COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

# Smart Scale – HPP Eligibility

Laura Schewel, Deputy Secretary

CTB February Meeting

# Background: Categories of Smart Scale Projects

**Table 2.3 Funding Program Eligibility**

| VTrans Travel Market | High Priority Projects Program | District Grant Program |
|---|---|---|
| Addresses Corridor(s) of Statewide Significance Need | Yes | Yes |
| Addresses Regional Network(s) Need | Yes | Yes |
| Improvement to Support Urban Development Area(s) | No | Yes |
| Addresses Identified Safety Need | No | Yes |

***§ 33.2-370. High-priority projects program.***

*A. As used in this section, "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.*

*B. The Board shall establish a high-priority projects program and shall use funds allocated in § 33.2-358 to the program for projects and strategies that address a transportation need identified for a corridor of statewide significance or a regional network in the Statewide Transportation Plan pursuant to § 33.2-353.*

**Why it matters:**

DGP and HPP have separate pots of money. A project that is eligible for HPP is also eligible for DGP (if from a DGP entity). **Being eligible for HPP often gives a project a wider pool of funds to 'apply for', thus increasing its odds of getting funded.**

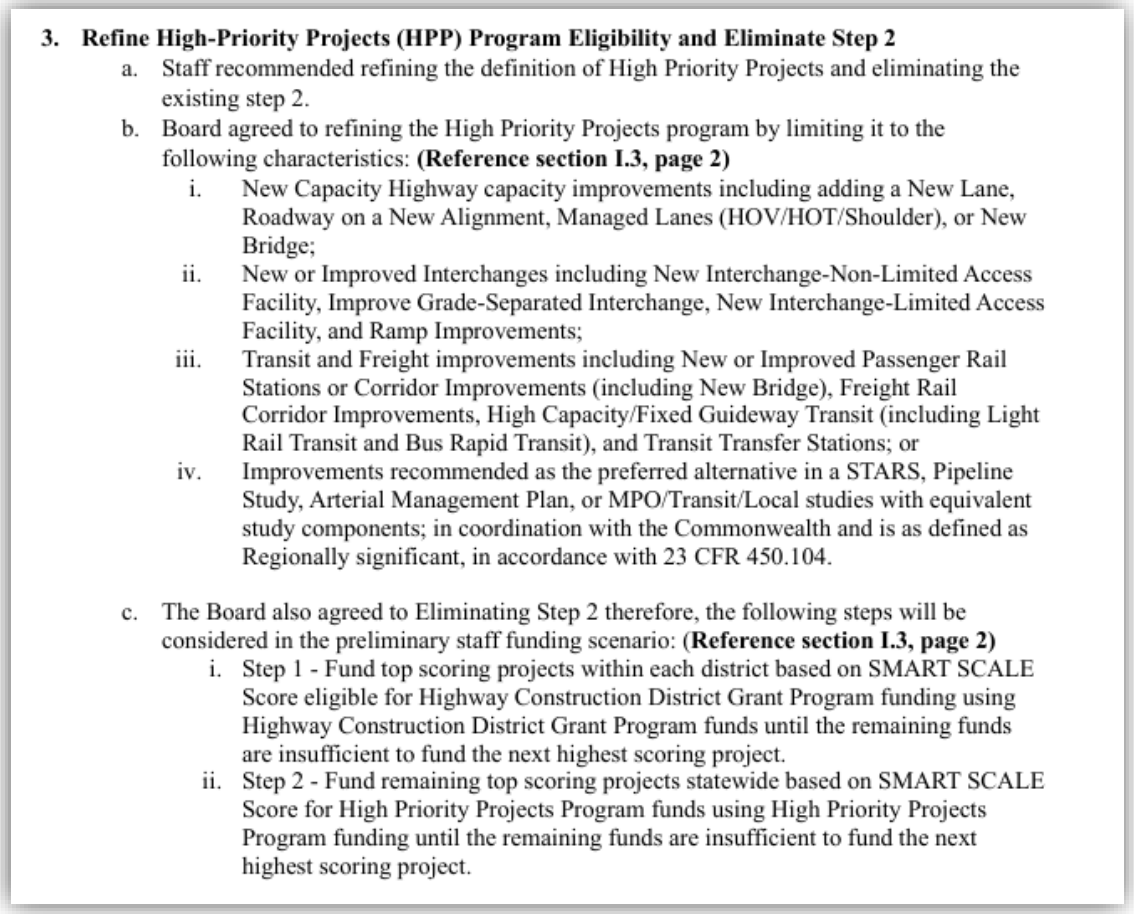
**Process:**

Step 1: the DGP projects for each district are funded in order of Smart Scale score until money for that district is insufficient to cover the next.

Step 2: the HPP projects for the state are funded in order of Smart Scale score until money cannot cover the next.

# Background: HPP Eligibility Changes

- Only projects Corridors of Statewide Significance or Regional Network Needs are eligible for HPP.
- In December 2023, the board added additional eligibility criteria based on project characteristics.
  - DGP projects do not need to be limited to these types of projects.
- The board also eliminated a prior intermediary step (the “old” Step 2). Thus – DGP projects are funded along district priority and rank, and HPP project are now funded by state rank.



