



Round 6 Technical Guide Changelog

Draft Release 1/19/2024

1.0 Introduction

Location	Change	Reason/Notes
Page 6[12], Section 1.5	No new applications can be created after the pre-application period is complete. The project location and major scope items should not be changed after pre-application submission.	Significant project location and scope changes after pre-application submission can be extremely disruptive to the screening and scoring process. To avoid delays to the program as a whole, project scopes should remain generally consistent after pre-application submission.
Page 7[13], Section 1.5	<ul style="list-style-type: none"> July 15th – Supporting documentation due for all applications. For more information see Section Error! Reference source not found.. 	Required supporting documents must be submitted by July 15 th to allow staff to review documents before full application submission.

2.0 Project Eligibility and Application Process

Location	Change	Reason/Notes
Page 11[17], Section 2.1, Eligible Types of Projects	<ul style="list-style-type: none"> Projects that will replace bicycle and pedestrian facilities such as sidewalks, shared-use paths, or bike lanes must have their design be upgraded from substandard to standard unless non-SMART SCALE funds are leveraged for the bicycle and pedestrian components. Non-standard materials are not eligible for SMART SCALE funds, and use of such materials shall adhere to the IIM-LD-218.4... 	Clarifies that replacing bike/ped facilities which are designed to current standards but which are substandard due to lack of maintenance are not eligible.
Page 11[17], Section 2.1, Eligible Types of Projects	Projects that duplicate exact project components in the same location as another submitted application. The exception to this is an applications submitted as one complete scope with additional applications submitted with either a phased or an alternative approach with a scope falling completely within the scope of another application, where all features are exact duplicates but some are removed for phasing purposes. The reduced-scope application cannot have any features not reflected in the full-scope application.	Clarify and provide consistency for the R5 instruction that applicants may submit phased applications as long as the reduced-scope application does not contain components not found in the full-scope application.
Page 12[18], Section 2.1, Transit and Rail Project Eligibility	Eligible transit projects under SMART SCALE include, but are not limited to, the following: <ul style="list-style-type: none"> Rolling stock and necessary infrastructure for new, enhanced, or expanded fixed guideway transit such as Bus Rapid Transit (BRT), Light Rail Transit (LRT), and Heavy Rail systems, as well as other new or expanded High Capacity Transit Services or intercity passenger rail service. 	Incorporate new eligibility criteria for transit systems, which limits bus transit projects to fixed-guideway or high-capacity systems.
Page 12[18], Section 2.1, Transit and Rail Project Eligibility	<p>BRT refers to bus systems or routes that include, at a minimum, dedicated lanes and enhanced stops or stations. High-capacity transit service projects refer to new or expanded trunk routes that provide high-frequency service with headways of 20 minutes or less during peak service hours and serve as the foundation of a fixed-route bus transit system.</p> <p>The assets or vehicles purchased to provide service must be used along routes included in the application for a minimum of three years from launch.</p>	Incorporate the definitions of BRT and high-capacity transit provided by DRPT.
Page 15[21], Section 2.1, Entities Eligible to Submit Projects	A Board member may allow one additional application from a county within their district if (1) the project is located within a town that is ineligible to submit projects and (2) the county in which the town is located will submit the maximum number of applications allowed. Only one such additional application is allowed per district.	Clarify existing policy allowing Board members to permit an additional application under certain conditions.



