

Transforming the Market: Green Lessons for Heritage Buildings

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Green Building

Benefits

- energy savings
- water savings
- health
- comfort
- durability
- asset value
- public image

Challenges

- capital cost
- risk



BEVERLEY STREET



LANEWAY

CECIL STREET

SITE PLAN

NATURAL VENTILATION

SOLAR SHADING

STORM WATER MANAGEMENT AND HARVESTING

PROPERTY LINE

PROPERTY LINE

RIDGE LINE

PROPOSED EAVE PROJECTION

APPROX. AVG. GRADE (100.14)

CECIL STREET

EXISTING GRADE (100.75)

1.95

0.92

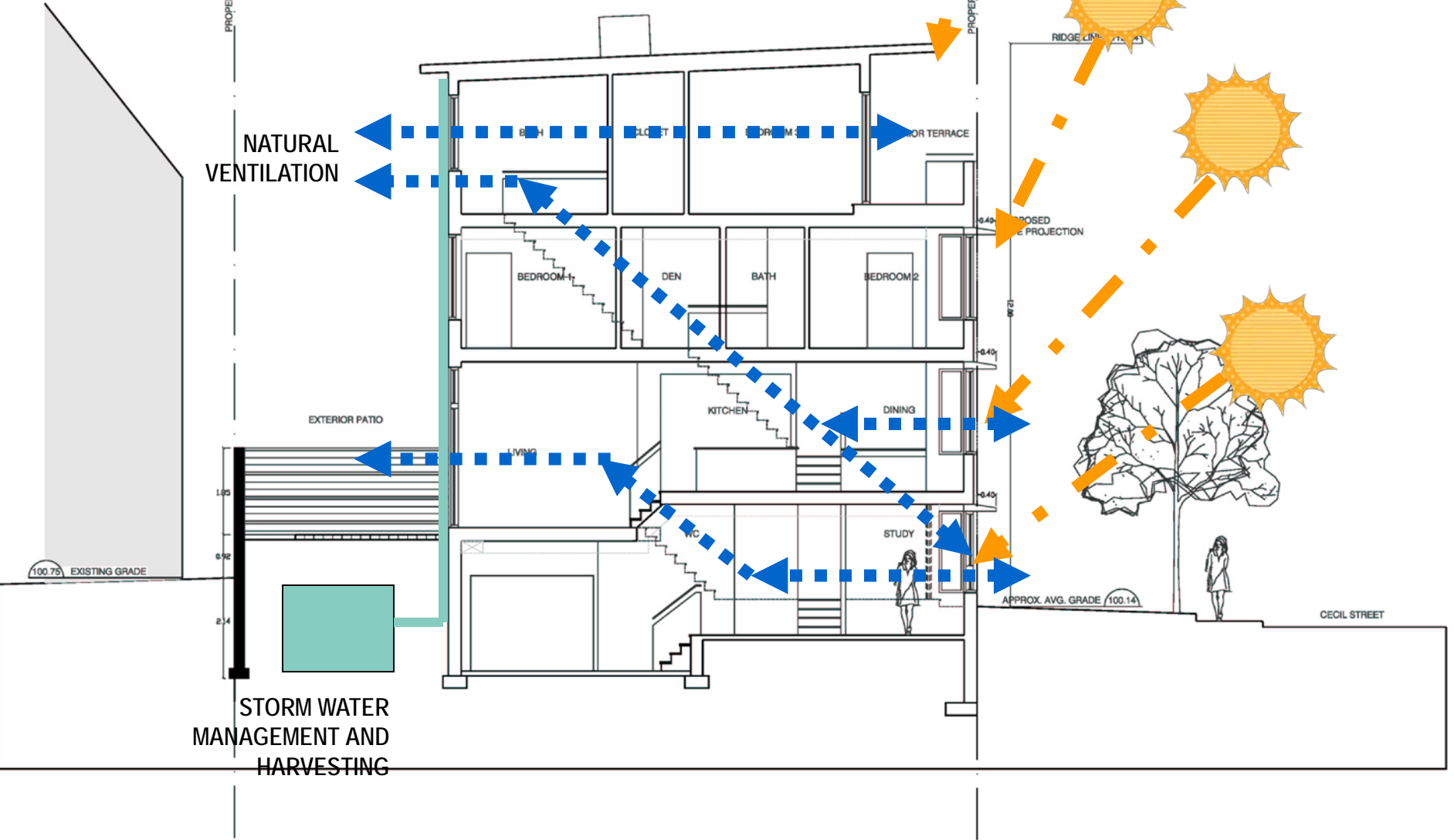
2.4

0.40

0.40

0.40

0.40



TYPICAL SECTION: ENVIRONMENTAL DESIGN







The Loretto



Benefits

- **Social:**
 - Historical continuity, heritage
 - Neighbourhood context, scale
- **Green / Sustainability**
 - Retain embodied energy
