2021-2024 TRANSPORTATION IMPROVEMENT PROGRAM
DRAFT LISTINGS

Surface Transportation Technical Committee
May 22, 2020
TRANSPORTATION FUNDING AND PROJECT IMPLEMENTATION: A COOPERATIVE EFFORT

Local Governments
- Cities
- Counties

Texas Department of Transportation
- Dallas District
- Fort Worth District
- Paris District

Transit Agencies
- DART
- Trinity Metro
- DCTA

Transportation Agencies
- North Texas Tollway Authority
- DFW Airport

2021-2024 Transportation Improvement Program for North Central Texas
DEVELOPMENT PROCESS

- Review existing projects and gather information on additional locally funded projects
- Make needed revisions to existing project schedules, funding, and/or scope
- Develop revised project listings
- Financially constrain project programming based on estimated future revenues
- Conduct Mobility Plan and Air Quality conformity review
- Solicit public and Committee/Council input
- **Finalize project listings and submit to the Texas Department of Transportation (TxDOT) and Federal Highway Administration (FHWA)**
SCOPE OF PROGRAMMING

- $15.20 Billion in the 2021-2024 TIP (Roadway and Transit)
  - $8.04 Billion in Federal Commitments
  - $2.27 Billion in State Commitments
  - $0.20 Billion in Regional Commitments
  - $2.96 Billion in Local Commitments
  - $1.73 Billion in Transit Commitments
- 958 Active Projects (Roadway and Transit)
- 64 Implementing Agencies (Roadway and Transit)
REQUESTED ACTION

• Recommend RTC approval of:
  • The projects and project changes shown in the TIP project listings
  • Amending the Unified Planning Working Program (UPWP) and other planning/administrative documents as needed

• Only projects in FY 2021-2024 will be included in the new TIP
  • Projects in FY 2025+ will be included in Appendix D to allow project development activities to continue
TIMELINE

May – November 2019  Conducted meetings with implementing agencies
August 2019 – February 2020  Data entry, develop listing, and financial constraint
February 2020  Present draft listings to STTC for Information
March 2020  Present draft listings to RTC for Information
March 2020  Conduct public meetings
April 9, 2020  Deadline for providing comments on draft listings
May 2020  Present final listings to STTC for Action
June 2020  Present final listings to RTC for Action
Executive Board endorsement
July 2020  Transmit final document to TxDOT
September 2020  Anticipated approval of the STIP by Texas Transportation Commission
October/November 2020  Anticipated federal approval of the STIP
QUESTIONS/COMMENTS

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SOUTHEAST DALLAS COUNTY FUNDING PARTNERSHIPS

SURFACE TRANSPORTATION TECHNICAL COMMITTEE

May 22, 2020
PROPOSED PARTNERSHIP WITH BALCH SPRINGS

• The City of Balch Springs has requested assistance with improvements to Hickory Tree Road from Elam Road to Lake June Road.

• Staff proposes that the RTC fund the design of the project with $500,000 of Surface Transportation Block Grant (STBG) funds.

• NCTCOG staff would work with City staff to develop a project that would mitigate congestion, but is also context-sensitive and facilitating future economic growth.

• This partnership would continue the RTC’s investments in projects that would promote economic development and community revitalization, while also addressing a mobility issue.
PROPOSED PARTNERSHIP WITH SUNNYVALE

• The Town of Sunnyvale has requested assistance on two projects:
  • Collins Road from Tripp Road to Town East Blvd
    • $450,000 in Regional Toll Revenue (RTR) funding for engineering
    • Scope: Reconstruct from 2 to 4 lane divided urban
  • Tripp Road from The Falls Drive to Belt Line Road
    • $800,000 in RTR funding for construction
    • Scope: Reconstruct 2 lane to 2 lane rural roadway

• This partnership aids in community revitalization.
• Major partner in the George Bush Extension
PROPOSED PARTNERSHIP WITH HUTCHINS

• The City of Hutchins has requested assistance for improvements at the intersection of IH 45 and Dowdy Ferry Road.

• This area is a major freight hub and this project would improve mobility.

• Staff proposes to fund this project through a partnership with the TxDOT Dallas District.

