

SECTION 28 10 00 - SECURITY AND ACCESS CONTROL SYSTEM - SUPERMARKET

PART 1 - GENERAL

1.1 SUMMARY

- A. **Existing system to remain.** Modify only as required due to demolition and new work.
 - 1. This section is for a completely new security alarm system. Use only as a guide for new work or to modify the existing system.
- B. Section includes
 - 1. Complete security alarm system including:
 - a. Devices.
 - b. Programming.
 - c. Testing and setup of owner provided monitoring.

1.2 REFERENCE STANDARDS

- A. The system and all components shall be listed by Underwriters Laboratories, Inc. under the following standards as applicable. Not all the standards will apply to all projects. Refer to Drawings for more information:
 - 1. UL 609, 1610, and 1635.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Conference: At least two weeks prior to the start of field work, conduct a web-based conference in conjunction with the Project site (if available) to review the installers schedule along with the project plans and specifications. The Contractor will oversee the meeting and shall take minutes to be distributed to all attendees within 72 hours.
 - 1. Attendees: General Contractor, electrical contractor, alarm installer, MEP designer of the contract drawings, Owner's construction representative, and Kroger Central Alarm Control (KCAC) Representative (Alarm Monitoring for the Owner).
 - 2. Agenda
 - a. Review the contact drawings and specs with any approved changes to the installer's shop drawings.
 - b. Schedule for installation and timing of alarm monitoring by KCAC.
 - c. Any local jurisdiction requirements
 - d. Programming and communication requirements.

1.4 SUBMITTALS

- A. Product Data: For security system components.
- B. Kroger Central Alarm Control Monitoring Data Form: Installer must coordinate the completion of the form included in Part 3 at least 14 days prior to monitoring of the system with Owner (Kroger Project Manager, Store Manager & Asset Protection Department). Kroger's UL approved monitoring center supports security and fire alarm for all Owner needs.
- C. Qualification Data: For Installer (if not prequalified) and installer's subcontractors.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Experienced, Bosch Certified installer, prequalified by the Owner (typically an installer in good standing with the Kroger Division Construction Manager and Asset Protection Manager). The following installers have been approved to install the Security system. Each installer has an approved list of subcontractors that are on file with the Owner:
 - 1. Consolidated Fire Protection Services (CFP)
 - a. Contact: Steve Schwartz.
 - b. Title: CFP Construction Manager.
 - c. Email: krogergc@cfpfire.com.
 - d. Cell: (949) 289-0327.
 - 2. Protection 1/ADT
 - a. Contact: James Finley.
 - b. Title: Acct. Manager.
 - c. Email: jfinley@adt.com.
 - d. Cell: (910) 619-4700.
 - 3. Vector Security
 - a. Contact: Chris Ehmig.
 - b. Title: Acct. Manager.
 - c. Email: caehmig@vectorsecurity.com.
 - d. Cell: (571) 364-1472.
 - 4. Securitas
 - a. Contact: Tony Moe
 - b. Title: National Account Manager.
 - c. Email: tony.moe@securitates.com.
 - d. Cell: (612) 414-1852.
 - e. Office: (704) 281-2627.
 - 5. ATS (Fred Meyer/QFC)
 - a. Contact: Matthew Brines.
 - b. Email: mbrines@atsdata.com.

c. Phone: 503-684-9611.

- B. Installing and programming technicians shall be individually certified by security system manufacturer.

1.6 WARRANTY

- A. Alarm Control Panel and Component Warranty: Manufacturer agrees to repair or replace control panel and components that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Three years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PANELS

- A. Main Security Alarm Control Panel: Bosch Security and Safety Systems; Model B9512G. (typically bought in Bosch package B9512G-C-C with transformer, lock and key set, enclosure, and cellular backup).

