

Roanoke Valley Transportation
PLANNING ORGANIZATION

Staffed by the
REGIONAL commission



TRANSPORTATION IMPROVEMENT PROGRAM

for the
**ROANOKE VALLEY
TRANSPORTATION PLANNING ORGANIZATION**

Federal Fiscal Years 2021-2024

APPROVED: June 25, 2020

AMENDED: June 24, 2021

ADJUSTED: June 27, 2023

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RVTPO FY 2021-24 Transportation Improvement Program



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Acknowledgement

This report was prepared by the Roanoke Valley-Alleghany Regional Commission (RVARC) staff in cooperation with and assistance by the: Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Virginia Department of Rail and Public Transportation (DRPT), Virginia Department of Transportation (VDOT), Roanoke Valley Transportation Planning Organization (RVTPO) member localities, Greater Roanoke Transit Company (GRTC/Valley Metro), and RADAR (Unified Human Services Transportation Systems, Inc.).

Disclaimer

The contents of this report reflect the views of the Roanoke Valley Area Metropolitan Planning Organization. The RVARC staff is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, FTA, VDOT, DRPT, Valley Metro, RADAR, or the RVARC. This report does not constitute a standard, specification or regulation. FHWA, FTA, VDOT and DRPT acceptance of this report as evidence of fulfillment of the objectives of this program does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

The data presented in this report is provided by VDOT, DRPT, GRTC and RADAR; and the data is compiled and presented by RVARC staff.

Roanoke Valley Transportation Planning Organization RVTPO Policy Board Membership – as of October 14, 2021

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Botetourt County Representatives

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The Honorable Billy Martin, Sr.*

Montgomery County Representative

The Honorable Steve Fijalkowski

Roanoke County Representatives

The Honorable Phil North**

The Honorable David Radford

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The Honorable Robert L. Jeffrey, Jr.

The Honorable Stephanie Moon Reynolds

City of Salem Representatives

The Honorable Renee Turk

The Honorable Bill Jones

(Alternate: The Honorable Randy Foley)

Town of Vinton Representatives

The Honorable Keith Liles

The Honorable Mike Stovall

Greater Roanoke Transit Company

(Valley Metro) Representative

Kevin Price

Roanoke-Blacksburg Regional Airport Representative

Vacancy

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Public Transportation Representative

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(Salem District) Representative

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Local Government Chief Administrative Official/Designee (Ex-Officio)

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Craig Meadows (Montgomery County CAO)

Cody Sexton (Town of Vinton Designee)

Gary Larrowe or Jon Lanford (Botetourt County)

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Jeremy Holmes,

RVARC Executive Director

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Bryan W. Hill,

AICP, CZA, Regional Planner III

Cristina D. Finch,

AICP, LEED AP, Director of Transportation

*Chair

**Vice-Chair

FY 2021-2024 Transportation Improvement Program Revisions

Although the Transportation Improvement Program (TIP) is updated every four years, revisions to it are periodically made. These revisions are in the form of amendments and administrative modifications (adjustments). For more information on the types of revisions, see 3.1 Making Changes to the TIP.

| Date | Description |
|----------|---|
| 10/5/20 | Adjustment to Operating Assistance (RADAR) STIP ID RAD0001, to decrease FY21 funding \$62K (decrease FTA 5310 \$31K, decrease State \$25K, increase local \$6K, decrease revenues \$12K). In FY22, funding decrease of \$142K (decrease FTA 5310 \$49K, decrease State \$92K, and decrease Local \$11K). |
| 10/5/20 | Adjustment to Paratransit Vehicles (RADAR) STIP ID RAD0002, to Increase FY21 funding \$15K (increase FTA 5310 \$12K, Local \$3K). |
| 10/5/20 | Adjustment to Paratransit Vehicles (Lutheran Family Services) STIP ID LFS0001, to increase FY21 funding \$15K (increase FTA 5310 \$12K, Local \$3K). |
| 12/17/20 | Adjustment to UPC 688, 13 th Street Improvements, to remove the noted match and FY21 allocation since all funding for this project has been allocated in previous years. Preliminary Engineering and Right-of-Way phases are complete and construction is expected to begin in the FY21 cycle. The FY18-21 TIP reflects a previous total cost of \$63.2M. In FY19, the project scope and cost were revised to remove the bridge replacement. |
| 3/12/21 | Adjustment to Paratransit Vehicles STIP ID RAD0002, to decrease FY22 funding \$30K (increase FTA 5310 \$2K, decrease Local \$32K). |
| 4/7/21 | Adjustment to UPC 688, 13 th Street Improvements, to update the project cost from \$23,960,970 to \$25,034,586 and reflect the obligation and release of federal funding in FY21. |
| 6/2/21 | Adjustment to Valley Metro Operating Assistance Project STIP ID GRT0001, to increase FY22 FTA 5311 funding by \$193K. |
| 6/4/21 | Adjustment to Radio Communications System Project STIP ID GRT0018, to revise obligations as follows: remove \$260K from Flexible STP and add it to State. |
| 6/8/21 | Adjustment to New Downtown Roanoke Multimodal Facility – Engineering, Construction, Equipment Project STIP ID GRT0013, to revise obligations as follows: remove \$5.98 million from Federal, renaming it Flexible STP; add \$5.52 million to State; and add Local match of \$460K. |
| 6/11/21 | Adjustment to Rehab/Renovation of Administration/Maintenance Building Project STIP ID GRT0009, for HVAC system upgrades, to revise obligations as follows: increase FTA 5339 funding by \$49,486 in FY21. |
| 6/24/21 | Amendment to add Operating Assistance Project STIP ID ROA0001, to provide operating assistance for the Roanoke County CORTRAN service; and to add \$119,000 in FTA 5310 funds in FY22. |

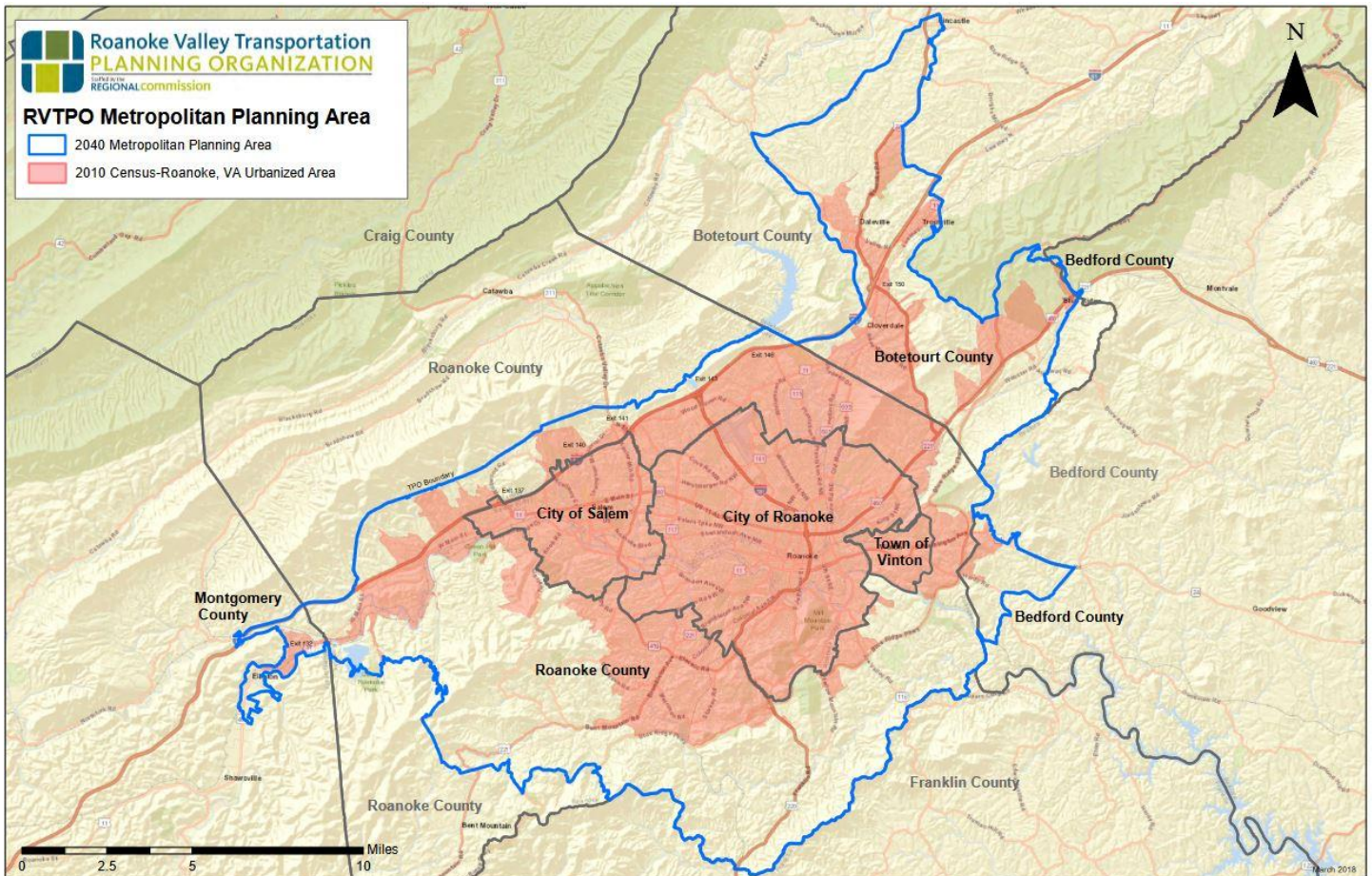
| Date | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---------------|--------------|--------------|--------|--|-------------|--------|---|--------------|--------|--|-------------|--------|---------------------------|-------------|--------|---|---------------|--------|---------------------------------------|-----------|--------|---|-------------|--------|---|-----------|--------|---|-------------|--------|------------------------------------|-----------|--------|-------------------------------|-----------|--------|--|-------------|--------|--------------------------------------|-------------|--------|--|-------------|--------|---|-------------|--------|---|-----------|--------|--|-----------|--------|--|-----------|--------|--|-----------|--------|--|-----------|--------|--|-----------|--------|--|-----------|--------|--|-------------|--------|--|-----------|--------|--|-----------|--------|-----------------------------------|--------------|
| 8/5/21 | <p>Adjustments to add various grouped projects from the VDOT adopted Six-Year Improvement Program (7/1/21).</p> <table border="1" data-bbox="250 296 1419 1272"> <thead> <tr> <th data-bbox="250 296 380 338">UPC</th> <th data-bbox="380 296 1203 338">Project Name</th> <th data-bbox="1203 296 1419 338">Project Cost</th> </tr> </thead> <tbody> <tr> <td>110624</td> <td>#SGR18 - Rte. 11 over Norfolk Southern Railroad - Deck Replacement</td> <td>\$2,632,000</td> </tr> <tr> <td>110887</td> <td>Rte. 220 Access Management Improvements Project</td> <td>\$10,196,000</td> </tr> <tr> <td>115473</td> <td>#SGR17 - Rte. 813 over Roanoke River Sub Repairs</td> <td>\$2,411,000</td> </tr> <tr> <td>116077</td> <td>Safety Prescoping – Salem</td> <td>\$1,512,000</td> </tr> <tr> <td>116197</td> <td>#I81CIP Add NB Lane between Exit 128 and Exit 137</td> <td>\$265,372,000</td> </tr> <tr> <td>117211</td> <td>FY21 Curve Delineation – Districtwide</td> <td>\$854,000</td> </tr> <tr> <td>117214</td> <td>FY21 Centerline Rumble Strips Installation – Districtwide</td> <td>\$1,014,000</td> </tr> <tr> <td>117215</td> <td>FY21 Edgeline Rumble Strips Installation – Districtwide</td> <td>\$791,000</td> </tr> <tr> <td>117221</td> <td>Franklin Road Sidewalk Improvements - Rte. 220 B- Phase 2</td> <td>\$1,791,000</td> </tr> <tr> <td>117994</td> <td>9th Street Multimodal Improvements</td> <td>\$625,000</td> </tr> <tr> <td>117995</td> <td>Glade Creek Greenway Phase 2B</td> <td>\$476,000</td> </tr> <tr> <td>118858</td> <td>#SGR22 FY22 Plant Mix Districtwide Primaries</td> <td>\$1,500,000</td> </tr> <tr> <td>119586</td> <td>Greenway Connection – Riverland Road</td> <td>\$1,313,000</td> </tr> <tr> <td>T23422</td> <td>FY 23 Curve Delineation – Districtwide</td> <td>\$8,188,000</td> </tr> <tr> <td>T23423</td> <td>FY 24 Pedestrian Crossing Improvements – Districtwide</td> <td>\$1,226,000</td> </tr> <tr> <td>T23424</td> <td>FY 23 Unsignalized Intersections – Districtwide</td> <td>\$222,000</td> </tr> <tr> <td>T23425</td> <td>FY 22 Centerline Rumble Strips Installation – Districtwide</td> <td>\$209,000</td> </tr> <tr> <td>T23426</td> <td>FY 23 Centerline Rumble Strips Installation – Districtwide</td> <td>\$209,000</td> </tr> <tr> <td>T23427</td> <td>FY 24 Centerline Rumble Strips Installation – Districtwide</td> <td>\$209,000</td> </tr> <tr> <td>T23428</td> <td>FY 25 Centerline Rumble Strips Installation – Districtwide</td> <td>\$209,000</td> </tr> <tr> <td>T23429</td> <td>FY 22 Edgeline Rumble Strips Installation – Districtwide</td> <td>\$575,000</td> </tr> <tr> <td>T23430</td> <td>FY 23 Edgeline Rumble Strips Installation – Districtwide</td> <td>\$575,000</td> </tr> <tr> <td>T23431</td> <td>FY 24 Edgeline Rumble Strips Installation – Districtwide</td> <td>\$1,735,000</td> </tr> <tr> <td>T23432</td> <td>FY 25 Edgeline Rumble Strips Installation – Districtwide</td> <td>\$575,000</td> </tr> <tr> <td>T24579</td> <td>Orange Market Park and Ride/Parking Lot Improvements</td> <td>\$344,000</td> </tr> <tr> <td>T24740</td> <td>Route 220 Superstreet Improvement</td> <td>\$15,461,000</td> </tr> </tbody> </table> | UPC | Project Name | Project Cost | 110624 | #SGR18 - Rte. 11 over Norfolk Southern Railroad - Deck Replacement | \$2,632,000 | 110887 | Rte. 220 Access Management Improvements Project | \$10,196,000 | 115473 | #SGR17 - Rte. 813 over Roanoke River Sub Repairs | \$2,411,000 | 116077 | Safety Prescoping – Salem | \$1,512,000 | 116197 | #I81CIP Add NB Lane between Exit 128 and Exit 137 | \$265,372,000 | 117211 | FY21 Curve Delineation – Districtwide | \$854,000 | 117214 | FY21 Centerline Rumble Strips Installation – Districtwide | \$1,014,000 | 117215 | FY21 Edgeline Rumble Strips Installation – Districtwide | \$791,000 | 117221 | Franklin Road Sidewalk Improvements - Rte. 220 B- Phase 2 | \$1,791,000 | 117994 | 9th Street Multimodal Improvements | \$625,000 | 117995 | Glade Creek Greenway Phase 2B | \$476,000 | 118858 | #SGR22 FY22 Plant Mix Districtwide Primaries | \$1,500,000 | 119586 | Greenway Connection – Riverland Road | \$1,313,000 | T23422 | FY 23 Curve Delineation – Districtwide | \$8,188,000 | T23423 | FY 24 Pedestrian Crossing Improvements – Districtwide | \$1,226,000 | T23424 | FY 23 Unsignalized Intersections – Districtwide | \$222,000 | T23425 | FY 22 Centerline Rumble Strips Installation – Districtwide | \$209,000 | T23426 | FY 23 Centerline Rumble Strips Installation – Districtwide | \$209,000 | T23427 | FY 24 Centerline Rumble Strips Installation – Districtwide | \$209,000 | T23428 | FY 25 Centerline Rumble Strips Installation – Districtwide | \$209,000 | T23429 | FY 22 Edgeline Rumble Strips Installation – Districtwide | \$575,000 | T23430 | FY 23 Edgeline Rumble Strips Installation – Districtwide | \$575,000 | T23431 | FY 24 Edgeline Rumble Strips Installation – Districtwide | \$1,735,000 | T23432 | FY 25 Edgeline Rumble Strips Installation – Districtwide | \$575,000 | T24579 | Orange Market Park and Ride/Parking Lot Improvements | \$344,000 | T24740 | Route 220 Superstreet Improvement | \$15,461,000 |
| UPC | Project Name | Project Cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110624 | #SGR18 - Rte. 11 over Norfolk Southern Railroad - Deck Replacement | \$2,632,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110887 | Rte. 220 Access Management Improvements Project | \$10,196,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 115473 | #SGR17 - Rte. 813 over Roanoke River Sub Repairs | \$2,411,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 116077 | Safety Prescoping – Salem | \$1,512,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 116197 | #I81CIP Add NB Lane between Exit 128 and Exit 137 | \$265,372,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117211 | FY21 Curve Delineation – Districtwide | \$854,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117214 | FY21 Centerline Rumble Strips Installation – Districtwide | \$1,014,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117215 | FY21 Edgeline Rumble Strips Installation – Districtwide | \$791,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117221 | Franklin Road Sidewalk Improvements - Rte. 220 B- Phase 2 | \$1,791,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117994 | 9th Street Multimodal Improvements | \$625,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 117995 | Glade Creek Greenway Phase 2B | \$476,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 118858 | #SGR22 FY22 Plant Mix Districtwide Primaries | \$1,500,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 119586 | Greenway Connection – Riverland Road | \$1,313,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23422 | FY 23 Curve Delineation – Districtwide | \$8,188,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23423 | FY 24 Pedestrian Crossing Improvements – Districtwide | \$1,226,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23424 | FY 23 Unsignalized Intersections – Districtwide | \$222,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23425 | FY 22 Centerline Rumble Strips Installation – Districtwide | \$209,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23426 | FY 23 Centerline Rumble Strips Installation – Districtwide | \$209,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23427 | FY 24 Centerline Rumble Strips Installation – Districtwide | \$209,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23428 | FY 25 Centerline Rumble Strips Installation – Districtwide | \$209,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23429 | FY 22 Edgeline Rumble Strips Installation – Districtwide | \$575,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23430 | FY 23 Edgeline Rumble Strips Installation – Districtwide | \$575,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23431 | FY 24 Edgeline Rumble Strips Installation – Districtwide | \$1,735,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T23432 | FY 25 Edgeline Rumble Strips Installation – Districtwide | \$575,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T24579 | Orange Market Park and Ride/Parking Lot Improvements | \$344,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T24740 | Route 220 Superstreet Improvement | \$15,461,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10/14/21 | Adjustment to section 5.0, Table 5, and section 5.4, Table 12 to remove erroneously listed performance measure <i>Percentage of track segments with performance (speed) restrictions, by mode</i> . | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10/26/21 | Adjustment to Replacement Bus Project STIP ID GRT0004, to revise obligations as follows: decrease STBG and State funding by \$1,564,351 and \$391,088 (respectively) in FY21; and increase STBG and State funding by \$1,564,351 and \$391,088 (respectively) in FY22. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12/14/21 | Adjustment to section 2.0, to add a statement regarding the Transit Program of Projects and that Valley Metro satisfies FTA public hearing requirements through the RVTPO's TIP development process. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12/16/21 | Adjustment to Automatic Vehicle Locator Project STIP ID GRT0016, to revise obligations as follows: decrease State funding in FY21 by \$1.7 million and increase FY22 by \$1.7 million; and increase FTA 5339 funding by \$300K in FY22. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|---------|---|
| 2/3/22 | Adjustment to Security Project STIP ID GRT0012, to increase FTA 5339 funding by \$17,585 and Local by \$4,397 in FY22. |
| 3/15/22 | Adjustment to UPC 688, 13 th Street Improvements, to update the project cost from \$25,034,586 to \$25,223,724 and reflect the obligation and release of federal funding in FY22. |
| 6/27/23 | <p>Adjustment to TIP project groupings:</p> <ol style="list-style-type: none"> 1. Maintenance: Traffic and Safety Operations 2. Maintenance: Preventive Maintenance for Bridges 3. Maintenance: Preventive Maintenance and System Preservation <p>to allow VDOT to request obligation authority for certain projects in FFY23 before the end of the fiscal year.</p> |

1.0 Purpose of the TIP

The Federal Register defines the Transportation Improvement Program (TIP): a prioritized listing/program of transportation projects covering a period of four (4) years that is developed and formally adopted by a Metropolitan Planning Organization (MPO) or MPOs as part of the metropolitan transportation planning process for the MPA (Metropolitan Planning Area), consistent with the Metropolitan Transportation Plan (Vision 2040: Roanoke Valley Transportation), and required for projects to be eligible for funding under title 23 U.S.C. and title 49 U.S.C. chapter 53. Essentially, the TIP is a document that identifies how federal funds will be used for transportation projects in the Roanoke Valley's urbanized area over a four-year timeframe.