• The RTC would fund the project with $3,700,000 of Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds, (includes a State match from TxDOT) with TxDOT funding the design of the project.
ACTION REQUESTED

• Recommend Regional Transportation Council (RTC) approval of:
  • The partnerships outlined in this presentation
  • Administratively amending the Transportation Improvement Program (TIP)/Statewide Transportation Improvement Program (STIP) and other administrative/planning documents as needed
QUESTIONS?

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BACKGROUND

- Texas House Bill (HB) 20 requires that Metropolitan Planning Organizations (MPO) develop 10-Year Plans using performance-based planning and project selection methods.
- Includes projects funded with Category 2 (MPO selected), Category 4 (TxDOT District selected), and Category 12 (Texas Transportation Commission selected).
- Regional 10-Year Plan was approved by the Regional Transportation Council (RTC) in December 2016.
- Series of updates were made in August 2017, August 2018, and September 2019 in conjunction with the development of TxDOT’s UTP.
ACTIVITIES UNDERTAKEN SINCE LAST UPDATE

- Texas Department of Transportation (TxDOT) staff have begun developing the 2021 UTP.

- NCTCOG staff have coordinated with the TxDOT Districts regarding project updates (e.g., costs/funding, environmental clearance and let dates) and potential new projects.

- Projects were scored by NCTCOG staff.

- To satisfy a January 31, 2020 deadline set forth by TxDOT, NCTCOG staff drafted a project listing that included project scores, project revisions, and potential new projects.

- The list was refined in February and March 2020 as a result of funding targets being received after the January 31st deadline.
UPDATE TO THE 2020 UTP

• In addition to developing the 2021 UTP, an update to the 2020 UTP was approved April 30, 2020 by the TTC.

• This update is being made to fund the IH 35 project in Austin.

• In order to fully fund that project, the TTC programmed Category 12 funds that otherwise could have been used for projects in other regions of the State, including Dallas-Fort Worth.

• This action, combined with lower than anticipated revenues, has led to a decline in the amount of funding coming to the region via the UTP.

• Existing projects are generally not impacted, but projects with cost overruns may not be able to be addressed and new projects were largely not able to be added.
• The same project scoring process used for the 2019 10-Year Plan Update was used this year.

• Additional projects were submitted by TxDOT for inclusion in the Corridor Preservation Program. This program consists of projects that may be added to the 10-Year Plan in the future and need a preliminary commitment in order to commence pre-construction activities like right-of-way acquisition.

• Some projects that were previously part of this program are being proposed for construction funding through this latest update.
PRINCIPLES FOR THE DEVELOPMENT OF THE REGIONAL 10-YEAR PLAN

• Project should be included in Mobility 2045
• Focus on system versus new, stand-alone projects
• Fully fund existing projects before funding new projects
• Ensure equity of county allocations
• Reintroduce toll lanes/toll managed lanes on selected corridors
• Re-fund affected projects, when possible
• Ensure all RTC projects are approved in 2021 UTP (including “placeholders”)
• Projects must be scored and should have a score sufficient to qualify for funding
NEXT STEPS

• Finalize project selection/update efforts in coordination with TxDOT staff
• Await decisions by the TTC on Category 12 funding
• Bring listings to the RTC for approval
• Bring back any project changes to the STTC and RTC once the TTC weighs in and approves the UTP
# TIMELINE

<table>
<thead>
<tr>
<th>MEETING/TASK</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial draft list due to TxDOT</td>
<td>January 31, 2020</td>
</tr>
<tr>
<td>Funding Targets Received</td>
<td>February 2020</td>
</tr>
<tr>
<td>TxDOT Public Meeting for and Approval of 2020 UTP Update</td>
<td>April 2020</td>
</tr>
<tr>
<td>NCTCOG Public Meeting</td>
<td>May 2020</td>
</tr>
<tr>
<td>STTC Action</td>
<td>May 22, 2020</td>
</tr>
<tr>
<td>RTC Action</td>
<td>June 11, 2020</td>
</tr>
<tr>
<td>TxDOT Public Meetings for 2021 UTP</td>
<td>June/July 2020</td>
</tr>
<tr>
<td>Anticipated TTC Approval of 2021 UTP</td>
<td>August 27, 2020</td>
</tr>
</tbody>
</table>
CONTACT/QUESTIONS?

