

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
2300 COUNTY CENTER DRIVE, SUITE B 100
SANTA ROSA, CALIFORNIA 95403

Philip M. Demery, Director



AREA CODE (707)
ROADS 565-2231
TRANSIT 585-7516
REFUSE 565-7940
AIRPORT 565-7243
AIR POLLUTION 433-5911
FAX 565-2620
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June 5, 2007

NOTICE TO PLANHOLDERS

**FOR CONSTRUCTION OF
FAA Airport Improvement Program (AIP) 3-06-0241-30**

**CHARLES M. SCHULZ-SONOMA COUNTY AIRPORT
RUNWAY 14-32 SURFACE TREATMENT AND PAVEMENT MARKING**

ADDENDUM NO. 1

I. Changes to Special Provisions

A. In the Notice Inviting Bids and anywhere else referenced in the document, the date for the bid opening shall be changed from June 11, 2007 to June 18, 2007. The time and place of the opening has not been changed.

B. Remove Page 2 Bid Schedule and substitute with the Bid Schedule A (Addendum 1) as attached.

C. Insert Page 2A, titled Bid Schedule B (Addendum 1).

D. In Division II, Section 3-1.06 AWARD OF CONTRACT, delete the paragraph in the original document and replace with the following:

“The award of the contract, if it be awarded, will be to the lowest responsible bidder of either Bid Schedule A or Bid Schedule B, whose proposal complies with all requirements prescribed herein. The County reserves the right to award the contract to the lowest bidder of either schedule based upon the County’s budgetary status as well as the County’s determination as to which rejuvenating agent will best serve the needs of the County in this project. Bidders are not required to bid both schedules.

The Disadvantaged Business Enterprise requirements for this project are contained in Division III, Section 4.

All bidders shall submit with their bid a listing of where the particular rejuvenating agent has been used on airport projects. Specifically the bidders shall highlight the use of the sealant on air carrier runway projects and shall provide a contact at the associated airport in order that the County may evaluate the in place performance of each material.”

E. In Division V, add the attached specification referred to as Section 3A, Item P-609B, Emulsified Pavement Seal and Rejuvenator.

F. Bidders are to be aware of the following clarification:

The equipment used to remove the rubber, markings, and debris shall also have a 100% self-contained recovery system as part of the equipment. A vacuum truck shall only be used as a secondary means of cleaning.



Michael A. Shutt, P.E., Project Manager
Mead & Hunt, Inc.

**BID SCHEDULE A (Addendum 1)
AIP Project No. 3-06-0241-30**

Item	Description	Units	Estimated Quantity	Unit Price (Figures)	Total Cost (Figures)
A-1	Mobilization/Demobilization	LS	One		\$
A-2	Airfield Traffic and Safety Control	LS	One		\$
A-3	Surface Preparation	SY	107,700		\$
A-4	Asphalt Rejuvenating Seal --P-609A	SY	102,100		\$
A-5	Pavement Marking	SF	104,000		\$
Total Base Bid (Item A-1 through A-5) In figures					\$
Total Base Bid (Items A-1 through A-5). Indicate in writing:					

Acknowledgment of Addenda

Addendum No. Initial

Signature/Title

Company

Contractor's License Number/Expiration Date

NOTE: Contractor License Number and Expiration Date stated herein are made under penalty of perjury.

BID SCHEDULE B (Addendum 1)
AIP Project No. 3-06-0241-30

Item	Description	Units	Estimated Quantity	Unit Price (Figures)	Total Cost (Figures)
B-1	Mobilization/Demobilization	LS	One		\$
B-2	Airfield Traffic and Safety Control	LS	One		\$
B-3	Surface Preparation	SY	107,700		\$
B-4	Emulsified Pavement Sealer and Rejuvenating Seal --P-609B	SY	102,100		\$
B-5	Pavement Marking	SF	104,000		\$
Total Base Bid (Items B-1 through B-5) In figures.					\$
Total Base Bid (Items B-1 through B-5). Indicate in writing:					

Acknowledgment of Addenda

Addendum No. Initial

Signature/Title

Company

Contractor's License Number/Expiration Date

NOTE: Contractor License Number and Expiration Date stated herein are made under penalty of perjury.

DIVISION V
SECTION 3A
ITEM P-609B
EMULSIFIED PAVEMENT SEAL AND REJUVENATOR

DESCRIPTION

3A-1.1 This item shall consist of providing and applying a bituminous emulsified pavement seal and rejuvenator.