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<p>Page 16[22], Section 2.1, Entities Eligible to Submit Projects</p>	<p>The source of population data for cities, counties, and PDCs is the latest University of Virginia Weldon Cooper Center, Demographics Research Group estimates. The data for MPOs and towns is not available from the Weldon Cooper Center and is from the latest decennial United States Census. Application limits for transit agencies is determined based on the latest service area population in the 2020 National Transit Database (NTD) Transit Agency Profiles. If service area population was is not available in NTD, the latest Census 2020 population data was used to determine population in jurisdictions served by the transit agency.</p>	<p>Update the data sources used to establish applicant populations.</p>								
<p>Page 17[23], Section 2.1, Entities Eligible to Submit Projects</p>	<p>In order for submitted applications to be eligible for HPP funds, at least one of the features identified in Table 2.5 must be selected in the SMART Portal application.</p> <p>Table 2.3 Features Required for HPP Eligibility</p> <table border="1" data-bbox="500 741 1849 1064"> <thead> <tr> <th>Feature Category</th> <th>Feature Name</th> </tr> </thead> <tbody> <tr> <td>Highway</td> <td>Add New Through Lane(s); Roadway on New Alignment; Managed Lane(s) (HOV/HOT/Shoulder); Improve Grade Separated Interchange; Innovative Interchange; New Interchange, Non-Limited Access Facility; New Interchange, Limited Access Facility; New Bridge</td> </tr> <tr> <td>Transit</td> <td>New High-Capacity or Fixed-Guideway Route/Service; Increase Existing High-Capacity or Fixed-Guideway Route/Service; Construct/Expand Bus Facility</td> </tr> <tr> <td>Rail</td> <td>Rail Service Improvements; New Station or Station Improvements; Intercity Passenger Rail Service Improvements; New Intercity Passenger Rail Station or Station Improvements; Freight Rail Improvements</td> </tr> </tbody> </table> <p>Alternatively, an application is eligible for HPP funds if the proposed improvements are identified as the preferred alternative of one of the following studies:</p> <ul style="list-style-type: none"> • STARS • Pipeline • Arterial Management Plan • 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. 	Feature Category	Feature Name	Highway	Add New Through Lane(s); Roadway on New Alignment; Managed Lane(s) (HOV/HOT/Shoulder); Improve Grade Separated Interchange; Innovative Interchange; New Interchange, Non-Limited Access Facility; New Interchange, Limited Access Facility; New Bridge	Transit	New High-Capacity or Fixed-Guideway Route/Service; Increase Existing High-Capacity or Fixed-Guideway Route/Service; Construct/Expand Bus Facility	Rail	Rail Service Improvements; New Station or Station Improvements; Intercity Passenger Rail Service Improvements; New Intercity Passenger Rail Station or Station Improvements; Freight Rail Improvements	<p>Add details of the new HPP eligibility criteria.</p>
Feature Category	Feature Name									
Highway	Add New Through Lane(s); Roadway on New Alignment; Managed Lane(s) (HOV/HOT/Shoulder); Improve Grade Separated Interchange; Innovative Interchange; New Interchange, Non-Limited Access Facility; New Interchange, Limited Access Facility; New Bridge									
Transit	New High-Capacity or Fixed-Guideway Route/Service; Increase Existing High-Capacity or Fixed-Guideway Route/Service; Construct/Expand Bus Facility									
Rail	Rail Service Improvements; New Station or Station Improvements; Intercity Passenger Rail Service Improvements; New Intercity Passenger Rail Station or Station Improvements; Freight Rail Improvements									
<p>Page 20[26], Section 2.3, Pre-Application Coordination and Submission</p>	<p>The SMART Portal warnings for different project features selected are outlined in Table 2.6 At the pre-application submission, draft versions of documents are acceptable. In order to ensure that document requirements and timelines are communicated effectively, the Portal will prompt the applicant to check a box acknowledging the requirements for each selected feature and confirming that the necessary documents will be completed before the August 1st full application submission deadline. For certain high-risk documents such as Interchange Access Reports, the prompt will include a list of VDOT staff who must be engaged in the document creation process before the April 1st pre-application submission deadline. These acknowledgements must be completed by the applicant for the pre-application to be submitted.</p>	<p>Establish the process by which applicants acknowledge document readiness requirements in the Portal during pre-application creation.</p>								
<p>Page 21[27], Section 2.3, Project Preparation</p>	<p>Cost estimates shall adhere to the procedures outlined in the latest version of the VDOT Cost Estimating Manual. All cost estimates shall be prepared with the assumption that the projects will be administered by VDOT.</p>	<p>Clarify that cost estimates should be prepared as if VDOT-administered.</p>								
<p>Page 22[28], Section 2.3, Project Preparation</p>	<p>Additional guidance on DWs and DEs can be found on the SMART SCALE Apply page, and applicants may choose to include a completed SS04 Design Waiver / Design Exception Summary Form which can also be found on the SMART SCALE Apply page.</p>	<p>Add reference to the new SS04 form, an optional document which applicants may use to satisfy VDOT and SMART SCALE policy requirements for DW/DEs.</p>								