The Roanoke Valley Area Metropolitan Planning Organization (MPO) is an organization required to exist by federal law (§23 CFR Part 450, §49 CFR Part 613), which mandates that urbanized areas with a population greater than 50,000 persons establish an MPO to facilitate transportation planning. Following the adoption of the FY2015-18 TIP in 2014, the MPO Policy Board voted to change its name to the Roanoke Valley Transportation Planning Organization (RVTPO). The Roanoke Valley TPO area includes the urbanized portions of Bedford, Botetourt, Montgomery and Roanoke Counties, as well as the Cities of Roanoke and Salem, and the Town of Vinton. Staff at the RVTPO developed this TIP for the MPO area which includes the 2010 Census urbanized area as well as the area projected to be urbanized by 2040 and 2045 as shown in the following map.



On December 4, 2015, the Fixing America's Surface Transportation Act or FAST Act was signed into law. This is the first legislation in over decade that provides long-term funding for federal transportation projects. As a part of the new legislation, 23 U.S.C. 134(k)(3), the FAST Act clarifies development of a Congestion Management Process (CMP) for Transportation Management Area (TMA) MPOs. The RVTPO adopted its first CMP as a TMA in 2014 and projects in this TIP reflect:

1. CMP regional goals for reducing peak hour vehicle miles traveled and improvement of transportation connections;
2. Identification of existing services and programs that support access to jobs in the region; and
3. Identification of proposed projects and programs to reduce congestion and increase job access opportunities.

Continuing with previous transportation legislation, the FY21-24 TIP accommodates for facilities that enable for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the metropolitan planning area.

The RVTPO TIP was developed in cooperation with the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, local public transportation operators, and the local governments within the urbanized area. These officials, through the Metropolitan Planning Process, select and schedule projects for endorsement in the TIP. The Transportation Improvement Program may be modified by amendments and adjustments at any time though at a minimum it is typically amended/adjusted in the summer months following the Commonwealth Transportation Board's approval of the Six-Year Improvement Program (SYIP).

2.0 Public and Stakeholder Involvement

In accordance with the RVTPO's Public Involvement Policy, the public has been afforded several opportunities to comment upon the development of the TIP. Those opportunities are listed below:

1. Electronic access and updates to the Draft FY2021-2024 TIP through the RVTPO website at www.rvarc.org;
2. Two 15-day comment periods (ending April 16, 2020 and June 18, 2020) where the public submitted comments on the Draft FY 2021-24 TIP via e-mail, online survey, and regular mail; and
3. RVARC website notice and newspaper advertisements in the Roanoke Times and Roanoke Tribune, notifying the public of a public hearing on the adoption of the TIP on June 25, 2020.

Once the program is developed, the TPO Policy Board reviews and approves the program according to policies adopted by its member organizations. With few exceptions, any proposed transportation project should be included in the TIP to be considered eligible for federal funding. All phases of a project including preliminary engineering, right-of-way acquisitions, and construction should be documented in the TIP.

The Comprehensive, Continuing, Cooperative, or "3C" Process of the TPO, provides a natural mechanism by which the TIP can be carefully reviewed and updated annually. Annual development of this program helps to clarify future needs, allow revisions to accommodate changing conditions, and allow developing local and regional plans to be continually incorporated. Changes to the TIP are handled via administrative adjustments for minor changes or amendments for major changes (see section 3.1). Amendments to the TIP also offer the opportunity for public involvement.

Transit Program of Projects

The Greater Roanoke Transit Company (d.b.a. Valley Metro) satisfies the public hearing requirements per FTA Circular 9030.1E through the Transportation Improvement Program (TIP) development process of the RVTPO. The TIP public notice of public involvement activities and time established for public review and comment on the TIP meets the requirements for the Program of Projects of the Urbanized Area Formula Program as outlined in 49 U.S.C. 5307. The FTA Circular 9030.1E, allows the RVTPO public participation requirements for the TIP to be used in lieu of a local process when developing the required FTA Program of Projects (POP). A POP is a list or program of projects utilizing FTA funds. The first year of an approved TIP constitutes a list of "agreed to" projects for FTA purposes. To make it clear to the public, the public notice for the POP will state the TIP process is being used and it satisfies the FTA public involvement requirements for developing a POP. Before any Section 5307 or Section 5339 projects are added to the TIP, a public hearing is advertised, allowing comments on the proposed POP. Once that process is complete, projects are approved for the TIP by the RVTPO Policy Board, through a recommendation of its Transportation Technical Committee.

FY2021-2024 Transportation Improvement Program Timeline:

The following are action items resulting in the adoption of the RVTPO TIP:

- Fall 2019 - Public meetings began in all nine VDOT Construction Districts and local administrators, legislators and citizens provided comments on the upcoming Six-Year Improvement Plan (of which TIP projects must be included).
- Fall/Winter 2019 - Localities (staffs and governing bodies), transit providers, VDOT and VDRPT staffs discuss project priorities for potential inclusion in the TIP.

- Spring 2020 - Transportation Technical Committee members review and provide advice on the draft TIP.
- Spring 2020 – The RVTPO Policy Board reviews the draft TIP and adopts it at its June 25, 2020 meeting.

3.0 Understanding the TIP

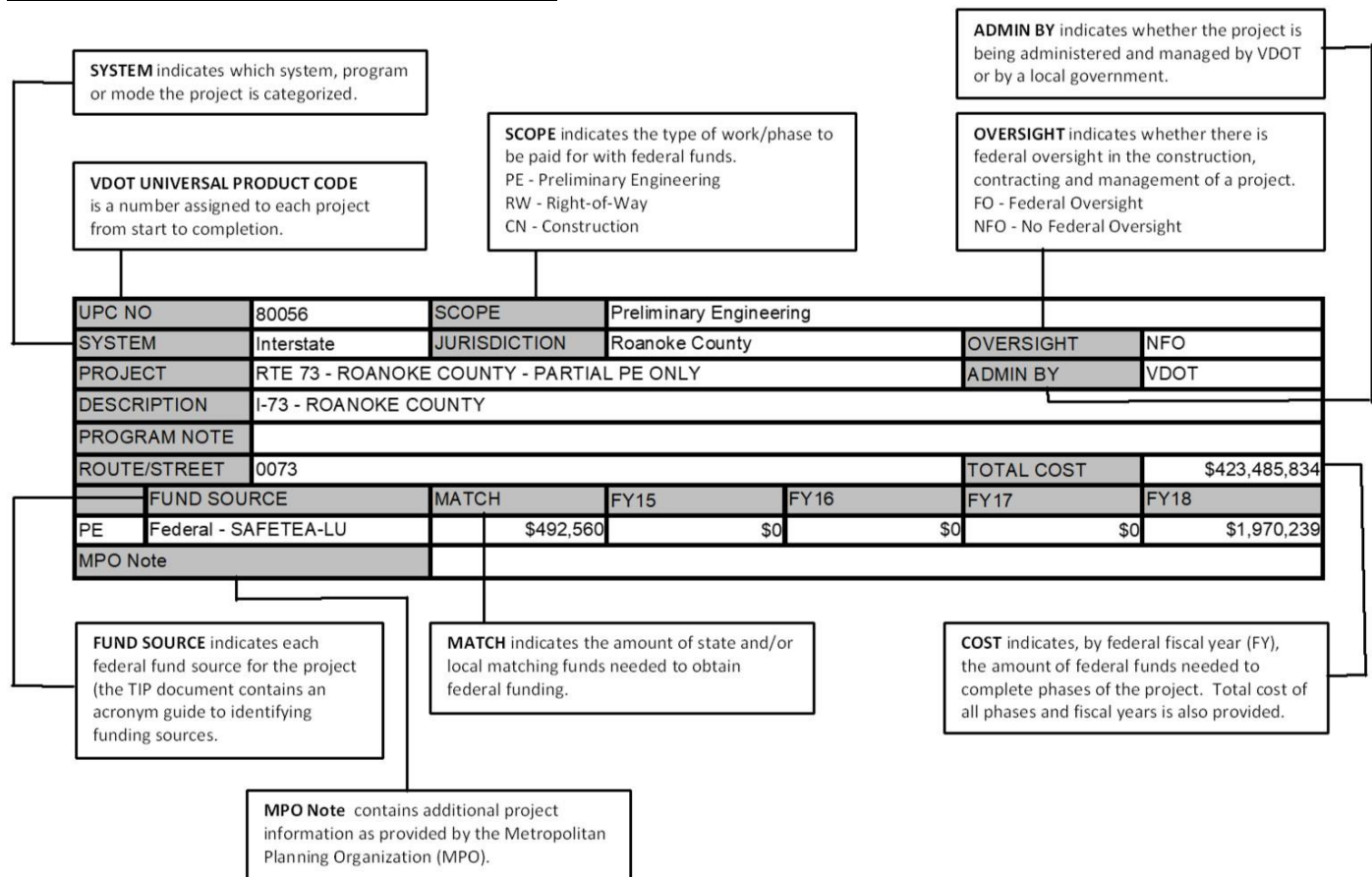
The Transportation Improvement Program (TIP) identifies capital and operating projects anticipated to receive federal funding over a four-year period during federal fiscal years 2021 through 2024 (October 1, 2020 to September 30, 2023). Projects that are funded only through state or local sources are not included unless they are considered to be regionally significant (see Section 8.0). In accordance with 23 CFR 450.318(i), any project included in the TIP shall be consistent with the approved fiscally constrained long-range multimodal transportation plan (CLRMTTP). Once approved, the TIP is incorporated without change into the [Statewide Transportation Improvement Program](#) or STIP.

Ungrouped vs. Grouped Projects

Some projects in the TIP are identified as individual (ungrouped) projects whereas others are grouped together and may be shown as a single item. The grouping of projects allows flexibility to make funding adjustments more easily to minor projects that don't merit the need for extensive oversight and public involvement thus reducing paperwork. Projects that are not considered to be of appropriate scale for individual ungrouped identification in a given program year may be grouped by function, work type, and/or geographic area using applicable classifications under 23 CFR 771.117(c) and (d) and/or 40 CFR part 93.

Projects are summarized by locality in Sections 6.0 and 7.0 and listed independently in Appendix A, Grouped Projects and Appendix B, Ungrouped Projects. The diagram below explains the type of detailed information provided for individually listed projects in Section 6.0

Diagram of Highway Project Information



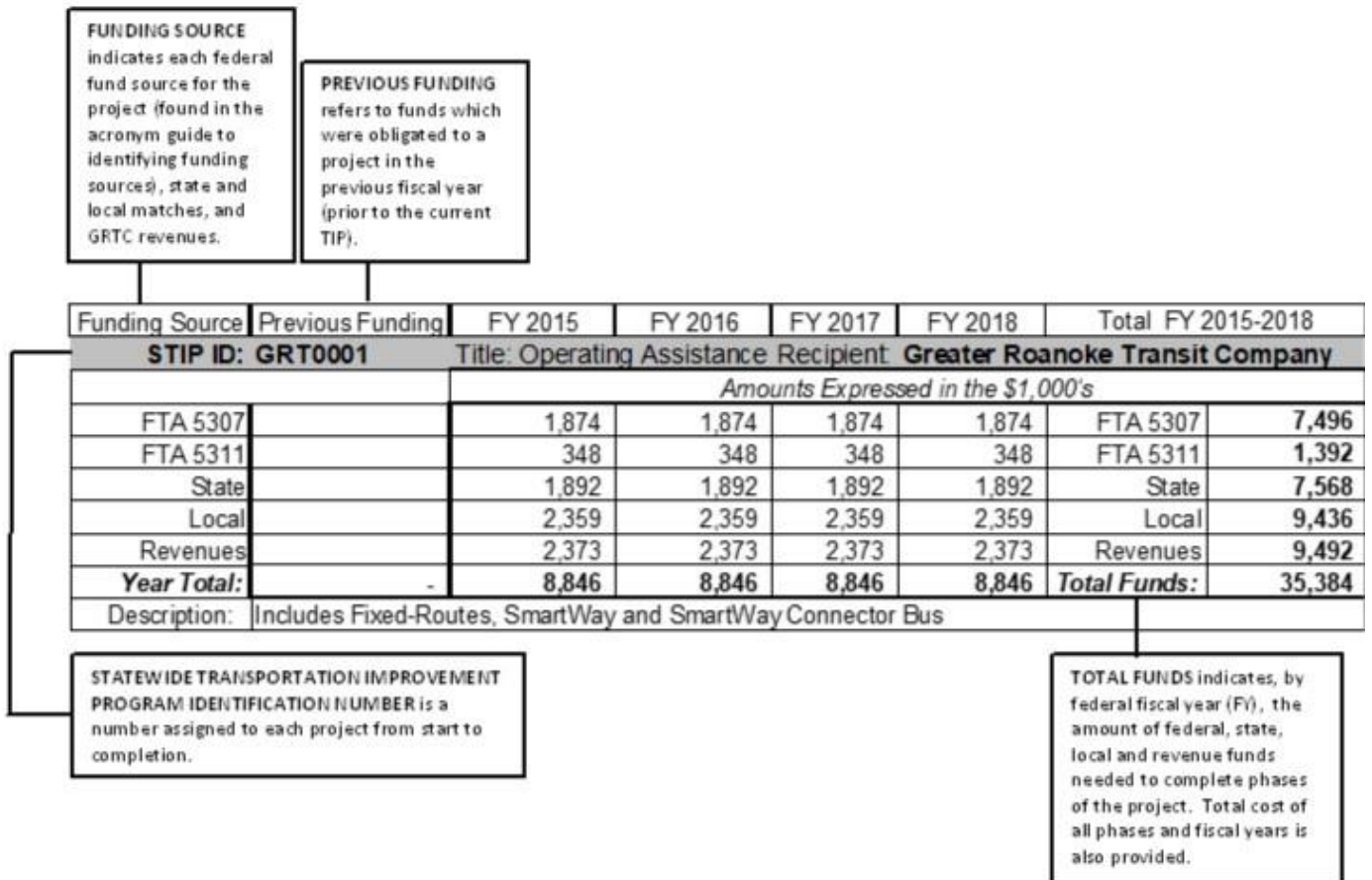
References to the project system are explained in the table below.

Table 1: Project System

| System | Description |
|--|---|
| Interstate | The Interstate System contains projects identified as being part of the limited-access system of highways that carry route designations such as I-81 and I-64. |
| Primary Roads | The Primary System contains projects located along major roadways which carry a route designation of less than 600. Projects listed in this category are primarily located within counties and are listed in numerical order by route number without regard to jurisdiction. |
| Secondary Roads | The Secondary System contains projects located along minor roadways which carry a route designation of 600 or greater. Projects listed in this category are primarily located within counties and are listed in numerical order by route number without regard to jurisdiction. |
| Urban Roads | The Urban System contains projects located within cities and towns. Projects are organized by jurisdiction and listed by street name. |
| Miscellaneous | Miscellaneous Projects are regional in nature and are not associated with one of the previous Systems. |
| Rail Safety | Rail safety projects include those related to safety such as gates, flashing lights, etc. at railroad crossings. |
| Transportation Enhancement / Alternative | Transportation enhancement or alternative projects may include greenway trails, sidewalks, improvements to safety and aesthetics. |
| Public Transit Projects | The Public Transit section contains the operating and capital funding for Valley Metro and RADAR, the two public transit operators in the RVTPO area as well as Lutheran Family Services. |

The diagram below explains the type of detailed information provided for individually listed projects in Section 7.0.

Diagram of Transit Project Information



In Appendix A, the tables entitled "Project Groupings" contains aggregated funding information for projects within a similar funding category such as bridge construction, rail, safety improvements, trails, and operations.

3.1 Making Changes to the TIP

Text changes or revisions to projects listed in the TIP (including addition/deletion of projects) occur on an ongoing basis and are classified as either administrative modifications (or adjustments) or as amendments. On a general basis, the RVTPO follows the State's schedule for developing the TIP; Virginia updates the Statewide TIP, which includes all Metropolitan Planning Organization TIPs, on a three-year basis. Federal law requires the TIP to be updated at least every four years.

Federal regulations for the TPO's planning and programming process (see [CFR Part 450, Section 104](#)) define amendment and administrative modification (referred to as an adjustment) as follows:

Amendment A revision to a long-range statewide or metropolitan plan, Transportation Improvement Program (TIP) or Statewide Transportation Improvement Program (STIP) that involves a major change to a project included in a metropolitan plan, TIP, or STIP, including the addition or deletion of a project or a major change in project cost, project/project phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects). Changes to projects that are included only for illustrative purposes do not require an amendment. An amendment is a revision that requires public review and comment, and a redemonstration of fiscal constraint.

Administrative Modification (Adjustment) A minor revision to a long-range statewide or metropolitan transportation plan, TIP, or STIP that includes minor changes to project/project phase costs, minor changes to funding sources of previously included projects, and minor changes to project/project phase initiation dates. An administrative modification is a revision that does not require public review and comment, or a redemonstration of fiscal constraint.

