

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

SPECIFICATIONS

2007

FOR: ACRYLIC WATERBORNE YELLOW LEAD-FREE RAPID DRY TRAFFIC PAINT

Specification No. B52 Requisition No. _____ Quotation No. _____

Make _____ Model _____

Vendor: _____ Bid Prepared By: _____

Address: _____ Phone: _____

Specification Written By: Tuong Nguyen Approved By: Javier Robles Approved By: Bob Schaff

NOTICE: Bidder shall complete right hand column, indicating specific size and/or make and model of all components when not exactly as specified. State AAs Specified@ if item is exactly as shown in left column. Return this questionnaire to the Los Angeles County Purchasing Agent.

GENERAL

BIDDER'S RESPONSE

I. DEFINITIONS

A. In these specifications the following terms or pronouns are used and intended to be defined as follows:

1. County: Los Angeles County, State of California.
2. Department: Los Angeles County Department of Public Works, 900 South Fremont Avenue, Alhambra, California 91803-1331.
3. Engineer: The Director of the Los Angeles County Department of Public Works or his agent.
4. Purchasing Department: Los Angeles County Internal Services Dept. 1100 North Eastern Avenue, Los Angeles, California 90063

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5. Purchasing Agent: The Purchasing Agent of Los Angeles County or his deputy.
6. South Coast Air Quality Management District: The regional agency which establishes and enforces the rules within its jurisdiction pertaining to air pollution control. Administration Office, 21865 East Copley Drive, Diamond Bar, California 91765-4182.
7. Antelope Valley Air Pollution Control District: The regional agency which establishes and enforces the rules within its jurisdiction pertaining to air pollution control. Antelope Valley, APCD, 43301 Division Street, Suite 206, P.O. Box 4038 Lancaster, CA 93539-4409
8. Vendor: Each supplier or manufacturer bidding on the Department's traffic paint requirements.
9. Contractor: The successful bidder receiving the contract for supplying paint to the Department.
10. Paint: Marking paint or other Pavement marking material compatible with Department's equipment.

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11. Marking Traffic Paint: Paint that will be used for pavement markings ordered in 5 gallon steel pails and 50 gallon 50-55 gallon steel drums.
12. Striping Traffic Paint: Paint that will be used for pavement striping ordered in 50 gallon - 50-55 gallon steel drums and bulk tanks containers as defined in this specification.

II. SCOPE:

This specification describes 100% acrylic polymer type, low VOC, fast drying, yellow, lead-free, waterborne traffic paints that can be used on previously painted areas, on bituminous and Portland cement concrete pavements. This specification covers two types of paint:

- yellow striping traffic paint
- yellow marking traffic paint

It is the intent of these specifications that the furnished paint shall have the concept of being a "high-build" product.

III. GENERAL

The paint shall be formulated and processed specifically for service as a binder for beads, in such a manner as to produce maximum adhesion, refraction, and reflection. Any capillary action of the paint shall not be such as to cause complete coverage of the beads.

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The paint shall be well mixed in the manufacturing process and shall be properly ground when incorporating the pigments in order to conform to the requirements as specified.

The paint shall not liver, thicken, curdle, gel, settle excessively, or otherwise show any objectionable properties after periods of storage of at least six months; and, at any time during such periods, shall be readily remixed manually to smooth, uniform consistency throughout.

The paint shall dry on a road surface to a strongly adherent film that will not turn dark in sunlight or show appreciable discoloration with age. It shall be easily and uniformly applicable with mechanical line-marking equipment and shall have excellent covering properties. The paint shall be suitable for binding glass beads so as to produce a highly weather and wear resistant traffic line.

The composition of the paint supplied shall conform in all respects to all applicable state and local air pollution requirements including, but not limited to, the South Coast Air Quality Management District's Rule 1113, and applicable rules and regulations from the Antelope Valley Air Pollution Control District, regarding Architectural Coatings, regardless of the quantities of paints delivered.

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IV. APPLICATION:

The paint must be reflectorized for night visibility by adding reflective spheres before the paint dries or sets, by using drop-on or pressurized methods.

The reflective spheres shall be evenly dispersed on a wet paint film of 15± mils (110-115 square feet per gallon) at a rate of 6 pounds per gallon. The Department may also opt to apply the paint at thicker film coverage in the vicinity of 30 mils.

V. COMPOSITION:

Sampling, testing, and inspection of the Contractor's products will be accomplished whenever and wherever practicable. If the Engineer so elects, the Contractor shall permit such sampling, testing or inspection at his plant, and shall furnish suitable space and such facilities as may be required.