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What is the CMP?

One of five federally-mandated planning documents (MTP, TIP, UPWP, Public Participation Plan, CMP)

Required for urbanized areas with populations exceeding 200,000 (also known as Transportation Management Areas)

“A **regionally-accepted** approach for **managing** congestion that provides **up-to-date** information on **multimodal** transportation performance and **assesses** alternative strategies that meet state and local needs.”

*FHWA CMP Guidebook*
What is Required in the CMP?

Regulations are not prescriptive towards the methods, approaches, and strategies in the CMP.

Congestion Management Strategies *should* include:
- Demand management strategies
- Traffic operational improvements
- Public transportation improvements;
- ITS technologies; and
- "Where necessary, additional system capacity"

For nonattainment areas, projects adding Single Occupant Vehicle (SOV) capacity *must* be evaluated and comply with the CMP by integrating congestion management strategies.

The CMP *shall* be developed, established, and implemented as part of the Metropolitan Transportation Planning Process.
Regional Goals and Objectives

Mobility
Increase available options, reduce congestion, increase efficiency, provide access

Quality of Life
Preserve environment, improve air quality, promote active lifestyles, livable communities

System Sustainability
Encourage and enhance maintenance, increase safety and reliability, invest long-term in existing system

Implementation
Timely project planning; cost-effective solutions for construction, operations, and maintenance; leverage existing assets
Corridor Performance Criteria

- Recurring Congestion (V/C): Level of Service DEF
  OR
  - Safety: Crash Rate Above 75th Percentile
  OR
  - Non-Recurring Congestion: Travel Time Reliability/Peak-Hour Delay: 75th Percentile
  OR
  - Pavement and Bridge Conditions: First Quartile Ratings

Construction Programmed in TIP?

If so, hold for evaluation after completion.

Corridor Asset Inventory
## Corridor Asset Inventory

### Critical Corridors

- **Meets Initial Criteria**
  - Fact Sheet/Database Entry
  - Determine CMP Strategies

### Performing Corridors

- **Does Not Meet Criteria/Construction programmed**
  - Fact Sheet/Database Entry
  - Continue to Monitor Performance

### Asset Availability Data

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Alternative Modes</th>
<th>Operational Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Arterials</td>
<td>Sidewalks</td>
<td>NHS</td>
</tr>
<tr>
<td>Managed Lane</td>
<td>Veloweb/Multi-Use Paths</td>
<td>Managed/HOV/Express Lanes</td>
</tr>
<tr>
<td>ROW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frontage Roads</td>
<td>Light Rail</td>
<td>ITS</td>
</tr>
<tr>
<td>Parallel Freeways</td>
<td>Dedicated Bus Lanes</td>
<td>Routes of Significance</td>
</tr>
<tr>
<td>Shoulders</td>
<td>Commuter Rail</td>
<td>Hazmat Routes</td>
</tr>
<tr>
<td>At-Grade Intersections</td>
<td>Bus Routes</td>
<td>Truck Lane Restrictions</td>
</tr>
<tr>
<td>At-Grade R/R Crossings</td>
<td>Safe Routes to School</td>
<td>Signalized Intersections</td>
</tr>
<tr>
<td>Grade Separations</td>
<td>Demand Response</td>
<td>Regional Freight Routes</td>
</tr>
<tr>
<td>(Arterials)</td>
<td>Coverage (GP)</td>
<td></td>
</tr>
<tr>
<td>Park-and-Ride Facilities</td>
<td>TIM Attendance &amp; Coverage</td>
<td></td>
</tr>
</tbody>
</table>

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8
### Strategy Identification

