Flow-RTC

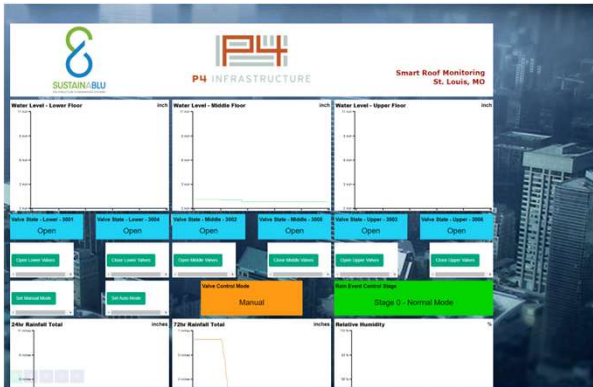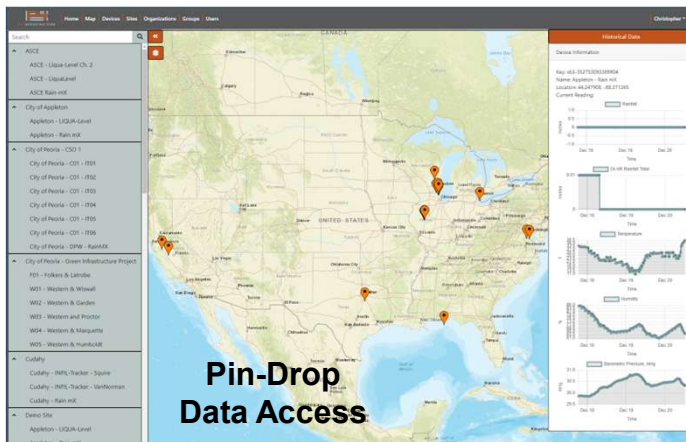## Autonomous Flow Control for Stormwater Infrastructure

Flow-RTC is a flow-control system for stormwater infrastructure.

Coupling Flow-RTC with P4's LIQUA-Level and Rain-mX systems facilitates documentation of stormwater runoff volume detention and a performance monitoring system.

Battery health and (solar) re-charging cycles are documented and displayed.

Wireless data transmission.

Pin-Drop Data Access

Applications & Value

Control Discharge
Force Infiltration
Enhance Pollutant Removal
Rooftop Detention

Data

Rooftop detention time
Stormwater infiltrated
Stormwater thru underdrain
Syncing with other sensors

Nationwide cellular connectivity (LoRa and WiFi possible)

Closed/Open Flow Control for:
- Permeable pavement systems
- On-structure detention systems
- Biofiltration systems

Browser-based dashboard (viewing and data download). Advanced notice of potential problems. Data visualization. Data-driven maintenance notification.

Valve and control system to compliment other systems (synchronized data)

Flow-RTC - Specifications

Communication

- Cat-M1 cellular (2G, 3G, 4G LTE compatible)
- Wi-Fi option
- Long Range WAN (LoRa) option

Installation & Measurement

- During or post-construction installation
- Easy removal and replacement
- 2″, 4″, and 6″ valve options
- User-defined open/close cycles

Power

- Voltage - 12V DC
- Battery - 5,000 mAh NiMH pack (modular)
- No external power required
- Remote battery health monitoring
- Solar re-charging with remote monitoring

Maintenance

- Modular (plug-and-play) system
- Remote battery health monitoring
- Solar panel cleaning (every 6 months - location dependent)
- Manual valve opening/closing possible

Operating Temperatures & Compliance

- Fahrenheit: -30 °F to 120 °F
- Celsius: -34 °C to 49 °C
- FCC and RoHS

User Interface & Data

- Browser-based access, display and control
- JPG and CSV downloading
- Mobile via iOS and Android
- 90%+ data reliability

What volume of runoff was detained?   **How long was the detention?**   **How long did it take to empty?**   **Flow-RTC**