

SMART SCALE Process Review Summary
November 20, 2023

Table of Contents

SMART SCALE Background 2

SMART SCALE Process Review Survey 2

Staff Identified Issues and Recommended Changes 3

Appendix A: Scenario Changes and Results A-1

Appendix B: Combined Staff Recommendations B-1

Appendix C: Alternate CTB Recommendations C-1

Appendix D: Additional High-Priority Projects Program (HPP) Analysis D-1

Appendix E: Alternate CTB Recommendations Scenario Analysis E-1

Appendix F: Scenario Analysis Summary Sheet Guide F-1

SMART SCALE Process Review Summary November 20, 2023

SMART SCALE Background

SMART SCALE is the CTB's project prioritization tool developed to meet the requirements of Chapter 726 of the 2014 Virginia Acts of Assembly. The SMART SCALE process has been used since 2016 (5 Rounds) to inform the CTB on project funding decisions.

Secretary Miller directed OIPI to thoroughly review the SMART SCALE Process in collaboration with VDOT and DRPT. The review was initiated in January 2023 and supported by ATCS consultant and OIPI internal staff.

The review focused on:

- Obtaining input from CTB members, stakeholders, legislators, and other concerned parties.
- Review of the related Code requirements and the CTB's SMART SCALE Policy.
- Analysis of the outcomes of the past funding rounds.

The overall objective of the process review is to ensure SMART SCALE is meeting the intended goal –to identify the projects that provide the most significant benefit for the investment.

SMART SCALE Process Review Survey

The SMART SCALE Process Review Survey was released on January 12 and held open until March 17 to allow greater participation.

Responses were received from 398 "external" respondents, those who did not identify as VDOT, State DOT, and Consultant response groups. ATCS analyzed the responses.

- Scoring criteria and the application process were the top two answers for what should change and remain the same in the SMART SCALE process.
- Many expressed feelings of potential biases toward urban and smaller projects; however, external survey respondents largely indicate a positive impression of the SMART SCALE process.

Based on the feedback obtained through the survey, the following perceptions were investigated.

1. Urban projects have been recommended for funding more often than rural projects.
While urban bias was the most frequently commented bias in the survey, based on the prior SMART SCALE rounds results, there is no consistent bias toward urban projects.

Therefore, no specific change is recommended to address this item.

2. Leveraged projects are more successful than non-leveraged projects.
As implemented, SMART SCALE seeks to fund projects that provide the greatest value for the investment. A vast majority of survey respondents agreed that this is a good policy. In practice, the prior rounds show that leveraged projects generally have a slight edge over non-leveraged projects, especially for SMART SCALE-funded projects greater than \$30M.

Given the CTB policy to encourage the use of leveraged funds, no action or change is needed

SMART SCALE Process Review Summary
November 20, 2023

for this finding.

3. Small projects (less than \$10M) are disproportionately recommended for funding.
One area of perceived bias identified in the SMART SCALE Process Review Survey responses was towards "Small Projects". The analysis did find that small projects were funded just over twice as often as larger projects. Of selected projects, 78% are under \$10M receiving only 33% of the total funded amount. In addition, we found that the HPP program was funding many small projects, with small bicycle and pedestrian projects more successful than small highway projects. The trend towards bicycle and pedestrian projects has steadily increased in terms of the number of projects and funding amounts both submitted and recommended.

Based on the findings, the staff recommends

- a. refining the definition of HPP,***
- b. eliminating Step 2 in the funding process, and***
- c. reducing the number of applications.***

The impacts of the changes are discussed further below under items 2 and 3 of the Staff Identified Issues and Recommended Changes and in the section on Scenario Changes and Results.

Staff Identified Issues and Recommended Changes

In addition to the work that stemmed from the survey responses, the results of the prior five rounds were reviewed for trends and to understand the impacts of the funding policy steps. A few recommended changes were put forth to address identified issues.

1. Application Quality and Quantity

Staff are expending significant time and effort on document preparation for a high percentage of applications that are either screened out or not recommended for funding. In Round 5, more than 50% of submitted applications were "not ready" for scoring at the time of full application submission (90% at pre-application) and only 37% of applications were recommended for funding.

To get the greatest value out of limited staff resources, staff is recommending:

- a. Creating a three-tier application limit at 3, 4, and 6 (Increased from the original staff recommendation of a two-tier limit at 2 and 5) to focus on applicant priorities to improve overall outcomes and increase the application success rate.***
- b. Streamline the SMART Portal process to provide earlier and more targeted support to applicants by obtaining OIPI, VDOT, and DRPT approvals prior to submission.***
- c. Screen out applications if they fail to meet requirements.***
- d. Tie consensus funding decisions to the applicant's prior performance in delivering projects.***

SMART SCALE Process Review Summary November 20, 2023

2. Process Biases - The HPP program is being used for small projects

Allocation steps are used to develop the staff recommended funding scenario. The current steps are as follows:

- 1) Step 1 allocates each VDOT construction district's grant program funding on a district-wide basis.
- 2) Step 2 allocates HPP funding on a district-wide basis for projects that would have been funded through each district's grant program if they had been by a locality.
- 3) Step 3 allocates HPP funding on a statewide basis. Smaller projects are being submitted as Step 2 eligible (MPO/PDC/Transit only).

The number of small bicycle and pedestrian projects submitted and funded through Step 2 has increased from 1 project in Rounds 1 and 2 to 32 projects in Round 5. The average project amount requested in Step 2 dropped from \$57M in Round 1 to \$19M in Round 5.

The HPP program was created to fund projects of statewide or regional significance. The current Step 2 process utilizes the HPP program as an extension of the DGP.

To address this issue, the staff recommends:

- a. Refine HPP Program eligibility by clarifying CTB policy to ensure that HPP projects are of regional or statewide significance.***

Below is the proposed HPP definition.

"New Capacity Highway (Add New Through Lanes(s) or Roadway on New Alignment), Managed Lane(s) (HOV/HOT/Shoulder), New or Improved Interchanges, New or Improved Passenger Rail Stations or Service, Freight Rail Improvements, High Capacity / Fixed Guideway Transit (Bus Rapid Transit and Light Rail Transit), Transit Transfer Stations, and New Bridge; entire corridor improvements identified as the preferred alternative in a STARS, Pipeline Study, or Arterial Management Plan."

- b. Eliminate the current Step 2 and distribute all HPP program funds based on statewide rankings of SMART SCALE scores, rather than district-wide rankings.***

The details and impacts of these changes are further outlined in Scenario A and B and the Additional High-Priority Projects Program (HPP) Analysis section at the end.

3. Process Biases – Low Scoring Projects

Based on the needs and projects submitted for consideration, the scores in some districts may have lower SMART SCALE scores than other districts. That doesn't create an issue within the DGP where it is district-based, however, that is inconsistent with a statewide prioritization process when looking at the HPP program.

Across all rounds, 91 projects were funded with Project Benefit Scores less than or equal to 1.0 (13 HPP projects and 78 DGP projects). 44 HPP projects with a lower SMART SCALE score have been funded over HPP projects with a higher SMART SCALE score. Low-scoring projects (Project Benefit Scores less than 1.0) are not being funded on a wide-scale basis. Overall, more rural than urban DGP projects with Project Benefit Scores below 1.0 were funded. There were no HPP projects funded with a Project Benefit Score less than one in Rounds 4 or 5. On a statewide basis, Step 2 allows lower-scoring projects to be funded with HPP funds.

SMART SCALE Process Review Summary
November 20, 2023

The elimination of Step 2 in conjunction with the refinement of the definition of HPP as recommended in the prior recommendation will also address this issue.

4. SMART SCALE scoring should be Forward-Looking

The scoring process should be more forward-looking to account for future traffic and future economic development. According to survey feedback and analysis of the five rounds of funding, the project's scores do not reflect the full projected benefits because they are analyzed based on existing year conditions. Project design requirements are required to accommodate future growth volumes, however, congestion scoring is in the current day. Rounds 1 and 2 looked ten years into the future.

A disconnect was also identified between square footage and economic benefit. Since Round 1, planned or zoned Site Building Square Footage in the vicinity of the proposed transportation project was used as the measure. The last revision to Economic Development was between Rounds 2 and 3 to distinguish the level of readiness for site plans. The methodology for congestion and economic development was switched to the current day in Round 3 to prioritize existing problems.

To properly value the congestion and economic development benefits, staff recommends:

- a. Calculate congestion benefits for ten years in the future***
- b. Utilize the forward-looking economic development factor developed by VEDP to better align with project design requirements that are based on future growth volumes and consider future economic growth. The recommendations from VEDP reflect best-in-class economic impact assessments currently used by VEDP to incorporate key economic priorities of the Commonwealth. The proposed ED.1 scoring methodology will incorporate key economic priorities, including focusing on sites that will attract growth industries (with the inventory captured in a statewide real estate database), incorporating estimates of the job creation and capital investments in sites, and estimates potential market demand of sites by including site visits. The proposed ED.2 (Freight Impact) scoring methodology would shift the focus from freight tonnage moved to freight volume moved.***

The impacts of these changes appear logical based on the Round 5 projects, including picking up a project that was not in the Round 5 Staff Scenario but was added to the Consensus Scenario. The details of these changes are outlined in Scenarios C and F.

5. One Factor Majority – Land Use

The current land use factor has funded a significant number of projects based only on the score received from that category. The Land Use factor drives total benefits at a rate of 2X from Round 1 to Round 5. In Round 5, Land Use accounted for more than 40% of the total benefit score and increased for smaller projects. Bicycle and pedestrian projects had the most Land Use benefits. The Land Use factor was expanded to Area Types C and D in Round 5.

SMART SCALE Process Review Summary
November 20, 2023

The Land Use factor should increase the value of a project, not be the sole reason for being funded. The staff recommends modifying the factor weighting for the Land Use by making it a multiplier of all other factor areas to (1) emphasize what the project's benefits are (versus where the project is located), (2) increase benefit points in other factor areas, and (3) prevent land use from being the sole driver of success. This will continue to use the Land Use factor to encourage land-use and transportation coordination while placing greater emphasis on the Safety and Congestion factors. There will be no change in the way Land Use is currently calculated.

The result of this change demonstrates that it enhances the scores of good projects while not providing high land use scores just because of the location of the project. The details of these changes are outlined in Scenario D.

6. Emphasis on Safety

as the most important factor by external respondents. Congestion mitigation Safety is an increasing problem that warrants a higher weighting in the prioritization process. It was consistently ranked as the next highest ranking.

The staff recommends as part of the Land Use Factor modification to increase the Safety Factor in every Area Type.

SMART SCALE Process Review Summary
November 20, 2023

Appendix A: Scenario Changes and Results

This section outlines the impacts of the changes as the results of each of the staff-recommended scenarios presented to the CTB, individually and then combined.

Scenario A: Refine High-Priority Projects Program (HPP) Definition

Topic introduced at June CTB

Code of Virginia (§33.2-370) defines the "where"

"High-priority projects" means those projects of regional or statewide significance, such as projects that reduce congestion or increase safety, accessibility, environmental quality, or economic development."

- "Where" is identified as Corridors of Statewide Significance and Regional Networks through CTB Policy

Staff Recommendation includes "what"

considering types of projects with feature types of New Capacity Highways, Managed Lanes, New or Improved Interchanges, New or Improved Passenger Rail Stations or Service, Freight Rail Improvements, High Capacity / Fixed Guideway Transit, Transit Transfer Stations, and New Bridge. The purpose is to ensure HPP projects are of statewide or regional significance.

Scenario A Results

- Steps 2 and 3 average project size rose from \$15.6M (30 projects) to \$76.2M (6 projects).
- All Bike & Ped Principal Improvement Types were removed from HPP.
- The average total cost of funded projects rose from \$15.1M to \$18.0M
- The average total request of funded projects rose from \$10.1M to \$11.8M (removes 24 projects)

SMART SCALE Process Review Summary November 20, 2023

Scenario B: Eliminate Step 2

Topic introduced at June CTB

The current funding steps are as follows:

- Step 1 allocates each VDOT construction district's grant program funding on a district-wide basis. (SMART SCALE Score)
- Step 2 allocates HPP funding on a district-wide basis for projects that would've been funded through each district's grant program if they had been by a locality. (SMART SCALE Score)*
- Step 3 allocates HPP funding on a statewide basis. (Benefit Score)

** provides statewide HPP funds to projects based on district rankings.*

Staff Recommendation Eliminate Step 2

The new process would distribute all HPP program funds based on statewide rankings of SMART SCALE score.

Scenario B Results

- SMART SCALE review highlighted the favor of Small Projects in the process, and in this singular scenario, even smaller projects get funded in both DGP and HPP.
- Scenario B is not effective unless combined with the Refined HPP Definition (Scenario A)
- The average total cost of funded projects fell from \$15.1M to \$11.1M
- The average total request of funded projects fell from \$10.1 M to \$9.8 M (adds 14 projects)

**SMART SCALE Process Review Summary
November 20, 2023**

Scenario C: Forward-Looking Congestion Factor

Topic introduced at July CTB

Current Congestion scoring methods use current-day volumes.

However, VDOT and DRPT project design requirements accommodate future growth volumes not reflected in scoring.

Staff Recommendation is to calculate congestion benefits for 10 years in the future.

Better align design requirements by calculating congestion benefits for 10 years in the future.

Scenario C Results

- Positive impacts on large highway projects
- Area types not impacted by the singular change
- Changed the mix of project types in urban areas
- The average total cost of funded projects rose from \$15.1M to \$15.3M
- The average total request of funded projects rose from \$10.1M to \$10.3M

SMART SCALE Process Review Summary
November 20, 2023

Scenario D: Modify the Land Use Factor to a Multiplier and Modify Factor Weightings

Topic introduced at June CTB and results provided at July CTB Retreat

The current Land Use method is directly related to project location rather than project outcomes.

Staff Recommendation is to not change the way Land Use measures are calculated today, but modify how Land Use weighting is applied by implementing a two-step process:

- Assign current Land Use factor weighting to other factor categories:
 - Area Type A: 15% Safety, 50% Congestion, 15% Accessibility, 5% Economic Development, and 10% Environment
 - Area Type B: 25% Safety; 25% Congestion, 20% Accessibility, 20% Economic Development, and 10% Environment
 - Area Type C: 30% Safety; 20% Congestion, 15% Accessibility, 25% Economic Development, and 10% Environment
 - Area Type D: 40% Safety; 10% Congestion, 10% Accessibility, 30% Economic Development, and 10% Environment
- Use the normalized Land Use factor as a multiplier on all other benefits (1+Normalized Score/100)

Scenario D Results

- Small projects reduced by 33% to 71
- Bike & Ped Principal projects reduced by 58% to 20
- The average total cost of funded projects rose from \$15.1M to \$18.6M
- The average total request of funded projects rose from \$10.1M to \$11.9M

**SMART SCALE Process Review Summary
November 20, 2023**

Scenario F: Forward-Looking Economic Development Factor

Introduced at September CTB and results provided at October CTB

Current methods for Project Support for Economic Development (ED.1) use planned or zoned Site Building Square Footage in the vicinity of the proposed transportation project as the measure.

Staff Recommendation is to calculate a new measure to blend key economic priorities.

Uses nearby real estate sites in VirginiaScan (<https://sites.vedp.org>) to calculate:

1. Estimated jobs - 40%
2. Estimated capital investment: 25%
3. Recognize site funding received – 10%
4. Quantify site visits received – 10%
5. Distinguish site readiness – 10%

Current methods for Freight Impact (ED.2) use proximity to intermodal locations combined with freight tonnage moved. Identified that weight doesn't equate to value.

Staff Recommendation is to calculate the freight volume moved.

Scenario F Results

- Top reasons for an increased ED.1 score (Added 12 projects that were all Primary Improvement Type Highway in mostly rural areas of the Commonwealth with an average cost of \$15M):
 - Additional sites were identified using VirginiaScan that the applicant did not include
 - VirginiaScan better reflects the value of the site, aligning with the Commonwealth's development priorities (Est. jobs, capital investment, meeting market demand, etc.)
- Top reasons for a decreased ED.1 score (Removed 9 projects that were mostly Primary Improvement Type Highway in mostly rural areas of the Commonwealth with an average cost of \$14M):
 - Validation of data using VirginiaScan resulted in sites showing fewer developable square feet than applicants claimed
 - If the property was not listed in VirginiaScan, it likely did not have the potential to accommodate high-impact industries
- The average total cost of funded projects rose from \$15.1M to \$15.2M
- The average total request of funded projects rose from \$10.1M to \$10.3M

Summary of all Individual Staff Recommendations

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2
Projects Added	-	1	20	5	27	12
Projects Dropped	-	25	6	5	48	9
Net SS Award (millions)	\$1,532.1	-\$9.7	\$78.2	\$28.0	\$25.1	\$58.3
Unallocated HPP (millions)	\$90.1	\$99.8	\$11.9	\$74.1	\$23.0	\$34.1

*Official Round 5 Staff Scenario funded 152 projects

SMART SCALE Process Review Summary
November 20, 2023

Appendix B: Combined Staff Recommendations

Scenario E: September CTB Presentation Staff Recommendation

Combines Scenarios A+B+C+D

Scenario E Results

- Small projects reduced by 46% to 57
- Bike & Ped Principal Improvement projects reduced by 75% to 13
- The average total cost of funded projects rose from \$15.1M to \$21.8M
- The average total request of funded projects rose from \$10.1M to \$13.9M (39 net projects)

Scenario G: October CTB Presentation Final Staff Recommendation

Combines Scenarios A+B+C+D+F

Scenario G Results

- Small projects reduced by 45% to 58
- Bike & Ped Principal projects reduced by 73% to 13
- The average total cost of funded projects rose from \$15.1M to \$21.5M
- The average total request of funded projects rose from \$10.1M to \$13.9M

Summary of all Combined Staff Recommendations

	Official Round 5 Scenario*	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes
Projects Added	-	28	30
Projects Dropped	-	67	69
Net SS Award (millions)	\$1,532.1	\$35.2	\$41.3
Unallocated HPP (millions)	\$90.1	\$13.5	\$3.7

*Official Round 5 Staff Scenario funded 152 projects

**SMART SCALE Process Review Summary
November 20, 2023**

Appendix C: Alternate CTB Recommendations

This section provides an analysis of the alternate proposal presented by members at the October meeting. The changes built upon the Staff Recommendations with changes to how the Land Use weights were redistributed and changes to the Economic development factors. The changes included in this scenario impact area type A the most due to the reduction in the congestion factor and increased value from accessibility.

