



COMMONWEALTH of VIRGINIA  
Office of the  
SECRETARY of TRANSPORTATION

## SMART SCALE Round 6 Update Cost Estimates and Round Observations

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# Agenda

- SMART SCALE FY 2026 (Round 6)
- Cost Estimates – reflecting on past and looking to the future
- What are the Ingredients for (Staff Recommended) Funded Project?
- Round Key Observations

# SMART SCALE FY 2026 (Round 6)

## Summary and Comparison to Prior Rounds

| PROJECT APPLICATIONS        | FY 2017 ROUND 1 | FY 2018 ROUND 2 | FY 2020 ROUND 3 | FY 2022 ROUND 4 | FY 2024 ROUND 5 | FY 2026 ROUND 6 STAFF REC |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------|
| Pre-Application Submitted   | N/A             | N/A             | 557             | 484             | 490             | 325                       |
| Full Application Submitted  | 321             | 436             | 468             | 406             | 413             | 277                       |
| Scored                      | 287             | 404             | 433             | 397             | 394             | 270                       |
| Funded                      | 163             | 147             | 134             | 167             | 164             | 53                        |
| Total Funding Requested*    | \$7.4 B         | \$8.6 B         | \$7.4 B         | \$6.3 B         | \$8.3 B         | \$8.2 B                   |
| Total Funding Allocated     | \$1.7 B         | \$1.1 B         | \$0.9 B         | \$1.4 B         | \$1.6 B         | \$1.0 B                   |
| Value of Projects Supported | \$3.3 B         | \$2.4 B         | \$5.1 B         | \$1.9 B         | \$2.4 B         | \$1.1 B                   |

\*Total of scored applications funding requested

# SMART SCALE FY 2026 (Round 6)

## Funding Available in millions

- A total of \$1.08 billion is available for Round 6
- Background information for the FY2026 – 2031 planning period
  - [VDOT CFO Presentation \(pdf\)](#)
  - [VDOT CFO Presentation \(YouTube\)](#)
- Budget is still in flux depending on remaining needs through May

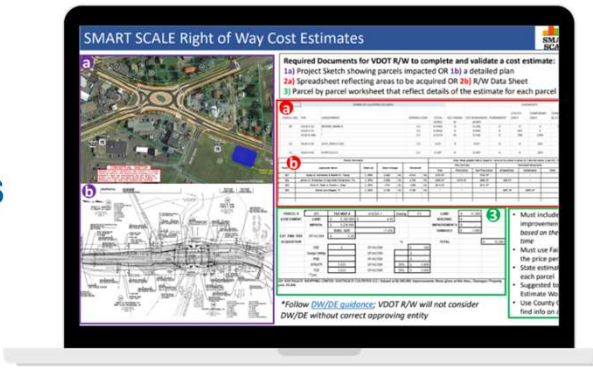
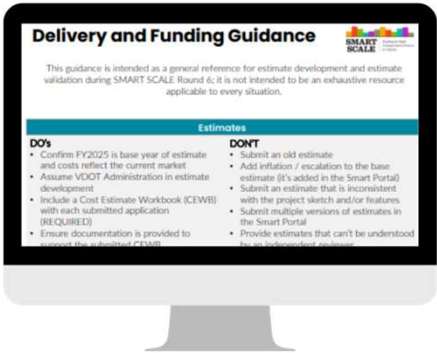
| District           | DGP Available | Previous DGP Cost Increases | HPP Available |
|--------------------|---------------|-----------------------------|---------------|
| Bristol            | \$37.0        |                             |               |
| Culpeper           | \$68.0        | -\$6.6                      |               |
| Fredericksburg     | \$76.2        |                             |               |
| Hampton Roads      | \$121.6       |                             |               |
| Lynchburg          | \$85.9        |                             |               |
| Northern Virginia* | \$97.4        |                             |               |
| Richmond           | \$104.9       |                             |               |
| Salem              | \$64.3        |                             |               |
| Staunton           | \$39.4        | -\$6.0                      |               |
| Statewide HPP      |               |                             | \$384.7       |
| Total              | \$694.6       |                             | \$384.7       |

\*Note: Supplemental DGP from additional gas tax in localities is not captured in NOVA District

