The Ross XT-4000-SG Anti-Climb Sliding Gate is an extremely flexible gate system that offers aesthetic appeal, utmost durability and ease of assembly in the field. The rolling gate design features wheel assemblies that glide smoothly along an above-grade track. The gate leaf incorporates a formidable, structural steel frame that supports easily assembled, interchangeable picket and opaque panels designed specifically to prevent climbing or scaling. Stanchions at either end of the gate direct the gate leaf and provide stability, positive locking capabilities and a mounting surface for the gate operator. For more information, please call our toll-free number above or visit our website.

SECTION 323103

ANTI-CLIMB GATE

(ROSS XT-4000-SG)

PART 1 - GENERAL

1.1 SUMMARY

A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

1. Anti-climb sliding gate.

1.2 SUBMITTALS

A. Product Data: Submit manufacturer's product data for each type of product.

B. Shop Drawings: Submit shop drawings including the following:

1. Complete list of equipment, materials, and manufacturer's descriptive and technical literature.
2. Complete wiring and schematic diagrams, and details required to demonstrate that the system has been coordinated and will properly function as a unit.
3. Proposed layout and anchorage of equipment and relationship to other parts of the work, including foundation and clearances for maintenance and operation.

C. Operations and Maintenance Manuals: Submit at least two copies of operating and maintenance instructions at least two weeks prior to installation.

1. Operating Instructions: Include step by step procedures required for system startup, operation, and shut down. Also include the manufacturer's name, manufacturer's contact information, model number, parts lists, and brief description of all equipment and their basic operating features.
2. Maintenance Instructions: Include maintenance schedule, routine maintenance procedures, troubleshooting and repair procedures, and spare parts list.

D. Warranty: Submit executed copy of manufacturer's warranty.

1.3 QUALITY ASSURANCE

A. Installer: Minimum 2 year documented history of installing similar equipment, authorized and certified by the manufacturer. Installer shall accept responsibility for all field verifications, underground utility locations, and coordination of all controls and interfaces to the units.

Installer shall be capable of bonding projects to relevant project amounts, and acceptable liability and vehicle insurance.

B. Manufacturer's Services: If requested by the Owner, provide services of a manufacturer's representative who is experienced in the installation, adjustment, and operation of the equipment. The representative shall inspect the final installation and supervise final hookup, adjustment, and final testing of the equipment.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store equipment in a location protected from the weather, humidity, temperature variation, dirt and dust, or other contaminants. Store materials on sleepers or pallets and protect from rust and objectionable materials such as dirt, grease or oil.

1.5 WARRANTY

A. Warranty: Provide manufacturer's standard limited warranty.

PART 2 - PRODUCTS.

2.1 MANUFACTURER

A. Basis-of-Design Manufacturer: Ross Technology Corporation, 104 North Maple Avenue, Leola, PA 17540. Toll-free 800-345-8170. www.rosstechnology.com. No substitutions.

2.2 ANTI-RAM GATE

A. Anti-Climb Sliding Gate: Ross XT-4000-SG by Ross Technology Corporation complying with the following:

1. Gate Security Performance: Gate shall have anti-climb design, utilizing modular [smooth panels] [spaced picket panels] without footholds or handholds. Panels shall be installed into structural frame using security fasteners.

a. Smooth Panel Design:

1) Base Material: Steel
2) Cladding: [None/Factory Finish] [_____] [Indicated on the Drawings]

b. Spaced Picket Design:

1) Material: Steel
2) Picket Type: [3/4-inch (20 mm) square bar] [1 inch (25 mm) square bar] [1 inch x 11 gauge (20 mm x 3 mm) square steel tube] [1 inch x 11 gauge (20 mm x 3 mm) round steel tube] [1-1/2 inch x 11 gauge (38 mm x 3 mm) square steel tube] [_____] [Indicated on the Drawings]
3) Picket Spacing: [2.56 inches (65 mm) on center] [5.12 inches (130 mm) on center] [5.91 inches (150 mm) on center] [Sized for maximum 5.12 inch (130 mm) gap between pickets] [_____]

2. Gate Installation: [Surface mounted] [Embedded in foundation]

a. Surface Mounting: Gate shall be mounted using supplied anchors to secure to appropriate surface.

b. Concrete Foundation: 3000 psi (20.7 MPa) Portland Type 1 concrete with an industry standard cure time of 28 days. Normal maximum aggregate size shall be 1.5 inches (38 mm). Vibrate concrete to fill all voids. Rebar shall comply with ASTM A615 grade 60.

