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**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
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April 7, 2021  
11:15 A.M.  
State Capitol, Teleconference

**S.C.R. 239**  
**URGING THE DEPARTMENT OF TRANSPORTATION TO INCREASE THE USE OF RECLAIMED ASPHALT PAVEMENT TO REPAVE, RECONSTRUCT, AND PRESERVE STATE STREETS, ROADS, AND HIGHWAYS AND EXPLORE USE OF OTHER PRODUCTS USING RECLAIMED ASPHALT**

House Committee on Transportation

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The Department of Transportation (DOT) **supports** the intent of S.C.R. 239 and offers comments. S.C.R. 239 urges the DOT to increase the use of reclaimed asphalt pavement (RAP) to repave, reconstruct, and preserve state streets, roads, and highways and explore use of other products using reclaimed asphalt.

The DOT would like to offer the follow comments. The DOT Highways Division currently allows up to twenty percent of RAP to be included in the hot mix asphalt pavement surface mix, and forty percent to be included in the hot mix asphalt base course.

In addition, DOT Highways Division has allowed up to fifty percent of RAP to be included in aggregate base, aggregate subbase, and various backfill applications. This percentage is based on a report by the University of Hawaii titled, "Application of Recycled Materials in Highway Projects," dated December 17, 2010. The report provided an evaluation of the behavior and characteristics of RAP for use as a base/subbase and fill. DOT Highways Division has also used up to one hundred percent RAP as fill under our bikeway and walkway projects.

We understand that Federal Highway Administration (FHWA) also promotes and encourages the use of RAP in asphalt pavement mixes.

FHWA has identified factors that should be considered before increasing RAP use in their publication titled, "Reclaimed Asphalt Pavement in Asphalt Mixtures: State of the Practice," dated April 2011

(<https://www.fhwa.dot.gov/publications/research/infrastructure/pavements/11021/11021.pdf>).

Some of the factors that we will need to consider include adjustments to the current mix design of asphalt pavement to incorporate RAP. Increasing the percentage of RAP increases the stiffness of the mix. We are currently moving towards implementing balanced mix design, which uses performance tests to evaluate distresses such as cracking or rutting. This approach will help us to evaluate the impact of RAP and potentially increase the amount of RAP allowed.

In addition, we will need to work with the asphalt industry for RAP quality control and processing at the asphalt plants. Currently, not all asphalt plants in the state (specifically on the neighbor islands) have equipment to incorporate RAP in the mix. However, even the asphalt plants with the appropriate equipment may have limitations on the amount of RAP that can be added to the mix. In general, we need to understand what changes to the plant are needed to incorporate a higher percentage of RAP.

We also understand that FHWA has recently published a report titled "Using Reclaimed Asphalt Pavement in Pavement-Preservation Treatments," dated December 2020 (<https://www.fhwa.dot.gov/publications/research/infrastructure/pavements/21007/21007.pdf>). As we continue to develop our pavement preservation program, we will look into the opportunities to incorporate RAP into these treatments.

We appreciate the opportunity to provide testimony for this resolution.

**SCR-239**

Submitted on: 4/5/2021 10:06:20 AM

Testimony for TRN on 4/7/2021 11:15:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Li Cobian	Oahu Motorsports Association	Support	No

Comments:

From Li Cobian of the Oahu Motorsports Association

WE ARE IN STRONG SUPPORT OF SCR239

Our association is a advocate of motorsports and the environment.

We support this Resolution to expand the use of recycled asphalt to be used also to maintain our neighbor island Public Race Track Parks and soon to develop the future Oahu Race Track Park. Our organization advocates such potential use to be a subject of discussion in the proposed future State Working Group ( SCR263 ) for a Public Track on Oahu that will include the DOT as a member of this work group.

We also support exploring other uses such as building products for the construction industry.

Li Cobian Oahu Motorsports Association

**SCR-239**

Submitted on: 4/5/2021 12:23:58 PM

Testimony for TRN on 4/7/2021 11:15:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Chad Taniguchi	Individual	Support	No

Comments:

I support increased use of reclaimed asphalt on our roads and wherever possible. Reduce, reuse, recycle:)

HDOT supports its use when feasible. Elisabeth Wilson of Alakona Corp, a paving contractor, also supports.

As a homeowner thinking of converting my 60-year old asphalt driveway to a more permeable one to allow more drainage, I have been wondering whether some of the removed asphalt could be used as an aggregate base to stabilize the dirt/grass above the base.

Would it be helpful to encourage the various county building departments to consider RAP as substitute aggregate base?

From the 2011 FHWA report cited by HDOT:

**Granular Base Aggregate**

To produce a granular base or subbase aggregate, RAP must be crushed, screened, and blended with conventional granular aggregate, or sometimes reclaimed concrete material. Blending granular RAP with suitable materials is necessary to attain the bearing strengths needed for most load-bearing unbound granular applications. RAP by itself may exhibit a somewhat lower bearing capacity than conventional granular aggregate bases.

Industry experience may have increased since 2011.

Mahalo for passing this resolution.