The paint shall conform to the following requirements:

Pigment Yellow C.I. #65 and/or Pigment C.I. #75. Other Pigments may be added to meet the Yellow color and opacity requirements. The paint shall not contain lead or chromium at levels above the limit set.

Total Pigment % by weight 62±2

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Total Vehicle, % by weight----- 38±2

Total non-volatile, %
by weight of paint, min.----- 77

Total non-volatile, %
by volume of paint, min.----- 60

PH, min.----- 9.5

Viscosity, KU----- 80-95

Weight per gallon, lbs min.-----13.85

Fineness of grind, Min.----- 4

Laboratory Dry Time: 77° F,
Minutes, Max., ASTM D-711----- 7

Dry through time, (Early Washout),
minutes, max. ----- 125

Field Test, No track time under
Ambient conditions, seconds ----- 20-90

Volatile Organic Content,
grams/lit, Max. (1lb/gallon)----- 100

Coverage: Square Feet
per gallon at 30 Mils Wet. ----- 50

VI. DETAILED REQUIREMENTS

The finished paint shall have the
following quality requirements:

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Condition in Container: The paint as received shall show no livering, skinning, mold growth, petrification, corrosion of the container, or hard settling of the pigment. Any settling shall be readily dispersed when stirred by hand with no persistent foaming.

Color: The yellow color shall closely match Chip #33538 of the Federal Standard 595b.

Flexibility: The paint shall show no cracking or flaking when tested in accordance with Federal Specification TT-P-1952d, Type II.

Dry Opacity: The minimum contrast ratio shall be 0.90 at 5 mils wet.

Daylight Reflectance: The daylight directional reflectance @ 15 mil wet of the yellow paint shall be between 45-60% when measured in accordance with Federal Test Method No. 141c.

Bleeding: The paint shall have a minimum bleeding ratio of 0.97 when tested in accordance with Federal Spec. TT-P-1952d.

Scrub Resistance: The paint shall pass 1500 cycles when tested in accordance with ASTM D-2486.

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Freeze-Thaw Stability: The paint shall show no change in consistency greater than 10% when tested in accordance with TT-P-1952d.

Dry Through (Early Washout): A 12-15 mil wet film of the candidate paint placed immediately in a humidity chamber maintained at $72.5^{\circ}\text{F} \pm 2.5^{\circ}\text{F}$ and $90\% \pm 3$ relative humidity shall have a "dry-through" time less than, or equal to 125 minutes when tested in accordance with ASTM D1640, except that the pressure exerted will be the minimum needed to maintain contact between the thumb and film.

Storage Stability: When stored in a three-quarters filled can for a period of thirty days, the paint shall be in a homogeneous state with no skinning, curdling, hard settling or caking that cannot be readily remixed.

No Tracking Time Field Test: The paint shall dry to a no-tracking condition under traffic conditions between 1 to 2 minutes for striping traffic paint and between 3 to 6 minutes for marking traffic paint when applied at 15 ± 1 mil wet film thickness when applied at ambient temperatures, with 6 pounds of glass beads per gallon of paint. "No tracking" shall be the time in minutes

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required for the line to withstand the running of a standard automobile over the line at a speed of approximately 40mph simulating a passing procedure without tracking of the reflectorized line when viewed from a distance of 50 feet

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VII. PACKAGING AND MARKING

All manufactured paint shall be prepared at the factory ready for application. Quantities and sizes of containers shall be as specified by the Engineer on individual orders.

The paint shall be furnished in containers which meet all U.S. Department of Transportation, Hazardous Materials Shipping Regulations.

Containers shall be as follows:

- a. When 5-gallon containers are specified, they shall be round and have standard full open head and bail. Sufficiently sealed 24-gauge steel containers, round, lug-type crimped lid with ring seals and bails, which conform to interstate commerce shipping standards.
- b. If 55-gallon steel drums are specified, they must have removable lid and airtight band fasteners.
- c. When 250-gallon bulk containers are specified, they shall be an industry standard type bulk paint container, with

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removable lids and air-tight pan fasteners, but must meet all interstate commerce shipping standards and be sufficiently sealed.

All shipping containers must comply with Code of Federal Regulations, Title 49 and all other applicable Federal and State Regulations governing their use. The containers and lids must be lined with a suitable coating so as to prevent attack by the paint or by agents in the airspace above the paint.

The construction of the container shall allow it to be picked up by a forklift when approached from any side. Provisions shall be made to allow the tanks to be lifted from the top and stacked when empty. Bulk tanks shall comply with U.S. Department of Transportation Regulation 57 as it applies. The outside of containers and lids must be silver color stainless steel coated white or off-white to avoid excessive heat build-up when sitting in sunlight.

