed with outside and garage antennas to extend strong outdoor signal underground.



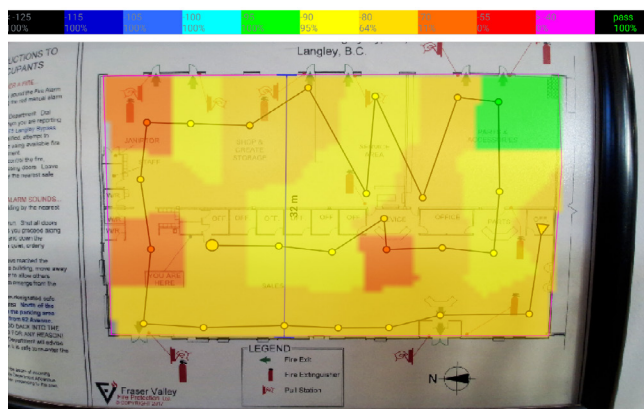
## The Results

### High Road Motorsports

**BEFORE:** 60% poor/unusable (below -100 dBm), 40% barely usable (-95 dBm to -100 dBm) | LTE RSRP at 850 MHz.



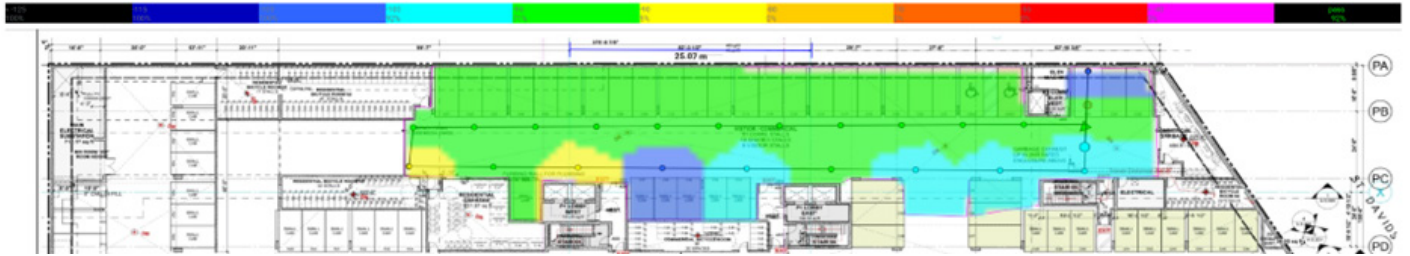
**AFTER:** 100% strong and usable (-70 to -95 dBm) | LTE RSRP at 850 MHz.



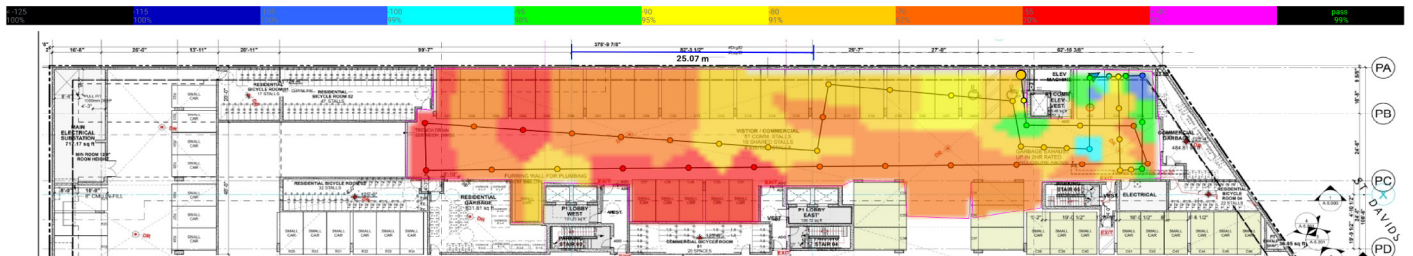
- › **Reliable Indoor Signal:** Staff and customers can now make calls anywhere inside.
- › **Business Efficiency:** Communications with suppliers and clients are uninterrupted.
- › **Customer Satisfaction:** Shoppers and visitors experience seamless connectivity.

## Residential Parking Garage

**BEFORE:** 30% poor/unusable (below -105 dBm), 60% barely usable (-90 to -100 dBm) | LTE RSRP at 850 MHz



**AFTER:** 99% strong and usable (-65 to -95 dBm) | LTE RSRP at 850 MHz



- **Seamless Connectivity Underground:** Residents can now use EV charging and car-share apps without issue.
- **Stronger Signal Quality:** Post-survey data validated robust coverage across the entire garage.
- **Community Benefits:** Improved convenience, safety, and peace of mind for all residents.

“We went from barely any reception to a strong signal everywhere that mattered. The visual proof was incredible. Seeing the before-and-after maps gave us total confidence in the solution.”



**Kelly Anderson,**  
High Road Motorsports



Now the EV charging and car-share setup work great. Residents can stay connected even underground. This project was a big success.



**Rob Villeneuve,**  
Fraser Valley RF Solutions

## Conclusion

From a busy retail dealership to a residential underground garage, Fraser Valley RF Solutions showcased how **modern survey tools, predictive design, and reliable booster technology** can solve connectivity challenges across very different environments.

**With iBwave, Fraser Valley RF Solutions** delivers more than coverage — they **deliver confidence, efficiency, and reliability** for their customers.

**| Watch our video case studies from both projects.**  
[High Road Motorsports, Langley, BC](#)  
[Residential parking garage, North Vancouver, BC](#)