CTB Revisions to Staff Recommendations

See Appendix E, Scenario H

- Congestion factor - split 50% current and 50% future
- Weighting change within the three Accessibility measures from 60/20/20 to 40/20/40 to increase the weighting of A.3.
- Revises assignment of staff-recommended Land Use factor weighting to other factor categories:
 - Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment
 - Area Type B: 25% Safety; 20% Congestion, 25% Accessibility, 20% Economic Development, and 10% Environment
 - Area Types C: 35% Safety; 15% Congestion, 15% Accessibility, 25% Economic Development, and 10% Environment
 - Area Type D: 40% Safety; 10% Congestion, 10% Accessibility, 30% Economic Development, and 10% Environment

Summary of CTB Revisions to Staff Recommendations

	Official Round 5 Scenario*	Scenario H (A+B+C+D+F): Final Staff Recommended Changes
Projects Added	-	32
Projects Dropped	-	60
Net SS Award (millions)	\$1,532.1	\$64.5
Unallocated HPP (millions)	\$90.1	\$16.5

*Official Round 5 Staff Scenario funded 152 projects

Alternate CTB Recommendations Results

19 projects shifted in Scenario H relative to Scenario G

- 3 were not funded newly "Stayed Out" (recommended in the Oct Staff Scenario G and was not recommended Jan RD5 Official) – all large (>\$10M) Highway Improvements in urban areas:
 - 9250 - Area Type A Highway Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCALE Score is 2.57 compared to 2.37 in Scenario H
 - Driven by the Congestion score dropping from 0.61 to 0.32
 - 9328 - Area Type A Highway Principal Improvement Type in Northern Virginia (HPP)

SMART SCALE Process Review Summary November 20, 2023

- In Scenario G the final SMART SCALE Score is 3.04 compared to 2.84 in Scenario H
 - Driven by the Congestion score dropping from 4.4 to 2.38
- 9014 - Area Type B Highway Principal Improvement Type in Richmond (HPP)
 - In Scenario G the final SMART SCALE Score is 2.81 compared to 2.95 in Scenario H
 - Driven by the Accessibility score increasing from .33 to .61, specifically A.3 growing from 0.96 to 1.92
 - Shift in the HPP steps block from getting funded
- 10 were funded and newly Stayed In (which means not recommended in the Oct Staff Scenario G but was recommended in Jan RD5 Official) and these were majority small (<\$10M) Bike and Pedestrian Improvements mostly in urban areas:
 - 9251 - Area Type A Highway Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCALE Score is 2.39 compared to 3.25 in Scenario H
 - This is driven by the Accessibility score growing from 0.44 to 1.31 (Specifically A.3 growing from 2.40 to 4.79)
 - 9259 - Area Type A Bike/Pedestrian Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCORE is 1.68 compared to 2.63 in Scenario H
 - This is driven by the Accessibility score growing from 0.03 to 0.1 (Specifically A.3 0.2 to 0.4)
 - 9156 - Area Type A Bike/Pedestrian Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCALE Score is 2.14 compared to 2.62 in Scenario H
 - This is driven by the Accessibility score growing from 0.11 to 0.31 (Specifically A.3 growing from 0.58 to 1.15)
 - 9320 - Area Type A Bike/Pedestrian Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCALE Score is 1.83 compared to 3.27 in Scenario H
 - This is driven by the Accessibility score growing from 0.41 to 1.34 (Specifically A.3 growing from 2.64 to 5.29)
 - 9321 - Area Type A Bike/Pedestrian Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCALE Score is 1.75 compared to 3.06 in Scenario H
 - This is driven by the Accessibility score growing from 0.31 to 1.04 (Specifically A.3 growing from 2.06 to 4.12)
 - 9149 - Area Type A Bike/Pedestrian Principal Improvement Type in Northern Virginia (DGP)
 - In Scenario G the final SMART SCALE Score is 2.23 compared to 3.88 in Scenario H

SMART SCALE Process Review Summary November 20, 2023

- This is driven by the Accessibility score growing from 0.59 to 1.94 (Specifically A.3 growing from 3.84 to 7.67)
- 9458 - Area Type B Highway Principal Improvement Type in Richmond (DGP)
 - In Scenario G the final SMART SCALE Score is 4.68 compared to 6.34 in Scenario H
 - This is driven by the Accessibility score growing from 0.53 to 1.32
- 8928 - Area Type B Bike/Pedestrian Principal Improvement Type in Richmond (DGP)
 - In Scenario G the final SMART SCALE Score is 3.19 compared to 5.06 in Scenario H
 - This is driven by the Accessibility score growing from 0.62 to 1.28 (Specifically A.3 growing from 2.19 to 4.38)
- 9353 - Area Type C Highway Principal Improvement Type in Salem (DGP)
 - In Scenario G the final SMART SCALE Score is 2.27 compared to 2.99 in Scenario H
 - This is driven by Safety growing from .19 to .23 and Accessibility growing from 0.27 to 0.52 (Specifically A.3 growing from 1.7 to 3.41)
- 9141 - Area Type D Bike/Pedestrian Principal Improvement Type in Staunton (DGP)
 - In Scenario G the final SMART SCALE Score is 2.64 compared to 3.00 in Scenario H
 - This is driven by Accessibility growing from 0.05 to 0.08 (Specifically A.3 growing from 0.36 to 0.72)
- 1 was not funded and newly Dropped (which means it was recommended in the Oct Staff Scenario G and was recommended Jan RD5 Official) – Small Bike/Ped Project in Salem:
 - 9437 - Area Type D Bike/Pedestrian Principal Improvement Type in Salem (DGP)
 - The SMART SCALE Score is 2.74 in either Scenario
 - The shifts in the DGP step allow this to get funded
- 5 were funded and newly Added (which means not recommended in the Oct Staff Scenario G and not recommended Jan RD5 Official) and these had no single characteristic – a mix of principal/secondary type, a mix of cost, a mix of area type, a mix of districts:
 - 9133 - Area Type A Bike/Pedestrian Principal Improvement Type in Hampton Roads (DGP)
 - In Scenario G the final SMART SCALE Score is 2.15 compared to 3.01 in Scenario H
 - This is driven by Accessibility growing from 0.77 to 1.85 (Specifically A.3 growing from 2.73 to 5.46)
 - 8985 - Area Type A Bike/Pedestrian Principal Improvement Type in Northern Virginia (DGP)
 - In Scenario G the final SMART SCALE Score is 2.64 compared to 4.08 in Scenario H
 - This is driven by Accessibility growing from 0.65 to 1.83 (Specifically A.3 growing from 3.20 to 6.40)
 - 9360 - Area Type D Highway Principal Improvement Type in Richmond (DGP)
 - The SMART SCALE Score is 5.35 in either Scenario

SMART SCALE Process Review Summary
November 20, 2023

- The shifts in the DGP step allow this to get funded
- 9371 - Area Type D Highway Principal Improvement Type in Richmond (DGP)
 - In Scenario G the final SMART SCALE Score is 6.03 compared to 5.72 in Scenario H
 - The decrease is the result in Congestion dropping from 0.44 to 0.24, but the shifts in the DGP step allow this to get funded
- 9411 - Area Type B Highway Principal Improvement Type in Richmond (DGP)
 - In Scenario G the final SMART SCALE Score is 6.05 compared to 4.88 in Scenario H
 - The decrease is the result in Congestion dropping from 1.48 to .68, but the shifts in the DGP step allow this to get funded

SMART SCALE Process Review Summary November 20, 2023

Appendix D: Additional High-Priority Projects Program (HPP) Analysis

This section presents an updated HPP definition based on feedback from the CTB and stakeholders.

Revised Staff Recommendation based on CTB Feedback

1. Add to the "what" definition Light Rail Transit (LRT) and Bus Rapid Transit (BRT) to clarify Fixed Guideway Transit
2. Add to the "what" entire corridor improvements are identified as the preferred alternative in a STARS, Pipeline Study, or Arterial Management Plan.

Program Background

VDOT STARS Program

Develops comprehensive, innovative transportation solutions to relieve congestion bottlenecks and solve critical traffic and safety challenges.

OIPI Pipeline Program

Performance-based planning program focused on CTB-adopted VTrans priority locations and corridors.

Arterial Management Plans

The program uses a holistic approach that identifies ways to ensure safety and preserve the capacity of the Commonwealth's arterial highway network without wide-scale roadway widening.

Revised Staff Recommended HPP Definition:

New Capacity Highway (Add New Through Lanes(s) or Roadway on New Alignment), Managed Lane(s) (HOV/HOT/Shoulder), New or Improved Interchanges, New or Improved Passenger Rail Stations or Service, Freight Rail Improvements, High Capacity / Fixed Guideway Transit (Bus Rapid Transit and Light Rail Transit), Transit Transfer Stations, and New Bridge; entire corridor improvements identified as the preferred alternative in a STARS, Pipeline Study, or Arterial Management Plan.

Analysis

- Of the 394 SMART SCALE applications in Round 5
 - 97 applications identified as STARS, Pipeline, or Arterial Management corridor planning studies.
 - 76 submitted a small piece of the study as a spot improvement.
 - 21 submitted as corridor projects.
 - 10 submitted as entire corridor projects.
 - 11 submitted as a small portion of the corridor project.

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Bristol Scenario Analysis

Application Information										Individual Impacts											Cumulative Impacts															
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8987	D	BRIST	LENOWISCO PDC	Gilley Ave Turn Lanes and Access Management Improvements	Highway	None		x	\$4.5	\$4.5	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-8	Dropped		-130	Stays In	HPP	-12	Dropped		-139	Dropped		-163	Dropped		-175	
9121	D	BRIST	Cumberland Plateau PDC	US 58 Alt Turn Lane Improvements at Sundown Drive	Highway	None		x	\$3.6	\$3.6	X	HPP	Dropped			Dropped		Stays In	HPP	-8	Dropped		-221	Stays In	HPP	-8	Dropped		-222	Dropped		-223	Dropped		-223	
9160	D	BRIST	Kingsport Metropolitan TPO	US 23 Access Management and Turn Lane Improvements	Highway	None		x	\$9.2	\$9.2	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-3	Stays In	HPP	49	Stays In	HPP	-15	Dropped		44	Dropped		35	Dropped		27	
9163	D	BRIST	Mount Rogers PDC	Route 19 Corridor and Intersection Improvements	Highway	None		x	\$11.1	\$11.1	X	HPP	Dropped			Dropped		Stays In	HPP	-7	Stays In	HPP	93	Stays In	HPP	-16	Dropped		84	Dropped		67	Dropped		46	
9223	D	BRIST	Wise County	Coeburn Mountain Rd Turn Lane Improvements	Highway	None	x		\$12.6	\$12.6			Stays Out		X	Stays Out		Stays Out		-9	Added	DGP	64	Added	DGP	161	Added	DGP	62	Added	DGP	197	Added	DGP	193	
9173	D	BRIST	Bristol MPO	Commonwealth Ave & Euclid Ave Intersection Improvements	Highway	BikePed		x	\$4.3	\$4.3	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	1	Stays In	HPP	4	Stays In	HPP	0	Dropped		3	Dropped		3	Dropped		3	
9234	D	BRIST	Tazewell Town	Tazewell BUS 19 Two-Way Left-Turn Lane	Highway	BikePed	x	x	\$13.8	\$13.8			Stays Out		X	Stays Out		Stays Out		-9	Added	DGP	37	Stays Out		-3	Added	DGP	32	Added	DGP	26	Added	DGP	22	
9247	D	BRIST	Bluefield Town	College Avenue and Route 720 Intersection Improvements	Highway	BikePed	x		\$9.2	\$9.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-120	Stays In	DGP	2	Dropped		-123	Dropped		-124	Dropped		-122	
9060	D	BRIST	LENOWISCO PDC	Alt US-58 TWLTL and N Combs Rd Intersection Roundabout	Highway	BikePed		x	\$18.1	\$18.1			Stays Out		X	Stays Out		Stays Out		-7	Stays Out		-7	Stays Out		2	Stays Out		-8	Stays Out		-10	Stays Out		-11	
9118	D	BRIST	Bristol City	MLK Jr Blvd, Birch St, and Moore St Intersection Improvement	Highway	BikePed	x	x	\$12.2	\$12.2	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	-175	Stays In	DGP	-1	Stays In	DGP	-182	Stays In	DGP	-173	Stays In	DGP	-174	
9128	D	BRIST	Bristol MPO	I-81 Frontage Road - Stage Coach Road to Old Dominion Road	Highway	None		x	\$41.9	\$41.9			Stays Out			Stays Out		Stays Out		0	Stays Out		-8	Stays Out		-1	Stays Out		-9	Stays Out		-10	Stays Out		-10	
9142	D	BRIST	Grayson County	US 58 at Delhart Rd Turn Lane Improvements	Highway	None	x	x	\$5.8	\$5.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	-11	Stays In	DGP	0	Stays In	DGP	-19	Stays In	DGP	-19	Stays In	DGP	-26	
9145	D	BRIST	Tazewell County	US 460 at US 19 Intersection Improvements	Highway	None	x	x	\$26.6	\$26.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-33	Stays In	DGP	56	Stays In	DGP	-5	Stays In	DGP	24	Stays In	DGP	29	Stays In	DGP	14	
9194	D	BRIST	Scott County	US 23 at Chapel St Safety and Railroad Crossing Improvements	Highway	None	x	x	\$7.4	\$7.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	51	Stays In	DGP	-34	Stays In	DGP	40	Stays In	DGP	23	Stays In	DGP	9	
9203	D	BRIST	Norton City	Park Avenue and 11th St Improvements	Highway	BikePed	x		\$6.4	\$6.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	7	Stays In	DGP	-32	Stays In	DGP	-3	Stays In	DGP	-36	Stays In	DGP	-45	
9218	D	BRIST	Wythe County	I-81 Exit 77 Interchange J-Ramp Reconfiguration	Highway	None	x		\$219.4	\$219.4			Stays Out		X	Stays Out		Stays Out		-5	Stays Out		11	Stays Out		0	Stays Out		2	Stays Out		5	Stays Out		4	
9224	D	BRIST	Lee County	Intersection Improvements at Rte 879 and Dr Thomas Walker Rd	Highway	None	x		\$1.3	\$1.3	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	-11	Stays In	DGP	-9	Stays In	DGP	-21	Stays In	DGP	-28	Stays In	DGP	-47	
9225	D	BRIST	Lee County	Alt US-58 at Trade Center Ln Offset Left-Turn Lanes	Highway	None	x	x	\$10.0	\$10.0			Stays Out			Stays Out		Stays Out		-1	Stays Out		36	Stays Out		2	Stays Out		35	Stays Out		35	Stays Out		28	
9233	D	BRIST	Abingdon Town	Cook Street Extension	Highway	BikePed	x	x	\$33.7	\$33.7			Stays Out		X	Stays Out		Stays Out		-8	Stays Out		-110	Stays Out		-7	Stays Out		-111	Stays Out		-117	Stays Out		-119	
9248	D	BRIST	Bluefield Town	College Ave. at Bluefield College Dr. Left-Turn Improvements	Highway	BikePed	x		\$3.9	\$3.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	-114	Stays In	DGP	0	Stays In	DGP	-125	Stays In	DGP	-124	Stays In	DGP	-142	
9252	D	BRIST	Bristol MPO	French Moore Blvd Extension	Highway	BikePed		x	\$46.7	\$46.7			Stays Out		X	Stays Out		Stays Out		-6	Stays Out		-44	Stays Out		4	Stays Out		-44	Stays Out		-43	Stays Out		-44	
9264	D	BRIST	Washington County	US-11/US-58 Intersection and Corridor Improvements	Highway	None	x	x	\$26.8	\$26.8	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	89	Stays In	DGP	-4	Stays In	DGP	83	Stays In	DGP	78	Stays In	DGP	57	

*Official Round 5 Staff Scenario funded 14 projects

Note - CTB Member Consensus Modifications
Fund 1 additional project with DGP and HPP (50/50)
App ID 9233 Cook Street Extension for \$33.7M

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	0	0	0	2	1	2	2	2
Projects Dropped	-	5	2	0	3	0	6	6	6
Net SS Award (millions)	\$132.2	-\$32.8	-\$14.8	\$0.0	\$9.1	\$12.6	-\$15.5	-\$15.5	-\$15.5
Unallocated DGP (millions)	\$19.8	\$19.8	\$19.8	\$19.8	\$2.5	\$7.1	\$2.5	\$2.5	\$2.5

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Culpeper Scenario Analysis

Application Information										Individual Impacts													Cumulative Impacts													
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8942	D	CULP	Culpeper Town	Orange Rd / Fredericksburg Rd Roundabout	Highway	BikePed	x		\$12.8	\$12.8	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	17	Stays In	DGP	15	Stays In	DGP	12	Stays In	DGP	26	Stays In	DGP	23	
9331	B	CULP	Thomas Jefferson PDC	US250/Peter Jeff. Pkwy Intersection Imprvmnts & Access Mngmnt	Highway	Transit		x	\$20.5	\$20.5	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-14	Stays In	HPP	32	Stays In	HPP	-3	Dropped		8	Dropped		9	Dropped		7	
9059	D	CULP	Orange County	Route 3 / Route 20 Intersection Improvements	Highway	None	x		\$17.0	\$17.0	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	72	Dropped		-37	Stays In	DGP	66	Stays In	DGP	46	Stays In	DGP	38	
9271	D	CULP	Fauquier County	Dumfries Rd (Rt 605) & Greenwich Rd (Rt 603) - Roundabout	Highway	None	x		\$9.2	\$9.2			Stays Out			Stays Out		Stays Out		-8	Added	DGP	88	Stays Out		-4	Added	DGP	77	Added	DGP	78	Added	DGP	74	
8971	C	CULP	Louisa County	Route 208 & Route 250 - Intersection Improvement	Highway	None	x		\$14.1	\$14.1			Stays Out			Stays Out		Stays Out		-22	Stays Out		61	Stays Out		2	Stays Out		39	Stays Out		41	Stays Out		42	
8970	C	CULP	Louisa County	Route 250 and Route 15 - Intersection Improvement	Highway	BikePed	x	x	\$15.2	\$15.2			Stays Out			Stays Out		Stays Out		-16	Stays Out		70	Added	DGP	11	Stays Out		54	Added	DGP	72	Added	DGP	79	
9144	B	CULP	Albemarle County	Belvedere Boulevard and Rio Road Intersection Improvements	Highway	BikePed	x	x	\$4.9	\$4.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Dropped		18	Stays In	DGP	-2	Dropped		6	Dropped		12	Dropped		15	
9148	D	CULP	Culpeper County	Rt. 229, Rt.694 Double Lane Roundabout	Highway	BikePed	x		\$15.6	\$15.6			Stays Out			Stays Out		Stays Out		-11	Added	DGP	82	Stays Out		-9	Added	DGP	72	Stays Out		73	Stays Out		62	
9178	B	CULP	Charlottesville-Albemarle MPO	Avon Street Multimodal Improvements	Highway	BikePed		x	\$15.8	\$15.8	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-4	Dropped		-230	Stays In	HPP	0	Dropped		-234	Dropped		-233	Dropped		-215	
9180	B	CULP	Charlottesville-Albemarle MPO	District Avenue Roundabout (at Hydraulic Road)	Highway	BikePed		x	\$20.1	\$20.1			Stays Out			Added	HPP	Stays Out		-6	Stays Out		23	Stays Out		-17	Stays Out		14	Stays Out		3	Stays Out		-6	
9051	C	CULP	Louisa County	Spring Creek/Camp Creek/Route 15 Intersection Improvements	Highway	BikePed	x		\$42.6	\$42.6			Stays Out			Stays Out		Stays Out		-16	Stays Out		66	Stays Out		11	Stays Out		46	Stays Out		61	Stays Out		60	
9061	D	CULP	Orange County	Route 3 and the Post Office Intersection Improvements	Highway	None	x		\$9.9	\$9.9			Stays Out			Stays Out		Stays Out		15	Stays Out		48	Stays Out		-113	Stays Out		74	Stays Out		-44	Stays Out		-76	
9064	D	CULP	Orange County	RT 20/ RT 601 Intersection Improvements	Highway	None	x		\$9.9	\$9.9			Stays Out			Stays Out		Stays Out		-11	Stays Out		78	Stays Out		-2	Stays Out		69	Stays Out		73	Stays Out		57	
9124	D	CULP	Culpeper County	Rt. 229 and Rt. 621 Roundabout	Highway	None	x		\$10.0	\$10.0	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Stays In	DGP	57	Stays In	DGP	-14	Stays In	DGP	52	Stays In	DGP	47	Stays In	DGP	40	
9136	D	CULP	Culpeper County	Rt. 29, Rt. 633 Intersection Improvement (Partial Green T)	Highway	None	x	x	\$8.4	\$8.4			Stays Out			Stays Out		Stays Out		2	Stays Out		28	Stays Out		0	Stays Out		27	Stays Out		28	Stays Out		22	
9137	D	CULP	Culpeper County	Rt. 3, Rt. 669 Intersection Improvement (Partial R-Cut)	Highway	None	x		\$4.7	\$4.7	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-2	Stays In	DGP	13	Stays In	DGP	-2	Stays In	DGP	11	Stays In	DGP	10	Stays In	DGP	11	
9153	B	CULP	Albemarle County	Old Trail Drive and US 250 West Intersection Improvements	Highway	BikePed	x	x	\$13.0	\$13.0			Stays Out			Stays Out		Stays Out		4	Stays Out		70	Stays Out		-9	Stays Out		74	Stays Out		69	Stays Out		44	
9157	D	CULP	Warrenton Town	Bus US17/Broadview/Shopping Center Intersection Improvement	Highway	BikePed	x	x	\$15.1	\$15.1			Stays Out			Stays Out		Stays Out		-5	Stays Out		-84	Stays Out		-4	Stays Out		-91	Stays Out		-108	Stays Out		-103	
9158	D	CULP	Warrenton Town	W Lee/US17BusN/Winchester Intersection Improvement	Highway	BikePed	x	x	\$14.9	\$14.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Stays In	DGP	40	Stays In	DGP	-4	Stays In	DGP	33	Stays In	DGP	29	Stays In	DGP	28	
9159	D	CULP	Warrenton Town	Pipeline Project Lee Hwy/Blackwell Road Safety Improvement	Highway	BikePed	x	x	\$14.1	\$14.1	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	20	Stays In	DGP	-1	Stays In	DGP	11	Stays In	DGP	9	Stays In	DGP	14	
9171	D	CULP	Madison County	Route 230 & Route 687 Intersection Improvements	Highway	None	x		\$11.3	\$11.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	36	Stays In	DGP	2	Stays In	DGP	33	Stays In	DGP	35	Stays In	DGP	36	
9174	B	CULP	Charlottesville-Albemarle MPO	Fifth Street Extended Multimodal Improvements	Highway	BikePed		x	\$22.8	\$22.8			Stays Out			Stays Out		Stays Out		-8	Stays Out		-4	Stays Out		-3	Stays Out		-13	Stays Out		-11	Stays Out		-6	
9196	C	CULP	Fluvanna County	Turkeysag Trail (Route 1015) & Route 53 Roundabout	Highway	BikePed	x		\$11.0	\$11.0			Stays Out			Stays Out		Stays Out		9	Stays Out		28	Stays Out		3	Stays Out		57	Stays Out		57	Stays Out		45	
9200	C	CULP	Fluvanna County	Troy Road (631) and Route 15 Intersection	Highway	None	x		\$14.5	\$14.5			Stays Out			Stays Out		Stays Out		-2	Stays Out		24	Stays Out		2	Stays Out		16	Stays Out		16	Stays Out		18	
9202	C	CULP	Fluvanna County	Rte 53 and Rte 618 Martin's King Road Int Improvements	Highway	None	x		\$6.5	\$6.5			Stays Out			Stays Out		Stays Out		-4	Stays Out		80	Stays Out		3	Stays Out		70	Stays Out		76	Stays Out		80	
9269	D	CULP	Fauquier County	Route 28 & Old Dumfries Road (Route 667) - Roundabout	Highway	BikePed	x	x	\$13.8	\$13.8			Stays Out			Stays Out		Stays Out		-6	Stays Out		79	Stays Out		43	Stays Out		71	Stays Out		113	Stays Out		103	
9272	D	CULP	Fauquier County	Route 28 & Station Drive - Roundabout	Highway	BikePed	x	x	\$9.3	\$9.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	34	Stays In	DGP	-10	Stays In	DGP	29	Stays In	DGP	18	Stays In	DGP	12	
9332	B	CULP	Thomas Jefferson PDC	US250/Louisa Road (Route 22) Intersection Improvements	Highway	None		x	\$11.0	\$11.0			Stays Out			Stays Out		Stays Out		-10	Stays Out		39	Stays Out		1	Stays Out		35	Stays Out		32	Stays Out		26	