In addition, technical corrections or formatting updates may be made to the TIP by staff as needed and don't require approval. Technical corrections may include typographical, grammatical, or syntactical errors that address, for example, an error in spelling, grammar, or deletion of a redundant word. It does not include changes to funding amounts.

For purposes of simplification and, in keeping with Federal regulations, amendments and adjustments to the RVTPO TIP **must** include any of the following:

Changes requiring a TIP Amendment

- Adding or removing an ungrouped project.
- Changes in project phasing.
- noA significant change in project description or scope.
- Funding changes greater than allowable under the sliding scale (defined on the next page).

Changes which may be handled via a TIP Adjustment

- Adding or removing a grouped project.
- Minor changes in project description.
- Moving a project from year to year within the TIP.
- Minor changes within a project phase.
- Funding changes less than the threshold established in the sliding scale.

In order to facilitate determination of limits requiring amendments, the sliding scale shown in the following table will be used. The sliding scale is a minimum guideline for determining TIP amendments. RVARC staff may at any time determine that any proposed change to the TIP will be handled as an amendment.

Table 2: Sliding Scale of TIP Amendment and Adjustment Thresholds

| TIP Project Estimated Cost | Minimum Cost Increase Requiring Amendment |
|-----------------------------------|--|
| \$2 million or less | 100% |
| >\$2 million to \$10 million | 50% |
| >\$10 million to \$20 million | 25% |
| >\$20 million to \$35 million | 15% |
| >\$35 million | 10% |

The following briefly describes the RVTPO procedure for administrative modifications (adjustments) and amendments to the TIP.

RVARC staff may initiate adjustments or amendments for any project(s) in the TIP. Additionally, adjustments or amendments may also be requested by:

- Localities for projects within their jurisdiction;
- VDOT for roadway, bicycle or pedestrian projects; and
- DRPT, Valley Metro, RADAR, and/or other service providers for transit projects.

Any request for an adjustment or amendment to the TIP must be submitted in writing to the RVARC Director of Transportation. RVARC staff will review the request and determine if it meets the required definitions and thresholds for an adjustment or an amendment.

Administrative Modifications (Adjustments) to TIP Projects

- If RVARC staff determine an adjustment is appropriate, RVARC staff will coordinate with appropriate local and state agencies and, in writing, submit a response on the TIP adjustment request to the initiating agency within ten (10) working days of the request. the TIP will be updated to reflect the proposed adjustment and documentation of the adjustment action will be summarized in an appropriate section of the TIP.
- The updated/adjusted TIP document will be posted on the RVTPO website.

Amendments to TIP Projects

- If RVARC staff determine an amendment is warranted, the initiating agency will be notified within five (5) working days that the requested change will be handled as a TIP amendment.
- For amendments to TIP Projects, RVARC staff will initiate the public involvement process including a public comment period and a public hearing conducted per the RVTPO Public Participation Plan.
- Upon the RVTPO Policy Board’s approval of the project amendment, the TIP is updated to reflect the amendment and documentation of the amendment action will be summarized in an appropriate section of the TIP.
- The updated TIP will be posted on the RVTPO website.

3.2 Project Allocations vs. Project Obligations

Often there is confusion surrounding the different funding states for projects in the TIP. Regarding the highway portion of the TIP, once a project is placed into the VDOT Six-Year Improvement Plan (SYIP) it must have funds allocated to it.

The table, titled "Six-Year Improvement Program", shows "Required Allocations" in thousands of dollars. It includes columns for "Previous Allocations", "FY2020", "FY2021", "FY2022", "FY2023", "FY2024", "FY2025", and "Required After FY2025". The rows list various fund sources: District Grant Program: Federal, District Grant Program: State, Other Funds: Other, Specialized State and Federal: Federal, Specialized State and Federal: MPO TAP, and Total Funding.

| Fund Sources | Required Allocations | | | | | | | Required After FY2025 |
|--|----------------------|------------|-------------|------------|--------------|--------------|------------|-----------------------|
| | Previous Allocations | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | |
| Values in Thousands of Dollars | | | | | | | | |
| District Grant Program: Federal | \$0 | \$0 | \$0 | \$0 | \$790 | \$0 | \$0 | \$0 |
| District Grant Program: State | \$0 | \$0 | \$72 | \$0 | \$0 | \$800 | \$0 | \$0 |
| Other Funds: Other | \$54 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Specialized State and Federal: Federal | \$86 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Specialized State and Federal: MPO TAP | \$132 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Funding | \$272 | \$0 | \$72 | \$0 | \$790 | \$800 | \$0 | \$0 |

Project allocations are the funds available each fiscal year as identified in VDOT’s budget and SYIP. Allocation amounts include federal funds, state funds, and local/state matching funds. Funds are allocated for Preliminary Engineering (PE), Right-of-Way Acquisition (ROW) and Construction (CN).

An obligation is the Federal government’s legal commitment to pay the Federal share of a project’s cost. An obligated project is one that has been authorized by the Federal agency and for which funds have been committed. Projects for which funds have been obligated are not necessarily initiated or completed during the program year, and the amount of the obligation will not necessarily equal the total cost of the project. For projects under the auspices of the FTA, obligation occurs when the FTA grant is awarded. For projects under the auspices of the FHWA, obligation occurs when a project agreement is executed and the State/grantee requests that the funds be obligated.

A good way to think of obligations is setting up a checking account for a specific purpose and then making an initial deposit. In order to begin work on any phase of a transportation project, federal funds must be obligated. This means that the money is set aside for that particular piece of work, and then can be used to pay bills. The project expenses may be bills from a design consultant, a construction contractor, or payroll costs for Virginia Department of Transportation (VDOT) employees working on the project.

An obligation removed from a project, or released, is usually the result of a decrease in the cost estimate, a project awarded for a lesser amount than originally authorized at advertisement, or an FHWA Financial Integrity Review and Evaluation (FIRE) project level review.

Project schedules often change as a result of personnel or consultant availability for design activities, or changes in budget resource availability. Thus, the TIP does not always yield an up-to-date picture of actual project expenditures. To ensure that the public will have an accurate understanding of how federal funds are being spent on transportation projects, Congress included in the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21), a requirement that the organizations responsible for approving the TIP publish an Annual List of Federally Obligated Transportation Funds, available at rvarc.org/tip.

3.3 Do Project Obligations Mean the Work is Underway?

This is not always the case. Project accounts are set up, particularly for the initial phases of a project, to enable the work. It may take a while, for example, to select and hire a design consultant and then actually begin work.

Some projects listed in the TIP may show \$0 for planned obligations. There are several reasons this may occur and include:

- The project is complete and awaiting closeout
- Subsequent project phases are beyond the four-year TIP cycle
- Informational purposes only, funding being pursued
- The project is to be funded from [category] group funding

Example Project Obligations Report:

| STIP Transactions | | | | | | | | | | |
|--|-------------------|---|----------|---------------|-----------|------|------|------|------|-------------------|
| Roanoke MPO Study Area | | | | | | | | | | |
| Federal Obligated Funds: 10/01/2018 - 09/30/2019 | | | | | | | | | | |
| Funding Source/Amount | | | | | | | | | | |
| Locality | UPC / Description | NHS/NHP | STP/STBG | EB/MG | CMAQ | RSTP | BROS | DEMO | SAFE | TOTAL |
| Urban | | | | | | | | | | |
| Roanoke | 688 | 13TH STREET AND HOLLINS ROAD - JAMISON AVE; .08 MILE NORTH INT. ORANGE AVENUE (0.9790 MI) | | | | | | | | |
| | 688 | TIP: | \$0 | (\$2,077,664) | \$561,239 | \$0 | \$0 | \$0 | \$0 | (\$1,516,425) |
| | | Obligated: | \$0 | \$314,938 | \$0 | \$0 | \$0 | \$0 | \$0 | \$314,938 |
| | | | | | | | | | | Remaining: |
| <hr/> | | | | | | | | | | |
| URBAN SUBTOTAL | | | | | | | | | | |
| | | TIP: | \$0 | (\$2,077,664) | \$561,239 | \$0 | \$0 | \$0 | \$0 | (\$1,516,425) |
| | | Obligated: | \$0 | \$314,938 | \$0 | \$0 | \$0 | \$0 | \$0 | \$314,938 |
| | | Released: | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| | | | | | | | | | | Remaining: |

In addition to construction projects, financial projections have also been made to show revenues for maintaining and operating the region’s highway and transit systems during the same 4-year period. Funded TIP actions typically include, but are not limited to:

- Transportation studies
- Ground transportation system improvement projects (fixed-guide, highway, bicycle, pedestrian, commuter lots, etc.)
- Public transit systems and services, including the components of coordinated human service mobility plans
- System maintenance (monitoring, repair and/or replacement of system facilities and support sites; snow removal; mowing; painting; rest area or weigh station sites; etc.)
- System operations (ITS-TSM applications; traffic operations such as signalization, signal coordination, ramp meters, or message signs; roadside assistance; incident management; for the urbanized TMAs, their Congestion Management Process activities; VDOT traffic management centers; bridge-tunnel management; toll road or congestion pricing management; etc.)

3.4 Financial Assumptions

The TIP financial plan is federally required to include only committed and/or reasonably available transportation funding sources. The estimates on funding sources and costs are based on reasonable financial principles and recent information. The financial estimates for both revenues and costs are given in year of expenditure dollars and reflect growth and inflation factors. VDOT costs estimates are from the VDOT Project Cost Estimating System. For projects not administered by the state, cost estimates are developed cooperatively through the RVTPO or responsible local government. Maintenance and construction program financial planning assumptions used for the FY 2021-2024 TIP are consistent with assumptions and distribution methodologies used for Vision 2040: Roanoke Valley Transportation.

4.0 Funding the TIP

§23 CFR 450.324(h) specifies the inclusion of a financial plan in the TIP that shows how the identified projects or project phases can reasonably be expected to be implemented, with the available public and private revenues. TIP projects or project phases are required to be consistent with the Constrained Long-Range Multimodal Transportation Plan (CLRMTTP) and must be fully funded in the TIP. To the extent that funding is available or shall be reasonably available, priority projects or project phases have been cooperatively selected for inclusion in this TIP. VDOT, DRPT, Valley Metro, RADAR and the RVTPO developed financial forecasts for the TIP based on the latest official planning assumptions and estimates of revenues and costs. The financial information is given by funding category for the projects listed and expected to be implemented during the four-year period beginning Fiscal Year 2021.

4.1 Funding Sources

The TIP funding summary table (Table 3) summarize by year and by funding source the revenue amounts estimated and committed for fiscal years 2021-2024. The table includes expenditures and estimated revenues expected for each funding source and show that the program is financially constrained by year. The financial summary tables are based on total funds available, which include annual allocations of funds including any state and local matching dollars. These revenue sources are all reasonably expected to be made available and committed to the project phase during the programmed year of the TIP.

Table 3: RVTPO Federal Funding Categories and Fiscal Constraint by Year: Roadway, Bicycle and Pedestrian Projects, Federal Fiscal Years 2021-2024

| Fund Source | FFY 2021 | | FFY 2022 | | FFY 2023 | | FFY 2024 | | TOTAL | |
|----------------------------|--------------------------------|---------------------|--------------------------------|---------------------|--------------------------------|--------------------|--------------------------------|--------------------|--------------------------------|---------------------|
| | Projected Obligation Authority | Planned Obligation | Projected Obligation Authority | Planned Obligation | Projected Obligation Authority | Planned Obligation | Projected Obligation Authority | Planned Obligation | Projected Obligation Authority | Planned Obligation |
| Federal | | | | | | | | | | |
| BR | \$75,000 | \$75,000 | \$1,198,091 | \$1,198,091 | \$0 | \$0 | \$0 | \$0 | \$1,273,091 | \$1,273,091 |
| HSIP | \$1,570,411 | \$1,570,411 | \$4,913,295 | \$4,913,295 | \$486,993 | \$486,993 | \$808,000 | \$808,000 | \$7,778,699 | \$7,778,699 |
| NHS/NHPP | \$3,186,600 | \$3,186,600 | \$0 | \$0 | \$150,000 | \$150,000 | \$1,551,807 | \$1,551,807 | \$4,888,407 | \$4,888,407 |
| RSTP (2) | \$4,938,986 | \$4,938,986 | \$2,591,666 | \$2,591,666 | \$6,256,729 | \$6,256,729 | \$566,913 | \$566,913 | \$14,354,294 | \$14,354,294 |
| STP/STBG | \$5,215,143 | \$5,215,143 | \$87,364 | \$87,364 | \$546,000 | \$546,000 | \$1,125,142 | \$1,125,142 | \$6,973,649 | \$6,973,649 |
| TAP | \$877,927 | \$877,927 | \$693,120 | \$693,120 | \$0 | \$0 | \$0 | \$0 | \$1,571,047 | \$1,571,047 |
| Subtotal -- Federal | \$15,864,067 | \$15,864,067 | \$9,483,536 | \$9,483,536 | \$7,439,722 | \$7,439,722 | \$4,051,862 | \$4,051,862 | \$36,839,187 | \$36,839,187 |
| Other | | | | | | | | | | |
| State Match | \$3,350,064 | \$3,350,064 | \$1,710,008 | \$1,710,008 | \$1,837,431 | \$1,837,431 | \$862,965 | \$862,965 | \$7,760,468 | \$7,760,468 |
| Subtotal -- Other | \$3,350,064 | \$3,350,064 | \$1,710,008 | \$1,710,008 | \$1,837,431 | \$1,837,431 | \$862,965 | \$862,965 | \$7,760,468 | \$7,760,468 |
| Total | \$19,214,131 | \$19,214,131 | \$11,193,544 | \$11,193,544 | \$9,277,153 | \$9,277,153 | \$4,914,827 | \$4,914,827 | \$44,599,655 | \$44,599,655 |

| | | | | | | | | | | |
|--------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|
| Federal - ACC (1) | | | | | | | | | | |
| HSIP | \$1,136,537 | \$1,136,537 | \$3,022,167 | \$3,022,167 | \$1,314,034 | \$1,314,034 | \$599,183 | \$599,183 | \$6,071,921 | \$6,071,921 |
| NHFP | \$0 | \$0 | \$0 | \$0 | \$1,381,181 | \$1,381,181 | \$0 | \$0 | \$1,381,181 | \$1,381,181 |
| NHS/NHPP | \$147,694 | \$147,694 | \$2,279,931 | \$2,279,931 | \$2,212,099 | \$2,212,099 | \$2,573,701 | \$2,573,701 | \$7,213,425 | \$7,213,425 |
| RSTP (2) | \$98,966 | \$98,966 | \$0 | \$0 | \$0 | \$0 | \$633,087 | \$633,087 | \$732,053 | \$732,053 |
| STP/STBG | \$0 | \$0 | \$1,987,090 | \$1,987,090 | \$0 | \$0 | \$0 | \$0 | \$1,987,090 | \$1,987,090 |
| Subtotal -- Federal - ACC (1) | \$1,383,197 | \$1,383,197 | \$7,289,188 | \$7,289,188 | \$4,907,314 | \$4,907,314 | \$3,805,971 | \$3,805,971 | \$17,385,670 | \$17,385,670 |

| | | | | | | | | | | |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
| Maintenance - Federal (4) | | | | | | | | | | |
| BR | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$1,000,000 | \$4,000,000 | \$4,000,000 |
| NHFP | \$2,500,000 | \$2,500,000 | \$2,500,000 | \$2,500,000 | \$0 | \$0 | \$0 | \$0 | \$5,000,000 | \$5,000,000 |
| NHS/NHPP | \$7,113,312 | \$7,113,312 | \$5,399,286 | \$5,399,286 | \$5,399,286 | \$5,399,286 | \$5,399,286 | \$5,399,286 | \$23,311,170 | \$23,311,170 |
| STP/STBG | \$27,244,307 | \$27,244,307 | \$26,068,877 | \$26,068,877 | \$30,021,568 | \$30,021,568 | \$31,070,795 | \$31,070,795 | \$114,405,547 | \$114,405,547 |
| Subtotal -- Maintenance - Federal (4) | \$37,857,619 | \$37,857,619 | \$34,968,163 | \$34,968,163 | \$36,420,854 | \$36,420,854 | \$37,470,081 | \$37,470,081 | \$146,716,717 | \$146,716,717 |

- (1) ACC -- Advance Construction -- Funding included in Federal Category based on year of AC Conversion
- (2) CMAQ/RSTP includes funds for TRANSIT projects
- (3) Statewide and/or Multiple MPO - Federal - Funding to be obligated in Multiple MPO Regions and/or Statewide for projects as identified
- (4) Maintenance Projects - Funding to be obligated for maintenance projects as identified

The following information provides an overview of the most common funding programs utilized in the development of the TIP.

Roadway, Bicycle and Pedestrian Funding Programs:

Advance Construction funds (AC) Advance construction can be used to fund emergency relief efforts and for any project listed in the Statewide TIP, including surface transportation, interstate, bridge, and safety projects. As with any Federal-aid project, to remain eligible for reimbursement, the agency must be able to meet project funding requirements to complete the project and follow all other Federal requirements as the project advances.

AC Conversion refers to the repayment of Advance Construction Funds.

ARRA - American Recovery and Reinvestment Act of 2009 provides federal funds to invest in transportation and other infrastructure projects that will provide long-term economic benefits, preserving and creating jobs and promoting economic recovery.

BR/BROS - Bridge Rehabilitation and Replacement program provides funding for bridge improvements. Eligibility for funding is based on a rating of bridge condition by VDOT as a candidate for upgrading.

DEMO - Federal Demonstration funds are included in federal transportation acts include demonstration, priority, pilot, or special interest projects in various Federal-aid highway and appropriations acts. These projects are generically referred to as "demonstration" or "demo" projects, because Congress initiated this practice of providing special funding for these projects to demonstrate some new or innovative construction, financing, or other techniques on specific projects.

EB - The Equity Bonus ensures that each State receives a specific share of the aggregate funding for major highway programs (Interstate Maintenance, National Highway System, Bridge, Surface Transportation Program, Highway Safety Improvement Program, Congestion Mitigation and Air Quality Improvement, Metropolitan Planning, Appalachian Development Highway System, Recreational Trails, Safe Routes to School, Rail-Highway Grade Crossing, Coordinated Border Infrastructure programs, and Equity Bonus itself, along with High Priority Projects), with every State guaranteed at least a specified percentage of that State's share of contributions to the Highway Account of the Highway Trust Fund.

HES - Hazard Elimination funds are contingent upon VDOT conducting and maintaining engineering surveys of all public roads to identify hazardous locations, sections, and elements, which may constitute a danger to motorists, bicyclists. VDOT may also develop and implement projects and programs to address the hazards. Federal funds are available for expenditure on: any public road; any public surface transportation facility or any publicly owned bicycle or pedestrian pathway or trail; or any traffic calming measure.

