

## **SPECIFICATION FOR MODEL 410 HIGH SECURITY VEHICLE ACCESS CONTROL CANTILEVER GATE SYSTEM**

**General:** The following specifications describe the active vehicle control device known commercially as the model 410 HIGH SECURITY CANTILEVER GATE system. The 410 will consist of a motor side buttress assembly, a cantilever gate leaf, receiver assembly and drive mechanism designed to stop and contain an unauthorized vehicle from entering a facility. Activation of the gate will be from a single set of dry contacts (card reader, push button, vehicle detector) and operated by a hydraulic pumping unit.

**Configuration:** The gate will be arranged to operate in a standard driveway with the ability to match an existing fence line. The gate will be of cantilevered construction with no hardware in the roadway. All serviceable parts will be easily accessible without the removal of the gate leaf. The hydraulic pumping unit will be designed to operate the gate with field adjustable speed controls to meet the end users requirement. The standard gate height will be 108 inches above grade, and a clear opening of 144 inches. The standard gate infill will be aluminum tube positioned to prevent a foothold for climbing. Alternate infill designs are available; please contact the factory for details. The gate assembly, when closed, will be designed to effectively stop a **15,000 pound vehicle at 40 mph**. The impacting energy will be transferred to the foundations through composite steel weldments.

The hydraulic pumping unit will be designed to move the model 410 gate. The unit will be sized to provide continuous duty and will include all necessary manifolds, valves and flow control devices to allow for normal, and optionally, fast operating speed. Normal operating speeds will be 10-15 seconds for a standard opening while emergency up speed will be 7-10 seconds. The required electrical power will come from a three phase circuit as available (208/230-480) 3 horsepower, while the control will be from a single 120 VAC circuit. The gate will be operable in the event of a power failure by use of hand pump, or by manually pushing the leaf. The pumping unit will be 27" X36" X 41". Each pumping unit will be contained in a steel cabinet with two locking doors and a removable lid to assure easy maintenance and service of all components. The control circuit will be a 24 VAC relay or solid-state PLC logic to be operated with a dry set of contacts as specified by the user to open and close the gate. The control circuit will interface with all equipment and required control stations. All interface points will be to a clearly defined terminal strips.

The control panels will be designed to allow for primary and secondary operations. The primary panel will have a key switch to activate the secondary panel. Both panels will be equipped with indicator lights and, if specified, an optional annunciator to indicate that the gate has been open too long.

All systems can be ordered with optional systems to enhance the performance or operation of the gate. Some optional equipment can include a traffic control signal gate that uses a wooden arm to warn the vehicle operator as to the status of the gate. The arm will rise only when the gate is fully opened. The arm will lower prior to the gate closing. The system can also be supplied with red/green traffic lights that will remain red if the gate is in any position other than fully open. The system will be supplied with environmental controls as specified, to include heaters for the pumping unit, motor, and wheels. All of the mechanical moving parts will be protected by the design of the gate, with no environmentally exposed components.

Optional Safety devices that could be interfaced with the gate system include vehicle detectors that will prevent the gate from closing on a vehicle, unless an emergency override is activated. The detector will be a self tuning unit using the latest micro-technology control circuit and self-diagnostics. An infrared safety beam will be used to protect pedestrian traffic and as an additional vehicle detector device.

The supplier and installer will be experienced in barrier technology with over 20 actual site installations. The installer will be staffed with appropriate engineering personnel to assure a complete and satisfactory turnkey operation. Each system will be designed for the frequency of operation an environmental conditions. The gate will operate \_\_\_\_ times per hour, and will operate in a temperature range of \_\_\_\_ - \_\_\_\_ F. Each gate system will be tested as an assembly to insure the operation of the unit. The system will be crated to allow for easy handling and transportation.

All barrier systems, including the model 410 sliding gate, should be carefully planned with safety as a paramount concern. ARMR Services Corporation is not a traffic safety-engineering firm and recommends that your proposed system be reviewed before installation. It is recommend that all forms of safety be used where possible, for example, proper lighting, audible and written warnings, and redirection of pedestrian traffic.

**ARMR Services Corporation**  
[www.armrservices.com](http://www.armrservices.com)

**8301 Arlington Boulevard Suite 206**  
**Fairfax, VA 22031 USA**

**Phone 703-876-9844**  
**Fax 703-876-0427**