**Domestic Scan Proposal Form**

AASHTO is now soliciting proposals for **Calendar Year 2020 US Domestic Scan Program** (NCHRP Panel 20-68A).

Selected scan topics will be investigated by one of three ways: (type 1) site visits to three to six locations for approximately a two week period or less, by webinar; (type 2) peer exchange; or (type 3) conducted by a group of eight to 12 transportation professionals with expertise in the selected topic area. Proposed topics should meet the following criteria:

* Address an important and timely need for information by transportation agencies;
* Are of interest to a broad national spectrum of people and agencies;
* Are complex and also “hands-on,” meaning they lend themselves particularly well to exploration through on-site visits; and
* Are sufficiently focused that the tour participants are able to investigate and understand key issues in the limited time available on the tour.

Before submitting your proposal it is highly recommended that you read [**What Makes a Good Scan Topic Proposal**](http://www.domesticscan.org/what-makes-a-good-scan-topic-proposal)[**http://www.domesticscan.org/what-makes-a-good-scan-topic-proposal**](http://www.domesticscan.org/what-makes-a-good-scan-topic-proposal)

This form is designed to collect the full length of your proposal. Sections requiring essays have unlimited space for you to use. Contact information has some limited text. ***Use your TAB🡪 key to advance to the area where you need to complete information.***

**Proposals should be returned no later than OCTOBER 24, 2019.**

**IMPORTANT NOTE on How to save your document**: ***LastNameFirst Initial, underscore\_Organization Acronym \_CY2020***

***Saved Document Name Example: NgetheP\_AASHTO\_CY2020***

***If you have more than one, add a number after first initial: NgetheP1\_AASHTO\_CY2020***

**Domestic Scan Proposal Contact Information**

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| --- | --- | --- | --- |
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| AASHTO Committee |  | Date of submission | 10/24/2019 |

Please **check** this box if your proposal has been endorsed or is being requested through an AASHTO Committee.

List the AASHTO Committee(s) that endorsed this proposal:

**Title of Proposed Scan****:** Fiber Reinforced Concrete (Frc) For Transportation Structures

**Problem Statement** (What topic is to be examined? What drives the need for the scan? Why now?)

Fiber Reinforced Concrete (FRC) is an innovation that has been developing more recently with expanding and improved product lines and applications in different industries. Ultra High Performance Concrete (UHPC) may be considered as an extreme example of FRC and demonstrates that FRC has the potential to be a viable and effective solution for certain applications in highway structures.

In concrete mix design, minor changes to the mix can alter the properties of the plastic and or the hardened mix significantly. For example adding small quantities of fibers could have a major impact on the resultant mix. Also there are different types of fibers such as steel, glass, carbon, basalt, polymeric (polypropylene, PVA, nylon) etc. Each type offers varieties of length, strength and other characteristics.

FRC enhances flexural stiffness, crack width restraint, and ductility of reinforced concrete especially when Fiber reinforced polymer reinforcement is used..

The purpose of this scan is to document uses of FRC in structural applications and the associated design practices, specifications and construction.

**Scan Scope** (What specific subject areas are to be examined? Which cities and states might be visited? Which agencies/organizations (including specific departments or types of staff if applicable)?

The scan will research and document uses of FRC for structural applications. Documentation should include usage, concrete mix, fiber type and quantities, design methods and procedures, specification, construction and construction inspection. This scan may include transportation and other agencies

**Anticipated Scan Results** (What key information is to be gained? What information is to be shared after the scan? Who would the audience be for this information?)

The scan should produce a report that disseminate the finding of the scan. The team recommendations on the what design provisions should be used and further developed into a AASHTO Guide Specification.

**Benefits Expected** (Including potential impacts on current technology or procedures)

It is anticipated that this scan and report will facilitate the use of FRC by states' DOT's.