Central Region
Highway Construction Program

OHMPA – GTA Road Tour
May 5, 2016

Dante Pangilinan
Transportation Investment Analyst
Program Planning Office
Overview

- Provincial Summary (2016/17)
  - Capital Budgets
  - Program
  - Accomplishments

- Central Region
  - 2016 Program
  - Network Condition

- Focus on Pavement & Structures

- The Challenge – Structures

- Questions
Capital Budgets ($M) 2006/07 – 2016/17

- Construction
- Engineering & Property
- Other Capital

<table>
<thead>
<tr>
<th>Year</th>
<th>Construction</th>
<th>Engineering &amp; Property</th>
<th>Other Capital</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/07</td>
<td>1124</td>
<td>1332</td>
<td>81</td>
<td>1238</td>
</tr>
<tr>
<td>08/09</td>
<td>1332</td>
<td>1458</td>
<td>180</td>
<td>1668</td>
</tr>
<tr>
<td>10/11</td>
<td>1458</td>
<td>180</td>
<td>198</td>
<td>1846</td>
</tr>
<tr>
<td>12/13</td>
<td>180</td>
<td>198</td>
<td>239</td>
<td>517</td>
</tr>
<tr>
<td>14/15</td>
<td>198</td>
<td>239</td>
<td>2479</td>
<td>2966</td>
</tr>
<tr>
<td>16/17</td>
<td>239</td>
<td>246</td>
<td>2117</td>
<td>4928</td>
</tr>
</tbody>
</table>

Total: $2,732M
2016/17 Capital Budget - $2,732 M

$314 M for design and property
(Interest Capitalization, Remote Airports, Ferries, Program Support, etc…)

$301 M for other transportation programs
($2,117 M for highway construction:
- South: $839 M Rehab, $277 M Traditional, $460 M Expansion, $1,576 M Total
- North: $412 M Rehab, $129 M Traditional, $0 M Expansion, $541 M Total

$1,251 M Rehab, $406 M Traditional, $460 M Expansion, $2,117 M Total
## 2016 Major Tenders Profile

January 1 to December 31, 2016 tenders

<table>
<thead>
<tr>
<th>Major Head Office Tenders</th>
<th>Major Regional Tenders***</th>
<th>Total Tenders*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-Mar</td>
<td>63</td>
<td>18</td>
</tr>
<tr>
<td>Apr-June (Planned)</td>
<td>60</td>
<td>12</td>
</tr>
<tr>
<td>July-Sep (Planned)</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Oct-Dec (Planned)</td>
<td>40</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

- **Jan-Mar**
  - 63 tenders advertised
  - Includes Contract Administration and sundry costs.

- **Apr-June (Planned)**
  - 60 tenders advertised
  - Includes Contract Administration and sundry costs.

- **July-Sep (Planned)**
  - 16 tenders advertised
  - Includes Contract Administration and sundry costs.

- **Oct-Dec (Planned)**
  - 40 tenders advertised
  - Includes Contract Administration and sundry costs.

**Value**

<table>
<thead>
<tr>
<th></th>
<th><strong>$1,640M</strong></th>
<th><strong>$74M</strong></th>
<th><strong>$1,714M</strong></th>
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</thead>
<tbody>
<tr>
<td>Jan-Mar</td>
<td><strong>$1,691M</strong></td>
<td><strong>$53M</strong></td>
<td><strong>$1,744M</strong></td>
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</tbody>
</table>

- * Tenders advertised
- ** includes Contract Administration and sundry costs.
- *** includes all regional tenders greater than $100K
## 2016 Head Office Tenders – (Jan 1 – Dec 31)

<table>
<thead>
<tr>
<th></th>
<th># of Contracts</th>
<th>% of Total Value of Contracts</th>
<th>Average Contract Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $5M</td>
<td>80</td>
<td>14%</td>
<td>$2.9M</td>
</tr>
<tr>
<td>$5-10M</td>
<td>55</td>
<td>24%</td>
<td>$7.2M</td>
</tr>
<tr>
<td>$10-50M</td>
<td>41</td>
<td>48%</td>
<td>$19.1M</td>
</tr>
<tr>
<td>&gt; $50M</td>
<td>3</td>
<td>14%</td>
<td>$76.3M</td>
</tr>
<tr>
<td><strong>Total Contracts</strong></td>
<td><strong>179</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
January 1, 2016 – March 31, 2016

- 81 early tenders advertised from January 1st to March 31st 2016
- Estimated total value of $650 million

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/11</td>
<td>35</td>
</tr>
<tr>
<td>2011/12</td>
<td>31</td>
</tr>
<tr>
<td>2012/13</td>
<td>47</td>
</tr>
<tr>
<td>2013/14</td>
<td>43</td>
</tr>
<tr>
<td>2014/15</td>
<td>62</td>
</tr>
<tr>
<td>2015/16</td>
<td>81</td>
</tr>
</tbody>
</table>
# 2016/17 Anticipated Accomplishments

<table>
<thead>
<tr>
<th></th>
<th>South</th>
<th>North</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New or Expanded Highways</strong></td>
<td>24</td>
<td>71</td>
<td>95</td>
</tr>
<tr>
<td>(lane km)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>New Bridges</strong></td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>Repaired Highways</strong></td>
<td>341</td>
<td>815</td>
<td>1156</td>
</tr>
<tr>
<td>(centreline km)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Repaired Bridges</strong></td>
<td>121</td>
<td>23</td>
<td>144</td>
</tr>
</tbody>
</table>

*Numbers are subject to change; Totals do not include the Rt. Hon. Herb Gray Parkway or Hwy 407 East Phase 1 projects*
2016/17 Proposed Construction Program (Apr–Dec)

