HIGH OCCUPANCY VEHICLE TRANSPORTATION CONTROL MEASURES: APPLICATION OF MANAGED LANES AND SUBSTITUTION OF TRAFFIC SIGNAL PROGRESSION

PUBLIC MEETING
NOVEMBER 11, 2019

VIVEK THIMMAVAJJHALA
Interim HOV lanes were added in the 1990’s

Temporary and static mobility option to alleviate congestion

Interim HOV lane emission benefits were committed to in the region’s State Implementation Plan

Interim HOV lanes have evolved to Managed Lanes in response to changing conditions by maximizing efficiency of a roadway through active management of the lane(s)

Benefits of Managed Lanes include:

- HOV 2+ discounts during peak commute periods
- Includes options for High-intensity bus
- Variable pricing
- Guaranteed speeds
EVOLUTION TO MANAGED LANES

Near Term Managed Lane System Openings

Current Express/HOV + New Managed Lanes:
- Current Express/HOV Lanes
- New TExpress Managed Lanes
- Transitional High-Occupancy Vehicle Lane
- Major Roadways

Project Completed

Project Nearing or Under Construction

HOT Conversion
Open 2016

Segment 3A
Open 2018

Segments 1 & 2W
Open 2016

Open 2018

Open 2017

Open 2015

Open 2014

Open 2017

Open 2014

Open 2014

Open 2017
Three Interim HOV lanes remain in the following State Implementation Plan (SIP) as TCMs: *Dallas-Fort Worth 1-Hour Ozone Attainment Demonstration State Implementation Plan Revision* - April 2000

*Dallas-Fort Worth 1997 8-Hour Ozone Attainment Demonstration and Reasonable Further Progress State Implementation Plan Revision* - May 2007

These Interim HOV lanes are being removed as a TCM in the SIP documentations due to being changed to Managed Lanes.

Removing them requires substituting alternate TCM projects that achieve equivalent emissions benefits.
Location of HOV Lanes to be Substituted

- IH 35E corridor (Stemmons Fwy) between IH 635 and SH 121
- IH 635 east corridor (LBJ Fwy) between Coit Rd and Greenville Ave
- IH 635 west corridor (LBJ Fwy) between Luna Rd/IH 35E and US 75
7 Corridors:
- Parker Rd (Midway Rd to Preston Rd) 9 signals
- Park Blvd (Midway Rd to Coit Rd) 16 signals
- Custer Rd (Legacy Dr to SH 121 NB) 8 signals
- Coit Rd (Legacy Dr to SH 121 NB) 8 signals
- Spring Creek Pkwy/Shiloh Rd (Custer Rd to Plano Pkwy) 14 signals
- Plano Parkway (Dublin Rd to Marsh Ln) 30 signals
- SH 121 (Spring Creek Pkwy to Hardin Rd) 34 signals
Transportation Control Measure Substitution

Transportation Control Measures (TCM) specified in an implementation plan may be replaced with Control Measures if the substitute measures achieve equivalent or greater emissions reductions than the TCMs to be replaced.

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>Emissions Impact of Three HOV Projects</th>
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</thead>
<tbody>
<tr>
<td>NO$_x$</td>
<td>-0.108 tpd</td>
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<tr>
<td>VOC</td>
<td>-0.061 tpd</td>
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# HOV TCM SUBSTITUTION

## TIMELINE

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>ACTION</th>
<th>DATE</th>
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<tbody>
<tr>
<td>NCTCOG</td>
<td>Calculate emissions reductions attributable to the selected project to be used for substitution</td>
<td>Complete</td>
</tr>
<tr>
<td>TCM Substitution Working Group</td>
<td>Present projects to be used as the substitute TCMs to Working Group</td>
<td>Complete</td>
</tr>
<tr>
<td>STTC</td>
<td>HOV TCM Substitution – Information</td>
<td>October 25, 2019</td>
</tr>
</tbody>
</table>
| NCTCOG | Request concurrence from Working Group on Pre-Analysis Plan via email, including:  
> Selected projects to be used for substitution;  
> Emission off-sets and methodology; and  
> Documentation of implemented projects | November 2019 |
| RTC | HOV TCM Substitution – Information | November 14, 2019 |
| NCTCOG | NCTCOG Public Meetings  
> 30-day public notice and comment period | November 2019 |
| STTC | HOV TCM Substitution – Action | December 2019 |
| NCTCOG | Comment period closes  
> Review and provide comments and responses to Working Group | December 2019 |
| SWG | Conference call for Working Group to concur on TCM Substitution | December 2019 |
| RTC | HOV TCM Substitution – Action | January 2020 |
| NCTCOG | Distribute RTC adopted resolution to the TCM Working Group | January 2020 |
| TCEQ and EPA | Send concurrence letters to the TCM Working Group | February 2020 |
| TCEQ | Documentation of approved substitution provided to EPA regional office (must occur within 90 days) | May 2020 |
| EPA | Region 6 office to publish action notice in the *Federal Register* without a comment period | May 2020 |

1 EPA, FHWA, NCTCOG, TCEQ, and TxDOT
HOV TCM SUBSTITUTION

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