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Page 19[28], Section 2.3, Planning Study Requirements	The size level of detail of the analysis/study will vary based on the project's complexity; however, project types with greater requirements are detailed later in this section. Required supporting documents must have been completed or updated within 10 years of the August 1st submission deadline. Refer to Table 2.3 for the full list of readiness requirements by project type.	Clarify requirement that studies be completed within 10 years of application submission.
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<p>Page 25[31], Section 2.3, Readiness Gate Validation Process</p>	<p>Readiness Gate Validation Process To improve communication and ensure that document requirements are met in a timely fashion, applications must clear up to three checkpoints, or readiness gates, based on the selected features and project location. These gates are completed in the SMART Portal and are designed to formalize the staff review process. Additional information including a list of readiness gate requirements for each feature can be found in Appendix H</p> <p>Gate 1 (Applicant Responsibility): Pre-Application Submission While creating the initial pre-application, applicants will be provided with the supporting document requirements for each selected feature as well as a list of VDOT staff required to be engaged in the development of certain documents before the April 1st pre-application submission deadline. Applicants must check a box to acknowledge the requirements for the pre-application to be submitted.</p> <p>Gate 2 (VDOT Responsibility): Pre-Application to Full Application Conversion For certain high-risk documents such as Interchange Access Reports, VDOT staff will check a box during pre-application screening confirming that they were engaged by the applicant in the creation of the document and that the document will support the associated application. All high-risk documents must have staff concurrence before the pre-application can be converted to a full application.</p> <p>Gate 3 (VDOT/DRPT Responsibility): Full Application Submission For all supporting documents, VDOT or DRPT staff will verify during the full application process that they have reviewed the document and agree that it fulfills the requirements of the associated feature, subject to executive review. All supporting documents must have staff confirmation before the full application can be submitted by the August 1st deadline.</p>	<p>Provide a high-level overview of the readiness gates validation process for Round 6. Additional details can be found in Appendix H of the Technical Guide or provided separately on the SMART SCALE website.</p>
<p>Page 25[31], Section 2.3, Application Withdrawal</p>	<p>Application Withdrawal If an applicant wishes to withdraw an application for any reason, the applicant should notify District staff of the decision to withdraw, then submit a comment in the SMART Portal within the application they wish to withdraw. The comment should be labeled “All Sections” and should state the intention to withdraw the application and provide a reason for the withdrawal.</p> <p>If an applicant wishes to revoke a withdrawal, they must discuss the decision with District staff to ensure that the application can be completed and screened in a timely manner. VDOT and OIPI staff must provide approval before withdrawal can be revoked. If approval is provided, OIPI staff will revert the application’s status and the applicant should submit a new comment in the SMART Portal. The comment should be labeled “All Sections” and should state the revocation and provide the date of staff approval.</p>	<p>Establish the process by which applicants may withdraw an application or revoke a withdrawal pending staff approval.</p>
<p>Page 26[32], Section 2.4, Project Readiness – Planning Requirements</p>	<p>Comprehensive updates to Table 2.6, Application Warnings for Project Features Selected. See Technical Guide Tracked Changes version for detailed changes.</p>	<p>Update Table 2.6 to reflect feature name changes and readiness requirements for Round 6.</p>
<p>Page 29[35], Section 2.4, Grade Separation Projects</p>	<p>If an interchange alternative was proposed in a SMART SCALE Round 5 application that was screened in but did not receive funding, that alternative may be submitted with the previously eligible supporting study for Round 6. Beginning in Round 7, all interchange features will require a draft or final IAR or OSAR to support the proposed project.</p>	<p>Establish a Round 6-specific exception to the updated readiness requirements for interchange-related features.</p>
<p>Page 29[35], Section 2.4, Grade Separation on Limited and Non-Limited Access Facilities</p>	<p>Proposed new grade separated interchanges on existing limited and non-limited access facilities require a draft or final Interchange Access Report (IAR) or similar planning study that includes an alternatives analysis and supports the proposed alternative. The report or study shall address the elements described in IIM-LD-200.11 and Traffic Operations and Safety Manual (TOSAM) guidelines for a new interchange. A signed LD-459 framework document must be provided with the pre-application, and concurrence of the appropriate District and Assistant State Location and Design Engineer is required. FHWA coordination may be required. For all interchange projects, VDOT needs to understand the specific interchange configuration or modifications proposed for funding in order to calculate the benefits.</p>	<p>Update readiness requirements for New Interchange features; these features now require a draft or final IAR, with a signed LD-459 Framework Document required at pre-application submission.</p>



