

**SECTION 11 12 00**  
**PARKING CONTROL EQUIPMENT**

**PART 1 GENERAL:**

**1.1 DESCRIPTION:**

- A. Section Includes:
  - 1. Automatic Barrier Gates.
  - 2. Vehicle Detectors.
  - 3. Card Control Units.

**1.2 RELATED WORK:**

- A. Asphaltic paving: Section 32 12 16, ASPHALT PAVING.
- B. Concrete paving: Section 32 05 23, CEMENT AND CONCRETE FOR EXTERIOR IMPROVEMENTS.
- C. Concrete foundation work: Section 03 30 56, (SHORT FORM)CAST-IN-PLACE CONCRETE.
- D. Conduit placement for equipment: Section 26 05 33, RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS,
- E. Power supply to disconnect, junction box, in gate arm unit: Section 26 05 21, LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (600 VOLTS AND BELOW),

**1.3 QUALITY CONTROL: (NOT USED)**

**1.4 SUBMITTALS: (NOT USED)**

**1.5 REGULATORY REQUIREMENTS: (NOT USED)**

**1.6 PROJECT CONDITIONS:**

- A. Coordinate placement of conduit, accessories, and power wiring to operating equipment.
- B. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.

**1.7 DELIVERY, STORAGE AND HANDLING: (NOT USED)**

**1.8 APPLICABLE PUBLICATIONS:**

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by basic designation only.
- B. American Society for Testing Materials (ASTM):
  - A153/A153M-09.....Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

A500-10.....Standard Specification for Cold-Formed Welded  
and Seamless Carbon Steel Structural Tubing in  
Rounds and Shapes.

A653/A653M-10.....Standard Specification for Steel Sheet, Zinc-  
Coated (Galvanized) by the Hot-Dip Process,  
Structural (Physical) Quality.

C. National Electrical Manufacturers Association (NEMA):

MG 1-09(R2010).....Motors and Generators.

D. National Fire Protection Association (NFPA):

70-11.....National Electrical Code.

E. Underwriters Laboratories Inc. (UL):

Electrical Appliance and Utilization Equipment Directory.

#### **1.9 SYSTEM DESCRIPTION:**

A. Parking Control System: Automatic operation at entrance and automatic  
operation at exit.

B. Design: Protect against interference or damage by lightning or other  
electrical influence; include fuse, over-voltage protection, flash-over  
protection, and line filter.

C. Entry - Automatic Gate Arm Control: Electrically operated upon  
insertion of coded card and detection of vehicle by sensing loop buried  
in pavement. Activate automatic arm reversing switch if an obstacle is  
sensed in downward motion.

D. Exit - Automatic Gate Arm Control: Electrically operated upon detection  
of vehicle by sensing loop buried in pavement and insertion of coded  
card. Activate automatic arm reversing switch if an obstacle is sensed  
in the downward motion.

#### **1.10 SCHEDULING:**

A. Name Street Gate: Automatic key card operation, single gate arm, single  
gate exit arm activated with loop detector in pavement, and heated  
cabinets.

B. Employee Gate: Automatic coded card operation, double entrance, each  
with gate arms, double gate exit arm activated with key card.

**1.11 WARRANTY (NOT USED)**

**PART 2 PRODUCTS**

**2.1 MATERIALS: (NOT USED)**

**2.2 AUTOMATIC GATE: (NOT USED)**

**2.3 ELECTRICAL CHARACTERISTICS AND COMPONENTS: (NOT USED)**

**2.4 ARM AND SUPPORT: (NOT USED)**

**2.5 CARD CONTROL: (NOT USED)**

**2.6 VEHICLE DETECTION: (NOT USED)**

**2.7 FINISHES: (NOT USED)**

**PART 3 EXECUTION**

**3.1 EXAMINATION:**

- A. Verification of existing conditions before starting work:
  - 1. Prior to beginning installation, examine areas to receive parking control equipment. Verify that critical dimensions are correct and that conditions are acceptable:
    - a. Do not proceed with installation of parking control equipment until unsatisfactory conditions have been corrected.
- B. Verify that anchor bolts, and equipment pads are ready to receive work and dimensions are as indicated on drawings.
- C. Verify that electric power is available and of correct characteristics.

**3.2 PREPARATION**

Provide templates for anchor bolts and other items encased in concrete or below finished surfaces in sufficient time so as not to delay work.

**3.3 INSTALLATION**

- A. Install parking control system and components in accordance with manufacturer's instructions and placement drawings.
- B. Cut grooves in pavement surface, install vehicle detection loops and lead-in wires, and fill grooves with loop filler.
- C. Install internal electrical wiring, conduit, junction boxes, transformers, circuit breakers, and auxiliary components required.

**3.4 ADJUSTING**

- A. Prior to final acceptance of project adjust system components for smooth operation.
- B. Fit and adjust hardware for ease of operation.
  - 1. Lubricate hardware and other moving parts.
  - 2. Readjust parking control system and components at completion of project.

### **3.5 CLEANING**

- A. Clean metal surfaces promptly after installation, exercising care to avoid damage to coatings. Touch up damaged shop-applied finishes as required to restore damaged areas.
- B. Follow recommendations of manufacturer in selection of cleaning agents. Do not use cleaning agents containing ammonia or other compounds that might damage finished metal surfaces.

### **3.6 FIELD QUALITY CONTROL**

- A. Tests:
  - 1. Test operating functions in accordance with manufacturer's printed checklist.
  - 2. Correct defects revealed by tests. Retest corrected areas until functions are operating properly.

### **3.7 DEMONSTRATION, TESTING AND ACCEPTANCE**

- A. Acceptance: At completion of project, and as a condition of acceptance, parking control equipment and systems shall be operated for a period of 15 consecutive calendar days without breakdown.

### **3.8 PROTECTION:**

- A. Protect parking control equipment finished surfaces from damage during erection, and after completion of work until final inspection and acceptance.

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~~LISTED MANUFACTURERS~~

~~SPEC WRITER NOTE:~~

~~Verify manufacturers' capability to  
comply with indicated requirements each  
time the Section is edited.~~

**PARKING CONTROL EQUIPMENT:**

~~American Parking Equipment Inc.  
535 Oxford Street  
Etobicoke, Toronto, Ontario M8Y 1E5  
(800) 565-4666.~~

~~Amano Parking Systems (Headquarters)  
140 Harrison Avenue  
Roseland, NJ 07068  
(800) 367-6649~~

~~Amano Parking Systems (Factory)  
130 Commerce Boulevard  
Loveland, OH 45140  
(513) 697-9000~~

~~Delta Scientific Corporation  
24901 West Avenue Stanford  
Valencia, CA 91335  
(800) 521-9330~~

~~Federal APD  
24700 Crestview Court  
Farmington Hills, MI 48335  
(800) 521-9330~~

~~Magnetic Automation Corporation  
1715 Independence Blvd., Suite. B-7  
Sarasota, FL 34234  
(941) 351-7116~~

~~Parking Products, Inc.  
2517 Wyandotte Road  
Willow Grove, PA 19090  
(215) 657-7500~~