1. Locate main security alarm control panel in ECR room or as indicated on the Drawings.
2. Main intrusion panel B9512G will work in conjunction with an additional pre-built custom interface panel, per owner requirements. See Drawings.
3. Devices are connected to this panel and grouped through system programming into the areas listed below (1 through 12):

Area	Description	Instruction
1	Perimeter/24 Hour Doors	Supervised open / close
2	Fred Meyer Jewelry	Supervised open / close
3	Cash Office/Accounting	Supervised open / close
4	Pharmacy	Supervised open / close
5	DSD/Food/Common Freight	Supervised open / close
6	Home Freight	Supervised open / close
7	Refrigeration	Supervised open / close
8	Click List	Supervised open / close
9		Unsupervised
10	Liquor (Standalone panel if not adjacent to main store)	Supervised open / close
11	Compactor	Supervised open / close
12	Home Shop (King Soopers)	Supervised open / close

4. Under no circumstance is the installer to change the store areas.
5. In the event the store does not have one of the areas identified in the description, the installer is to label this area as "open."
6. Digital Communications: Provide system capable of communicating with a digital receiver such as the Bosch/Radionics D6600 receiver.

7. Remote programming access codes must remain at the factory default code. IT IS FORBIDDEN FOR INSTALLERS TO INSERT THEIR OWN CODES OR A DEALER LOCKOUT CODE.

2.2 ACCESSORY DEVICES

A. Input Modules (B208 or D9127U):

1. Provide as required to interface "non-addressable" devices into the system as shown on the Drawings (i.e. Door contacts, motion/glass break sensors, etc.).
 - a. Provide electrical conduit for wall mounted applications, and for ceiling mounted applications if the above-ceiling space acts as a plenum return. (Refer to Division 26 Section "Common Work Results for Electrical.")
 - b. Provide B299 Expansion Modules when D9127U POPITS are used with B9512G control panel. One B299 accommodates up to 100 POPITS and can be used on the SDI2 data bus up to 1000 feet (30.5 m) from panel. B208 Input Modules provide eight inputs and can be connected directly to the SDI2 data bus and located up to 1000 feet (30.5 m) from panel.
 - c. Provide B600 Retrofit Module when reusing legacy modules such as D8125 Zone Expansion Modules, D8129 Octo-relay Modules and D8128 Octo-input Modules.
 - d. D9127T tampered POPITs are not allowed.

B. Products:

1. Bosch Security Systems; B308 Octo-Relay.
2. Advanced Sourcing; ASRB1 Relay DPDT 2A.
3. Honeywell Intrusion; 712BNP 7Ah, 13V Battery.
4. Bosch Security Systems; D122 Dual Battery Harness.

2.3 PLUG-IN CELL MODULE

A. Product: Bosch B444-V for use with Verizon cellular network.

B. Description:

1. WAN Network is required for intrusion and duress/panic system, programmed to report to the Owner's UL LISTED CENTRAL STATION (KCAC).
2. UL station will be the Owner's central alarm control monitoring company (KCAC). COMPLETE THE CENTRAL ALARM CONTROL MONITORING DATA FORM INCLUDED AT THE END OF THIS SECTION.

C. WAN network:

1. Coordinate installation of network jacks, switch port, and certified cabling install for applicable control panels with the Kroger Technology Office prior to installation to prevent delays.

2. Verify Ethernet (CAT5e/CAT6) cables are run properly and labeled correctly. Identify both ends at the panel and switch. As certain ports may be programmed differently be sure to connect to the port recommended by the Kroger Technology Office.
3. Install B444-V for each control panel;
4. The use of DHCP is required. The MAC address must be entered into the system prior to install by the division office, coordinated from step 1. If not, the panel will not come online.
5. Verify KCAC has the network account programmed into their receivers; ensure signals are being received.
6. The following settings are required:

IP Communicator Options	
Module Enclosure Tamper	No
IPv6 Mode	No
IPv4 DHCP/Auto-IP Enable	Yes
UPnP Enable	Yes
HTTP Port Number	80
ARP Cache Timeout (sec.)	600
Web/USB Access Enable	No
Firmware Upgrade Enable	No
TCP/UDP Port Number	7700
TCP Keep-Alive Time (sec.)	45
Port 77EE Configuration	No
RPS Over Network	Yes
RPS Address Verification	No
Encryption Enabled	No
Panel Programming Enable	Yes
Web Access Password	KCAC Standard Pw
Panel Wide->Answer	Yes
RPS Port Number	7700
Receiver Supervision Time (seconds)	300
Poll Rate (seconds)	210
Ack Wait Time	15
Retry Count	5

2.4 LOCKABLE METAL CABINET

- A. Product: Bosch Security Systems; B8103 Universal Enclosure (UL Approved)
 1. Color:
 - a. Main Panel: White.
 - b. Secondary Panel(s): Gray
- B. Lock and Key Set: Bosch Security Systems; D101.

2.5 TRANSFORMER ENCLOSURE KIT

- A. Product: Bosch Security Systems; D8004 Enclosure (UL Approved)
 - 1. Color: Gray
- B. Provide for applications that require a remote transformer.

2.6 CIRCUITS AND WIRING

- A. Separate alarm wiring from any open conductors, power, or Class 1 circuits. Do not place in any conduit, junction box or raceway containing these conductors, per NEC Article 760-55.
- B. Wire:
 - 1. Product: Honeywell; Genesis 11191101 18/4 Stranded Unshielded Cable, or approved substitution.
 - 2. Provide wiring meeting local, state and national codes (e.g., NEC Article 760) and as recommended by the manufacturer of the alarm system. Provide number and size of conductors as recommended by the alarm system manufacturer, but not less than **18 AWG (1.02 mm)** and a minimum of 4 twisted conductors.
 - 3. Color: Match the exposed material as close as possible.
 - a. Exposed Structural Steel/Metal Decking: Black.
 - b. Light Colored Painted Ceilings: White.
 - 4. Field wiring shall be electrically supervised for open circuit and ground fault. (Class B).
- C. Terminal Boxes, Junction Boxes, and Cabinets: UL listed for use and purpose.

2.7 KEYPADS

- A. Product: Bosch Security Systems; B921C Two-line Capacitive Keypad with Inputs (SDI2).
 - 1. Provide B56 mounting box, if keypad is surface mounted to concrete or block.
 - 2. Provide separate keypads for each area of the system, per the location shown on the drawings
 - 3. Unless otherwise noted on Drawings, mounting height is **60 inches (1524 mm)** above finished floor to center of keypad.

2.8 DOOR CONTACTS

- A. Perimeter Main Entry Sliding Doors, Click List Sliding Doors, Etc.: Honeywell Intrusion; 951WG.
 - 1. Color:
 - a. Clear Aluminum, White, or Light-Colored Materials: White.
 - b. All other Materials: Brown.

2. Rare Earth Magnet: George Risk Industries Inc. (GRI); MM-600.
 - B. Overhead Doors For Receiving, DSD, and Pharmacy Grilles (Alternate For Entry Doors, Trash Compactor Door): United Technologies Corporation; 2202A-IL
 1. Alternate for Overhead Door Track: United Technologies Corporation; 2315AL.
 - C. Overhead Rolling Steel Door/Curtain Door: United Technologies Corporation; 2302A-IL.
 - D. Cash Office and Pharmacy Doors (Typically Hollow Metal Single Man Doors): United Technologies Corporation; 1078W.
 - E. Roof Hatch or Pharmacy Grille: Honeywell 960/Ademco 2505AL or Nascom N200AUMM/ST.
 - F. Trash Compactor: UTC/Ademco 2505AL.
- 2.9 SAFE CONTACT
- A. Product: Potter Electric; HSC-1
- 2.10 MOTION SENSORS
- A. Product: Bosch Security Systems; ISC-PDL1-WA18G
 1. Location: Install on wall 80 inches (2032 mm) above finished floor to provide a curtain of protection just inside the potential access point in locations shown on the Drawings.
 2. Gimbal Mount Bracket: Provide Bosch Security Systems B928 gimbal mount bracket as required to adjust sensor's position.
- 2.11 GLASS BREAK DETECTORS (typically vestibules, Click List, and exterior glass walls)
- A. Products:
 1. Honeywell, Intellisense; FG1625.
 2. Bosch; DS1101i.
 - B. Standard Coverage: 25 feet (7.6 m) from glass to each unit.
- 2.12 AUDIBLE SOUNDERS
- A. Roof Hatch and DSD Area: UTC Fire & Security; Honeywell 747.
 - B. Emergency Exit Doors: Honeywell Intrusion/System Sensor, SpectraAlert Advance Piezo Multi-tone Chime MHW mini horn (emergency exit doors).
 - C. Main Interior Siren: W Box Technologies; 30WCSIREN 30W Compact Dual Tone Siren.

