

# SECURITY SYSTEM INSTALLATIONS LIMITED

(Security System installations normal letterhead)

## Specification for an Electronic Access Control System

Specification no.	041210/1 (the last digit refers to the issue number)
Date of survey	1st June 2021
Customer details	The Fresh Fish Company
Installation address	Unit 3-14 North Industrial Park, Middle Town, Someshire
Site contact	Joseph Black
Site telephone no.	01614 111223
Installation standard	NSI NCP 109.3

The System Design Proposal is for an Access Control System Designed, Installed and Commissioned in accordance with the requirements of NSI Code of Practice NCP 109.3.

### REFERENCE POINT FOR SPECIFICATION DESCRIPTIONS

Where appropriate, locations will be described as being front or back and left or right as seen by an observer standing outside and facing the front of the premises.

### Overview

Features to include: *(Please refer to Annex B.)*

Note 1: The requirements of the Equality Act 2010 and, in particular, the Disability Discrimination Act 2005 section 21 do not apply/apply to some areas and are detailed below.

Note 2: The additional supply of a gate and/or barrier is also considered to be supplementary/outside to the requirements of NCP109.3 and is sub-contracted. (Please refer to Supplementary Notes: 2).

Note 3: Effective access control systems rely on suitable door hardware and efficient closing mechanisms. Security System Installations Ltd. has not been contracted to provide or maintain door hardware and as such accepts no responsibility for unauthorised entry gained due to ineffective or failed door hardware.

### Risk assessment

After carrying out a site survey with the customer's representative present, consideration of the likely value of customer assets being protected by the access control system and that the

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customer's needs are to prevent inadvertent entry into restricted areas to avoid unauthorised staff exposure to health and safety risks, and that most areas are staffed during normal working hours, all access points are classified as Class 2 according to the NSI Code of Practice NCP 109.3 unless otherwise stated in the main body of this system design proposal.

## **DOOR 1 - Main staff entry door**

In the event of failure of the locking mechanism, the door will **FAIL UNLOCKED**.

A Magnetic Lock will be fitted to the door frame, inside the controlled area, in line with a Lock Plate which will be fitted to the top opening edge of the door.

A Magnetic Reed switch will be fitted to detect whether the door is open or closed.

A "Request to Exit" button will be located inside the controlled area, on the wall adjacent to the opening edge of the door, at a height of 1.5 metres. A second button will be located at a height of 0.9m to satisfy requirements outlined in the DDA.

A green "Emergency Exit" break glass will be located adjacent to the lower (0.9m) Exit Request button. This will be configured to disconnect the power to the lock to enable the control equipment to be over-ridden should a fault develop which prevents egress being achieved by normal means.

A Proximity Card Reader will be located outside the controlled area on the wall adjacent to the opening edge of the door at a height of 0.9m.

The Access Control Unit (ACU), with integral Power Supply, will be fitted above the false ceiling inside the controlled area, adjacent to the door.

The ACU or Reader includes a Buzzer which will sound if the door is open for more than 10 seconds.

A key-operated Bypass Switch will be installed in the door frame adjacent to the lock outside the controlled area. Should a fault develop which results in the lock not being released on presenting a valid card to the reader, access may be gained by an authorised Key Holder.

Should four consecutive attempts be made to present a card that is not authorised for this access point, the reader will become inoperable for five minutes and a buzzer will sound.

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**Note1:** A primary independent method of securing this access point door outside normal working hours is to be provided by others and is outside the scope of any maintenance agreement with Security System Installations Ltd.

**Note2:** See also 'operation during a power failure'.

## **DOOR 2 – Door to central corridor from reception office**

In the event of failure of the locking mechanism, the door will **FAIL UNLOCKED**.

A Magnetic Lock will be fitted to the door frame, inside the controlled area, in line with a Lock Plate which will be fitted to the top opening edge of the door.

A Magnetic Reed switch will be fitted to detect whether the door is open or closed.

A "Request to Exit" button will be located inside the controlled area, on the wall adjacent to the opening edge of the door, at a height of 1.5 metres. A second button will be located at a height of 0.9m to satisfy requirements outlined in the DDA.

A green "Emergency Exit" break glass will be located adjacent to the lower (0.9m) Exit Request button. This will be configured to disconnect the power to the lock to enable the control equipment to be over-ridden should a fault develop which prevents egress being achieved by normal means.

A Proximity Card Reader will be located outside the controlled area on the wall, adjacent to the opening edge of the door, at a height of 0.9m.

The Access Control Unit (ACU), with integral Power Supply, will be fitted above the false ceiling inside the controlled area, adjacent to the door.

The ACU or Reader includes a Buzzer which will sound if the door is open for more than 10 seconds.

Should four consecutive attempts be made to present a card that is not authorised for this access point, the reader will become inoperable for five minutes and a buzzer will sound.