**3. Refine High-Priority Projects (HPP) Program Eligibility and Eliminate Step 2**

a. Staff recommended refining the definition of High Priority Projects and eliminating the existing step 2.

b. Board agreed to refining the High Priority Projects program by limiting it to the following characteristics: **(Reference section I.3, page 2)**

i. New Capacity Highway capacity improvements including adding a New Lane, Roadway on a New Alignment, Managed Lanes (HOV/HOT/Shoulder), or New Bridge;

ii. New or Improved Interchanges including New Interchange-Non-Limited Access Facility, Improve Grade-Separated Interchange, New Interchange-Limited Access Facility, and Ramp Improvements;

iii. Transit and Freight improvements including New or Improved Passenger Rail Stations or Corridor Improvements (including New Bridge), Freight Rail Corridor Improvements, High Capacity/Fixed Guideway Transit (including Light Rail Transit and Bus Rapid Transit), and Transit Transfer Stations; or

iv. Improvements recommended as the preferred alternative in a STARS, Pipeline Study, Arterial Management Plan, or MPO/Transit/Local studies with equivalent study components; in coordination with the Commonwealth and is as defined as Regionally significant, in accordance with 23 CFR 450.104.

c. The Board also agreed to Eliminating Step 2 therefore, the following steps will be considered in the preliminary staff funding scenario: (**Reference section I.3, page 2)**

i. Step 1 - Fund top scoring projects within each district based on SMART SCALE Score eligible for Highway Construction District Grant Program funding using Highway Construction District Grant Program funds until the remaining funds are insufficient to fund the next highest scoring project.

ii. Step 2 - Fund remaining top scoring projects statewide based on SMART SCALE Score for High Priority Projects Program funds using High Priority Projects Program funding until the remaining funds are insufficient to fund the next highest scoring project.

**From December 2023 Board Resolution**

# Requested Update for Round 7: Add One Project Type to the HPP Eligible List

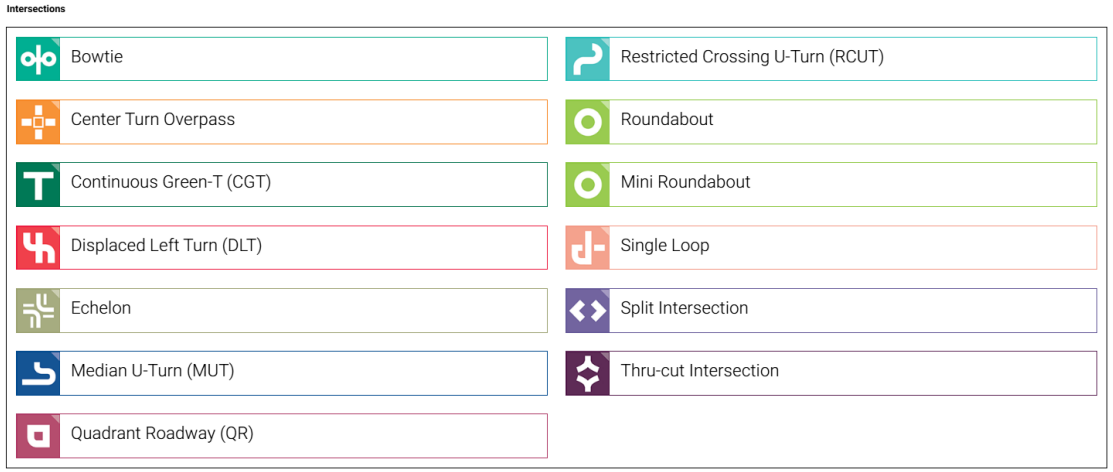
*A. As used in this section, "high-priority projects" means those projects of regional or statewide significance, such as projects that* ***reduce congestion or increase safety, accessibility, environmental quality, or economic development.***

| Category | Current Features Required for HPP Eligibility + Suggested Addition |
|---|---|
| Highway | Add New Through Lane(s); Roadway on New Alignment; Managed Lane(s) (HOV/HOT/Shoulder); Improve Grade Separated Interchange; Ramp Improvements; Innovative Interchange; Innovative Intersections; New Interchange, Non-Limited Access Facility; Limited Access Facility; New Bridge |
| Transit | Rolling Stock for New/Expanded High-Capacity or Fixed-Guideway Route; Infrastructure for New/Expanded High-Capacity or Fixed-Guideway Route; Construct or Expand Transfer Center or Maintenance/Administrative Facility |
| Rail | [Improvements associated with new or expanding rail capacity.] |
| Alternative: | Alternatively, an application is eligible for HPP funds if the proposed improvements are identified as the preferred alternative of one of the following studies: STARS , Pipeline, Arterial Management Plan, VDOT/MPO/Transit/Local study with components equivalent to one of the previously listed studies, completed in coordination with VDOT staff, and meeting the definition of “regionally significant” in accordance with 23 CFR 450.104. |

# Justification: Adding Innovative Intersections

For more information: Virginia iCAP | Virginia Department of Transportation

## What is an innovative intersection?




**What's the difference?**

- Intersections = crossings at grade alignment.
- Interchanges = grade separated, no direct crossing conflict.

- "Innovative Intersections" refers to a clear list and guidelines reviewed and updated by The Innovative Intersections Committee (IIC) via the iCAP framework. A subset of this process covers Innovative Interchanges.




- This program identifies intersection models that "reduce delay, increase efficiency and provide safer travel for all road users" - exactly in line with definition of High Priority Projects per code.

- "Innovative Interchanges" are already included in HPP criteria. This change aligns HPP eligibility criteria with VDOT's own iCAP framework, which already treats innovative intersections and innovative interchanges as part of the same program for evaluation purposes.

# Example – Innovative Intersection Project from Round 6

## Rte 360 Mechanichsville Tpk Roundabouts, Streetscape: Top safety score in Round 6, but unfunded because not HPP-eligible.

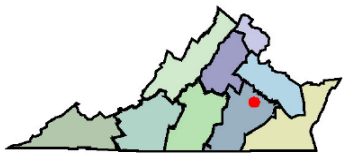
This "innovative intersection" project received the highest safety score for reduction in Fatal and Injury Crashes in Round 6, but was unfunded. If it had been eligible for HPP, it would have made it into the HPP funded list in the staff scenario.