HPD - Highway Priority Demonstration TEA-21 High Priority Funds are federal funds made available to carry out high priority projects as set forth in the Transportation Efficiency Act for the 21st Century (TEA-21) legislation.

HSIP - Highway Safety Improvement Program (HSIP) is a data-driven, strategic approach program for infrastructure improvements for all highway travel modes. Emphasis is placed on strategies and actions with expected performance outcomes as documented in Virginia's Strategic Highway Safety Plan. There are three components to Virginia's HSIP program: 1) Highway Safety Program, 2) Bicycle and Pedestrian Safety Program, and 3) Highway-Rail Grade Crossing Safety Program.

IM - Interstate Maintenance (IM) program provides reconstruction, maintenance, and improvements to the National System of Interstate and Defense Highways. The Commonwealth Transportation Board (CTB) administers these programs.

NHPP - National Highway Performance Program (NHPP) provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in VDOT's asset management plan for the NHS.

NHS - National Highway System (NHS) projects can be funded only if they are on the National Highway System, which is established by Congress.

Non-Federal - Any funding that does not come from federal sources is grouped into the non-federal funding category.

STBG - Surface Transportation Block Grant Program (STBG, formerly RSTP) provides federal funding that may be used by states and localities for a wide range of highway and transit projects. STBG funds are STP funds that are apportioned to Transportation Management Area MPOs within a state. As a TMA MPO, the Roanoke Valley TPO Policy Board is responsible for awarding STBG funds for RVTPO candidate projects according to the RVTPO's STBG Project Development and Selection Procedures.

SAFETEA-LU - The Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users is the federal transportation bill that provides federal transportation funding to each state. The SAFETEA-LU funding category refers to funding earmarks that Congress included in the legislation for specific projects. This funding can only be used for the project(s) for which it is earmarked.

SMART SCALE - The System Management and Allocation of Resources for Transportation (Safety, Congestion, Accessibility, Land Use Coordination, Environment, Economic Development) is a competitive grant program whereby localities, PDCs, MPOs, and transit providers apply for capacity expansion transportation projects which will be fully funded in the Six-Year Improvement Program. Candidate projects are scored based on the six above listed factors and awarded by the Commonwealth Transportation Board.

STP - Surface Transportation Program (STP) can be utilized on any project located on a roadway that is classified higher than a minor collector. Projects eligible for funding under this program include construction, reconstruction, and rehabilitation, and bridge projects on any public road. Local STP funds are designated as L-STP.

SRTS - Safe Routes to School was a competitive grant program to enable and encourage children to safely walk and bicycle to school that via the FAST Act was incorporated under TAP. SRTS funds are used for infrastructure improvements and educational programs.

TAP - Transportation Alternatives Set-Aside Program funds have been made available for bicycle and pedestrian facilities through MAP-21. The Transportation Alternatives Program redefines the former Transportation Enhancement (TE) Program and consolidates these eligibilities with the Safe Routes to School and Recreational Trails program eligibilities. The program is intended to help local sponsors fund community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historical and environmental aspects of the transportation infrastructure. The program does not fund traditional roadway projects or provide maintenance for these facilities. Instead it focuses on providing for pedestrian and bicycle facilities, community improvements and mitigating the negative impacts of the highway system. Projects with EN have previous Transportation Enhancement funds attached to them.

Transit Funding Programs:

Section 5307

Federal Transit Administration formula grants for transit capital and operating assistance in urbanized areas.

Section 5310

Federal Transit Administration funds for private and non-profit organizations providing mass transportation services for the elderly and disabled.

Section 5311

Federal Transit Administration funds formula grants providing funding for public transit in non-urbanized areas with a population under 50,000.

Section 5314

Federal Transit Administration funds for research and demonstration programs to study, design, and demonstrate transit policies and advanced technologies.

Section 5339

Federal Transit Administration capital funding to replace, rehabilitate and purchase buses, vans and related equipment, and to construct bus-related facilities.

Flexible STP

Federal Highway Administration Surface Transportation Program (STP) funds provide flexible funding that may be used by States and localities for projects on any Federal-aid highway, bridge projects on any public road, transit capital projects, and bus terminals and facilities.

New Freedom

Federal Transit Administration funds for providing new public transportation services to overcome existing barriers facing Americans with disabilities seeking integration into the workforce and full participation into society.

SMART SCALE

The System Management and Allocation of Resources for Transportation: Safety, Congestion, Accessibility, Land Use Coordination, Environment, Economic Development (SMART SCALE) is a competitive grant program whereby localities, PDCs, MPOs, and transit providers apply for transportation projects which will be fully funded in the Six-Year Improvement Program. Applications are scored based on the six above listed factors.

STBG

Surface Transportation Block Grant Program (STBG, formerly RSTP) the Surface Transportation Program (STP) provides federal funding that may be used by states and localities for a wide range of highway and transit projects. STBG funds are STP funds that are apportioned to specific regions within a state. The Roanoke Valley Area TPO Policy Board is responsible for scoring and awarding STBG funds for RVTPO candidate projects.

The following table lists the acronyms for all potential funding sources.

Table 4: Acronyms for Funding Sources

| Abbreviation | Funding Source |
|---------------------|--|
| AC | <i>Advance Construction funds</i> |
| ARRA | <i>American Recovery and Reinvestment Act of 2009</i> |
| BR/BROS | <i>Bridge Rehabilitation and Replacement Program</i> |
| DEMO | <i>Federal Demonstration funds</i> |
| EB | Equity Bonus |
| HES | Hazard Elimination Funds |
| HPD | Highway Priority Demonstration |
| HSIP | Highway Safety Improvement Program |
| IM | Interstate Maintenance Program |
| NF | Non Federal funding |
| NHPP | National Highway Performance Program |
| NHS | National Highway System |
| STBG | Surface Transportation Block Grant Program |
| SAFETEA-LU | The Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users |
| SMART SCALE | System Management and Allocation of Resources for Transportation (Safety, Congestion, Accessibility, Land Use Coordination, Environment, Economic Development) |
| STP | Surface Transportation Program |
| SRTS | Safe Routes to School |
| TAP | Transportation Alternatives Set-Aside Block Grant Program |
| 5307 | Federal Transit Administration Section 5307 Funding |
| 5310 | Federal Transit Administration Section 5310 Funding |
| 5311 | Federal Transit Administration Section 5311 Funding |
| 5314 | Federal Transit Administration Section 5314 Funding |
| 5339 | Federal Transit Administration Section 5339 Funding |

4.2 Project Selection Overview

In Metropolitan Planning Areas (MPA), transportation projects selected for federal funding in the TIP must be consistent with the approved Metropolitan Transportation Plan ([Vision 2040: Roanoke Valley Transportation](#)). All projects which are regionally significant (serving regional transportation needs), must be contained within the MTP. In addition, the STIP submitted by the Commonwealth Transportation Board (CTB) to FTA and FHWA must be consistent with all the metropolitan TIPs.

As the Metropolitan Planning Organization (MPO) for the Roanoke Valley MPA, the RVTPO is responsible for project selection and allocation of funds under two federal funding programs – the Surface Transportation Block Grant Program (STBG) and the Transportation Alternatives Set-Aside Block Grant Program (TA).

4.2.1 Surface Transportation Block Grant Program

The Surface Transportation Block Grant Program: Roanoke Valley Urbanized Area Suballocation Funding (STBG), formerly referred to as the Regional Surface Transportation Program (RSTP) provides federal funding that may be used for a wide range of highway, transit, and other surface transportation projects. STBG funds are apportioned to large urban regions (200,000+ population) within a state. Among its functions, the RVTPO Policy Board is responsible for project selection and allocation of approximately \$5M/year under the 80% federally, 20% state-funded STBG program for the Roanoke Valley Urbanized Area. Since 2013, the RVTPO Policy Board has selected transportation projects funded by STBG. Projects funded through STBG are included in the TIP. Documentation of RVTPO Policy Board funding approvals or Transportation Technical

Committee funding adjustments related to STBG that take place during the timeframe of this TIP are included in Appendix H.

The RVTPO's STBG process is described in the [Surface Transportation Block Grant Program: Roanoke Valley Urbanized Area Suballocation Funding Project Development and Selection Procedures](#) included in Appendix G. By adopting and updating these Procedures, the RVTPO Policy Board acknowledges the "document serves as a guide to applicants, staff, and stakeholders regarding opportunities to apply for funding, financial adjustments to previous approved projects, policies related to the allocation and use of funds, the scheduling of related activities, and the process for the Policy Board's selection of projects" and, "...will use the Procedures to guide transportation investment decisions using STBG funds." ([RVTPO Resolution, April 25, 2019](#))

The RVTPO's STBG project selection is a cooperative process among its members. Amendments to 23 U.S.C funded projects and, particularly STBG funded projects, must be approved by the RVTPO Policy Board and the Commonwealth Transportation Board. This project selection process is consistent with [23 U.S.C. section 134\(j\)\(3\) and \(5\)\(a\)](#), and [23 CFR 450.330](#).

For more information, visit the [RVTPO STBG Funding Program](#) website at rvarc.org/stbg.

4.2.2 Transportation Alternatives Set-Aside Block Grant Program

The Fixing America's Surface Transportation (FAST) Act converts the long-standing Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBG), which includes a set-aside amount called the Transportation Alternatives or "TA Set-Aside" as set forth in 23 U.S.C. 133(h). The set-aside funding includes all activities that were previously eligible under TAP (Transportation Alternatives Program set forth in MAP-21), encompassing a variety of smaller-scale, non-traditional transportation projects. Administered by VDOT, these projects must focus on non-motorized transportation opportunities and enhancements to the transportation experience.

The program is intended to help local sponsors fund community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historical and environmental aspects of the transportation infrastructure. The program does not fund traditional roadway projects or provide maintenance for these facilities. Instead it focuses on providing for pedestrian and bicycle facilities, community improvements and mitigating the negative impacts of the highway system. TA Set-Aside is part of the Federal-aid Highway program. It is not a grant program and funds are only available on a reimbursement basis. This means the project sponsor must first incur project expenses and then request reimbursement.

The RVTPO was designated a Transportation Management Area (TMA) in 2012 and is involved in the solicitation and allocation of its apportionment of TA Set-Aside funds which is around \$530,000 for each two-year period. In 2018, the RVTPO approved the following policy regarding TA funds:

The Policy Board of the Roanoke Valley Transportation Planning Organization (RVTPO) will allocate Transportation Alternatives Set Aside Block Grant Program (TA) funding on a two-year application cycle, which conforms to Virginia Department of Transportation (VDOT) and Commonwealth Transportation Board policies. As the application and scoring period does not occur annually, but rather in odd years beginning with 2017, the RVTPO Policy Board will make applications based on two fiscal years of funding. Consistent with VDOT policies, the RVTPO TA allocations will include those made for both fiscal years' worth of funding with the

understanding that the first-year funds, if applicable, are "allocated" and the second-year awards are "committed". The second fiscal year funding will not be available for obligation or reimbursement until the next federal fiscal year. Under the two-year cycle, the maximum request is \$2 million per application.

Documentation of RVTPO Policy Board funding approvals related to TA Set-Aside funding that take place during the timeframe of this TIP are included in Appendix I for reference. For more information, visit the [RVTPO TA Program](http://rvarc.org/ta) website at rvarc.org/ta.

4.2.3 Commonwealth Transportation Board's Six-Year Improvement Program

Within the framework of metropolitan cooperation, the Commonwealth Transportation Board (CTB) has lead responsibility for selecting and programming federally funded Interstate Maintenance, Bridge, National Highway System, Statewide (non-metropolitan) STP, Safety, Enhancement, and certain FTA Section 5310 projects. Local governments, transit agencies, and the RVTPO Policy Board have lead responsibility for selecting projects (that are consistent with the RVTPO long-range plan and make progress toward achieving the RVTPO's performance targets) to submit for SMART SCALE or MERIT, the CTB's primary funding mechanisms for transportation projects.

The CTB adopts a Six-Year Program on an annual basis. The Six-Year Program (SYP) includes the VDOT and DRPT Six-Year Improvement Program (SYIP) and VDOT's Secondary Six-Year Program (SSYP) which includes maintenance projects on secondary system streets. These programs are developed by evaluation of existing and future needs based upon statewide and regional plans and projections, of project priorities for implementation of the transportation plan, and of public comment on transportation priorities.

Projects listed in the Six-Year Program are updated to reflect the latest revenue estimates, project costs, changes in priorities, and federal and state laws. Criteria used in selecting proposed projects are typically defined by the individual funding program. Stakeholders select projects for submittal to state-management funding programs and the RVTPO may endorse the projects at the time of submittal and/or as part of this TIP process. Projects selected for grant applications should consider the following elements as they are important when determining RVTPO project investment priorities.

- Conformance to the RVTPO adopted long-range transportation plan and consideration of member local governments/agencies plans and programs;
- MAP-21 planning factors:
 - Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
 - Increase the safety of the transportation system for motorized and non-motorized users;
 - Increase the security of the transportation system for motorized and non-motorized users;
 - Increase accessibility and mobility of people and freight;
 - Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
 - Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
 - Promote efficient system management and operation;
 - Emphasize the preservation of the existing transportation system;
 - Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
 - Enhance travel and tourism.
- Provision of funding for previously programmed projects in need of additional funds; and
- Comments received as part of the RVTPO Public Involvement Process.

5.0 Performance Measures Targets

Beginning in 2018, and pursuant to 23 CFR §450.306(d)(2), each MPO shall establish performance targets that address the performance measures or standards established under 23 CFR part 490 to use in tracking progress toward attainment of critical outcomes for the MPO region.

Beginning in the fall of 2017, the RVTPO has coordinated with VDOT, DRPT, Valley Metro, RADAR, the Federal Highway Administration, and the Federal Transit Administration to set and adopt performance measure targets. The target establishment dates vary based on the effective date of the federal Final Rule, the establishment of state targets by VDOT (no later than one year following effective date of Final Rule), and the development or acceptance of VDOT targets by the MPO (no later than 180 days after VDOT target is set).

The table below shows the timeline of target rollout.

Table 5: Performance Measures and Target Deadlines

| Rule and Effective Date(s) | Performance Measures |
|---|--|
| Safety Final Rule published 1/15/16. Effective date 1/14/16. RVTPO adopted PM targets 1/25/18. | 1. Number of fatalities 2. Fatality rate (per 100 million VMT) 3. Number of serious injuries 4. Serious injury rate (per 100 million VMT) 5. Number of non-motorized fatalities and serious injuries. |
| Pavement and Bridge Final Rule published 1/18/17. Effective date 5/20/17. RVTPO adopted PM targets 10/25/18. | 1. % of pavements on the Interstate system in good condition 2. % of pavements on the Interstate system in poor condition 3. % of pavements on the non-Interstate NHS in good condition 4. % of pavements on the non-Interstate NHS in poor condition 5. % of NHS bridges classified as in good condition 6. % of NHS bridges classified as in poor condition |
| Highway System Performance Final Rule published 1/18/17. Effective date 5/20/17. RVTPO adopted PM targets 10/25/18. | 1. % of person miles traveled on the Interstate system that are reliable 2. % of person miles traveled on the non-Interstate NHS that are reliable 3. % of Interstate system mileage providing for reliable truck travel times (Truck Travel Time Reliability) |
| Transit Asset Management Final Rule published 7/26/16. Effective date 10/1/16. RVTPO adopted PM targets 10/25/18. | 1. % of revenue vehicles that have met or exceeded their useful life benchmark 2. % of non-revenue vehicles that have met or exceeded their useful life benchmark 3. Percentage of facilities rated in poor condition |
| Public Transit Agency Safety Plan Final Rule published 7/19/18. Effective date 7/19/19. RVTPO adopted PM targets 1/28/21. | 1. Fatalities (total number of reportable fatalities per year) 2. Fatalities (rate per total vehicle revenue miles by mode) 3. Injuries (total number of reportable injuries per year) 4. Injuries (rate per total vehicle revenue miles by mode) 5. Safety events (total number of safety events per year) 6. Safety events (rate per total vehicle revenue miles by mode) 7. System Reliability: Distance between Major Failures 8. System Reliability: Distance between Minor Failures |

Regarding the new performance measures targets and their relationship to the TIP, and pursuant to 23 CFR §450.326(c) and (d):

(c) The TIP shall be designed such that once implemented, it makes progress toward achieving the performance targets established under §450.306(d).

(d) The TIP shall include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the performance targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets.

Concurrent amendments to the 2040 Constrained Long-Range Multimodal Transportation Plan (CLRMTP) have and will be made to describe, in detail, performance measures and targets and to provide a system performance report current to the time of most recent CLRMTP adoption. Metropolitan Planning Organizations have the option to create their own Performance Targets or adopt those developed by VDOT. The RVTPO has adopted the VDOT and VDRPT targets for the required performance measures applicable to the RVTPO study area.

5.1 Safety Performance Measures

The Virginia 2017-2021 Strategic Highway Safety Plan (SHSP) provides a comprehensive framework for Virginia stakeholders to address transportation-related crashes. The vision for the plan is for every road user, whether driving, walking, bicycling, or taking transit, to “Arrive Alive” at their destination. The Virginia Department of Transportation and other state safety stakeholders will accomplish this by addressing the most pressing safety issues, through a combination of safety programs and projects. Within the CLRMTP and other short- and long-range transportation planning and programming activities, the RVTPO can apply information from the SHSP and the results of regional crash analysis to support investments that render regional and local travel safer and ultimately contribute to the “Arrive Alive” vision.

The Virginia SHSP is a data-driven plan which establishes a framework of emphasis areas, strategies, and actions to guide stakeholders toward the implementation of effective programs and projects. Key factors contributing to crashes are impaired driving, speed, occupant protection, roadway departures, intersections, young drivers, bicycles, and pedestrians. Each of these emphasis areas is supported by a range of multi-disciplinary (engineering, enforcement, education, and emergency response) strategies and actions to characterize effective solutions.

To follow-up on the Virginia SHSP, in August 2019, the RVTPO conducted a Roanoke Valley Regional Safety Study with crash locations and potential countermeasures. The Study identifies regional safety needs to guide improvements.

Federal legislation in 23 CFR §450.306(d)(2) requires the RVTPO to adopt or define five evidence-based safety performance measures and accompanying targets. The purpose of the targets is to help VDOT, and regional planning agencies, including the RVTPO, prioritize programs and projects that will reduce transportation-related fatalities and serious injuries. On January 25, 2018, the RVTPO adopted VDOT’s five-year performance targets for the following five performance measures:

| Performance Measure | 2011-2015 Performance | Target Reduction | 2013-2017 Target |
|---|-----------------------|------------------|------------------|
| Number of fatalities, 5-year rolling average | 16 | 2% reduction | 15 |
| Rate of fatalities, 5-year rolling average | 0.84 | 1.25% reduction | 0.79 |
| Number of serious injuries, 5-year rolling average | 215 | 5% reduction | 144 |
| Rate of serious injuries, 5-year rolling average | 11.17 | 11.5% reduction | 7.47 |
| Number of non-motorized fatalities and non-motorized serious injuries, 5-year rolling average | 18 | 4% reduction | 16 |

Strategies to meet safety performance measure targets are built into funding programs that utilize federal funds. Such programs include the Highway Safety Improvement Program (HSIP), System Management and Allocation of Resources for Transportation Safety Congestion Accessibility Land Use Economic Development Environment (SMART SCALE), and the Regional Surface Transportation Program (RSTP). The RVTPO and its member localities coordinate with the VDOT Salem District to identify improvements eligible for funding through HSIP. This includes corridor-specific and district-wide investments to deploy roadway departure countermeasures (signs, flashers, lighting, rumble strips) and traffic signal upgrades.