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<p>Page 30[36], Section 2.4, Improvements to Grade-Separated Interchanges</p>	<p>Improvements to grade-separated interchanges require a draft or final Interchange Access Report (IAR), <i>or</i> Operational and Safety Analysis Report (OSAR) or similar planning study that includes an alternatives analysis and supports the proposed alternative. The report or study shall address the appropriate elements described in IIM-LD-200.11 and Traffic Operations and Safety Manual (TOSAM) guidelines for the proposed access modifications. <i>A signed LD-459 framework document must be provided with the pre-application, and</i> concurrence of the appropriate District and Assistant State Location and Design Engineer is required. FHWA coordination may be required. SMART SCALE readiness requirements exempt acceleration and deceleration lane extensions, but an OSAR or similar study could be required by VDOT if selected for funding.</p>	<p>Update readiness requirements for the Improve Grade-Separated Interchange feature; this feature now requires a draft or final IAR or OSAR, with a signed LD-459 Framework Document required at pre-application submission.</p>
<p>Page 31[37], Section 2.4, Intersection and Interchange Reconfiguration Projects</p>	<p>Intersection Reconfigurations VDOT established the Virginia Intersection and Interchange Control Assessment Program (iCAP) in IIM-TOD-397 to screen intersection and interchange alternatives efficiently and holistically. Virginia iCAP aims to determine the most effective intersection or interchange ramp termini control configuration that improves traffic operations, enhances safety and access management, and accommodates all modes of travel. By implementing this program, VDOT ensures consistency, transparency, and objectivity in the decision-making process. To meet the requirements of SMART SCALE readiness, applicants must provide documentation demonstrating their adherence to IIM-TOD-397 for any new or modified intersection, along a Corridor of Statewide Significance or VDOT's established Arterial Preservation Network. The required documentation is a completed Virginia iCAP Assessment Tool. This spreadsheet shall be uploaded in the SMART Portal as part of the required project documentation. Additionally, this completed iCAP assessment tool is required for any new traffic signals proposed along VDOT-maintained roadways. Intersection improvements limited to the following are exempt from this requirement:</p> <ul style="list-style-type: none"> • Addition or extension of turn lanes. • Upgrade of pavement markings or traffic control devices. • Installation of bicycle or pedestrian accommodations, such as crosswalks, pedestrian signals, sidewalks, shared use paths, or bike lanes. <p>A VDOT-led study completed before the adoption of the iCAP is considered to be in compliance with this readiness requirement if:</p> <ul style="list-style-type: none"> • the study screened a range of intersection designs based on safety, congestion, ped/bike accommodation, and cost; • a detailed analysis was performed to narrow down and select the preferred alternative; and • the proposed improvement in the SMART SCALE application is consistent with the study's preferred alternative. <p>By following the process outlined in IIM-TOD-397, applicants can ensure that their projects align with the program's objectives and contribute to the overall improvement of transportation infrastructure in Virginia.</p>	<p>Incorporate new requirements for iCAP implementation per IIM-TOD-397.</p>
<p>Page 32[38], Section 2.4, New Section</p>	<p>Unsignalized Bike and Pedestrian Crossings When a project includes a new pedestrian crossing at an unsignalized approach, including mid-block crossings, applicants should review IIM-TE-384.1 to determine the screening and study requirements relevant to the proposed crossing location. All projects with pedestrian crossings at unsignalized approaches must include a completed SMART SCALE Unsignalized Crossing Study document. If the proposed crossing requires an engineering study per IIM-TE-384.1, the SMART SCALE document will fulfill the requirement and support the crossing. If the screening process included in the IIM indicates that the proposed location is not eligible for a marked crosswalk, the feature will be considered ineligible for SMART SCALE funding.</p>	<p>Outlines the new unsignalized pedestrian study requirement per IIM-TE-384.1.</p>
<p>Page 33[39], Section 2.4, Transit Project Readiness</p>	<p>FTA CIG (new starts, small starts, core capacity) program funding will be considered as part of the project funding package if the following conditions have been met:</p> <ul style="list-style-type: none"> • FTA has approved the project to enter the formal project development process, or if the applicant can demonstrate that they are in the process with FTA to enter project development, <i>and</i> 	<p>Clarify requirements on FTA CIG program funding.</p>

