

REPORT TO: HOUSING COMMITTEE – 15 MAY 2000

REPORT ON: PROPOSAL TO INSTAL SMART TECHNOLOGY  
IN A VACANT COUNCIL PROPERTY

REPORT BY: DIRECTOR OF HOUSING

**REPORT NO: 341-2000**

**1. PURPOSE OF REPORT**

1.1 The purpose of this Report is to advise Housing Committee of a proposal to instal “smart technology” as a trial in a vacant council property

**2. RECOMMENDATIONS**

2.1 (i) It is recommended that a currently vacant property at Brighton Place very sheltered development is given to the project rent-free for a one-year period.

(ii) It is recommended that installation of electronic assistive technology will be arranged by Robert Gordon University.

**3. FINANCIAL IMPLICATIONS**

3.1 There will be no rent charge made which will lead to a rent loss of £1534.70 for the year.

In addition, the cost of Council Tax will have to be borne by the Housing Department, an amount of £320.00 this financial year net of exemptions.

**4. LOCAL AGENDA 21 IMPLICATIONS**

This project will assist in health being protected by creating safe, clean, pleasant environments and health services which emphasise prevention of illness as well as care for the sick.

**5. EQUAL OPPORTUNITIES IMPLICATIONS**

5.1 The project will provide a valuable insight into the benefits of electronic assistive technology for the client group of the study and an indication of the appropriateness of this technology to assist a range of clients who may have impairments or disabilities.

## **6. BACKGROUND**

- 6.1** New technology is becoming available which can help people to live independent life-styles for longer. This “smart technology” can assist with a variety of tasks including security, therapy, monitoring, safety etc. The equipment has been used to assist those with both physical and learning disabilities, brain injuries etc., to assist them remain in, or return to, a domestic setting.
- 6.2** We have been approached by the Scottish Centre for Environmental Design Research at Robert Gordon University, Aberdeen to provide a property where assistive technology can be installed.
- 6.3** There are two main benefits to the authority in piloting this project:
- a** The range of equipment available is immense, which makes specification very difficult. The project aims to identify a means of specification/installation of appropriate equipment.
  - b** Identify the benefits which can be gained for clients who come from a hospital setting in the rehabilitation process prior to returning to their own home. This will be undertaken in conjunction with the Brain Injury Unit at Royal Victoria Hospital.
- 6.4** Whilst the main focus of the research project is on the rehabilitation process, this project offers the Council the opportunity to see new technological equipment in place in a very sheltered property which could assist our frail, older tenants. The Social Work Department are also involved in the project and hope to identify uses of equipment which may allow a more cost effective supplement to existing home care services.
- 6.5** The research project is being funded by the European Union, and will last for one year. Appendix 1 gives an indication of the type of equipment which may be able to be utilised. Colleagues in Social Work and the Health Care Trust are keen to utilise this type of equipment, and this proposal offers us the possibility of assessing how appropriate it may be in our accommodation.

## **7. CONSULTATIONS**

- 7.1** Representatives of Social Work Department and Tayside Primary Care NHS Trust are involved in the group working on this proposal.

**ELAINE ZWIRLEIN**  
**DIRECTOR OF HOUSING**

**SIGNATURE** \_\_\_\_\_

**DATE** \_\_\_\_\_

## The Functional Specification

### Living Room

- 1) Curtains
  - a) operated by timer OR daylight sensor
  - b) close automatically when gets dark outside (activated by daylight sensor outside) and light comes on
  - c) open at set time each morning except if it is still dark at that time then open on pre-determined light level
- 2) Lights
  - a) operated by wall mounted switch
  - b) switch on automatically when gets dark outside (activated by daylight sensor outside)
- 3) Windows
  - a) Magnetic reed switch to detect when window is open. When leaving the house an audible warning is given that living room window is open.
- 4) Heating
  - a) controlled by room thermostats at pre-determined level
  - b) whole house heating controlled by time, at pre-determined settings
  - c) occupant goes away for extended period temperature can be setback by carer
- 5) TV
  - a) operated from Controller
  - b) displays image of visitor at door on request
- 6) Community Alarm
  - a) operated from any where in house from Controller OR pendant

### Bedrooms

- 1) Curtains
  - a) operated timer OR daylight sensor
  - b) close automatically when gets dark outside (activated by daylight sensor outside) and light comes on
  - c) open at set time each morning except if it is still dark at that time then open on pre-determined light level

## 2) Lights

- a) operated from wall mounted switch
- b) switch on automatically when gets dark outside (activated by daylight sensor outside )

## 3) Windows

- a) Magnetic reed switch to detect when window is open. When leave house an audible warning is given that bedroom window is open.