 - Minimal demolition: less landfill, less new material
 - Infill sites support intensification
- **Planning**
 - Existing envelope, height, density, window openings
 - Neighbourhood acceptance
- **Marketing**
 - Appeal of unique building: higher sale value
 - Benefit of unique features: ceiling heights, detailing



Challenges

- **Limitations in Design**
 - Building envelope
 - Floor plan
 - Parking
- **Additional Cost and Time**
 - Approvals (HEA)
 - Construction
- **Unknown factors**
 - Environmental
 - Surprises



Alignment of Interests

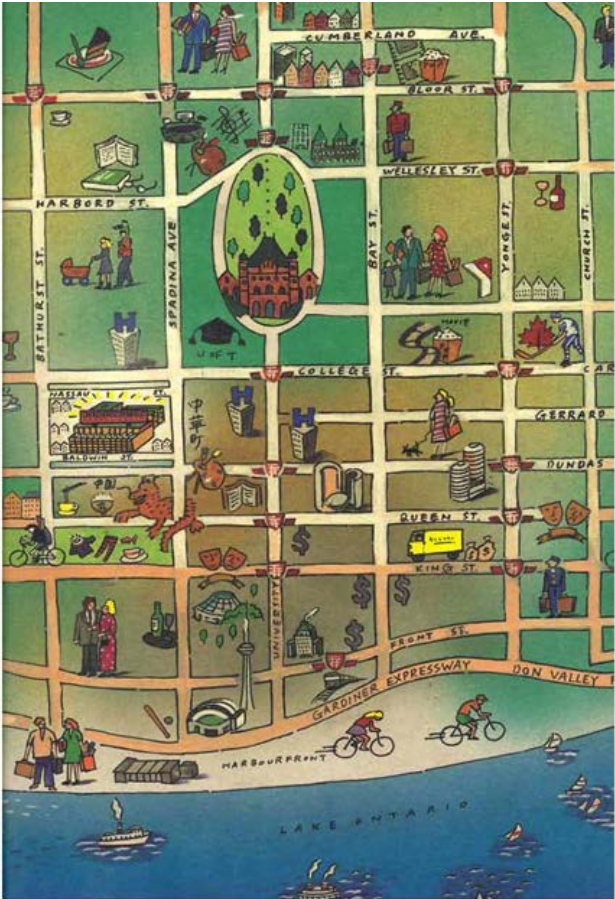
- Intensification
- Green Benefits
- Adaptable Buildings
- Labour vs Materials
- Societal Benefits
- Public Acceptance

Divergent Interests

- Higher Density
- Building Orientation
- Building Envelope
- Cost Premiums
- Risk

