Estates and Buildings

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FOREWORD

The Estates and Buildings Department continues to face ever greater challenges as a result of new legislation and regulations, the increasing cost of building works and energy and the strong competition both nationally and locally for sound professional, technical and manual staff. The Estates and Buildings Department is responding positively to these challenges to ensure the effects are mitigated, whilst optimum value for money is achieved and standards of service are improved.

The key achievements for the Estates and Buildings Department in the last year have been:
- the progress made with the implementation of the Estates Strategy;
- the production of a Master Plan for the University Estate;
- the successful implementation of HERA and the Harmonisation of Terms and Conditions;
- the successful implementation of the Review of the Procurement of Maintenance and Minor Works;
- the completion of the Calman Learning Centre, Institute of Hazard and Risk Research and the restructuring of the Dawson Building;
- the successful resolution of the dispute with the contractor responsible for the design and build of the EGG Building on terms advantageous to the University.

The challenges for the Estates and Buildings Department in the next year will comprise:
- preparing a new Estates Strategy;
- preparing a Green Travel Plan for Durham;
- reducing energy consumption;
- continuing to develop the recommendations in the Review of the Procurement of Maintenance and Minor Works;
- introducing new methods of service delivery to mitigate to effect of cost increases whilst improving standards;
- progressing the Durham Project.

The range of works and services provided by the Estates and Buildings Department is both broad and complex. Controlling the costs is no easy task without a properly integrated management information system, so it is to the credit of all the staff involved that actual expenditure in 2007/08 of £13,053,309 was within 0.08% of the budget of £13,063,282.
MASTER PLAN

Last year’s Annual Report identified a number of actions that would be progressed in an attempt to embody the University’s Master Plan into the Local Planning Framework. A number of workshops were held with the Local Planning Officers to make the City’s Planning Authority fully aware of the University’s Master Plan and to brief them on the development opportunities that were incorporated within the Master Plan. Dialogue is still continuing with the Planning Department as individual development projects are progressed by the University.

Estate Strategy

The current Estate Strategy was approved by University Council in December 2003 and identified the Development Strategy for the University Estate from 2004 to 2009. The current strategy identified the following key steps:

1. New Law School development
2. New Social Science development
3. Disposal of Old Elvet properties
4. Philosophy moves along with History and Theology expansion
5. Science Site Lecture Theatre development
6. Existing Lecture Theatre refurbishments
7. Expansion of Main Library
8. Relocation of University Office to Mountjoy
9. Relocation of Estates and Buildings
10. Howlands and Parson’s Field Developments
11. College Refurbishment Programme
12. Disposal of Kepier Court
13. Business School Development
14. Sport (Durham)
15. Hatfield Boiler House Development
16. Durham Castle Remedial Works
17. Backlog Maintenance
18. Relocation of John Snow College
19. Sport (Stockton)

The current Estate Strategy was projected to require a capital outlay of £140 million over the five year period commencing in 2004.

The existing Estate Strategy has now come to the end of its five year life with the majority of the 19 steps being achieved and a new Estate Strategy is currently being drafted to identify the University’s development opportunities up to 2015. The new Estate Strategy will reflect the objectives of the University’s Strategic Plan for both Durham Campus and Queen’s Campus.

Condition Survey

In August 2006 it was decided that, due to a recommendation contained within a report commissioned on the Colleges, it was necessary to undertake a robust Condition Survey of the entire College Estate. A brief was prepared and tenders sought from four surveying companies and after a detailed selection process, Drake & Kannemeyer of Godalmning in Surrey were selected to undertake the Condition Survey.
In January 2007 Drake & Kannemeyer were commissioned to undertake Condition Surveys on all the University's Academic Buildings.

The results of both Condition Surveys were received in July 2007 and identified the Estate as being in the condition shown below.

Chart indicating the condition of the College Estate at the time of undertaking the College Condition Survey in July 2007.

Chart indicating the condition of the Academic Estate at the time of undertaking the Academic Condition survey in July 2007.
Since the Building Condition surveys were completed in July 2007 planned maintenance and minor improvement works have been undertaken during the 2007/08 Academic year. Together with the work planned in the 2008/09 Academic year, these maintenance and improvement works will alter the Condition of the University’s building stock as follows:

**Academic Estate**

<table>
<thead>
<tr>
<th>Condition grade</th>
<th>End of Financial year 2006/07</th>
<th>End of financial year 2007/08</th>
<th>End of financial year 2008/09</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>B</td>
<td>61%</td>
<td>64%</td>
<td>63%</td>
</tr>
<tr>
<td>C</td>
<td>35%</td>
<td>31%</td>
<td>31%</td>
</tr>
<tr>
<td>D</td>
<td>3%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Footnote**

The condition gradings employed have the following meanings:

**Condition A**  As New

**Condition B**  Sound, operationally safe and exhibits only minor deterioration

**Condition C**  Operational but major repair or replacement needed soon

**Condition D**  Inoperable or serious risk of failure or breakdown

The properties identified for disposal have been excluded from the surveys.
Finance and Administration

The breakdown of expenditure of the Estates and Buildings Department for 2007/08 is as follows:

<table>
<thead>
<tr>
<th>Cost Centre</th>
<th>Expenditure (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Properties</td>
<td>695,688.66</td>
</tr>
<tr>
<td>Utilities</td>
<td>3,421,043.78</td>
</tr>
<tr>
<td>Security</td>
<td>650,469.30</td>
</tr>
<tr>
<td>Facilities</td>
<td>373,607.20</td>
</tr>
<tr>
<td>Cleaning and Caretaking</td>
<td>1,319,243.02</td>
</tr>
<tr>
<td>Postal Services</td>
<td>99,877.23</td>
</tr>
<tr>
<td>Departmental Operating Account</td>
<td>572,545.58</td>
</tr>
<tr>
<td>Gardens and Grounds</td>
<td>266,117.35</td>
</tr>
<tr>
<td>Engineering Services</td>
<td>296,977.65</td>
</tr>
<tr>
<td>Digitising Plans/Drawings</td>
<td>37,049.31</td>
</tr>
<tr>
<td>Waste Management</td>
<td>125,050.47</td>
</tr>
<tr>
<td>Business Continuity</td>
<td>55,738.10</td>
</tr>
<tr>
<td>Botanic Gardens</td>
<td>118,604.19</td>
</tr>
<tr>
<td>Academic/Administrative Building Maintenance</td>
<td>1,882,893.95</td>
</tr>
<tr>
<td>Colleges Building Maintenance</td>
<td>1,709,044.15</td>
</tr>
<tr>
<td>Queen’s Campus Repair and Maintenance</td>
<td>1,111,671.45</td>
</tr>
<tr>
<td>Queen’s Colleges Landlord Repairs</td>
<td>95,925.04</td>
</tr>
<tr>
<td>Wolfson Premises Costs</td>
<td>181,008.36</td>
</tr>
<tr>
<td>University Property Services</td>
<td>40,753.95</td>
</tr>
</tbody>
</table>

**SUMMARY**

- **Total Expenditure 2007/08**: 13,053,308.74
- **Budget 2007/08**: 13,063,282.00
- **Outturn – Overspend/(Underspend)**: (9,973.26)
- **Budget Used**: 99.92%

A significant number of challenges were posed for the Estates and Buildings Department, both financially and operationally, in 2007/08.

A decision was taken early in the year to reduce significantly the recharging from Estates and Buildings to other areas of the University, and to revise the responsibilities of both Colleges and Departments in relation to building maintenance.

Whilst the outcome of this change led to significant improvements in estate management, there were a number of practical hurdles to overcome in achieving this.

One of the main issues which arose was the prolonged investigation into the funds actually spent on building maintenance throughout the University. This resulted in the budgets for both the building and grounds maintenance elements of Estates and Buildings not being finalised until several months into the financial year.

In order to ensure the full maintenance programme was still completed within the year, finance staff worked very closely with all operational staff responsible for building and grounds maintenance, to ensure both operational plans and financial requirements were very
closely aligned. This worked very well given the time constraints in place; therefore the same principles will be used in all future budget meetings within Estates and Buildings.

In addition to the maintenance work carried out by Estates and Buildings, the Project Section has had a very busy year in 2007/08. Details of projects are given later in this report but the Project Section has managed capital expenditure to the value of £13.52 million in 2007/08.

An additional pressure on Estates and Buildings budget in 2007/08 has been the cost of utilities. Whilst the unit cost was fixed for a significant proportion of the year, the usage increased significantly throughout the University. Steps are now being taken to address this as part of a new Energy Management Strategy.

Following the reorganisation of the Maintenance Section within Estates and Buildings, a review of the Helpdesk and Administration Section was carried out to ensure the support given to maintenance and projects staff was as efficient and timely as possible.

This review resulted in the Helpdesk physically moving away from the Administration Section, and relocating to the Maintenance office. The benefit of this has been immediate and significant. The physical proximity of the Helpdesk to the Maintenance staff has resulted in jobs being processed significantly quicker, and advice being given to callers without delay as a ‘pool’ of expert knowledge is immediately to hand to provide advice and assistance.