# Round 6 Cost Estimate Notes/Observations Improvements Round over Round

## First and Foremost, Thank You!!

- **Lessons Learned from the past round that were implemented**
  - Improved project sketch detail and scope clarity
  - Improved detailed estimate documentation uploaded with applications
  - Improved consistency between estimates, application, features and sketches
  - Pre-Application Comments implemented in Full Application
    - Conditional Screen-out language
  - Application of Reference One-Pagers
- **Resulted in less (significant) scope and estimate changes**



# Round 6 Cost Estimate Notes/Observations

## Where Improvement is Still Needed

- Contingency
  - Based on project-specific risk, not just a chart
  - Should be varied by discipline
  - Cost Estimation Module 5 - Risk-based Estimating

Training Detail

Cost Estimation: 5 - Risk-based Estimating (2 PDHs)

Design

Risk is an uncertain event that impacts objectives. Like cost estimating, risk management is a fundamental component of project management. The Project Management Institute (PMI) and the International Organization for Standardization (ISO) have developed risk management certification processes. Much of the training in this model is based on the approaches of PMI and ISO. There are two modules in this course: Risk Identification and Risk Types.

This course is part of the AASHTO Cost Estimation Series. The content of this training is based on the AASHTO Practical Guide to Cost Estimating, which covers both cost estimation and cost management. The trainings in this series are divided into two topics: Cost Estimation and Cost Management.

TECHNICAL TRAINING SOLUTIONS

Design

Non-Member Price: \$100.00

Member Price: \$0.00

Subscription Price: \$0.00

Item Code: TC3DN005-20-T1

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1

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Add to Cart

# Round 6 Cost Estimate Notes/Observations

## Improvement Implementation Anticipated Round 7

- **Updated Estimating Tools**
  - Bid Item Unit Cost Lookup Tool - Can be used as documentation of unit pricing decisions
  - Statewide Bid Tab Query
  - Pre-Quantity Tool
    - Organizes estimate to directly translate to PES (replaces the CEWB)
  - Project Estimate Summary (PES)
- **Discipline-specific contingencies**
- **Continue to reinforce best practices with scoping, sketches, and required documentation**

# What are the Ingredients for (Staff Recommended) Funded Project?

- 1. **Benefit – Project's *impact* to Needs/Problems**
  - a. **VTrans Prioritized Needs**
  - b. **Other Data Sources - <https://vdotp4p.com>, Previous Round Results**
  - c. **Area Type Weighting**
- 2. **Cost (SMART SCALE Request)**
  - a. **Total Cost Estimate**
  - b. **Value Engineering – Pipeline, STARS, Targeted Improvements**
  - c. **Leverage**
  - d. **Available Money for DGP & HPP**
- 3. **Benefit/Cost**

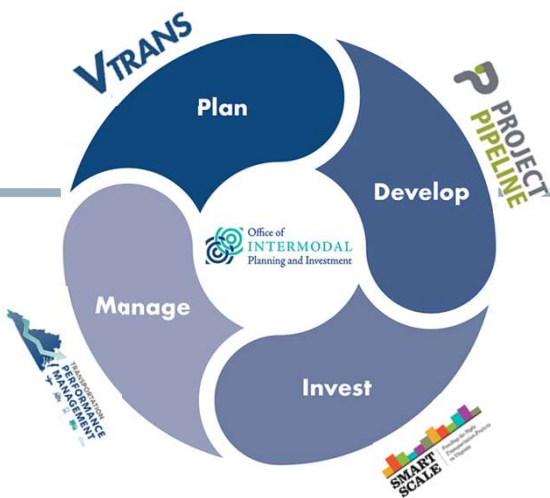


# Benefit

## VTrans Prioritized Needs

### Back to Basics - It's Performance-Based Planning!

- ANY Mid-Term Need is acceptable for SMART SCALE
- Locations with the greatest needs are VTrans Prioritized Needs
  - Categorized by Statewide Priority or Construction District Priority
    - Statewide Priority Locations focused on Corridors of Statewide Significance – Ranked Statewide
    - Construction District Priority Locations focused on all other roads (RN, Safety, UDA) – Ranked Districtwide
- Priority 1 and 2 locations established in VTrans become eligible for study funding under the Project Pipeline program