**Note:** See also 'operation during a power failure'.

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### **DOOR 3 – Door to IT server room**

Due to the value of assets contained in this room and the potential negative impact on the customer's operation, this access point is classified as Class 3 according to NSI Code of Practice NCP 109.3.

In the event of failure of the locking mechanism, the door will **FAIL UNLOCKED**.

A monitored Magnetic Lock will be fitted to the door frame, inside the controlled area, in line with a Lock Plate which will be fitted to the top opening edge of the door.

A Magnetic Reed switch will be fitted to detect whether the door is open or closed.

A "Request to Exit" button will be located inside the controlled area, on the wall adjacent to the opening edge of the door, at a height of 1.5 metres. A second button will be located at a height of 0.9m to satisfy requirements outlined in the DDA.

A green "Emergency Exit" break glass will be located adjacent to the lower (0.9m) Exit Request button. This will be configured to disconnect the power to the lock to enable the control equipment to be over-ridden should a fault develop which prevents egress being achieved by normal means.

A Proximity Card Reader will be located outside the controlled area on the wall adjacent to the opening edge of the door, at a height of 0.9m.

The Access Control Unit (ACU), with integral Power Supply, will be fitted above the false ceiling inside the controlled area, adjacent to the door.

The ACU or Reader includes a Buzzer which will sound if the door is open for more than 10 seconds.

Should four consecutive attempts be made to present a card that is not authorised for this access point, the reader will become inoperable for five minutes and a buzzer will sound.

**Note:** See also 'operation during a power failure'.

### **DOOR 4 – Door to Accounts/Sales office from central corridor**

In the event of failure of the locking mechanism, the door will **FAIL UNLOCKED**.

A Magnetic Lock will be fitted to the door frame, inside the controlled area, in line with a Lock Plate which will be fitted to the top opening edge of the door.

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A Magnetic Reed switch will be fitted to detect whether the door is open or closed.

A "Request to Exit" button will be located inside the controlled area, on the wall adjacent to the opening edge of the door, at a height of 1.5 metres. A second button will be located at a height of 0.9m to satisfy requirements outlined in the DDA.

A green "Emergency Exit" break glass will be located adjacent to the lower (0.9m) Exit Request button. This will be configured to disconnect the power to the lock to enable the control equipment to be over-ridden should a fault develop which prevents egress being achieved by normal means.

A Proximity Card Reader will be located outside the controlled area on the wall adjacent to the opening edge of the door, at a height of 0.9m.

The Access Control Unit (ACU), with integral Power Supply, will be fitted above the false ceiling inside the controlled area, adjacent to the door.

The ACU or Reader includes a Buzzer which will sound if the door is open for more than 10 seconds.

Should four consecutive attempts be made to present a card that is not authorised for this access point, the reader will become inoperable for five minutes and a buzzer will sound.

**Note:** See also 'operation during a power failure'.

## **DOOR 5 – Pedestrian door to the loading bay**

Due to the isolation from view and the potential negative impact on the customer's operation where unauthorized entry was gained, this access point is classified as Class 3 according to NSI Code of Practice NCP 109.3.

In the event of failure of the locking mechanism, the door will **FAIL LOCKED**.

A monitored Motorised Lock will be fitted in the door frame, in line with a keep plate.

A Magnetic Reed switch will be fitted to detect whether the door is open or closed.

A door handle fitted to the secure side of the lock will enable egress.

A Proximity Card Reader will be located outside the controlled area on the wall, adjacent to the opening edge of the door, at a height of 0.9m.

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The Access Control Unit (ACU), with integral Power Supply, will be fitted above the false ceiling inside the controlled area, adjacent to the door.

The ACU or Reader includes a Buzzer which will sound if the door is open for more than 10 minutes.

Should four consecutive attempts be made to present a card that is not authorised for this access point, the reader will become inoperable for five minutes and a buzzer will sound.

**Note:** See also 'operation during a power failure'.

## **DOOR 6 – Door from the machine shop to the central corridor**

In the event of failure of the locking mechanism, the door will **FAIL UNLOCKED**.

A Magnetic Lock will be fitted to the door frame, inside the controlled area, in line with a Lock Plate which will be fitted to the top opening edge of the door.

A Magnetic Reed switch will be fitted to detect whether the door is open or closed.

A "Request to Exit" button will be located inside the controlled area, on the wall adjacent to the opening edge of the door, at a height of 1.5 metres. A second button will be located at a height of 0.9m to satisfy requirements outlined in the DDA.

A green "Emergency Exit" break glass will be located adjacent to the lower (0.9m) Exit Request button. This will be configured to disconnect the power to the lock to enable the control equipment to be over-ridden should a fault develop which prevents egress being achieved by normal means.

A Proximity Card Reader will be located outside the controlled area on the wall adjacent to the opening edge of the door, at a height of 0.9m.

The Access Control Unit (ACU), with integral Power Supply, will be fitted above the false ceiling inside the controlled area, adjacent to the door.