In order to ensure the continued improvement of all aspects of the Maintenance Section, a feedback form has been developed and made available for all customers to use with effect from September 2008.

This is an important development, as during 2007/08 the volume of jobs reported to Estates and Buildings increased by 7.1% to 12,125, with a total of approximately 14,200 enquiries being received by the Helpdesk.
OVERVIEW

The Facilities Section provides a wide range of services to University and College customers. These services include Grounds Maintenance, University Maintenance, Caretaking, Cleaning, Postal and Security Services, Waste Management, Environment Services and Site Services Management at Queen’s Campus and Health and Safety advice to the Estates and Buildings Department. The Botanic Garden and Visitor Centre is also managed by the Section.

These services are provided in conjunction and working with customers and encouraging their participation. All service provision is subject to regular financial performance monitoring and reviewed to ensure that delivery continues to be effective, economic, efficient and customer focused.

All members of staff in the Estates and Buildings Facilities Section continue to engage with and communicate with our customers to identify effective and efficient methods of working together, exploring imaginative, innovative solutions to existing and new issues.

Waste Management

The University recycled 28% of the total waste produced in the year 2007/08.

A new waste contract had been through the OJEU procedure and awarded to Biffa for the collection and transfer of controlled waste at both Durham and Queen's Campus. The contract started on 1st September for a period of four years. The contract allows the University more flexibility and provision for greater recycling with the introduction of extra streams for any types of plastics and cans together with the existing streams for paper/cardboard and glass. The new Biffa external bins will be clearly identified at both Durham and Queen’s Campus with black lids for general waste, blue lids for paper/cardboard, grey lids for plastic and cans and green lids for glass, so as to reduce the risk of contaminating recyclable materials. The University have purchased internal bins for the recycling of paper, cans, plastic and general waste with coloured tops to match the Biffa external bins. At least one group of four bins have been positioned in all Departmental Buildings and Colleges. The aim is to reduce the amount of waste going to land fill by ensuring the correct number of bins are available, further enhancing the University Environmental sustainability. Further information can be found on the Environmental website.

Cleaning Services

The productivity of the cleaning staff has again increased due to the purchase of more modern, efficient equipment, including the purchase of another battery operated Floor Burnisher which leaves the floors in an excellent condition; there are no cables, which provides an added health and safety benefit.

All members of staff are as conscientious as ever and take pride in their work.

Two members of the cleaning team received their long service award and a member of the team retired after 41 years service.

SECURITY

During the academic year 2007/08 the Security Section has made considerable progress with the implementation of the five-year Security Strategy. The main objective, to ensure that
Durham University is a safe, secure environment in which to live, study and work, is being achieved. A programme of continuous upgrade of CCTV in various locations is an important aid; a four-year Maintenance Contract, using 20/20 Vision, has been agreed. Proposed CCTV monitoring refurbishment plans are complete and this work is currently out to tender.

### Incident Statistics August 2007 - July 2008

<table>
<thead>
<tr>
<th>Month</th>
<th>Theft / Burglary</th>
<th>Car theft from</th>
<th>Criminal Damage</th>
<th>Anti Social Behaviour</th>
<th>Assault</th>
<th>Disorderly Conduct</th>
<th>Intruder Alarm Activations</th>
<th>Fire Alarm Activations</th>
<th>Breach of Security</th>
<th>Attempted Theft</th>
<th>Parking</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug</td>
<td>4</td>
<td>2</td>
<td>12</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sept</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>5</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct</td>
<td>4</td>
<td>7</td>
<td>27</td>
<td>1</td>
<td>2</td>
<td>24</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>11</td>
<td>17</td>
<td>6</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>18</td>
<td>2</td>
<td></td>
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<tr>
<td>Jan</td>
<td>9</td>
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<td>12</td>
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<td>1</td>
<td>10</td>
<td>9</td>
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<td>Feb</td>
<td>3</td>
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<td>1</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Mar</td>
<td>12</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>7</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td>3</td>
<td>3</td>
<td>13</td>
<td>4</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>26</td>
<td>7</td>
<td>16</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>July</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>7</td>
<td>34</td>
<td>129</td>
<td>3</td>
<td>4</td>
<td>78</td>
<td>158</td>
<td>51</td>
<td>7</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Two points should be taken into consideration when condensing the Incidence Statistics Chart:

- incidence reporting is now actively encouraged;
- partnership has been established between the Security Section and the police.

The overall number of incidents has fallen by approximately 10%, however, with the cooperation of the police, it is now possible to identify theft, and other crime, affecting students living off-campus, and anti-social behaviour by any students. This has resulted in a 57% increase in occurrences of crime and anti-social behaviour that would previously have gone unrecorded. Action is being taken as follows:

- visits to students living in the community offering advice on crime prevention;
- quarterly meetings of Community Liaison and Resident Groups;
- frequent patrols off-campus by Security Staff.

There has been a distinct improvement in the relationship between students and other residents in the local community. Anti-social behaviour by students has increased from 96 incidents in 2006/07 to 129 in 2007/08 but the patrols are able to deal promptly with, or defuse, many occurrences. The reduction of these incidents remains a priority and Security Staff are pro-actively working in partnership with community agencies to see that this is achieved.
Car Parking

Car parking has been an issue this year, due to the amount of construction work that has taken place on the Science Site. These problems are encountered on a daily basis in different locations. A new parking enforcement scheme has been approved by the University Executive Committee; it has been implemented at Queen’s Campus on a three month trial to assess its viability before its proposed introduction at Durham.

Palace Green

Palace Green is a particular attraction for event organisers; all of which depend on the Security Section’s services. Non-university events held during the last year include:

- St John’s Ambulance Annual Service;
- Battle of Britain Parade;
- Remembrance Sunday Parade;
- Durham Miners Gala Parade;
- Matin’s to the Courts, Cathedral Procession;
- Children’s Society Walk.

University events included:

- Winter and Summer Congregations;
- Matriculation;
- 175th Anniversary Events.

The Security Section also facilitated the media launch of the Territorial Army 100 Event.

Special Visits

During the year there have been many high profile visits requiring Security Section expertise.

Post Room

The ongoing development of the Post Room services has resulted in a steady increase in the number of Colleges utilising the facility; previously colleges had their own postal franking machines. The franking machine in the University Post Room has the capacity to deal with the Colleges mail in a more economic and efficient manner.

GARDENS AND GROUNDS

The Garden and Grounds Section now maintain Hatfield College grounds; plans are under discussion with the College for landscape improvement to update the planting, particularly adjacent to the tennis court.

The Horticultural Manager held a number of meetings with the Woodland Trust to discuss opening up land adjacent to their new site in the south of the city. It is envisaged that a woodland walk, from Croxdale to the City, via Great High Wood and Woodland Trust land, will be opened to the public.

The Section has taken over the maintenance of part of the Grounds at Josephine Butler College from the contractor. The remedial soft landscaping works were completed and the mound has been sown with Clover and Birds Foot Trefoil to eliminate the need for regular maintenance on the slopes.

The Horticultural Manager was involved in recommending and specifying plants for the proposed pedestrianisation scheme on the Science Site.
The Botanic Garden welcomed 78,000 visitors including 1,500 schoolchildren on organised visits during 2007/08. The increase in the number of school children was the result of a ‘twilight session’ that was held in conjunction with the Royal Botanic Garden, Kew; over a hundred teachers were shown what was available to school parties and how a visit can be coupled with key stages of the national curriculum.

The Horticultural Manager gave a presentation at Cambridge University on ‘The display of native plant species in the Botanic Garden’; his chosen subject was Limestone Flora. It was noted that Durham University was leading the way in this area, particularly with showing the public where the plants concerned could be seen in County Durham.

Work will soon be completed in the new woodland and meadow areas; an official opening in October 2008 has been proposed.

The Garden took part in a very successful event organised by the Children’s Society. This was a walk from Palace Green around Durham including a route through the Botanic Garden.

The University has been awarded, by Northumbria in Bloom, the William Leech Trophy Gold Award in the category of Universities, Colleges and Sports Grounds and the Botanic Garden has been awarded the Durham Villages Trophy Gold Award, for the best conservation project.

During June and July 2008, the Botanic Garden was a venue for the Durham City Arts Festival and the Botanic Garden played host to a ‘sculptor in residence’, Keith Stuart Murray, which was organised in partnership with Durham City Council and the Arts Council.

In June 2008, a Marketing and Development Manager was appointed; it is hoped that this role will have a significant impact in raising the profile, and the income, of the Botanic Garden.

**HEALTH AND SAFETY**

The Estates and Buildings Department has continued to comply with Health and Safety Legislation, and to prepare for future changes in the law. A high level of safety awareness amongst staff and contractors has been maintained and this has resulted in only 16 incidents and accidents reported for 2007/08, compared with 23 incidents and accidents in 2006/07.

