



## NIGHTTIME VISIBILITY FOR SAFETY

### EDC-7 State of the Practice/ Implementation Plan Form

*The below table is meant to provide a means to define the implementation stages that will be used throughout the 2-years of EDC-7 deployment. These definitions are used when capturing your baseline, progress, and final reports for each of the innovations and were developed to provide consistency between states in measuring the deployment progress of an innovation.*

<b>Innovation Implementation Stage Definitions</b>		<b>Guidance Questions</b>
<i>*State is all-inclusive (e.g., state transportation agency, local municipalities, contractors, consultants, etc.)</i>		<b>Prompt questions to help assess your current state of practice.</b> <i>NOTE: Not all questions have to be affirmatively answered to meet any given stage; judgment is required. <u>Remember</u> that this initiative includes countermeasures involving traffic control devices and/or lighting. Call the Deployment Team w/ questions.</i>
<b>Not Implemented:</b>	The State* has not started planning to implement lighting or traffic control device policies to promote nighttime visibility anywhere in the State.	Has the State* not implemented this innovation because: <ul style="list-style-type: none"><li>• It has evaluated the innovation and determined that it is not appropriate for the jurisdictional or technical restrictions within the State?</li><li>• No agency in the state has the resources (staffing, financial, or technical expertise) to implement the innovation?</li><li>• No agency in the state is interested in creating an implementation plan or learning more at this time?</li></ul>
<b>Development Stage:</b>	The State* is collecting guidance and best practices on nighttime visibility countermeasures, building support with partners and stakeholders, and developing an implementation process to improve safety on all roadways regardless of jurisdiction.	<ul style="list-style-type: none"><li>• Has the State, MPOs, LPAs, or Tribes participated in webinars, peer exchanges, or workshops?</li><li>• Has the State requested technical assistance for using the innovation?</li><li>• Is the State collecting best practices or building support with stakeholders for the use of this innovation?</li><li>• Is the State currently researching possible use of any tools or techniques to implement this innovation?</li><li>• Is the State currently developing a process or policy for deploying this innovation?</li><li>• Has the State identified a potential pilot opportunity, and begun to develop plans or details for this pilot?</li></ul>
<b>Demonstration Stage:</b>	The State* is testing and/or piloting nighttime visibility countermeasures in at least one of these strategic areas: intersections, pedestrian and bicyclists, and roadway departures.	<ul style="list-style-type: none"><li>• Does the State have an implementation champion or team?</li><li>• Is the State actively improving nighttime visibility in one or more of the strategic safety areas?</li><li>• Is there support for local agencies to test and/or pilot nighttime visibility countermeasures in one or more of the strategic safety areas?</li><li>• Has the State received grant funding (e.g. STIC, AID Demo) to pilot tools and techniques related to this innovation?</li><li>• Is the State developing a statewide inventory of potential sites and a deployment strategy for implementing these countermeasures?</li></ul>



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<b>Innovation Implementation Stage Definitions</b> <i>*State is all-inclusive (e.g., state transportation agency, local municipalities, contractors, consultants, etc.)</i>	<b>Guidance Questions</b> <b>Prompt questions to help assess your current state of practice.</b> <i>NOTE: Not all questions have to be affirmatively answered to meet any given stage; judgment is required. <u>Remember</u> that this initiative includes countermeasures involving traffic control devices and/or lighting. Call the Deployment Team w/ questions.</i>
<b>Assessment Stage:</b>  The State* is assessing the process for the deployment of nighttime visibility countermeasures and developing guidance, policy and/or a process to advance the use of these countermeasures in at least one of these strategic areas: intersections, pedestrian and bicycles, and roadway departures.	<ul style="list-style-type: none"><li>• Is the State considering this innovation for regular use?</li><li>• Has the State DOT, or the MPOs / LPAs, developed performance measures and baseline data for evaluating the effectiveness of the innovation?</li><li>• Does the State plan to incorporate the lessons learned from the use of this innovation into future projects?</li><li>• Does the State plan to incorporate this innovation into their design manuals, standard details, contract language, guidance, or policies?</li><li>• Have success stories been shared at peer exchanges or through other communication strategies?</li><li>• Is the State monitoring the impact of nighttime visibility countermeasures at test locations, including data collection?</li></ul>
<b>Institutionalized:</b>  The State* has adopted nighttime visibility countermeasures as a standard practice and uses them regularly. There is formal guidance, policy and/or a process in place to advance these countermeasures in one or more of these strategic areas: intersections, pedestrian and bicycles, and roadway departures.	<ul style="list-style-type: none"><li>• Has the innovation been successfully integrated into policies, procedures, and guidance (e.g., design manuals, contract language, specifications)?</li><li>• Is there an integrated process for identifying, prioritizing, and implementing nighttime visibility countermeasures?</li><li>• Is the deployment of nighttime visibility countermeasures being done on a regular basis and is the Demonstration Stage inventory being updated with the implemented countermeasures?</li><li>• Is there a process for providing nighttime visibility improvement support to non-State agencies?</li></ul>