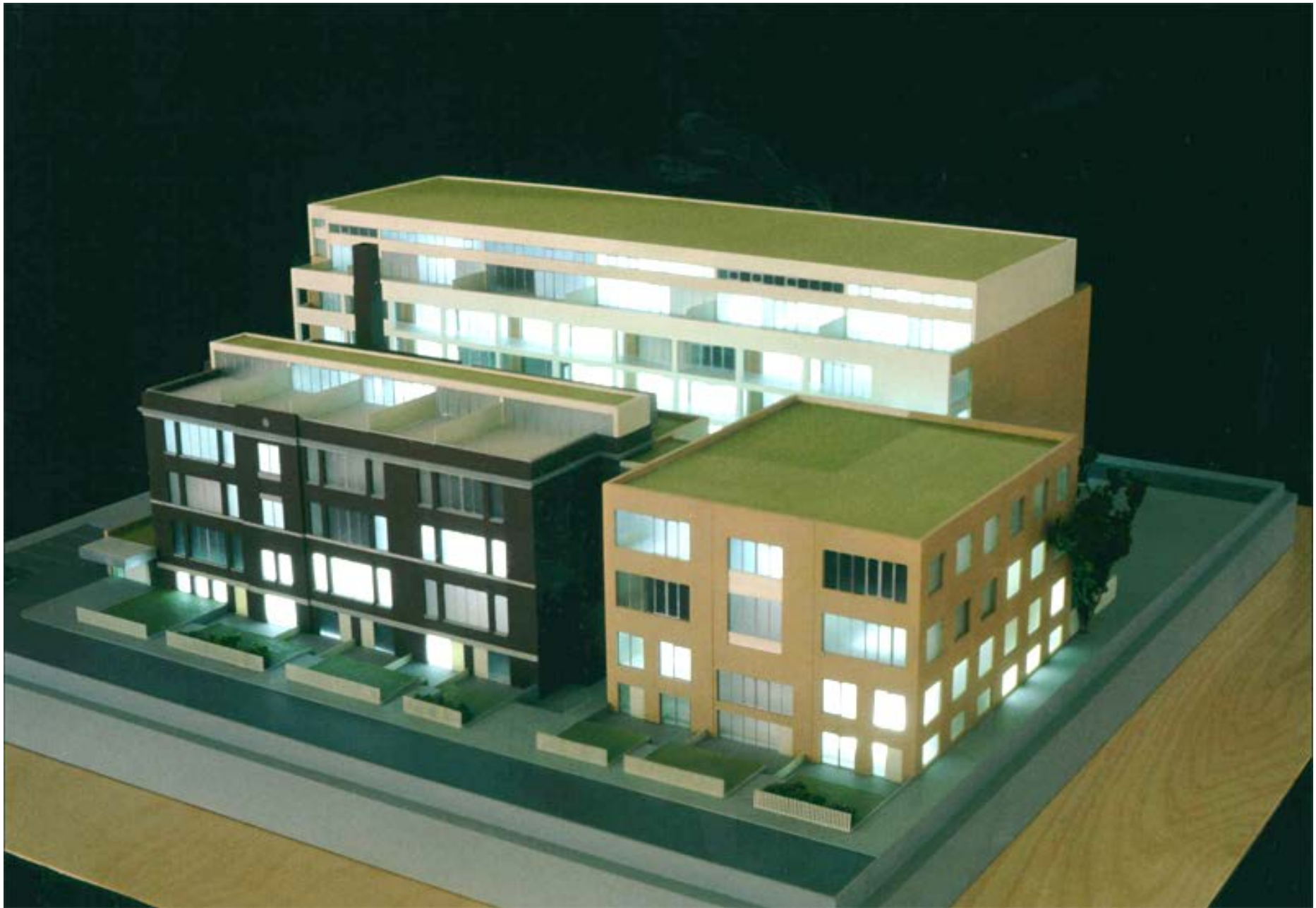


Alignment of Interests: Intensification



Alignment of Interests: Green benefits





Alignment of Interests: Adaptable Buildings



Alignment of Interests: Labour vs Materials



Alignment of Interests: Societal Benefit



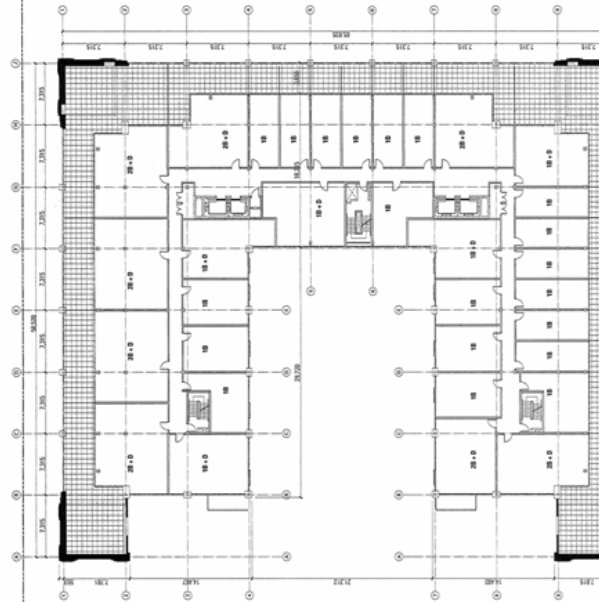
Alignment of Interests: Public Acceptance