# Benefit

## VTrans Prioritized Needs

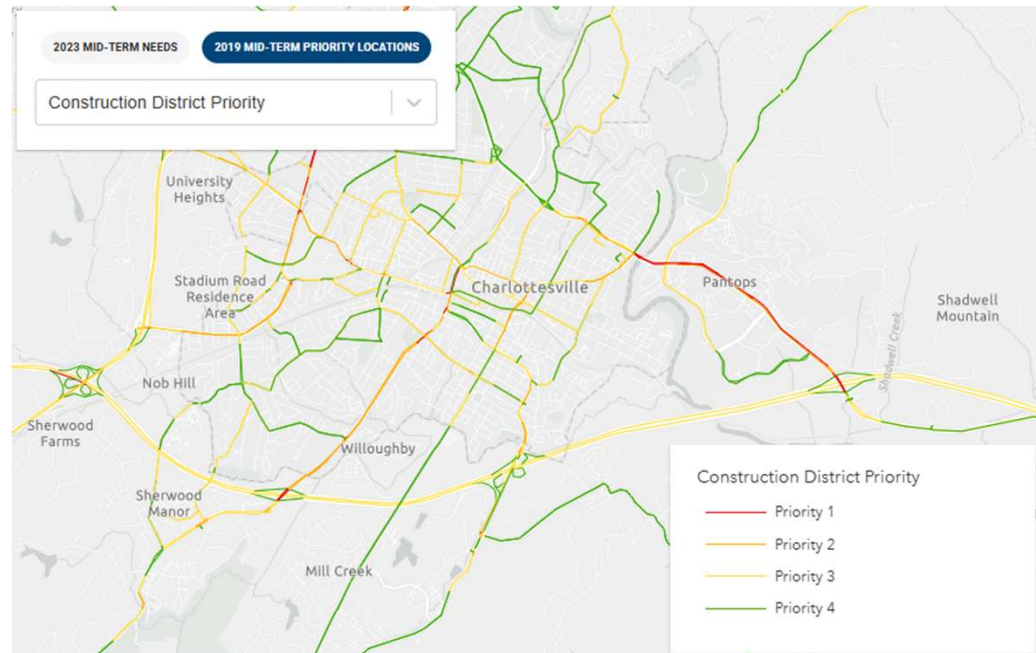
- **Considers Severity and Magnitude of Need, Weighted Categories by Area Type, and finally adjusts for influencing factors**
- **Relational SMART SCALE Factors considered in VTrans Priority Ranking include:**
  - Safety
  - Congestion/Accessibility
  - Reliability (ED.3)
- **Factors NOT considered in VTrans Priority Ranking include:**
  - Land Use
  - Economic Development (ED.1/ED.2)
  - Environment Impact
- **Priority Needs are ranked 1 (worst) to 4**

# Benefit

## VTrans Priority Needs – Construction District Priority

- Round 6 Recommended for Funding

- Priority 1 is highest need (red)
- 43 out of 53 (80%) of all Funded were located on a Priority 1 or 2 Construction District Priority Need
- 22 out of 23 (96%) of HPP Projects were located on a Priority 1 or 2 Construction District Priority Need

