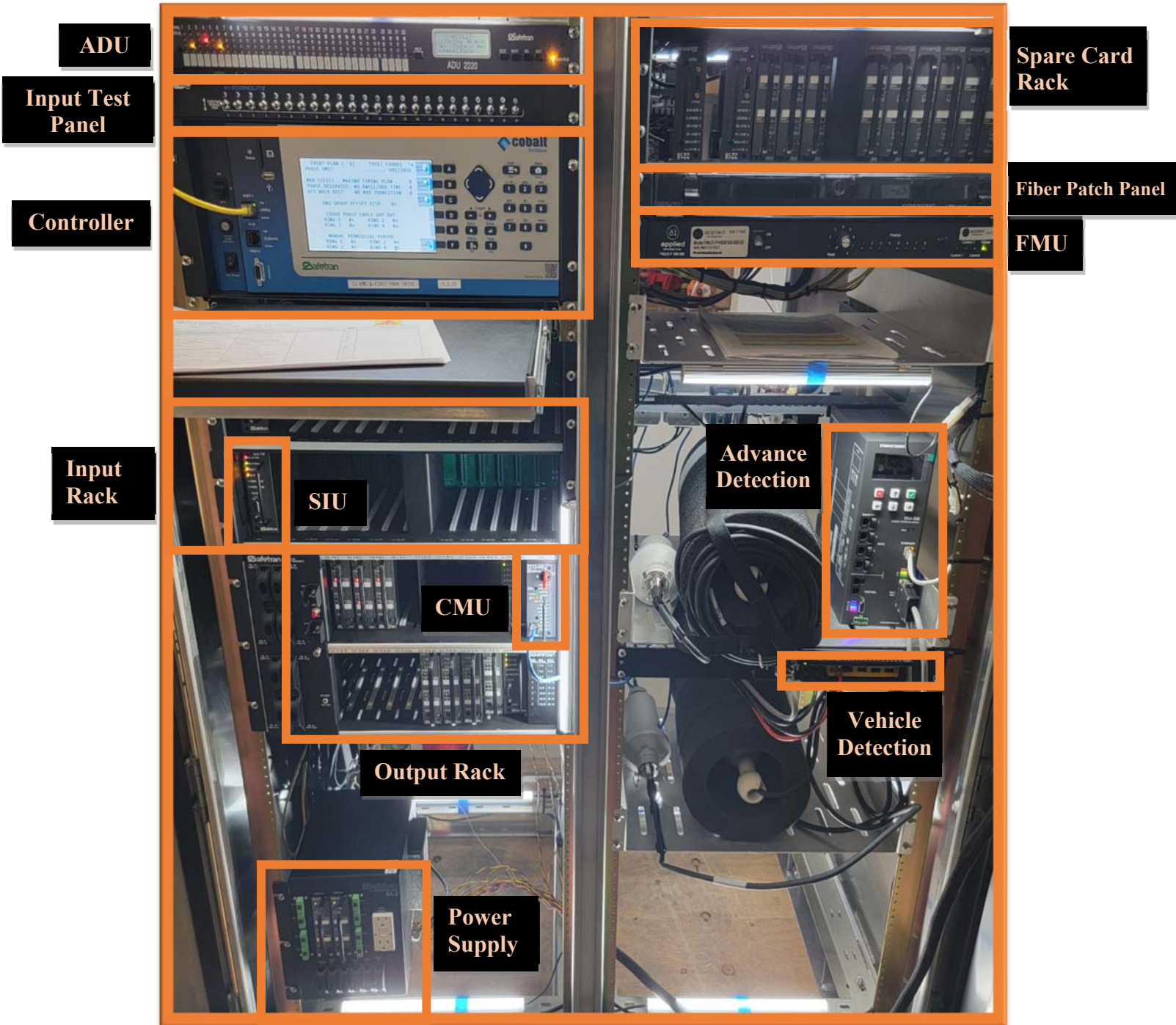
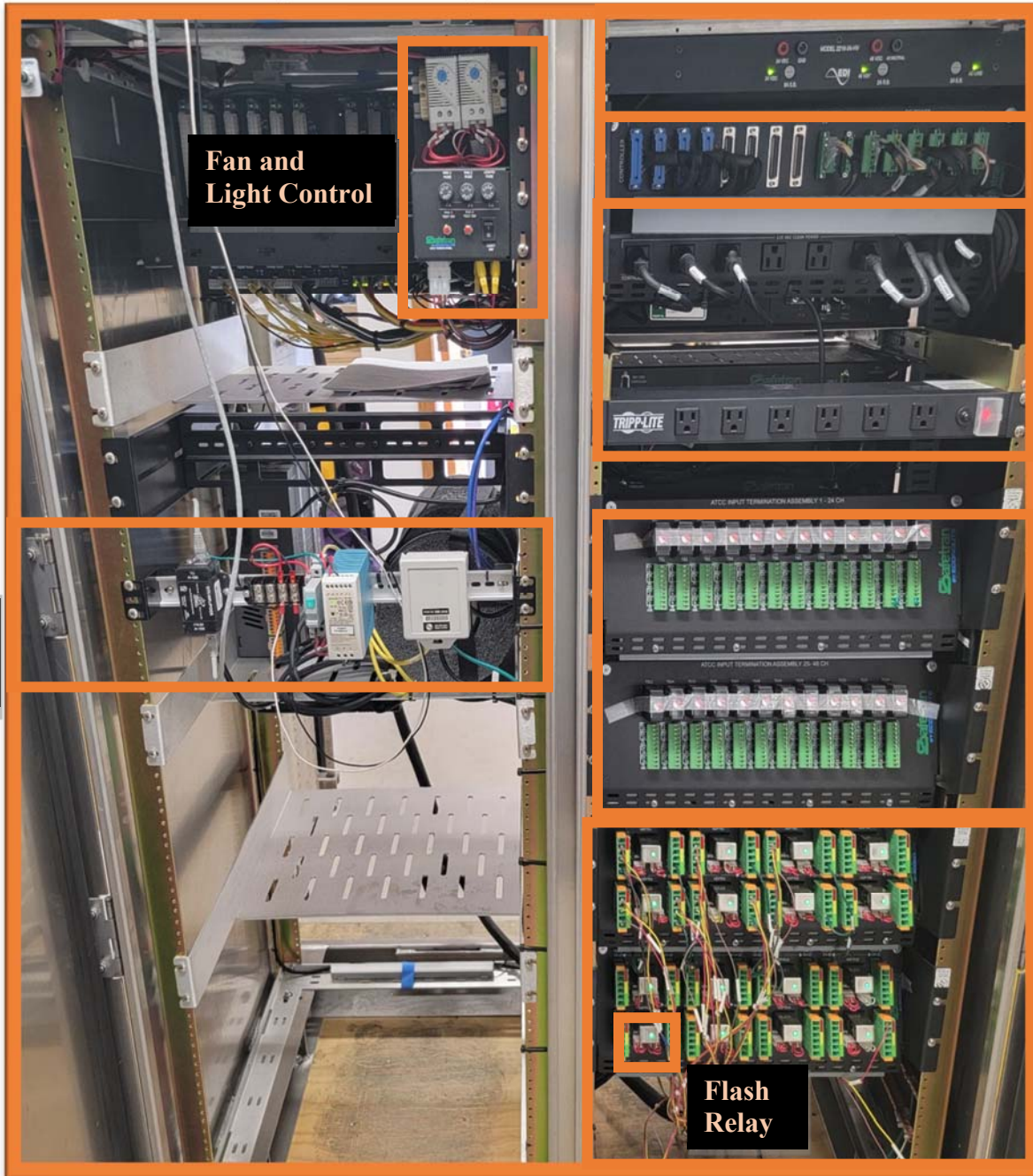


