Transform66: Inside the Beltway

• Result of a multi-year planning that started during the McDonnell Administration

• 2016 compromise reached with General Assembly
  – Convert I-66 to express lanes from 5:30a-9:30a EB and 3:00p-7:00p WB
  – Widening I-66 EB from the Dulles Connector Road to Ballston – groundbreaking took place last week
  – Re-invest toll revenues in the corridor for improvements recommended by NVTC – $24M allocated to-date
  – HOV-2 to HOV-3 when 66 Outside the Beltway opens in 2022
Transform66: 6-Month Performance Review

- Morning peak period travel speeds
  - I-66
  - Parallel arterials
- Evening peak period travel speeds
  - I-66
  - Parallel arterials
- Toll rates and usage
- Morning shoulder period analysis
- Incidents
I-66 EB Travel Speeds
Pre-Tolling
Average Travel Speed 43.8 mph

I-66 EB Travel Speeds
Post-Tolling
Average Travel Speed 52.6 mph
I-66 Eastbound Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 43.8 mph
After 52.6 mph

20.1% increase
I-66 Inside the Beltway - Segments
I-66 EB Segment 1 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 59.1 mph
After 61.9 mph
4.7% increase
I-66 EB Segment 2 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 37.8 mph
After 56.3 mph
48.9% increase
I-66 EB Segment 3 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 45.3 mph
After 55.3 mph
22.1% increase
I-66 EB Segment 4 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 47.4 mph
After 48.0 mph
1.3% increase
Route 50 EB AM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 28.3 mph
After 28.7 mph
1.3% increase
Route 29 EB AM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 21.0 mph
After 22.6 mph
7.7% increase
Route 7 EB AM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 19.7 mph
After 20.8 mph
5.6% increase
GW Parkway SB AM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 38.9 mph
After 37.9 mph
2.7% decrease
<table>
<thead>
<tr>
<th>I-66 WB Travel Speeds</th>
<th>Average Travel Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Tolling</td>
<td>45.3 mph</td>
</tr>
<tr>
<td>Post-Tolling</td>
<td>56.0 mph</td>
</tr>
</tbody>
</table>
I-66 Westbound PM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 45.3 mph
After 56.0 mph
23.6% increase
I-66 WB Segment 4 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before: 45.9 mph
After: 55.3 mph
20.5% increase
I-66 WB Segment 3 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before
46.6 mph

After
58.6 mph

25.8% increase
I-66 WB Segment 2 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 58.2 mph
After 61.3 mph
5.3% increase
I-66 WB Segment 1 Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 40.1 mph
After 51.3 mph
27.9% increase
Route 50 WB PM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 26.1 mph
After 26.3 mph
0.9% increase
Route 29 WB PM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before
19.6 mph

After
20.8 mph

6.2% increase
Route 7 WB PM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 18.8 mph
After 19.8 mph
5.1% increase
GW Parkway NB PM Average Travel Speeds
Pre- and Post-Tolling 6 month comparison

Before 32.9 mph
After 35.0 mph
6.3% increase
Toll Rates and Usage

- **$13.09 average price for round trips**
  - $8.49 average price for eastbound trips
  - $4.60 average price for westbound trips

- **30,184 average daily vehicle trips**
  - 13,688 average daily eastbound trips
  - 16,496 average daily westbound trips

- **43% of trips on average are HOV**
  - 49.0% of eastbound trips on average are HOV
  - 37.9% of eastbound trips on average are HOV
Toll Rates and Usage

• 0.28% of all toll payers paid more than $40 during the first six months

• These toll rates are experienced during the height of rush hour between 8am and 9am

• HOV usage peaks between 8am and 9am, and appears to be increasing during this time as well

<table>
<thead>
<tr>
<th>HOV Penetration</th>
<th>December 2017</th>
<th>May 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 – 8:30a</td>
<td>49.3%</td>
<td>59.3%</td>
</tr>
<tr>
<td>8:30 – 9:00a</td>
<td>44.9%</td>
<td>54.1%</td>
</tr>
</tbody>
</table>
## Toll Rates and Usage