- D. Main Exterior Siren: Amseco; SSX52 Armored Exterior Siren.

2.13 POWER SUPPLIES

- A. Product: Altronix; SMP3ET with BC100 and TP1640 12V Power Supply for motion sensors, glass breaks, sounders, and interface panel.

2.14 DOOR BELL

- A. Door Bell Button: Viking; DB40BN.
- B. Surface Mount Enclosure: Viking; VE-3X5.
- C. Signal Bell: Amseco/Potter Electric; MBA-10G12PV2.
 - 1. Bell Diameter: 10 inches (254 mm).
 - 2. Color: Gray.

2.15 TAMPER SWITCH

- A. Product: Bosch; D110 Enclosure Tamper Switch (main panel, interface can, and power supply enclosure)

PART 3 - EXECUTION

3.1 GENERAL

- A. Install equipment at heights and locations as specified below or in Part 2 of this Section.
- B. Existing security alarm systems should remain in operation during remodel projects to insure protection. Any outages to be coordinated with Owner in advance.
- C. If existing raceways, cables and outlet boxes are suitable for re-use, they may be reused after demonstrating to Owner that they have been tested and proven to be suitable. Include any existing material used in the three-year warranty.

3.2 INSTALLATION

- A. Panel: Interface Panel Special Features:
 - 1. Fire Exits: The installer will program all non-customer perimeter exit doors as fire exits. If opened, a sounder will activate at the door and will report to the central station. These doors will also sound an alarm tone at the main keypads (address 1). If a fire door is opened while the system is unarmed, it is a local alarm only, it does not report to the central station.

2. Not-Set Points: The installer will program the cash office and pharmacy, when disarmed to "not-set" points. Once these areas are individually armed, their "not-set" points will be programmed to return to normal allowing the main area to be armed. This will prevent store personnel from exiting stores without ensuring the cash office and pharmacies are armed. If while the main area is armed, the cash office or pharmacy is disarmed, an alarm situation will occur.
3. Receiving and Compactor Areas. The installer will program the receiving area so that it is set up to restrict and log access to overhead and DSD doors outside of the "free access" time of 5:00 a.m. to 12:00 p.m. (alternate time frames for "free time" may exist in certain stores), Monday through Saturday (normal DSD delivery times). The compactor will be set to restrict and log access at all times. While in "restricted mode," the system operates as follows:
 - a. Entering a valid passcode at the receiving or compactor keypad disarms the area, allowing access to the required door. If door is not opened within 2 minutes after a valid passcode is entered, the Area will automatically re-arm and the passcode will need to be entered again. Once a single door is opened, the area is automatically re-armed, returning protection to the unused doors. This procedure must be repeated for each door if multiple doors are to be opened. The door(s) may be left open for as long as necessary, but when closed will automatically return to armed-status and will require re-entry of a code to open again.
 - b. If a door is opened without first entering a valid code, the siren assigned to that area will sound. The keypads assigned to the main area (address 1) will also annunciate the alarm, alerting the manager to the violation.
 - c. Summary points in the interface panel ensure that when the main system is armed, an alarm in either area results in a signal to the central station.