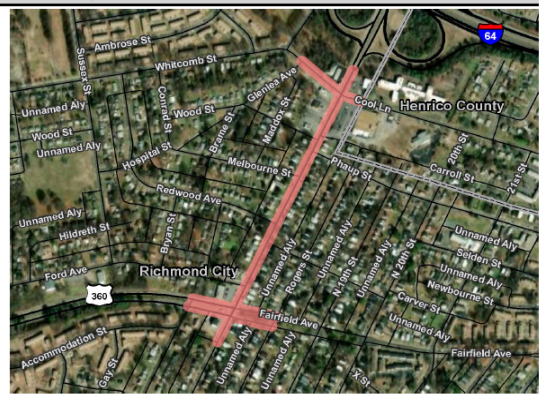
**G US Route 360 Mechanicsville Tpk Roundabouts & Streetscape** Project Id: 11498

This project will improve 0.35-miles of Mechanicsville Turnpike (US360) between Fairfield Way and Whitcomb St / Cool Ln by providing one through lane in each direction, a shared center two-way left turn lane, 10' shared use path w/ 5' buffer along the east side, 5' sidewalk w/ 4' buffer along the west side, and 5' sidewalk w/ 4' buffer along Fairfield Way from Spotslyvania St to Rogers St and on Whitcomb St /Cool Ln from 50' west of and 100' east of US360. This project will provide a single lane roundabout at US360 and Fairfield Way and a two-lane roundabout at US360 and Whitcomb St / Cool Ln. Pedestrian access improvements and crossing accommodations will be provided at the two roundabouts and at a new pedestrian hybrid beacon near Redwood Ave with pedestrian refuge island. Essential transit infrastructure improvements will be provided at five transit stops. Access movement improvements include removing/consolidating fourteen entrances adjacent to the roundabouts to improve safety.

| | | | |
|---|---|---|---|
| 7.7 SMART SCALE SCORE | #27 OF 270 STATEWIDE | SMART SCALE Requested Funds | $45,164,001 |
| | #12 OF 65 DISTRICTWIDE | Total Project Cost | $47,164,001 |
| | | Project Benefit | 34.7 |
| | | Project Benefit / Total Cost | 7.4 |

| | |
|---|---|
| **Submitting Entity:** | Richmond City |
| **PE/RW/CN:** | Not Started / Not Started / Not Started |
| **Eligible Fund Program:** | DGP |
| **Evacuation Route:** | No |
| **Resiliency Commitment:** | Yes |
| **VTRANS Need:** | RN, Safety |

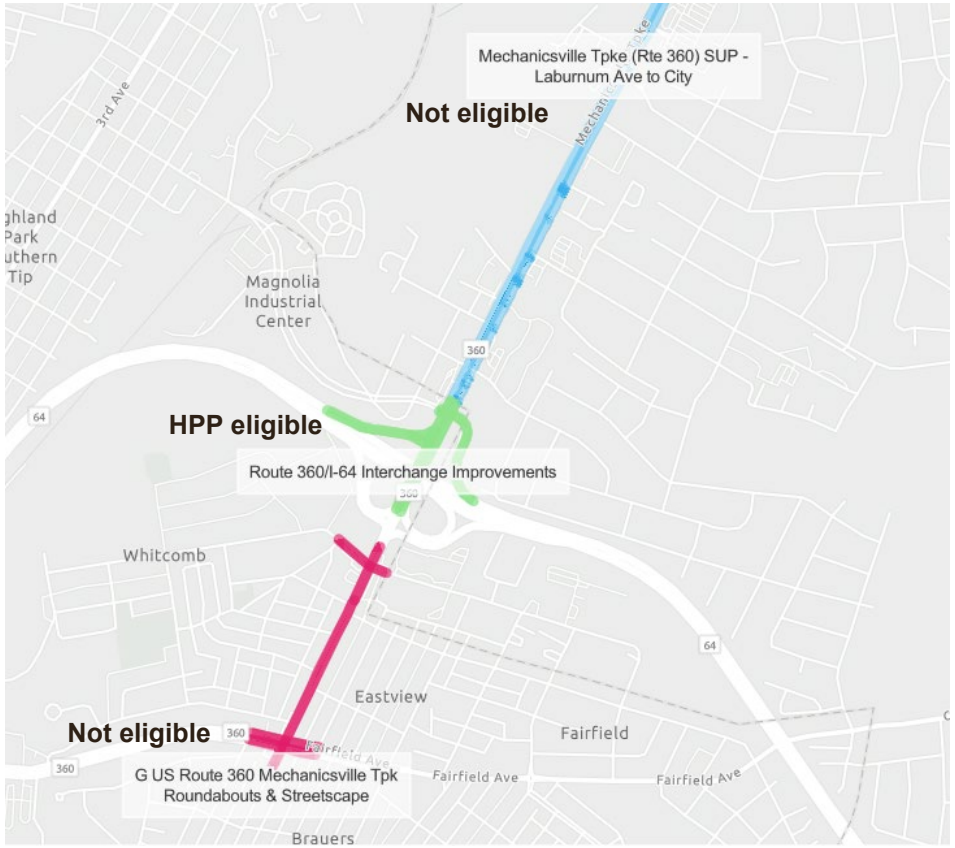





| SMART SCALE Area Type B | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Reasources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 36.7 persons | 31.3 person hrs. | 560.3 EPDO | 25,562.1 EPDO / 100M VMT | 8.0 jobs per resident | 10.7 jobs per resident | 183.6 adjusted users | 2.3 adjusted points | 186.5 thousand adj. daily tons | 13,106,200.0 adj. buffer time index | 5.4 adjusted points | 0.0 impacted acres | 61.2 access * pop/emp density | 62.2 access * pop/emp density change |
| Normalized Measure Value (0-100) | 0.7 | 1.9 | 100.0 | 41.7 | 2.1 | 1.8 | 12.1 | 2.5 | 0.4 | 0.2 | 5.4 | 0.0 | 85.0 | 85.8 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 1.3 | | 82.5 | | 4.0 | | | 1.6 | | | 5.4 | | 85.4 | |
| Factor Weight (% of Project Score) | 25% | | 20% | | 25% | | | 20% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.3 | | 16.5 | | 1.0 | | | 0.3 | | | 0.5 | 0.0 | 1.9 | |
| Project Benefit | 34.7 | | | | | | | | | | | | | |
| SMART SCALE Cost | $45,164,001 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **7.7** | | | | | | | | | | | | | |

# Example – Innovative Intersection Project from Round 6

## Rte 360 Mechanichsville Tpk Roundabouts, Streetscape: Top safety score in Round 6, but unfunded because not HPP-eligible.