### Average Eastbound Toll Paid and HOV Usage

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Toll Rate</th>
<th>HOV Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:30-6:00</td>
<td>$2.54</td>
<td>31.4%</td>
</tr>
<tr>
<td>6:00-6:30</td>
<td>$2.64</td>
<td>34.7%</td>
</tr>
<tr>
<td>6:30-7:00</td>
<td>$5.06</td>
<td>45.5%</td>
</tr>
<tr>
<td>7:00-7:30</td>
<td>$7.59</td>
<td>56.5%</td>
</tr>
<tr>
<td>7:30-8:00</td>
<td>$11.63</td>
<td>59.0%</td>
</tr>
<tr>
<td>8:00-8:30</td>
<td>$14.13</td>
<td>56.8%</td>
</tr>
<tr>
<td>8:30-9:00</td>
<td>$13.86</td>
<td>52.2%</td>
</tr>
<tr>
<td>9:00-9:30</td>
<td>$8.52</td>
<td>38.1%</td>
</tr>
</tbody>
</table>

### Average Westbound Toll Paid and HOV Usage

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Toll Rate</th>
<th>HOV Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00-3:30</td>
<td>$4.34</td>
<td>28.3%</td>
</tr>
<tr>
<td>3:30-4:00</td>
<td>$3.92</td>
<td>31.2%</td>
</tr>
<tr>
<td>4:00-4:30</td>
<td>$4.32</td>
<td>39.3%</td>
</tr>
<tr>
<td>4:30-5:00</td>
<td>$5.17</td>
<td>43.3%</td>
</tr>
<tr>
<td>5:00-5:30</td>
<td>$5.36</td>
<td>45.4%</td>
</tr>
<tr>
<td>5:30-6:00</td>
<td>$5.67</td>
<td>45.1%</td>
</tr>
<tr>
<td>6:00-6:30</td>
<td>$4.71</td>
<td>39.2%</td>
</tr>
<tr>
<td>6:30-7:00</td>
<td>$3.67</td>
<td>30.3%</td>
</tr>
</tbody>
</table>
Northern Virginia AM Express Lane
Toll Rates per Mile

* Compiled by UVA Center for Transportation Studies
Northern Virginia AM Estimated Travel Time Savings from Express Lanes

- 66 vs 29 – 1.5-2 minutes per mile
- 66 vs 50 – 0.5-1.5 minutes per mile
- 95 Fairfax vs GP – 0.5-1 minute per mile
- 495 NB vs GP – 0.5-1 minute per mile

* Compiled by UVA Center for Transportation Studies
Northern Virginia PM Express Lane Toll Rates per Mile

* Compiled by UVA Center for Transportation Studies
Northern Virginia PM Estimated Travel Time Savings from Express Lanes

66 vs 29 – 2-3 minutes per mile

66 vs 50 – 1-1.5 minutes per mile

95 Fairfax vs GP – 1.5-2 minutes per mile

495 SB vs GP – 0.5-1.5 minutes per mile

* Compiled by UVA Center for Transportation Studies
# Month-to-Month Usage Statistics

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EB AM Peak Traffic</strong></td>
<td>12,961</td>
<td>13,958</td>
<td>13,656</td>
<td>14,832</td>
<td>15,340</td>
</tr>
<tr>
<td><strong>WB PM Peak Traffic</strong></td>
<td>15,364</td>
<td>16,656</td>
<td>16,447</td>
<td>17,398</td>
<td>18,130</td>
</tr>
<tr>
<td><strong>Total Daily HOV Traffic</strong></td>
<td>12,233</td>
<td>13,559</td>
<td>13,101</td>
<td>14,306</td>
<td>14,712</td>
</tr>
</tbody>
</table>
AM Shoulder Period – 6:00am Travel Times

Pre-Tolling
66 Nutley to TR bridge – 17.4 minutes

Post-Tolling:
66 Nutley to Route 50 to TR bridge – 20.6 minutes
AM Shoulder Period – 6:00am Travel Times

Pre-Tolling:
66 to TR bridge – 15.4 minutes

Post-Tolling:
495 to GW to TR bridge – 13.5 minutes
Incidents on I-66
Pre- and Post-Tolling 6 month comparison

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Eastbound</th>
<th>Westbound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Tolling</td>
<td>Post-Tolling</td>
</tr>
<tr>
<td>Crashes</td>
<td>248</td>
<td>218</td>
</tr>
<tr>
<td>% Change</td>
<td>12.1% Decrease</td>
<td>15.0% Decrease</td>
</tr>
</tbody>
</table>
Moving Forward

• Will continue to monitor performance of Express Lanes and parallel routes
  – Seek to identify potential operational improvements

• Construction on new eastbound lane is underway and will be complete in 2020

• VDOT is testing modifications to tolling system to evaluate opportunities to move more people

• Will continue partnership with NVTC to re-invest toll revenues in the corridor