Virginia’s SMART SCALE prioritization program awards points to projects for estimated reductions in fatality and serious injury crashes. When allocating STBG funds, the projects that are perceived to increase safety and security of the transportation system are ranked higher than others for that scoring criteria. In addition, the VDOT Construction Districts also have the flexibility to address safety considerations, such as rumble strips or striping in coordination with resurfacing projects.

5.2 Pavement and Bridge Performance Measures

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established pavement and bridge condition performance targets as reported in Virginia’s Baseline Performance Period Report for 2018-2021¹. This report, submitted to FHWA in October 2018, satisfies the federal requirement that State DOTs submit a Baseline Performance Period Report to FHWA by October 1st of the first year in a performance period. Performance measures for pavement condition are required for the National Highway System (NHS), while bridge condition requirements relate to structures identified as part of the National Bridge Inventory on the NHS. The pavement condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 6.

Table 6: Pavement Condition Measures and Performance Targets

| Interstate Pavement Condition Measures ² | CY 2018-2019 Two-Year Target | CY 2018-2021 Four-Year Target |
|---|------------------------------|-------------------------------|
| Percentage of Pavements in Good Condition | N/A ³ | 45.0% |
| Percentage of Pavements in Poor Condition | N/A ³ | 3.0% |
| Non-Interstate NHS Pavement Condition Measures ⁴ | 2018-2019 Two-Year Target | 2018-2021 Four-Year Target |
| Percentage of Non-Interstate Pavements in Good Condition | 25.0% | 25.0% |
| Percentage of Non-Interstate Pavements in Poor Condition | 5.0% | 5.0% |

Bridge condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 7.

¹ Virginia’s Baseline Performance Period Report data is through December 2017.

² Interstate condition measures are based on four distresses: International Roughness Index (IRI), cracking, rutting, and faulting.

³ During this first performance period, States are not required to establish 2-year targets for interstate pavements; however, Virginia has chosen to establish performance targets and are 45.0% and 3.0% for percentage of pavements in good and poor condition, respectively.

⁴ During this first performance period, Federal requirements for Non-Interstate NHS pavement condition and performance targets are based on a single distress, IRI. However, Federal guidance outlined in a September 27, 2018 Memorandum on State DOT Targets for Non-Interstate NHS Pavement Measures allows for the use of full distress data when reporting Non-Interstate NHS performance targets. Given the availability of full distress data, Virginia has chosen this approach and reported performance targets for Non-Interstate NHS pavements based on all four distresses. This allows for consistency in assessing the condition and setting performance targets for both Interstate and Non-Interstate NHS pavements.

Table 7: NHS Bridge Condition Measures and Performance Targets

| NHS Bridge Condition Measures | CY 2018-2019 Two-Year Target | CY 2018-2021 Four-Year Target |
|---|---|--|
| Percentage of Deck Area of NBI Bridges on the NHS in Good Condition | 33.5% | 33.0% |
| Percentage of Deck Area of NBI Bridges on the NHS in Poor Condition | 3.5% | 3.0% |

Table 8: Pavement Condition Measures, Four-Year Targets, and RVTP0 2019 Data

| Interstate Pavement Condition Measures | CY 2018-2021 Four-Year Target | RVTP0 2019 Data |
|--|--|----------------------------|
| Percentage of Pavements in Good Condition | 45.0% | 39.0% |
| Percentage of Pavements in Poor Condition | 3.0% | 0.10% |
| Non-Interstate NHS Pavement Condition Measures | 2018-2021 Four-Year Target | RVTP0 2019 Data |
| Percentage of Non-Interstate Pavements in Good Condition | 25.0% | 42.8% |
| Percentage of Non-Interstate Pavements in Poor Condition | 5.0% | 0.30% |

Table 9: Bridge Condition Measures, Four-Year Targets, and RVTP0 2019 Data

| NHS Bridge Condition Measures | CY 2018-2021 Four-Year Target | RVTP0 2019 Data |
|---|--|----------------------------|
| Percentage of Deck Area of NBI Bridges on the NHS in Good Condition | 33.0% | 10.7% |
| Percentage of Deck Area of NBI Bridges on the NHS in Poor Condition | 3.0% | 6.7% |

5.3 “Highway System Performance” Performance Measures

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established performance targets for three reliability performance measures to assess the Highway System Performance. All three measures are included in Virginia’s Baseline Performance Period Report for 2018-2021 which was submitted to FHWA in October 2018. This report satisfies the federal requirement that State DOTs submit a Baseline Performance Period Report to FHWA by October 1st of the first year in a performance period and establishes baseline performance as of December 31, 2017.

Performance of the NHS is measured by the level of travel time reliability. The travel time reliability performance measures and performance targets for the 2018-2021 performance period are indicated in Table 10.

Table 10: National Highway System Travel Time Reliability Performance Measures and Targets

| NHS Travel Time Reliability Performance | CY 2018-2019 Two-Year Target | CY 2018-2021 Four-Year Target |
|--|---|--|
| Percent of Person Miles Traveled on the Interstate that are Reliable | 82.2% | 82.0% |
| Percent of Person Miles Traveled on the Non-Interstate NHS that are Reliable | N/A ¹ | 82.5% |

The assessment for freight reliability is based on the truck travel time reliability index. The truck travel time reliability performance measure and performance targets for the 2018-2021 performance period are indicated in Table 11 below.

Table 11: Freight Reliability Performance Measure and Targets

| Truck Travel Time Reliability Performance | CY 2018-2019 Two-Year Target | CY 2018-2021 Four-Year Target |
|--|---|--|
| Truck Travel Time Reliability Index | 1.53 | 1.56 |

5.4 Transit Asset Management Performance Measures

The National Transit Asset Management System Final Rule (49 U.S.C 625) specifies four performance measures, which apply to four TAM asset categories: equipment, rolling stock, infrastructure, and facilities. Table 12 describes each of these measures.

Table 12: TAM Performance Measures by Asset Category

| Asset Category | Relevant Assets | Measure | Measure Type | Desired Direction |
|-----------------------|---|---|---------------------|--------------------------|
| Equipment | Service support, maintenance, and other non-revenue vehicles | Percentage of vehicles that have met or exceeded their ULB | Age-based | Minimize percentage |
| Rolling Stock | Buses, vans, and sedans; light and heavy rail cars; commuter rail cars and locomotives; ferry boats | Percentage of revenue vehicles that have met or exceeded their ULB | Age-based | Minimize percentage |
| Facilities | Passenger stations, parking facilities, administration and maintenance facilities | Percentage of assets with condition rating lower than 3.0 on FTA TERM Scale | Condition-based | Minimize percentage |

FTA = Federal Transit Administration. TAM = Transit Asset Management. TERM = Transit Economic Requirements Model. ULB = Useful Life Benchmark.

Two definitions apply to these performance measures:

- **Useful Life Benchmark (ULB)**—“The expected lifecycle of a capital asset for a particular transit provider’s operating environment, or the acceptable period of use in service for a particular transit provider’s operating environment.” For example, FTA’s default ULB of a bus is 14 years.
- **FTA Transit Economic Requirements Model (TERM) Scale**—A rating system used in FTA’s TERM to describe asset condition. The scale values are 1 (poor), 2 (marginal), 3 (adequate), 4 (good), and 5 (excellent).

The National Transit Asset Management System Final Rule (49 U.S.C. 625) requires that all transit agencies that receive federal financial assistance under 49 U.S.C. Chapter 53 and own, operate, or manage capital assets used in the provision of public transportation create a TAM plan. Agencies are required to fulfill this requirement through an individual or group plan. The TAM rule provides two tiers of requirements for transit agencies based on size and operating characteristics:

- A Tier I agency operates rail OR has 101 vehicles or more all fixed route modes OR has 101 vehicles or more in one non-fixed route mode.
- A Tier II agency is a subrecipient of FTA 5311 funds OR is an American Indian Tribe OR has 100 or less vehicles across all fixed route modes OR has 100 vehicles or less in one non-fixed route mode.

The Department of Rail and Public Transportation (DRPT) is the sponsor for the Statewide Tier II Group Plan. The Roanoke Valley Transportation Planning Organization programs federal transportation funds for the Greater Roanoke Transit Company (Valley Metro), Unified Human Services Transportation Systems, Inc. (RADAR), and Lutheran Family Services of Virginia. Greater Roanoke Transit Company/Valley Metro is a Tier II agency participating in the DRPT sponsored group TAM Plan. The RVTPO has integrated the goals measures and targets described in the [Federal Fiscal Year 2018 Group Transit Asset Management Plan and 2020 plan Addendum](#) into the RVTPO’s planning and programming process; specific targets for the Tier II Group TAM Plan are included in the following table.

Table 13: TAM Targets for rolling stock and facilities: Percentage of Revenue Vehicles that have met or exceeded their ULB by Asset Type

| Asset Category - Performance Measure | Asset Class | 2020 Target* |
|---|---|--------------|
| Revenue Vehicles | | |
| Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB) | AB - Articulated Bus | 15% |
| | BU - Bus | 10% |
| | CU - Cutaway | 10% |
| | MB - Minibus | 20% |
| | BR - Over-the-Road Bus | 15% |
| | TB - Trolley Bus | 10% |
| | VN - Van | 25% |
| Equipment | | |
| Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB) | Non-Revenue/Service Automobile | 25% |
| | Trucks and other Rubber Tire Vehicles | 25% |
| Facilities | | |
| Condition - % of facilities with a condition rating below 3.0 on the FTA TERM Scale | Administrative and Maintenance Facility | 10% |
| | Administrative Office | 10% |
| | Maintenance Facility | 10% |
| | Passenger Facilities | 10% |

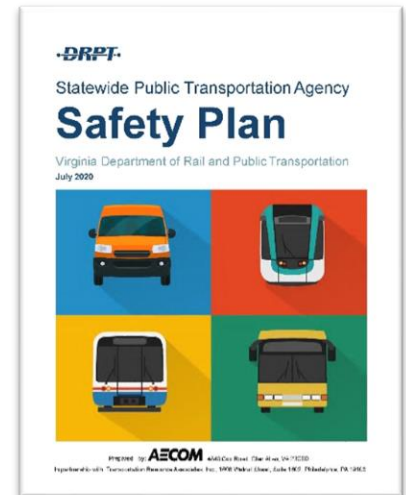
*2020 TAM Plan

performance measure targets are pending RVTPO approval.

5.5 Public Transit Agency Safety Plan

The Public Transportation Agency Safety Plan (PTASP) final rule (49 C.F.R. Part 673) intends to improve public transportation safety by guiding transit agencies to more effectively and proactively manage safety risks in their systems. It requires certain recipients and sub-recipients of Federal Transit Administration (FTA) grants that operate public transportation to develop and implement safety plans that, establish processes and procedures to support the implementation of Safety Management Systems (SMS).

The rule applies to all operators of public transportation systems that are recipients and sub-recipients of FTA grant funds. Specifically, recipients or sub-recipients who operate public transportation and are a recipient or sub-recipient of Urbanized Area Formula Grant Program funds under the Section 5307 Grant Program.



The Virginia Department of Rail and Public Transportation (DRPT) adopted a PTASP on behalf of small Tier II transportation providers, of which Valley Metro belongs, on August 11, 2020. Tier II transit agencies must set their safety targets in the safety plan for each fixed-route and paratransit mode for the following performance measures:

1. Fatalities (total number of reportable fatalities per year)
2. Fatalities (rate per total vehicle revenue miles by mode)
3. Injuries (total number of reportable injuries per year)
4. Injuries (rate per total vehicle revenue miles by mode)
5. Safety events (total number of safety events per year)
6. Safety events (rate per total vehicle revenue miles by mode)
7. System Reliability: Distance between Major Failures
8. System Reliability: Distance between Minor Failures

All MPOs with transit agencies participating in the Tier II PTASP must reference performance targets and plans within their Transportation Improvement Program (TIP) and Long-Range Plan. The Safety performance targets and performance-based plans should inform a transit agency's investment priorities, and those investment priorities should be carried forward within the MPO's and State DOT's planning processes.

The performance measures and their targets, by mode, were transmitted to staff by DRPT and are as follows:

| Performance Measures | Targets by Mode | |
|---|--|--|
| | Fixed Route | Paratransit/ Demand Response |
| Fatalities (total number of reportable fatalities per year) | 0 | 0 |
| Fatalities (rate per total vehicle revenue miles by mode) | 0 | 0 |
| Injuries (total number of reportable injuries per year) | 9 | 3 |
| Injuries (rate per total vehicle revenue miles by mode) | Less than .5 injuries per 100,000 vehicle revenue miles | Less than .5 injuries per 100,000 vehicle revenue miles |
| Safety events (total number of safety events per year) | 17 | 8 |
| Safety events (rate per total vehicle revenue miles by mode) | Less than 1 reportable event per 100,000 vehicle revenue miles | Less than 1 reportable event per 100,000 vehicle revenue miles |
| System Reliability: Distance between Major Failures | 10,000 miles | 3,200 miles |
| System Reliability: Distance between Minor Failures | 10 000 miles | 3,200 miles |

6.0 Roadway, Bicycle, and Pedestrian Projects

This section summarizes the TIP roadway, bicycle, and pedestrian projects. Although some projects listed here may have already been constructed, the financials are not complete which is why they are still included in the TIP. More detailed project information is provided in Appendices A and B. The *August 2020 Project Status* column indicates the project phase based on financial obligations to it at that time.

The tables below list the TIP projects by locality and by ungrouped vs. grouped projects by category. More information about the project groupings can be found in VDOT's STIP Procedures Document (July 2019 version) available online (<http://www.virginia-dot.org/about/stip.asp>).

6.1 Bedford County

Group - Construction: Bridge Rehabilitation/Replacement/Reconstruction

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-----------|-------|--|--|--------------|--------------|----------------------------|
| Secondary | 62650 | Rte. 634 over Roanoke River Bridge Replacement | From 0.19 mi. W. of Franklin Co. line to 0.12 mi. E. of Bedford Co. line (0.300 mi.) | Route 634 | \$12,982,098 | Completed |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|--|--|--------------|-------------|----------------------------|
| Primary | 107053 | Rte. 24 – Bedford Co. Safety Improvements | From: 0.152 mi. W. of Rte. 886 To: 0.156 mi. W. of Rte. 635 South (Spradlin Rd.) | VA Route 24 | \$1,681,569 | Completed |
| Primary | 107063 | Rt. 221 Bedford Co. - Bike & Ped Safety Improvements | From: 0.17 mi. W. along Rte. 663 from Int. w/ Rte. 221 To: Int. of Rte. 221 and Rte.1425 | U.S. 221 | \$2,550,000 | Right-of-Way Acquisition |
| Primary | 109582 | US 460 Safety Improvements: HSIP | From: Rte. 741 (Beale Trail Rd. / Little Patriot Dr.) To: Rte. 689 (Johnson School Rd.) | U.S. 460 | \$4,510,000 | Preliminary Engineering |

6.2 Botetourt County

Ungrouped Projects

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|-------|---|--|--------------|--------------|----------------------------|
| Interstate | 75910 | U.S. 11, 220, 220A Access Management Project at I-81 Exit 150 | From 0.30 mi. S. of U.S. 220 to 0.74 mi. N. of U.S. 220 (1.0410 mi.) | I-81 | \$50,321,303 | Completed |

Group - Construction: Bridge Rehabilitation/Replacement/Reconstruction

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-----------|-------|--|--|--------------|-------------|----------------------------|
| Primary | 77300 | Rte. 11 over Tinker Creek Bridge Replacement (Str. 03166) | From 0.02 mi. N. of Rte. 1039 to 0.13 mi. N. of Rte. 1039 (0.09 mi.) | U.S. 11 | \$5,018,555 | Completed |
| Primary | 77302 | Rte. 11 over Tinker Creek Bridge Replacement (Str. 3167) | From Rte. 838 to 0.09 mi. N. of Rte. 838 (0.09 mi.) | U.S. 11 | \$3,803,513 | Completed |
| Secondary | 52803 | Rte. 779 Intersection Improvements & Bridge over Amsterdam Creek | From 0.169 mi. E. Rte. 672 E. to 0.236 mi. W. Rte. 672 East (0.4213 mi.) | Rte. 779 | \$7,857,623 | Completed |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|--|--|--|--------------|----------------------------|
| Primary | 115457 | Rte. 220 at International Pkwy. Intersection | From: 0.25 mi. N International Pkwy. To: 0.25 mi N International Pkwy. (2020 SMART SCALE project) | Roanoke Rd. | \$4,551,000 | Not Started |
| Primary | T24740 | Route 220 Superstreet Improvement | Convert crossovers along the Route 220 Corridor in Daleville to RCUT's to provide a superstreet concept. | U.S. 220 from Tinker Mountain Dr. to Rte. 779. | \$15,461,000 | Not Started |
| Primary | 110887 | US 220 Access Management Project | Build series of innovative intersections to improve access management & mitigate congestion on US 220 between Daleville & I-81 | U.S. 220 between Daleville and I-81 | \$10,196,000 | Not Started |

Group - Construction: Transportation Enhancement/Byway/Non-Traditional

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-------------|--------|--------------------------|---|--------------|-----------|----------------------------|
| Enhancement | 107521 | Daleville Greenway - TAP | From Glebe Rd. (Rte. 675) to Orchard Lake Dr. (Rte. 1035) | Greenway | \$595,438 | Preliminary Engineering |

6.3 Montgomery County

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|--|---|--------------|--------------|----------------------------|
| Interstate | 92558 | Rte. 603 – Ironto / Elliston Connector | From I-81 Exit 128 to Int. of U.S.11/460 (2.011 mi.) | Route 603 | \$15,831,822 | Completed |
| Primary | 110624 | #SGR18 – Rte. 11 over NSRR (Str. 12118) - Deck Replacement | From: 0.4 Mi. North of Big Spring Drive To: 0.4 Mi. South of North Fork Road | U.S. 11 | \$2,632,000 | Construction |

