HOSPITAL PARKING + TDM

LESSONS LEARNED FROM (NEARLY) TEN YEARS OF PARKING + TDM AT ROYAL JUBILEE HOSPITAL - VICTORIA, BC
OVERVIEW

- Context, Process, Method
- What is Being Done to Reduce SOV Trips?
- Lessons Learned + Next Steps
WHAT DID WE DO?
CONTEXT, PROCESS, METHOD
Royal Jubilee Hospital, 2006 (pre-PCC)

Source: VibrantVictoria.ca, user “aastra”
Patient Care Centre, constructed 2010, 400 beds

Source: Victoria Real Estate Board, www.vreb.ca
### Daily Population (average)

<table>
<thead>
<tr>
<th>User Group</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>1,839 (41%)</td>
</tr>
<tr>
<td>Staff</td>
<td>1,744 (39%)</td>
</tr>
<tr>
<td>Physicians</td>
<td>61 (1%)</td>
</tr>
<tr>
<td>Students / Educators</td>
<td>70 (2%)</td>
</tr>
<tr>
<td>Volunteers</td>
<td>30 (1%)</td>
</tr>
<tr>
<td>V.I. Cancer Clinic</td>
<td>690 (16%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,434</strong></td>
</tr>
</tbody>
</table>
# Parking Supply

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff*</td>
<td>918</td>
<td>53%</td>
</tr>
<tr>
<td>Physician</td>
<td>118</td>
<td>7%</td>
</tr>
<tr>
<td>Patient (various)</td>
<td>164</td>
<td>10%</td>
</tr>
<tr>
<td>Visitor</td>
<td>322</td>
<td>19%</td>
</tr>
<tr>
<td>Reserved</td>
<td>129</td>
<td>7%</td>
</tr>
<tr>
<td>Carpool / Rideshare</td>
<td>19</td>
<td>1%</td>
</tr>
<tr>
<td>Misc. (H/C, taxi, shuttle)</td>
<td>50</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,720</td>
<td></td>
</tr>
</tbody>
</table>

* 1,688 annual staff permits issued (2015), approx 75% more permits than spaces
VIHA agrees to reduce **TOTAL TRIPS** by 10% by 2010
TIMELINE

2007
Master Development Agreement

2008
Comprehensive Transportation Study

2010
Comprehensive Transportation Study

2011
Patient Care Centre Completed
TIMELINE

- Comprehensive Transportation Study (2007)
- Comprehensive Transportation Study (2010)
- Patient Care Centre Completed (2011)
- Comprehensive Transportation Study (2015)
- Campus Master Plan
Objective: Understand current parking demand as basis for projecting future parking needs (to 2035)

Data Collection:
1. On-site parking counts
2. Travel survey (1,600 responses)
3. Automated parkade counts
4. Neighbourhood parking counts
5. Neighbourhood parking violations
## PEAK PARKING UTILIZATION

<table>
<thead>
<tr>
<th>User Group</th>
<th>Supply</th>
<th>Observations</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Occupied</td>
<td>Empty</td>
</tr>
<tr>
<td>Staff</td>
<td>918</td>
<td>908</td>
<td>10</td>
</tr>
<tr>
<td>Physician</td>
<td>118</td>
<td>113</td>
<td>5</td>
</tr>
<tr>
<td>Patient</td>
<td>164</td>
<td>140</td>
<td>24</td>
</tr>
<tr>
<td>Visitor</td>
<td>322</td>
<td>305</td>
<td>17</td>
</tr>
<tr>
<td>Carpool / Share</td>
<td>19</td>
<td>19</td>
<td>-</td>
</tr>
<tr>
<td>Reserved</td>
<td>129</td>
<td>113</td>
<td>16</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>50</td>
<td>37</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,720</strong></td>
<td><strong>1,635</strong></td>
<td><strong>85</strong></td>
</tr>
</tbody>
</table>

![Bar chart showing the utilization rates for different user groups: Staff 99%, Physician 96%, Patient 85%, Visitor 95%, Carpool/Rideshare 100%, Reserved 88%, Miscellaneous 74%, Overall 95%.