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Culpeper Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9334	B	CULP	Thomas Jefferson PDC	US250/Milton Road Intersection Improvements	Highway	None		x	\$9.8	\$9.8			Stays Out			Stays Out		Stays Out		-4	Stays Out		87	Stays Out		-4	Stays Out		84	Stays Out		82	Stays Out		61	
9356	D	CULP	Orange County	Rt 3 and LOW (Goodwin Dr) improvement	Highway	None	x		\$14.1	\$14.1			Stays Out			Stays Out		Stays Out		-7	Stays Out		63	Stays Out		-22	Stays Out		56	Stays Out		16	Stays Out		8	
9480	C	CULP	Greene County	US 29/616 (Carpenters Mill Rd)/ Commerce Dr Improvements	Highway	None	x	x	\$18.0	\$18.0			Stays Out			Stays Out		Stays Out		-9	Stays Out		68	Stays Out		-4	Stays Out		59	Stays Out		60	Stays Out		57	
9484	C	CULP	Greene County	US33-743 (Advance Mills) & 1050 (Greenecroft) Intersections	Highway	None	x		\$10.0	\$10.0			Stays Out			Stays Out		Stays Out		-8	Stays Out		70	Stays Out		4	Stays Out		62	Stays Out		71	Stays Out		73	
9289	D	CULP	Culpeper Town	Orange Road Sidewalk Extension	Bike/Pedestrian	None	x		\$8.6	\$8.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Dropped		-223	Stays In	DGP	-2	Dropped		-219	Dropped		-244	Dropped		-263	
9179	B	CULP	Charlottesville-Albemarle MPO	Rivanna River Bicycle and Pedestrian Bridge Crossing	Bike/Pedestrian	Highway		x	\$42.1	\$42.1			Stays Out		X	Stays Out		Stays Out		-7	Stays Out		54	Stays Out		-12	Added	HPP	47	Added	HPP	45	Added	HPP	51	
9284	D	CULP	Culpeper Town	Old Brandy Road Sidewalk Extension	Bike/Pedestrian	Highway	x		\$8.3	\$8.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-2	Dropped		-152	Stays In	DGP	0	Dropped		-151	Dropped		-162	Dropped		-191	
9143	B	CULP	Albemarle County	Avon Street Bicycle and Pedestrian Improvements	Bike/Pedestrian	Transit	x	x	\$11.4	\$11.4			Stays Out			Stays Out		Stays Out		-1	Stays Out		-8	Stays Out		-1	Stays Out		-6	Stays Out		-6	Stays Out		12	
9152	B	CULP	Albemarle County	Fifth Street Extended Bicycle and Pedestrian Improvements	Bike/Pedestrian	Highway	x	x	\$18.7	\$18.7			Stays Out			Stays Out		Stays Out		-6	Stays Out		-26	Stays Out		-10	Stays Out		-27	Stays Out		-36	Stays Out		-33	
9329	B	CULP	Thomas Jefferson PDC	US250/Rolkin Road Pedestrian Improvements	Bike/Pedestrian	Highway		x	\$11.9	\$11.9			Stays Out			Stays Out		Stays Out		-7	Stays Out		-78	Stays Out		-8	Stays Out		-91	Stays Out		-100	Stays Out		-103	

*Official Round 5 Staff Scenario funded 13 projects

Note - CTB Member Consensus Modifications

Unfund from HPP

App ID 9331 US250/Peter Jefferson Pkwy Intersection Improvements and Access Management for \$20.5 M

Fund with HPP

App ID 9180 District Avenue Roundabout at Hydraulic Road for \$20.1M

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H***: CTB Member Request
Projects Added	-	0	1	0	2	1	3	3	3
Projects Dropped	-	2	0	0	4	1	5	5	5
Net SS Award (millions)	\$152.2	-\$36.4	\$20.1	\$0.0	-\$12.8	-\$1.8	\$8.8	\$8.5	\$8.5
Unallocated DGP (millions)	\$5.8	\$5.8	\$5.8	\$5.8	\$2.7	\$7.5	\$2.7	\$3.1	\$3.1

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Fredericksburg Scenario Analysis

Application Information											Individual Impacts												Cumulative Impacts													
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8981	B	FRED	Stafford County	SR-610 Widening SR-648 to SR-751 & Multimodal Improvements	Highway	BikePed & Transit	x		\$78.0	\$39.9	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-1	Stays In	DGP	76	Stays In	DGP	-8	Stays In	DGP	77	Stays In	DGP	78	Stays In	DGP	73	
9029	B	FRED	George Washington RC	American Legion Rd/Eskimo Hill Rd Turn Lanes to Rte 1	Highway	None		x	\$4.1	\$4.1	X	HPP	Dropped			Dropped		Dropped		-10	Stays In	HPP	81	Dropped		-9	Dropped		73	Dropped		68	Dropped		58	
9211	D	FRED	King George County	US 301-Port Conway-Salem Church Roadway Improvements (RCUT)	Highway	None	x	x	\$3.4	\$3.4			Stays Out			Stays Out		Stays Out		-7	Added	DGP	96	Stays Out		2	Added	DGP	86	Added	DGP	89	Added	DGP	76	
9350	D	FRED	Middle Peninsula PDC	Rt 17-Woods CrossRd-Davenport Rd Roadway Improvements (RCUT)	Highway	None		x	\$4.0	\$4.0	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	0	Stays In	HPP	6	Stays In	HPP	0	Dropped		6	Dropped		5	Dropped		5	
9025	B	FRED	Fredericksburg Area MPO	I-95 Eight-Lane Widening NB and SB B/T Exit 130 and Exit 126	Highway	None		x	\$134.5	\$134.5			Stays Out		X	Stays Out		Stays Out		25	Stays Out		11	Stays Out		5	Stays Out		71	Stays Out		82	Stays Out		52	
9446	D	FRED	Gloucester County	Rte 17 RCUTs Fox First St & The Shoppes	Highway	None	x	x	\$5.2	\$5.2			Stays Out			Stays Out		Stays Out		-6	Added	DGP	90	Stays Out		-2	Added	DGP	79	Added	DGP	83	Added	DGP	70	
9030	B	FRED	George Washington RC	US 1-Layhill Road Roadway and Ped Improvements	Highway	BikePed & Transit		x	\$14.3	\$7.0	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-9	Stays In	HPP	39	Stays In	HPP	-1	Dropped		32	Dropped		27	Dropped		40	
9032	B	FRED	George Washington RC	Dixon St(US 17 Bus) near Dixon Park Roadway & Multimodal Imp	Highway	BikePed & Transit		x	\$6.4	\$6.4	X	HPP	Stays In	HPP	X	Dropped		Stays In	HPP	-22	Dropped		-52	Stays In	HPP	21	Dropped		-94	Dropped		-45	Dropped		-34	
9028	B	FRED	Fredericksburg Area MPO	US1 Multimodal/Rdwy Imp at Guinea Station/Massaponax Church	Highway	BikePed		x	\$21.9	\$21.9			Stays Out			Stays Out		Added	HPP	262	Stays Out		34	Stays Out		59	Stays Out		319	Stays Out		323	Stays Out		282	
9053	B	FRED	Stafford County	Route 624 Widening (Forbes St. to Morton Rd.)	Highway	BikePed	x	x	\$8.8	\$5.9			Stays Out			Stays Out		Stays Out		-5	Stays Out		-47	Stays Out		-7	Stays Out		-51	Stays Out		-65	Stays Out		-45	
9054	B	FRED	Stafford County	Mountain View & Kellogg Mill Road Roundabout	Highway	BikePed	x		\$13.1	\$9.8			Stays Out			Stays Out		Stays Out		-6	Stays Out		46	Stays Out		1	Stays Out		48	Stays Out		48	Stays Out		42	
9074	B	FRED	Spotsylvania County	US 2/17 Benchmark Road Intersection Improvements	Highway	BikePed & Transit	x	x	\$20.7	\$10.7	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	1	Stays In	DGP	67	Stays In	DGP	95	Stays In	DGP	71	Stays In	DGP	134	Stays In	DGP	133	
9075	B	FRED	Spotsylvania County	US 1 and I-95 (NB and SB) Improvements at Exit 126	Highway	BikePed	x	x	\$9.7	\$6.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	34	Stays In	DGP	28	Stays In	DGP	2	Stays In	DGP	69	Stays In	DGP	68	Stays In	DGP	55	
9077	B	FRED	Spotsylvania County	US1/Hood Dr/Mine Rd (Rte 636) Roadway and Ped Improvements	Highway	BikePed & Transit	x	x	\$30.9	\$12.9	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	31	Stays In	DGP	30	Stays In	DGP	11	Stays In	DGP	44	Stays In	DGP	47	Stays In	DGP	43	
9129	D	FRED	Gloucester County	Providence Rd-Rte 17 (Turn Lane) and Multimodal Improvements	Highway	BikePed	x	x	\$5.1	\$5.1			Stays Out			Stays Out		Stays Out		-7	Stays Out		59	Stays Out		-3	Stays Out		55	Stays Out		52	Stays Out		53	
9274	D	FRED	King George County	Rte 3-Birchwood Creek Rd Roadway Improvements (L Turn Lane)	Highway	None	x		\$2.0	\$2.0			Stays Out			Stays Out		Stays Out		-1	Stays Out		9	Stays Out		0	Stays Out		9	Stays Out		10	Stays Out		9	
9304	D	FRED	King George County	Rte 3-Bloomsbury Rd Roadway Improvements-Turn Lanes	Highway	None	x		\$3.6	\$3.6			Stays Out			Stays Out		Stays Out		-1	Stays Out		37	Stays Out		3	Stays Out		36	Stays Out		37	Stays Out		31	
9308	D	FRED	King William County	King William-Rt 360-Rt 611(Venter Rd-Walnut) Roadway Improv.	Highway	None	x		\$4.1	\$4.1	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	71	Stays In	DGP	46	Stays In	DGP	66	Stays In	DGP	78	Stays In	DGP	76	
9348	D	FRED	Middle Peninsula PDC	Rte 17-Rte 33-Rte 198 (Glenns Rd) Roadway Improvements	Highway	None		x	\$5.2	\$5.2			Stays Out			Stays Out		Stays Out		-8	Stays Out		89	Stays Out		27	Stays Out		89	Stays Out		107	Stays Out		90	
9374	B	FRED	Spotsylvania County	Rte 1SB Widening with Pedestrian Accommodations	Highway	BikePed	x	x	\$8.9	\$8.9	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	10	Stays In	DGP	-39	Stays In	DGP	0	Stays In	DGP	-44	Stays In	DGP	-19	
9384	D	FRED	King & Queen County	Rt33 WB Median Acc. Ln & EB right turn @ Rt14 Buena Vista Rd	Highway	None	x		\$4.4	\$4.4			Stays Out			Stays Out		Stays Out		-8	Stays Out		89	Stays Out		-5	Stays Out		89	Stays Out		92	Stays Out		73	
9402	D	FRED	King William County	Rt. 360 - Central Crossing Shopping Center Roadway	Highway	BikePed	x		\$7.4	\$7.4			Stays Out			Stays Out		Stays Out		-2	Stays Out		17	Stays Out		4	Stays Out		14	Stays Out		14	Stays Out		17	
9414	D	FRED	King William County	Rte 360/Rte 647 (Mill Rd) Roadway Improvements	Highway	None	x		\$1.9	\$1.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	80	Stays In	DGP	97	Stays In	DGP	72	Stays In	DGP	112	Stays In	DGP	111	
9417	D	FRED	King & Queen County	Rt 33/Rt 605 (York River Rd) EB RTL Conflict Warning System	Highway	None	x		\$2.5	\$2.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	15	Stays In	DGP	-1	Stays In	DGP	11	Stays In	DGP	10	Stays In	DGP	13	
9418	D	FRED	King & Queen County	Rt 33 / Rt 678 Centerville Rd Roadway Improvements RCUT	Highway	None	x		\$3.5	\$3.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-1	Stays In	DGP	6	Stays In	DGP	0	Stays In	DGP	3	Stays In	DGP	3	Stays In	DGP	6	
9444	D	FRED	Gloucester County	Rte 17 / Main St Intersection Modifications	Highway	BikePed	x	x	\$2.7	\$2.7	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	30	Stays In	DGP	-2	Stays In	DGP	25	Stays In	DGP	22	Stays In	DGP	20	
9449	B	FRED	Fredericksburg City	Lafayette Blvd - Rte 3 Roadway Improvements	Highway	None	x	x	\$7.7	\$7.7	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	126	Stays In	DGP	-12	Stays In	DGP	-3	Stays In	DGP	145	Stays In	DGP	146	Stays In	DGP	123	
9469	D	FRED	Middlesex County	Town Bridge Rd Roadway Improvements (RRR)	Highway	None	x		\$10.0	\$10.0			Stays Out			Stays Out		Stays Out		-7	Stays Out		-46	Stays Out		-4	Stays Out		-47	Stays Out		-54	Stays Out		-56	

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Fredericksburg Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9471	D	FRED	Westmoreland County	Rte 202-Kinsale Rd Roadway Improvements	Highway	None	x		\$3.4	\$3.4			Stays Out		X	Stays Out		Stays Out		2	Stays Out		26	Stays Out		-1	Stays Out		26	Stays Out		24	Stays Out		23	
9474	D	FRED	Middlesex County	Rte 3-Regent Road Roadway Improvements (Turn Lanes)	Highway	None	x		\$4.3	\$4.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-12	Stays In	DGP	90	Stays In	DGP	-4	Stays In	DGP	80	Stays In	DGP	83	Stays In	DGP	74	
9477	D	FRED	Middlesex County	Rte 3(Twiggs Ferry Rd)-Rt 630(Stampers Bay Rd) (Roundabout)	Highway	None	x		\$6.8	\$6.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	74	Stays In	DGP	0	Stays In	DGP	69	Stays In	DGP	64	Stays In	DGP	58	
9478	D	FRED	Richmond County	Rte 360-Threeway Road Roadway Improvements/Trench Widening	Highway	None	x		\$4.0	\$4.0			Stays Out			Stays Out		Stays Out		-9	Stays Out		50	Stays Out		3	Stays Out		44	Stays Out		44	Stays Out		38	
9486	D	FRED	Richmond County	Rte 3-Sharp's Rd Roadway Improvements with Trench Widening	Highway	None	x		\$3.8	\$3.8			Stays Out			Stays Out		Stays Out		-1	Stays Out		33	Stays Out		3	Stays Out		29	Stays Out		34	Stays Out		28	
9487	D	FRED	Westmoreland County	Rte 205-Ferry Landing Roadway Improvements (Turn Lanes)	Highway	None	x		\$6.5	\$6.5			Stays Out			Stays Out		Stays Out		-1	Stays Out		5	Stays Out		4	Stays Out		5	Stays Out		5	Stays Out		4	
9491	D	FRED	Mathews County	Rte 3 - Rte 198 Roadway Improvements (Roundabout)	Highway	BikePed	x		\$7.8	\$7.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	80	Stays In	DGP	-2	Stays In	DGP	71	Stays In	DGP	68	Stays In	DGP	63	
9493	D	FRED	Lancaster County	Rte 3-Rte 1036 (Harris Rd) Roadway Improvements (Turn Lanes)	Highway	None	x		\$3.0	\$3.0	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	83	Stays In	DGP	-3	Stays In	DGP	74	Stays In	DGP	75	Stays In	DGP	70	
9494	D	FRED	Lancaster County	Rte 615-Rte 605 Roadway Improvements	Highway	None	x		\$3.2	\$3.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	82	Stays In	DGP	-4	Stays In	DGP	73	Stays In	DGP	73	Stays In	DGP	65	
9495	D	FRED	Lancaster County	Rte 354-Rte 201 Roadway Improvements (Turn Lane)	Highway	None	x		\$2.7	\$2.7			Stays Out			Stays Out		Stays Out		-5	Stays Out		48	Stays Out		4	Stays Out		46	Stays Out		44	Stays Out		40	
9476	D	FRED	Fredericksburg City	Express Commuter Transit Service to Dahlgren	Bus Transit	None	x	x	\$4.1	\$4.1	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	-132	Stays In	DGP	0	Stays In	DGP	-146	Stays In	DGP	-142	Stays In	DGP	-121	
9034	B	FRED	George Washington RC	Lafayette Blvd Multimodal Imp w/ Rdwy Imp at Olde Greenwich	Bike/Pedestrian	Highway & Transit		x	\$17.2	\$17.2			Stays Out			Stays Out		Stays Out		-2	Stays Out		-3	Stays Out		1	Stays Out		-7	Stays Out		-8	Stays Out		14	
9022	B	FRED	Fredericksburg Area MPO	VCR Regional Project - Multimodal Improvements	Bike/Pedestrian	None		x	\$16.9	\$16.6	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-8	Dropped		-55	Stays In	HPP	-2	Dropped		-67	Dropped		-68	Dropped		-35	
9026	B	FRED	Fredericksburg Area MPO	US 1 Bike & Ped Facilities from Harrison Rd to Kings Mill Dr	Bike/Pedestrian	None		x	\$14.2	\$14.2	X	HPP	Dropped			Dropped		Dropped		3	Stays In	HPP	50	Stays In	HPP	-2	Dropped		44	Dropped		48	Dropped		53	
9433	B	FRED	Fredericksburg City	Dixon Park Connector - Multimodal Improvements	Bike/Pedestrian	Highway	x	x	\$9.3	\$9.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-321	Stays In	DGP	0	Dropped		-320	Dropped		-330	Dropped		-329	
9052	B	FRED	Stafford County	Leeland Rd (Rt 626) Widening w/ Multimodal (Rt 694 to 1950)	Bike/Pedestrian	Highway	x	x	\$19.9	\$9.1			Stays Out			Stays Out		Stays Out		-4	Stays Out		60	Stays Out		0	Stays Out		62	Stays Out		61	Stays Out		55	
9295	D	FRED	King George County	US 301 - Rte 614 Multimodal Improvements	Bike/Pedestrian	None	x	x	\$9.1	\$9.1			Stays Out			Stays Out		Stays Out		-8	Stays Out		61	Stays Out		-1	Stays Out		54	Stays Out		52	Stays Out		53	
9447	D	FRED	Gloucester County	Rte. 17 Shared Use Path	Bike/Pedestrian	Highway	x	x	\$15.5	\$15.5			Stays Out			Stays Out		Stays Out		-10	Stays Out		68	Stays Out		-5	Stays Out		64	Stays Out		59	Stays Out		57	

*Official Round 5 Staff Scenario funded 24 projects

Note - CTB Member Consensus Modifications

Unfund from DGP

App ID 9476 Express Commuter Transit Service to Dahlgren for \$4.1M

App ID 8981 Route 610 Widening Route 648 to Route 751 and Multimodal Improvements for \$39.9M

Fund with DGP

App ID 9211 US 301 Port Conway-Salem Church Roadway Improvements (RCUT) for \$3.4M

App ID 9052 Leeland Rd (Route 626) Widening with Multimodal Improvements (Route 694 to 1950) for \$9.1M

App ID 9384 Route 33 Westbound Median Acceleration Lane and Eastbound Right Turn Lane at Route 14 Buena Vista Ro.