MATERIALS

3A-2.1 BITUMINOUS EMULSION CONCENTRATE. The emulsion concentrate, in the undiluted state, shall have the following properties:

Saybolt furol viscosity: 77°F (25 °C).....	20-100 seconds
Residue by distillation or evaporation:.....	57 percent, minimum
Sieve test:.....	0.2 percent maximum
pH, cationic:.....	2 to 6.5

The emulsion concentrate, when diluted in the proportion of one part of concentrate to one part of hot water, by volume and ready to apply, shall have the following properties:

Saybolt furol viscosity: 77°F (25 °C).....	10-50 seconds
Residue from Distillation, or Evaporation.....	28-42 percent, minimum
Sieve test:.....	0.1 percent, maximum
Pumping stability test:.....	pass
Hot water temperature at or above 100 degrees.	

Tests on Residue from Distillation, or Evaporation:

Viscosity ast 275°F (135°C) ASTM D-4402.....	1750 cts maximum
Solubility in 1,1,1 trichloroethylene ASTM D-2404.....	97.5 percent minimum
Penetration ASTM D-5.....	50 dmm maximum
Asphaltenes ASTM D-2007.....	15 percent minimum
Saturates ASTM D-2007.....	15 percent maximum
Polar Compounds ASTM D-2007.....	25 percent minimum
Aromatics ASTM D-2007.....	15 percent minimum

- (1) pH may be used in lieu of the particle charge test which is sometimes inconclusive in slow setting bituminous emulsions.
- (2) Pumping stability is tested by pumping 1 pint, (475 ml) of sealer material diluted 1 part concentrate to 1 part water, at 77°F (25°C), through a ¼-inch gear pump operating 1750 rpm for 10 minutes with no significant separation or coagulation.

The bituminous base residue shall contain not less than 20 percent Gilsonite, and will not contain any tar oil pitch. It shall be compatible with asphalt concrete and have a 5-year, minimum, proven performance record at airports with similar climatic conditions. Curing time, under recommended application conditions, shall not exceed 4 hours.

Material shall be GSB-88 Emulsion Sealcoat Concentrate as manufactured by Asphalt Systems Inc., of Salt Lake City, Utah (1.800.972.2757).

The CONTRACTOR shall furnish, manufacturer's certification that the material is the type, grade, and quality specified for each loads of bituminous material delivered. The certification shall show the shipment number, refinery, consignee, destination, contract number, and date of shipment. Submit two 1-gallon samples of diluted, ready-to-apply bituminous material for each load delivered.

3A-2.2 POLYMER. The vinyl acrylic copolymer shall be approved for use by the manufacturer of the bituminous material for compatibility and shall have the following properties:

Solids content, percent by weight	55 percent
Weight per gallon, lbs	
Emulsion	9.0 lbs
Resin Solids	9.8 lbs
pH	5.0
Viscosity, cps (as tested by the Brookfield RVT #3 spindle at 20 rpm and 25° C)	2,250
Particle charge	Nonionic
Free monomer, percent by weight	0.5 percent, max.
Mechanical stability	Excellent
Minimum film forming temperature, °C	+5
Tg °C	+1

The CONTRACTOR shall submit manufacturer's specifications for vinyl acrylic copolymer for review and approval, with the bituminous materials submittal.

609-2.3 SAND. The sand material shall be a dry, clean, angular, dust-free with a Mohs hardness of 6-8. The sand shall meet the following gradation analysis per ASTM D 451:

<u>Sieve Size</u>	<u>Percentage Retained By Weight</u>
No. 16	0-1
No. 20	0-1
No. 30	5-20
No. 40	40-65
No. 50	20-40
No. 60	0-5
No. 100	0-3
Pan	0-0.2

The CONTRACTOR shall submit gradation and manufacturer's specification for review at or prior to the pre-bid for approval.

CONSTRUCTION METHODS

3A-3.1 WEATHER LIMITATIONS. The Emulsion shall be applied only when the existing surface is dry and rain is not anticipated within 8 hours. The pavement surface temperature during application shall be at least 50° F and rising. At least three hours of daylight should remain after completing Emulsion application. The Emulsion shall not be applied during extremely windy days.

3A-3.2 MIXING. The emulsified asphalt sealer material shall be obtained by blending bituminous concentrate material, water, and polymer. Mix one part bituminous emulsion concentrate to one part water, by volume. Add (one) percent polymer, by volume, to the mix. As an option, the polymer may be added to the mix at the job site provided the polymer is added while the circulating pump is running, the mix is agitated for a minimum of 15 minutes, and the polymer is mixed to the satisfaction of the ENGINEER.

3A-3.3 PAVEMENT PREPARATION. The asphalt surface to be treated shall be free of all dirt, sand, weeds, grass and excessive oil and/or grease. The surface shall be cleaned with a power broom or power blower supplemented by a hand sweeping or any other means required to remove deleterious matter to the satisfaction of the ENGINEER.

