U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CALIFORNIA DIVISION OFFICE

RECORD OF BLANKET PRIOR APPROVAL FOR MAJOR CONTRACT CHANGE ORDER

PROJECT NO.	CCO NO.	CONTRACT NO.	DIST-CO-RTE-PM
Statewide	Various	Any Federally Funded Project	Various

REQUESTED BY		DATE
Chuck Suszko	☐ CALTRANS HQ ☐ RE / DISTRICT	1/12/16

PROPOSED CHANGE:

Revising the hot mix asphalt Type A job mix formula (JMF) because the current amount of RAP allowed in the authorized JMF exceeds the new maximum percentage of RAP Pavement Binder Ratio (RPBR) requirements. The RPBR for the current JMF was determined under a separate change order.

A new JMF is required because either the performance grade of the virgin grade asphalt binder has to be reduced one grade or an increase in the amount of virgin aggregate and virgin asphalt binder based on a reduction in the percentage of reclaimed asphalt pavement used in hot mix asphalt.

In addition, quality control testing for the critical binder temperatures of virgin asphalt binder at frequency of every five days during hot mix asphalt production and critical binder temperatures of recovered RAP binder if the RAP stockpile is augmented at the frequency of 500 tons of RAP.

There could be an increase in contract time of 50 days as a result of this change order. Time is deferred because it HMA mix design may require several iterations and there is the potential for multiple hot drops of HMA to obtain passing tests for JMF verifications.

REASON FOR CHANGE:

On October 20, 2014 FHWA issued a memorandum titled "Recycled Materials in Asphalt Pavement" alerting State DOT's of potential premature pavement failures. The memorandum states "Recently there have been an increasing number of state highway agencies reporting pre-mature cracking in relatively new asphalt pavements. A similarity in many of these pavements is the high content of recycled asphalt binder."

Asphalt binder replacement (ABR) is a term used for the asphalt from RAP used to replace a portion of the total asphalt binder in new pavements. RAP is commonly used to replace from 15 to 25 percent of the total virgin aggregate in hot mix asphalt. There have been increased concerns with the use of recycled materials in pavements because of how the ABR effects the combined asphalt binder properties and therefore HMA performance. Based on the percentage of ABR, varying degrees of stiffness can be experienced by the in-service pavements. Increased stiffness can have a positive impact on performance by preventing rutting and may reduce cracking potential due to less pavement deflection under loads. However, increased stiffness can also have a negative impact on performance with increased cracking in low temperatures or thin pavement sections. This change order is being implemented because the RPBR on this projects exceeds the new maximum RPBR requirement implemented to prevent potential premature asphalt pavement failures in California due to increased asphalt binder stiffness caused by RAP.

TIME EXTENSIONS	ACTIVITY ON CRITICAL PATH AFFECTED BY CCO (IF TIME EXTENSION
☐ NONE _____ DAYS ☑ DEFERRED	N/A

ESTIMATE OF COST:	CCO: METHOD OF PAYMENT
$ Varies ☑ INCREASE ☐ DECREASE	☐ CONTRACT ITEMS ☑ ADJUSTMENT OF COMPENSATION ☑ AGREED PRICE ☑ EXTRA WORK AT FORCE ACCOUNT

THE WORK COVERED BY THE PROPOSED REVISION AS DESCRIBED ABOVE IS APPROVED SUBJECT TO SUBMISSION OF SUPPORTING DOCUMENTATION INCLUDING COST EVALUATION AND JUSTIFICATION OF TIME EXTENSIONS.

OTHER CONDITIONS: _____

PRIOR APPROAL TO PROCEED GRANTED BY:	DATE OF AUTHORIZATION
STEPHEN M PYBURN Digitally signed by STEPHEN M PYBURN DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FHWA HQ, cn=STEPHEN M PYBURN Date: 2016.02.17 14:51:29 -08'00'	2/17/2016

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