App ID 9478 Route 360 Threeway Road Roadway Improvements and Trench Widening submitted for \$4.0M

App ID 9486 Route Sharp's Road Roadway Improvements with Trench Widening for \$3.8M

Fund with DGP and HPP (50/50)

App ID 9348 Route 17/Route 33.Route 198 (Glenns Road) Roadway Improvements for \$5.2M

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	0	0	1	2	0	2	2	2
Projects Dropped	-	5	3	2	3	1	7	7	7
Net SS Award (millions)	\$191.8	-\$45.9	-\$24.7	\$3.6	-\$23.9	-\$4.1	-\$53.1	-\$53.1	-\$53.1
Unallocated DGP (millions)	\$2.4	\$2.4	\$2.4	\$2.4	\$3.3	\$2.4	\$3.3	\$3.3	\$3.3

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review Hampton Roads Scenario Analysis

Application Information										Individual Impacts													Cumulative Impacts													
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9250	A	HR	Suffolk City	Bridge Rd. (Rte 17) and College Dr. (Rte 135) Left Turn Lane	Highway	None	x		\$13.6	\$13.6			Stays Out		X	Stays Out	Stays Out	20	Added	DGP	110	Stays Out	13	Added	DGP	131	Added	DGP	142	Stays Out		103				
9281	A	HR	Chesapeake City	17/460 Intersection Improvement Project	Highway	None	x	x	\$17.7	\$17.7			Stays Out			Stays Out	Stays Out	13	Added	DGP	97	Stays Out	-4	Added	DGP	102	Added	DGP	101	Added	DGP	74				
9432	A	HR	York County	Route 17/Rich Road Access Management	Highway	None	x		\$0.6	\$0.6	X	DGP	Stays In	DGP		Stays In	DGP	0	Dropped		-381	Stays In	DGP	0	Dropped		-382	Dropped		-384	Dropped		-384			
9436	D	HR	Sussex County	Route 460 and Cabin Point Road Intersection Improvement	Highway	None	x	x	\$8.0	\$8.0			Stays Out			Stays Out	Stays Out	-31	Stays Out		-58	Added	DGP	203	Stays Out		-93	Added	DGP	207	Added	DGP	205			
9440	D	HR	Sussex County	Beef Steak Road Improvements	Highway	None	x		\$36.0	\$36.0			Stays Out			Stays Out	Stays Out	2	Stays Out		-11	Stays Out	171	Stays Out		-11	Stays Out		216	Stays Out		193				
8988	A	HR	Newport News City	Oyster Point Rd Widening II	Highway	BikePed & Transit	x	x	\$11.3	\$11.3	X	DGP	Stays In	DGP	X	Stays In	DGP	-5	Dropped		-117	Stays In	DGP	2	Dropped		-119	Dropped		-106	Dropped		-94			
9098	A	HR	Chesapeake City	Great Bridge Bypass and Battlefield Blvd Interchange Imp.	Highway	BikePed	x	x	\$32.6	\$32.6			Stays Out		X	Stays Out	Stays Out	33	Stays Out		-41	Stays Out	14	Stays Out		29	Stays Out		54	Stays Out		11				
8990	A	HR	Newport News City	Warwick Blvd SB Widening	Highway	BikePed & Transit	x	x	\$14.5	\$14.5			Stays Out		X	Stays Out	Stays Out	-2	Added	DGP	104	Stays Out	41	Added	DGP	98	Added	DGP	125	Added	DGP	135				
9082	A	HR	James City County	Pocahontas Trail (Rt 60) Multimodal Improvements UPC 102980	Highway	BikePed & Transit	x	x	\$57.8	\$14.0			Stays Out			Stays Out	Stays Out	-10	Stays Out		104	Stays Out	12	Added	DGP	98	Stays Out		107	Stays Out		113				
9113	D	HR	Accomack County	Route 175 Improvements: 3-Lane Undivided Highway	Highway	None	x		\$67.0	\$67.0			Stays Out		X	Stays Out	Stays Out	-8	Stays Out		82	Stays Out	1	Stays Out		74	Stays Out		80	Stays Out		68				
8992	A	HR	Newport News City	J. Clyde Morris Blvd Widening	Highway	BikePed	x	x	\$5.1	\$5.1	X	DGP	Stays In	DGP	X	Stays In	DGP	-2	Dropped		-234	Stays In	DGP	0	Dropped		-220	Dropped		-182	Dropped		-213			
9228	A	HR	Virginia Beach City	Providence Rd (Kempsville Rd to Churchill Dr)	Highway	BikePed	x		\$12.7	\$9.7	X	DGP	Stays In	DGP		Stays In	DGP	-6	Stays In	DGP	-92	Stays In	DGP	-2	Stays In	DGP	-105	Dropped		-106	Dropped		-92			
9251	A	HR	Virginia Beach City	Clearfield Ave (Cleveland St to VB Blvd)	Highway	BikePed	x		\$15.0	\$10.0	X	DGP	Stays In	DGP		Stays In	DGP	-7	Stays In	DGP	-24	Stays In	DGP	-1	Stays In	DGP	-31	Dropped		-32	Stays In	DGP	-4			
9319	A	HR	Norfolk City	Virginia Beach Boulevard - George Street to Winburne Lane	Highway	BikePed	x	x	\$9.3	\$9.3	X	DGP	Stays In	DGP	X	Stays In	DGP	-11	Dropped		-78	Dropped		-7	Dropped		-93	Dropped		-106	Dropped		-83			
9448	A	HR	Isle of Wight County	US Rt 17 Right Turn Lane Ext @ State Rt 669 (Smiths Neck)	Highway	BikePed	x	x	\$13.8	\$13.8			Stays Out			Stays Out	Added	DGP	141	Added	DGP	66	Stays Out	4	Added	DGP	191	Added	DGP	189	Added	DGP	163			
9146	A	HR	Chesapeake City	Kempsville Rd and Battlefield Blvd Intersection Improvements	Highway	None	x	x	\$27.3	\$27.3	X	DGP	Stays In	DGP		Stays In	DGP	43	Stays In	DGP	36	Stays In	DGP	1	Stays In	DGP	53	Stays In	DGP	53	Stays In	DGP	47			
9172	A	HR	Virginia Beach City	General Booth Blvd/Dam Neck Rd Intersection	Highway	BikePed	x	x	\$5.3	\$4.3	X	DGP	Stays In	DGP		Stays In	DGP	58	Stays In	DGP	-22	Stays In	DGP	0	Stays In	DGP	63	Stays In	DGP	61	Stays In	DGP	48			
9201	D	HR	Accomack County	Redwood Road Improvements	Highway	None	x		\$15.5	\$15.5			Stays Out			Stays Out	Stays Out	-8	Stays Out		30	Stays Out	-3	Stays Out		27	Stays Out		28	Stays Out		16				
9231	A	HR	Chesapeake City	Ballhack Road Safety Improvements	Highway	None	x		\$4.2	\$4.2			Stays Out			Stays Out	Stays Out	-9	Stays Out		-51	Stays Out	-4	Stays Out		-51	Stays Out		-51	Stays Out		-52				
9232	A	HR	Virginia Beach City	Indian River Rd/Thompkins Ln Intersection	Highway	BikePed & Transit	x	x	\$2.7	\$2.7	X	DGP	Stays In	DGP		Stays In	DGP	0	Stays In	DGP	-5	Stays In	DGP	0	Stays In	DGP	-13	Stays In	DGP	-15	Stays In	DGP	9			
9242	A	HR	Virginia Beach City	Independence Blvd/Pleasure House Rd Intersection	Highway	Transit	x		\$6.4	\$5.4	X	DGP	Stays In	DGP		Stays In	DGP	8	Stays In	DGP	12	Stays In	DGP	-3	Stays In	DGP	22	Stays In	DGP	18	Stays In	DGP	5			
9244	A	HR	Virginia Beach City	Dam Neck Rd (Holland Rd to Drakesmile Rd)	Highway	None	x	x	\$18.7	\$13.2			Stays Out		X	Stays Out	Stays Out	-1	Stays Out		-1	Stays Out	0	Stays Out		-1	Stays Out		1	Stays Out		1				
9249	A	HR	Norfolk City	Brambleton Avenue/Tidewater Drive Intersection Improvements	Highway	None	x	x	\$2.0	\$2.0	X	DGP	Stays In	DGP		Stays In	DGP	0	Stays In	DGP	-11	Stays In	DGP	0	Stays In	DGP	-4	Stays In	DGP	-4	Stays In	DGP	-5			
9263	A	HR	Virginia Beach City	First Colonial Road (Republic Rd to Old Donation Pkwy)	Highway	BikePed & Transit	x	x	\$47.1	\$23.8			Stays Out		X	Stays Out	Stays Out	-6	Stays Out		-56	Stays Out	5	Stays Out		-65	Stays Out		-59	Stays Out		-6				
9424	A	HR	York County	Oriana Road Shoulder/Drainage Improvements	Highway	None	x		\$7.5	\$7.5			Stays Out			Stays Out	Stays Out	-4	Stays Out		-158	Stays Out	0	Stays Out		-159	Stays Out		-160	Stays Out		-160				
9441	D	HR	Sussex County	Route 460 Improvements	Highway	None	x		\$24.4	\$24.4			Stays Out			Stays Out	Stays Out	-3	Stays Out		36	Stays Out	4	Stays Out		33	Stays Out		35	Stays Out		36				
9442	D	HR	Sussex County	Route 35/40 Roundabout	Highway	None	x		\$13.0	\$13.0	X	DGP	Stays In	DGP		Stays In	DGP	-9	Stays In	DGP	72	Stays In	DGP	-2	Stays In	DGP	63	Stays In	DGP	63	Stays In	DGP	58			
9452	A	HR	Isle of Wight County	Route 17 and Sugar Hill Road Intersection Improvements	Highway	None	x	x	\$3.7	\$3.7			Stays Out			Stays Out	Stays Out	-17	Stays Out		67	Stays Out	2	Stays Out		26	Stays Out		27	Stays Out		34				

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review Hampton Roads Scenario Analysis

Application Information											Individual Impacts												Cumulative Impacts													
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9456	A	HR	Chesapeake City	Military Highway Near Bainbridge Blvd Safety Improvements	Highway	None	x	x	\$3.0	\$3.0			Stays Out			Stays Out		Stays Out		-8	Stays Out		60	Stays Out		54	Stays Out		50	Stays Out		103	Stays Out		82	
9461	A	HR	Chesapeake City	Battlefield Blvd and I-64 Ramp Improvements to Wal Mart Way	Highway	None	x	x	\$10.5	\$10.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-21	Stays In	DGP	31	Stays In	DGP	3	Stays In	DGP	10	Stays In	DGP	20	Stays In	DGP	6	
9464	A	HR	Chesapeake City	Centerville Turnpike Widening	Highway	BikePed	x	x	\$451.0	\$451.0			Stays Out			Stays Out		Stays Out		6	Stays Out		2	Stays Out		0	Stays Out		16	Stays Out		20	Stays Out		16	
9465	A	HR	Chesapeake City	Military Highway Safety Improvements and Access Management	Highway	BikePed	x	x	\$2.3	\$2.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	7	Stays In	DGP	0	Stays In	DGP	7	Stays In	DGP	7	Stays In	DGP	9	
9468	A	HR	Isle of Wight County	US Rt 460 Safety Improvements Cut Thru Rd to Stave Mill Rd	Highway	None	x		\$12.2	\$12.2			Stays Out			Stays Out		Stays Out		-1	Stays Out		34	Stays Out		0	Stays Out		34	Stays Out		35	Stays Out		33	
9488	A	HR	Smithfield Town	S. Church Widening and Shared Use Path Improvements	Highway	BikePed	x	x	\$23.1	\$23.0			Stays Out		X	Stays Out		Stays Out		-6	Stays Out		-76	Stays Out		0	Stays Out		-80	Stays Out		-72	Stays Out		-60	
9102	A	HR	Hampton City	W. Queen Street Corridor Improvements	Bike/Pedestrian	Highway	x		\$4.5	\$4.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	10	Stays In	DGP	0	Stays In	DGP	10	Stays In	DGP	10	Stays In	DGP	8	
9105	A	HR	Hampton Roads TPO	Birthplace of America Trail (BoAT): Newport News Park Phase	Bike/Pedestrian	None		x	\$21.9	\$19.1			Stays Out			Stays Out		Stays Out		-10	Stays Out		41	Stays Out		-5	Stays Out		25	Stays Out		25	Stays Out		60	
9117	A	HR	Hampton City	Chesapeake Ave Corridor Improvements	Bike/Pedestrian	None	x	x	\$25.6	\$25.6			Stays Out			Stays Out		Stays Out		-10	Stays Out		-79	Stays Out		-5	Stays Out		-80	Stays Out		-80	Stays Out		-79	
9191	D	HR	Accomack-Norhampton PDC	Onley to Parksley: Eastern Shore of Virginia Rail Trail	Bike/Pedestrian	Transit		x	\$10.7	\$10.7			Stays Out			Stays Out		Stays Out		-9	Added	HPP	43	Stays Out		-79	Stays Out		33	Stays Out		-81	Stays Out		-80	
9133	A	HR	Newport News City	BoAT_Warwick Blvd at Falls Reach Pkwy to NN Park Trails SUP	Bike/Pedestrian	None	x	x	\$15.6	\$13.1			Stays Out			Stays Out		Stays Out		-7	Stays Out		23	Stays Out		23	Stays Out		15	Stays Out		53	Added	DGP	94	
9259	A	HR	Norfolk City	Dovercourt Road Pedestrian Improvements	Bike/Pedestrian	None	x	x	\$0.9	\$0.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	-193	Stays In	DGP	-1	Dropped		-210	Dropped		-226	Stays In	DGP	-171	
9317	A	HR	Norfolk City	Little Creek Road Pedestrian Improvements	Bike/Pedestrian	None	x		\$7.4	\$7.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Dropped		-173	Stays In	DGP	-2	Dropped		-189	Dropped		-190	Dropped		-173	
9318	A	HR	Norfolk City	Chesapeake Blvd Ped Improvements	Bike/Pedestrian	None	x		\$4.5	\$4.0	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Dropped		-226	Stays In	DGP	0	Dropped		-240	Dropped		-239	Dropped		-221	
9120	D	HR	Accomack-Norhampton PDC	Melfa to Onley Segment: Eastern Shore of Virginia Rail Trail	Bike/Pedestrian	Highway & Transit		x	\$8.1	\$8.1	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-7	Stays In	HPP	58	Stays In	HPP	-8	Dropped		49	Dropped		32	Dropped		39	
9122	D	HR	Accomack-Norhampton PDC	Northampton Segment: Eastern Shore of Virginia Rail Trail	Bike/Pedestrian	Highway		x	\$18.3	\$18.3			Stays Out			Stays Out		Stays Out		-4	Added	HPP	67	Stays Out		-87	Stays Out		60	Stays Out		-27	Stays Out		-27	
9155	A	HR	Hampton City	Fort Monroe Bicycle/Pedestrian Improvements - Stilwell Drive	Bike/Pedestrian	Highway	x		\$17.9	\$12.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-10	Dropped		-208	Stays In	DGP	-8	Dropped		-209	Dropped		-207	Dropped		-200	
9156	A	HR	Hampton City	Tide Mill Pedestrian Improvements	Bike/Pedestrian	Highway	x	x	\$5.3	\$5.3	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-5	Dropped		-256	Stays In	DGP	5	Dropped		-268	Dropped		-152	Stays In	DGP	-137	
9320	A	HR	Norfolk City	Chesapeake Blvd Ped Improvements - Little Creek to Sheppard	Bike/Pedestrian	Highway	x	x	\$9.5	\$8.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Stays In	DGP	-141	Stays In	DGP	-2	Dropped		-156	Dropped		-156	Stays In	DGP	-82	
9321	A	HR	Norfolk City	Chesapeake Blvd Ped Improvements - Sheppard to Fishermans	Bike/Pedestrian	Highway	x	x	\$7.2	\$6.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-137	Stays In	DGP	1	Dropped		-150	Dropped		-151	Stays In	DGP	-75	
9208	D	HR	Accomack-Norhampton PDC	Eastern Shore of Virginia Rail Trail	Bike/Pedestrian	Highway & Transit		x	\$43.8	\$43.8			Stays Out			Stays Out		Stays Out		-8	Stays Out		62	Stays Out		-40	Stays Out		51	Stays Out		-6	Stays Out		3	
9261	A	HR	Norfolk City	Ocean View Ave Bicycle Imp. (1st View St to Capeview Street)	Bike/Pedestrian	Highway	x	x	\$3.3	\$3.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	12	Stays In	DGP	0	Stays In	DGP	12	Stays In	DGP	12	Stays In	DGP	11	
9286	A	HR	Norfolk City	Southside Bicycle and Pedestrian Improvements	Bike/Pedestrian	Highway	x	x	\$4.6	\$3.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	3	Stays In	DGP	0	Stays In	DGP	4	Stays In	DGP	3	Stays In	DGP	3	
9306	A	HR	Norfolk City	Ocean View Ave Ped Improvements	Bike/Pedestrian	None	x	x	\$2.5	\$2.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-1	Stays In	DGP	8	Stays In	DGP	0	Stays In	DGP	8	Stays In	DGP	8	Stays In	DGP	9	
9330	A	HR	York County	BOAT Trail - Hampton Highway Segment	Bike/Pedestrian	None	x	x	\$5.6	\$5.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-9	Stays In	DGP	67	Stays In	DGP	-5	Stays In	DGP	54	Stays In	DGP	56	Stays In	DGP	80	
8952	A	HR	Suffolk Transit	Windsor to Suffolk Commuter Bus Service	Bus Transit	None		x	\$0.4	\$0.4	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	0	Stays In	HPP	-1	Stays In	HPP	0	Dropped		-3	Dropped		-3	Dropped		-4	

Appendix E: Alternate CTB Recommendations Scenario Analysis

*Official Round 5 Staff Scenario funded 28 projects

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	0	0	1	6	1	5	5	5
Projects Dropped	-	2	0	1	9	1	13	15	10
Net SS Award (millions)	\$186.5	-\$8.5	\$0.0	\$4.6	\$26.5	-\$1.3	-\$6.2	-\$31.9	-\$1.4
Unallocated DGP (millions)	\$7.4	\$7.4	\$7.4	\$2.8	\$9.9	\$8.7	\$5.1	\$30.9	\$0.30

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

Note - CTB Member Consensus Modifications

Unfund from DGP

App ID 9261 Ocean View Ave Bicycle Improvements (1st View Street to Capeview Street) for \$3.3M

