Campus Services & Business Operations
Sustainability Initiatives – March 2009
YU-card & Food Services
Anthony Barbisan, Director
YU-card & Food Services

YU-card Office
- Responsible for the provision of YU-cards and related ID/debit card services

Food & Vending Services
- Responsible for coordinating, through 16 contracted providers, the delivery of food and vending services
- Not responsible for food operations within the Student Centre, York Lanes, or Schulich School of Business
Sustainability Framework

• Strategic repositioning of Food Services operations to be socially, environmentally and economically sustainable:
  – Selecting partners with demonstrated operational, technical and business expertise to develop and enhance the food service program
  – Managing service providers under a defined framework that includes performance criteria and monitoring
  – Continuous improvement of operational processes, development of policies and procedures, and investment in infrastructure and equipment
Sustainability Initiatives 2008-2009

• Following through on priorities established by the last Sustainability Council
  – Local/sustainable foods
    • Developing proposal with Aramark and Local Food Plus
    • Las Nubes available in 6 more locations (8 total)
    • Requiring fair trade coffee in all new contracts
  – Food & packaging waste
    • Packaging continues to be evaluated but is dependent on what the waste processors will accept
    • Re-launching the “lug-a-mug” program to reduce the number of disposable cups consumed
    • Starting to consider portion sizes from a nutritional perspective
  – Composting & green waste
    • Kitchen waste has been composted for several years
    • Exploring diversion of some green waste to the Maloca Community Garden
YU-card & Food Services

Sustainability Initiatives 08/09 and 09/10

• MarketMatch study to develop a food services plan for Keele campus
  – Sustainability will be a key theme in the resulting business plan
• Inventory of sustainability practices and redesign of Food Services web site
• RFP for food services at Glendon College
  – Includes sustainability requirements
• Launching L’Unik Café student cooperative at Glendon in September; will focus on organics and local food
• Replacing obsolete kitchen equipment with more efficient units
• Replacing 230 residence laundry machines with high efficiency units
Bookstore, Printing & Mailing Services
Steven Glassman, Director
Printing Services

COURSE KITS ARE BOTH BACKPACK AND ENVIRONMENTALLY FRIENDLY.

OR

The choice between a single class kit and multiple textbooks is a simple one. Choose kits and reduce, re-use, recycle. They ensure up to 42% savings and 42% less CO2 emissions. That’s why we encourage you. Take it from us every year, plus you can order them online. Together we can all benefit from a better world.

york.ca/yorkwise
Printing Services

York University Bookstore

Course Kits are non-refundable. All items purchased as course kits have been cleared through the course kit and copyright clearance centre of the York University Bookstore.
Printing Services
Bookstore- Bags
Bookstore - Bags
Bookstore- Pens
Bookstore- Food
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<td>Heather Lambert</td>
<td>647 Wilton Grove Road, London, ON</td>
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<tr>
<td>Canon Canada</td>
<td>Tom &amp; Donna Austin</td>
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<td>Hotline Apparel</td>
<td>Paul Coates</td>
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<tr>
<td>Sharper Marketing</td>
<td>Tammy Alagierski</td>
<td>P.O. Box 219, STN D Toronto, ON</td>
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CSBO HOUSING SERVICES
Debbie Kee, Director
York has approximately 4,000 on-campus living units which house approximately 8% of the student population

Undergraduate Residences at Keele campus
  • 8 buildings – 2330 beds
  • 6 traditional dorms (mid ’60’s – early ’70s construction)
  • 2 suite-style (1991 and 2003 construction)

Undergraduate Residences at Glendon campus
  • 2 buildings - 414 beds
  • Traditional dorms (mid 60’s construction)

York University Apartments at Keele campus
  • 1250 self contained apartment units (early ’70s construction except Passy 1990)
  • Bachelor, 1-bedroom, 2 bedroom

York Suites at York U Apartments
  • 36 guest apartments for short-term visitor accommodation
Housing Services is responsible for:

• the rental and occupancies of these units
• cleaning and maintenance of the buildings
• annual improvement and renewal projects
• summer conference operations

Housing works in close collaboration with Residence Life (SCLD) and other CSBO partners on sustainability initiatives to deliver greener solutions, and to promote awareness and education with respect to student/tenant behaviours that impact the physical environment.
Some initiatives to date:

- Paper reduction with the creation of online applications and contract handling
- "Green" cleaning products (environmentally friendly and biodegradable)
- Staff and tenants participate in recycling
- Composting initiatives at Passy
- Low flow showerheads (2.5 gpm)
- Ensure all faucets are equipped with aerators.
- Maintenance on all leaking faucets in common washrooms and vacated apartments/suites
- Utility-saving plumbing fixtures and parts replacements per MCW recommendations
- Incandescent lights replaced with compact florescent
- Ceiling light fixtures changed to house 13 watt florescent bulbs.
- Passy external lights changed to compact florescent and are on a timer
- Battery recycling program
- Purchase “Energy Star” products when replacing appliances (refrigerators, stoves)
- Pond Road Residence is a green designed building
- Concentrate summer conference guests into fewer buildings to maximize efficiencies (e.g. shut down or reduce A/C in some buildings)
- Recycle abandoned property at move out (e.g. clothing sent to charity)
- Light switch signage to remind residents to shut off lights to conserve energy
- Wherever possible, maintain the building envelope (e.g. caulking, weather stripping)
Other initiatives in progress:

• change shower diverters to prevent water flow from both spout and showerhead

• consult with maintenance on potential savings by reducing domestic water temperatures to 125-130 degrees and ensure outdoor limiters are working to control steam temperatures coming into buildings

• consult with maintenance on modifying light fixtures in common areas

• Install additional composting facilities
Parking Services
Donna Hubbert, Manager Administration
Darren Craig, Manager Operations & Technology
Parking Services endeavors to facilitate the safe and orderly conduct of university business and to provide parking services in support of this function within the limits of available designated parking spaces.

Parking Services consists of two main areas:
- Administration
- Operations
Parking Services - Overview

Administration

• Facilitates all administrative processes related to Parking and Transportation

• Governs the issuance of parking permits, passes and visitor parking as well as facilitates the sales of TTC monthly Metropasses, Greyhound bus service and Go Transit Student Identification Cards

• Key resource for accepting and reconciling all parking revenues including daily parking, permits, passes and citation revenues
Parking Services – Overview

Operations

• Manages all outside operations including the parking hardware and software in three parking garages and 35 exterior parking lots and other areas

• Collects all revenues related to Parking at staffed parking locations and provides assistance and customer service in the event of technological issues

• Encourages positive parking behaviours through patron education and the issuance of citations to patrons that are not in compliance with the Parking and Traffic Rules and Regulations

• Responsible for repairs, preventative maintenance and revenue collection for all the Parking and Access Revenue Control technology

• Facilitates maintenance and repair of the parking facilities such as asphalt repair and snow removal
Parking Services –
Current Sustainability Initiatives

• Implementation of on-street parking technology that is solar powered; this significantly reduces the cost of installation, all infrastructure costs (and disruption) and is easily transported to other areas should the need arise.

• Implementation of the Resource Utilization program that reduced the number of statements sent to clients from a monthly to quarterly basis as part of the program.

• Introduction of on-line TTC permit purchase that reduces the number of patrons required to come to parking services in person to purchase a TTC permit (currently a 50% uptake on the program).

• Participation in the Parking and Transportation Advisory Council which in part discusses strategies to promote the transportation alternatives available to our customer base (including transit use, carpooling, "green" vehicles, etc.)
Parking Services –
Proposed Sustainability Initiatives

• Implementation of Licence Plate Recognition Technology that will allow more rapid coverage of reserved parking lots which account for approximately 65% of our inventory. This reorganization of duties will allow Parking Enforcement staff members to concentrate on higher priority areas such as medical and fire route enforcement.

• Looking at options and feasibility of full transference of TTC permit purchases to online rather than in person purchases which will reduce staffing costs as well as improve public image and customer relations relative to the Parking and Transportation Office.
Transportation Services
Nicole Arsenault, Manager
In the late 1990’s, 70% of York University’s commuters drove alone to and from campus.

The institution projected significant expansion in the years ahead and foresaw growing congestion and costly parking and infrastructure needs. In response, the University undertook transportation demand initiatives, including leadership in developing a Transportation Management Association (now known as Smart Commute North Toronto, Vaughan).
**TDM INITIATIVES**

From 2001 to 2006, there was population growth of 28% which was absorbed by transit, cycling, carpooling and walking…

• Currently more than 60% of trips to/from campus are by alternatives modes

• The deferral of plans to build additional parking structures

• Transportation Shuttles (GO Train Station; Glendon-Keele Shuttle)

• 1700 bus trips per day servicing York U (TTC, GO Transit, YRT/VIVA, Wheeltrans, Mobility Plus, Greyhound)
Transportation Services
Transportation Services