Divergent Interests: Higher Density



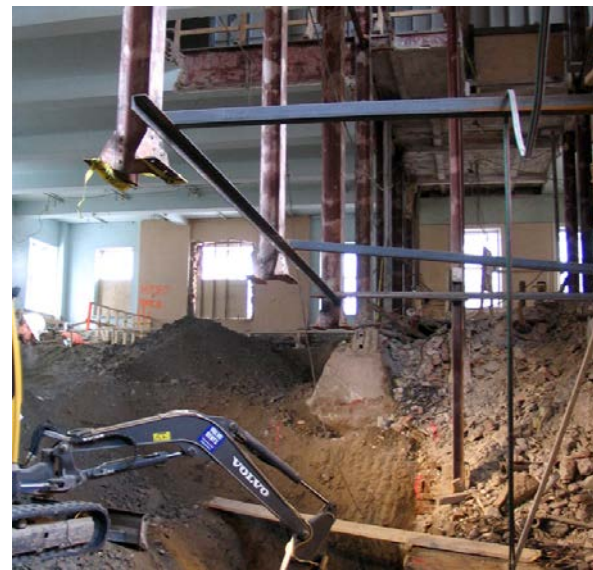
Divergent Interests: Building Orientation



Divergent Interests: Building Envelope



Divergent Interests: Cost Premiums



Divergent Interests: Risk



Common Challenges

- Higher initial cost
- Higher risk
- Design Constraints
- Regulatory Rigidity
- Need for Policy and Incentives



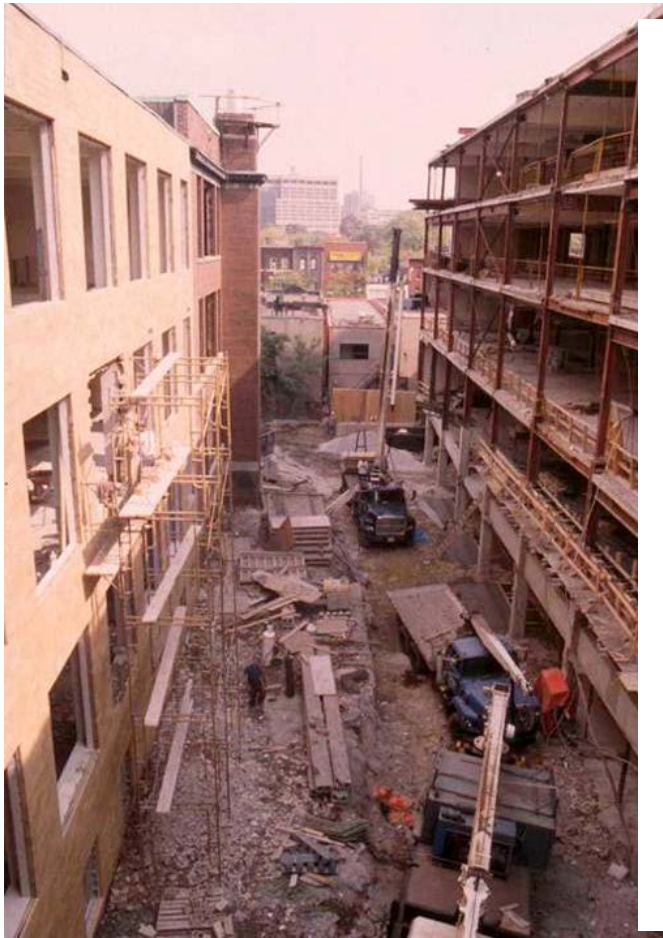
Challenges: higher initial cost



Challenges: higher risk



Challenges: design constraints





Challenges: regulatory rigidity



Challenges: need for policy direction and incentives



Environmental Features of the Artscape Wychwood Barns

- LEED certification – objective is Gold - possibly 1st in Canada for a Heritage structure
- Site Issues - brownfield adaptive re-use, no parking, landscape improvements, intensification
- Energy Features - Geo-thermal, efficient building configuration, thermal mass, daylighting
- Water Conservation - use of cistern for toilets & irrigation, low flow plumbing, no storm discharge
- Materials & Resources - local sourcing, recycled content to materials, diversion from landfill
- Indoor Air Quality - emphasis on local control, natural ventilation, material selection