#### Deployment Team Contact Information

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*This is the information that will be collected in the EDC-7 Baseline Report for each innovation. The deployment teams will use this information to better understand which states to focus their technical assistance efforts over the next 2 years of EDC-7 deployment.*

*If your state does not want to advance this innovation over the next 2 years, we ask you to please indicate your current level of implementation and indicate your goal as the same level of implementation with "NO Assistance Anticipated from FHWA in Deployment" selected in question 5.*

#### Baseline Questions (Due April 21, 2023):

<p>1) April 2023 Baseline: What stage of implementation is the State currently at?</p> <p>Review the Implementation Stage Definitions on page 1 and select the appropriate stage for your state.</p>	<p>(Choice – Pick One)</p> <p><input type="checkbox"/> Not Implemented</p> <p><input checked="" type="checkbox"/> Development Stage <a href="#">Lighting for non-C/A facilities</a></p> <p><input type="checkbox"/> Demonstration Stage</p> <p><input type="checkbox"/> Assessment Stage</p> <p><input checked="" type="checkbox"/> Institutionalized <a href="#">Lighting for C/A facilities, and various lane departure, intersection, and pedestrian and bicycle countermeasures implemented through our annual Highway Safety Improvement Program and fatal crash review program</a></p>
<p>2) Current Status: Please clarify the deployment status of your nighttime visibility countermeasures so we have a better understanding of your implementation stage and overall needs. Please include State DOT, local agency, and transportation partners status for countermeasures involving traffic control devices and/or lighting.</p>	<p>(open discussion)</p> <p><b>Institutionalized:</b></p> <p><a href="#">The North Carolina Department of Transportation (NCDOT) Annual Highway Safety Improvement Program (HSIP) focuses on the identification of sites with crash patterns and investigates and implements safety countermeasures for locations that have treatable patterns. This program focuses on three emphasis areas: lane departure, intersection, and pedestrian. The locations are identified through responsive (spot specific), systemic (corridor specific), and potential risk assessment processes.</a></p> <p><a href="#">Lane Departure, Intersections, and Pedestrian – The countermeasures utilized within these emphasis area efforts in NCDOT include the items mentioned in the “nighttime visibility for safety” training material presented in the EDC-7 virtual summit webinar. The NCDOT safety countermeasure toolbox includes but may not be limited to long life pavement markings, curve delineation and enhancement using chevron signing and other curve signing improvements, raised pavement markings and delineators, retroreflective backplates, larger signal heads and supplemental signal heads, intersection signing improvements, marking a crosswalk, RRFB, advanced signs and markings of a crossing area, PHB, and LPI. On occasion lighting may be considered in all three emphasis areas.</a></p>



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	<p>Lighting – NCDOT has a lighting committee and a process for evaluating the need for lighting on control of access facilities (C/A). When approved by the committee, NCDOT provides, installs, and maintains lighting within C/A facilities. Lighting outside the C/A facilities has largely been the responsibility of the local municipality through the encroachment process. At times where no jurisdiction exists, NCDOT has installed lighting via an encroachment process and pays the lease agreements with the local utility.</p> <p><b>Development Stage:</b></p> <p>NCDOT is currently in the process of developing lighting guidance for non-C/A facilities through a consultant. The deliverable will be in late summer 2023. The focus on the guidance will be on sections, intersections, and pedestrian and bicycle emphasis areas. The guidance may help target lighting in these areas where it is needed and/or most beneficial for the non-C/A facilities. Once this NCDOT guidance is complete, as well as the FHWA Lighting Handbook referenced in the “nighttime visibility for safety” training material presented in the EDC-7 virtual summit webinar; the NCDOT lighting committee will be working through this material to determine the direction and process that may be established for lighting non-C/A facilities.</p>
<p>3) Goal: What is the State goal in two years?</p> <p>Review the Implementation Stage Definitions on page 1 and select from appropriate stage.</p>	<p>(Choice – Pick One)</p> <p><input type="checkbox"/> Not Implemented</p> <p><input type="checkbox"/> Development Stage</p> <p><input type="checkbox"/> Demonstration Stage</p> <p><input checked="" type="checkbox"/> Assessment Stage      <i>Lighting for non-C/A facilities</i></p> <p><input type="checkbox"/> Institutionalized</p>
<p>4) Implementation Plan Activities: Provide the proposed activities the State and their partners intends to perform to attain their goal.</p>	<p><i>(open discussion – summarize activities)</i></p> <p><i>See comments in Question 2 – Development Stage area and table below.</i></p> <p><i>There is a table provided below to aid in answering this item.</i></p>
<p>5) Assistance Needed: What assistance can the Innovation Deployment Team provide to help the State and their partners reach its goal within two years?</p>	<p><input type="checkbox"/> Training (e.g., NHI course or self-directed modules)</p> <p><input type="checkbox"/> Technical Support on specific projects/issues</p> <p><input checked="" type="checkbox"/> Guidance Documents (Suggest specific needs below) <i>FHWA Lighting Handbook that is soon to be released?</i></p> <p><input checked="" type="checkbox"/> Webinars on specific topics (Suggest specific topics below)</p>