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	<ul style="list-style-type: none"> the applicant has provided a letter acknowledging that they are responsible for any leveraged funding commitment, even if the identified sources of leveraged funding are reduced or become unavailable as specified in Section 5.3. Such documentation should demonstrate that FTA is fully engaged with the applicant on the project in anticipation of formally entering the project development process. No SMART SCALE funding should be released (by agreement) for any project activities until FTA participation is formally secured by FTA approval to enter the CIG pipeline. 	
Page 34[40], Section 2.4, Public Support	A resolution of support from the relevant governing body or policy board, approved in a public forum with adequate public notice and within one year of the application in question , is required at the time of application.	Clarify that resolutions of support must be approved within one year of the application being considered.

3.0 Evaluation Measures

Location	Change				Reason/Notes			
Page 38[44], Section 3.3, Table 3.3	A.1	Access to Jobs (Total Population)	Change in average jobs accessibility within 45 minutes by driving (within 60 minutes for transit, bicycle and pedestrian projects)		Clarify that bike/ped projects use the same buffer as transit projects for Accessibility.			
	A.2	Access to Jobs (Disadvantaged Populations)	Change in average jobs accessibility for disadvantaged populations within 45 minutes by driving (within 60 minutes for transit, bicycle and pedestrian projects)					
Page 40[46], Section 3.5, Table 3.5	ED.1	Project Support for Economic Development	Project's potential to directly support economic development.	This measure evaluates the support of sites that will attract growth industries using an inventory captured in VEDP's VirginiaScan real estate database that will include evaluation of job creation potential, capital investments in sites, and estimation of the potential market demand of sites by including site visits.	Update Table 3.5 to reflect new ED.1 methodology. More details are provided in Appendix E.			
Page 41[47], Section 3.6, Table 3.6	<table border="1"> <thead> <tr> <th>Measure Weight</th> </tr> </thead> <tbody> <tr> <td>50% (*)</td> </tr> <tr> <td>50% (*)</td> </tr> </tbody> </table> <p>* Up to 100% added to final score based on normalized measure performance</p>				Measure Weight	50% (*)	50% (*)	Update Table 3.6 to reflect the change in how the Land Use factor is incorporated into the final application score.
Measure Weight								
50% (*)								
50% (*)								