## 4) Heating

- a) controlled by room thermostats at pre-determined level
- b) whole house heating controlled by time, at pre-determined settings
- c) occupant goes away for extended period temperature can be setback by carer

## 5) Activity monitoring .

- a) Pressure pad by bed that brings on bedroom, hall and bathroom lights at 50% ( ramping up to 100% over 1 min and reverses lighting sequence when client steps on pressure pad to get back into bed

## Kitchen

## 1 ) Curtains/Blinds

- a) operated timer OR daylight sensor
- b) close automatically when gets dark outside (activated by daylight sensor outside) and light comes on
- c) open at set time each morning except if it is still dark at that time then open on pre-determined light level

## 2) Lights

- a) operated from wall mounted switch

## 3) Windows

- a) Magnetic reed switch to detect when window is open. When leave house an audible warning is given that kitchen window is open.

## 4) Exterior door to garden

- a) door locks when shut
- b) electric lock operated from interior wall mounted switch OR fob unlocks door
- c) door unlocks when smoke/heat/gas detector goes off

## 5) Heating

- a) controlled by room thermostats, at pre-determined level
- b) whole house heating controlled by time, at pre-determined settings
- c) occupant goes away for extended period temperature can be setback by carer

## 6) Extract fan (over cooker)

- a) manual operation
- b) comes on automatically at high humidity

- 7) Cooker
  - a) shut off gas/electricity if smoke/heat/gas are detected
  - b) restoration of gas/electricity by switch operated by key
- 8) Sink
  - a) water from hot tap controlled to temp of 45 °C
- 9) Smoke/heat/gas detector
  - a) sounds alarm
  - b) Alarm is sent to Warden

#### Bathroom

- (1) Lights
  - a) operated from PIR
- 2) Extract fan
  - a) comes on from signal from PIR in bathroom and continues for 5 minutes after PIR stops sensing presence of occupant or until humidity drops to 60%
- 3) Sink
  - a) water from hot tap controlled to temp of 40 (?) °C
- 4) Shower/bath
  - a) water temperature regulated to 40 °C (?) by temperature sensor and mixer valve
  - b) tap is shut off if left running beyond time to fill sink to 75%
- 5) Heating
  - a) controlled by room thermostats, at pre-determined level
  - b) whole house heating controlled by time, at pre-determined settings
  - c) occupant goes away for extended period temperature can be set back by carer
- 6) Windows
  - a) Magnetic reed switch to detect when window is open. When leave house an audible warning is given that bathroom window is open

#### Hall

- 1) Main entry door
  - a) door locks when shut
  - b) electric lock operated from interior wall mounted switch OR fob unlocks door
  - c) door unlocks when smoke/heat/gas detector goes off
- 2) Entryphone (voice only)
  - a) operated internally switch on unit
  - b) operated externally "Bell Push Button"

c) connected to call centre for monitoring and verification of visitors

### 3) Lights

a) operated from PIR

### 4) Heating

a) controlled by room thermostats, at pre-determined level

b) whole house heating controlled by time, at pre-determined settings

c) occupant goes away for extended period temperature can be setback by carer

### 5) Smoke detector

a) sounds alarm

b) Alarm is sent to Warden

### 6) Windows

a) Magnetic reed switch to detect when window is open. When leave house an , audible warning is given that bathroom window is open.

## Outside

### 1) Security lights

a) activated if visitor approaches house and it is dark

### 2) Daylight sensor

a) operates security light

b) operates curtains (optional)

c) operates lights (optional)

## Optional extras

### 1) Security

a) occupant goes away for extended period curtains open and close and lights go ( off and on automatically on "normal" pattern

b) (This is a case where pure logic is insufficient. Need button (physical or on touch sensitive screen) which activates "Home Security mode")

### 2) Doors (powered)

a) operated by Call Centre or Warden

END OF APPENDIX 1 – NO FURTHER TEXT.