This project was similar to, and contiguous with, two other Round 6 projects (all in Priority 1 areas). But only one was eligible for HPP because it dealt with the portion of corridor that touched the grade-separated interchange.

# Counter Example: Innovative Interchange Project from Round 6

## "Barracks Road Pipeline 29/250": This project is similar to "Rte 360 Mechanichsville Tpk Roundabouts", and was HPP eligible because it included an interchange ramp.

Including this project, and excluding the prior one, despite the general similarity, is an example of the consequences of including "interchanges" but excluding "intersections" in HPP eligibility. This project was unfunded.

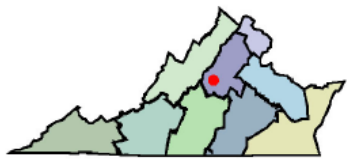
**Barracks Road Pipeline US 29/250 Interchange and SUP** Project Id: 11678

The Barracks Road Pipeline US 29/250 Interchange Project will include hybrid roundabouts at both 29/US250 interchanges and a continuous shared use path along the west side of Barracks Rd from Bennington Road to Emmet St. The project will include improvements to the existing curb ramps and crosswalks at the Millmont St. intersection.

| 2.0 SMART SCALE SCORE | | | |
|---|---|---|---|
| | #142 | OF 270 STATEWIDE | |
| | #20 | OF 24 DISTRICTWIDE | |

| | |
|---|---|
| SMART SCALE Requested Funds | $93,859,520 |
| Total Project Cost | $93,859,520 |
| Project Benefit | 19.2 |
| Project Benefit / Total Cost | 2.0 |

| | |
|---|---|
| **Submitting Entity:** | Charlottesville-Albemarle MPO |
| **PE/RW/CN:** | Not Started / Not Started / Not Started |
| **Eligible Fund Program:** | HPP |
| **Evacuation Route:** | Yes |
| **Resiliency Commitment:** | N/A |
| **VTRANS Need:** | CoSS, RN, Safety |






| SMART SCALE Area Type B | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Reasources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 79.2 persons | 24.0 person hrs. | 123.2 EPDO | 21,062.1 EPDO / 100M VMT | 51.9 jobs per resident | 64.8 jobs per resident | 395.8 adjusted users | 0.0 adjusted points | 64.2 thousand adj. daily tons | 2,062,640.0 adj. buffer time index | 12.0 adjusted points | 0.0 impacted acres | 57.0 access * pop/emp density | 59.9 access * pop/emp density change |
| Normalized Measure Value (0-100) | 1.4 | 1.5 | 22.0 | 34.4 | 13.5 | 10.7 | 26.2 | 0.0 | 0.1 | 0.0 | 12.0 | 0.0 | 79.2 | 82.6 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 1.4 | | 25.7 | | 15.5 | | | 0.1 | | | 12.0 | | 80.9 | |
| Factor Weight (% of Project Score) | 25% | | 20% | | 25% | | | 20% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.4 | | 5.1 | | 3.9 | | | 0.0 | | | 1.2 | 0.0 | 1.8 | |
| Project Benefit | 19.2 | | | | | | | | | | | | | |
| SMART SCALE Cost | $93,859,520 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **2.0** | | | | | | | | | | | | | |

# Innovative Interchange Project from Round 6

## “Barracks Road and Georgetown Road Improvements”: This project is similar to, and immediately adjacent to “Barracks Road Pipeline US 29/250 Interchange and SUP” but was not HPP Eligible

**Barracks Road and Georgetown Road Improvements** Project Id: 11772

Reconstruct the existing signalized intersection of Georgetown and Barracks Roads as a hybrid roundabout with at-grade pedestrian crossings on all legs of the intersection. Close all median crossings along Barracks Road between Georgetown Road and westbound on- and off-ramps to US29/250. Construct a SUP along the west side of Barracks Road between Georgetown Road and the WB on-ramp. Upgrade CG-12 ramps along the east side of Barracks in the project area. Install 2 concrete boarding platforms at existing stops (end of Surrey Road off of Barracks Road and north side of Georgetown Road east of the proposed roundabout). The Georgetown Road location will include a bus shelter pad to accommodate future installation of a bus shelter. Add SB right-turn lane starting at Bennington Road onto US 29/250 westbound.