B. Circuits and Wiring:

1. Install equipment in accordance with the NEC, as shown on the Drawings, and as recommended by the manufacturer. Refer to Division 26 Section "Low Voltage Electrical Power Conductors and Cables" for additional recommendations.
2. Place alarm wiring in conduit when installed down a column and unfinished walls in backroom areas.
3. Install wiring/cable runs that are located above ceiling grid with bridle rings and tie wrapped every **25 feet (7.62 m)**. Under no circumstance is the installer to allow any cable to rest on any ceiling grid. Securely fasten wiring/cablings that is exposed every **10 feet (3 m)** in joist space and **5 feet (1.5 m)** in all other areas.
4. Run wiring/cable runs to any overhead door, roof hatch, back-stock emergency exit, or compactor door in conduit.
5. Conceal wiring/cable in finished areas, no exceptions.
6. Run wiring/cablings in joist space parallel with or perpendicular to the structural joists/steel.
7. Install any corners/turns involving cable runs at 90-degree angles and place in a neat and orderly fashion.
8. Wiring/cablings runs must be a minimum of **24 inches (610 mm)** from hot water or steam pipes.

3.3 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing.

3.4 DEMONSTRATION AND TECHNICAL SUPPORT

- A. Engage a manufacturer certified service representative to train Owner's personnel to operate the security/intrusion alarm system.
 - 1. Provide onsite training and User Guide documentation at no cost to Owner. Training includes but is not limited to:
 - a. How to arm and disarm the Intrusion system.
 - b. How to check point status and identify faults on the Intrusion system.
 - c. How to silence a trouble signal on the Intrusion system.
 - d. How to identify communication, A/C power, and battery failures on the Intrusion system.
 - 2. Provide 24 hour/7 days per week/365 days per year technical support for one year at no cost to Owner.

3.5 RECORD DRAWINGS

- A. Provide Owner record drawings noting any "as-built" changes to the work.

3.6 ATTACHMENTS

- A. Kroger Central Alarm Control Monitoring Data Form. (Complete at least 14 days prior to any system going live.)

(See following pages)

Kroger Central Alarm Control Monitoring Data Form

To schedule Conversion/Programming Audit, call 503-797-5411

Please E-mail this completed form to:
alarmprogramming@kroger.com

KCAC Programming and Conversion Coordinators
KCAC Programming 503-797-5411
Mon-Fri 0600-1700 Pacific Time
KCAC Monitoring 1-800-982-2749

All fields marked with * must be completed to enable monitoring service PLEASE TYPE/PRINT

*Is this a Brand New Location? Y/N: _____ Grand Opening Date: _____

*Store Name: _____ *Division #: _____ *Store _____

*Address: _____ *Zone/District _____ *Time Zone _____

*City: _____ *State: _____ *Zip: _____

*Township (if required for Dispatch): _____

*Does your jurisdiction require an alarm permit? _____ If Yes, permit # _____

*Store Main Phone Number: _____

*Pharmacy Phone #: _____ *RX Dr.'s line _____

*Fuel kiosk direct phone # _____ or Fuel kiosk extension # _____

Fuel Separate Address from Main Store? _____

*Liquor direct phone # _____ or Liquor extension # _____

*Local Fire Dispatch phone # (Not 911): _____

*Local Police Dispatch phone # (Not 911): _____

Secondary Police and/or Fire Dispatch # if available: _____

*Business Hours: _____ *Are Associates inside 24 hours a day? _____

Please indicate the stores schedule for all areas monitored on the burglary system.