For Illustrative Purposes

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Lynchburg Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8950	C	LYN	Campbell County	Route 501 Passing Lanes	Highway	None	x	x	\$42.5	\$42.5			Stays Out		X	Stays Out	Stays Out	-1	Stays Out	6	Stays Out	0	Stays Out	5	Stays Out	5	Stays Out	5								
9035	C	LYN	Campbell County	Timberlake Road Improvements (Greenview Dr. to Laxton Rd.)	Highway	BikePed & Transit	x	x	\$25.1	\$25.1			Stays Out			Stays Out	Stays Out	-4	Stays Out	35	Stays Out	-5	Stays Out	37	Stays Out	39	Stays Out	34								
9038	C	LYN	Nelson County	Route 6/151 Intersection Improvement	Highway	None	x		\$15.7	\$15.7	X	DGP	Stays In	DGP		Stays In	DGP	-5	Stays In	DGP	76	Stays In	DGP	-2	Stays In	DGP	71	Stays In	DGP	74						
9039	C	LYN	Nelson County	Route 151 at Tanbark Drive intersection improvements	Highway	None	x		\$10.4	\$10.4			Stays Out			Stays Out	Stays Out	-5	Stays Out	32	Stays Out	4	Stays Out	29	Stays Out	31	Stays Out	40								
9091	C	LYN	Nelson County	Route 29 and Front Street Signalized R-cut intersection	Highway	None	x	x	\$13.6	\$13.6			Stays Out			Stays Out	Stays Out	-20	Stays Out	-3	Stays Out	-4	Stays Out	-31	Stays Out	-29	Stays Out	-25								
9147	D	LYN	Pittsylvania County	US 29 at Lawless Creek Road	Highway	None	x	x	\$24.8	\$24.8			Stays Out			Stays Out	Stays Out	-7	Stays Out	73	Stays Out	-2	Stays Out	63	Stays Out	65	Stays Out	49								
9151	C	LYN	Lynchburg City	US 501 Bus - Langhorne and Vassar Improvements	Highway	BikePed	x	x	\$9.8	\$9.8	X	DGP	Stays In	DGP		Stays In	DGP	-5	Stays In	DGP	18	Stays In	DGP	1	Stays In	DGP	9	Stays In	DGP	18						
8949	C	LYN	Campbell County	Route 29 Safety Improvements - Southern Section	Highway	None	x	x	\$10.7	\$10.7			Stays Out		X	Stays Out	Stays Out	-10	Added	DGP	84	Added	DGP	164	Added	DGP	78	Added	DGP	205	Added	DGP	208			
9139	D	LYN	Pittsylvania County	US Route 29 at Malmaison Road Roundabout	Highway	None	x	x	\$19.0	\$19.0			Stays Out			Stays Out	Stays Out	-8	Added	DGP	88	Stays Out	-16	Added	DGP	84	Added	DGP	66	Added	DGP	53				
9193	D	LYN	Danville City	Riverside Dr. Improvements - Arnett Blvd. to Main St.	Highway	BikePed	x	x	\$28.7	\$28.7	X	DGP	Stays In	DGP		Stays In	DGP	-6	Dropped		-1	Dropped	2	Dropped	-8	Dropped	-10	Dropped	-16							
9327	C	LYN	Amherst County	Route 29B at Amherst Highway - Dillard Road and Lakeview Dr	Highway	BikePed	x	x	\$6.7	\$6.7	X	DGP	Stays In	DGP		Stays In	DGP	-7	Dropped		-28	Dropped	-2	Dropped	-37	Dropped	-43	Dropped	-41							
9399	D	LYN	Halifax County	US 501/Sunshine Dr Realignment and Pedestrian Improvements	Highway	BikePed	x		\$9.6	\$9.6			Stays Out		X	Stays Out	Stays Out	-5	Stays Out	-130	Added	DGP	62	Stays Out	-130	Stays Out	11	Stays Out	-2							
9176	C	LYN	Campbell County	Candlers Mountain Road - Other Turn Lanes	Highway	None	x		\$8.5	\$8.5			Stays Out			Stays Out	Stays Out	-9	Stays Out	-23	Stays Out	-4	Stays Out	-26	Stays Out	-25	Stays Out	-20								
9192	D	LYN	Danville City	Riverside Dr. Improvements - Piney Forest Rd. to Audubon Dr.	Highway	BikePed	x	x	\$45.6	\$45.6			Stays Out			Stays Out	Stays Out	-7	Stays Out	40	Stays Out	-3	Stays Out	34	Stays Out	30	Stays Out	20								
9230	D	LYN	Prince Edward County	Intersection Safety Improvements of Rt 692 and Rt 665	Highway	None	x		\$7.7	\$7.7			Stays Out		X	Stays Out	Stays Out	2	Stays Out	26	Stays Out	0	Stays Out	24	Stays Out	23	Stays Out	22								
9273	C	LYN	Lynchburg City	Candlers Mntn Rd/460 & Liberty Mntn Dr Roundabout	Highway	BikePed	x	x	\$28.9	\$28.9			Stays Out			Stays Out	Stays Out	-4	Stays Out	-8	Stays Out	3	Stays Out	-6	Stays Out	-3	Stays Out	2								
9333	C	LYN	Amherst County	Seminole Drive Right Turn Lane	Highway	BikePed	x	x	\$2.5	\$2.5	X	DGP	Stays In	DGP		Stays In	DGP	-9	Stays In	DGP	27	Stays In	DGP	-2	Stays In	DGP	14	Stays In	DGP	13	Stays In	DGP	20			
9336	C	LYN	Amherst County	Dillard Road Right Turn Lane	Highway	None	x	x	\$3.2	\$3.2			Stays Out			Stays Out	Stays Out	4	Stays Out	-58	Stays Out	-2	Stays Out	-46	Stays Out	-45	Stays Out	-59								
9337	C	LYN	Amherst County	Lynchburg Expressway and S Amherst Hwy Intersection	Highway	None	x	x	\$3.0	\$3.0	X	DGP	Stays In	DGP		Stays In	DGP	3	Stays In	DGP	15	Stays In	DGP	-4	Stays In	DGP	38	Stays In	DGP	32	Stays In	DGP	-10			
9354	D	LYN	Prince Edward County	Prince Edward County - Manor House Drive Turn Lanes	Highway	None	x		\$8.7	\$8.2			Stays Out			Stays Out	Stays Out	2	Stays Out	17	Stays Out	0	Stays Out	16	Stays Out	15	Stays Out	13								
9401	D	LYN	Southside PDC	US 58/Rt 751 Intersection Improvements	Highway	None		x	\$2.0	\$2.0			Stays Out			Stays Out	Stays Out	-7	Stays Out	56	Stays Out	3	Stays Out	49	Stays Out	50	Stays Out	44								
9410	C	LYN	Altavista Town	Lynch Mill / Clarion Road Intersection Improvements	Highway	None	x		\$9.7	\$9.7			Stays Out			Stays Out	Stays Out	-6	Stays Out	-62	Stays Out	-22	Stays Out	-64	Stays Out	-80	Stays Out	-76								
9431	D	LYN	Danville City	Piney Forest Road Improvements	Highway	BikePed	x	x	\$22.1	\$22.1	X	DGP	Stays In	DGP		Stays In	DGP	-7	Stays In	DGP	77	Stays In	DGP	-3	Stays In	DGP	68	Stays In	DGP	67	Stays In	DGP	62			
9443	D	LYN	Danville City	Riverside Dr. Improvements - Audubon Dr. to Arnett Blvd.	Highway	BikePed & Transit	x	x	\$22.2	\$22.2	X	DGP	Stays In	DGP		Stays In	DGP	-11	Stays In	DGP	18	Stays In	DGP	-5	Stays In	DGP	7	Stays In	DGP	7	Stays In	DGP	-4			
9470	D	LYN	Pittsylvania County	US Route 29 at Spring Garden Rd Turn Lane Improvements	Highway	None	x	x	\$3.9	\$3.9	X	DGP	Stays In	DGP		Stays In	DGP	-35	Stays In	DGP	76	Stays In	DGP	-5	Stays In	DGP	46	Stays In	DGP	49	Stays In	DGP	37			
9473	D	LYN	Pittsylvania County	US Route 58 at Route 622 ICWS	Highway	None	x	x	\$1.0	\$1.0	X	DGP	Stays In	DGP		Stays In	DGP	-4	Stays In	DGP	30	Stays In	DGP	-13	Stays In	DGP	26	Stays In	DGP	23	Stays In	DGP	22			
9106	D	LYN	Danville MPO	Piedmont Drive Pedestrian Accommodations	Bike/Pedestrian	None		x	\$6.7	\$6.7	X	HPP	Dropped			Stays In	HPP	-3	Stays In	HPP	3	Stays In	HPP	1	Dropped	-10	Dropped	-9	Dropped	-12						
9398	D	LYN	Halifax County	Town of Halifax Pedestrian Improvements	Bike/Pedestrian	None	x		\$2.5	\$2.5	X	DGP	Stays In	DGP		Stays In	DGP	-6	Dropped		-259	Stays In	DGP	-2	Dropped	-261	Dropped	-269	Dropped	-263						

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Lynchburg Scenario Analysis

Application Information										Individual Impacts									Cumulative Impacts																	
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9397	D	LYN	Halifax County	Sinai Road Pedestrian Project	Bike/Pedestrian	Highway	x		\$11.2	\$11.2			Stays Out			Stays Out			Stays Out		-5	Stays Out		-42	Stays Out		-4	Stays Out		-45	Stays Out		-43	Stays Out		-46

*Official Round 5 Staff Scenario funded 12 projects

Note - CTB Member Consensus Modifications

Unfund from DGP

App ID 9327 Route 29 Business at Amherst Highway - Dillard Road and Lakeview Drive for \$6.7M

Fund with DGP

App ID 9336 Dillard Road Right Turn Lane for \$3.2M

App ID 9354 Manor House Drive Turn Lanes for a reduced amount of \$2.6M

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	0	0	0	2	2	2	2	2
Projects Dropped	-	1	0	0	3	2	4	4	4
Net SS Award (millions)	\$124.8	-\$6.7	\$0.0	\$0.0	-\$8.2	-\$15.1	-\$14.8	-\$14.8	-\$14.8
Unallocated DGP (millions)	\$8.9	\$8.9	\$8.9	\$8.9	\$17.1	\$24.0	\$17.1	\$17.1	\$17.1

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

For Illustrative

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Northern Virginia Scenario Analysis

Application Information										Individual Impacts															Cumulative Impacts												
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request			
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program
8948	A	NOVA	Loudoun County	Route 7 Improvements, Phase 3:(Route 9 to Dulles Greenway)	Highway	None	x	x	\$155.4	\$102.8			Stays Out			Stays Out			Stays Out			-13	Stays Out		65	Stays Out		0	Stays Out		49	Stays Out		47	Stays Out		22
8975	A	NOVA	Loudoun County	East Church Road and North Lincoln Ave Roundabout	Highway	BikePed	x		\$3.2	\$2.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	1	Stays In	DGP	-2	Stays In	DGP	0	Stays In	DGP	0	Stays In	DGP	0	Stays In	DGP	-3		
8983	A	NOVA	Fairfax County	Town Center Parkway Underpass	Highway	BikePed	x	x	\$304.8	\$245.8			Stays Out		X	Stays Out			Stays Out			-10	Stays Out		11	Stays Out		-1	Stays Out		8	Stays Out		2	Stays Out		16
9040	A	NOVA	Leesburg Town	Rte 15 Leesburg Bypass Interchange with Edwards Ferry Road	Highway	BikePed	x	x	\$190.7	\$157.9			Stays Out		X	Stays Out			Stays Out			-1	Stays Out		59	Stays Out		-4	Stays Out		66	Stays Out		66	Stays Out		96
9063	A	NOVA	Fairfax County	Frontier Drive Extension	Highway	BikePed & Transit	x	x	\$224.0	\$170.4			Stays Out		X	Stays Out			Stays Out			1	Stays Out		9	Stays Out		-1	Stays Out		7	Stays Out		5	Stays Out		15
9089	A	NOVA	Prince William County	Route 123 and Old Bridge Rd Intersection Improvements	Highway	BikePed	x	x	\$115.7	\$81.6			Stays Out			Stays Out			Stays Out			24	Stays Out		56	Stays Out		-3	Stays Out		84	Stays Out		83	Stays Out		95
9168	A	NOVA	Prince William County	Route 234 and Sudley Manor Dr Intersection Improvements	Highway	BikePed	x	x	\$149.0	\$149.0			Stays Out		X	Stays Out			Stays Out			18	Stays Out		60	Stays Out		4	Stays Out		92	Stays Out		95	Stays Out		79
9177	A	NOVA	Arlington County	Arlington Blvd / Manchester St Left Turn Lane Extensions	Highway	None	x	x	\$3.9	\$3.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Dropped		-139	Stays In	DGP	1	Dropped		-150	Dropped		-150	Dropped		-173		
9080	A	NOVA	Fairfax City	South Street Extension	Highway	BikePed & Transit	x	x	\$23.8	\$23.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-128	Stays In	DGP	0	Dropped		-136	Dropped		-142	Dropped		-77		
8973	A	NOVA	Loudoun County	Route 15 at Braddock Road Roundabout	Highway	BikePed	x	x	\$36.0	\$24.5			Stays Out			Stays Out			Stays Out			126	Stays Out		108	Stays Out		3	Stays Out		225	Stays Out		227	Stays Out		160
9047	A	NOVA	Fairfax County	Route 7 Widening (I-495 to I-66)	Highway	BikePed	x	x	\$244.5	\$209.0			Added	HPP	X	Stays Out			Stays Out			3	Stays Out		20	Stays Out		-9	Stays Out		61	Stays Out		43	Stays Out		36
9207	A	NOVA	Prince William County	Van Buren Road Improvements: Route 234 to Cardinal Dr	Highway	BikePed	x	x	\$207.8	\$197.8			Stays Out		X	Stays Out			Stays Out			1	Stays Out		17	Stays Out		0	Stays Out		16	Stays Out		17	Stays Out		20
9083	A	NOVA	Fairfax County	Route 7 Widening (Route 123 to I-495)	Highway	BikePed	x	x	\$78.5	\$38.5			Stays Out		X	Added	HPP	Stays Out			-10	Added	DGP	21	Stays Out		-10	Added	DGP	5	Added	DGP	0	Added	DGP	24	
9328	A	NOVA	Prince William County	US 29 (Lee Highway) Corridor Improvements	Highway	BikePed	x	x	\$35.2	\$35.2			Stays Out		X	Stays Out			Stays Out			60	Stays Out		53	Stays Out		-2	Added	HPP	130	Added	HPP	128	Stays Out		106
9341	A	NOVA	Prince William County	Route 294 (Prince William Parkway) Corridor Improvements	Highway	BikePed	x	x	\$22.6	\$22.6			Stays Out		X	Added	HPP	Stays Out			-5	Stays Out		-23	Stays Out		0	Added	HPP	-22	Added	HPP	-23	Added	HPP	-14	
9260	A	NOVA	Prince William County	Route 234 Business (Battleview to Godwin) Improvements	Highway	BikePed	x	x	\$20.0	\$20.0	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	4	Stays In	DGP	19	Stays In	DGP	0	Stays In	DGP	18	Stays In	DGP	18	Stays In	DGP	24		
9277	A	NOVA	Manassas Park City	Route 28-Centreville Road Corridor Improvements	Highway	BikePed	x	x	\$34.4	\$34.1			Stays Out			Stays Out			Stays Out			-13	Stays Out		53	Stays Out		-2	Stays Out		36	Stays Out		35	Stays Out		33
9282	A	NOVA	Prince William County	Route 234/Clover Hill Rd Intersection Improvements	Highway	BikePed	x	x	\$35.6	\$33.7			Stays Out			Stays Out			Stays Out			-13	Stays Out		31	Stays Out		2	Stays Out		24	Stays Out		20	Stays Out		54
9285	A	NOVA	Prince William County	Minnieville Road/Prince William Parkway Interchange	Highway	BikePed	x	x	\$118.1	\$83.3			Stays Out		X	Stays Out			Stays Out			10	Stays Out		56	Stays Out		1	Stays Out		63	Stays Out		67	Stays Out		84
9312	A	NOVA	Leesburg Town	East Market St. Improvements: Rt. 15 Bypass to Plaza St.	Highway	BikePed	x	x	\$6.7	\$6.7	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	0	Stays In	DGP	-4	Stays In	DGP	0	Stays In	DGP	-9	Stays In	DGP	-9	Stays In	DGP	-2		
9340	A	NOVA	Herndon Town	Herndon Parkway Improvements at Worldgate Drive Extension	Highway	BikePed & Transit	x	x	\$55.7	\$47.7			Stays Out			Stays Out			Stays Out			-8	Stays Out		-9	Stays Out		-8	Stays Out		-14	Stays Out		-21	Stays Out		12
9395	A	NOVA	Prince William County	Route 1 & 123 Interchange and Intersection Improvements	Highway	BikePed	x	x	\$132.5	\$122.0			Stays Out		X	Stays Out			Stays Out			19	Stays Out		35	Stays Out		-3	Stays Out		79	Stays Out		77	Stays Out		78
8976	A	NOVA	Loudoun County	Route 7 Shared Use Path and Sidewalk Projects	Bike/Pedestrian	None	x	x	\$14.4	\$13.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	-43	Stays In	DGP	1	Stays In	DGP	-55	Stays In	DGP	-55	Stays In	DGP	-16		
8984	A	NOVA	Loudoun County	Cascades Parkway Bike & Ped (Nokes to Victoria Station)	Bike/Pedestrian	None	x	x	\$9.6	\$8.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	-8	Stays In	DGP	-2	Stays In	DGP	-21	Stays In	DGP	-20	Stays In	DGP	12		
8932	A	NOVA	Manassas City	Godwin Drive Shared-Use Path (North)	Bike/Pedestrian	None	x	x	\$11.9	\$11.9	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Stays In	DGP	-20	Stays In	DGP	-1	Stays In	DGP	-29	Stays In	DGP	-22	Stays In	DGP	-13		
8974	A	NOVA	Loudoun County	Franklin Park to Town of Purcellville Trail	Bike/Pedestrian	None	x	x	\$9.2	\$6.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-1	Dropped		-109	Stays In	DGP	0	Dropped		-107	Dropped		-105	Dropped		-77		
8985	A	NOVA	Loudoun County	Cascades Pkwy Bike & Ped (Church Rd. to Victoria Station Dr)	Bike/Pedestrian	None	x	x	\$10.0	\$9.0			Stays Out			Added	HPP	Stays Out			-12	Added	DGP	-16	Stays Out		-1	Stays Out		-30	Stays Out		-33	Added	DGP	9	
8986	A	NOVA	Loudoun County	Cascades Pkwy Bike&Ped (Nokes Boulevard to Woodshire Drive)	Bike/Pedestrian	None	x	x	\$21.9	\$20.9			Stays Out			Added	HPP	Stays Out			-8	Stays Out		-18	Stays Out		0	Stays Out		-32	Stays Out		-31	Stays Out		2	

Appendix E: Alternate CTB Recommendations Scenario Analysis

Application Information											Individual Impacts												Cumulative Impacts													
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9149	A	NOVA	Fairfax City	George Snyder Trail Eastern Extension	Bike/Pedestrian	Highway & Transit	x	x	\$9.5	\$9.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-12	Dropped	-61	Stays In	DGP	-1	Dropped	-84	Dropped	-83	Stays In	DGP	-22				
9299	A	NOVA	Loudoun County	Lovettsville - Berlin Turnpike at E Broad Way Intx	Bike/Pedestrian	Highway	x		\$2.6	\$2.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Dropped	-276	Stays In	DGP	0	Dropped	-288	Dropped	-290	Dropped	-269					
9314	A	NOVA	Loudoun County	Lovettsville - S. Loudoun & S. Locust St Ped Improvements	Bike/Pedestrian	Highway	x	x	\$8.5	\$6.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Dropped	-299	Stays In	DGP	0	Dropped	-300	Dropped	-301	Dropped	-300					
9309	A	NOVA	Prince William County	Route 15 Pedestrian Bridge	Bike/Pedestrian	Highway	x	x	\$18.0	\$16.0			Stays Out			Stays Out		Stays Out		-15	Stays Out	-10	Stays Out		-3	Stays Out	-22	Stays Out	-23	Stays Out	-10					

*Official Round 5 Staff Scenario funded 12 projects

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	1	4	0	2	0	3	3	3
Projects Dropped	-	0	0	0	6	0	6	6	5
Net SS Award (millions)	\$115.8	\$209.0	\$91.0	\$0.0	-\$5.5	\$0.0	\$43.3	\$43.3	\$26.6
Unallocated DGP (millions)	\$9.0	\$9.0	\$9.0	\$9.0	\$14.5	\$9.0	\$23.5	\$23.5	\$4.9