6.4 Roanoke County

Ungrouped Projects

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|---|---|-------------------------|---------------|----------------------------|
| Interstate | 111373 | I-81 SB Auxiliary Lane from Exit 143 to 141 | Add one lane on I-81 SB - From: 0.009 Mi. E. of Int. N. Electric Rd. To: 0.026 Mi. W. of Int. SBL I-81 Entrance Ramp (2018 SMART SCALE project) | I-81 | \$32,168,111 | Construction |
| Interstate | 116197 | #I81CIP Add NB Lane between Exit 128 and Exit 137 (ID #32) | From: MM 128 To: MM 136 | I-81 | \$265,372,000 | Not Started |
| Primary | 17698 | Rte. 11/460 – Widen to 4-lane w/ curb, gutter and raised median | From 0.055 mi. E. of WCL Salem to 0.10 mi. W. Rte. 830 (2.1880 mi.) | West Main St. / U.S. 11 | \$46,124,165 | Completed |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--|--|--------------------------|-------------|----------------------------|
| Primary | 108905 | Lila Dr / Rte. 115 Intersection Safety Improvements | From: Lila Drive To: Rte. 115 (Plantation Rd.) (0.1000 mi.) (2017 HB2/SMART SCALE project) | Plantation Rd. /115 | \$1,398,000 | Construction |
| Primary | 113947 | Pedestrian Improvements on Rte. 11 (Williamson Rd) | From: Clubhouse Drive To: 0.2 mi. S. of Greenway Drive | Williamson Rd. / U.S. 11 | \$750,000 | Not Started |
| Miscellaneous | 113567 | Roanoke River Greenway - Explore Park to Rutrough Road | Construction of greenway through Explore Park to Rutrough Point. | Explore Park | \$3,020,308 | Preliminary Engineering |

Group - Construction: Bridge Rehabilitation/Replacement/Reconstruction

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-----------|--------|---|---|--------------|--------------|----------------------------|
| Primary | 77305 | Rte. 116 over Back Creek (Str. 14928) – Bridge Replacement | From 0.293 mi. S. Rte. 945 to 0.564 mi. S. Rte. 945 | Rte. 116 | \$7,171,589 | Completed |
| Primary | 82193 | U.S. 220 over Back Creek (Str. 14935) – Bridge Replacement | From 0.199 mi. S. of Rte. 657 to 0.311 mi. N. of Rte. 657 | U.S. 220 | \$18,885,090 | Construction |
| Primary | 94726 | U.S. 221 over Martins Creek (Str. 14945) – Bridge Replacement | From 0.03 mi. S. of Int. of Rte. 696 to 0.07 mi. N. Int. Rte. 696 | U.S. 221 | \$3,647,913 | Construction |
| Secondary | 115473 | #SGR17 – Rte. 813 over Roanoke River (Str. 12363) Sub Repairs | From: 0.10 Mile from Int. Rte. 11/460 To: 0.18 Mile from Int. Rte. 11/460 | Rte. 813 | \$2,411,000 | Preliminary Engineering |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|--|---|--------------|--------------|----------------------------|
| Interstate | 99542 | I-81 Exit 140 Park & Ride Expansion & Construct New Sidewalk | From Int. Rte. 1128 and Rte. 1150 to 0.17 mi. W. of Int. Rte. 1128 and 1150 (0.17 mi.) | I-81 | \$3,353,309 | Completed |
| Interstate | 108906 | I-81 NB Auxiliary Lane from Exit 141 to 143 | Add one lane on I-81 NB - From: 0.026 Mi. West of Int. SBL I-81 Entrance Ramp To: I-81 (2017 HB2/SMART SCALE project) | I-81 | \$29,830,716 | Construction |
| Interstate | 113173 | I-81 Exit 137 SB Safety Improvements | From: Beginning of I-81 Exit 137 SB Off-Ramp To: End of I-81 Exit 137 SB Off-Ramp | I-81 | \$1,720,000 | Construction |
| Interstate | 115937 | #I-81 CIP -- MM139 to MM141 adding lane in each direction | From: Red Ln. Overpass To: 0.3 Mi North of Electric Rd. | I-81 | \$78,460,688 | Not Started |
| Interstate | 116201 | #I-81 CIP - MM 144 to Exit 150 adding NB and SB lanes | From: I-81 MM 144 To: I-81 MM 151 | I-81 | \$44,250,256 | Not Started |
| Interstate | 116203 | #I-81 - MM136 to MM139 adding lane in each direction | From: I-81 Exit 137 Interchange To: Red Ln. Overpass | I-81 | \$61,569,556 | Not Started |
| Primary | 107054 | Rte. 311 -Roanoke County Pedestrian Safety Improvements | From NCL Salem to 0.02 mi. N. of I-81 SB ramp (0.09 mi.) | Rte. 311 | \$607,000 | Completed |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|---|--|--|--------------|----------------------------|
| Primary | 107061 | Rte. 419 Safety Improvements at Tanglewood | From: 0.45 Mile South of Int. of Route 11 & Route 117 To: Int. of Route 11 & Route 117 (2017 HB2/SMART SCALE project) | Rte. 419 | \$7,040,000 | Construction |
| Primary | 107055 | Route 11 & 117 Roanoke Co. - Pedestrian Safety Improvements | From Rte. 117 to U.S. 11 | Rte. 117 and U.S. 11 | \$1,503,000 | Right-of-Way Acquisition |
| Primary | 111407 | Rte. 419 & Rte. 221 Adaptive Traffic Control | From: Rte. 221 To: Rte. 419 (2018 SMART SCALE project) | Rte. 419 | \$663,000 | Completed |
| Primary | 119449 | Route 460 Intersections from Carson Rd. to Huntridge Rd. | Improve a series of four intersections with Innovative Intersections to include the following: RCUT at Carson Rd., Seagull at E. Ruritan Rd., RCUT at Country Corner and access changes at Huntridge Rd. Pedestrian accommodations may also be provided. | U.S. 460 (Challenger Dr.) bet. int. of Carson & Huntridge Rds. | \$2,767,000 | Not Started |
| Primary | 119450 | Route 460 at West Ruritan Road Intersection Improvements | Construct a Thru-Cut at the intersection of U.S. 460 & W. Ruritan Rd. to prohibit NB and SB movements to cross U.S. 460. Movements will make U-turns at Blue Hills Village Dr. & Valley Gateway Blvd. | U.S. 460 (Challenger Dr.) bet. int. of W. Ruritan Rd. & Valley Gateway Blvd. | \$7,537,000 | Not Started |
| Primary | 115460 | Rte. 419 & Rte. 220 Diverging Diamond Interchange | From: 0.13 Mi. W. Rte. 220 To: 0.23 Mi. E. Rte. 220 (2020 SMART SCALE project) | Rte. 419 | \$17,505,001 | Preliminary Engineering |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-----------|--------|---|---|---------------------------------------|--------------|----------------------------|
| Secondary | 15187 | Rte. 1662 - Reconstruction & Replace Bridge over Mud Lick Creek | From: Int. of Rte. 1663 To: Int. of Rte. 419 | McVitty Rd. | \$4,474,000 | Right-of-Way Acquisition |
| Secondary | 15188 | Rte. 1663 - Reconstruct; Drainage Struct/Branch Mud Lick Creek | South Int. Rte. 221 | Int. of Rte. 1662 | \$687,170 | Right-of-Way Acquisition |
| Secondary | 15190 | Rte. 688 - Reconstruction | 0.056 Mi. S Rte. 221 | 0.105 Mi. S Rte. 934 | \$5,895,794 | Completed |
| Primary | 119462 | Route 419 Streetscape Improvements, Phase 2 | Improvements between Ogden & Starkey Rds. include converting north and south shoulders to shared through/right turn lanes, sidewalks and bicycle lanes on the north and south sides, and pedestrian signals w/crosswalks at the Starkey Rd. intersection. | Route 419 bet. Ogden Rd. and U.S. 220 | \$18,469,000 | Not Started |
| Urban | T24550 | Oak Grove Streetscape Improvements | This project includes pedestrian crosswalks and signals at the intersection of 419/Carriage/Grandin. | Rte. 419, Carriage Rd., Grandin Rd. | \$137,000 | Not Started |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|---|--|---|-------------|----------------------------|
| Urban | 119468 | Valleypointe Parkway Realignment | Widen Valleypointe Pkwy. from 2 to 4 lanes bet. N. Concourse Dr. & Wood Haven Rd., align roadway w/entrance road to Green Ridge, extend/construct turn lanes, construct sidewalk/ crosswalk from N. Concourse Dr. connecting sidewalk @ Green Ridge. | Valleypointe Pkwy. From Concourse Dr. to Int. of Wood Haven Rd. | \$9,837,000 | Not Started |
| Urban | 113144 | Starkey Road/Buck Mountain Road Intersection Improvements | Convert the unsignalized "T" intersection at Starkey Road and Buck Mountain Road to a single lane roundabout. Pedestrian accommodations are included in the design to extend along each leg and to the Branderwood subdivision. | Int. of Starkey Rd. & Buck Mountain Rd. | \$5,841,000 | Preliminary Engineering |

Group - Construction: Transportation Enhancement/Byway/Non-Traditional

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-------------|--------|--|--|------------------------|-------------|----------------------------|
| Urban | 111366 | Plantation Rd. Bike/ Ped/ Streetscape Phase II | From: Walrond Dr. To: Gander Way (2020 SMART SCALE project) | Route 115 | \$2,101,000 | Right-of-Way Acquisition |
| Enhancement | 91191 | Roanoke River Greenway – City of Roanoke to Rte. 618 | From: City of Roanoke To: Rte. 618 (Highland Rd.) | Roanoke River Greenway | \$6,857,566 | Right-of-Way Acquisition |
| Enhancement | 97171 | Roanoke County, RRG, Green Hill Park to Riverside Park | From Green Hill Park to Riverside Park (1.7330 mi.) (2017 HB2/SMART SCALE project) | Roanoke River Greenway | \$8,014,409 | Right-of-Way Acquisition |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|---|--|---------------------------------|-------------|----------------------------|
| Enhancement | 103607 | Roanoke County, Plantation Road Streetscape Improvements | From: Williamson Road (Route 11) To: Gander Way / Friendship Ln. | Plantation Rd. (Route 115) | \$2,654,000 | Completed |
| Enhancement | 110155 | Roanoke River Greenway - Blue Ridge Parkway to Explore Park | Construction of greenway from Blue Ridge Parkway to Explore Park | RVRA Rutrough Road Landfill | \$1,734,000 | Construction |
| Enhancement | 111317 | Williamson Rd. Sidewalk Improvements | From: Peters Creek Rd. To: Plantation Rd. (2020 SMART SCALE project). | U.S. 11/ Williamson Rd. | \$1,934,000 | Preliminary Engineering |
| Enhancement | 113356 | Roanoke River Greenway Parkway Crossing | Construction of greenway from 3204 Highland Rd. to 3404 Rutrough Rd. | Highland Rd. to Rutrough Rd. | \$1,353,000 | Preliminary Engineering |
| Miscellaneous | T24579 | Orange Market Park and Ride/Parking Lot Improvements | Various lot improvements to Orange Market Park & Ride Lot; construct ADA ramps and Continental crosswalks to cross Rte. 311; add landscaping, bicycle racks, | Orange Market Park and Ride Lot | \$343,573 | Not Started |

6.5 City of Roanoke

Ungrouped Projects

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|-------|--|--|--|--------------|-----------------------------|
| Urban | 688 | 13th St. and Hollins Rd. | Reconstruction w/added capacity, From: Jamison Ave To: .08 Mi. N. Int. Orange Ave. | Intersection of 13th St. & Hollins Rd. | \$25,034,586 | Right-of-Way Acquisition |
| Interstate | 16595 | Rte. 581 – Valley View Interchange Phase II | From: 0.30 mi. south Rte. 101 (Hershberger Rd.) To: 1.560 mi. south Rte 101 | I-581 | \$60,409,490 | Completed |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|---|--------------------------------------|---------------------------|-----------|----------------------------|
| Interstate | 113570 | I-581 Exit 2 Interchange Study | From: I-581 To: Peters Creek Rd. | I-581 | \$190,000 | Preliminary Engineering |
| Primary | 109566 | Orange Ave./Blue Hills Signal Upgrade – City of Roanoke | From: Orange Ave. To: Blue Hills Dr. | U.S. 460 / Orange Ave. | \$11,000 | Completed |
| Primary | 109570 | Orange Ave./Hollins Rd. Signal Upgrade | Int. of U.S. 460 & Rte. 115 | U.S. 460 & Rte. 115 | \$562,297 | Construction |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|---|--|---|-------------|----------------------------|
| Primary | 119464 | Route 460 (Orange Ave) Improvements near Blue Hills Drive | Turn restrictions, signal phase reductions, geometric changes to preserve capacity & provide capacity at 4 intersections along Route 460 at Lynn Brae Dr., Patrick Rd., Blue Hills Dr., & Blue Hills Village Dr. | Rte. 460 (Orange Ave.) from Lynn Brae Dr. to Blue Hills Village Dr. | \$3,383,600 | Not Started |
| Primary | 119461 | Route 460 (Orange Ave) Improvements at King Street | Some restricted traffic movements, signal phase reductions & geometric changes to preserve/provide capacity along the 460 corridor. Project consists of 3 locations at King St (Thru Cut), median break west of King St. (RCUT) & at Lynn Brae Dr. (RCUT.) | Rte. 460 (Orange Ave.) from Lynn Brae Dr. to King St. | \$2,751,400 | Not Started |
| Urban | 111135 | Flashing Yellow Arrow - Various Locations - Roanoke City | Various | N/A | \$277,460 | Preliminary Engineering |
| Urban | 111137 | Rectangular Rapid Flashing Beacons - Roanoke City | Various | N/A | \$108,000 | Preliminary Engineering |
| Urban | 111360 | Franklin Road Sidewalk Improvements- Rte. 220 B- Roanoke City | bike/ped improvements, From: 3100 Block To: 3700 Block | U.S. 220 Bus. / Franklin Rd. | \$1,704,013 | Preliminary Engineering |
| Urban | 111370 | Hollins Rd. & Orange Ave. Intersection Improvements | Reconstruction w/added capacity From: Orange Ave To: Hollins Rd. (2018 SMART SCALE project) | Intersection of Hollins Rd. & Orange Ave. | \$5,117,000 | Construction |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|---|--|--|-------------|----------------------------|
| Urban | 113324 | Installation of Pedestrian Countdown Signal - Roanoke | From: Gainsboro Rd. To: Burrell St. | From Gainsboro Rd. to Burrell St. | \$101,984 | Not Started |
| Urban | 115454 | Orange Ave. (U.S. 460) Improvements | Construct a Thru-Cut at the intersection of Route 460 and Blue Hills Dr/Mexico Way and Restricted Crossing U-Turns at the intersections of Route 460 at Lynn Brae Dr, Patrick Rd, and Blue Hills Village Dr. | From King St. to Blue Hills / Mexico Way | \$2,818,704 | Not Started |
| Urban | 117221 | Franklin Road Sidewalk Improvements - Rte. 220 B- Phase 2 | From: 3763 Franklin Rd To: Hounds Chase Ln. | Franklin Rd./U.S. 220 | \$1,791,000 | |
| Urban | 119555 | Valley View Blvd / Aviation Drive Pedestrian Improvements | Construct 5' wide sidewalk on W. side of road (1.25 mi.), ped. signals, ADA ramps, & drainage improvements. | Valley View Blvd. from Roanoke-Blacksburg Reg. Airport to 4800 Blk. of Valley View Blvd. | \$7,178,000 | Not Started |

Group - Construction: Transportation Enhancement/Byway/Non-Traditional

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--|--|--|-------------|----------------------------|
| Enhancement | 105439 | Roanoke River Greenway (Bridge St. to Aerial Way Dr.) - RSTP | From Bridge St. to Aerial Way Dr. | Roanoke River Greenway | \$9,000,000 | Completed |
| Enhancement | 106265 | Garden City Blvd. Bike/Ped - TAP | From Davenport Ave./Ivywood St. to Riverland Rd. | Garden City Blvd. | \$1,680,336 | Completed |
| Enhancement | 117994 | 9 th Street Multimodal Improvements | From: Jamison Avenue To: Highland Avenue | 9 th Street | \$625,000 | Construction |
| Miscellaneous | 110101 | Tinker Creek Trail Extension | From: Wise Ave. To: Masons Mill Park | N/A | \$7,251,474 | Right-of-Way Acquisition |
| Urban | 108896 | Colonial Avenue Improvements | Bike/ped facilities. From: 300 ft. beyond Winding Way Rd. SW To: Clearfield Rd. SW | Colonial Ave. | \$7,000,000 | Completed |
| Urban | 113568 | Roanoke River Greenway Bridge Across Barnhardt Creek | From: 200 ft E of Barnhardt Creek To: 150 ft W of Barnhardt Creek | Roanoke River Greenway | \$897,770 | Preliminary Engineering |
| Urban | 72180 | City of Roanoke - Roanoke River Greenway | From: within the City of Roanoke Limits | Roanoke River Greenway | \$2,433,000 | Completed |
| Miscellaneous | 119666 | Roanoke River Greenway - East | PE & ROW acquisition connecting RR Greenway @ Bennington Trail head to greenway on Underhill Rd. | RR Greenway from Bennington trail head to existing greenway on Underhill Rd. | \$835,000 | Not Started |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--------------------------------------|--|--|-------------|----------------------------|
| Miscellaneous | 119586 | Greenway Connection - Riverland Road | Construct greenway along Riverland Rd. | Riverland Rd. from Mill Mtn. parking to existing Garden & RR Greenways | \$1,313,000 | Not Started |

6.6 City of Salem

Group - Construction: Bridge Rehabilitation/Replacement/Reconstruction

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|-----------------------------------|---|--------------|-------------|----------------------------|
| Urban | 110574 | Apperson Drive Bridge Replacement | From: E. Riverside Dr. To: Route 419 - Electric Rd. | U.S. 11 | \$3,328,203 | Preliminary Engineering |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|---|---|--------------------------|--------------|----------------------------|
| Urban | 8753 | U.S. 460-Widen to 3 Lanes with Bike Lane, Curb, Sidewalk | From 0.028 mi. W. of Rte. 311 (Thompson Memorial Blvd.) to 0.006 mi. W. of Brand Ave. (0.5473 mi.) (2017 SMART SCALE project) | East Main St. / U.S. 460 | \$15,925,395 | Construction |
| Urban | 100656 | Construct Sidewalk on West Side of 419 and Connect to RRG | From existing RRG in Rotary Park to city limits (0.67 mi.) | Route 419 | \$594,720 | Completed |

