The following tasks were approved for NCHRP 20-7 at the Spring 2009 SCOH meeting, totaling $640,000.

**Task 276, Development of Guidelines for Rehabilitation of Existing highway and Rail Transit Tunnels.** $50,000. NCHRP Staff: Waseem Dekelbab

Submitted by: Subcommittee on Bridges and Structures – *To develop guidelines for rehabilitation of existing highway and rail transit tunnels.*

**Task 277, Update to AASHTO “Pavement Management Guide.”** $50,000. NCHRP Staff: Amir Hanna

Submitted by: Subcommittee on Design: Technical Committee on Pavements – *A comprehensive update of the guide with consideration to the JTCOP comments, and the preparation of a revised Guide suitable for balloting and publication by AASHTO. (Additional $50,000 promised by FHWA)*

**Task 278, Production of the new AASHTO Practical Guide to Estimating.** $75,000. NCHRP Staff: Andy Lemer

Submitted by: Subcommittee on Design: Technical Committee on Cost Estimating – *To ensure that comprehensive, consistent and timely cost estimating guidance is developed and to produce a final draft version of “A Practical guide to Estimating” for formal balloting by AASHTO as soon as possible.*


**Task 280, AASHTO Materials Specifications.** $90,000. NCHRP Staff: Ed Harrigan

Submitted by: Subcommittee on Materials – *To hire a researcher to perform review on the “C” specifications in the Materials Book to identify any needed changes.*

**Task 281, Strategic Plan for the Development and Maintenance of AASHTO Standards by AASHTO Member Departments.** $80,000. NCHRP Staff: Amir Hanna

Submitted by: Subcommittee on Materials – *Peer Exchange to develop a strategic plan that would address the issue of how AASHTO SOM develops and maintains standards through the use of voluntary members.*

**Task 282, Research Needs Assessment for Roadside Workers and Vehicle Safety.** $90,000. NCHRP Staff: Chuck Niessner

Submitted by: Subcommittee on Systems Operation and Management – *To develop a multidisciplinary, national research program to develop a framework for visibility of roadway emergency responders, workers and vehicles within emergency and work zones similar to the existing NUG framework for command and communications.*

**Task 283, Evaluation of the Flashing Yellow Arrow (FYA) Permissive Left Turn in Shared Yellow Signal Sections.** $100,000. NCHRP Staff: Ray Derr
Submitted by: Subcommittee on Traffic Engineering – To explore the effectiveness of a three section protected/permissive left turn signal display versus for a four section signal display, containing both a flashing yellow arrow section and a steady yellow arrow change interval section, when implementing the FYA in protected/permissive left turn control.

**Task 284, Establish Test Methods for 100-Year Service Life for High Density Polyethylene Thermoplastic Pipe in the AASHTO LRFD Bridge Design Specifications.** $30,000. NCHRP Staff: Ed Harrigan

Submitted by: Subcommittee on Bridges and Structures – to review and revise the AASHTO LRFD Bridge Design Specifications and the AASHTO Standard Specifications for Transportation and Methods of Sampling and Testing to include materials tests to establish and classify HDPE pipe for a 100 year service life.

**Addition to Task 275, AASHTO SCOH Strategic Plan Continuation.** $25,000 NCHRP Staff: Chris Hedges

Submitted by: Standing Committee on Highways (SCOH)