The chart illustrates the percentage of occupied spaces compared to the total supply for each user group, highlighting the overall parking utilization of 95%. The data is presented in a clear and structured format, allowing for easy analysis and comparison of parking utilization across different categories.
## Adjusted Demand

### Adjustment Factors:
1. Staff parking in carpool / rideshare parking (+11 Staff, -11 Carpool/Rideshare)
2. Staff parked as Visitors in Parkade (+28 Staff, -28 Visitors)
3. Staff parked in the neighbourhood (+90 Staff)
4. Visitor and patient vehicles parked off-site (+15 Visitor, +7 Patient)

<table>
<thead>
<tr>
<th></th>
<th>Observed</th>
<th>Adjustments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>908</td>
<td>+ 100 (+/-)</td>
<td>1,008</td>
</tr>
<tr>
<td>Physician</td>
<td>113</td>
<td>-</td>
<td>113</td>
</tr>
<tr>
<td>Patient</td>
<td>140</td>
<td>+ 20</td>
<td>150</td>
</tr>
<tr>
<td>Visitor</td>
<td>305</td>
<td>-</td>
<td>315</td>
</tr>
<tr>
<td>Carpool / Rideshare</td>
<td>19</td>
<td>- 10</td>
<td>9</td>
</tr>
<tr>
<td>Reserved</td>
<td>113</td>
<td>-</td>
<td>113</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>37</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>1,745 (+/-)</td>
</tr>
</tbody>
</table>
SURVEY CONCLUSIONS

1. More staff park off-site (compared to physicians, patients, visitors)

2. Nearly half (47%) of staff parking off-site do so when they can’t park on-site

3. Staff frustration over buying annual permit but unable to find parking

4. Staff have a worse parking “experience”
WHAT IS BEING DONE TO REDUCE SOV TRIPS?
**MODESPLIT, 2015**

All User Groups
3 days / week or more

- **Single-Occupant Vehicle** 58.5%
- **Walk** 9.5%
- **Bicycle** 10%
- **Transit** 9.5%
- **Rideshare** 4.3%
- **Drop Off** 2.7%
- **Other** 5.4%
NON-SOV MODESHARE

<table>
<thead>
<tr>
<th>Year</th>
<th>Bicycle</th>
<th>Transit</th>
<th>Walk</th>
<th>Carpool</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>11%</td>
<td>4.5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>2010</td>
<td>13.7%</td>
<td>5%</td>
<td>5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>2012</td>
<td>11.2%</td>
<td>5%</td>
<td>9.5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>2015</td>
<td>Bicycle</td>
<td>10%</td>
<td>9.5%</td>
<td>4.3%</td>
</tr>
</tbody>
</table>
Annual Staff Parking Permit Cost

Annual permit costs capped due to employee CBA

Alternatives to annual permit:

- Daily “Scratch Pass”
  $4.20/day (55% higher)

- Carpool permit
  $455/yr (40% lower)
BIKE PARKING

Bike Rack Capacity

+ 96 Bike Lockers


Capacity: 86, 276, 470, 550, 616
LESSONS LEARNED
+ NEXT STEPS
1. Commit to TDM… with care!

2. Recognize competing objectives of health care + TDM
   • Desire for access (patients, visitors, physicians)
   • Scheduling / peak period overlap

3. Hospital sites are complex!
   • Budget / funding structure
   • Labour agreements

4. Health authorities have data (lots and lots of beautiful data!) 

5. Understand the “politics” of health care
NEXT STEPS: PARKING MANAGEMENT

Staff Parking:
1. Align daily staff cost with annual permit cost
2. Phase out annual staff parking permits
3. Replace “scratch pass” with automated system

Visitor Parking:
1. Vary visitor parking rates by time of day
NEXT STEPS: INTEGRATED TRAVEL MANAGEMENT

- Centralized system to manage parking payment, travel planning and promo

- Specific features:
  - Pay-by-phone parking (staff, visitors, patients)
  - Administer travel rewards programs
  - Real-time parking information
  - Travel information available to Health Authority

- To be implemented once automated parking system is in-place
NEXT STEPS: TDM PROGRAMS

1. Develop express bus stops on Fort Street
2. Establish a campus bicycle centre (UVic example)
3. Alter priority carpool parking locations
4. Explore modified clinic hours + stagger staff shifts
THANK YOU!

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