4.0 Project Evaluation and Rating

Location	Change							Reason/Notes
Page 46[52], Section 4.1, Table 4.2	Factor	Safety	Congestion Mitigation	Accessibility	Land Use	Economic Development	Environmental Quality	Update factor weightings as approved by the CTB and reflect the change in Land Use calculations as a multiplier.
	Category A	5 15%	45%*	15 25%	20 %**	5%	10%	
	Category B	20%	15 25%	20 25%	15 %**	20%	10%	
	Category C	25 30%	15 20%	15%	10 %**	25%	10%	
	Category D	30 40%	10%	10%	10 %**	30%	10%	
	<p>* For Northern Virginia and Hampton Roads construction districts, congestion mitigation is weighted highest among the factors in the prioritization process.</p> <p>** Up to 100% added to the benefit score based on normalized measure performance</p>							



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Page 48[54], Section 4.5, Methodology	Comprehensive section updates. See Technical Guide Tracked Changes version for detailed changes.	Update the entire Methodology section to reflect changes in scoring calculations, including the Land Use factor as a multiplier and new factor weightings.
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5.0 CTB Prioritization and Programming

Location	Change	Reason/Notes
Page 52[58], Section 5.1	<p>Once the scoring is complete, OIPI develops a staff-recommended funding scenario determined as follows:</p> <p>Step 1: Fund top scoring projects within each district based on SMART SCALE Score eligible for Highway Construction District Grant Program funds using Highway Construction District Grant Program funds until the remaining funds are insufficient to fund the next highest scoring project.</p> <p>Step 2: Fund remaining top scoring projects statewide based on SMART SCALE Score for High Priority Projects Program funds using High Priority Projects Program funds until the remaining funds are insufficient to fund the next highest scoring project.</p> <p>Remaining balances will be reserved to address budget adjustments on selected projects according to the thresholds established in the SMART SCALE Prioritization Process or reserved for allocation in a subsequent round.</p>	Add new text to describe the funding steps used to develop the staff-recommended funding scenario, including updates as approved by the CTB.
Page 53[59], Section 5.1	<ul style="list-style-type: none"> Project segmentation – starting the next phase of a multi-segment roadway improvement, e.g., to complete a major multi-segment project; and Applicant delivery performance as reported by Local Assistance Division. 	Update CTB considerations for the final scenario to include a report on applicant delivery performance, as approved by the CTB.

6.0 Appendix A: Safety Measures

Location	Change	Reason/Notes
Page 60[66], Section 6.1, Data Sources	SMART SCALE Crash Modification Factor (CMF) List , which was developed using a subset of CMFs documented in the VDOT State Preferred CMF List or on project expected crash reduction percentage using FHWA's Crash Modification Factors (CMF) Clearinghouse website. The SMART SCALE CMF List is and Virginia crash summaries and models published on the Apply page.	Add VDOT Preferred CMF list to data sources.
Page 60[66], 6.1 Methodology	See Technical Guide Tracked Changes Version for detailed changes.	Update the S.1 methodology description to be more concise and clarify how data is used.
Page 64[70], Section 6.2, Data Sources	<ul style="list-style-type: none"> Total change in EPDO of fatal and injury (F+I) crash frequency (S.1). Most recent five years of crashes from VDOT RNS Geospatial GIS data maintained by the Traffic Engineering Division. Driving while under the influence of alcohol crashes will be removed from the data set used for safety scoring. FHWA report on crash cost estimates by the severity of the injuries sustained adjusted to the end year of the analysis period. SYIP to determine if and when improvements have been implemented in the last five years. Existing Most recent five years of AADT by roadway segment from VDOT RNS, available studies, the applicant/jurisdiction, or congestion measure analysis and segment(s) length to calculate annual VMT. Segment length from S.1 analysis. SMART SCALE project expected crash reduction percentage developed using FHWA's CMF clearinghouse website and Virginia crash summaries and models published on the Resource page. 	Update data sources to remove redundancies from S.1.
Page 67[76], Section 6.2, Methodology	The S.2 score is not calculated for projects where the principal improvement type is transit or transportation demand management. For all other projects, use the following steps to calculate S.2.	Update the S.2 methodology description to be more concise and combine all modal analysis into a single process. Remove VMT calculations and S.2 score for travel