Instruction and training are an important requirement of Health and Safety and both have continued to be provided to all staff. The major emphasis has again concentrated on manual handling and working at height, the former being the cause of most minor accidents and the latter supporting the continuing Health and Safety Executive (HSE) campaign to reduce falls from height. All of the Estates and Buildings workforce have attended further manual handling training courses and this has had the desired effect of reducing related incidents. Other training was provided to the workforce and also College staff in the subjects of Scaffold Erection and Inspection, Safe Use of Ladders, and Re-Setting of Electrics. The 17th Edition of the Institute Of Electrical Engineers for Electrical Installations came into effect on the 1st July 2008 and all Estates and Buildings electricians and related staff have successfully attended City & Guilds training. The training was also attended by staff from the Science Departments. All heating Engineers successfully attended the CORGI training for the various assessments required to carry out work on gas appliances, this is a five-yearly requirement of the Department’s CORGI membership. The IOSH Managing Safely course, organised and presented by the Health and Safety Office, was attended by a number of staff; and to date all managers and supervisors have attended the course. Training of the Projects Section staff on the requirements of the Construction, Design and Management (CDM) Regulations 2007, which became law in April 2007, has continued.
The Estates and Buildings Department works closely with the University Health and Safety Office. A number of joint initiatives were undertaken, including legionella controls and ‘slips and trips’ management. The programme to update the asbestos register continued and asbestos surveys to HSE standards were carried out in a number of Colleges and Departments, in addition more intrusive surveys and, where necessary, removal of asbestos was carried out on all projects involving refurbishment or demolition of buildings. To date, all buildings on the Science Site have been surveyed, together with a number of Colleges, and this information has been added to a database of University property. Asbestos was removed from a number of buildings where structural alterations and upgrading of boiler plant was carried out.

QUEEN’S CAMPUS, STOCKTON

Engineering and Building Maintenance

Maintenance and project work carried out by Site Services in all areas of Queen’s Campus including the two colleges at Stockton has been completed on budget and within target dates. A customer-satisfaction questionnaire produced a very positive response. During the year some 1,800 works orders were completed, this is some 15% of the Estates and Buildings total but does not include the minor repairs carried out by our janitors and caretakers.

Amongst the more unusual jobs carried out were the refurbishment of a replica of George Stephenson’s Locomotion railway engine; the refurbishment and mounting of a set of locomotive wheels.

The full size replica of George Stephenson’s Locomotion on display in the grounds of Stephenson College

A set of locomotive wheels dating back to the early 50s now sited at Stephenson College
Illustrations of the use of a “spider” access platform to maintain the high level equipment and fittings in the Holliday building atrium.

The external appearance of the Holliday building has been greatly improved by the re-painting of the Brise Soleil.

Discussions are still taking place with Shepherds Construction regarding problems with the glazing units in the Ebsworth building.

Queen’s Campus Health and Safety

There were no lost-time accidents over the past year. Formal health and safety inspections were carried out by the University Trade Union Health and Safety Representatives in the Wolfson Research Institute and Queen’s sports facility with no major problems reported.

Our 24/7 shift team attended a training session on the safe release of persons trapped in any of the five passenger lifts at Queen’s Campus.

A commendation was received from Cleveland Fire Service for reducing the number of ‘unwanted’ fire alarm calls from 61 in 2004/05 to 27 in 2007/08.

Several of our security and janitorial team gained first aid certificates and also attended manual handling training courses.

Queen’s Campus Site Services team

David Wood was appointed as Facilities Manager following the early retirement of Alan Osborne. David successfully completed a BTEC course in Building Studies at Redcar and Cleveland College.

A “Red Book” suggestion scheme has been introduced and is being well used by the Site Services team.
Queen’s Campus Grounds and Car Parks

Queen’s Campus has been awarded by Northumbria in Bloom, the Gold Award in the category of Universities, Colleges and Sports Grounds.

Work continues to improve the visual appearance of the Campus grounds, including additional planted areas and flower displays.

A new car park control system is to be introduced at Queen’s Campus from 1st September 2008. This will involve fixed penalty notices being issued to offending vehicles.

The entrance to the Ebsworth Building showing the areas where concrete has been removed and replaced with shrubbery

Queen’s Campus Environmental issues

A formal survey of recycling at Queen’s was carried out by the University Sustainable Living Coordination team. The survey stated that “Queen’s Campus has an exemplary recycling system”. Plans are in hand for further improvements.

Many energy saving schemes have been implemented with current savings estimated to be in excess of £30K per year.

Energy efficient condensing heating boilers have been installed in Snow College to replace old balanced-flue units.

Energy monitors have been installed in student accommodation kitchens at Snow and Stephenson Colleges.

Fred Robson has been nominated to take on the role of Energy Monitor for Queen’s Campus

Queen’s Campus Security

The IT based information system in all five security/porters’ offices has been updated. This system carries information on such topics as standing instructions, routine inspections, campus key numbers etc.

Additional CCTV cameras have been installed to cover “blind” areas.

Crime rates on the Stockton Teesdale site in general are increasing. Discussions have been held with Cleveland Police Crime Prevention Officer and his recommendations are to be implemented. Regular meetings have been held with the local community police officer and the community wardens.
Future developments

Regular meetings are taking place with White Young Green on the new multi million pound river bridge crossing adjacent to Queen’s Campus. A scheme for the reinstatement and landscaping of the current building site has been drawn up and presented to the contractor. Work on this project is scheduled to be completed in December 2008.

UNIVERSITY MAINTENANCE

General

This year has seen considerable change and progress within the area of maintenance delivery following the implementation of recommendations from the ‘Review of the Procurement of Repairs and Maintenance’.

A new ‘University Maintenance Team’ has been created, bringing together all aspects of university maintenance; led by the University Maintenance Manager.

The majority of posts have been, or are soon to be, filled via internal and external appointments with recruitment to the Crafts team being the challenge for 2008/09.

Team Location

Work has begun to base maintenance teams on the Science Site and in the City.
Refurbishment works began at Monyers Garth (near Palace Green) during June 2008, which will be the home of the City based maintenance team. Occupation of Monyers Garth is planned for October 2008.

A number of maintenance managers and crafts staff are already located at the Science Site, either on a permanent or floating basis. The accommodation is scattered around the site and some is in poor condition. Plans to develop the Old Mountjoy Boiler House site are in progress with a full move of all the Science Site Maintenance team to the Science Site expected to be around 2010.

Until 2010, when it is expected that all of Estates and Buildings Departments will move to the Science Site, the Maintenance Management team, including the Maintenance Helpdesk, have been located together in temporary accommodation at Green Lane.

The restructure together with the co-location of the Maintenance team and Helpdesk to an open plan office area, should offer many opportunities to provide a coordinated, efficient and responsive customer service.

Facilities Managers (FM’s)

The process of developing and refining the roles of the Facilities Managers is underway; staff, correctly located, will enable significant improvements to customer services.

Facilities Managers are identifying and beginning to hold regular meetings with their customers; increased contact opens clear lines of communication with Estates and Buildings.

Helpdesk

Atrium software was upgraded at the start of 2008, which offered improved (WEB) access to the software.

The Helpdesk became fully staffed towards the end of 2007/08 with the appointment of a modern apprentice.

There were improvements to the Customer feedback e-mails and many more customers took advantage of the on-line defect reporting service.

Minor New Works, Refurbishment and Decoration

The Maintenance team have managed 165 minor works and maintenance schemes on behalf of its customer and Estates and Buildings. Some examples of these schemes follow:
fully integrated digital scene system incorporating several lighting themes specifically set for operational and web broadcast use.

**Business School MBA Digital Lighting Scheme**

The existing analogue fluorescent lighting system within the Major MBA lecture theatre was removed and replaced with a

**Durham Business School, MBA office**

Two offices were altered to incorporate additional staff members and a student service counter. The criteria was to be able to allow limited access to students, whilst maintaining the level of privacy required, for the activities carried out in this office.

**Earth Sciences**

Additional electrical capacity installed into the Earth Sciences department within the E.G.G. building to allow future expansion of experiment, research and administration requirements.

Total capacity increased by 500 amps 3 phase.

**Chemistry**

Creation of a new store office in the Chemistry Department.
Graham Sports Centre
Replacement windows in the offices and café area.

Van Mildert
Derwent Block: Decoration and carpets.
Wear Block: Refurbishment and deep clean.
JCR Bar: Decking.
Deerness Block: Conversion of rooms from communal lounges to shared kitchen/dining rooms as part of the move by the Colleges Division to offer more amenities within student accommodation.

Collingwood College
Barnard Block: Full internal decoration, including furniture, carpets and plumbing.
Egremont Block: Full internal decoration.
Principals house: Refurbishment and re-roofing.

Ustinov College
Boxtree Block: Full internal decoration and carpet replacement.
Oak Block: Creation of quiet study/computer room.
Coffee Bar: Upgrade floor coverings.
Grey College, Oswald Block:
Refurbishment of 2 bathroom areas.

Josephine Butler College
Additional lighting.

St Mary’s College
Provision of loft hatches and decoration works.