Smart Commute
North Toronto, Vaughan

Suggest A Carpool

Carpool Zone
York U. participates in the Plug-In Hybrid Electric Vehicle Pilot Program with the Toronto Atmospheric Fund, A123 Systems and Hymotions
Transportation Services

- TTC & GO Transit installed Bike Racks on routes to York U.
- Working with student group and Smart Commute to develop future initiatives such as: a bike share program and a bike kitchen
FUTURE DEVELOPMENT
Bus-only lane from Downsview Station to York University
FUTURE DEVELOPMENT

Subway extension
Sheppard West Station
Finch West Station
York University Station
Steeles West Station
Highway #7 Transitway Station
Vaughan Corporate Centre Station
Security Services
Jason Keddy, Director
## York Security Staff Breakdown

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<thead>
<tr>
<th>Category</th>
<th>No. of Staff</th>
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<tr>
<td>Card Access</td>
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<td>CCTV Monitoring</td>
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<td>Security OPS</td>
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<td>goSAFE</td>
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<td>Residence Watch Program</td>
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<tr>
<td>Campus Relations</td>
<td>7</td>
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<tr>
<td>Emergency Preparedness</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL STAFF</strong></td>
<td><strong>217</strong></td>
</tr>
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- **goSAFE**: 48%
- **CCTV Monitoring**: 18%
- **Security OPS**: 17%
- **Residence Watch Program**: 12%
- **Campus Relations**: 3%
- **Emergency Preparedness**: 1%
- **Card Access**: 1%

![Pie chart showing the breakdown of York Security Staff categories]
Security Sustainability Efforts & Initiatives

1. Decrease Vehicle fuel and maintenance costs
   • Exploring on campus fueling vs. off campus
   • Increase foot patrols and PACT (bike patrols)
   • Work with CSBO Grounds, Fleet and Waste Management for right of first refusal for any maintenance

2. Exploring the conversion of Intrusion alarm systems from analog phone lines to IP based receivers.
   • Quote on capital costs for upgrading panels from ADT and ITS
3. Decrease paper and toner costs
   • Lease of a central colour photocopier, printer and scanner
   • Discontinued use of three desk top printers
   • Implemented the password and chargeback feature on photocopier/printer to ensure each section within York Security will be accountable and charged for all printing.
York University Investigations
Ken Tooby, Coordinator of Investigations
The primary role of this office is to provide assistance to the community with respect to incidents on campus which involve violations of either university regulations or provincial or federal statutes.

Sustainability Initiatives – Administrative Processes

- Reduction in distribution of reports
- Shared network driver
- USB key to transfer files, instead of CD/DVD
- Use of external hard drives for catalogue of historical incidents
- Shutdown office monitors during quiet hours
- Working with Facilities to shutdown all lights at night/weekends
- Telecommuting when possible
- Reusable drinking cups for staff/guest
- Energy Star fridge and microwave
Custodial, Grounds & Glendon Facilities Services

Bob Smith - Director
CUSTODIAL SERVICES
- 80+ buildings at 3.9 million cleanable square feet
- 190 full and part time staff
- 100’s of tons of paper products and cleaning products
- Floor and carpet care equipment in each building – gel batteries

GROUND MAINTENANCE AND RENOVATION
- 200 hectares – hard and soft surface – forests, parking lots, walks, roads, sports fields, gardens
- Organic based products such as fertilizer, minimal pesticide usage
- Winter snow removal maintenance mainly in house

FLEET MAINTENANCE
- 50+ licensed and agricultural units – trucks and tractors etc.
- Diesel and Unleaded fuel
- Increase in 4 stroke and battery operated small machinery

WASTE AND RECYCLE MANAGEMENT
- 3,000 + ton per year waste and recyclables
- 52% recyclables – papers, plastics/glass, organics etc. etc.
- “Tri Bin” stations throughout the interior and exterior campus – ongoing
- Mostly an in house service to ensure consistency
- Education of the Community and ongoing issue
- Goal to attain 60% by 2012
“Tri Bin” Waste / Recycle Collection System

- Set of 3
- Paper – Waste – Plastics
- Interior and Exterior – campus walk, colonnade, classrooms, hallways, meeting rooms etc.
- In house movement and collection at central location = consistency
- Successful to date
Green Cleaning Program

- 75% underway
- Complete program to begin in YRT building
- Roll out to Community buildings January 2010
- Elements include green products, recycled paper, hand dryers, matting, workload, tools (microfibre)
Sustainability Initiative – Fleet Maintenance