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	<p>Any webinars planned for the FHWA Lighting Handbook that is soon to be released.</p> <p><input checked="" type="checkbox"/> Workshops or Peer Exchanges</p> <p>Any workshops or peer exchanges planned for the FHWA Lighting Handbook that is soon to be released.</p> <p><input type="checkbox"/> Case Studies (e.g., Successful deployments from other states)</p> <p><input type="checkbox"/> <b>NO Assistance Anticipated from FHWA in Deployment</b></p> <p><input checked="" type="checkbox"/> <b>Our State is willing to assist others</b></p> <p><input type="checkbox"/> Other _____</p>
6) FHWA Division Contact for Innovation:	Dale Privette



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*The discussion and use of the information in the table below is meant to provide your state with an initial framework to help meet your Innovation Goals. This information is helpful to provide to the Deployment Teams for them to better understand any activities that they could assist with in your implementation efforts (but not required to be supplied with the baseline report).*

Innovation Implementation Team Members		
State DOT:	Shawn Troy	Greg Hall
FHWA:	Dale Privette	
<b>State Innovation Goal (Benefit Goal):</b> In other words, after 2 years “What would success look like for your state?” (i.e. X innovation will save X time, money, or lives.) These benefits are what elected officials and the traveling public can relate to and help to support the level of resources invested in the deployment of innovations under EDC. What are the measurable targets to assess your progress?		
Move into “Assessment Stage” as described by definition in this document		
<b>Obstacles:</b> What is perceived as hindering the State in meeting the implementation goal?		
The vast roadway network of 80,000 miles will need to be assessed for potential opportunities for lighting on the non-C/A facilities that may be needed and/or most beneficial. Dependent on what is identified, there may be several years of implementation processes planned for application and funding that may be needed.		
Implementation Plan Activities		
Activity No.	Description of Activity	Target Completion Date
1	NCDOT lighting committee to assess NCDOT Guidelines for lighting non-C/A facilities that will be completed in August 2023 by a consultant	June 2024
2	NCDOT lighting committee to assess FHWA Lighting Handbook that will be released sometime in 2023	June 2024
3	Move into “Assessment Stage” as described by definition in this document	June 2025
<b>Action Items to follow up with after discussion:</b>		
na		



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*This is provided to show what information will be captured in future progress reports during the 2-years of EDC-7 deployment. The progress report schedule has changed from previous EDC rounds, the first 6-month progress report was dropped to allow more time to make progress on the innovation deployment. Progress Report #1 will be 1 year after the Baseline Report, Progress Report #2 will be 6 months later, with a Final Report requested 2-years after the initial baseline.*

Progress Report Questions:	
1) If there has been NO CHANGE on this innovation during this reporting period and the previous Report is still accurate, select "No Change from last Progress Report" and you do not need to complete Questions 2-5.	(Choice) <input type="checkbox"/> No Change from last Progress Report <input type="checkbox"/> Changes indicated in Progress Report Below
2) What is the State's current stage of innovation implementation?  Review your past progress report responses and the Implementation Stage Definitions on page 1.	(Choice) <input type="checkbox"/> Not Implemented <input type="checkbox"/> Development Stage <input type="checkbox"/> Demonstration Stage <input type="checkbox"/> Assessment Stage <input type="checkbox"/> Institutionalized
3) Describe the State's accomplishments for this reporting period (State DOT, local agency, and transportation partners accomplishments).  -- If advanced to the next implementation stage, consider the prompt questions in the chart and explain the advancements made to support your selection. Please clarify the deployment status of your nighttime visibility countermeasures involving traffic control devices and/or lighting.  -- Please include benefits as part of your explanation (i.e. time/cost savings, delay/crash reductions, etc.)	(open discussion)
4) Describe any implementation challenges or lessons learned. Also, indicate if and how your state and transportation partners can assist others in their implementation of this innovation.	(open discussion)
5) Describe any additional assistance needed by your state or partners.	(open discussion)