St Aidans College
Main corridor and reception area - first phase of refurbishment work.
Extension A & B: Deep clean
Houses H & Q: Decoration

Trevelyan College
Change of use of flat.

University College, Bailey Block and Owengate
Alterations to kitchen areas.
Kitchen and buttery area full internal decoration.

Hatfield College
Dining hall and annex fully decorated, C stairs toilet, refurbishment, senior tutors office,
internal decoration, shower head replacement.

St Cuthberts, Refounders House
Carpet replacements.

Hild and Bede College
Caedmon Hall
Flooring replacement in foyer and staircase leading to dining hall, main floor sanded and
sealed, stage area, flooring repaired, sanded and sealed.

Thorpe
Window security stays.

Christopher Blocks
Refurbishment and deep clean, window security stays.

Hallgarth House, English
Full internal decoration and resolution of basement damp issues. New shelving, moving of
documentation etc.

North Bailey, No. 38, Classics Dept
Full internal decoration.

North Bailey No. 33 – 46, History Department
Full internal decoration, top floor kitchen replacement.

Haworth Building, Nursery
Window replacements.

Divinity House, Music
Window repairs to common room.
Contract Maintenance

The Electrical and Mechanical Maintenance Engineers have joined the new maintenance team from the Engineering Services section and continue to deliver a range of engineering maintenance, both planned and reactive via external contractors.

Much of the work is managed by maintenance service agreements which are periodically tendered.

Legionella risk assessments are in progress, with surveys of around 305 buildings completed.

A number of contract maintained systems have been added to and enhanced including:

- **North Bailey No 1**  
  Improvement works to the fire alarm system.

- **Hild and Bede, West Gym**  
  Installation of an analogue addressable fire detection system.

- **Parsons Field Court**  
  Installation of an analogue addressable fire detection system, which completes work in this area and makes Parsons Field site a single manufacturer system.

- **Trevelyan College**  
  Lightning protection system improvement works.

- **St Aidans**  
  Lightning protection system improvement works.

- **Collingwood College**  
  Lightning protection system improvement works.

- **Van Mildert College**  
  Lightning protection system improvement works.

- **Chemistry, Room 205**  
  Replacement of air conditioning.

- **Physics, Room 70**  
  Replacement of air Conditioning.

- **Bio Sciences**  
  Replacement of Air Conditioning.

Assembly Rooms Auditorium Refurbishment

A grant of £75k was donated by the Gillian Dickinson Trust towards this project refurbishment.

The work included:

Careful removal of the existing 223 auditorium seats, transportation to workshops to spray the cast iron supports and upholster the existing seat bases and backs.

Erection of scaffold to carry out ceiling moulding inspection to meet the auditorium licence requirement.
Whilst the scaffold was in place decorate the ceiling and features to the agreed colour scheme.

Decoration of the auditorium walls and panelling to the agreed colour scheme.

Replacement of the existing carpet with a fully fitted high-quality wool type carpet.

Careful replacement of the refurbished original seating.

Design Team: Estates and Buildings Department
Main Contractors: Johnston Wright Flooring – Carpet
MITIE Property Services – Decoration
CPS Seating - Seat Refurbishment
Decorative Plaster Company – Ceiling inspection

**Alteration and Refurbishment Muslim Prayer Room, Dun Cow Lecture Rooms**

It was identified that the space allocated as Prayer Room in the property was far too small for the Muslim Community, which is growing rapidly in the University; nor were the washroom facilities appropriate for Muslim ablutions.

The upper floor of the property was occupied by the Development Office, which has been relocated in the Atrium at Mountjoy 4. The vacated space has provided a second Brother Prayer Room, library and office. A public address system has been installed in the two Brothers Prayer Rooms and the Sisters Prayer Room to create communication links. The project has allowed the property to be remodelled to provide washing facilities for the Sisters, Brothers and a Disabled facility. In each of these facilities, Wudu seats were provided to meet the Muslim ablution requirement in a safe, hygienic way and address the environment issues. The building was totally internally redecorated and carpeted to the agreed colour schemes of the Islamic Society representative.

Design Team: Estates and Building Department
Contractors: Interserve - Building and Electrical
Johnston Wright Flooring – Carpets
Bagnalls -Decoration

Budget: £69k

**In-House Maintenance Team**

Regular meetings have been established with maintenance management and the directly employed maintenance craft staff to improve and ensure good two way communication. Meetings have enabled managers to understand staff issues and to communicate Team, Department and University objectives.

Discussions are continuing with staff and Unions regarding multi-skilling and it is hoped that skills training and development of staff can soon be implemented.

Members of staff have been allotted to designated areas (Science/City sites) and are generally working within these areas. Staff will retain wider site knowledge through a programme of rotation between the teams.

The team continue to provide an out-of-hours emergency call out service, which will soon be enhanced with management support.

Two Stonemasons completed their apprenticeships in September 2007; much of their 3 years training being spent at Durham Cathedral. The Stonemasons are now working exclusively for the University, engaged on various projects around the campus.
Many of the electrical team have completed the necessary courses and examinations required under the British Standard BS:7671 Institute of Electrical Engineers 17th edition wiring regulations.

**Performance Indicators**

Developments have begun that will enable the reporting against key performance indicators (KPI’s) in the following areas:

**Performance against Service Standards**

Maintenance managers and Unisys have developed reports to measure the maintenance team’s performance against currently published service standards.

Operational procedures and management of the ‘Atrium’ database are undergoing change and improvement to enable accurate reporting of this KPI.

**Productive Performance of the In-House Crafts Team**

A review by an external consultant has been commissioned to measure the productive performance of the in-house crafts team.

In addition to the planned changes resulting from the 2007 Maintenance Review, the consultant will examine staff and management working practices and procedures to identify opportunities for performance improvement.

The resultant performance figure will be a benchmark to be measured and reported against in following months.

**University Events**

The team has been successfully involved in the operational aspects of the twice yearly examination programme and University graduation ceremonies.
PROJECTS AND ENGINEERING SECTION

PROJECTS

During 2007/08, the Estates and Buildings Department provided management services for the following projects:

Gateway

The project has developed from the relocation of the University’s administration to Mountjoy Blocks 1-3 to include the creation of a new ‘Gateway Building’ along Stockton Road that will redefine the entrance of the University and bring together student-facing central services to enhance the student experience.

Concept designs for the development have been prepared, which incorporates purpose built accommodation for student services, executive offices, professional support services, a Law school and an extension to the Library. A new catering facility will also be incorporated into the designs, enhancing the catering facilities for the Science Site.

Concept Designs of Gateway:

![Proposed Gateway Entrance](image)

![Proposed Law Entrance](image)
The proposed refurbishment of Mountjoy Blocks 1-3 will continue to be developed for the remaining professional services departments. Following the relocation of departments, vacated space at the Bailey and Elvet Riverside shall be remodelled for the Arts and Social Sciences departments.

Proposed Elevations of Mountjoy:
**Project advantages**

The project is a key driver of the University's Estates Strategy and has the following advantages:

- it provides the means to make a bold architectural statement of the University’s vision for the future;

- it is a major contribution to the University Strategy, enhancing the student experience by bringing together student-facing central services in an environment specifically designed for that purpose;

- it provides the best technical solution to a series of pressing estate issues;

- it will enhance the University’s operations by co-locating related student-facing services that are currently geographically dispersed;

- it helps the University to maintain its strong position in recruitment;

- it will be easier to manage and be less disruptive, involving fewer separate sites and avoiding the need to decant staff involved in business critical support processes;

- it will be delivered as a single programme.

The Gateway Programme Board will now take forward the development of the Business Case for presenting to Council later in the year (2008).

Architect - Gateway: _Space
Architect - Mountjoy: GSS Architecture
Main Contractor: TBA
Est. Project Budget: £60M

**Graham Sports Centre - Rubber Crumb Rugby Pitch**

This project involves the provision of a third generation (3G) synthetic full-size floodlit rugby pitch to Graham Sports Centre, Maiden Castle. It is proposed that the pitch shall be located alongside the existing water-based hockey pitch and will be designed to International Rugby Board standards to allow both training and matches.

The Business Case has been approved by University Executive Committee and Finance and General Purposes Committee; and a planning application has been submitted.

The floodlighting scheme proposed shall incorporate improvements to the existing floodlighting at the centre to minimise any adverse impact on the environment.

A planning application has been submitted and we await the outcome.

Architect: Estates and Buildings
Main Contractor: TBA
Project Budget: £900K
**Graham Sports Centre - Sporting Excellence Centre**

The proposed ‘Centre for Sporting Excellence’ comprises two separate building elements, the extension of the main building and a boat house. The main building will consist of an indoor powered rowing tank, cricket nets, fencing area, ergo training room, new reception area, changing rooms and toilets. The boat house is a dedicated storage facility for rowing boats and canoes, having close access to the river Wear with a new boat launch.

The University Executive Committee has approved the progression of the scheme up to the submission of a planning application with a capped project budget of £6m, inclusive.

The designs for the project have now been developed in consultation with the Director of Sport and relevant sports coaches. A planning application has now been submitted.