PLEASE TYPE/PRINT

Area	Store Hours (Open)	Store Hours (Closed)	Day(s) of the Week
<i>EXAMPLE: Main Store (All Customer Doors)</i>	<i>2330 hours (11:30 PM)</i>	<i>0600 hours (6:00 AM)</i>	<i>All Days</i>
MAIN STORE			ALL DAYS
CASH OFFICE			ALL DAYS
CLICK LIST			ALL DAYS
HOME SHOPPING			ALL DAYS
FREIGHT-RECEIVING-FREE TIME			MONDAY-FRIDAY
FREIGHT-RECEIVING-FREE TIME			SATURDAY
FUEL			ALL DAYS
JEWELRY			MONDAY-FRIDAY
JEWELRY			SATURDAY-SUNDAY
LIQUOR			MONDAY – THURSDAY
LIQUOR			FRIDAY
LIQUOR	/	/	SATURDAY/SUNDAY
PHARMACY			MONDAY – FRIDAY
PHARMACY			SATURDAY
PHARMACY			SUNDAY

Emergency Call List: These people will be notified if no one is contacted at the store or in an emergency

STORE

*1st Responder/Store Manager Name: _____ EUID: _____

Home # _____ Cell #: _____

*2nd Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

*3rd Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

*4th Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

*5th Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

*6th Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

PHARMACY

*1ST Responder/Pharmacy Manager: _____ EUID: _____

Home # _____ Cell #: _____

*2nd Pharmacy Responder _____ EUID: _____

Home # _____ Cell #: _____

*Pharmacy Manager _____ EUID: _____

Home # _____ Cell #: _____

*3rd Pharmacy Responder _____ EUID: _____

Home # _____ Cell #: _____

JEWELRY (If applicable)

*1st Responder/Jewelry Manager: _____ EUID: _____

Home # _____ Cell #: _____

*2nd Jewelry Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

*3rd Jewelry Responder (Name & Position) _____ EUID: _____

Home # _____ Cell #: _____

	Range	Position	Descriptive
A	1-15	Store Manager Assistant Store Manager	<ul style="list-style-type: none"> Arm and disarm the main store perimeter, cash office, receiving, Compactor and liquor store. Silence sounders and test the system. Email alarmcontrol@kroger.com Add and delete system users at the store only.
B	16-30	Grocery Manager Assistant Grocery Manager/Grocery Lead MIC – Manager In Charge	<ul style="list-style-type: none"> Arm and disarm the main store perimeter, receiving, Compactor. Silence sounders and test the system.
C	31-50	Front End Manager/Lead Accountant	<ul style="list-style-type: none"> Arm and disarm the cash office.
D	51-60	Pharmacist	<ul style="list-style-type: none"> Arm and disarm the pharmacy.
E	61-90	DSD Receiver Back-up DSD Receiver	<ul style="list-style-type: none"> Disarm receiving Ex Freight, DSD, Home Side Silence sounder in receiving and at all fire exists.
F	91-99	Liquor Store Manager (if applicable)	<ul style="list-style-type: none"> Arm and disarm the liquor store. Silence sounders for the liquor store and emergency exits.
G	100-109	Click List area (if applicable)	<ul style="list-style-type: none"> Arm and disarm Click List area
H	110-120	Jewelry (if applicable)	<ul style="list-style-type: none"> Arm and disarm Jewelry area
I	120-130	Home Shopping (if applicable)	<ul style="list-style-type: none"> Arm and disarm Home Shopping area

Additional Authorized Contact List: See below for Authorized Job Titles. These associates will have Pin/Pass Codes to arm and disarm areas at the location.

These additional people will also be able to contact KCAC *Please TYPE/Print*

*Name _____	Position: _____	EUID#: _____
*Name _____	Position: _____	EUID#: _____
*Name _____	Position: _____	EUID#: _____
*Name _____	Position: _____	EUID#: _____
*Name _____	Position: _____	EUID#: _____
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*Name _____	Position: _____	EUID#: _____
*Name _____	Position: _____	EUID#: _____
*Name _____	Position: _____	EUID#: _____

PLEASE NOTE: Fire Systems are monitored 24 hours a day. The fire department is dispatched immediately on all fire alarms. If your system is being serviced or needs to be disregarded for any period of time, call KCAC prior to servicing.

Special Instructions (if any) _____

*Name and position of person completing form:

Please TYPE/Print: _____

Date: _____

Retain the original copy with the District Asset Protection Manager

END OF SECTION 28 10 00

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