Electric Golf Cart Usage / Utility Vehicles

- 9 electric golf carts, 6 utility vehicles (fuel)
- High speed chargers
- Charge on off peak times (night)
- Reduced emissions, fuel usage, maintenance
- Low noise emissions
- Cost effective
Maintenance
Phil Brown, Director
Maintenance

Maintenance is responsible for the maintenance of campus buildings which includes:

• Heating/cooling,
• Electrical,
• Plumbing/mechanical,
• Elevators,
• Key control,
• Roofs, windows, floors and doors, minor furniture repair, plumbing, lighting, ceiling tiles, carpets, painting, and carpentry.
Sustainability Initiatives

• LED Lights = Energy Savings
  Installation of LED lights

• Building Controls = Energy Savings
  Control systems which can shutdown buildings when not in use (METYSYS)

• Water Controls = Water Savings
  Including: Low flow urinals/toilets, shower and faucets
Sustainability Initiatives

• Operational processes to measure total cost per zone
  • Action plans for cost savings initiatives
  • Process flow to improve maintenance schedules
  • Calculating return on investment
  • Consistent and predictable processes – eliminate knee jerk reaction relating to repair and maintenance
  • P.M. development/establishing triggered replacements based on history and trends

*Measurement tools are now in place to allow prediction of future work.*
Energy Management
Bradley Cochrane, Director
Our primary function is to supply heating, cooling and power to all academic, administrative, retail, and residences on campus.

In order to accomplish this, we;

- generate high pressure steam for heating and chilled water for cooling,
- deliver these by way of underground service tunnels to mechanical rooms of each building for distribution to the various heating, ventilating, and air conditioning (HVAC) units within the building
- generate and distribute power through our 10 megawatt co-generation plant and associated high voltage electrical distribution system.

We are located on the corner of Chimney Stack and Albany Roads.
Along with heating, cooling and power, we are also responsible for the operation and maintenance of the PCB Storage Site, watermain-fire hydrant loop, the sanitary and storm sewers, the compressed air system, the City of Toronto Track and Field Centre heating boilers, and the underground service distribution tunnel which interconnects the campus buildings to the boiler/chiller plant.

The Energy Management unit is also responsible for the procurement and efficient utilization of natural gas, water and electricity, and all reporting associated with these activities. Our annual budget is approximately $30,000,000. A better descriptor would be Energy Services & Utilities Management.
BOG approved $39.5 Million “Yorkwise” project, the University has set initial reduction targets in the range of 25% of the overall utility bill which is equivalent to 275,000 GJ of energy or 18,900 tonnes of carbon dioxide emissions per year.

Yorkwise energy project upgrades and retrofits will accomplish several basic objectives:
• reduce the consumption of electricity, natural gas, steam, chilled water and domestic water on campus;
• renew and enhance air conditioning, heating, ventilation, lighting, building controls, compressed air and water-use in facilities;
• increase occupant comfort by improving the teaching, learning and working environments;
• showcase innovative, renewable energy technology in order to enhance students’ learning experience;
• reduce greenhouse gas emissions;
• and provide design, technology and training solutions to realize continued utility cost savings.
Examples of Yorkwise Projects:

- Lighting Retrofit & Controls: Retrofit or replace existing lighting systems and install lighting controls.
- **Cogeneration: Optimize the existing cogen plants.**
- Boiler Plant: Upgrade boiler controls & burners and optimize system operation.
- Chiller Plant: Improve use of summer steam to produce chilled water, retrofit pumps and cooling towers and optimize system operation.
- Distribution: Improve the use of chilled water, **reduce steam distribution losses (Pressure Reduction & Autoclaves)** and install building submetering
- HVAC Modifications: Improve the provision of heating, ventilation and cooling within buildings including the recovery of waste energy
- Controls: Monitor building HVAC systems from a central location and ensure equipment scheduling matches building occupancy.
- Building Envelope: Ensure doors and windows are properly sealed
- Domestic Water: Retrofit or replace domestic water fixtures such as toilets, urinals, faucets and showerheads.
- **Renewable Technologies: Solar heating of air and domestic water, and solar photovoltaics (Stadium & Proctor Field House)**

Other Initiatives: PCB elimination
Planning and Renovations
Dani Ierullo, Director
Presented by – Ron Ogata, Manager
Planning & Renovations

Our group provides space planning, architectural design services, construction/project management services, mainly for interior renovation. We also provide space data management and drafting services. Our projects range from moving a wall to complete retrofits of buildings, ie Sherman Health Sciences Research Centre and HNES.