**Architect:** Atkins  
**Main Contractor:** TBA  
**Project Budget:** £6M

Proposed section through the new boat house:

![Proposed section through the new boat house](image)

Proposed Site Layout for boat house:

![Proposed Site Layout for boat house](image)

**College Accommodation Refurbishment Elvet Block Grey College**

The project formed part of the College Refurbishment Programme for improving student accommodation and facilities.

Funding of £2.9m had been allocated from the Colleges Major Refurbishment Programme for the works at Grey College.

The work involves the refurbishment of 151 bedrooms and the refurbishment of the shower and toilet facilities.

Completion of the works was phased, Elvet North accommodation is to be completed and made available for occupation by the start of the Michaelmas term in October 2008 and the remainder for the start of the Epiphany Term 2009.
The aim of the project is to provide the University with residential accommodation that is fit for purpose.

Architect: Atkins
Main Contractor: SURGO Construction
Project Budget: £2.9M

Proposed enabling works and alterations to form Science Accommodation for the Biophysical Sciences Institute

The enabling works for the forthcoming Institute involved the conversion of space in the Chemistry Building, previously occupied by the Department of Earth Sciences. In addition the space requirement for the new institute also involved the relocation of the existing rock store into the Engineering workshop 095. To enable this move to proceed the closed and cross flow wind tunnels were re-located on a temporary basis in the common room area in New Engineering.

The scope of works was to create space for the relocation of the Department of Earth Sciences Rock Store from its current location with the objective of redeveloping the vacated space to form a laboratory for the newly established Biophysical Sciences Institute.

In order to achieve the relocation of the Rock Store, it was necessary to convert space in the Engineering Department, for the temporary relocation of equipment (wind tunnels) to space designated as a staff rest area. After a period of approximately 12 months, the equipment will be relocated to a permanent position within the Engineering workshop and the staff rest area will undergo refurbishment.

The areas previously used for the storage of equipment and the wind tunnels has been refurbished to create three new research and teaching areas (Page and Mini Labs).

Architect: Estates and Buildings
Main Contractor: Interserve Projects Ltd
Project Budget: £150K

Other Works

Academic Capital Projects

There were several minor projects ongoing throughout the year, including window replacements on several buildings on the Science Site.

These works are part of the ongoing improvements to the fabric of existing buildings.

Architect: Estates and Buildings
Main Contractor: Interserve Projects Ltd
Project Budget: £445K

College Capital Projects

The second year of a three year window replacement programme continued at Grey College. The first phase of window replacements has been carried out in Hollingside Block with the final phase due for completion this year.

Architect: Estates and Buildings
Main Contractor: Interserve Projects Ltd
Project Budget: £150K
Waterside Dining Room Refurbishment, Holliday Building, Queens Campus

This project consisted of the conversion of the Waterside Dining Facility, reminiscent of dated canteen type provision, into a modern student social space bistro/bar. The idea was to create a different atmosphere and experience whilst still enabling peak demands of student dining and the conference trade to be met. The works consisted of a full internal decoration, upgrade of electrical and mechanical services, new bar and ‘grab and go’ self service area.

Design Team: Estates and Buildings
PHP Architects
Main Contractor: Vest Construction
Project Budget: £350K

The Waterside Dining Room prior to the Refurbishment

The Waterside Dining Room after to the Refurbishment

Relocation of the DSU Campus Shop

This scheme involved the relocation of the campus shop run by DSU to a more prominent location. The works consisted the transfer of all stocks into a new environment, a large glazed feature wall and entrance door.

Design Team: Estates and Buildings
Main Contractor: Sendrig Construction
Project Budget: £40K

Improvement of JCR facilities at John Snow College

These improvements consisted of the removal of the existing gym into a contemporary refurbished student social space inclusive of full decoration, lighting, coffee bar, furniture, JCR office and an external enclosed decked area.
Improvement JCR facilities at George Stephenson College

The upgrade of the existing student social space was developed to create a modern communal area inclusive of full decoration, lighting, coffee bar, furniture, and an internet café area.

Institute of Hazard and Risk Research

The Institute of Hazard and Risk Research is a new and unique interdisciplinary research institute committed to delivering fundamental research on hazards and risks.

Following generous donations from two Alumni, Government funding and University support, a new £5.2M building has been constructed to house the Institute which gives iconic presence on the University’s Science Site. The building houses academic offices, temperature and humidity controlled laboratories, seminar rooms, meeting rooms and an open access flexible break-out space.

Construction was completed July 2008, allowing academic staff to move into the building during the summer vacation period and become fully operational for the start of the new academic year. All works were completed within the approved project budget.
Relocation of the Department of Anthropology to Dawson Building

The project is Stage 2 of the Estates Strategy Implementation Plan that was approved by University Council in December 2003. This stage involves relocating the Department of Anthropology from Old Elvet to Dawson Building at the University’s Science Site. The Building will be shared with the Department of Archaeology, which will bring benefits to both departments in terms of joint working and facilities.

Extensive refurbishment and conversion works have been carried out within Dawson Building to allow the co-location of the departments. Works were completed ahead of programme and within budget during August 2008. This allowed the Department of Anthropology to move into the building during September 2008 before the start of the new academic year.

Project Manager: Estates and Buildings
Architect: Dewjoc
Quantity Surveyor: Gleeds
Contractor: Laing O’Rourke
Project Budget: £3.7M
ENGINEERING SERVICES

Engineering Maintenance

At the beginning of the year maintenance service agreements were renewed following a competitively tendered exercise in the areas detailed below:

- Air Conditioning Systems and Equipment
- Domestic Gas Appliances and Heating Systems
- Commercial Gas, Duel Fuel and Fuel Oil Appliances
- Water Monitoring and Hygiene – Legionella Control

The Engineering Section maintained service delivery during a transition period from April to August 2008 where responsibility for engineering maintenance transferred from the Engineering Section to the newly formed Maintenance Section.

Two Engineers transferred to the new Maintenance Section to continue with their planned maintenance workload.

Engineering Projects

Grey College Elvet North Boiler Plant Replacement

As part of our continued boiler plant replacement programme at Grey College, the existing inefficient boiler plant serving Elvet South accommodation block has been replaced with new high efficiency equipment, including condensing gas fired water heaters and modern automatic controls connected to our Building Management System to provide optimum control and a remote functionality.

The existing tank fed heating and domestic systems have been replaced with direct mains systems, removing the need for roof void header tanks and the associated legionella control measures. An upgrade has also been included to the College’s gas infrastructure within the project scope of works to improve the services capacity and proof the site for limited future expansion.

Design Consultant: TGA Consulting Engineers
Main Contractor: Dunnill Mechanical Services
Project cost: £226K

Van Mildert College Heating Decentralisation – Tyne & Wear Block

Following a feasibility study and option appraisal exercise on the future heating provision to College buildings a phased decentralisation programme is underway. It commenced with Tees Block plant room from the college central boiler system during the 2006/07 summer period.
The project scope includes the installation of a gas main to serve Tyne Block from our existing gas ring main on the southern flank of the site. The installation of gas-fired high efficiency boiler plant, condensing gas water heaters and associated automatic BMS controls within both Tyne and Wear accommodation blocks. To allow a vertical flue route to pass through the buildings structure, bathrooms on each floor have been converted into shower rooms in both buildings.

The existing tank fed heating and domestic systems have been replaced with direct mains systems removing the need for roof void header tanks and associated legionella control measures.

**School of Education Boiler Plant Replacement**

Dunnill Mechanical Services have replaced the ageing and inefficient boiler plant within this Department with a new high efficient boiler plant utilising modulating burner technology and fully automated building management system (BMS) with remote monitoring functionality. Dunnill's have also undertaken improvements to the boiler room's dilapidated structure by applying a generous coat of damp proof render, which should preserve the ageing stone walls for many years to come.

**Howland's Farm Boiler Replacements**

Due to increasing heating system failures and associated costs of maintaining the installed boiler plant in the older Howland’s Farm post graduate accommodation blocks, a phased programme of eight boiler replacements was carried out by EIWHS during the summer vacation 2008.
The new installation comprises condensing gas fired boilers and an upgrade to the existing automatic control system; an improvement projected to generate a 15% saving in gas consumption.

Design Consultant: Estates and Buildings
Main Contractor: EIWHS
Project cost: £79K

DHS1 District Heating Scheme

The Business Case to replace the existing DHS1 District Heating Scheme was approved by the University Council on the 1 July 2008. Principal design consultants Cundall Johnson Partners have been appointed; they are currently reviewing the feasibility report and developing the outline design together with the City Planners and English Heritage. This three-year phased project is to replace the central boiler plant located within Hatfield College, extensive heating distribution mains and associated plant, which collectively provide the heating infrastructure to University departmental and collegiate buildings on Durham’s Peninsular with individual high efficiency boiler plant strategically located across the historic site.