PREVIOUS WORK BY du TOIT ARCHITECTS / JOE LOBKO ARCHITECT

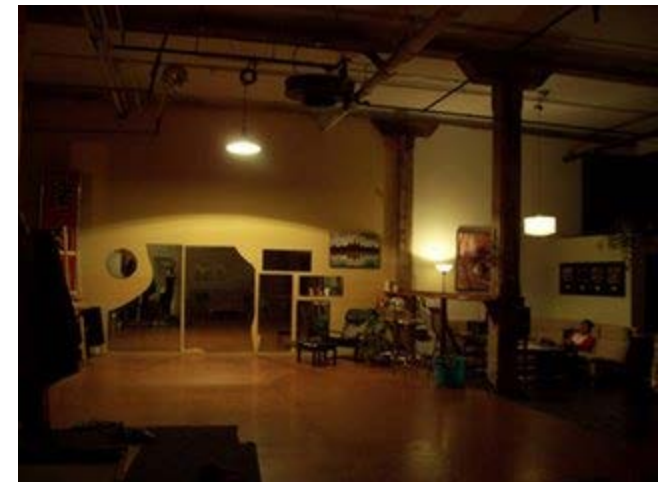
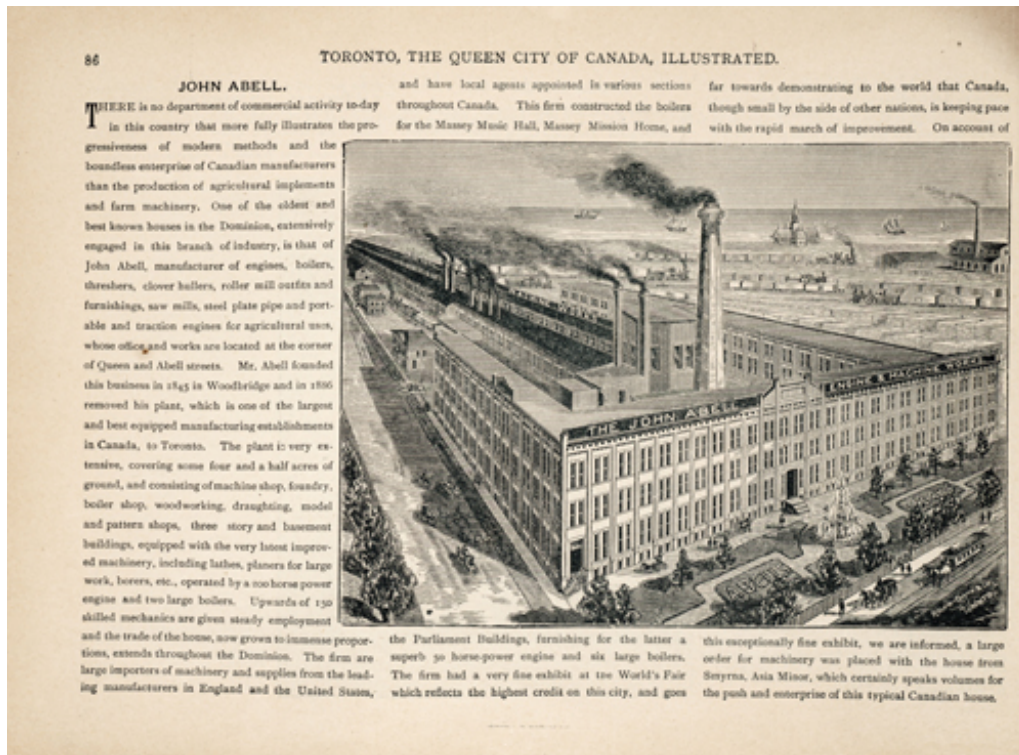