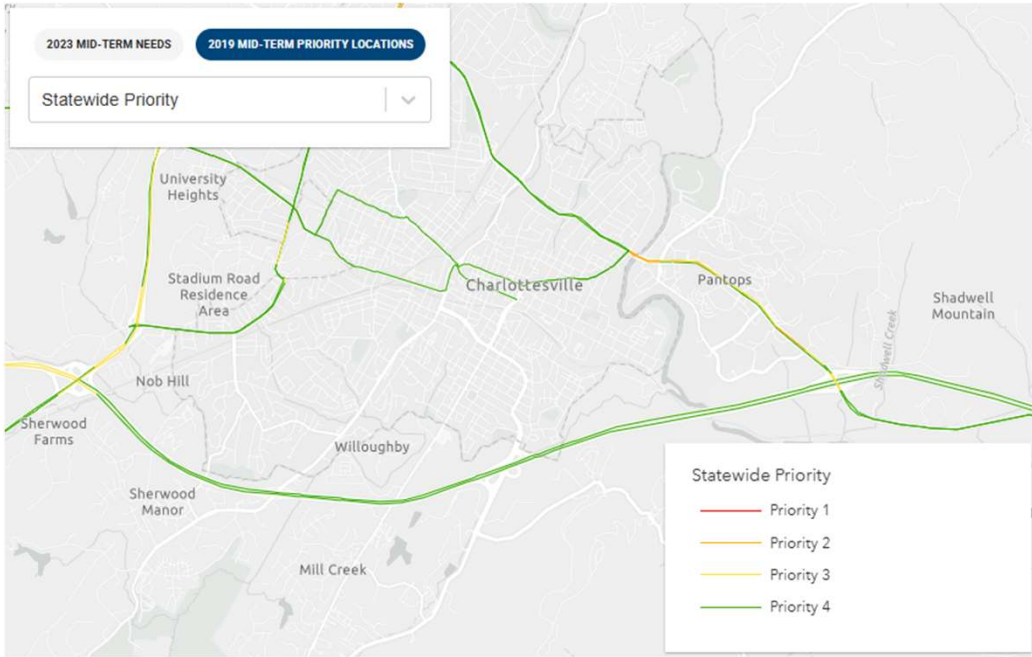


<https://vtrans.virginia.gov/interactvtrans/map-explorer>

# Benefit

## VTrans Priority Needs – Statewide

- **Round 6 Recommended for Funding**
  - 34 out of 53 (65%) of all Funded projects that were recommended for funding were located on a Statewide Priority Need (1-4) Location
  - 18 out of 23 (70%) of the HPP projects that were recommended for funding were located on a Statewide Priority Need (1-4) Location