The existing DHS1 boiler plant was last replaced during the 1960s and the buried distribution mains originate back to 1947, all of which have exceeded their economic life expectancy. Durham Cathedral was initially connected to the DHS1 system; it was disconnected in 2000 after the Dean and Chapter installed dedicated boiler plant in the Cathedral.
The primary aim of this project is to mitigate the ‘High Risk’ of failure to the existing district heating system and the subsequent major disruption to University operations; however there are further benefits and key drivers to replace the system including:

- the use of a decentralised heating system will enhance flexibility in operation with the ability to individually control heating in departments and colleges through dedicated boilers, which will reduce overall energy consumption;

- the proposed scheme will incorporate measures to enable energy costs to be more accurately apportioned to individual Colleges and Academic Departments;

- the proposed scheme offers a more efficient source of heating and reduced maintenance costs;

- opening up development opportunities on the Peninsula when the district heating boilers are removed from the obsolete boiler house at Hatfield College.

The design stage of the project will be complete in December 2008 when the installation package will be tendered through the official journal of the European Community (OJEC). Following contract award, the start of construction work on the first phase in May 2009 with completion of the overall project in October 2011.

Lead Consultant: Cundall Johnson Partners
Main Contractor: To be confirmed
Project Budget: £7.97M

Science Site Chemistry Building – Passenger/Goods Lift Replacement

The existing traction passenger/goods lift in close proximity to the Chemistry Department loading bay was replaced a modern, fully DDA compliant 10-person machine roomless lift.

An extension was added to the top of the lift shaft to enable the lift travel to extend to the top floor of the Chemistry Building with a new lift lobby area created.

Design Consultant: Dunbar Boardman
Main Contractor: Kone
Project Cost: £125K
Palace Green Library - Vesda Fire Alarm System

The installation of a VESDA fire alarm system to protect rare books was completed in September 2008.

This project was instigated following a recommendation from the University's insurers and required listed building and ancient monument consents.

Design Consultant: Swift Fire and Security
Main Contractor: McVickers
Project Cost: £50K

Palace Green Library - Lighting Improvements

Lighting refurbishments in both Room 8 and the level 5 strong rooms were carried out to enhance the lighting levels and to incorporate energy saving controls, including PIR, time delay pull switches and daylight linking.

Design Consultant: Gradus Lighting
Main Contractor: McVickers
Project Cost: £40K

University College Owengate Premises - Electrical Rewire

The Institute Of Electrical Engineers Electrical fixed wiring inspection and testing at Owengate premises, previously undertaken as part of the planned maintenance regime, identified weaknesses in the electrical system that classified the installation as very low standard.

The buildings have subsequently been rewired to bring the system up to modern day standards, provide the accommodation with improved lighting and additional electrical socket outlets in study bedrooms to support increased IT usage.

Design Consultant: Atkins Consulting Engineers
Main Contractor: McVickers
Project cost: £108K

Grey College - Holgate House – Lighting Improvements
St Aidan’s College H to Q Blocks - Lighting Improvements

Following complaints from college staff about the condition of the lighting in the accommodation blocks it was decided to install a new lighting scheme to enhance the lighting and also save energy by the use of LED light fittings acting as maintained Emergency lights.

Design Consultant: Atkins
Contractor: McVickers/Bosanko
Project Cost: £50K

University College Moatside Court - Main Switchgear upgrade
St Cuthbert’s Society, Fonteyn Court – Main Switchgear upgrade

Owing to the age and condition of existing main switchgear in the University College, Moatside Court and at Fonteyn Court a bespoke panel designer was employed to design replacement switchgear at the above locations, installed under the measured term contract.

Design Consultant: Armah switchgear
Elvet Hill House - Lighting and Power Schemes

A new lighting scheme was installed to support refurbishment of teaching rooms and additional power points to service IT equipment throughout the building.

Design Consultant: Estates and Buildings
Contractor: McVickers
Project Cost: £50K

Elvet Riverside 1 - Main Electrical Switch Panel Replacement

The planned replacement of the Elvet Riverside 1 main intake panel was incorporated into the main refurbishment works taking place in Elvet Riverside 1.

A specially designed panel had to be installed in the location of the old switchgear. This incorporated a new NEDL supply ‘cut out unit’, which required careful planning over a number of weekends to minimise disruption to the department.

Design Consultant: TGA/Armah switchgear
Main Contractor: McVickers
Project cost: £47K

Pedestrianisation of Science Site - Lighting Improvements

The proposed Pedestrianisation of the Science Site project will incorporate enhanced and improved lighting across the campus. The lighting element of this work will be designed by the consultant following the client brief whilst the installation in phases will be coordinated in-house. The scheme will require “dark sky” fittings and long life, low energy, LED fittings.

Design Consultant: White Young Green
Main Contractor: TBC
Project Cost: £80K

Science Site - Electrical Infrastructure Improvements

In order to support the future proposed development across the Science Site it will be necessary to release some capacity on the 20kv High Voltage system. Meetings were held with both NEDL and IUSL in order to formulate a design solution. The project requires the relocation of two substations; one owned by Northern Electric, the other by the University. Schemes were formulated that released sufficient capacity on the 20kv system and NEDL and IUSL are working up scheme costs for appraisal in October of this year.

Design: Estates and Buildings
Main Contractor: NEDL/IUSL
Project Cost: £400K

External Lighting

A client brief has been developed and issued to a framework consultant to undertake a detailed survey of the existing external lighting across the estate. The object is to reduce light pollution and energy costs without detriment to health and safety and security.

Further consultation will be held with colleges, departments and the security manager before any changes are implemented.
Building Management System (BMS)

The Building Management Systems within the University have continued to be developed and migrated to an Internet Provider based infrastructure, with the replacement of controls equipment, data wiring and, eventually, will include all BMS control panels.

Additional buildings and specialist areas have been added to the systems, including IHRR, parts of the BSI project thereby increasing the systems to over 260 outstations and 5 servers.

The programme of connecting fire alarm and security alarm systems to the BMS system has continued. System interfaces and equipment have been installed to enable remote monitoring and alarm handling back to the 24-hour Security office at the Science Site.

New heating controls have been installed in Caedmon at St Hild and St Bede for control of the convector heating in the Hall and Dining Hall.

The new BMS Sigma system has been extended to include St Mary's College, Collingwood College and Parsons Field and Fonteyn Court. This programme of work will continue with Van Mildert College and Grey College, and the remaining blocks at Ustinov College.

A new web access server has been installed to allow a number of building users direct viewing access of a graphic page reflecting their building conditions (i.e. internal space temperatures); this functionality is to be extended further next year.

Ongoing maintenance of all BMS related field equipment has been carried out with improvements to programming to ensure greater efficiencies and service delivery.

Energy and Utilities

The energy market shows no signs of easing from the volatility of recent years. We have seen the cost of gas exceeding 108 pence per therm; due to the link between gas-fired power stations and the production of electricity, this utility has also seen extremely high cost rises.

The market is still influenced by events in the Middle East. Any activity there produces erratic reactions on the markets where energy is traded as a commodity.

The University's activities can also produce increases in energy costs such as:

- new buildings or extensions increasing the Estate’s floor area;
- a demand for year round utilisation of University buildings;
- development and replacement of IT systems requiring more power; which often results in the need for more cooling;
- research activities that demand significant amounts of energy and water;
- expectations of end users of energy in their work conditions and environment.

To show its ongoing commitment to reducing the University’s energy consumption; the Department received ‘Energy Efficiency Accreditation’. To receive the accreditation the Department had to produce 3 years evidence of good energy management procedure. The
accreditation lasts for 3 years; after which time there is an annual re-accreditation. This will demonstrate to staff and students and the wider community alike, just how serious Durham University is about reducing its Carbon Emissions that are so harmful to the world’s environment.

**Electricity**

The electrical contracts for the large 100kw + sites (Half Hourly) and the smaller sub 100kw sites (Non Half Hourly) were negotiated by E-Procurement on the 23 May 2008.

The details of the University’s sites were sent to The Energy Consortium (TEC), who handle tender negotiations on behalf of the University. The tender was managed by an internet based company called Utilyx using E-Procurement techniques.

**The HH contract** is for large sites over 100kw and consists of sixteen sites. The current contract value is approximately £2,855,267. The contract renewal date is 1 October 2008. Due to the volatility of the energy market an increase of at least 20% was expected but eventually a 27% increase materialised.

**The NHH contract** is for smaller sites below 100kw and consists of 212 sites or metered supplies. The current contract value is approximately £713,816. The contract renewal date is 1 September 2008. The NHH contract was tendered at the same time as the HH and saw the same percentage increase.

This will give a new estimated contract value for electricity of £4,532,736 per annum.

**Gas**

The gas contract was negotiated last July 2007 and is not due for renewal until 1 July 2009. The contract involves 114 sites of metered supplies and is currently worth approximately £1,682,111. The negotiated contract unit rate for gas was 15% down on the previous renewal of 2005/07. A recent test of market prices indicated a sharp upturn in gas prices; a rise of 60% is possible, increasing the gas budget to circa £2,691,377.