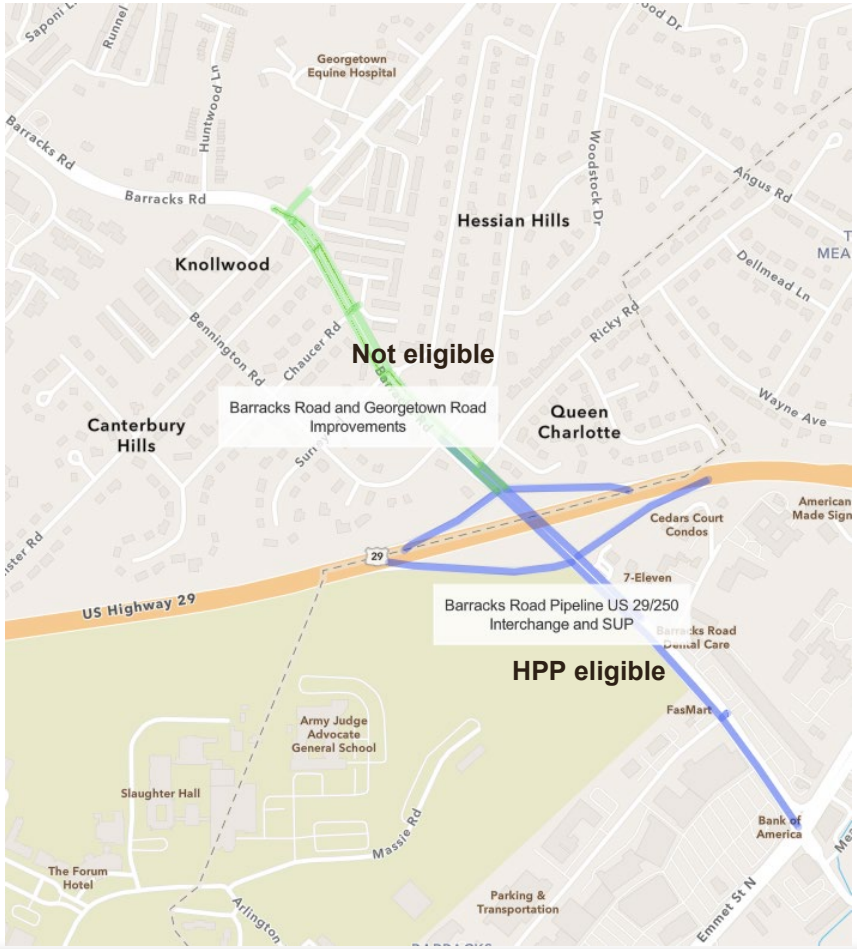
| 3.8 SMART SCALE SCORE | | | | |
|---|---|---|---|---|
| | #80 | OF 270 STATEWIDE | SMART SCALE Requested Funds | $37,645,909 |
| | #10 | OF 24 DISTRICTWIDE | Total Project Cost | $37,645,909 |
| | | | Project Benefit | 14.5 |
| | | | Project Benefit / Total Cost | 3.8 |

**Submitting Entity:** Albemarle County
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** Yes
**Resiliency Commitment:** N/A
**VTRANS Need:** RN, Safety, UDA





| SMART SCALE Area Type B | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Resources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 98.9 persons | 40.0 person hrs. | 99.1 EPDO | 2,939.8 EPDO / 100M VMT | 32.2 jobs per resident | 39.5 jobs per resident | 494.5 adjusted users | 0.0 adjusted points | 163.9 thousand adj. daily tons | 12,005,100.0 adj. buffer time index | 14.8 adjusted points | 0.0 impacted acres | 56.8 access * pop/emp density | 59.6 access * pop/emp density change |
| Normalized Measure Value (0-100) | 1.8 | 2.5 | 17.7 | 4.8 | 8.4 | 6.5 | 32.7 | 0.0 | 0.3 | 0.2 | 14.8 | 0.0 | 79.0 | 82.3 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 2.1 | | 13.8 | | 12.9 | | | 0.1 | | | 14.8 | | 80.6 | |
| Factor Weight (% of Project Score) | 25% | | 20% | | 25% | | | 20% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.5 | | 2.8 | | 3.2 | | | 0.0 | | | 1.5 | 0.0 | 1.8 | |
| Project Benefit | 14.5 | | | | | | | | | | | | | |
| SMART SCALE Cost | $37,645,909 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **3.8** | | | | | | | | | | | | | |




Including this project, and excluding the prior one, despite the general similarity and immediate adjacency, is an example of the consequences of including “interchanges” but excluding “intersections” in HPP eligibility.

# Other Examples – Innovative Intersection Projects from Round 6

Innovative intersection: not eligible for HPP because it does not contain a designated feature

**US Business 17 Corridor Improvement/Fletcher Intersection** Project Id: 11733

This project reconfigures the intersection at Fletcher with a two lane hybrid roundabout and a restricted crossing island at Village Center Drive. There will be a shared use path on the north side of Lee Highway between Village Center Drive and the shopping center entrance located ~465 ft. east of Fletcher Drive tying into the SUP funded as part of the Blackwell Road roundabout project (ID#9159). The existing sidewalks on both sides of Fletcher Drive on the northern leg of the roundabout will be maintained. The sidewalk on the south side of Lee Highway from approximately 145 ft. east of Branch Drive to Fletcher Drive will be improved, and the connecting sidewalk that continues south along the west side of Fletcher Drive will be maintained. The project will include new sidewalks on the east side of Fletcher Drive from the entrance to Capital One Bank to the intersection with Lee Highway, tying into the existing sidewalks on the south side of Lee Highway east of the intersection.

| 4.8 SMART SCALE SCORE | #56 OF 270 STATEWIDE |
|---|---|
| | #6 OF 24 DISTRICTWIDE |

| | |
|---|---|
| SMART SCALE Requested Funds | $18,468,646 |
| Total Project Cost | $18,468,646 |
| Project Benefit | 8.9 |
| Project Benefit / Total Cost | 4.8 |

**Submitting Entity:** Warrenton Town
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** Yes
**Resiliency Commitment:** N/A
**VTRANS Need:** CoSS, RN






