## CASE STUDIES

Redwood City, California

City/Department Profile: RCFD provides fire, rescue and first-response ALS service to a population of 130,000 out of seven stations.

Problem: Unprecedented growth, funding constraints and anecdotal crew complaints of increasing traffic interference.

Solution: using Code3 Strategist measurement and modeling tools, RCFD analyzed response speed history, both validating and quantifying a significant response speed decline in key areas.   Statistical models of projected 2023 incident volume were built using Code3 Visionary. These models were adjusted to generate different growth scenarios, including new construction, redevelopment and intensification of several existing sectors.   The resulting data were used to estimate workload impacts and incremental costs on the existing system.   Code3 Strategist modeling was used to evaluate the resilience of different deployment strategies in the face of several alternate growth scenarios.

Outcome: Potential service reductions due to pension burdens averted during past two budget cycles.   Agreed plan of record with City government for resource additions at specific growth benchmarks.
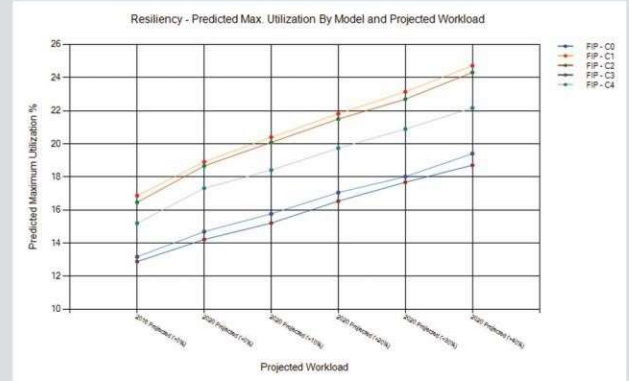
Palm Beach Gardens, FL

City/Department Profile: Palm Beach Gardens Fire-Rescue (PBGFR) serves a dense, affluent community of 65,000 with a significant daytime/employment surge from five stations. PBGFR provides fire, rescue, hazmat and transport ALS responses to 12,000 calls for service annually.
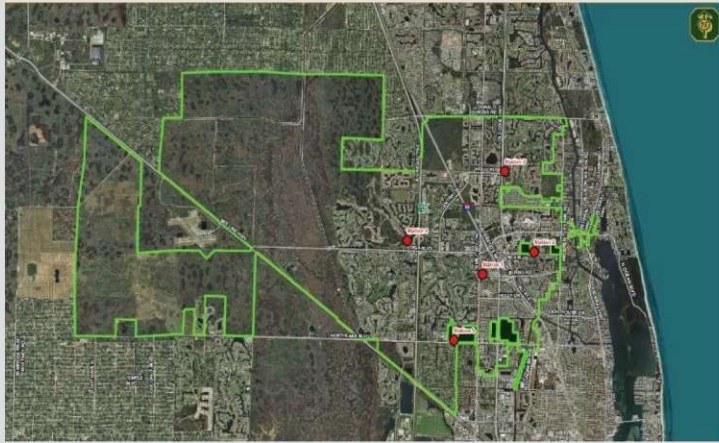
Problem: A massive new development, equivalent to a small city, is planned in a newly annexed, previously undeveloped, under-served area east of the main urban area.   Extreme, but unknown service demand and significant response delays were nearly guaranteed, but impossible to quantify.

Solution: Code3 Visionary generated defensible predictive models of the workload demand likely to be generated by the new development. These models were added to projected city-wide growth to give a comprehensive model of the 2022-2023 operating environment; Code3 Strategist projected the attendant strain on existing resources and service gaps in the developing areas.   Code3 Strategist was also used to evaluate several deployment strategies for coping with the proposed development.

Outcome: commitment by City leadership to an incremental strategic plan leading to a two battalion system with additional resources phased in during development to mitigate the evolving service gap.