Environmental Features of the Evergreen Brick Works

- LEED certification for Building 12 – objective is Platinum
- Site Issues - brownfield adaptive re-use, ecological restoration, landscape improvements
- Energy Features – Bio-mass boiler, solar thermal energy, thermal mass, green roofs
- Water Conservation - use of cistern for toilets & irrigation, low flow plumbing, storm water pond
- Materials & Resources - local sourcing, recycled content to materials, diversion from landfill
- Indoor Air Quality - emphasis on local control, natural ventilation, material selection



Queen West Triangle: 48 Abell



Riverdale Hospital



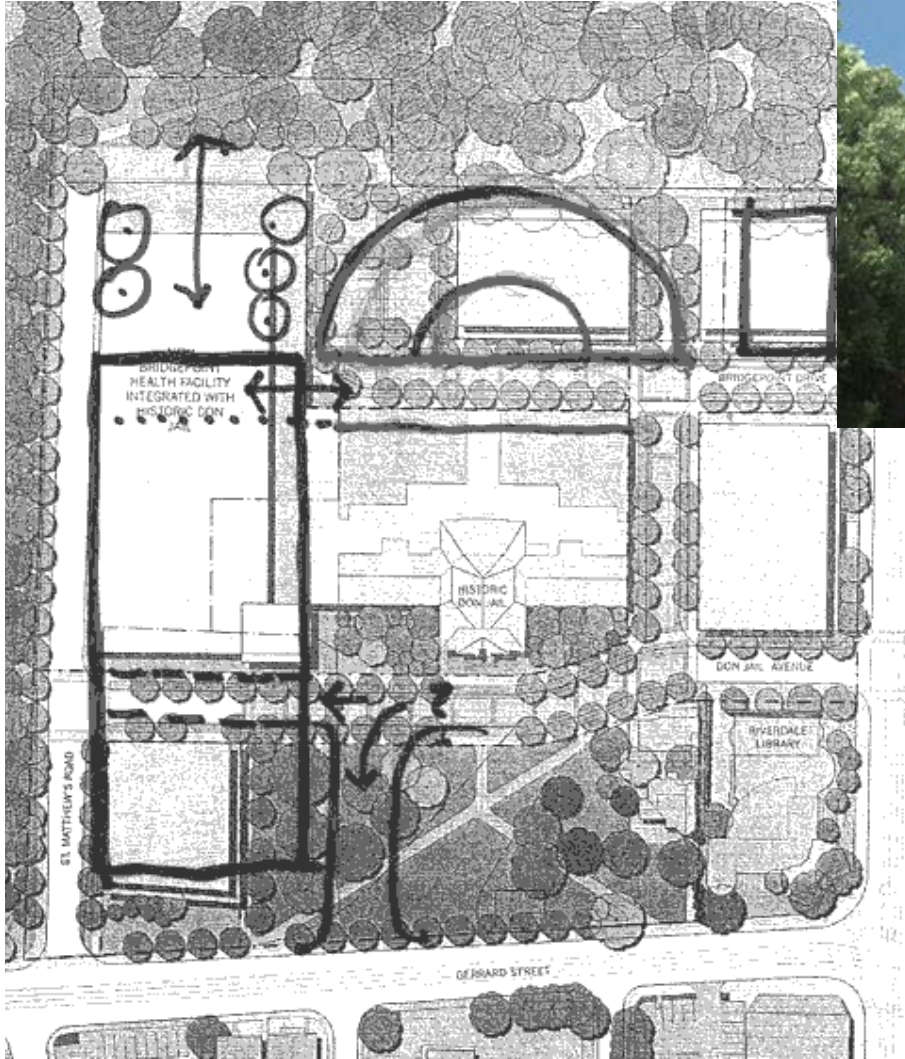
Buildings account for 25% of the total waste in Ontario landfills. The unnecessary destruction of Riverdale Hospital is not only a blow to our culture, but also to our economy and the environment.

Outstanding well-designed, adaptable buildings like this make no sense.

Call your Councillor - Call the Mayor - Call your MPP

Options for Riverdale Hospital - visit www.hqcc.on.ca/CO





Proposed Design

Site Plan

Hospital shifted south towards Dundas

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