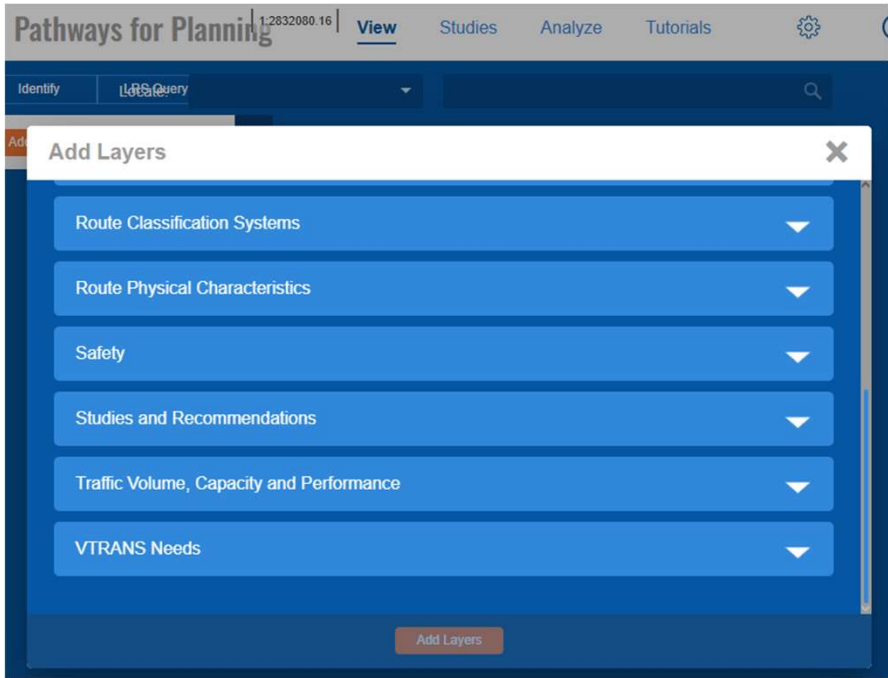


<https://vtrans.virginia.gov/interactvtrans/map-explorer>

# Benefit

## Other Data Sources – P4P, Previous Round Results

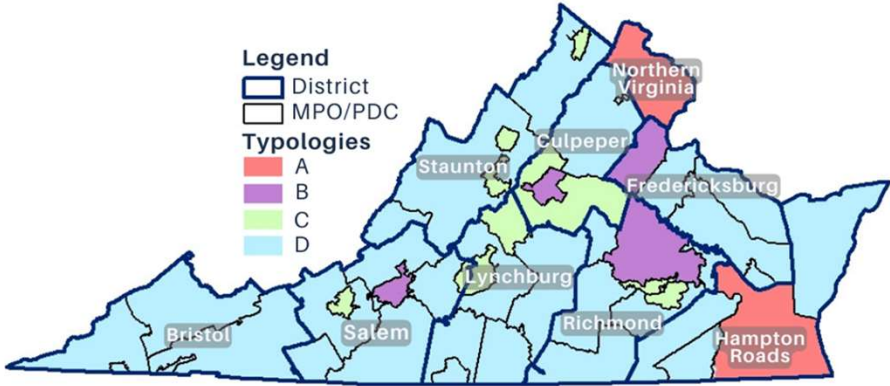
- **P4P - <https://vdotp4p.com>**
  - C.1 Person Throughput – V/C
  - C.2 Person hours of Delay – LOS, TTI
  - S.1 EPDO of Fatal and Injury – Crashes (KABC 5 years)
  - S.2 EPDO Rate of Fatal and Injury – Consider AADT
  - ED.3 Travel Time Reliability - BTI
- **Previous SS Results**
  - Land Use - Population Density, Points of Interest
  - Economic Development



# Benefit

## Area Type Weighting

|                             |                                                              |
|-----------------------------|--------------------------------------------------------------|
| <b>Safety</b>               | Reduce the number and rate of fatalities and severe injuries |
| <b>Congestion</b>           | Reduce person-hours of delay and increase person throughput  |
| <b>Accessibility</b>        | Increase access to jobs and travel options                   |
| <b>Land Use</b>             | Support transportation-efficient land development patterns   |
| <b>Economic Development</b> | Support economic development and improve goods movement      |
| <b>Environment</b>          | Improve air quality and avoid impacts to the environment     |



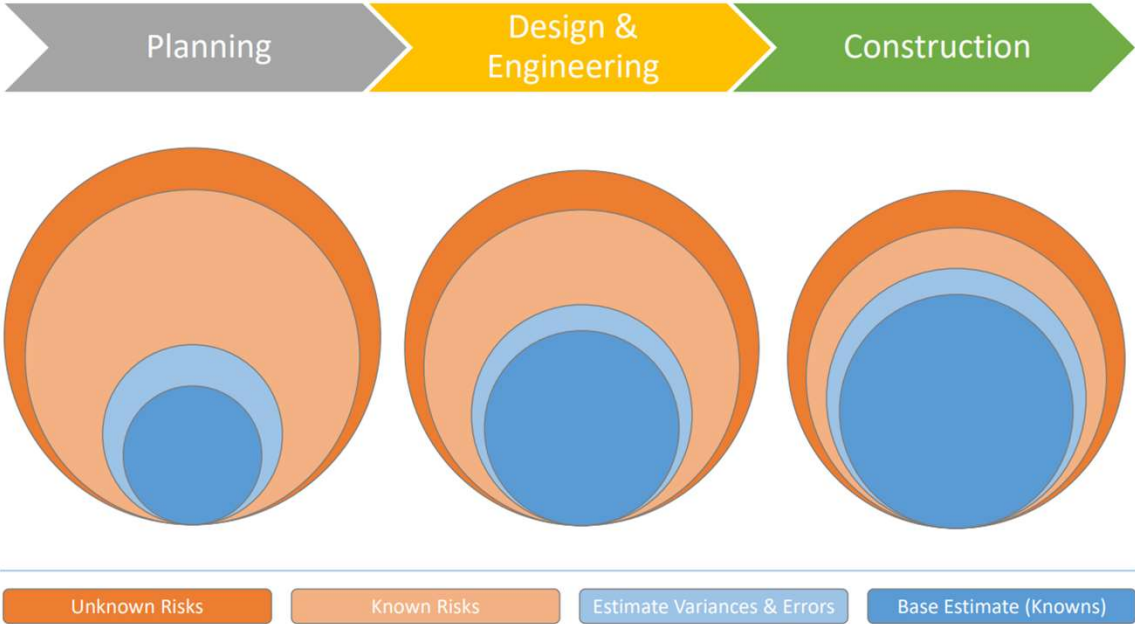
| Factor | Safety |     | Congestion |     | Accessibility |     | Land Use         |     | Economic Development | Environment |
|--------|--------|-----|------------|-----|---------------|-----|------------------|-----|----------------------|-------------|
| Round  | 6      | 5   | 6          | 5   | 6             | 5   | 6                | 5   | No Change            | No Change   |
| Type A | 15%    | 5%  | 45%        | 45% | 25%           | 15% | Up to 100% Added | 20% | 5%                   | 10%         |
| Type B | 20%    | 20% | 25%        | 15% | 25%           | 20% |                  | 15% | 20%                  | 10%         |
| Type C | 30%    | 25% | 20%        | 15% | 15%           | 15% |                  | 10% | 25%                  | 10%         |
| Type D | 40%    | 30% | 10%        | 10% | 10%           | 10% |                  | 10% | 30%                  | 10%         |