	<p>Roadway and Bicycle/Pedestrian</p> <p>Step 1: Collect and use the most recent five years of AADT data for each project segment where a crash reduction was projected due to a roadway, pedestrian, or bicyclist improvement or due to shifting travel patterns on a parallel facility for a new roadway or interchange project. Multiply the AADT data by the segment length to calculate the annual VMT for the same segment(s) used for crash data collection for the S.1 measure. Sum the annual VMT across all project segments. Do not calculate VMT for any project segments where the only projected crash reduction was due to shifting travel patterns from a transit, freight, or park and ride improvement.</p> <p>Step 2: Match the project location segment VMT with the expected Fatal + Injury EPDO of Fatal + Injury crashes reduced by the project from the S.1 measure.</p> <p>Step 3 2: Compute the existing Fatal + Injury EPDO crash rate by dividing the S.1 score by the total project VMT based on EPDO per 100 million VMT.</p> <p>Step 4: Compute the expected Fatal + Injury EPDO crash rate reduction due to the project improvements—the S.1 reduced annual average F+I EPDO crashes divided by the segment 100 million VMT. For longer projects covering several segments with different AAT values, the average annual crash rate reduction is the sum of the segment reduced crashes over the sum of the segment VMTs.</p> <p>The methodology varies by project type, as described above for S.1 crash frequency reduction assessments.</p>	<p>demand management, since these improvements will not affect the relative rate of crashes.</p>
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7.0 Appendix B: Congestion Mitigation Measures

Location	Change	Reason/Notes
Page 68[74], Section 7.1, Methodology	The methodology is a quantitative, corridor-based analysis that requires an estimate of future no-build (without the project) and build (with the project) estimate of person throughput seven years in the future .	Update Congestion factor methodology to include a seven-year future traffic analysis as approved by the CTB.
Page 69[75], Section 7.1, Methodology	Step 1: Compile existing future no-build peak period traffic volumes within the project corridor using traffic data provided in the project application. If no traffic data is provided, compile existing peak period traffic volumes using the aforementioned data sources, including existing peak period traffic count data from VDOT TMS.	Update C.1 methodology to reflect future-year analysis. Change applies to both Basic Roadway Segment / Freeway Facility and Intersection / Interchange methodology.
Page 70[76], Section 7.1, Methodology	Step 2: Identify links in the regional network operating below the speed limit in future no-build scenario with greater than 10% reduction of traffic for the different alternative improvements compared to the no build scenario. The congestion limits should include network segments that are expected to be impacted, such as any roadways that vehicles may shift to or from in response to the new facility. A buffer equal to the project length with a floor of one mile is used to capture the impacted segments for the analysis. The minimum buffer of one mile is used to capture parallel routes for smaller projects. Calculate total difference in VHT for these links between the no-build model and the build model.	Update C.1 methodology to include all impacted segments by adjusting the buffer minimum to 1 mile.
Page 70[76], Section 7.1, Methodology	Step 4: Compute the average system project peak period vehicle throughput by multiplying the difference between the no build VHT from the build VHT peak period delay reduction by 60 to convert to vehicles minutes traveled, and dividing this difference by the average trip length (expressed in minutes). Step 5: Compute the peak period person throughput by multiplying an average vehicle occupancy rate by the vehicle throughput.	Update C.1 methodology to clarify the use of peak period delay and person throughput in calculations.



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Page 72[78], Section 7.2, Methodology	Step 1: Compile existing future no-build peak period traffic volumes within the project corridor using traffic data provided in the project application. If no traffic data is provided, compile existing peak period traffic volumes using the aforementioned data sources, including existing peak period traffic count data from VDOT TMS.	Update C.2 methodology to reflect future-year analysis. Change applies to both Basic Roadway Segment / Freeway Facility and Intersection / Interchange methodology.
Page 74[80], Section 7.2, Methodology	Step 2: Identify links in the regional network operating below the speed limit in future no-build scenario with greater than 10% reduction of traffic for the different alternative improvements compared to the no build scenario. The congestion limits should include network segments that are expected to be impacted, such as any roadways that vehicles may shift to or from in response to the new facility. A buffer equal to the project length with a floor of one mile is used to capture the impacted segments for the analysis. The minimum buffer of one mile is used to capture parallel routes for smaller projects. Calculate total difference in VHT for these links between the no-build model and the build model.	Update C.2 methodology to include all impacted segments by adjusting the buffer minimum to 1 mile.
Page 75[81], Section 7.2, Methodology	Step 4: Compute the person peak period delay by multiplying the average vehicle delay peak period delay reduction by an average vehicle occupancy rate and 60 to convert to personal trip minutes.	Update C.2 methodology to clarify the conversion to person peak period delay.