Cover as necessary existing runway edge lights, taxiway edge lights, informational signs, retro-reflective marking, in-pavement duct markers and tie-down chains, before applying the seal. If the seal gets on any of these items, they shall be cleaned immediately. The CONTRACTOR shall replace any damaged equipment with equal equipment at no cost to the Airport if cleaning is not satisfactory to the ENGINEER.

3A-3.4 EQUIPMENT. The emulsion may be applied with manufacturer-approved standard bituminous distributors. The equipment shall be in good working order and contain no contaminants or diluents in the tank. Spreader bar tips must be clean, free of burrs, and of a consistent size to maintain an even distribution of the seal material. Any type of tip or pressure source is suitable that will maintain a predetermined flow rate and constant pressure through the nozzles during the application process regardless of the speed of the truck. Test the equipment under pressure for leaks and to ensure it is in good working order before use.

The distributor truck shall be equipped with a 12-foot, minimum, spreader bar with individual nozzle control. It shall be capable of specific application rates in the range of 0.05 to 0.25 gallons per square yard. These rates shall be computer-controlled rather than mechanical. It shall have an easily accessible thermometer that constantly monitors the temperature of the seal coat.

In the event there is a temperature problem a distributor truck will be provided that is equipped to effectively heat and mix the material to the required temperature prior to application. Heating and mixing will be done in accordance with the manufacturer's recommendations. Care shall be taken not to over heat or over mix material.

The distributor shall be equipped to hand spray the seal coat areas identified by the ENGINEER.

The emulsified pavement sealer distributor truck shall be capable of uniformly spreading sand in the fresh emulsion pavement sealer at the rates specified in 3A-3.6 Sanding.

3A-3.5 APPLICATION. The emulsified asphalt sealer product shall be uniformly applied using equipment as described in Section 3A-3.4 and in accordance with the manufacturer's recommendations. Application test for each. Test strips shall be placed in the presence of the manufacturer's representative. Apply the emulsion only when the existing surface is clean and dry as described in Section 3A-3.3.

A qualified manufacturer's Representative shall be present in the field to assist the CONTRACTOR in carrying out spot tests and/or test strips on the pavement to be sealed to determine the optimum application rate. This shall be done just prior to the application or any time there is a change in the consistency of the pavement surface.

3A-3.6 SANDING. Sand shall be applied to the runway pavement only. Sanding shall be done immediately after application of the emulsified asphalt sealer, in a manner and with equipment approved by the seal coat manufacturer. Apply sand at the rate of 0.25 to 0.50 pounds per square yard as determined by the Manufacturer's representative and approved by the ENGINEER.

Sanding shall be accomplished using equipment that provides a full and even distribution of the sand. The sander must have finite controls to regulate sand distribution. Push-type hand sanders will be allowed for use around lights, signs and other obstructions.

Sanding will be done in a manner so as to prevent any sand from going onto any pavement prior to the sealant being applied. Sanding equipment that follows the emulsified asphalt sealer distributor by driving through the fresh seal will not be allowed.

Clean up areas with excess or loose sand and dispose of off airport property.

609-3.8 WORK SITE PROTECTION. CONTRACTOR shall submit a work schedule and coordinate all work to be done with the ENGINEER a minimum of 7 days in advance. CONTRACTOR shall provide and place FAA approved barricades around the paved perimeter of each area prior to starting work. Barricades shall remain in place on work areas until all paint markings have been restored.

METHOD OF MEASUREMENT

609-4.1 The quantity of Emulsified Pavement Sealer and Rejuvenator to be paid for will be the number of square yards of material actually applied and accepted by the ENGINEER.

BASIS OF PAYMENT

3A-5.1 Payment will be made at the contract unit prices per square yard for Emulsified Pavement Sealer and Rejuvenator. These prices will be full compensation for furnishing all materials, for all preparation, delivery, and application of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item, including the furnishing, mixing of polymers, and any other work necessary to complete this item.

Payment will be made under:

Emulsified Pavement Sealer and Rejuvenator - per Square Yard

TESTING REQUIREMENTS

ASTM C 29	Unit Weight of Aggregate
ASTM C 88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 131	Resistance to Abrasion of Small Size Coarse Aggregate by Use of the Los Angeles Machine
ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
AASHTO T 182	Coating and Stripping of Bitumen-Aggregate Mixtures

MATERIAL REQUIREMENTS

ASTM D 977	Emulsified Asphalt
ASTM D 1250	Petroleum Measurement Tables
ASTM D 2397	Cationic Emulsified Asphalt
ASTM D 3381	Viscosity-Graded Asphalt-Cement for Use in Pavement Construction
Asphalt Institute Manual MS-6 Table IV-3	Asphalt Pocketbook of Useful Information (Temperature-Volume Corrections for Emulsified Asphalts)