Components of a Typical ATC Traffic Cabinet Front Side



Kennedy Memorial Drive at First Park Drive, Waterville Maine

Components of a Typical ATC Traffic Cabinet



Kennedy Memorial Drive at First Park Drive, Waterville Maine

ATCC Component Functions

ADU:	The Auxiliary Display Unit provides a visual display of the current state of the output channels along with other diagnostic information. The ADU works directly with the CMU.
Input Test Panel:	The Input Test Panel allows technicians to manually trigger vehicle detectors, pedestrian detectors, and preemption inputs without modifying the controller programming or putting the controller into Manual Control. Each switch can either be toggled for a pulse input or toggled into a continuous input.
Traffic Signal Controller:	Is responsible for the logic that controls the intersection and all of the operational functionality at the intersection. The controller is programmed with parameters such as channel assignments, phase configurations, scheduling, and coordination. The controller also collects and stores signal performance log data.
SIU:	The Serial Interface Unit transfers data to and from the input or output panels and the traffic signal controller. Each rack will have a dedicated SIU.
Input Rack:	Houses the input cards required for various functions of the traffic signal, commonly including detection and preemption.
Output Rack:	Houses the switch packs responsible for taking the inputs received from the traffic signal controller and powering the appropriate output channel.
CMU:	The Cabinet Monitor Unit is responsible for ensuring the safe operation of the traffic signal. It monitors the voltage and current to each signal indication and can determine when a conflict in signal indications has occurred. When a conflict or issue is detected, the CMU will put the intersection into flashing operation.
Power Supply:	Converts the input voltage of 120 Volts AC to 12 Volts DC for use by the various devices in the cabinet. The power supply also provides power line filtering.
FMU:	The Field Monitoring Unit monitors the status and performance of the traffic signals and other equipment in the field and commonly provides a remote connection to the other equipment through a cellular connection.
External Device Surge Protection:	Each device that has equipment located outside of the cabinet should have some form of surge protection between the external equipment and the equipment inside of the cabinet.
Rear Power Supply:	Provides power for testing equipment used by technicians.

C,Thompson

Traffic Signal Basics

SDLC Bus:	The Synchronous Data Link Control Bus connects the SIUs and some of the other cabinet equipment to the traffic signal controller.
Rear Power Strip:	Provides standard 120V plugs for equipment in the cabinet and testing equipment used by technicians
Input Termination Panel:	Used to connect the input devices to the Input Rack.
Output Termination Panel:	Connects the Output Rack to the traffic signal equipment outside of the cabinet.
Flash Relay:	Responsible for driving the adjacent channel under flashing operation.