<table>
<thead>
<tr>
<th>Critical Factors</th>
<th>Recurring Congestion</th>
<th>Non-Recurring Congestion/Reliability</th>
<th>Safety</th>
<th>Pavement and Bridge Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One Factor</strong></td>
<td>Alternative Modes; Demand Management</td>
<td>Operational Improvements</td>
<td>Safety-Related Projects</td>
<td>Rehabilitation/Asset Management Planning</td>
</tr>
<tr>
<td><strong>Two Factors</strong></td>
<td>Asset Optimization (maximize available capacity + no added Right-of-Way) or M&amp;O</td>
<td>Operational Strategies</td>
<td>Safety Strategies</td>
<td>Pavement Rehabilitation</td>
</tr>
<tr>
<td><strong>Three Factors</strong></td>
<td>Added Capacity and ROW as Necessary w/ Complimentary Alternative Modes</td>
<td>Major Operations Studies and Commitments</td>
<td>Major Safety Studies and Commitments</td>
<td>Complete Pavement/Bridge Replacement</td>
</tr>
<tr>
<td><strong>Four Factors</strong></td>
<td>Major Capital Investments in Transit, Active, and Highway Infrastructure in Corridor</td>
<td>Multimodal Operational Studies and Investments</td>
<td>Comprehensive Corridor Safety Action Plan</td>
<td>Long Life Pavement and Bridge Design</td>
</tr>
</tbody>
</table>
**Corridor Need**

- Improvements in Recurring Congestion
  - Promote and encourage usage of parallel roadways
  - Promote and encourage usage of available transit services
  - Promote and encourage usage of trip reduction programs

- Improvements in Safety
  - Bottleneck removal
  - Emergency vehicle routing
  - Mobility assistance patrols
  - Reduction in merging and weaving
  - Work zone management

- Improvements in System Reliability
  - Increase deployment of Intelligent Transportation Systems
    - Dynamic route guidance
    - Speed monitoring
    - Network surveillance (CCTV)
    - 511
  - Promote Freeway Incident Management Training
  - Improve incident response and clearance times
  - Shoulder Utilization Program

- Improvements in Pavement and Bridge Conditions
  - Pavement and Bridge Rehabilitation
  - Replacement of Pavement and Bridges
Example Project Performance Measures

- Before/After Speeds
- Before/After Volumes
- Before/After Crash Rate
- Transit Ridership/Mode Split
- Changes in Asset Inventory
- Changes in Asset Condition
- Changes in Criteria Performance Measures, Peak Hour LOS, Crash Rate, Travel Time Reliability
## Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2020</td>
<td>30-Day Public Comment Period and Public Meeting**</td>
</tr>
<tr>
<td>May 22, 2020</td>
<td>STTC Info</td>
</tr>
<tr>
<td>June 11, 2020</td>
<td>RTC Info</td>
</tr>
<tr>
<td>September 25, 2020</td>
<td>STTC Workshop – Scoring, Ranking, Strategies and Implementation</td>
</tr>
<tr>
<td>September 2020</td>
<td>30-Day Public Comment Period and Public Meeting</td>
</tr>
<tr>
<td>October 23, 2020</td>
<td>STTC Info</td>
</tr>
<tr>
<td>November 12, 2020</td>
<td>RTC Info</td>
</tr>
<tr>
<td>December 4, 2020</td>
<td>STTC Action</td>
</tr>
<tr>
<td>December 10, 2020</td>
<td>RTC Action</td>
</tr>
</tbody>
</table>
Questions?

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EFFECTS OF COVID-19 ON TRANSPORTATION: INFORMATION SYSTEM RTC4U

Surface Transportation Technical Committee
May 22, 2020

Michael Morris, P.E.
Director of Transportation
POLICY METRICS: RTC4U

1. Travel behavior response to COVID-19
2. Financial implications to traditional revenue sources
3. Benefits of travel behavior responses to areas of RTC responsibility (e.g., Congestion Management System, national performance measures, ozone standard)
4. Prioritization of infrastructure improvements that offset unemployment increases
Emissions from vehicles reduced

Lowest frequency of high-level, unhealthy, exposure days to ozone

Cleaner air = blue(r) skies

Leading to a healthier populous (under review)

Future sustainability (to be determined)
  Electric and fuel cell vehicles
  Travel Demand Management (telecommunicating)
## NORTH CENTRAL TEXAS AIR QUALITY ANALYSIS