# Cost (SMART SCALE Request)

## Total Cost Estimate

- Reduce Risk, Reduce Contingency
- Participate in Readiness Programs – STARS/Pipeline
- If possible, apply when ready for last dollars



2024 Cost Estimate Summit  
“Addressing Risk in the Estimate”

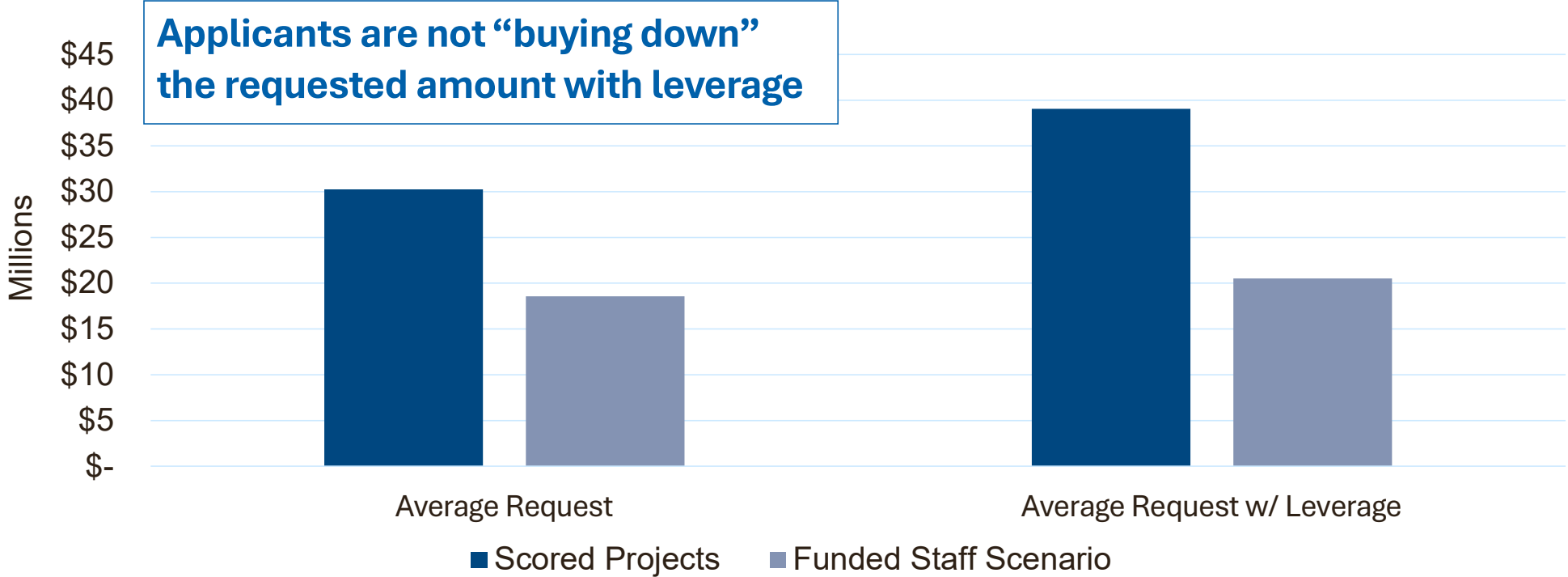
# Cost (SMART SCALE Request)

## Value Engineering

- **Added Benefit of HPP Eligibility if applying for the preferred alternative**
- **Overall Success Rate was 20%, but Pipeline and STARS was 30%+**
- **Lessons Learned**
  - Many did not identify a preferred alternative
  - Right sizing the project scope (corridor size)
  - Phasing to completion is allowed
- **Frequently, solution has already been determined, value engineering not considered**