**Water and Sewerage**

Northumbrian Water has to declare a five-year plan of charges and investments to OFWAT, the Industry Regulator. Annual increases applies from 1 April; this year the increase was 5%.

Northumbrian Water is phasing in the way it charges for surface water drainage. The old system used rateable value; the new system uses the curtilage of a building and groups the total area into chargeable bands. Negotiations with Northumbrian Water to move some properties into lower bands resulted in revenue savings of 10%.

Expenditure on measured water and sewerage was £834,267, which is an increase of 15% on the previous year.

**Other Initiatives**

The Department is pro-actively advising, and educating, staff and students into becoming more ‘energy’ aware.

There is an ongoing programme of energy efficient installations, which includes:

- boiler replacements, installing ‘state of the art’ high efficiency boiler plant;
- variable speed drives for pumps and fans as a 20% reduction in speed can save 50% of the running costs;
• heating zone controls, to shut down sections of heating when they are not required or when they are up to the required internal temperature;
• flue heat recovery equipment, which takes waste heat from the boiler flue gases and pre-heats the boiler return water before it enters the boilers;
• replacing obsolete hot water systems for modern highly-efficient direct gas-fired condensing equipment or plate heat exchangers;
• installing lighting controls and replacement high efficiency light fittings;
• improving the standard of insulation in plant rooms;
• installing aerated showers, saving 60% of the water costs associated with conventional showers;
• installing Cistern Dams that save a litre of water every time the WC is flushed;
• fitting aerated taps that reduce the flow of water from 12l/min to 5l/min without any loss in performance.

To assist in financing projects similar to the above, the Department has secured a ‘ring fenced’ energy investment budget that has been matched, funded by Salix Finance and the Higher Education Funding Council for England (HEFCE). In year one and two the Department will have £250K per year to invest in energy efficiency. In subsequent years the ‘ring fenced’ energy investment budget will drop down to £100K and will be totally funded by the University.

METER INITIATIVE

Introduction

In 2007/08 the University consumed 39,817,012 kWh of electricity at a cost of £3,569,084.

72.6% of the University’s electrical consumption is used in non-residential premises, compared with 27.4% in residential premises.

75% of the non-residential electrical load, amounting to 54.4% of the University’s total electrical load, is consumed at Mountjoy and the Science Site, at a cost of £1.85M.

There is a significant amount of energy consumed on the Science Site; an effective, accurate energy data collection system, to building level, is required to identify wastage and facilitate energy minimisation initiatives.

Objective

The purpose of this initiative is to identify possible metering methods for collecting electrical consumption data from buildings on the Science Site. A full and detailed option appraisal exercise is to be carried out to determine the most appropriate solution. Each option will be compared for ‘value for money’, effectiveness in delivering the right information to the right people, the advantages, and the disadvantages, associated with each proposal.

Drivers

The value of accurate information about energy and water use will be even greater in future to facilitate:

• the new Part L Building Regulations, which require sufficient metering in new (and in practice, refurbished) buildings to enable at least 90% of the estimated annual energy consumption to be accounted for;
• the European Energy Performance of Buildings Directive which sets minimum requirements for the energy performance of all new and large renovated buildings, requires that their certification, and in the case of public buildings, the display of accurate information about their energy consumption and carbon dioxide emissions;
• the forecast increases in the price of electricity, gas and water requires a better knowledge of its use;
• benchmarking against standards and to help develop Key Performance Indicators;
• to identify and evaluate the success of future energy efficiency schemes;
• to use the information in a Monitoring and Targeting exercise;
• to share accurate energy consumption data with building stakeholders;
• more accurate information for budget forecasting;
• comparisons between actual data and utility invoices.

**Electrical Distribution**

An initial survey of the Science Site involving some 20 buildings indicated that the most cost effective method would be to monitor the building electrical supply/supplies at the electrical sub-stations around the Science Site.

There are 5 electrical sub-stations sited around the Science Site:

- Science Site West sub-station, located behind the Ogden Building (Physics) on the west side of the campus;
- Science Site East sub-station, located in the centre of the campus behind the Earth Sciences Building (EGG), in the old boiler house yard;
- Library sub-station, located underneath the main entrance to the main library.
- Chemistry Courtyard sub-station, located in the centre of the campus adjacent to chemistry 2 entrance.
- Newton sub-station, located along the front of the campus off Stockton Road, behind Chemistry 4 building.

Although there are numerous meters installed in the sub-stations providing consumption data for various buildings, there would still be a need to install additional meters. These meters would be capable of collecting consumption data and transmitting that information to a remote data collecting centre.

**EUROPEAN PERFORMANCE OF BUILDINGS DIRECTIVE (EPBD)**

**Executive Summary**

**Introduction**


The EPBD is designed to assist the government in meeting it's commitments to reducing carbon emissions.

**Methodology**

Each building that is affected by the regulation will have to have an energy inspection carried out by an Accredited Energy Assessor.

The Energy Assessor, accredited to produce Display Energy Certificates (DECs) for that type of building, is the only person who can produce a DEC and Advisory Report for a building. The DEC will be logged in a national register and given a unique reference number.
Display Energy Certificates (DECs)

Display Energy Certificates show the actual energy usage of a building based on consumption recorded over periods up to the last 3 years, the operational rating, and help the public see the energy efficiency of a building. This is based on the energy consumption of the building as recorded by gas, electricity and other meters. The DEC has to be displayed at all times in a prominent place clearly visible to the public. A DEC is always accompanied by an Advisory Report that lists cost effective measures to improve the energy rating of the building.

DECs are only required for buildings that are occupied by a public authority or Institution providing a public service to a large number of persons, which have a total useful area greater than 1000m².

University Buildings that would be affected by the EPBD

All buildings over 1000m² need to have an energy inspection carried out by an Accredited Energy Assessor. Durham University has 82 buildings over a 1000m². Where buildings are smaller than 1000m², but share a common boiler plant or ventilation plant, they will have their floor areas added together and if the total exceeds 1000m²; then these buildings will require an energy inspection carried out by an Accredited Energy Assessor.

Type of buildings that would be excluded from EPBD

- buildings used as places of worship and for religious activities;
- temporary buildings with a planned time of use of two years or less;
- agricultural buildings, low energy demand and non-residential agricultural buildings;
- residential buildings that are intended to be used less than four months of the year;
- stand-alone buildings with a total useful floor area of less than 50m².

Government Time table of implementation

<table>
<thead>
<tr>
<th>Date</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st October 2007</td>
<td>DECs required on construction for all dwellings.</td>
</tr>
<tr>
<td></td>
<td>DECs required on the sale of dwellings built to 2006 standards.</td>
</tr>
<tr>
<td>6th April 2008</td>
<td>DECs required for the sale or rent of buildings other than dwellings with a floor area over 500m².</td>
</tr>
<tr>
<td></td>
<td>DECs required on construction for all non-dwellings.</td>
</tr>
<tr>
<td></td>
<td>Display Certificates required for all public buildings &gt;1000m².</td>
</tr>
<tr>
<td>1st October 2008</td>
<td>DECs required on the sale or rent of all remaining dwellings.</td>
</tr>
<tr>
<td></td>
<td>DECs required on the sale or rent of all remaining buildings other than dwellings.</td>
</tr>
<tr>
<td>4th January 2009</td>
<td>First inspection of all existing air-conditioning systems over 250kW must have occurred by this date.</td>
</tr>
<tr>
<td>4th January 2011</td>
<td>First inspection of all remaining air-conditioning systems over 12kW must have occurred by this date.</td>
</tr>
</tbody>
</table>

Penalties for non-compliance with the EPBD

Civil Law applies and Weights and Measures Authorities have the duty of enforcement. They can act on complaints from the public or make random investigations. If the Authorities believe that you are affected by the regulations, they can request production of the relevant documents within 7 days.
Failure to comply with the request may result in a Penalty Charge Notice. These can only be issued within 6 months of the date a DEC and Advisory Report was required.

The Penalty for failing to display a DEC at all times in a prominent place clearly visible to the public is £500 and failure to have a valid Advisory Report is £1000.

If it can be demonstrated that all reasonable steps have been taken to avoid breaching the regulations, then the penalty charge notice may be withdrawn.

The University has 66 buildings over the 1,000m² threshold; requiring a DEC and Advisory Report. These have been commissioned and the first DEC was produced for Old Shire Hall.
Space Management

The previous twelve months has seen the establishment of the Space Management Group, which has responsibility and budgetary authority to ensure optimal use of University space and to oversee small to medium changes in space utilisation. The Group meets monthly; it takes a strategic overview of the medium and long term use and allocation of all existing University accommodation, makes decisions on changes of space use and ensures effective space utilisation.

Two major teaching accommodation space utilisation surveys have been carried out in the past twelve months, one in November 2007 and one in March 2008. The results show that there are major improvements to be made to the way both central and departmental teaching space is utilised.