Group - Construction: Transportation Enhancement/Byway/Non-Traditional

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|---|---|----------------------|-------------|----------------------------|
| Primary | 111367 | Mason Creek Greenway Ph3 - 419 Multimodal Improvements. | Bike/Ped facilities, From: Mason Creek Greenway To: Hanging Rock Battlefield Trail (2018 SMART SCALE project) | Mason Creek Greenway | \$2,610,310 | Not Started |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-------------|--------|--|--|--------------------------------|-------------|----------------------------|
| Urban | 111371 | Downtown Salem Int. & Streetscape Improvements | From: West Main St To: East Main St (2018 SMART SCALE project) | East & West Main St. | \$3,629,869 | Preliminary Engineering |
| Urban | 113566 | Elizabeth Greenway | From: Mason Creek Greenway To: E. Main St. Greenway | Elizabeth Greenway | \$1,104,400 | Preliminary Engineering |
| Enhancement | 101838 | Bridge on Phase 3A-City of Salem RR Greenway | From approx. 1200 feet E. Mill Ln. to Eddy St. | Roanoke River Greenway | \$751,969 | Completed |
| Enhancement | 106268 | Hanging Rock Battlefield Trail - TAP | From existing Hanging Rock Battlefield Trail to E. Main St. | Hanging Rock Battlefield Trail | \$1,333,117 | Right-of-Way Acquisition |
| Enhancement | 109612 | Downtown Streetscape Improvements | From: West side of Broad St. To: East side of White Oak Alley | E. Main St. | \$1,129,000 | Construction |

6.7 Town of Vinton

Ungrouped Projects

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|--|--|--------------|-----------|----------------------------|
| Urban | 113565 | Walnut Avenue Bicycle and Pedestrian Accommodations (W. Lee Ave. to 1 st St.) | Bike/Ped facilities, From: W. Lee Ave. To: 1st St. | Walnut Ave. | \$545,250 | Preliminary Engineering |

Group - Construction: Bridge Rehabilitation/Replacement/Reconstruction

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|-------|--|--|--------------|-------------|----------------------------|
| Urban | 76677 | Replace Bridge and Approaches over Glade Creek | From 0.098 W. of 5th St. to 0.052 mi. E. of 5th St. (0.15 mi.) | Walnut Ave. | \$3,147,896 | Completed |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|---|--|---------------|-------------|----------------------------|
| Urban | 111649 | Walnut Ave Bike/Ped Accommodations (5th St to Town West Limits) | Bike/Ped facilities, From: 5th St. To: Town West Limits | Walnut Avenue | \$1,679,503 | Preliminary Engineering |
| Urban | 113322 | Hardy Road/Dillon Woods Crosswalk | Mid-block Crossing on Hardy Road connecting neighborhood to W.E. Cundiff Elementary School and Wolf Creek Greenway | Hardy Road | \$182,693 | Not Started |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|--------|--------|---|---|-----------------|-----------|----------------------------|
| Urban | T25384 | Gus Nicks Boulevard Pedestrian/Bicycle Crossing | Mid-block ped. crossing on Gus Nicks Blvd. connecting to Glade Creek Greenway | Gus Nicks Blvd. | \$404,000 | Not Started |

Group - Construction: Transportation Enhancement/Byway/Non-Traditional

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|-------------|--------|-------------------------------|--|----------------------|-----------|----------------------------|
| Enhancement | 109611 | Glade Creek Greenway Phase 2A | From: Gearhart Park To: Gus Nicks Blvd. | Glade Creek Greenway | \$683,000 | Construction |
| Enhancement | 117995 | Glade Creek Greenway Phase 2B | From: Gearhart Park/GC Greenway Phase 2A To: Walnut Avenue/GC Greenway Phase 1 | Glade Creek Greenway | \$476,000 | Preliminary Engineering |

6.8 Salem District-wide

Group - Construction: Bridge Rehabilitation/Replacement/Reconstruction

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|-------------------------------------|---------------------------------|--------------|--------------|----------------------------|
| Miscellaneous | T19000 | Bridge Rehabilitation / Replacement | Various locations district-wide | Various | \$65,829,909 | Not Started |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|---|--|--------------|--------------|----------------------------|
| Interstate | 108991 | Systematic Roadway Departure Treatments | Various | Various | \$2,810,000 | Preliminary Engineering |
| Interstate | 109556 | Safety Pre-scoping - Salem | Various locations district-wide | Various | \$843,824 | Completed |
| Interstate | 116077 | Safety Pre-scoping - Salem | Various locations district-wide | Various | \$1,512,000 | Preliminary Engineering |
| Interstate | T21476 | Interstate & Primary Cable Guardrail Install-Districtwide | Various locations district-wide | Various | \$500,000 | Not Started |
| Primary | 107069 | Safety Improvements – Yearly HSIP Open Container Funds | Various locations district-wide | Various | \$2,000,000 | Construction |
| Primary | 110887 | Rte. 220 Access Management Improvements Project | From: Route 675 (Indian Grave Rd.) Intersection To: Route 862 (Valley Ave.) Intersection | U.S. 220 | \$10,196,000 | Preliminary Engineering |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|--|---------------------------------|--------------|-------------|----------------------------|
| Primary | 114331 | Install Advanced Signal Control Technology and Communication | Various | Various | \$407,136 | Completed |
| Primary | 114335 | Various Routes - Install Reflective Back Plates | Various locations district-wide | Various | \$208,189 | Completed |
| Primary | T23167 | Systemic HSIP Curve Delineation-PE Only | Various locations district-wide | Various | \$4,511,961 | Preliminary Engineering |
| Primary | 117211 | FY21 Curve Delineation | Various locations district-wide | Various | \$854,000 | Construction |
| Primary | 117212 | FY 21 Pedestrian Crossing Improvements | Various locations district-wide | Various | \$1,021,751 | Preliminary Engineering |
| Primary | 117213 | FY 21 Unsignalized Intersections | Various locations district-wide | Various | \$706,000 | Not Started |
| Primary | 117214 | FY21 Centerline Rumble Strips | Various locations district-wide | Various | \$1,014,000 | Construction |
| Primary | 117215 | FY21 Edgeline Rumble Strips | Various locations district-wide | Various | \$791,000 | Construction |
| Primary | T21463 | Districtwide Systemic Roadway Departure Countermeasures | Various locations district-wide | Various | \$2,562,984 | Not Started |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|---|---------------------------------|--------------|-------------|----------------------------|
| Primary | T21479 | Districtwide Rumble Strip Installation-Primary Routes | Various locations district-wide | Various | \$500,000 | Not Started |
| Primary | T23422 | FY23 Curve Delineation | Various locations district-wide | Various | \$8,188,000 | Not Started |
| Primary | T23423 | FY24 Pedestrian Crossing Improvements | Various locations district-wide | Various | \$1,226,000 | Not Started |
| Primary | T23424 | FY23 Unsignalized Intersections | Various locations district-wide | Various | \$222,000 | Not Started |
| Primary | T23425 | FY22 Centerline Rumble Strips Installation | Various locations district-wide | Various | \$209,000 | Preliminary Engineering |
| Primary | T23426 | FY23 Centerline Rumble Strips Installation | Various locations district-wide | Various | \$209,000 | Not Started |
| Primary | T23427 | FY24 Centerline Rumble Strips Installation | Various locations district-wide | Various | \$209,000 | Not Started |
| Primary | T23428 | FY25 Centerline Rumble Strips Installation | Various locations district-wide | Various | \$209,000 | Not Started |
| Primary | T23429 | FY22 Edgeline Rumble Strips Installation | Various locations district-wide | Various | \$575,000 | Preliminary Engineering |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------|--------|--|---------------------------------|--------------|-------------|----------------------------|
| Primary | T23430 | FY23 Edgeline Rumble Strips Installation | Various locations district-wide | Various | \$575,000 | Not Started |
| Primary | T23431 | FY24 Edgeline Rumble Strips Installation | Various locations district-wide | Various | \$1,735,000 | Not Started |
| Primary | T23432 | FY25 Edgeline Rumble Strips Installation | Various locations district-wide | Various | \$575,000 | Not Started |

Group - Maintenance of Traffic and Safety Operations

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--------------------------------------|--|--------------|--------------|----------------------------|
| Miscellaneous | T14720 | Salem: Traffic and Safety Operations | Funding identified to be obligated districtwide as projects are identified | | \$15,382,423 | N/A |

Group - Preventive Maintenance for Bridges

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--------------------------------------|--|--------------|--------------|----------------------------|
| Miscellaneous | T14721 | Salem: Preventive Maint. for Bridges | Funding identified to be obligated districtwide as projects are identified | | \$45,370,193 | N/A |

Group - Preventive Maintenance and System Preservation

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--|---|--------------|--------------|----------------------------|
| Primary | 118858 | #SGR22 FY22 Plant Mix Districtwide Primaries | Various locations districtwide | Various | \$1,500,000 | Not started |
| Miscellaneous | T14722 | Salem: Preventive Maint. and System Preservation | Funding identified to be obligated districtwide as projects are identified. | | \$85,964,101 | N/A |

Group - Construction : Transportation Enhancement/Byway/Non-Traditional

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|--|--|--------------|--------------|----------------------------|
| Miscellaneous | T18992 | Construction: Transportation Enhancement/ Byway/ Other Non-Traditional | Funding identified to be obligated districtwide as projects are identified | | \$52,973,533 | N/A |

Group - Construction: Rail

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|-----------------------------|--|--------------|-------------|----------------------------|
| Miscellaneous | T18998 | Construction: Rail Projects | Funding identified to be obligated districtwide as projects are identified | | \$1,500,000 | N/A |

Group - Construction: Federal Lands Highway

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|-----------------------|--|--------------|-------------|----------------------------|
| Miscellaneous | T19001 | Federal Lands Highway | Funding identified to be obligated districtwide as projects are identified | | \$1,733,750 | N/A |

Group - Transit: Amenities

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|---------------------------------|--|--------------|-------------|----------------------------|
| Miscellaneous | T19021 | Construction: Transit Amenities | Funding identified to be obligated districtwide as projects are identified | | \$1,904,000 | N/A |

6.9 Statewide

Ungrouped Projects -

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|-------------------------|---------------------------|--------------|-----------|----------------------------|
| Interstate | 115852 | ITTF FY20 Micro Transit | From: Various To: Various | | \$500,000 | N/A |

Group - Construction: Safety/Intelligent Transportation Systems/Operational Improvements

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|------------|--------|---|-------------|--------------|-----------|----------------------------|
| Interstate | 107802 | Incident Management Emergency Evacuation & Detour Plans | Various | Various | \$918,907 | Completed |

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|---|-------------|--------------|--------------|----------------------------|
| Interstate | 110551 | Traffic Video Expansion - Statewide | Various | Various | \$362,560 | N/A |
| Interstate | 110912 | Statewide Truck Parking Management System - Phase 1 | Various | Various | \$813,019 | N/A |
| Interstate | 111613 | Statewide Truck Parking Management System - Phase 2 | Various | Various | \$1,807,000 | N/A |
| Interstate | 111892 | ATMS - Phase 1, 2, 3, 4 | Various | Various | \$10,900,000 | N/A |
| Interstate | 114400 | Drone Technology Project | Various | Various | \$300,000 | N/A |
| Interstate | 115854 | ITTF FY20 Arterial Operations Program Dashboard | N/A | N/A | \$1,250,000 | N/A |
| Interstate | 115855 | ITTF FY20 High Speed Communications | Various | Various | \$4,700,000 | N/A |
| Interstate | 116039 | I-81 DMS Installation | Various | Various | \$12,500,000 | N/A |
| Miscellaneous | 105481 | Improvement iPEMS (Iteris Performance Measurement System) | Various | Various | \$1,400,000 | Completed |
| Miscellaneous | 114193 | Pedestrian Improvements at Priority Corridor Statewide | Various | Various | \$284,945 | N/A |

Group - Construction: Rail

| System | UPC | Project Name | Description | Street/Route | Estimate | August 2020 Project Status |
|---------------|--------|---|---|--------------|-----------|----------------------------|
| Miscellaneous | 112018 | Highway-Rail Safety Inventory Section 130 - PE Only | Statewide | Statewide | \$700,000 | Preliminary Engineering |
| Miscellaneous | 112213 | Highway-Rail Section 130 Pre Scoping - PE Only | For Highway / Rail Safety Projects Without PE Numbers | Statewide | \$300,000 | Preliminary Engineering |
| Miscellaneous | 112497 | Environmental EQ429 Form Processing Charges – PE Only | Various | Assigned | \$500,000 | N/A |

7.0 Transit Projects

Funding for the Greater Roanoke Transit Company (GRTC/Valley Metro), Unified Human Services Transportation System, Inc. (RADAR), and Lutheran Family Services of Virginia from federal and other sources for FY 2021-2024 is presented in the program of projects below.

7.1 Greater Roanoke Transit Company (Valley Metro) Project Details

| | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 |
|---|--|---------------------------------|------------------|------------------|---|--------------------------------|
| ROANOKE VALLEY AREA METROPOLITAN PLANNING ORGANIZATION | | | | | | |
| STIP ID: | GRT0001 | Title: Operating Assistance | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5307 | | 2,147,090 | 2,147,090 | 2,147,090 | 2,147,090 | FTA 5307 8,588,360 |
| FTA 5311 | | 354,000 | 547,000 | 354,000 | 354,000 | FTA 5311 1,609,000 |
| State | | 2,407,236 | 2,407,236 | 2,407,236 | 2,407,236 | State 9,628,944 |
| Local | | 1,566,000 | 1,566,000 | 1,566,000 | 1,566,000 | Local 6,264,000 |
| Revenues | | 2,314,000 | 2,314,000 | 2,314,000 | 2,314,000 | Revenues 9,256,000 |
| Year Total: | | 8,788,326 | 8,981,326 | 8,788,326 | 8,788,326 | Total Funds: 35,346,304 |
| Description: | Adjustment 6/2/21: Increase FY22 FTA 5311 funding \$193,000. | | | | | |
| STIP ID: | GRT0002 | Title: Preventative Maintenance | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5307 | | 715,697 | 715,697 | 715,697 | 715,697 | FTA 5307 2,862,788 |
| State | | - | - | - | - | State - |
| Local | | 178,924 | 178,924 | 178,924 | 178,924 | Local 715,696 |
| Year Total: | | - | 894,621 | 894,621 | 894,621 | Total Funds: 3,578,484 |
| Description: | | | | | | |
| STIP ID: | GRT0003 | Title: Transit Enhancements | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5307 | | | | | | FTA 5307 - |
| State | | | | | | State - |
| Local | | | | | | Local - |
| Year Total: | | - | - | - | - | Total Funds: - |
| Description: | | | | | | |
| STIP ID: | GRT0004 | Title: Replacement Bus | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | | 97,200 | | FTA 5339 97,200 |
| FTA 5307 | | | | | | FTA 5307 - |
| STBG | | | 3,128,702 | 1,639,419 | | STBG 4,768,122 |
| State | | | 782,176 | 658,255 | | State 1,440,431 |
| Local | | | | 14,400 | | Local 14,400 |
| Year Total: | | - | 3,910,878 | 2,409,274 | - | Total Funds: 6,320,152 |
| Description: | Adjustment 10/26/21: decrease STBG and State funding by \$1,564,351 and \$391,088 (respectively) in FY21; and increase STBG and State funding by \$1,564,351 and \$391,088 (respectively) in FY22. | | | | | |
| STIP ID: | GRT0005 | Title: Expansion Bus | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | | | | FTA 5339 - |
| State | | | 800,000 | 900,000 | | State 1,700,000 |
| Local | | | | | | Local - |
| Year Total: | | - | 800,000 | 900,000 | - | Total Funds: 1,700,000 |
| Description: | | | | | | |
| STIP ID: | GRT0006 | Title: Support Vehicles | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | 72,000 | 80,000 | 48,000 | FTA 5339 200,000 |
| Flexible STP | | | | | | Flexible STP - |
| State | | | 9,000 | 10,000 | 6,000 | State 25,000 |
| Local | | | 9,000 | 10,000 | 6,000 | Local 25,000 |
| Year Total: | | - | 90,000 | 100,000 | 60,000 | Total Funds: 250,000 |
| Description: | | | | | | |
| STIP ID: | GRT0007 | Title: Bus Stop Enhancements | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | 40,500 | 40,500 | 40,500 | FTA 5339 121,500 |
| State | | | 103,500 | 103,500 | 103,500 | State 310,500 |
| Local | | | 6,000 | 6,000 | 6,000 | Local 18,000 |
| Year Total: | | - | 150,000 | 150,000 | 150,000 | Total Funds: 450,000 |
| Description: | e.g. Bus shelters/benches | | | | | |

| | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 |
|--------------------|--|---|------------------|---------------|---|--------------------------------|
| STIP ID: | GRT0008 | Title: Rehab/Renovation of Admin/Maint Building | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5307 | | 104,296 | | | 270,000 | FTA 5307 374,296 |
| State | | 140,070 | | | 690,000 | State 830,070 |
| Local | | 8,120 | | | 40,000 | Local 48,120 |
| Year Total: | - | 252,486 | - | - | 1,000,000 | Total Funds: 1,252,486 |
| Description: | Adjustment 6/11/21: Increase FTA 5307 by \$49,486 in FY21 for HVAC system upgrades. | | | | | |
| STIP ID: | GRT0009 | Title: Shop Equipment | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | 5,400 | 5,400 | 5,400 | FTA 5339 16,200 |
| State | | | 13,800 | 13,800 | 13,800 | State 41,400 |
| Local | | | 800 | 800 | 800 | Local 2,400 |
| Year Total: | - | - | 20,000 | 20,000 | 20,000 | Total Funds: 60,000 |
| Description: | | | | | | |
| STIP ID: | GRT0010 | Title: ADP Software | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | 4,131 | 6,075 | 2,700 | | FTA 5339 12,906 |
| State | | 10,557 | 15,525 | 6,900 | | State 32,982 |
| Local | | 612 | 900 | 400 | | Local 1,912 |
| Year Total: | - | 15,300 | 22,500 | 10,000 | - | Total Funds: 47,800 |
| Description: | | | | | | |
| STIP ID: | GRT0011 | Title: ADP Hardware | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | 24,214 | 20,250 | | | FTA 5339 44,464 |
| State | | 61,880 | 51,750 | | | State 113,630 |
| Local | | 3,587 | 3,000 | | | Local 6,587 |
| Year Total: | - | 89,681 | 75,000 | - | - | Total Funds: 164,681 |
| Description: | | | | | | |
| STIP ID: | GRT0012 | Title: Security | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | 17,585 | | | FTA 5339 17,585 |
| State | | | | | | State - |
| Local | | | 4,397 | | | Local 4,397 |
| Year Total: | - | - | 21,982 | - | - | Total Funds: 21,982 |
| Description: | Adjustment 2/3/22: Increase FTA 5339 by \$17,585 and Local by \$4,397 in FY22 for purchase of onboard cameras and screens. | | | | | |
| STIP ID: | GRT0013 | Title: New Downtown Roanoke Multitmodal Facility - Engineering, Construction, Equipment | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | - | | | | FTA 5339 - |
| Flexible STP | | 3,220,000 | | | | Flexible STP 3,220,000 |
| State | | 7,820,000 | | | | State 7,820,000 |
| Local | | 460,000 | | | | Local 460,000 |
| Year Total: | - | 11,500,000 | - | - | - | Total Funds: 11,500,000 |
| Description: | Adjustment 6/8/21: Decrease FTA 5339 by \$3.22 Million and add Flexible STP as new funding source. Decrease FTA 5339 by \$5.52 Million and add to State, and decrease FTA 5339 by \$460K and add to Local. | | | | | |
| STIP ID: | GRT0014 | Title: Rehabilitate/Rebuild Buses | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5311 | | | | | | FTA 5311 - |
| State | | | | | | State - |
| Local | | | | | | Local - |
| Year Total: | - | - | - | - | - | Total Funds: - |
| Description: | | | | | | |
| STIP ID: | GRT0015 | Title: Fare Collection Equipment | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | 77,169 | | | | FTA 5339 77,169 |
| State | | 197,209 | | | | State 197,209 |
| Local | | 11,432 | | | | Local 11,432 |
| Year Total: | - | 285,000 | - | - | - | Total Funds: 285,810 |
| Description: | | | | | | |
| STIP ID: | GRT0016 | Title: Automatic Vehicle Locator | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | 300,000 | | | FTA 5339 300,000 |
| State | | | 1,700,000 | | | State 1,700,000 |
| Local | | | | | | Local - |
| Year Total: | Adjustment 2/2/22: | - | 2,000,000 | - | - | Total Funds: 2,000,000 |
| Description: | Adjustment 12/16/21: Decrease State by \$1.7 million in FY21 and increase by \$1.7 million in FY22. Increase FTA 5339 by \$300K in FY22. | | | | | |

| | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 |
|--------------------|--|---|---------------|---------|---|-----------------------------|
| STIP ID: | GRT0017 | Title: Miscellaneous Office | | | Recipient: Greater Roanoke Transit Company | |
| FTA 5339 | | | 10,800 | | | FTA 5339 10,800 |
| State | | | 27,600 | | | State 27,600 |
| Local | | | 1,600 | | | Local 1,600 |
| Year Total: | - | - | 40,000 | - | - | Total Funds: 40,000 |
| Description: | | | | | | |
| STIP ID: | GRT0018 | Title: Radio Communication System | | | Recipient: Greater Roanoke Transit Company | |
| Flexible STP | | 140,000 | | | | Flexible STP 140,000 |
| State | | 340,000 | | | | State 340,000 |
| Local | | 20,000 | | | | Local 20,000 |
| Year Total: | - | 500,000 | - | - | - | Total Funds: 500,000 |
| Description: | Adjustment 6/4/21: decrease \$260K from Flexible STP and add to State. | | | | | |
| STIP ID: | GRT0019 | Title: Real Time Passenger Information System | | | Recipient: Greater Roanoke Transit Company | |
| STBG | | 400,000 | | | | STBG 400,000 |
| State | | | | | | State - |
| Local | | | | | | Local - |
| Year Total: | - | 400,000 | - | - | - | Total Funds: 400,000 |
| Description: | | | | | | |