Note - CTB Member Consensus Modifications

Fund with HPP

App ID 9083 Route 7 Widening (Route 123 to I-495) for \$38.5M

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25%

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Richmond Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8929	B	RICH	Richmond City	B US360 Hull Street Phase II	Highway	BikePed & Transit	x	x	\$21.1	\$13.8			Stays Out		Stays Out	Stays Out	-7	Stays Out	38	Stays Out	-3	Stays Out		29	Stays Out	34	Stays Out	45								
8933	B	RICH	Richmond City	E Belt Boulevard (SR161) Streetscape	Highway	BikePed & Transit	x	x	\$36.9	\$36.9			Stays Out		Stays Out	Stays Out	-9	Stays Out	-2	Stays Out	3	Stays Out		-15	Stays Out	-15	Stays Out	-13								
8934	B	RICH	Richmond City	F Hey Road Streetscape	Highway	BikePed	x	x	\$20.1	\$13.5			Stays Out		Stays Out	Stays Out	-5	Stays Out	-30	Stays Out	0	Stays Out		-36	Stays Out	-36	Stays Out	-50								
8936	B	RICH	Richmond City	H Norfolk Street Bridge Connection	Highway	BikePed	x	x	\$41.8	\$41.8			Stays Out		X	Stays Out	Stays Out	-8	Stays Out	-22	Stays Out	-31	Stays Out		-35	Stays Out	-120	Stays Out	-127							
8937	B	RICH	Richmond City	I Commerce Road Streetscape	Highway	BikePed & Transit	x	x	\$20.3	\$19.3			Stays Out		X	Stays Out	Stays Out	-9	Stays Out	39	Stays Out	-20	Stays Out		15	Stays Out	-19	Stays Out	-20							
8944	B	RICH	Richmond Regional TPO	I-64 Gap: Exit 205 to Exit 211	Highway	None		x	\$195.3	\$95.3			Stays Out		X	Stays Out	Stays Out	-21	Stays Out	60	Stays Out	-24	Stays Out		42	Stays Out	22	Stays Out	9							
9041	B	RICH	Henrico County	Staples Mill Road Improvements	Highway	BikePed & Transit	x	x	\$32.1	\$26.5	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-5	Stays In	DGP	44	Stays In	DGP	-3	Stays In	DGP	35	Stays In	DGP	35	Stays In	DGP	36	
9043	B	RICH	Henrico County	W Broad Street Short Pump	Highway	BikePed & Transit	x	x	\$26.0	\$22.8	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-65	Stays In	DGP	14	Stays In	DGP	2	Stays In	DGP	-27	Stays In	DGP	-18	Stays In	DGP	-15	
9044	B	RICH	Henrico County	Carolina Avenue Improvements	Highway	BikePed & Transit	x	x	\$34.8	\$34.8			Stays Out		X	Stays Out	Stays Out	-9	Stays Out	-20	Stays Out	-1	Stays Out		-25	Stays Out	-21	Stays Out	-13							
9045	B	RICH	Hanover County	Greenwood Church/Blanton/Ashland/Ashcake Roads Roundabout	Highway	None	x		\$7.0	\$4.9			Stays Out			Stays Out	Stays Out	-8	Stays Out	80	Stays Out	-3	Stays Out		72	Stays Out	71	Stays Out	56							
9046	B	RICH	Henrico County	Route 60/Route 33/Beulah Rd Roundabout & Gateway Project	Highway	BikePed & Transit	x	x	\$13.2	\$13.2			Stays Out			Stays Out	Stays Out	-5	Stays Out	43	Stays Out	-1	Stays Out		34	Stays Out	40	Stays Out	33							
9050	B	RICH	Hanover County	Rt. 54 Left Turn Lane at Goddins Hill Rd	Highway	None	x		\$5.1	\$3.5			Stays Out			Stays Out	Stays Out	-4	Stays Out	95	Stays Out	2	Stays Out		85	Stays Out	84	Stays Out	68							
9085	B	RICH	Hanover County	Creighton Rd LTLs at Sledd's Lake Rd & Tammy Ln	Highway	None	x	x	\$4.2	\$4.2			Stays Out			Stays Out	Stays Out	-5	Stays Out	84	Stays Out	2	Stays Out		75	Stays Out	76	Stays Out	51							
9086	B	RICH	Henrico County	Gaskins Road @ I-64 (Southern Quad Partial Cloverleaf)	Highway	None	x	x	\$62.4	\$62.4			Stays Out		X	Stays Out	Stays Out	34	Stays Out	9	Stays Out	-5	Stays Out		68	Stays Out	51	Stays Out	39							
9109	B	RICH	Chesterfield County	Route 60/Route 150 - Interchange Improvements	Highway	BikePed	x	x	\$35.0	\$35.0			Stays Out		X	Stays Out	Stays Out	-6	Stays Out	39	Stays Out	2	Stays Out		30	Stays Out	32	Stays Out	56							
9111	B	RICH	Chesterfield County	Belmont Road/Cogbill Road - Roundabout	Highway	BikePed	x	x	\$8.7	\$8.7			Stays Out			Stays Out	Stays Out	-4	Stays Out	87	Stays Out	-7	Stays Out		80	Stays Out	65	Stays Out	53							
9154	B	RICH	Chesterfield County	Route 360/Deer Run Drive/Harbour View Court RCUT	Highway	BikePed	x	x	\$22.2	\$22.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	57	Stays In	DGP	55	Stays In	DGP	-2	Stays In	DGP	93	Stays In	DGP	91	Stays In	DGP	81	
9197	C	RICH	Hopewell City	Route 36 Oaklawn Blvd STARS Project	Highway	BikePed	x		\$17.2	\$17.2			Stays Out			Stays Out	Stays Out	12	Stays Out	65	Stays Out	-2	Stays Out		88	Stays Out	86	Stays Out	64							
9206	B	RICH	Chesterfield County	Busy Street Extended	Highway	BikePed	x	x	\$20.2	\$20.2			Stays Out			Stays Out	Stays Out	-8	Stays Out	-17	Stays Out	-5	Stays Out		-30	Stays Out	-32	Stays Out	-41							
9245	C	RICH	Prince George County	Roundabout at Middle Road(Rt 646) & Jefferson Park Rd (630)	Highway	None	x		\$10.1	\$8.4			Stays Out			Stays Out	Stays Out	-10	Stays Out	26	Stays Out	-22	Stays Out		25	Stays Out	-3	Stays Out	-4							
9246	C	RICH	Prince George County	Roundabout at Middle Road and Prince George Drive	Highway	BikePed	x	x	\$8.3	\$8.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	23	Stays In	DGP	-2	Stays In	DGP	18	Stays In	DGP	17	Stays In	DGP	22	
8927	B	RICH	Richmond Regional TPO	SB 288 HSR Lane - West Creek Parkway to Route 711	Highway	None		x	\$57.9	\$53.5			Stays Out		X	Stays Out	Stays Out	-58	Added	HPP	83	Added	HPP	19	Added	HPP	17	Added	HPP	51	Added	HPP	45			
9135	B	RICH	Goochland County	I-64 at Ashland Rd. (Rte. 623) Interchange	Highway	None	x	x	\$75.9	\$42.2			Stays Out		X	Stays Out	Stays Out	137	Stays Out	51	Stays Out	71	Added	DGP	217	Added	DGP	234	Added	HPP	191					
9270	B	RICH	Richmond Regional TPO	I-95/Route 10 Interchange Improvement, Phase II	Highway	None		x	\$48.8	\$31.7			Stays Out		X	Stays Out	Stays Out	191	Stays Out	34	Stays Out	-27	Added	HPP	233	Added	HPP	225	Added	HPP	211					
9360	D	RICH	Mecklenburg County	US 58 at Cherry Hill Church Rd Directional Median	Highway	None	x	x	\$6.7	\$6.7			Stays Out			Stays Out	Stays Out	-8	Added	DGP	85	Stays Out	-2	Stays Out		77	Stays Out	78	Added	DGP	71					
9371	D	RICH	Powhatan County	U.S. Route 60 at State Route 13/603 RCUT	Highway	None	x	x	\$8.6	\$6.5			Stays Out			Stays Out	Stays Out	18	Stays Out	86	Stays Out	27	Stays Out		90	Stays Out	110	Added	DGP	99						
9267	B	RICH	PlanRVA Richmond Regional PDC	I-95/Willis Road - Interchange Improvements	Highway	BikePed		x	\$135.6	\$135.6			Stays Out		X	Stays Out	Stays Out	36	Stays Out	32	Stays Out	14	Stays Out		113	Stays Out	129	Stays Out	84							
9378	B	RICH	Powhatan County	New Dorset Road & Route 60 RCUT	Highway	None	x	x	\$7.8	\$5.9			Stays Out			Stays Out	Stays Out	20	Stays Out	13	Added	DGP	75	Stays Out		75	Stays Out	127	Stays Out	108						

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Richmond Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9411	B	RICH	Goochland County	I-64 at Oilville Road (Rte. 617) Interchange	Highway	None	x		\$7.5	\$6.9			Stays Out		Stays Out	Stays Out	33	Stays Out	76	Stays Out	18	Stays Out		116	Stays Out		132	Added	DGP	101						
9420	B	RICH	Henrico County	Gaskins Road Interchange @ I-64 (North Quad & Aux Lanes)	Highway	None	x	x	\$56.7	\$56.7			Stays Out		X	Stays Out	Stays Out	103	Stays Out	5	Stays Out	-7	Stays Out		150	Stays Out		143	Stays Out		116					
8931	B	RICH	Richmond City	D Clay Street Streetscape Improvements	Highway	BikePed & Transit	x	x	\$18.8	\$18.8	X	DGP	Stays In	DGP	X	Stays In	DGP	Stays In	DGP	-5	Stays In	DGP	-35	Stays In	DGP	-15	Stays In	HPP	-49	Stays In	HPP	-107	Stays In	HPP	-65	
9240	B	RICH	Richmond Regional TPO	W Broad Street Intersection Improvements at Parham Road	Highway	BikePed & Transit		x	\$13.8	\$11.2			Stays Out			Added	HPP	Stays Out	-4	Added	HPP	27	Stays Out		19	Stays Out		19	Stays Out		40					
9014	B	RICH	Chesterfield County	Route 360 (Woodlake - Otterdale) Widening	Highway	BikePed	x	x	\$39.7	\$19.7			Stays Out		X	Stays Out	Stays Out	-4	Stays Out		53	Stays Out	12	Added	HPP	42	Added	HPP	60	Stays Out		52				
9042	B	RICH	Henrico County	Springfield Road Improvements	Highway	BikePed	x	x	\$15.9	\$15.0			Stays Out			Added	HPP	Added	DGP	112	Added	DGP	67	Added	DGP	-3	Added	DGP	126	Added	DGP	126	Added	DGP	119	
9049	B	RICH	Henrico County	E. Parham Road Improvements - I-95 to Cleveland St	Highway	BikePed	x	x	\$14.5	\$14.5			Stays Out		X	Added	HPP	Stays Out	-6	Stays Out		30	Added	DGP	-1	Added	HPP	20	Added	HPP	28	Added	HPP	27		
9073	B	RICH	Goochland County	Route 250 at Route 288 Interchange Improvements	Highway	BikePed	x	x	\$30.9	\$30.9			Stays Out		X	Stays Out	Stays Out	-8	Stays Out		25	Stays Out	154	Stays Out		18	Added	HPP	209	Added	HPP	199				
9162	B	RICH	Richmond Regional TPO	Route 360 at Brad McNeer - Continuous Green-T	Highway	BikePed		x	\$12.4	\$12.4			Stays Out			Added	HPP	Added	HPP	5	Added	HPP	34	Added	HPP	1	Stays Out		34	Stays Out		32	Stays Out		40	
9287	B	RICH	Chesterfield County	Huguenot Rd at Robious & Cranbeck Capacity & Safety Improvmt	Highway	BikePed	x	x	\$21.2	\$21.2			Stays Out		X	Stays Out	Stays Out	-7	Stays Out		52	Stays Out	-4	Added	HPP	43	Stays Out		42	Stays Out		41				
9313	B	RICH	Ashland Town	Hill Carter Parkway Extension	Highway	BikePed	x		\$22.5	\$22.5	X	DGP	Stays In	DGP		Stays In	DGP	Dropped		-1	Dropped		26	Dropped		-20	Dropped		26	Dropped		7	Dropped		-14	
9394	B	RICH	Ashland Town	Green Chimney	Highway	BikePed	x		\$11.8	\$11.8	X	DGP	Stays In	DGP		Stays In	DGP	Dropped		-7	Dropped		-215	Stays In	DGP	1	Dropped		-227	Dropped		-226	Dropped		-234	
9413	B	RICH	Chesterfield County	RT 360 at Spring Run Rd/Temie Lee Pkwy - RCUT	Highway	BikePed	x	x	\$26.6	\$26.6			Stays Out			Stays Out	Added	DGP	43	Added	DGP	62	Stays Out	-14	Added	DGP	97	Added	DGP	92	Added	DGP	76			
9416	B	RICH	PlanRVA Richmond Regional PDC	Route 360/I-64 Interchange Reconfiguration	Highway	BikePed		x	\$15.5	\$15.5			Stays Out			Added	HPP	Stays Out	-5	Added	HPP	34	Stays Out	-2	Stays Out		26	Stays Out		24	Stays Out		19			
9458	B	RICH	Henrico County	S. Laburnum Ave - Gay Ave Thru Cut	Highway	BikePed	x	x	\$5.2	\$5.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	9	Stays In	DGP	-1	Dropped		-6	Dropped		-5	Stays In	DGP	25	
9325	B	RICH	PlanRVA Richmond Regional PDC	Route 288 Northbound - Hard Shoulder Running	Highway	None		x	\$39.6	\$23.6	X	HPP	Stays In	HPP	X	Stays In	HPP	Stays In	HPP	0	Stays In	HPP	21	Stays In	HPP	0	Stays In	HPP	19	Stays In	HPP	19	Stays In	HPP	16	
9358	D	RICH	Brunswick County	US 58 at Brooks Crossing/Old Stage Rd RCUT	Highway	None	x	x	\$11.3	\$11.3			Stays Out			Stays Out	Stays Out	-12	Stays Out		74	Stays Out	-81	Stays Out		64	Stays Out		8	Stays Out		-16				
9359	D	RICH	Brunswick County	US 58 at Freemans Cross Rd/Reedy Creek Rd RCUT	Highway	None	x	x	\$12.7	\$12.7			Stays Out			Stays Out	Stays Out	-8	Stays Out		77	Stays Out	-85	Stays Out		69	Stays Out		4	Stays Out		-18				
9364	B	RICH	Chesterfield County	Route 360/Harbour Pointe Pkwy/Mockingbird Ln - RCUT	Highway	BikePed	x	x	\$20.5	\$20.5			Stays Out			Stays Out	Stays Out	31	Stays Out		54	Stays Out	-3	Stays Out		101	Stays Out		100	Stays Out		93				
9372	B	RICH	Powhatan County	Dorset Road, Batterson Road & Route 60 RCUT	Highway	None	x	x	\$8.5	\$6.3			Stays Out			Stays Out	Stays Out	-4	Stays Out		75	Stays Out	-2	Stays Out		72	Stays Out		68	Stays Out		48				
9385	B	RICH	Greater Richmond Transit Company (GRTC)	Brook Road Improvements - Azalea Ave to Brook Run Shopping	Highway	BikePed & Transit		x	\$21.5	\$21.5			Stays Out			Stays Out	Stays Out	-4	Stays Out		-18	Stays Out	-2	Stays Out		-27	Stays Out		-29	Stays Out		14				
9390	B	RICH	Ashland Town	Vaughan Road Extended	Highway	BikePed	x		\$15.0	\$15.0			Stays Out			Stays Out	Stays Out	-7	Stays Out		-169	Stays Out	-4	Stays Out		-174	Stays Out		-172	Stays Out		-177				
9403	D	RICH	Mecklenburg County	US 58/US 15 Roundabout	Highway	BikePed	x		\$14.3	\$14.3			Stays Out		X	Stays Out	Stays Out	-11	Stays Out		63	Stays Out	-37	Stays Out		54	Stays Out		-5	Stays Out		-4				
9409	B	RICH	Chesterfield County	RT 360/Duckridge/Hancock Village Shopping Center - RCUT	Highway	BikePed	x	x	\$17.5	\$17.5			Stays Out			Stays Out	Stays Out	-1	Stays Out		8	Stays Out	0	Stays Out		15	Stays Out		10	Stays Out		2				
9412	B	RICH	Chesterfield County	RT 360 at Winterpock Rd/Shopping Center Entrance - RCUT	Highway	BikePed	x	x	\$22.0	\$22.0			Stays Out			Stays Out	Stays Out	12	Stays Out		57	Stays Out	-5	Stays Out		66	Stays Out		68	Stays Out		53				
9430	B	RICH	Powhatan County	U.S. Route 60 at Red Lane Road: Continuous Green-T	Highway	None	x	x	\$6.5	\$4.9			Stays Out			Stays Out	Stays Out	-9	Stays Out		48	Stays Out	2	Stays Out		43	Stays Out		44	Stays Out		39				
9445	B	RICH	Goochland County	Hockett Road Re-alignment	Highway	BikePed	x		\$16.8	\$1.0	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	1	Stays In	DGP	1	Stays In	DGP	2	Stays In	DGP	4	Stays In	DGP	4	
9467	C	RICH	Colonial Heights City	Lakeview Avenue Modernization, Phase II	Highway	BikePed	x	x	\$12.4	\$12.4			Stays Out			Stays Out	Stays Out	-8	Stays Out		-3	Stays Out	3	Stays Out		-9	Stays Out		-5	Stays Out		8				