Our goal is to work with the York community, to plan, design and implement renovations, select and purchase furniture and develop space use programs for new buildings with sustainability in mind.
Planning and Renovations

In renovations, small and large scale, we have incorporated sustainability measures into planning and design, which in turn, have yielded more sustainable operations. This includes consideration to the reuse of existing buildings, materials, and in the case of new, the use of environmentally friendly sourced materials and supplies.
Planning and Renovations
Each renovation is subject to review from the standpoint of more generally applicable green guidelines, including, but not limited to, the use and distribution of natural light, operable windows, use of low VOC (volatile organic compounds) materials, minimized inflexible interiors (focus on partitions and open concepts for office designs), the use of light sensors and the use of exterior sun shades to minimize cooling requirements.
CSBO
FACILITIES DEVELOPMENT
Tahir Mohammed, Director
Facilities Development is a team of experienced project implementation professionals supported by retained experts/specialists to provide York University management of design/construction of facilities and infrastructure.

Facilities Development is responsible for the conceptual and detailed design, coordination, monitoring for conformance with program and detailed surveillance for quality and value of all major construction projects undertaken.
Our Sustainable Building Strategy

• Design Efficiency
• Target Performances
• Water Efficiency
• Energy Conservation
• Reduction of Emissions
• Materials and Resources
• Green Construction Practices
• Indoor Environmental Quality
• Site Re-Naturalization
Building Projects Implemented at York University

- Centre for Film and Theatre (7,250 sq. metres)
- Passy Gardens Apts; 385 units (20,700 sq metres)
- Student Centre (9,600 sq.metres)
- Vari Hall (13,000 sq metres)
- Calumet College (10,200 sq metres)
- York Lanes (14,700 sq metres)
- Chemistry Building (9,600 sq metres)
- Computer Science and Engineering Building (10,200 sq metres)
- Tait McKenzie Expansion for Basketball & Fitness
- William Small Centre (7,400 sq metres of office space).
- Schulich School of Business (30,000 sq metres)
- Executive Learning Centre (60 residential suites)
- Bennett Student Services Centre (11,000 sq metres)
- Technology Enhanced Learning Centre (33,800 sq metres)
- Pond Road Residence (440 beds)
- Accolade Project (32,000 sq metres)
Other Major Projects Implemented at York University

• University Common (4 hectares of landscaped space)
• York Lanes 325 stall Parking Structure
• Arboretum 786 stall Parking Structure
• Student Services 1367 stall Parking Structure
• Surface parking for approximately 5000 cars
• Renewal of Campus street lighting, roadways and signage
• Stadium with high performance field and seating for 2500 patrons
• 5 Football/Soccer Fields, 3 Baseball Diamonds & a Cricket Pitch.
• Expansion of Campus infrastructure for central steam and cooling plants as well as distribution piping
• Expansion of high voltage distribution system and sub stations
• Establishment of a proprietary fire monitoring station on campus
• Improvements to sewer and water utilities
• Reconstruction of several University Roadways
Challenges to “Being Green”

• “Life cycle” cost spans several budget centres and stakeholders are not always sympathetic to long term benefits if they exist.

• Sustainability should consider “cradle to cradle” so overall cost and the evaluation of benefits are complex in the University environment.

• Difficulty in establishing a ROI on “Green Bling”

• Mindset adjustment necessary with “silo” thinking

• Limitations by Collective Agreements
“Green Achievements”

1. Natural Lighting
   - Atria in Buildings
   - Internal Glazing

2. Orientation Shape/Massing
   - Adapt to prevailing conditions
   - Solar shading
   - Efficient floor plates, High net/gross

3. Heating/Cooling Systems
   - Slow moving passive systems
   - Radiant “in floor”
   - Heat recovery
   - Operable windows

4. Use of Materials
   - SCM Slag/Fly-Ash in Concrete
   - Low VOC
   - Recycled/Renewable
   - High Thermal Mass

5. High Efficiency Products
   - Windows/glazing
   - Artificial Lighting
   - Mechanical Equipment

6. Storm Water Management
   - Green Roofs
   - Quality control of run-off
   - Post = pre or better
High Efficiency Glazing
Green Roofs
Energy Efficient Lighting & Use of Natural Light
Radiant In-Floor Heating & Cooling
Storm Water Management
Operable Windows