Project was unfunded

| SMART SCALE Area Type D | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Resources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 158.7 persons | 65.4 person hrs. | 42.0 EPDO | 2,124.5 EPDO / 100M VMT | 4.4 jobs per resident | 3.9 jobs per resident | 476.2 adjusted users | 0.0 adjusted points | 0.0 thousand adj. daily tons | 15,621,600.0 adj. buffer time index | 25.1 adjusted points | 0.0 impacted acres | 32.7 access * pop/emp density | 33.8 access * pop/emp density change |
| Normalized Measure Value (0-100) | 2.8 | 4.0 | 7.5 | 3.5 | 1.1 | 0.6 | 31.5 | 0.0 | 0.0 | 0.2 | 25.1 | 0.0 | 45.4 | 46.7 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 3.4 | | 6.3 | | 7.1 | | | 0.0 | | | 25.1 | | 46.0 | |
| Factor Weight (% of Project Score) | 10% | | 40% | | 10% | | | 30% | | | 10% | .5 (max point reduction) | ** | |
| Weighted Factor Value | 0.3 | | 2.5 | | 0.7 | | | 0.0 | | | 2.5 | 0.0 | 1.5 | |
| Project Benefit | 8.9 | | | | | | | | | | | | | |
| SMART SCALE Cost | $18,468,646 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **4.8** | | | | | | | | | | | | | |

# Other Examples – Innovative Intersection Projects from Round 6

Innovative intersection: not eligible for HPP because it does not contain a designated feature

**US Business 17 Corridor Improvement/Fletcher Intersection** Project Id: 11733

This project reconfigures the intersection at Fletcher with a two lane hybrid roundabout and a restricted crossing island at Village Center Drive. There will be a shared use path on the north side of Lee Highway between Village Center Drive and the shopping center entrance located ~465 ft. east of Fletcher Drive tying into the SUP funded as part of the Blackwell Road roundabout project (ID#9159). The existing sidewalks on both sides of Fletcher Drive on the northern leg of the roundabout will be maintained. The sidewalk on the south side of Lee Highway from approximately 145 ft. east of Branch Drive to Fletcher Drive will be improved, and the connecting sidewalk that continues south along the west side of Fletcher Drive will be maintained. The project will include new sidewalks on the east side of Fletcher Drive from the entrance to Capital One Bank to the intersection with Lee Highway, tying into the existing sidewalks on the south side of Lee Highway east of the intersection.

| 4.8 SMART SCALE SCORE | #56 OF 270 STATEWIDE |
|---|---|
| | #6 OF 24 DISTRICTWIDE |

| | |
|---|---|
| SMART SCALE Requested Funds | $18,468,646 |
| Total Project Cost | $18,468,646 |
| Project Benefit | 8.9 |
| Project Benefit / Total Cost | 4.8 |

**Submitting Entity:** Warrenton Town
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** Yes
**Resiliency Commitment:** N/A
**VTRANS Need:** CoSS, RN






Project was unfunded

| SMART SCALE Area Type D | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Resources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 158.7 persons | 65.4 person hrs. | 42.0 EPDO | 2,124.5 EPDO / 100M VMT | 4.4 jobs per resident | 3.9 jobs per resident | 476.2 adjusted users | 0.0 adjusted points | 0.0 thousand adj. daily tons | 15,621,600.0 adj. buffer time index | 25.1 adjusted points | 0.0 impacted acres | 32.7 access * pop/emp density | 33.8 access * pop/emp density change |
| Normalized Measure Value (0-100) | 2.8 | 4.0 | 7.5 | 3.5 | 1.1 | 0.6 | 31.5 | 0.0 | 0.0 | 0.2 | 25.1 | 0.0 | 45.4 | 46.7 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 3.4 | | 6.3 | | 7.1 | | | 0.0 | | | 25.1 | | 46.0 | |
| Factor Weight (% of Project Score) | 10% | | 40% | | 10% | | | 30% | | | 10% | .5 (max point reduction) | ** | |
| Weighted Factor Value | 0.3 | | 2.5 | | 0.7 | | | 0.0 | | | 2.5 | 0.0 | 1.5 | |
| Project Benefit | 8.9 | | | | | | | | | | | | | |
| SMART SCALE Cost | $18,468,646 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **4.8** | | | | | | | | | | | | | |

# Other Examples – Innovative Intersection Projects from Round 6

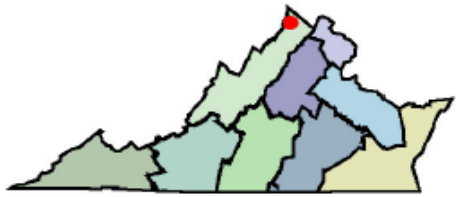
Innovative intersection: not eligible for HPP because it does not contain a designated feature

**US 50 and Hayfield Road RCI** Project Id: 11809

Installation of an R-Cut Intersection at the intersection of US 50 and Hayfield Road (Route 600)

| | | | |
|---|---|---|---|
| 3.5 SMART SCALE SCORE | #87 OF 270 STATEWIDE | SMART SCALE Requested Funds | $8,009,314 |
| | #10 OF 27 DISTRICTWIDE | Total Project Cost | $10,011,642 |
| | | Project Benefit | 2.8 |
| | | Project Benefit / Total Cost | 2.8 |

**Submitting Entity:** Frederick County
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** Yes
**Resiliency Commitment:** Yes
**VTRANS Need:** CoSS, Safety






Project was funded as DGP

| SMART SCALE Area Type D | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Resources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 0.0 persons | 0.4 person hrs. | 36.6 EPDO | 4,551.9 EPDO / 100M VMT | 0.0 jobs per resident | 0.0 jobs per resident | 0.0 adjusted users | 0.0 adjusted points | 0.0 thousand adj. daily tons | 1,374,860.0 adj. buffer time index | 0.0 adjusted points | 0.0 impacted acres | 1.8 access * pop/emp density | 1.8 access * pop/emp density change |
| Normalized Measure Value (0-100) | 0.0 | 0.0 | 6.5 | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 0.0 | | 6.8 | | 0.0 | | | 0.0 | | | 0.0 | | 2.5 | |
| Factor Weight (% of Project Score) | 10% | | 40% | | 10% | | | 30% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.0 | | 2.7 | | 0.0 | | | 0.0 | | | 0.0 | 0.0 | 1.0 | |
| Project Benefit | 2.8 | | | | | | | | | | | | | |
| SMART SCALE Cost | $8,009,314 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **3.5** | | | | | | | | | | | | | |