Carry Over Projects
• Total #: 141

Major Capital – Head Office Tenders
• Program being finalized and tendered
• Continue to aim for a reasonable distribution of contracts by size and geographic area

Minor Capital
• Expect approximately 150 to 200 minor capital projects across the province will be completed this fiscal
2016/17 – The Year Ahead

- New budget was announced on February 25, 2016
- Construction programs and allocations are being finalized and shared
- Updated programs will be published in 2016-20 Southern and Northern Highways Program books this summer
- MTO will continue to be proactive:
  - Strategically plan our construction program
  - Constantly monitor progress of projects and expenditures
  - Quickly take action (i.e. tender additional projects)
  - Increase amount of construction-ready projects
  - Maximize early tender calls
Central Region
The **2016 Central Region Program** is contained in the Southern Highways Program

http://www.mto.gov.on.ca/english/pubs/highway-construction

The 2016 update (2016-2020) will be published this summer.
2016 Program Year

Rehabilitation:

• Forecasting a significant amount of carry-over project expenditure from 2015/16.
• Anticipating approximately 35+ new major capital projects in 2016:
  • Over 90% of the major capital program was tendered before March 31, 2016.
• Projects are typically of 1 to 3 years in duration;
• Over $400M of rehabilitation expenditure is forecasted this year Central Region.
• Approximately 425 Lane KM of pavement rehabilitation to be formally completed this year in Central Region.
2016 Program Year

Expansion:

- Carry-over expansion
  - Highway 401 HOV (Highway 410 to Credit River) – C 2019
  - Highway 401 Holt Road Interchange – C 2016
  - Highway 410 HOV (Hwy 401 to Queen Street) – C 2018
  - Highway 427 HOV (Hwy 409 to Hwy 407) – C 2018
  - Highway 407E (Harmony Road, Oshawa to Taunton Road, Clarington, Phase 2A) – C 2017
  - Highway 407E (Taunton Rd., Clarington to Highway 35/115, Clarington, and Hwy 418 that connects Highway 407 East to Highway 401, Phase 2B) – C 2019

- Other expansion projects underway, funded in part by MTO.
  - Highway 400 – Duckworth Interchange (City of Barrie Project) – C 2016
  - Highway 400 – 5th Line Interchange (TBWG Project) – C 2018

C – Completing in Year
Other Approved Expansion Projects

Commencing within 2016 - 2020 SHP timeline:

- **Highway 400 HOV (Major Mackenzie Dr. to King Rd.)** – C 2018
- Highway 401 HOV (Regional Rd. 25 to Trafalgar Rd. and Trafalgar Rd. to Credit River Bridge) – C beyond 2020
- **Highway 401 (Auxiliary lanes between new Highway 412 and the Brock Street Interchange (including Brock Street Interchange Improvements and Henry Street bridge replacement))** – C beyond 2020
- Highway 404 HOV (Hwy 407 to Stouffville) – C 2019
- Highway 427 HOV/HOT (Highway 407 to RR 7) – 2020
- Highway 427 New highway (With HOV/HOT) (RR 7 to Major Mackenzie Dr) – C 2020
- QEW Dixie Road Interchange – C beyond 2020

C – Completing in Year
Ministry of Transportation

Central Region Accomplishments 2015

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Highway Widening (Lane km)</td>
<td>20</td>
<td>53</td>
<td>41</td>
<td>4</td>
<td>15</td>
<td>43</td>
</tr>
<tr>
<td>Pavement Rehabilitated (Lane km)</td>
<td>475</td>
<td>607</td>
<td>383</td>
<td>215</td>
<td>460</td>
<td>910</td>
</tr>
<tr>
<td>Bridges Replaced</td>
<td>5</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Bridges Rehabilitated</td>
<td>33</td>
<td>65</td>
<td>32</td>
<td>15</td>
<td>5</td>
<td>38</td>
</tr>
<tr>
<td>Bridges Preserved</td>
<td>8</td>
<td>18</td>
<td>7</td>
<td>4</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>Structural Culverts Rehabilitated/Replaced</td>
<td>1</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>New Bridges/Structural Culverts</td>
<td>9</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

- CR has approx. 5300 Lane KM (plus 1800 Lane KM of ramps/X roads); and
- CR has planned approx. 425 Lane KM for completion in 2016 (rehabilitation).
Focus on Pavements and Bridges

• Current focus is on key assets - *Pavements and Bridges*

• Rehabilitation funding looks healthy moving forward.

• Based on current funding outlooks, Central Region will meet and maintain provincial performance targets.
  • Addressing five pavement needs within the five year program (steady state).
  • Addressing our structural needs within the next ten years.
The Challenge – Structures

Bridge Building Periods (Age)

No. of Bridges

- Pre 1930 (>75 yrs) 23
- 1931-1940 (65-75) 71
- 1941-1950 (55-65) 77
- 1951-1960 (45-55) 473
- 1961-1970 (35-45) 777
- 1991-2000 (5-15) 216
- 2001-2005 (0-5) 30

Percentages
- Pre 1930 (>75 yrs) 1%
- 1931-1940 (65-75) 3%
- 1941-1950 (55-65) 3%
- 1951-1960 (45-55) 20%
- 1961-1970 (35-45) 32%
- 1971-1980 (25-35) 19%
- 1981-1990 (15-25) 12%
- 1991-2000 (5-15) 9%
- 2001-2005 (0-5) 1%
Final Remarks...

- Healthy rehabilitation program:
  - Focus on pavement and bridges
  - Meeting our 5-year pavement needs

- Significant expansion program:
  - Substantial HOV network expansion
  - Highway 427 Extension
  - Highway 407 East (AFP)
Questions