# Cost (SMART SCALE Request) Leverage



# Cost (SMART SCALE Request)

## Benefit and Cost

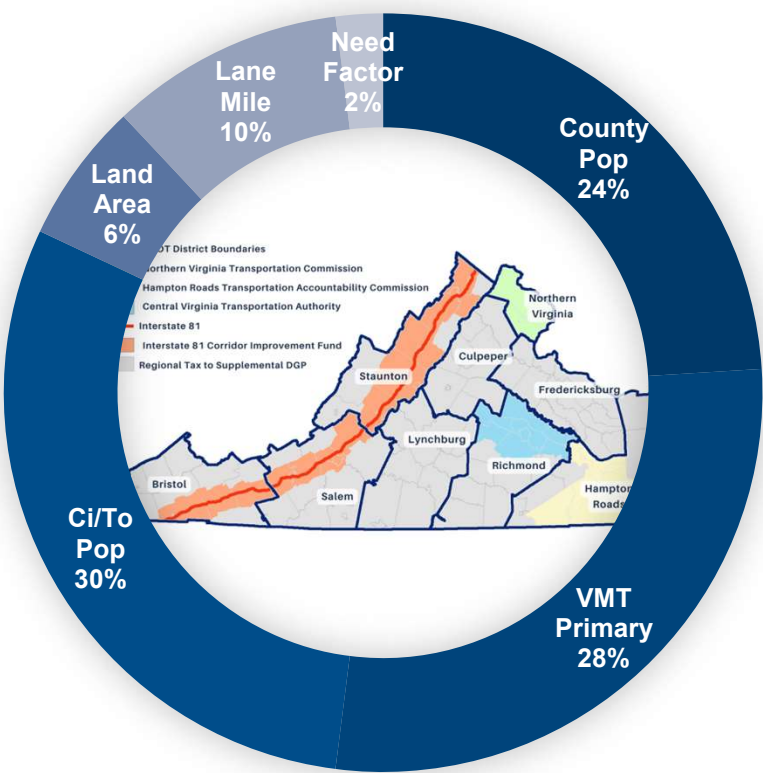
- Through Round 5, the maximum benefit score was 100, but Round 6 it is 200
- Historical SS Benefit Scores
  - (74)HRBT, (65)VRE Fred, (63)I-64 High Rise Bridge, (61)Transform 66, (58)I-64 Gap, (77)Short Pump
  - These projects are Mega Magnitude in terms of size (length/cost)

$$\frac{\text{Highest Benefit EVER}}{\text{Lowest SS Score for HPP Funding}} = \text{Theoretical Maximum Applicant Request}$$

- $\frac{77}{4} = 19.25 \text{ (x 10 Million)} = \$192,500,000$
- FIVE projects in Round 6 had a request over \$200M
- Highest Funded Project Amount Round 6 - \$57.4M
- Average Funded Project Request Round 6 – \$18.6M (all) and \$27.2M HPP

# Cost (SMART SCALE Request) Available Money for DGP & HPP

- **DGP is formula-based, can't compare projects funded in DGP to another district**
  - Low SS scoring projects can and are funded in the District Grant Program
    - Ratio is within district VS entire Commonwealth
    - ...Plus Supplemental District Grant
- **HPP funds are competed for statewide**
- **No way to predict the DGP and HPP Pots for the Round**
  - Assume worst case when value engineering and applying leverage
  - Ceiling on SMART SCALE Request is the pot size



# Key Observations SS FY2026 (Round 6)

- **Focus on performance-based planning**
- **Many reasons why performance-based planning is overlooked**
  - Local board members expect an application in their district
    - Same mentality for leverage, spread all available money throughout county/city/town apps instead of focusing leverage on high benefit/high need project
  - Pressure to apply for maximum application limit cap
  - Old thought - if it's cheap enough, it will be funded (previous Land Use influence and old Step 2 rules)
  - Emphasis is placed on the Consensus Scenario versus the Staff Recommended Scenario
  - Complaints received in an area that is perceived to be not safe, but doesn't have supporting historical data
  - Solution has already been determined, value engineering not considered
- **Not what percent you leverage, it is what is requested**