# Other Examples – Innovative Intersection Projects from Round 6

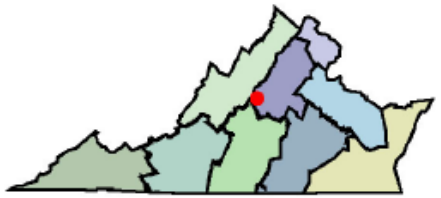
Innovative intersection: not eligible for HPP because it does not contain a designated feature,

**Old Trail Drive and US 250 West Intersection Improvements** Project Id: 11600

This project would construct a 2 and 1 hybrid roundabout at the Old Trail Drive/250 intersection with high visibility crosswalks and active pedestrian controls on the northern, eastern, and southern legs of the roundabout. There are existing crosswalks on the north and east legs of the intersection that will be replaced in-kind. The existing substandard Shared Use Path along the westbound side of US 250 from the crosswalk on the north leg of the intersection to the east to connect to Henley Middle School will be improved to meet existing standards; on the east side of Old Trail Drive, the existing 8' sidewalk will be maintained/replaced in-kind starting at the crosswalk on the north leg of the intersection and extending north.

| 4.0 SMART SCALE SCORE | | | SMART SCALE Requested Funds | $16,702,821 |
|---|---|---|---|---|
| | #74 | OF 270 STATEWIDE | Total Project Cost | $16,702,821 |
| | #9 | OF 24 DISTRICTWIDE | Project Benefit | 6.7 |
| | | | Project Benefit / Total Cost | 4.0 |

| | |
|---|---|
| **Submitting Entity:** | Albemarle County |
| **PE/RW/CN:** | Not Started / Not Started / Not Started |
| **Eligible Fund Program:** | DGP |
| **Evacuation Route:** | Yes |
| **Resiliency Commitment:** | N/A |
| **VTRANS Need:** | CoSS, RN, Safety, UDA |






Innovative intersection to enhance safety next to a school – lost HPP eligibility, unfunded.

| SMART SCALE Area Type B | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Resources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 26.9 persons | 43.6 person hrs. | 45.2 EPDO | 4,341.0 EPDO / 100M VMT | 68.1 jobs per resident | 47.9 jobs per resident | 80.6 adjusted users | 0.1 adjusted points | 144.4 thousand adj. daily tons | 4,793,870.0 adj. buffer time index | 4.4 adjusted points | 0.1 impacted acres | 11.2 access * pop/emp density | 11.9 access * pop/emp density change |
| Normalized Measure Value (0-100) | 0.5 | 2.7 | 8.1 | 7.1 | 17.7 | 7.9 | 5.3 | 0.1 | 0.3 | 0.1 | 4.4 | 0.1 | 15.6 | 16.4 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 1.6 | | 7.8 | | 13.3 | | | 0.1 | | | 4.4 | | 16.0 | |
| Factor Weight (% of Project Score) | 25% | | 20% | | 25% | | | 20% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.4 | | 1.6 | | 3.3 | | | 0.0 | | | 0.4 | 0.0 | 1.2 | |
| Project Benefit | 6.7 | | | | | | | | | | | | | |
| SMART SCALE Cost | $16,702,821 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **4.0** | | | | | | | | | | | | | |

# Other Examples – Innovative Intersection Projects from Round 6

Innovative intersection: not eligible for HPP because it does not contain a designated feature,

**Dumfries Rd (Rt 605) & Greenwich Rd (Rt 603) - Roundabout** Project Id: 11457

The project will convert the intersection of Dumfries Road (Route 605) and Greenwich Road (Route 603) into a single-lane roundabout. Includes restricting the private entrance on Rte.603 south of the Roundabout to a Rt. in/out

| 5.1 SMART SCALE SCORE | | | SMART SCALE Requested Funds | $15,128,758 |
|---|---|---|---|---|
| | #52 | OF 270 STATEWIDE | Total Project Cost | $15,128,758 |
| | #5 | OF 24 DISTRICTWIDE | Project Benefit | 7.7 |
| | | | Project Benefit / Total Cost | 5.1 |

**Submitting Entity:** Fauquier County
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** No
**Resiliency Commitment:** N/A
**VTRANS Need:** Safety






Innovative intersection– lost HPP eligibility due to lack of meeting project type criteria, unfunded.

| SMART SCALE Area Type D | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Reasources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 0.0 persons | 2.2 person hrs. | 36.1 EPDO | 28,991.4 EPDO / 100M VMT | 0.0 jobs per resident | 0.0 jobs per resident | 0.0 adjusted users | 0.0 adjusted points | 0.0 thousand adj. daily tons | 261,665.0 adj. buffer time index | 0.0 adjusted points | 0.0 impacted acres | 2.2 access * pop/emp density | 2.3 access * pop/emp density change |
| Normalized Measure Value (0-100) | 0.0 | 0.1 | 6.4 | 47.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 3.2 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 0.1 | | 18.7 | | 0.0 | | | 0.0 | | | 0.0 | | 3.1 | |
| Factor Weight (% of Project Score) | 10% | | 40% | | 10% | | | 30% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.0 | | 7.5 | | 0.0 | | | 0.0 | | | 0.0 | 0.0 | 1.0 | |
| Project Benefit | 7.7 | | | | | | | | | | | | | |
| SMART SCALE Cost | $15,128,758 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **5.1** | | | | | | | | | | | | | |

# Other Examples – Innovative Intersection Projects from Round 6

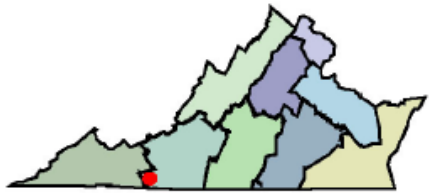
Innovative intersection: not eligible for HPP because it does not contain a designated feature,