8.0 Appendix C: Accessibility Measures

Location	Change	Reason/Notes
Page 78[84], Section 8.1, Methodology	For each project, an average accessibility improvement is reported (depending on mode, e.g., for roadway projects the auto mode improvement is reported, for transit projects the transit mode improvement is reported, for projects that incorporate multiple improvements, they may receive accessibility benefits from auto mode and other modes).	Update A.1 Step 4 to clarify that multimodal projects may receive accessibility benefits from multiple modes.
Page 78[84], Section 8.1, Data Sources	2014 2020 U.S. Census American Community Survey 5-year estimates.	Update the census year used for analysis from 2014 to 2020.

9.0 Appendix D: Environmental Quality Measures

Location	Change	Reason/Notes
Page 84[90], Section 9.1, Methodology	See Technical Guide Tracked Changes Version for detailed changes.	Comprehensive update to the section describing the E.1 methodology to provide more detailed language and examples. Clarify Step 5 to more accurately represent the calculations used.

10.0 Appendix E: Economic Development Measures

Location	Change	Reason/Notes					
Page 91[97], Section 10	<table border="1"> <tr> <td>ED.1</td> <td>Project Support for Economic Development</td> <td>60%</td> <td> Project consistency with regional and local economic development plans and policies and support for local development activity. Project connectivity with economic development properties, prioritizing the development principles of job and capital </td> <td> The intent of this measure is to assess if the project is supporting future economic development and the progress made toward development in the project corridor at the local level. Progress will be assessed through the use of a checklist of desired actions. The intent of </td> </tr> </table>	ED.1	Project Support for Economic Development	60%	Project consistency with regional and local economic development plans and policies and support for local development activity. Project connectivity with economic development properties, prioritizing the development principles of job and capital	The intent of this measure is to assess if the project is supporting future economic development and the progress made toward development in the project corridor at the local level. Progress will be assessed through the use of a checklist of desired actions. The intent of	Update Table 10.1 to summarize new ED.1 methodology.
ED.1	Project Support for Economic Development	60%	Project consistency with regional and local economic development plans and policies and support for local development activity. Project connectivity with economic development properties, prioritizing the development principles of job and capital	The intent of this measure is to assess if the project is supporting future economic development and the progress made toward development in the project corridor at the local level. Progress will be assessed through the use of a checklist of desired actions. The intent of			



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			expenditure creation, market demand, strategic prioritization, and time to market.	this measure is to assess if and to what extent the project is supporting future economic development aligned with key development principles.	
Page 92[98], Section 10.1	See Technical Guide Tracked Changes version for detailed changes.			Comprehensive update to the section describing the new ED.1 methodology created in coordination with the Virginia Economic Development Partnership.	

11.0 Appendix F: Land Use Coordination Measure

12.0 Appendix G: NEPA Analysis Criteria

Location	Change	Reason/Notes
Page 116[122], Section 12	See Technical Guide Tracked Changes Version for detailed changes.	Add a new appendix providing a detailed description of the NEPA analysis criteria and review process for SMART SCALE applications.

13.0 Appendix H: Readiness Gates

Location	Change	Reason/Notes
Page 119[125], Section 13	See Technical Guide Tracked Changes Version for detailed changes.	Add a new appendix providing a detailed description of the Readiness Gates validation process being implemented in Round 6.

14.0 Appendix H: List of Acronyms