The ACU or Reader includes a Buzzer which will sound if the door is open for more than 10 seconds.

Should four consecutive attempts be made to present a card that is not authorised for this access point, the reader will become inoperable for five minutes and a buzzer will sound.

**Note:** See also 'operation during a power failure'.

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## Control and indicating equipment

The main control panel will be installed in the store cupboard located in the Accounts/Sales office. Access to the CIE for the purpose of configuration or administration will be via a Laptop, PC or tablet through a secure integral webserver.

The central control unit is equipped with two unbound network points; one will be connected to the access point control units and the other to the customers network.

**Note:** It is the customer's responsibility to provide a dedicated unswitched fused spur within the store cupboard.

Administration of the Access Control System will be carried out using customer provided laptop and/or PC.

## Network installation

A point to point network will be installed linking all access point controllers to a central 6U wall mounted patch panel located in the Accounts/Sales store cupboard.

An 8 port network switch will be installed in the patch panel to provide network distribution for each Access Point Controller.

(Please refer to Supplementary Notes: 5).

## ELECTRICITY SUPPLY

An unswitched 3 Amp Fused Spur will be required above the false ceiling adjacent to Door 1.

The existing supplies will be tested and reused if satisfactory for Doors 2-6.

## OPERATION DURING A POWER FAILURE

For doors 1,2,3,4 and 6. a battery will be located within the Access Point Control Equipment Power Supply Unit which will maintain the system in an operational state for a minimum of 4 hours. If a power failure exceeds 4 hours, the battery will gradually discharge and the system will then fail with the door **UNLOCKED**.

For door 5, a battery will be located within the Access Point Control Equipment Power Supply Unit which will maintain the system in an operational state for a minimum of 4 hours. However, this time will reduce by approximately 0.5 of a minute after 20 lock operations. If a power failure

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exceeds beyond this time, the battery will gradually discharge and the system will then fail with the door **UNLOCKED**.

**Note:** Where Access Point Door 1 is the main entry door into the building, consideration should be given to fitting a secondary non-controlled locking device that will provide additional physical security in the event of a failure of the access control mechanism.

## **ACTIVATION OF THE FIRE ALARM**

A fire alarm actuated double pole relay will remove power from each lock for doors on the designated emergency exit route. Activation of the Fire Alarm will automatically result in the emergency fire exit doors being released.

*It will be the responsibility of the company installing the Fire Alarm to provide a connection, in appropriate cabling, to each emergency exit door with a dedicated pair of normally-closed relay contacts, which will open on the operation of the Fire Alarm. (Please refer to Supplementary Notes: 5).*

## **MISCELLANEOUS**

The manufacturer's Handbooks, Proximity Cards and Keys, appropriate to the user, will be supplied on handover of the system. Full training including use of PC software and Access Control System adjustments will be provided.

A site Log Book will be provided. This should be held where it will always be available to the visiting engineer.

An NSI Certificate of Compliance will be forwarded on receipt of payment.

Where a maintenance contract is entered into, annual preventive maintenance checks will normally be undertaken in the anniversary month of the handover of the system.

Ten Proximity Cards will be supplied. Individual access rights can be programmed for each card.

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## Supplementary notes for the designer

1. Features could include any/all of the following:

*Time profiles/Frames; Remote Sites control; Anti-passback; ID badging; Roll call; Alarm Monitoring; Alarm Graphics; Visitor Management; Multiple workstations; Fire AlarmLink; TCP/IP Connectivity; Elevator Control; Attendance reports, etc.*

*This list is not exhaustive and is dependent on the type and manufacturer of equipment.*

2. *The supply, installation and commissioning of Gates, Barriers and Automatic Doors is outside the scope of the Code of Practice and other European Standards apply here e.g. EN 1342-1 and EN12453. It is important to point out that the European commission has established ALL automated closures fall within the field of the Machinery Directive (2006/42/EC). As such, the addition of an automatic system to a new manual closure makes the latter a machine, and the entity which undertakes the transformation must meet the prescriptions of the Machinery Directive. This work is likely to be sub-contracted to a company with the necessary competence.*
3. *The 'secure side' needs to be agreed and documented clearly, especially if magnetic locks are also being fitted. A reference to the type and strength of the locking arrangements is useful i.e. whether L brackets (for outward opening) or Z&L brackets (for inward opening) will be used.*
4. *A reference to what Software needs to be supplied/installed and whether a PC is also required or the use of existing equipment should be documented. Compatibility issues should be considered and manufacturer's guidance sought. The type of interconnections should be detailed i.e. wireless, cat 5. Any other limitations should be listed i.e. IT department to be liaised with. Back-ups should be taken of final configuration.*
5. *Requirements for interfacing of Fire Detection and Alarm Systems (FDAS) and Access Control Systems are given in BS 7274 Part 4: Code of practice for the operation of fire protection measures – Actuation of release mechanisms for doors.*

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