### North Central Texas Ozone Comparison

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>March</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 yellow days</td>
<td>8 yellow days</td>
<td>10 yellow days</td>
<td>3 yellow days</td>
<td></td>
</tr>
<tr>
<td>High: 62 at Eagle Mtn Lake</td>
<td>High: 63 at Denton</td>
<td>High: 66 at Cleburne</td>
<td>High: 64 at Pilot Point</td>
<td></td>
</tr>
<tr>
<td><strong>April</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 yellow days</td>
<td>16 yellow days</td>
<td>12 yellow days</td>
<td>8 yellow days</td>
<td></td>
</tr>
<tr>
<td>High: 68 at Dallas Hinton</td>
<td>2 orange days</td>
<td>High: 69 at Greenville</td>
<td>High: 69 at Rockwall</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>May</strong></td>
<td>15 yellow days</td>
<td>9 yellow days</td>
<td>6 yellow days</td>
<td>7 yellow days</td>
</tr>
<tr>
<td>5 orange days</td>
<td>6 orange days</td>
<td>5 orange days</td>
<td>High: 69 at Grapevine</td>
<td></td>
</tr>
<tr>
<td>High: 80 at Dallas North</td>
<td>2 red days</td>
<td>High: 80 at Pilot Point</td>
<td>High: 69 at Grapevine</td>
<td></td>
</tr>
<tr>
<td>High: 80 at Dallas Hinton</td>
<td>High: 92 at Eagle Mtn Lake</td>
<td>High: 80 at Pilot Point</td>
<td>High: 69 at Parker County</td>
<td></td>
</tr>
</tbody>
</table>

*Data Source: TCEQ*

Data Analysis: NCTCOG

* as of May 14, 2020. At this time last year (May 14, 2019), there were four Yellow days and one Orange Exceedance day.
DFW Passenger Enplanements

9/11 Terrorist Attacks
Total deficient of 14%
Recovered in 6 years

2008 Recession
Total deficient of 6%
Recovered in 2 years

Sources: DFW Airport, Dallas Love Field and NCTCOG Analysis
INCOMING PRIVATE SECTOR REVENUE FOR NORTH TARRANT EXPRESS (NTE)/SH 183

Per prior RTC direction, staff continues to work with TxDOT and private sector partners to complete additional phases of the NTE and other public/private partnership projects.

Recent projections indicate that general purpose and managed lane capacity improvements are anticipated to be triggered in mid-2022 with an open to traffic date of June 2024.

The private sector is currently coordinating with TxDOT to advance these improvements.

The private sector partner (NTEMP) will be paying for these improvements in the amounts noted below:

<table>
<thead>
<tr>
<th>Capacity Improvements</th>
<th>$ in Millions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH 183/NTE Segment 1 &amp; 2W Widening</td>
<td>$162</td>
<td>Add 1 general purpose lane in NTE Segment 1 and 1 managed lane in NTE Segment 2W</td>
</tr>
<tr>
<td>Build 2+2 managed lanes from Reliance Parkway to SH 161 (former Segment 2E)</td>
<td>$860</td>
<td>This section of 5.3 miles would be built and operated by private sector as an extension of the current facility</td>
</tr>
<tr>
<td>Build 2+2 managed lane from SH 161 to Story Rd</td>
<td>$270</td>
<td>Funding Cintra would pay to TxDOT to lane balance east of SH 161 (2 miles)</td>
</tr>
</tbody>
</table>

$1,292
DO WHAT WE NEED, NOT WHAT WE WANT

Existing Funding Constraints

Financial Crisis Response from 2009

Lower Cost of Construction (25%)

Federal Infrastructure

State P3

0% Interest

Infrastructure Bonds
TAKE ADVANTAGE OF LOWER CONSTRUCTION INFLATION COSTS

Source: Texas Department of Transportation – Highway Cost Index
LEVERAGING/INNOVATIVE FUNDING

Private Funding:
$4.56 B + $0.8 B (maint.)
Public Funding:
$0.83 B

Private Funding:
$2.13 B + $0.5 B (maint.)
Public Funding:
$0.55 B
CANDIDATE PROJECTS

High Speed Rail: Dallas to Houston
High Speed Rail: Dallas to Fort Worth
Hyperloop Certification Center
Autonomous Transit (Midtown)
Freeway Induction Loops
State Highway 183, US 75 Technology Lanes