Survey Comparison - Overall Results All Teaching Rooms

<table>
<thead>
<tr>
<th>%</th>
<th>Nov-07</th>
<th>Mar-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupancy %age</td>
<td>24.74</td>
<td>22.52</td>
</tr>
<tr>
<td>Frequency %age</td>
<td>37.67</td>
<td>36.85</td>
</tr>
<tr>
<td>Utilisation %age</td>
<td>9.32</td>
<td>8.30</td>
</tr>
</tbody>
</table>

Major progress has been made in the development of the Asset Database with a makeover to pages for ease of viewing and updates to all of the reports available; the inclusion of Estate Management Definition Codes against each entry for ease of reporting for the yearly Estate Management Statistics to HEFCE, the standardisation of description, usage and function options and creation of procedures and processes pertaining to them. All data has been updated on the system; there are still improvements that can be made to the navigation screens the data is at its most accurate since the creation of the database.

Work has been carried out with the Treasurer’s Department to integrate into the database system information for Full Economic Costing and a system has been identified to obtain information from the Department in order to prevent duplication of requests for information by the two sections.

Major work has been carried out on the Estates and Buildings Department shared drive in the Building and Drawing folders to make them easier to access, with more user friendly navigation. A procedure and process has been written, which outlines the changes and updates that have been made. In addition to the changes to the folders, all available drawings have also been created in PDF format within the folders to enable access and printing capability to members of staff who do not have the AutoCAD software on their computers. New procedures and process charts have been created in order to identify the
requirements for updating current drawings with changes and new drawings that are requested or received into the Department; a system has been introduced to ensure that any updated information is passed through to the administration section in order to update the Atrium system, which is used for the reporting of maintenance faults.

Closer links have been created with the Timetabling section in order to build a better understanding of requirements and enable a closer working relationship due to the crossover between the two sections. This has helped to resolve some major issues with regard to teaching spaces that have occurred throughout the last twelve months.

Facilities Management Teaching Space

Elvet Hill House

During the year, Elvet Hill House has been transformed in stages from a building with limited learning and teaching space to an environment with up-to-date audio visual equipment, dry-wipe whiteboards, energy efficient lighting and a seating system that will assist with the flexible use of space. In addition, floor coverings and decorations to all rooms have been provided.

The above improvements have been negotiated with the Durham City Planners.

The Calman Learning Centre

The Calman Learning Centre was handed over from the construction company to the University in time for the start of the new academic year in 2007.

Throughout recent months, all issues that have emerged with the building have been recorded and rectified to achieve a smooth operation for learning and conferences.

The official opening of the building took place on 11th April 2008; the preparation of the building was carried out to an exceptionally high standard for this important event.

Recently 40 pieces of art work (SCOPIC) were hung on the ground floor, which includes the bistro area.

Chalkboard Repair

Essential maintenance and repair work has been carried out to three chalkboards in larger lecture theatres which are situated on the Science Site. This type of board is electrically and mechanically operated.

Room Improvements (Health & Safety)

Exceptionally old fixed tilt seating systems in rooms CM221, CM107 and E005 have been removed and replaced with modern seating systems. In addition all three rooms have had new floor coverings installed.
ESTATE STRATEGY DISPOSALS – VARIOUS PROPERTIES

Background

In 2004 the Estate Strategy for the University was published; it identified various properties that were not fit for purpose and outside of the key sites of the University in Durham. The properties were occupied by a variety of Departments and Colleges and proposals were formulated to relocate them within the core of the University, in new or refurbished space.

The relocation of Colleges and Departments would provide better accommodation for the users and allow them to continue to provide a first class service to stakeholders; it would also release their existing space, which could be sold to provide part of the finance for the implementation of the Estate Strategy.

Progression

Since the Estate Strategy was approved several key relocations have been completed, which have released several properties for sale. As the properties are of similar location and condition, the disposals were staggered to avoid flooding the market. Seven sales have been completed, with Grove House, Union Place, Ravensworth Terrace and the Rocket Union being completed in the last twelve months. The final properties, 30 and 31-33 Church Street, are presently in the hands of solicitors.

At the outset the University expected the majority of the purchasers to be from the student lettings market. Due to the downturn in that sector, the sales have been to a variety of purchasers for such reasons as conversion to apartments or for their own use as a single dwelling. Despite the demand from the student lettings market falling and the difficulty buyers faced in raising finance, we have achieved the asking price in most cases.

Sold:

Grove House

Sold to a property development company. Grove House will be converted into 4 two bedroom flats.

1A & 1B Union Place

Sold to a private individual. Union Place will be used for residential lettings.
3-7 Ravensworth Terrace

Sold to a property company. Ravensworth Terrace will be used for student lettings.

The Rocket Union

The Rocket Union became surplus to requirements when a new students union was opened in the Waterside Room of the Holliday Building, Stockton.

The Rocket Union was sold to a private developer. The developer intends to link the redevelopment of the Rocket to the redevelopment of the neighbouring Thornaby Town Hall, a Grade II Listed Building.

30 & 31-33 Church Street

Due to the restricted nature of Church Street it was felt that it would have been practically impossible to refurbish 30 Church Street without access via the rear across the gardens of 31-33 Church Street.

The University decided to sell both 30 & 31-33 Church Street as a single lot. The University received six offers and is currently progressing the sale.
EMERGENCY PLANNING AND BUSINESS CONTINUITY

During 2007/08 the University has made significant progress in enhancing its ability to face disruptive challenges to its normal operations and Major Incidents, should the need arise.

The University’s over-arching Major Incident Response Plan continues to be tested and exercised as part of a now well established programme of training and exercising sessions facilitated by the Emergency Planning Officer, utilising realistic scenarios developed with specific reference to the University Campus both in Durham City and Queen’s Campus, Stockton.

Those key staff that participate in such sessions are fully debriefed to capture significant learning points, enabling the continual revision of plans and procedures to improve our resilience. A Training and Exercising Implementation Plan had been developed so as to ensure a clear audit trail demonstrated progress within measurable timescales.

Linked to this, at the Departmental level, ‘Local Resilience’ Planning activities continue to move forward at pace with the ultimate aim of having a full suite of ‘fit for purpose’ plans in place across the University, which are tested at suitable intervals and refreshed as required.

These areas of work continue to be effectively directed and governed at the Strategic level by the Gold Steering Group, chaired by the Treasurer as UEC Sponsor of this function, and meeting on a bi-monthly basis.

As interest in this area of work continues to gain momentum within the Higher Education Sector a good practice guide has been developed and distributed to all Universities in England by HEFCE and the Emergency Planning Officer worked in an advisory role with the Authors to produce an authoritative guidance document relevant to the Sector.

A professional body for practitioners of this work within the Sector has developed entitled the ‘Higher Education Business Continuity Network’ (HEBCoN). The Emergency Planning Officer, as a founding member, sits on the Executive Committee and acts as Chairperson for the Northern Regional Group.

The University continues to develop its links with the wider Resilience Community to ensure it is well placed to respond quickly and effectively to any incidents that may necessitate a Multi-Agency response.
The University annually makes a return to the HEFCE of estates data and, together with information drawn from other sources, the Estate Management Statistics produced are compared with a number of similar institutions.

This measure illustrates the average total property cost required to provide & support each square metre of net non-residential space. Significant variation from typical results may suggest high or low component cost exposure.

- **Total property costs (D26) psm NIA (D12) Non-residential (All data)**

This measure illustrates the average total property cost required to provide & support each square metre of net non-residential space. Significant variation from typical results may suggest high or low component cost exposure.

- **Building condition % GIA Condition A and B Non-residential (All data)**

This measure represents the proportion of gross non-residential space classed as either "New condition" or "Sound, operationally safe and exhibiting only minor deterioration". Factors such as building age and maintenance costs may affect this.

- **Functional suitability % GIA Grade 1 and 2 Non-residential (All data)**

This measure represents the proportion of gross non-residential space graded as either "Excellent" or "Good" in terms of its current use.
This indicator expresses the total accrued costs of all revenue maintenance work per square metre of gross space. The costs of staff, direct support, materials and fees are included.

**Maintenance costs (D33) psm GIA (D11) C1 (All data)**

This indicator expresses the total accrued costs of all revenue maintenance work per square metre of gross space. The costs of staff, direct support, materials and fees are included.

**Capital expenditure (D25) psm NIA (D12) Non-residential (All data)**

This measure represents the average capital investment on the non-residential estate per sqm of net internal area. Variation in levels of capital expenditure may reflect differing accounting procedures in institutions.

**Total property costs (D26) per student FTE (D4) Non-residential (All data)**

This measure presents total property costs on the non-residential estate in relation to the total number of FTE students. Distance learning and franchise students are excluded since their demand on physical space is limited and less significant.
This ratio shows the proportion of facilities costs that are associated with central post room and internal distribution services for the whole estate.

This measure represents the average expenditure on energy provision (all fuels) per sqm gross space.

This measure represents the total costs of estate management (including direct staff and support costs and external contractors fees) in relation to the non-residential estate net internal area managed.
This ratio shows the proportion of facilities costs that are associated with security and porterage of the whole estate.

Peter Robinson
Director of the Estates and Buildings Department
13 November 2008