**Carrollton Pike (Rt 58) at Coulson Church Rd (Rt 620) RCUT** Project Id: 11538

Construct a restricted crossing U-turn (RCUT) at the intersection of Carrollton Pike (Rt 58) and Coulson Church Rd (Rt 620). Construct an eastbound left turn lane and loon approximately 1,200' east of the RCUT.

| 4.4 SMART SCALE SCORE | | | SMART SCALE Requested Funds | $10,531,849 |
|---|---|---|---|---|
| | #65 | OF 270 STATEWIDE | Total Project Cost | $10,531,849 |
| | #1 | OF 34 DISTRICTWIDE | Project Benefit | 4.6 |
| | | | Project Benefit / Total Cost | 4.4 |

**Submitting Entity:** Carroll County
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** Yes
**Resiliency Commitment:** Yes
**VTRANS Need:** CoSS, Safety






Innovative intersection– funded as DGP

| SMART SCALE Area Type D | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Resources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 0.0 persons | 1.1 person hrs. | 60.6 EPDO | 7,078.6 EPDO / 100M VMT | 0.0 jobs per resident | 0.0 jobs per resident | 0.0 adjusted users | 0.0 adjusted points | 0.0 thousand adj. daily tons | 8,472,090.0 adj. buffer time index | 0.0 adjusted points | 0.0 impacted acres | 2.1 access * pop/emp density | 4.4 access * pop/emp density change |
| Normalized Measure Value (0-100) | 0.0 | 0.1 | 10.8 | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.9 | 6.1 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 0.0 | | 11.0 | | 0.0 | | | 0.0 | | | 0.0 | | 4.5 | |
| Factor Weight (% of Project Score) | 10% | | 40% | | 10% | | | 30% | | | 10% | 5 (max point reduction) | ** | |
| Weighted Factor Value | 0.0 | | 4.4 | | 0.0 | | | 0.0 | | | 0.0 | 0.0 | 1.0 | |
| Project Benefit | 4.6 | | | | | | | | | | | | | |
| SMART SCALE Cost | $10,531,849 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **4.4** | | | | | | | | | | | | | |

# Other Examples – Innovative Intersection Projects from Round 6

Innovative intersection: not eligible for HPP because it does not contain a designated feature,

**Route 29 Safety Improvements - Southern Section** Project Id: 11492

Construct a blended solution set to address identified problems and themed solutions along Route 29 from Route 24 to Calohan Road. Improvement include installing RCUTs at the entrance to Nick Rayne's Garage, Moorman Mill Road and Dennis Riddle Drive, closing four crossovers at various locations, converting Anstey Road into a right-in right-out, and implementing numerous turn lane improvements along US Route 29 including at Pick-n-Save/Denton's Autobody, Patterson Road, 300 feet north of Good's Garden Sheds, Moorman Hill Road, and 350 feet north of Anstey Road.

| | | | |
|---|---|---|---|
| 1.5 SMART SCALE SCORE | #177 OF 270 STATEWIDE | SMART SCALE Requested Funds | $30,407,170 |
| | #5 OF 12 DISTRICTWIDE | Total Project Cost | $30,407,170 |
| | | Project Benefit | 4.6 |
| | | Project Benefit / Total Cost | 1.5 |

**Submitting Entity:** Campbell County
**PE/RW/CN:** Not Started / Not Started / Not Started
**Eligible Fund Program:** DGP
**Evacuation Route:** Yes
**Resiliency Commitment:** N/A
**VTRANS Need:** CoSS, RN, Safety






Innovative intersection– funded as DGP

| SMART SCALE Area Type C | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor | Congestion Mitigation | | Safety | | Accessibility | | | Economic Development | | | Environment | | Land Use | |
| Measure | Increase in Peak Period Person Throughput | Reduction in Peak Period Delay | Reduction in Fatal and Injury Crashes | Reduction in Fatal and Injury Crash Rate | Increase in Access to Jobs | Increase in Access to Jobs for Disadvantaged Populations | Increase in Access to Multimodal Travel Choices | Project Support for Economic Development | Tons of Goods Impacted | Improvement to Travel Time Reliability | Potential to Improve Air Quality | Impact to Natural and Cultural Reasources | Support of Transportation-Efficient Land Development | Support of Transportation-Efficient Land Development |
| Measure Value | 0.0 persons | 0.2 person hrs. | 109.0 EPDO | 2,748.9 EPDO / 100M VMT | 0.0 jobs per resident | 0.0 jobs per resident | 0.0 adjusted users | 0.6 adjusted points | 0.0 thousand adj. daily tons | 10,990,400.0 adj. buffer time index | 0.0 adjusted points | 0.0 impacted acres | 0.0 access * pop/emp density | 0.0 access * pop/emp density change |
| Normalized Measure Value (0-100) | 0.0 | 0.0 | 19.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Measure Weight (% of Factor) | 50% | 50% | 70% | 30% | 60% | 20% | 20% | 60% | 20% | 20% | 100% | * | 50% | 50% |
| Factor Value | 0.0 | | 15.0 | | 0.0 | | | 0.4 | | | 0.0 | | 0.0 | |
| Factor Weight (% of Project Score) | 20% | | 30% | | 15% | | | 25% | | | 10% | * (max point reduction) | ** | |
| Weighted Factor Value | 0.0 | | 4.5 | | 0.0 | | | 0.1 | | | 0.0 | 0.0 | 1.0 | |
| Project Benefit | 4.6 | | | | | | | | | | | | | |
| SMART SCALE Cost | $30,407,170 | | | | | | | | | | | | | |
| SMART SCALE Score*** | **1.5** | | | | | | | | | | | | | |