3. Gate Height: [8 feet (2.43 m)] [10 feet (3.05 m)] [12 feet (3.66 m)] [_____] [Indicated on the Drawings]
4. Gate Clear Opening Width: [12 feet (3.66 m)] [18 feet (5.49 m)] [24 feet (7.32 m)] [36 feet (10.97 m)] [_____] [Indicated on the Drawings]
5. Gate Handing (as defined from secure side): [Right] [Left]
6. Gate Support: Gate shall utilize tandem trolley V-groove wheels that roll on bolt-down V-track.
7. Gate Motion: Reversible in either direction. Gate shall operate approximately 1 foot per second with standard operator.
8. Failure Mode of Operation: Gate operator drive wheels shall have the ability to be disengaged without use of tools in the event of control or motor malfunction to allow for manual gate operation.
9. [Optional] Accessories:

   a. Stainless Steel Construction: System shall be fully constructed from [304] [316] stainless steel for use in corrosive environments.
   b. Fast Operation: Gate operator that shall operate gate at approximately 2 feet per second.
   c. Track Heater: In-ground heaters for areas of extreme conditions such as blowing snow or icing conditions with ambient temps of below 40 degrees Fahrenheit.
   d. Safety Light Curtain Sensors: Ensures gate stops operation if when unintended access is made into gate operation area.
   e. Gate Locking Feature: Provide positive locking bracket to allow customer to lock gate in closed position.
   f. Uninterrupted Power Supply (UPS): DC power supply to provide back-up power for a minimum of 3,000 ft (914 m) gate operation in the event of power outage.
   g. Traffic Control Lights: Alerts drivers to the position of the gate. Includes LED lights with pole and stand for mounting.
   h. Signal Gate Arm: Alerts drivers of the sliding gate position. The signal gate operation shall be interfaced with the sliding gate at the control circuit. The control circuit shall close the signal gate on the sliding gate “close” command and open the signal gate on the sliding gate “open” command.
   i. Vehicle Loop Detector: Prevents the gate accidentally operating adjacent to an authorized vehicle. When a vehicle is over the detector loop (wire supplied by installer) the gate “close” signal is interrupted.
   j. Additional Accessories: Based on project requirements.

B. Gate Operator: SlideDriver™ by HySecurity®. Specific operator model determined by gate size and operation speed.

   1. Continuous duty cycle.
   2. Soft start and stop.
   3. Shall conform to UL325.
   4. Power: AC power, voltage and amperage dependent on operator and UPS requirements.

C. Controls:

   1. Provide a control panel and control circuit to interface between all gate control stations and the gate.
   2. Control stations are defined as the master control panel and the slave control panel.

3. Control circuit shall function through the use of industrial Programmable Logic Control (PLC). The PLC must be off the shelf item available through world wide distribution, and not a proprietary item.
4. Direct Interface with Auxiliary Equipment: Card readers, remote switches, loop detectors, traffic lights, proximity readers, numerical pads, etc., made possible through connection to a main terminal strip.
5. Additional control options are available. Contact manufacturer to discuss other options.

D. Master Control Panel:

1. Supply a 19 inch rack mount or standard desk mount main control panel to control gate functions. Provide buttons to open and close each gate. Include gate “OPEN” and “CLOSED” indicator lights for each gate or gate array. The main control panel shall have a switch to arm or disable the remote control station if a remote slave control panel is required.
2. [Optional] Supply touch-screen control panel that integrates all gate controls on a single screen.
3. Additional buttons and controls are available based on site operation needs.

E. Remote Slave Control Panels:

1. Remote control panels shall have a panel “ON” light that is lit when enabled from the main control panel. Provide buttons to raise and lower the barrier. Include barrier “UP” and “DOWN” indicator lights for each barrier or barrier array.
2. Additional buttons and controls are available based on site operation needs.

F. Finish:

1. Hot-dip galvanized per ASTM A123.
2. [Optional] Wash primer after hot-dip galvanizing per ASTM A123.
3. [Optional] Factory wash primer and finish after hot-dip galvanizing per ASTM A123; polyurethane top coat. Select colors from manufacturer’s color range.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and site conditions for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install products in strict accordance with manufacturer’s instructions and approved submittals. Locate units level, plumb, and in proper alignment with adjacent work. Use concealed anchorages where possible.

1. Protect adjacent areas against damage; repair or patch damaged areas. Restore damaged finishes so no evidence remains of corrective work.

B. Foundation: Excavate and construct forms as required to required foundation size and depth and place concrete in accordance with ACI standards. Perform backfilling by layering and tamping into place crushed limestone base material to 95 percent compaction.

C. Pavement: After level placement and installation of the vehicle barrier, place pavement sections to match the section and depth of the surrounding pavement. New pavement shall match the elevations of existing pavement and vehicle gates. Slope pavement to provide positive drainage.

3.3 FIELD TESTING AND TRAINING

A. Notify Owner's representative at least 7 days prior to beginning of the field test.

B. Upon completion of construction, perform a field test for each vehicle gate. The test shall include cycling the gate, both electrically and manually, through its complete range of operation.

C. Continuously cycle each vehicle gate for not less than 30 minutes to test for heat build-up in the electrical system.

D. Installer shall furnish equipment and make necessary corrections and adjustments prior to test witnessed by the Owner's representative. Changes to site conditions and adjustments and repairs to barrier system shall be performed at no additional cost to the Owner or manufacturer. If adjustments are made to ensure correct functioning of components, complete field tests and cycle tests shall be performed after adjustments are made.

E. Provide a field-training course for designated operating staff members by the installer. Field training shall cover all of the items contained in the operating and maintenance instructions.

3.4 ADJUSTING AND CLEANING

A. Clean exposed surfaces using methods acceptable to the manufacturer which will not damage finish.

END OF SECTION

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