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Richmond Scenario Analysis

Application Information											Individual Impacts											Cumulative Impacts														
Application Information											Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank			
9496	D	RICH	South Hill Town	US 58/High St Roundabout and Interparcel Connector	Highway	None	x	x	\$28.2	\$27.2			Stays Out			Stays Out		-2	Stays Out		8	Stays Out		1	Stays Out		21	Stays Out		28	Stays Out		14			
8930	B	RICH	Richmond City	C Forest Hill Avenue Phase II Improvements	Bike/Pedestrian	Highway & Transit	x	x	\$39.6	\$25.0			Stays Out			Stays Out		-6	Stays Out		22	Stays Out		-1	Stays Out		13	Stays Out		12	Stays Out		26			
8938	B	RICH	Richmond City	J Hull Street Shared Use Path Improvements	Bike/Pedestrian	Highway & Transit	x	x	\$11.0	\$8.0	X	DGP	Stays In	DGP		Stays In	DGP	-3	Stays In	DGP	-2	Stays In	DGP	0	Stays In	DGP	-11	Stays In	DGP	-11	Stays In	DGP	3			
9010	B	RICH	Richmond Regional TPO	B Fall Line Trail - Commerce Road Phase II	Bike/Pedestrian	Highway & Transit		x	\$70.5	\$43.5			Stays Out			Stays Out		-11	Stays Out		42	Stays Out		-32	Stays Out		30	Stays Out		-40	Stays Out		-25			
9062	B	RICH	Henrico County	Glenside Drive/Horsepen Road Safety Improvements	Bike/Pedestrian	Highway	x	x	\$17.2	\$17.2			Stays Out			Stays Out		0	Stays Out		-9	Stays Out		0	Stays Out		-10	Stays Out		-17	Stays Out		-15			
9127	C	RICH	Tri-Cities Area MPO	Appomattox River Trail Cameron's Landing Connector	Bike/Pedestrian	None		x	\$4.1	\$4.1			Stays Out			Stays Out		-4	Stays Out		57	Stays Out		0	Stays Out		44	Stays Out		46	Stays Out		71			
9190	C	RICH	Hopewell City	Cedar Level Road Southern Segment	Bike/Pedestrian	Highway	x	x	\$22.2	\$22.2			Stays Out			Stays Out		-9	Stays Out		-26	Stays Out		-4	Stays Out		-29	Stays Out		-28	Stays Out		-28			
9198	C	RICH	Hopewell City	Courthouse Road Pedestrian Improvements	Bike/Pedestrian	Highway	x	x	\$16.8	\$16.8			Stays Out			Stays Out		-11	Stays Out		-45	Stays Out		-5	Stays Out		-48	Stays Out		-46	Stays Out		-25			
9241	B	RICH	Richmond Regional TPO	Williamsburg Road - Randall Avenue to Charles City Road	Bike/Pedestrian	Highway & Transit		x	\$17.7	\$17.7			Stays Out			Stays Out		-11	Stays Out		-29	Stays Out		-5	Stays Out		-32	Stays Out		-34	Stays Out		-6			
9257	B	RICH	Richmond Regional TPO	Nine Mile Road - Gordons Lane to Dabbs House Road	Bike/Pedestrian	Highway & Transit		x	\$12.3	\$12.3			Stays Out			Stays Out		-9	Stays Out		-17	Stays Out		-5	Stays Out		-27	Stays Out		-31	Stays Out		5			
9302	B	RICH	Greater Richmond Transit Company (GRTC)	Rt 1 (Rt 10 to Brightpoint Comm College) Transit Access Impr	Bike/Pedestrian	Transit		x	\$10.3	\$10.3			Stays Out			Stays Out		-4	Stays Out		53	Stays Out		-11	Stays Out		47	Stays Out		28	Stays Out		38			
8928	B	RICH	Richmond City	A Gillies Creek Greenway	Bike/Pedestrian	Transit	x	x	\$5.3	\$5.3	X	DGP	Stays In	DGP		Stays In	DGP	1	Dropped		-75	Stays In	DGP	-1	Dropped		-86	Dropped		-113	Stays In	DGP	-71			
9108	B	RICH	Greater Richmond Transit Company (GRTC)	Route 60 (Ruthers Rd - Providence Rd) Pedestrian Improvemnts	Bike/Pedestrian	Transit		x	\$11.0	\$11.0			Stays Out			Added	HPP	Stays Out		-6	Stays Out		35	Stays Out		-3	Stays Out		26	Stays Out		24	Stays Out		58	
9125	C	RICH	Tri-Cities Area MPO	FLT/ART Trailhead/Parking Lot	Bike/Pedestrian	None		x	\$4.0	\$3.4	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	0	Stays In	HPP	-40	Stays In	HPP	0	Dropped		-55	Dropped		-56	Dropped		-34	
9126	C	RICH	Tri-Cities Area MPO	ART - Rt 1 to Colonial Heights and I-95	Bike/Pedestrian	None		x	\$3.9	\$3.9	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-4	Dropped		-97	Stays In	HPP	2	Dropped		-110	Dropped		-112	Dropped		-86	
9166	C	RICH	Crater PDC	ART - Old Towne Petersburg (Grove Ave to River Rd)	Bike/Pedestrian	None		x	\$1.7	\$1.7	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-1	Dropped		-306	Stays In	HPP	0	Dropped		-311	Dropped		-309	Dropped		-290	
9435	C	RICH	Colonial Heights City	Appomattox River Greenway Trail Phase 6	Bike/Pedestrian	None	x	x	\$3.8	\$3.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-191	Stays In	DGP	-1	Dropped		-199	Dropped		-200	Dropped		-176	
9462	C	RICH	Hopewell City	W Randolph Road Shared Use Path	Bike/Pedestrian	None	x	x	\$6.4	\$6.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-92	Stays In	DGP	0	Dropped		-106	Dropped		-103	Dropped		-89	
9001	B	RICH	Greater Richmond Transit Company (GRTC)	C Fall Line Trail with Transit Improvements Manchester Br.	Bike/Pedestrian	Highway & Transit		x	\$28.2	\$26.7	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-2	Stays In	HPP	10	Stays In	HPP	-23	Dropped		4	Dropped		-51	Dropped		-22	
9422	B	RICH	PlanRVA Richmond Regional PDC	Parham Rd Ped Improvements Holly Hill Rd to Three Chopt Rd	Bike/Pedestrian	Highway		x	\$12.3	\$12.3			Stays Out			Added	HPP	Stays Out		-3	Stays Out		21	Stays Out		1	Stays Out		11	Stays Out		10	Stays Out		21	
9376	B	RICH	Greater Richmond Transit Company (GRTC)	Rt 1 (Osborne Rd - Moores Lake Rd) Transit Access Improvemts	Bike/Pedestrian	Highway & Transit		x	\$10.5	\$10.5			Stays Out			Stays Out		-5	Stays Out		11	Stays Out		-52	Stays Out		3	Stays Out		-51	Stays Out		-14			
9386	B	RICH	Greater Richmond Transit Company (GRTC)	Nine Mile Road - Dabbs House Road to Laburnum Avenue	Bike/Pedestrian	Highway & Transit		x	\$28.8	\$28.8			Stays Out		X	Stays Out		-6	Stays Out		15	Stays Out		0	Stays Out		9	Stays Out		17	Stays Out		30			
9389	B	RICH	Ashland Town	Trolley Line Trail Phase 2	Bike/Pedestrian	None	x		\$2.5	\$2.5			Stays Out			Stays Out		1	Stays Out		7	Stays Out		0	Stays Out		6	Stays Out		9	Stays Out		13			
9415	B	RICH	Greater Richmond Transit Company (GRTC)	S. Laburnum Ave Ped Improvements - Thornhurst St to Gay Ave	Bike/Pedestrian	Highway & Transit		x	\$12.6	\$12.6			Stays Out			Stays Out		-11	Stays Out		23	Stays Out		-2	Stays Out		10	Stays Out		10	Stays Out		39			
9459	C	RICH	Colonial Heights City	Appomattox River Greenway Trail Boulevard Spur	Bike/Pedestrian	None	x	x	\$1.0	\$0.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	-8	Stays In	DGP	0	Stays In	DGP	-9	Stays In	DGP	-9	Stays In	DGP	-5	
9492	C	RICH	Colonial Heights City	Boulevard Modernization	Bike/Pedestrian	None	x	x	\$6.1	\$6.1			Stays Out			Stays Out		-9	Stays Out		-73	Stays Out		-1	Stays Out		-81	Stays Out		-83	Stays Out		-65			
9009	B	RICH	Richmond Regional TPO	A Broad Street Streetscape w/ Pulse BRT Expansion Phase III	Bus Transit	None		x	\$23.9	\$15.1	X	HPP	Stays In	HPP	X	Stays In	HPP	Stays In	HPP	-25	Stays In	HPP	12	Stays In	HPP	0	Stays In	HPP	-11	Stays In	HPP	-12	Stays In	HPP	-6	

Appendix E: Alternate CTB Recommendations Scenario Analysis

*Official Round 5 Staff Scenario funded 20 projects

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	0	7	3	7	5	8	8	10
Projects Dropped	-	5	0	2	7	1	10	10	8
Net SS Award (millions)	\$237.5	-\$35.7	\$62.9	\$19.8	\$85.6	\$78.8	\$133.8	\$143.5	\$154.4
Unallocated DGP (millions)	\$14.6	\$14.6	\$14.6	\$7.2	\$16.1	\$1.7	\$4.5	\$4.5	\$16.1

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

Note - CTB Member Consensus Modifications

Unfund from DGP

App ID 9154 Route 360/Deer Run Drive/Harbour View Court – R-Cut for \$22.2M

Unfund from HPP

App ID 9325 Route 288 Northbound Hard Shoulder Running for \$23.6M

Fund with DGP and HPP

App ID 9135 I-64 at Ashland Road (Route 623) Interchange for \$42.2M (\$23.6M HPP and \$18.6M DGP)

Fund with DGP

App ID 9162 Route 360 at Brad McNeer Continuous Green-T for \$12.4M

Fund to reduced amount with DGP

App ID 9462 W Randolph Road Shared Use Path for \$4.3M

For Illustrative Purposes

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Salem Scenario Analysis

Application Information											Individual Impacts												Cumulative Impacts													
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8939	B	SALEM	Roanoke City	Williamson Road Corridor - Safety Improvements	Highway	BikePed	x	x	\$66.7	\$66.7			Stays Out			Stays Out		Stays Out		-6	Stays Out		69	Stays Out		-2	Stays Out		63	Stays Out		59	Stays Out		61	
8941	B	SALEM	Roanoke City	STARS 460/Orange Ave - Plantation Rd Improvements	Highway	BikePed	x		\$8.5	\$8.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Stays In	DGP	-4	Stays In	DGP	0	Stays In	DGP	-8	Stays In	DGP	-8	Stays In	DGP	1	
8953	B	SALEM	Botetourt County	Route 220 Superstreet	Highway	None	x	x	\$17.3	\$16.3			Stays Out			Stays Out		Stays Out		-9	Stays Out		46	Stays Out		-1	Stays Out		36	Stays Out		47	Stays Out		31	
8954	D	SALEM	Roanoke Valley-Alleghany RC	Route 220 NB at Henry Rd. (Rte. 605) Realignment Project	Highway	None		x	\$20.7	\$20.7			Stays Out			Stays Out		Stays Out		-5	Stays Out		86	Stays Out		-3	Stays Out		81	Stays Out		81	Stays Out		68	
8955	B	SALEM	Roanoke Valley-Alleghany RC	I-581/U.S. 460/U.S. 11 Improvements	Highway	BikePed		x	\$25.7	\$25.7	X	HPP	Stays In	HPP	X	Stays In	HPP	Stays In	HPP	-3	Stays In	HPP	-23	Stays In	HPP	-9	Stays In	HPP	-13	Stays In	HPP	-17	Stays In	HPP	-12	
8962	B	SALEM	Botetourt County	Route 220 Access Management - Route 11 to Appalachian Trail	Highway	BikePed	x	x	\$15.8	\$15.8			Stays Out			Stays Out		Stays Out		-8	Stays Out		22	Stays Out		42	Stays Out		16	Stays Out		83	Stays Out		88	
9069	C	SALEM	Montgomery County	W Campus Dr Intersection Improvement & Realign Duck Pond Dr	Highway	BikePed & Transit	x	x	\$19.2	\$19.2			Stays Out		X	Stays Out		Stays Out		-4	Stays Out		-6	Stays Out		9	Stays Out		-11	Stays Out		-2	Stays Out		-12	
9094	D	SALEM	West Piedmont PDC	US 220 and Iron Ridge Road Intersection Reconfiguration	Highway	None		x	\$15.0	\$15.0			Stays Out			Stays Out		Stays Out		-15	Stays Out		19	Stays Out		-7	Stays Out		2	Stays Out		-7	Stays Out		-11	
9097	B	SALEM	Salem City	E. Main St. (Rt. 460) Multimodal Improvements - Phase II	Highway	BikePed	x	x	\$25.8	\$25.8			Stays Out			Stays Out		Stays Out		-6	Stays Out		-52	Stays Out		-5	Stays Out		-53	Stays Out		-57	Stays Out		-52	
9186	C	SALEM	New River Valley MPO	I-81/Route 8 (Exit 114) Interchange Improvements	Highway	BikePed		x	\$18.7	\$18.7			Stays Out			Stays Out		Stays Out		-6	Stays Out		46	Stays Out		-3	Stays Out		37	Stays Out		36	Stays Out		47	
9187	C	SALEM	New River Valley MPO	Route 460 Operational Improvements	Highway	None		x	\$14.9	\$14.9			Stays Out			Stays Out		Stays Out		-1	Stays Out		3	Stays Out		0	Stays Out		2	Stays Out		1	Stays Out		1	
9212	D	SALEM	Henry County	NBL Route 220 Relocation	Highway	None	x	x	\$15.6	\$15.6			Stays Out			Stays Out		Stays Out		2	Stays Out		18	Stays Out		0	Stays Out		18	Stays Out		16	Stays Out		13	
9213	D	SALEM	Henry County	Signalized Continuous Green T at the Int. of Routes 220 & 87	Highway	None	x	x	\$27.7	\$27.7			Stays Out			Stays Out		Stays Out		-11	Stays Out		35	Stays Out		14	Stays Out		16	Stays Out		52	Stays Out		44	
9227	C	SALEM	Bedford Town	Macon and Baldwin Street Improvements	Highway	BikePed	x		\$71.4	\$71.4			Stays Out		X	Stays Out		Stays Out		-7	Stays Out		-34	Stays Out		12	Stays Out		-36	Stays Out		-16	Stays Out		-18	
9235	C	SALEM	Christiansburg Town	Peppers Ferry Road to Cambria Street Connector Route	Highway	BikePed	x	x	\$26.6	\$26.6			Stays Out			Stays Out		Stays Out		4	Stays Out		30	Stays Out		-10	Stays Out		28	Stays Out		18	Stays Out		-19	
9237	C	SALEM	Christiansburg Town	Parkway Drive Extension, Phase I	Highway	BikePed	x	x	\$12.9	\$12.9			Stays Out			Stays Out		Stays Out		-5	Stays Out		57	Stays Out		-133	Stays Out		47	Stays Out		-135	Stays Out		-139	
9239	C	SALEM	Christiansburg Town	Cambria Street to North Franklin Street Connector Route	Highway	BikePed & Transit	x	x	\$39.0	\$39.0			Stays Out		X	Stays Out		Stays Out		-5	Stays Out		0	Stays Out		2	Stays Out		-3	Stays Out		-2	Stays Out		-9	
9258	B	SALEM	Roanoke County	Rt 419 Safety Improvements, Grandin Rd. Ext. to Keagy Rd. S.	Highway	BikePed	x	x	\$13.6	\$13.6			Stays Out			Stays Out		Stays Out		-3	Stays Out		-61	Stays Out		0	Stays Out		-69	Stays Out		-72	Stays Out		-69	
9268	C	SALEM	Bedford County	Route 460 Corridor Improvements	Highway	None	x	x	\$18.0	\$18.0			Stays Out			Stays Out		Stays Out		-25	Stays Out		62	Stays Out		-44	Stays Out		44	Stays Out		5	Stays Out		5	
9290	D	SALEM	Franklin County	Intersection Improvements Harmony School Rte 634 & Rte 122	Highway	None	x		\$19.5	\$19.5			Stays Out		X	Stays Out		Stays Out		3	Stays Out		21	Stays Out		7	Stays Out		20	Stays Out		28	Stays Out		26	
9291	D	SALEM	Franklin County	Intersection Improvements Lakemount Rd (Rte 1235) & Rte 122	Highway	None	x		\$13.9	\$13.9			Stays Out			Stays Out		Stays Out		-5	Stays Out		21	Stays Out		-8	Stays Out		20	Stays Out		8	Stays Out		3	
9292	D	SALEM	Franklin County	Intersection Improvements Brooks Mill & Scruggs Rtes 834/616	Highway	None	x		\$13.1	\$13.1			Stays Out		X	Stays Out		Stays Out		-5	Stays Out		21	Stays Out		-8	Stays Out		15	Stays Out		-4	Stays Out		-17	
9293	C	SALEM	Montgomery County	Route 8 Widening and Improvements	Highway	None	x		\$9.5	\$9.5			Stays Out		X	Stays Out		Stays Out		-6	Stays Out		-110	Stays Out		-11	Stays Out		-111	Stays Out		-123	Stays Out		-123	
9294	D	SALEM	Montgomery County	Route 460/637 Intersection Improvements	Highway	None	x	x	\$5.5	\$5.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	44	Stays In	DGP	-1	Stays In	DGP	31	Stays In	DGP	32	Stays In	DGP	27	
9297	B	SALEM	Salem City	Route 419 at Texas St and Lynchburg Trpk Int. Improvements	Highway	BikePed	x	x	\$14.1	\$14.1			Stays Out		X	Stays Out		Stays Out		-7	Stays Out		-15	Stays Out		-7	Stays Out		-24	Stays Out		-29	Stays Out		-33	
9310	B	SALEM	Vinton Town	Roundabout at Hardy Rd (Rt. 24/634) and Bypass Rd (Rt. 24)	Highway	BikePed	x	x	\$17.2	\$17.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Stays In	DGP	-6	Stays In	DGP	0	Stays In	DGP	-19	Stays In	DGP	-12	Stays In	DGP	-21	
9339	B	SALEM	CTB	I-81 SB Widening Exit 137 to Exit 128	Highway	None	x	x	\$363.4	\$363.4			Stays Out		X	Stays Out		Stays Out		0	Stays Out		19	Stays Out		-5	Stays Out		16	Stays Out		4	Stays Out		2	
9116	C	SALEM	Central Virginia PDC	US 460 & Timber Ridge Rd (SR 803) Intersection Improvements	Highway	None		x	\$10.5	\$10.5			Stays Out			Added	HPP	Stays Out		-7	Added	HPP	65	Stays Out		-1	Stays Out		56	Stays Out		58	Stays Out		70	
9265	D	SALEM	Henry County	Barrows Mill Road Improvement	Highway	None	x		\$33.5	\$33.5			Stays Out		X	Stays Out		Stays Out		-4	Stays Out		60	Stays Out		3	Stays Out		51	Stays Out		52	Stays Out		29	

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Salem Scenario Analysis

Application Information											Individual Impacts											Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8940	B	SALEM	Roanoke City	STARS 460/Orange Ave - 11th to 24th Improvements	Highway	BikePed	x	x	\$28.3	\$23.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-6	Dropped	15	Dropped		-1	Dropped		10	Dropped		11	Dropped		27		
8967	B	SALEM	Roanoke Valley TPO	Rte 419/Electric Rd Safety Impr., Stoneybrook-Grandin Rd Ext	Highway	BikePed		x	\$6.6	\$6.6	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-4	Dropped	-49	Stays In	HPP	-4	Dropped		-60	Dropped		-73	Dropped		-63		
9296	B	SALEM	Roanoke County	I-581 at Exit 2 Interchange Improvements, Phase 1	Highway	BikePed	x		\$21.4	\$17.4			Stays Out		X	Stays Out		Stays Out		-5	Stays Out	45	Added	DGP	113	Stays Out		43	Added	DGP	166	Added	DGP	159		
9353	C	SALEM	Pulaski County	Route 11/Kroger Turn Lane Improvements - Pulaski County	Highway	BikePed	x	x	\$4.1	\$4.1	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Dropped	-17	Stays In	DGP	-4	Dropped		-30	Dropped		-30	Stays In	DGP	-1		
9457	C	SALEM	New River Valley MPO	Route 460 Bus. & Route 114 Safety Improvements	Highway	BikePed		x	\$15.1	\$15.1	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-9	Stays In	52	Stays In	HPP	-3	Dropped		43	Dropped		41	Dropped		51		
9434	D	SALEM	Carroll County	Carrollton Pike (Rt 58) at Coulson Church Rd (Rt 620) RCUT	Highway	None	x	x	\$8.6	\$8.6			Stays Out			Stays Out		Stays Out		-6	Stays Out	94	Stays Out		2	Stays Out		86	Stays Out		90	Stays Out		68		
9490	D	SALEM	Franklin County	Intersection Improvements Rte 40 & Rte 640	Highway	None	x		\$9.9	\$9.9			Stays Out			Stays Out		Stays Out		-10	Stays Out	45	Stays Out		2	Stays Out		40	Stays Out		40	Stays Out		35		
8964	B	SALEM	Roanoke Valley TPO	West Main Street Pedestrian Improvements, Phase 3	Bike/Pedestrian	None		x	\$7.1	\$7.1			Stays Out			Stays Out		Stays Out		-5	Stays Out	-20	Stays Out		-13	Stays Out		-28	Stays Out		-50	Stays Out		-49		
8995	B	SALEM	Botetourt County	Rt 220 Access Management/Park & Ride - AT to Commons Pkwy	Bike/Pedestrian	Highway	x	x	\$31.5	\$31.5			Stays Out			Stays Out		Stays Out		-38	Stays Out	64	Stays Out		7	Stays Out		3	Stays Out		15	Stays Out		36		
8996	B	SALEM	Botetourt County	Rt 779 Appalachian Trail Safety Improvements	Bike/Pedestrian	None	x	x	\$2.3	\$2.3			Stays Out			Stays Out		Stays Out		-8	Stays Out	-71	Stays Out		-3	Stays Out		-74	Stays Out		-72	Stays Out		-68		
8998	C	SALEM	Bedford County	Route 221 Sidewalks from Thomas Jefferson Rd to Gables Dr	Bike/Pedestrian	None	x	x	\$8.4	\$8.4			Stays Out			Stays Out		Stays Out		-6	Stays Out	30	Stays Out		-36	Stays Out		19	Stays Out		-41	Stays Out		-43		
9012	C	SALEM	Bedford County	Route 221 Sidewalks from Gables Dr to Enterprise Dr	Bike/Pedestrian	None	x	x	\$11.6	\$11.6			Stays Out			Stays Out		Stays Out		-6	Stays Out	15	Stays Out		-2	Stays Out		6	Stays Out		4	Stays Out		4		
9018	B	SALEM	Roanoke County	East Roanoke River Greenway Gap (Phase 2)	Bike/Pedestrian	None	x		\$27.6	\$27.6			Stays Out			Stays Out		Stays Out		2	Stays Out	21	Stays Out		2	Stays Out		18	Stays Out		19	Stays Out		31		
9189	B	SALEM	Roanoke County	Walrond Drive Pedestrian Improvements	Bike/Pedestrian	None	x		\$7.2	\$7.2			Stays Out			Stays Out		Stays Out		-5	Stays Out	-158	Stays Out		-1	Stays Out		-159	Stays Out		-175	Stays Out		-176		
8965	B	SALEM	Roanoke Valley TPO	Route 419/Electric Road Pedestrian Signal Improvements	Bike/Pedestrian	None		x	\$3.9	\$3.9	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-6	Stays In	0	Stays In	HPP	-1	Dropped		-11	Dropped		-14	Dropped		-1		
8968	B	SALEM	Roanoke Valley TPO	Williamson Road Sidewalk, Plymouth Dr. to Clubhouse Dr.	Bike/Pedestrian	None		x	\$6.7	\$6.7			Stays Out			Added	HPP	Stays Out		-6	Stays Out	-62	Stays Out		0	Stays Out		-75	Stays Out		-73	Stays Out		-75		
9215	D	SALEM	Carroll County	Carroll County High School Sidewalk Project	Bike/Pedestrian	Highway	x	x	\$7.7	\$7.7	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-8	Dropped	-81	Stays In	DGP	-4	Dropped		-88	Dropped		-89	Dropped		-105		
9238	C	SALEM	Christiansburg Town	N Franklin - Elm to Depot, Lighting Improvements	Bike/Pedestrian	Highway	x		\$2.3	\$2.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped	-338	Stays In	DGP	0	Dropped		-340	Dropped		-339	Dropped		-338		
9279	D	SALEM	Martinsville City	Martinsville - Focus Area 3: Ailcie Street to Pine Hall Rd.	Bike/Pedestrian	Highway	x		\$6.5	\$6.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped	-110	Stays In	DGP	-2	Dropped		-108	Dropped		-117	Dropped		-129		
9437	D	SALEM	Galax City	E. Stuart Drive Sidewalk Project - Phase I	Bike/Pedestrian	Highway	x	x	\$7.1	\$7.1	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-11	Stays In	41	Stays In	DGP	-7	Stays In	DGP	33	Stays In	DGP	32	Dropped		12		