7.2 Unified Human Services Transportation Systems, Inc. (RADAR) Project Details

| | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 |
|--------------------|--|-----------------------------|----------------|----------------|--|-----------------------------|
| STIP ID: | RAD0001 | Title: Operating Assistance | | | Recipient: RADAR - UHSTS, Inc. Roanoke County | |
| FTA 5310 | | 84,000 | 66,000 | 115,316 | 115,316 | FTA 5310 380,631 |
| State | | 67,000 | | 92,252 | 92,252 | State 251,505 |
| Local | | 17,000 | | 11,063 | 11,063 | Local 39,126 |
| Revenues | | - | 12,000 | 12,000 | 12,000 | Revenues 36,000 |
| Year Total: | - | 168,000 | 78,000 | 230,631 | 230,631 | Total Funds: 707,262 |
| Description: | Adjustment 10/5/20: decrease FY21 funding \$62K (decrease FTA 5310 \$31K, decrease State \$25K, increase local \$6K, decrease revenues \$12K). FY22 funding \$142K decrease (decrease FTA 5310 \$49K, decrease State \$92K, and decrease Local \$11K). | | | | | |
| STIP ID: | RAD0002 | Title: Paratransit Vehicles | | | Recipient: RADAR - UHSTS, Inc. Roanoke County | |
| FTA 5310 | | 104,000 | 130,000 | 128,000 | 128,000 | FTA 5310 490,000 |
| State | | | | | | State - |
| Local | | 26,000 | | 32,000 | 32,000 | Local 90,000 |
| Year Total: | - | 130,000 | 130,000 | 160,000 | 160,000 | Total Funds: 580,000 |
| Description: | Adjustment 10/5/20: Increase FY21 funding \$15K (increase FTA 5310 \$12K, Local \$3K). Adjustment 3/12/21: decrease FY22 funding \$30K (increase FTA 5310 \$2K, decrease Local \$32K). | | | | | |

7.3 Lutheran Family Services of Virginia Project Details

| | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 |
|--------------------|--|-----------------------------|---------|---------|--|----------------------------|
| STIP ID: | LFS0001 | Title: Paratransit Vehicles | | | Recipient: Lutheran Family Services | |
| FTA 5310 | | 48,000 | | | | FTA 5310 48,000 |
| State | | | | | | State - |
| Local | | 12,000 | | | | Local 12,000 |
| Year Total: | - | 60,000 | - | - | - | Total Funds: 60,000 |
| Description: | Adjustment 10/5/20: Increase FY21 funding \$15K (increase FTA 5310 \$12K, Local \$3K). | | | | | |

7.4 County of Roanoke Project Details

| | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 |
|--------------------|--|-----------------------------|----------------|---------|-------------------------------------|-----------------------------|
| STIP ID: | ROA0001 | Title: Operating Assistance | | | Recipient: County of Roanoke | |
| FTA 5310 | | | 119,008 | | | FTA 5310 119,008 |
| State | | | | | | State - |
| Local | | | | | | Local - |
| Year Total: | - | - | 119,008 | - | - | Total Funds: 119,008 |
| Description: | Amendment 6/24/21: Add new project and FTA 5310 funding \$119K for FY22. | | | | | |

7.4 Transit Funding Summaries

| Greater Roanoke Transit Company | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 | |
|---------------------------------|---|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|
| FTA 5307 | - | 2,967,083 | 2,862,787 | 2,862,787 | 3,132,787 | FTA 5307 | 11,825,444 |
| FTA 5309 | - | - | - | - | - | FTA 5309 | - |
| FTA 5310 | - | - | - | - | - | FTA 5310 | - |
| FTA 5311 | - | 354,000 | 547,000 | 354,000 | 354,000 | FTA 5311 | 1,609,000 |
| FTA 5314 | - | - | - | - | - | FTA 5314 | - |
| FTA 5337 | - | - | - | - | - | FTA 5337 | - |
| FTA 5339 | - | 105,514 | 455,025 | 227,800 | 93,900 | FTA 5339 | 903,824 |
| FTA ADTAP | - | - | - | - | - | FTA ADTAP | - |
| FTA DPF | - | - | - | - | - | FTA DPF | - |
| FTA TIGER | - | - | - | - | - | FTA TIGER | - |
| FBD | - | - | - | - | - | FBD | - |
| Flexible STP | - | 140,000 | - | - | - | Flexible STP | 140,000 |
| | - | - | - | - | - | | - |
| STBG | - | 400,000 | 3,128,702 | 1,639,419 | - | STBG | 5,168,122 |
| FHWA TAP | - | - | - | - | - | FHWA TAP | - |
| | - | - | - | - | - | | - |
| Other Federal | - | - | - | - | - | Other Federal | - |
| State | - | 10,976,952 | 5,911,387 | 4,100,091 | 3,220,536 | State | 24,208,966 |
| Local | - | 2,248,675 | 1,770,821 | 1,776,624 | 1,797,724 | Local | 7,593,844 |
| Revenues | - | 2,314,000 | 2,314,000 | 2,314,000 | 2,314,000 | Revenues | 9,256,000 |
| Totals | - | 19,506,224 | 16,989,722 | 13,274,721 | 10,912,947 | | 60,705,199 |

| RADAR - UHSTS, Inc. Roanoke County | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 | |
|------------------------------------|---|----------------|----------------|----------------|----------------|--------------------|------------------|
| FTA 5307 | - | - | - | - | - | FTA 5307 | - |
| FTA 5309 | - | - | - | - | - | FTA 5309 | - |
| FTA 5310 | - | 188,000 | 196,000 | 243,316 | 243,316 | FTA 5310 | 870,631 |
| FTA 5311 | - | - | - | - | - | FTA 5311 | - |
| FTA 5314 | - | - | - | - | - | FTA 5314 | - |
| FTA 5337 | - | - | - | - | - | FTA 5337 | - |
| FTA 5339 | - | - | - | - | - | FTA 5339 | - |
| FTA ADTAP | - | - | - | - | - | FTA ADTAP | - |
| FTA DPF | - | - | - | - | - | FTA DPF | - |
| FTA TIGER | - | - | - | - | - | FTA TIGER | - |
| FBD | - | - | - | - | - | FBD | - |
| Flexible STP | - | - | - | - | - | Flexible STP | - |
| | - | - | - | - | - | | - |
| STBG | - | - | - | - | - | STBG | - |
| FHWA TAP | - | - | - | - | - | FHWA TAP | - |
| | - | - | - | - | - | | - |
| Other Federal | - | - | - | - | - | Other Federal | - |
| State | - | 67,000 | - | 92,252 | 92,252 | State | 251,505 |
| Local | - | 43,000 | - | 43,063 | 43,063 | Local | 129,126 |
| Revenues | - | - | 12,000 | 12,000 | 12,000 | Revenues | 36,000 |
| Totals | - | 298,000 | 208,000 | 390,631 | 390,631 | | 1,287,262 |

| Lutheran Family Services of Virginia | | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 | |
|--------------------------------------|---|--------|---------|---------|---------|---------|--------------------|--------|
| FTA 5307 | - | - | - | - | - | - | FTA 5307 | - |
| FTA 5309 | - | - | - | - | - | - | FTA 5309 | - |
| FTA 5310 | - | 48,000 | - | - | - | - | FTA 5310 | 48,000 |
| FTA 5311 | - | - | - | - | - | - | FTA 5311 | - |
| FTA 5314 | - | - | - | - | - | - | FTA 5314 | - |
| FTA 5337 | - | - | - | - | - | - | FTA 5337 | - |
| FTA 5339 | - | - | - | - | - | - | FTA 5339 | - |
| FTA ADTAP | - | - | - | - | - | - | FTA ADTAP | - |
| FTA DPF | - | - | - | - | - | - | FTA DPF | - |
| FTA TIGER | - | - | - | - | - | - | FTA TIGER | - |
| FBD | - | - | - | - | - | - | FBD | - |
| Flexible STP | - | - | - | - | - | - | Flexible STP | - |
| | - | - | - | - | - | - | - | - |
| STBG | - | - | - | - | - | - | STBG | - |
| FHWA TAP | - | - | - | - | - | - | FHWA TAP | - |
| | - | - | - | - | - | - | - | - |
| Other Federal | - | - | - | - | - | - | Other Federal | - |
| State | - | - | - | - | - | - | State | - |
| Local | - | 12,000 | - | - | - | - | Local | 12,000 |
| Revenues | - | - | - | - | - | - | Revenues | - |
| Totals | - | 60,000 | - | - | - | - | | 60,000 |

| County of Roanoke | | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 | |
|-------------------|---|---|---------|---------|---------|---------|--------------------|---------|
| FTA 5307 | - | - | - | - | - | - | FTA 5307 | - |
| FTA 5309 | - | - | - | - | - | - | FTA 5309 | - |
| FTA 5310 | - | - | 119,008 | - | - | - | FTA 5310 | 119,008 |
| FTA 5311 | - | - | - | - | - | - | FTA 5311 | - |
| FTA 5314 | - | - | - | - | - | - | FTA 5314 | - |
| FTA 5337 | - | - | - | - | - | - | FTA 5337 | - |
| FTA 5339 | - | - | - | - | - | - | FTA 5339 | - |
| FTA ADTAP | - | - | - | - | - | - | FTA ADTAP | - |
| FTA DPF | - | - | - | - | - | - | FTA DPF | - |
| FTA TIGER | - | - | - | - | - | - | FTA TIGER | - |
| FBD | - | - | - | - | - | - | FBD | - |
| Flexible STP | - | - | - | - | - | - | Flexible STP | - |
| | - | - | - | - | - | - | - | - |
| STBG | - | - | - | - | - | - | STBG | - |
| FHWA TAP | - | - | - | - | - | - | FHWA TAP | - |
| | - | - | - | - | - | - | - | - |
| Other Federal | - | - | - | - | - | - | Other Federal | - |
| State | - | - | - | - | - | - | State | - |
| Local | - | - | - | - | - | - | Local | - |
| Revenues | - | - | - | - | - | - | Revenues | - |
| Totals | - | - | 119,008 | - | - | - | | 119,008 |

| Roanoke Valley TPO | | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Total FY 2021-2024 | |
|-----------------------|---|------------|------------|------------|------------|--------------------|------------|
| FTA 5307 | - | 2,967,083 | 2,862,787 | 2,862,787 | 3,132,787 | FTA 5307 | 11,825,444 |
| FTA 5309 | - | - | - | - | - | FTA 5309 | - |
| FTA 5310 | - | 188,000 | 315,008 | 243,316 | 243,316 | FTA 5310 | 989,639 |
| FTA 5311 | - | 354,000 | 547,000 | 354,000 | 354,000 | FTA 5311 | 1,609,000 |
| FTA 5314 | - | - | - | - | - | FTA 5314 | - |
| FTA 5337 | - | - | - | - | - | FTA 5337 | - |
| FTA 5339 | - | 105,514 | 455,025 | 227,800 | 93,900 | FTA 5339 | 882,239 |
| FTA ADTAP | - | - | - | - | - | FTA ADTAP | - |
| FTA DPF | - | - | - | - | - | FTA DPF | - |
| FTA TIGER | - | - | - | - | - | FTA TIGER | - |
| FBD | - | - | - | - | - | FBD | - |
| Flexible STP | - | 140,000 | - | - | - | Flexible STP | 140,000 |
| | - | - | - | - | - | | - |
| STBG | - | 400,000 | 3,128,702 | 1,639,419 | - | STBG | 5,168,122 |
| FHWA TAP | - | - | - | - | - | FHWA TAP | - |
| | - | - | - | - | - | | - |
| Other Federal | - | - | - | - | - | Other Federal | - |
| State | - | 11,043,952 | 5,911,387 | 4,192,343 | 3,312,788 | State | 24,460,470 |
| Local | - | 2,291,675 | 1,770,821 | 1,819,687 | 1,840,787 | Local | 7,722,970 |
| Revenues | - | 2,314,000 | 2,326,000 | 2,326,000 | 2,326,000 | Revenues | 9,292,000 |
| Totals | - | 19,804,224 | 17,316,730 | 13,665,352 | 11,303,578 | | 62,089,884 |

8.0 Other Projects

This section summarizes other transportation projects, of regional interest, and as requested by the project sponsor, that fall into categories different from the Roadway, Bicycle, Pedestrian, and Transit section and which may or may not receive Federal funding.

8.1 SMART SCALE Projects

The SMART SCALE project prioritization process was developed by the Office of the Virginia Secretary of Transportation and enacted by the General Assembly in 2014. The following projects were successful in the SMART SCALE process but only state funds (no federal funds) were awarded to fulfill the request.

| Locality | System | UPC | Project Name | Description | Street/Route | Estimate |
|------------------|---------------|------------|--|--|-----------------------------------|-----------------|
| Roanoke County | Primary | 108904 | Route 311 / Route 419 Int. Safety & Congestion Imp | From: Intersection of Rte. 311 & Rte. 419 To: Int. of Rte. 311 & Rte. 419 (0.1000 MI) (2017 HB2/SMART SCALE project) | Catawba Valley Dr./Rte. 311 | \$3,775,000 |
| Roanoke County | Primary | 108882 | West Main Street Sidewalk Installation | From: West Salem City Limit To: 0.018 Mi. W. Int. Rte. 830 (Technology Drive) (2018 SMART SCALE project) | U.S. 11 | \$1,037,000 |
| Salem | Urban | 108899 | Multimodal Improvements Along Boulevard | From McDivitt Rd. to Salem city limit (0.75 mi.) (2017 HB2/SMART SCALE project) | Boulevard | \$772,000 |
| Botetourt County | Primary | 119452 | US460 / Laymantown Road Intersection Improvement | Add a turn lane from US 460 onto Laymantown Rd. to increase capacity and safety of the intersection. | Int. of U.S. 460 & Laymantown Rd. | \$7,623,000 |

| Locality | System | UPC | Project Name | Description | Street/Route | Estimate |
|----------|---------|--------|--|--|---|-------------|
| Salem | Primary | 119475 | Downtown Salem - College Avenue Improvements | Extends streetscape improvements along College Ave. (U.S.11) from Calhoun St. to the south side of 2nd St. Improve turn movements at College Avenue and Thompson Memorial. | College Ave. (U.S. 11) from Calhoun to 2 nd Sts. | \$3,017,000 |
| Vinton | Urban | 119472 | Walnut Avenue Corridor Improvements Phase 3 Project | The project will provide curb and gutter, sidewalks, crosswalks, designated bike lanes, pedestrian lighting and ADA ramps. | Walnut Avenue | \$7,400,000 |
| Roanoke | Primary | 119459 | Route 460 (Orange Ave) Improvements Seibel Dr/ Hickory Woods | Modifications to the geometry of existing signalized intersection on U.S. 460 at Granby St. and turn restrictions and closure of adjacent median openings to best maintain/preserve capacity along the corridor. | Rte. 460 (Orange Ave.) at Granby St. | \$437,000 |

| Locality | System | UPC | Project Name | Description | Street/Route | Estimate |
|----------|---------|--------|---|--|--|-------------|
| Salem | Primary | 119473 | Downtown Salem - Market Street Intersection Improvements | Adds turn lanes, shortens pedestrian crossings, provides bike and ped amenities, adds bump outs, landscaping, and improved lighting on Main Street - from west side of White Oak Alley to the east side of Market Street. | Main St. from W. side of White Oak Alley to Market St. | \$2,312,000 |
| Salem | Primary | T24986 | Roanoke River Greenway Golden Spike | Constructs a multiuse trail, linking the existing Roanoke River Greenway at Rotary Park (1.5miles) with the existing section of Roanoke River Greenway at Cook Dr. which connects to many additional miles of the greenway in the City of Roanoke. | Roanoke River Greenway | \$4,521,000 |
| Salem | Primary | 119474 | Apperson Dr. (Rte. 11)/ and Orchard Intersection Improvements | Improve turn movements, increase safety, and reduce delay at the intersection of Apperson Dr. (Rte. 11) and Orchard Dr. by installing a traffic signal, constructing an eastbound right turn lane along Apperson Dr., restriping Apperson | | \$2,388,000 |

| | | | | | | |
|--|--|--|--|---|--|--|
| | | | | Dr. to include both eastbound and westbound left turn lanes, and restriping northbound Orchard Dr. to provide a shared left-through lane and a dedicated right turn lane. | | |
|--|--|--|--|---|--|--|