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July 15, 2011

02-Mod-299-58.0/66.7
02-4E2404
Project ID 0200020241
ACSTP-S299(163)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN MODOC COUNTY NEAR CEDARVILLE FROM 0.5 MILE EAST OF HAYS STREET TO NEVADA STATE LINE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Wednesday, July 20, 2011.

This addendum is being issued to revise the Notice to Bidders and Special Provisions.

In the Special Provisions, Section 10-1.16, "HOT MIX ASPHALT WITH WARM MIX ASPHALT ADDITIVE," subsection "GENERAL, subsection "Materials Production Quality Program," heading is revised as follows:

"Materials Plant Quality Program"

In the Special Provisions, Section 10-1.16, "HOT MIX ASPHALT WITH WARM MIX ASPHALT ADDITIVE," subsection "CONSTRUCTION" is replaced as attached.

To Bid book holders:

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This addendum is available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/02/02-4E2404

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

JOHN BULINSKI
District Director

Attachment

"CONSTRUCTION

Proportioning Warm Mix Asphalt Additives

General

Proportion all ingredients by weight. The HMA plant process-controller must be the sole source of ingredient proportioning control and be fully interfaced with all scales and meters used in the production process. Ensure that the HMA plant process-controller utilizes the warm-mix additive as an integral ingredient of the HMA mix.

Weighing and metering devices used for the production of warm-mix HMA must meet the requirements of the Material Plant Quality Program (MPQP). When a loss-in-weight meter is used it must meet the requirements of the MPQP and the following:

1. Include at least one complete system re-fill cycle during each calibration test run.
2. Operate the device in a normal run mode for 10 minutes immediately before starting the calibration process.
3. Isolate the scale-system, within the loss-in-weight feeder, from surrounding vibration.
4. Check the scale-system, within the loss-in-weight feeder, for accuracy before and after the calibration process and daily during mix production.
5. For a dry ingredient delivery rate of less than one ton per hour use a 15 minute minimum test run size.
6. The unit's accuracy must comply with the limits of Table B, "Conveyor Scale Testing Extremes," in the MPQP.

Dry ingredient additives for continuous production must be proportioned with a conveyor scale or a loss-in-weight meter. Dry ingredients for batch production must be proportioned with a hopper scale.

Liquid ingredient additive, including a normally dry ingredient made liquid, must be proportioned with a mass flow meter.

Produce warm-mix HMA by using either a continuous mixing or a batch type HMA plant.

Continuous Mixing

The HMA plant process-controller in conjunction with the measuring systems must be capable of varying all ingredient feed rates proportionate with the aggregate delivery, at all production rates and rate changes. Liquid warm-mix additive must enter the production stream with the binder. Dry warm-mix additive must enter the production stream at or before the mixing area.

When dry warm-mix additives are utilized at continuous mixing HMA plants, baghouse dust systems must return all of captured material to the mix.

HMA additive must be proportioned to within 0.2% of the target rate.

Batch Mixing

The metered liquid warm-mix additive must be placed in an intermediate holding vessel to then be added to the mix with the binder. Dry ingredient proportioning devices must be separate from metering devices for the aggregates and asphalt binder. Dry warm-mix additive must be proportioned directly into the pugmill or placed in an intermediate holding vessel to be added to the pugmill at the appropriate time in the batch cycle.

Zero tolerance for the HMA additive batch scale is ±0.01 percent of the asphalt binder batch weight. The indicated HMA additive batch scale weight may vary from the preselected weight setting by up to ±0.02 percent of the asphalt binder batch weight.

Production Data Collection

The HMA plant process-controller must produce an electronic log of production data. The log will consist of a series of snapshots captured at a maximum of 1-minute intervals throughout the period of daily production. Each snapshot of production data must be a register of production activity at that time and not a summation of the data over the preceding interval to the previous snapshot. The amount of material represented by each snapshot will be that amount produced during the 0.5 minute interval before and the 0.5 minute interval after the capture time. Collect and hold data for the duration of the contract and submit the electronic media to the Engineer, daily or upon request. The snapshot of production data must include the following:

A. Date of production,
B. Plant location,
C. Time of day the data is captured,

D. Mix type being produced,
E. Temperature of the binder and HMA mixture,
F. For a continuous mix operation, the rate of flow of the dry aggregate calculated from the wet aggregate flow rate as determined by the conveyor scale.
G. For a continuous mix plant operation, the rate of flow of the asphalt meter.
H. For a continuous mix plant operation, the rate of flow of warm-mix ingredient meter.
I. For a batch plant operation, actual batch weights of all ingredient.
J. The aggregate/binder ratio calculated from metered ingredient output.
K. The binder/warm-mix additive ratio calculated from metered output.

Electronic media must be presented in a Comma-Separated Values (CSV) format. Captured data, for the ingredients represented by production snapshot, must have allowances for sufficient fields to satisfy the amount of data required by these specifications and include data titles at least once per report.

HMA with Warm Mix Asphalt Additive Production and Placement

Produce an asphalt mixture at a temperature not to exceed 300 °F.
Spread HMA with warm mix asphalt additive only if atmospheric and surface temperatures are:

Minimum Atmospheric and Surface Temperatures

Compacted Layer Thickness, feet	Atmospheric,° F		Surface,° F	
	Unmodified Asphalt Binder	Modified Asphalt Binder[a]	Unmodified Asphalt Binder	Modified Asphalt Binder[a]
< 0.15	45	45	50	50
0.15 – 0.25	40	40	45	45

Note:
[a] Except asphalt rubber binder.

HMA temperature behind the screed will be a minimum of 265 °F.Finish compaction before the surface temperature drops below 140 °F
Do not allow traffic on new HMA with warm mix asphalt additives until the mid-depth temperature is below 125 °F.
Coring for density measurement will not occur until a minimum of 72 hours after placement.
All trucks will be tarped during transport of HMA with warm mix additives.
Use a material transfer vehicle (MTV) to receive HMA with warm mix additive directly from the truck, without dumping on the ground, and deliver to paver's receiving hopper or feed system. The MTV must:

1. Remix the HMA with warm mix additives with augers before loading the paver
2. Have sufficient capacity to prevent stopping the paver.
3. Must not be operated or transported over bridges unless it meets weight limitations.

Sand Cover

Spread sand at a rate between 1 pound and 2 pounds per square yard on new HMA (Type A) with a warm mix additive pavement when finish rolling is complete. Sand must be free of clay or organic matter. Sand must comply with Section 90-3.03, "Fine Aggregate Grading" of the Standard Specifications. Keep traffic off the pavement until sand has been spread completely.

Vertical Joints

Place HMA on adjacent traveled way lanes so that at the end of each work shift, the distance between the ends of HMA layers on adjacent lanes is between 5 feet and 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place Kraft paper or another approved bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.