*Official Round 5 Staff Scenario funded 13 projects

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H***: CTB Member Request
Projects Added	-	0	2	0	1	1	0	1	1
Projects Dropped	-	3	0	0	6	1	8	8	8
Net SS Award (millions)	\$133.5	-\$25.7	\$17.2	\$0.0	-\$40.0	-\$5.9	-\$69.5	-\$52.2	-\$41.0
Unallocated DGP (millions)	\$6.4	\$6.4	\$6.4	\$6.4	\$50.3	\$12.3	\$50.3	\$32.9	\$35.9

Note - CTB Member Consensus Modifications

Fund with DGP

App ID 9293 Route 8 Widening and Improvements for \$9.5M

Fund with HPP

App ID 9116 US 460 and Timber Ridge Road (Route 803) Intersection Improvements for \$10.5M

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Staunton Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
8997	D	STAU	Front Royal Town	Happy Creek Road Phase II	Highway	BikePed	x		\$16.9	\$16.9			Stays Out		X	Stays Out		Stays Out		-8	Stays Out		-1	Stays Out		89	Stays Out		-4	Stays Out		107	Stays Out		96	
9003	D	STAU	Covington City	US Route 220 at S. Carpenter Drive Safety Improvements	Highway	BikePed	x		\$6.9	\$6.9			Stays Out			Stays Out		Stays Out		-2	Stays Out		27	Stays Out		3	Stays Out		23	Stays Out		27	Stays Out		24	
9013	C	STAU	Augusta County	Route 256/I-81 Interchange: Three Lane Bridge	Highway	BikePed	x	x	\$19.7	\$19.7			Stays Out		X	Stays Out		Stays Out		0	Stays Out		20	Stays Out		48	Stays Out		21	Stays Out		92	Stays Out		80	
9048	D	STAU	Warren County	Rte. 55 West & Rte. 678/610 Intersection Improvements	Highway	None	x		\$6.0	\$6.0			Stays Out			Stays Out		Stays Out		-3	Stays Out		97	Stays Out		-1	Stays Out		87	Stays Out		87	Stays Out		68	
9131	C	STAU	Harrisonburg City	Pear St/Erickson Ave Modified RCUT	Highway	BikePed	x	x	\$4.3	\$4.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	4	Stays In	DGP	15	Stays In	DGP	-2	Stays In	DGP	17	Stays In	DGP	16	Stays In	DGP	16	
9164	D	STAU	Woodstock Town	Route 42 Corridor - West	Highway	BikePed	x		\$4.6	\$4.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Stays In	DGP	-1	Stays In	DGP	0	Stays In	DGP	-6	Stays In	DGP	-7	Stays In	DGP	-14	
9188	C	STAU	Staunton-Augusta-Waynesboro MPO	Woodrow Wilson Complex Long Term Access Improvements	Highway	BikePed		x	\$27.1	\$27.1			Stays Out			Stays Out		Stays Out		-12	Stays Out		73	Stays Out		-12	Stays Out		65	Stays Out		57	Stays Out		60	
9229	C	STAU	Waynesboro City	Broad/Main/Rosser Roundabout	Highway	BikePed	x	x	\$7.6	\$7.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Stays In	DGP	5	Stays In	DGP	2	Stays In	DGP	-1	Stays In	DGP	-1	Stays In	DGP	5	
9254	C	STAU	Rockingham County	US 33 & Rockingham Park Way Intersection	Highway	None	x		\$4.5	\$4.5			Stays Out			Stays Out		Stays Out		-7	Stays Out		29	Stays Out		-22	Stays Out		26	Stays Out		0	Stays Out		2	
9255	C	STAU	Rockingham County	US 33 & Cross Keys Road Intersection	Highway	None	x	x	\$9.6	\$9.6			Stays Out			Stays Out		Stays Out		25	Stays Out		75	Stays Out		-46	Stays Out		93	Stays Out		68	Stays Out		33	
9303	C	STAU	Waynesboro City	I-64 Exit 94 westbound off-ramp improvements	Highway	None	x		\$2.4	\$2.4			Stays Out			Stays Out		Stays Out		0	Stays Out		-33	Stays Out		-20	Stays Out		-31	Stays Out		-60	Stays Out		-75	
9305	D	STAU	Warren County	US 340 Safety Improvement Project	Highway	None	x		\$2.8	\$2.8	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Stays In	DGP	27	Stays In	DGP	0	Stays In	DGP	24	Stays In	DGP	24	Stays In	DGP	24	
9307	C	STAU	Central Shenandoah PDC	US 33 & Rockingham Park Way and 276/610 RCUTS	Highway	None		x	\$12.6	\$12.6			Stays Out			Stays Out		Stays Out		22	Stays Out		71	Stays Out		-27	Stays Out		83	Stays Out		67	Stays Out		37	
9342	D	STAU	Central Shenandoah PDC	US 33/Island Ford Road Partial RCUT	Highway	None		x	\$11.5	\$11.5			Stays Out			Stays Out		Stays Out		-7	Stays Out		20	Stays Out		3	Stays Out		18	Stays Out		20	Stays Out		14	
9363	C	STAU	Winchester City	Berryville Avenue Safety Improvements	Highway	None	x	x	\$3.5	\$3.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Stays In	DGP	-22	Stays In	DGP	0	Stays In	DGP	-30	Stays In	DGP	-31	Stays In	DGP	-23	
9391	C	STAU	Staunton-Augusta-Waynesboro MPO	I-64 and US 250 Exit 99 Intersection Improvement	Highway	None		x	\$7.2	\$7.2			Stays Out			Stays Out		Stays Out		-5	Stays Out		55	Stays Out		-3	Stays Out		49	Stays Out		45	Stays Out		51	
9037	D	STAU	Warren County	Rte. 55 & High Knob Rd. Intersection Improvements	Highway	None	x	x	\$4.5	\$4.5			Stays Out			Added	HPP	Stays Out		-4	Added	DGP	66	Stays Out		0	Added	DGP	62	Added	DGP	61	Added	DGP	53	
9298	A	STAU	Clarke County	Route 7/Route 601 Intersection Improvements	Highway	None	x	x	\$3.2	\$2.7			Stays Out			Stays Out		Stays Out		134	Stays Out		112	Stays Out		1	Stays Out		240	Stays Out		238	Stays Out		161	
9404	C	STAU	Harrisonburg-Rockingham MPO	S. Main St Corridor Safety - Southern Scope	Highway	BikePed & Transit		x	\$6.2	\$6.2	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	0	Stays In	HPP	24	Stays In	HPP	-22	Dropped		20	Dropped		7	Dropped		15	
9406	C	STAU	Harrisonburg City	S. Main St Corridor Safety Northern Scope	Highway	BikePed & Transit	x	x	\$6.7	\$6.7			Stays Out			Stays Out		Stays Out		-3	Added	DGP	50	Stays Out		-92	Stays Out		44	Stays Out		-66	Stays Out		-43	
9370	C	STAU	Harrisonburg-Rockingham MPO	Mt. Clinton Pike Corridor Safety	Highway	BikePed		x	\$9.0	\$9.0			Stays Out			Added	HPP	Stays Out		-3	Stays Out		24	Stays Out		-47	Stays Out		19	Stays Out		-38	Stays Out		-38	
9427	C	STAU	Frederick County	522/Costello Turn Lane/Intersection Operations Improvements	Highway	BikePed	x	x	\$6.7	\$5.2	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Stays In	DGP	8	Stays In	DGP	-22	Stays In	DGP	3	Stays In	DGP	-18	Stays In	DGP	-13	
9425	C	STAU	Frederick County	Route 11 - Shawnee Improvement	Highway	BikePed	x	x	\$5.1	\$5.1			Stays Out		X	Stays Out		Stays Out		-6	Stays Out		19	Added	DGP	183	Stays Out		14	Added	DGP	190	Added	DGP	191	
9455	C	STAU	Win-Fred MPO	Route 50/17/522 Partial Median U-turn	Highway	BikePed		x	\$30.4	\$27.4			Stays Out		X	Stays Out		Stays Out		70	Stays Out		62	Stays Out		-20	Added	HPP	137	Added	HPP	127	Added	HPP	95	
9453	C	STAU	Win-Fred MPO	Exit 317 Interchange Improvement Project	Highway	BikePed		x	\$37.6	\$31.1	X	HPP	Stays In	HPP	X	Stays In	HPP	Stays In	HPP	6	Stays In	HPP	32	Stays In	HPP	-14	Stays In	HPP	32	Stays In	HPP	27	Stays In	HPP	28	
9481	D	STAU	Page County	US HWY 340 N / GOOD MILL ROAD	Highway	None	x		\$3.4	\$3.4			Stays Out			Stays Out		Stays Out		-1	Stays Out		-1	Stays Out		0	Stays Out		-1	Stays Out		1	Stays Out		1	
9266	C	STAU	Waynesboro City	Crozet Tunnel Trail	Bike/Pedestrian	None	x	x	\$12.6	\$12.6			Stays Out			Stays Out		Stays Out		-5	Stays Out		18	Stays Out		-25	Stays Out		15	Stays Out		-13	Stays Out		-9	
9366	C	STAU	Winchester City	Papermill Road Improvements	Bike/Pedestrian	Highway & Transit	x	x	\$32.0	\$12.0			Stays Out			Stays Out		Stays Out		-2	Stays Out		25	Stays Out		-11	Stays Out		21	Stays Out		8	Stays Out		11	

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Staunton Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2			Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H**: CTB Member Request		
											Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result
9405	D	STAU	Central Shenandoah PDC	Rockbridge County US 11 Pedestrian Improvements	Bike/Pedestrian	None		x	\$8.2	\$8.2			Stays Out			Stays Out		Stays Out		-6	Stays Out		-138	Stays Out		-5	Stays Out		-145	Stays Out		-157	Stays Out		-156	
9367	C	STAU	Winchester City	Green Circle Trail Extension and Pedestrian Bridge	Bike/Pedestrian	Transit	x	x	\$23.4	\$10.0			Stays Out			Added	HPP	Stays Out		-7	Stays Out		-135	Stays Out		-3	Stays Out		-142	Stays Out		-145	Stays Out		-131	
9141	D	STAU	Buena Vista City	Rt 60/Rt 501 Pedestrian Improvements	Bike/Pedestrian	None	x		\$1.4	\$1.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	0	Dropped		-135	Stays In	DGP	0	Dropped		-145	Dropped		-143	Stays In	DGP	-139	
9170	D	STAU	Woodstock Town	Ox Road Bicycle and Pedestrian Improvements	Bike/Pedestrian	None	x	x	\$3.6	\$3.6	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Dropped		-242	Stays In	DGP	-1	Dropped		-242	Dropped		-282	Dropped		-283	
9175	D	STAU	Woodstock Town	Water Street Bicycle and Pedestrian Improvements	Bike/Pedestrian	None	x		\$5.4	\$5.4	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-5	Dropped		-219	Stays In	DGP	-2	Dropped		-224	Dropped		-247	Dropped		-242	
9243	D	STAU	Central Shenandoah PDC	US 501 - US 60 Pedestrian Improvements	Bike/Pedestrian	None		x	\$5.0	\$5.0			Stays Out			Added	HPP	Stays Out		-4	Stays Out		-191	Stays Out		0	Stays Out		-195	Stays Out		-194	Stays Out		-200	
9380	C	STAU	Harrisonburg City	Bluestone Trail Extension	Bike/Pedestrian	None	x	x	\$14.0	\$14.0			Stays Out			Added	HPP	Stays Out		-9	Added	DGP	49	Stays Out		-25	Added	DGP	37	Added	DGP	21	Added	DGP	37	
9381	C	STAU	Harrisonburg City	Reservoir St Sidewalk	Bike/Pedestrian	None	x	x	\$6.5	\$6.5	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-3	Dropped		-176	Stays In	DGP	0	Dropped		-191	Dropped		-201	Dropped		-200	
9383	C	STAU	Harrisonburg-Rockingham MPO	N. Main St Sidewalk (west side) and bike lanes	Bike/Pedestrian	None		x	\$5.9	\$5.9	X	HPP	Dropped			Stays In	HPP	Stays In	HPP	-5	Dropped		3	Dropped		-76	Dropped		-6	Dropped		-146	Dropped		-158	
9209	D	STAU	Berryville Town	East Main Street Sidewalk Improvements Phase 1	Bike/Pedestrian	Highway	x		\$4.1	\$4.1	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-4	Dropped		-188	Stays In	DGP	-2	Dropped		-200	Dropped		-205	Dropped		-214	
9216	D	STAU	Berryville Town	East Main Street Sidewalk Improvements Phase 2	Bike/Pedestrian	Highway	x		\$4.3	\$4.3	X	DGP	Stays In	DGP		Stays In	DGP	Stays In	DGP	-7	Dropped		-265	Dropped		0	Dropped		-266	Dropped		-266	Dropped		-268	
9373	C	STAU	Harrisonburg-Rockingham MPO	Liberty St - Downtown Harrisonburg	Bike/Pedestrian	Highway		x	\$16.4	\$16.4			Stays Out			Added	HPP	Stays Out		-4	Stays Out		20	Stays Out		-14	Stays Out		13	Stays Out		-17	Stays Out		-6	

*Official Round 5 Staff Scenario funded 15 projects

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H**: CTB Member Request
Projects Added	-	0	6	0	3	1	3	4	4
Projects Dropped	-	2	0	0	7	2	8	8	7
Net SS Award (millions)	\$96.4	-\$12.1	\$58.9	\$0.0	-\$5.9	-\$5.1	\$8.5	\$13.6	\$15.1
Unallocated DGP (millions)	\$2.6	\$2.6	\$2.6	\$2.6	\$2.7	\$1.8	\$9.4	\$4.3	\$2.9

Note - CTB Member Consensus Modifications

Fund with DGP

App ID 9303 I-64 Exit 94 Westbound Off-ramp Improvements for \$2.4M

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25%

Appendix E: Alternate CTB Recommendations Scenario Analysis

SMART SCALE Process Review
Statewide Scenario Analysis

Application Information										Individual Impacts												Cumulative Impacts														
										Official Round 5 Staff Scenario Results		Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2		Scenario C: Future Congestion			Scenario D: Land Use as a Multiplier			Scenario F: ED.1 and ED.2			Scenario E (A+B+C+D): September Staff Recommended			Scenario G (A+B+C+D+F): Final Staff Recommended			Scenario H***: CTB Member Request				
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Funded	Program	Funding Result	Program	HPP Eligible?	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank			
9338	A	Statewide	CTB	I-64 GAP	Highway	None	x	x	\$756.4	\$161.4	X	HPP	Stays In	HPP	X	Dropped			Stays In	HPP	-17	Stays In	HPP	84	Stays In	HPP	-6	Stays In	HPP	70	Stays In	HPP	69	Stays In	HPP	58

*Official Round 5 Staff Scenario funded 1 project

	Official Round 5 Scenario*	Scenario A: Refine HPP Definition	Scenario B: Eliminate Step 2	Scenario C: Future Congestion	Scenario D: Land Use as a Multiplier	Scenario F: ED.1 and ED.2	Scenario E (A+B+C+D): September Staff Recommended Changes	Scenario G (A+B+C+D+F): Final Staff Recommended Changes	Scenario H***: CTB Member Request
Projects Added	-	0	0	0	0	0	0	0	0
Projects Dropped	-	0	1	0	0	0	0	0	0
Net SS Award (millions)	\$161.4	\$0.0	-\$161.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Unallocated DGP (millions)	-	-	-	-	-	-	-	-	-

**Scenario A + Scenario B + Scenario C (Revised to 50% 10-Years Future and 50% Current Day) + Scenario D (revised factor weightings Area Type A: 20% Safety, 40% Congestion, 25% Accessibility, 5% Economic Development, and 10% Environment, Area Type B: 25% Safety; 20% Congestion, and 25% Accessibility, 20% Economic Development, and 10% Environment, Area Type C: 35% Safety; 15% Congestion, and 15% Accessibility, 25% Economic Development, and 10% Environment, Area Type D: 40% Safety; 10% Congestion, and 10% Accessibility, 25% Economic Development, and 10% Environment) + Scenario F

For Illustrative

**SMART SCALE Process Review Summary
November 20, 2023**

Appendix F: Scenario Analysis Summary Sheet Guide

1 Application Information										2 Official Round 5 Staff Scenario Results		3 Scenario A: Refine HPP Definition			Scenario B: Eliminate Step 2		Scenario C: Future Congestion		Scenario D: Land Use as a Multiplier		Scenario F: ED.1 and ED.2		4 Scenario E (A+B+C+D): September Staff Recommended					
App Id	Area Type	District	Organization	Title	Principal Improvement	Secondary Improvement	DGP	HPP	Total Cost (millions)	Total Request (millions)	Funded	Program	Funding Result	HPP Eligible?	Funding Result	Program	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank	Funding Result	Program	Change in Rank			
9363	C	STAU	Winchester City	Berryville Avenue Safety Improvements	Highway	None	x	x	\$3.5	\$3.5	X	DGP	Stays In	DGP	Stays In	DGP	Stays In	DGP	-3	Stays In	DGP	-22	Stays In	DGP	0	Stays In	DGP	-30
9391	C	STAU	Staunton-Augusta-Waynesboro MPO	I-64 and US 250 Exit 99 Intersection Improvement	Highway	None		x	\$7.2	\$7.2			Stays Out		Stays Out		Stays Out		-5	Stays Out		55	Stays Out		-3	Stays Out		49
9037	D	STAU	Warren County	Rte. 55 & High Knob Rd. Intersection Improvements	Highway	None	x	x	\$4.5	\$4.5			Stays Out		Added	HPP	Stays Out		-4	Added	DGP	66	Stays Out		0	Added	DGP	62
9298	A	STAU	Clarke County	Route 7/Route 601 Intersection Improvements	Highway	None	x	x	\$3.2	\$2.7			Stays Out		Stays Out		Stays Out		134	Stays Out		112	Stays Out		1	Stays Out		240
9404	C	STAU	Harrisonburg-Rockingham MPO	S. Main St Corridor Safety - Southern Scope	Highway	BikePed & Transit		x	\$6.2	\$6.2	X	HPP	Dropped		Stays In	HPP	Stays In	HPP	0	Stays In	HPP	24	Stays In	HPP	-22	Dropped		20

General Note – Summary Sheet is sorted by District then Principal Improvement Type

1. Application Information – Base Data Provided by the applicant.
 - A. Secondary Improvement is noted if the project is multimodal.
 - B. Program Eligibility is noted with an X if eligible under the Round 5 qualifications.
2. Official Round 5 Staff Scenario Results provided in January 2023
 - C. Recommended for funding is noted with an X. This does not incorporate the consensus changes.
 - D. The program that the project was recommended to be funded by is noted as either DGP or HPP.
3. Singular Impact Scenario – definitions of each scenario are provided in the sections above. The scenario shows what would happen if no other changes were made to Round 5 except this one singular modification.
 - E. Funding Result is either noted as:
 - Added – Not recommended in the Official Round 5 Staff Scenario but does get recommended in this scenario.
 - Stays In – Recommended in the Official Round 5 Staff Scenario and is still recommended in this scenario.
 - Dropped – Recommended in the Official Round 5 Staff Scenario and is NOT recommended in this scenario.
 - Stays Out – Not recommended in the Official Round 5 Staff Scenario and not recommended in this scenario.
 - F. If the project is recommended in the scenario, the column denotes which program it would be funded by.
 - G. The number denotes a change in statewide rank by the difference.
4. Combined Impact Scenario – definitions of each scenario are provided in the sections above. The scenario shows what would happen if all scenario changes were made to Round 5.