All containers shall be labeled to show the following:

1. Name and address of Contractor.
2. Name and product.
3. Color of paint.
4. Date of manufacture and batch number.
5. Purchase order number.
6. Precautions concerning the handling and application of paint in accordance with the Construction Safety Orders

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and the General Safety Orders of the State of California.

7. Statement indicating that the contents fully comply with all rules and regulations concerning air pollution control in the State of California and the County of Los Angeles.

VIII. SAMPLING AND TESTING

A. Qualifying Test

Each Vendor must submit, along with their bid, test samples consisting of four one-quart containers of paint along with a batch formula in weight proportions. The formula shall be in generic terms rather than trade names. Any sample may be tested. Bids submitted without test samples may be considered nonresponsive and may be rejected.

B. Quality Assurance Tests

All paint ordered from the Contractor shall be subject to testing at anytime, at the Engineer's discretion. Every batch must be accompanied by two one-quart samples for all shipments sent within the first six months of the contract. The Department reserves the right to accept or reject a specific batch or batches of paint based upon results of such sample tests. The Department also reserves the right to obtain samples at the contractor's plant at the time of manufacture, and hold up shipment until such tests indicate the paint is acceptable. All paint furnished under

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contract shall be identical, insofar as possible, with the qualification samples of the paint submitted for laboratory and field testing under Section VIIIA.

In the event any paint does not comply with the specification, the Contractor will be required to replace all remaining in the possession of the Department at the Contractor's own expense **within 30 calendar days**. This includes all handling and transportation charges.

IX. **RANDOM TESTING**

All paint ordered from the Contractor shall be subject to random sample testing two weeks from the date of delivery. Testing by the Engineer will be completed within 10 days. The Department reserves the right to accept or reject a specific batch or batches of paint based upon results of such sample tests.

Public Works also reserves the right to obtain samples at the Contractor's plant at the time of manufacture, and hold up shipment until such tests indicate the paint is acceptable.

All paint furnished under contract shall be identical, insofar as possible, with the qualification samples of paint submitted for laboratory and field testing. Samples shall be submitted as stated in Packaging and Marking, Section VII, Pages 9 & 10.

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GENERAL**BIDDER'S RESPONSE****X. ACCEPTABILITY OF PAINT**

Acceptability of the paint shall be judged solely by Public Works. Decisions shall be final and in the best interests of Public Works.

XI. SOLVENTS

The Contractor shall furnish the name of the appropriate solvents used for cleanup of the paint. If special solvents are required, the Contractor must indicate the sources, costs, and precautions in use of the solvents.

XII. DELIVERY

The Contractor shall be able to make deliveries at a minimum rate of 2070 gallons per week if requested, until the entire order is completed. The Engineer will advise the Contractor as to quantities to be delivered. Inability to comply consistently with the minimum delivery rates may, at the discretion of the Engineer, be cause to terminate the agreement. The Contractor shall furnish a Material Safety Data Sheet (MSDS) with all delivery shipments.

The Contractor has 30 calendar days to make a delivery. In the event the Contractor fails to make the delivery during the allotted time, he shall make an assessment payment to the Department. The assessment shall be fixed at a rate of \$100 for each calendar

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day the delivery load is past due. The assessment shall be calculated at the rate of a load being defined as 1,000 gallons. This assessment is not being imposed as a penalty, but as a fixed sum representing the amount due for the total value consideration of the purchaser having to compensate for the late delivery.

If the Purchasing Agent deems necessary, the Purchasing Agent may elect to purchase the same material from another vendor. The Contractor shall pay all additional charges for the purchase of the material from another vendor. If at anytime between receipt of a purchase order and completion of its delivery there is cause that would make delivery completion outside of the calendar days allowed, it shall be the responsibility of the Contractor to notify the Department by fax of the situation. The notification shall be addressed to:

Los Angeles County
Department of Public Works
Operational Services Division
P.O. Box 1460
Alhambra, CA 91802-1460
Fax (626) 458-7353

The imposition of the late delivery assessment shall be at the discretion of the Purchasing Agent based upon the causes cited and the intent to deliver of the Contractor. The Contractor's failure

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to make this notification shall waive his right to contest the amount of the late delivery assessment.

All shipments must be accompanied by proper Material Safety Data Sheets (MSDS). If these documents are not supplied with the shipment, the shipment may be rejected.

In the event the Contractor fails to meet these specifications, at the discretion of the Purchasing Agent:

- The contract will be canceled or terminated,
- and/or the Contractor will be withheld from bidding again on this specification for one year,
- and/or the Contractor must replace all quantities of bad paint at no cost to the Department within 30 calendar days.

The delivery point for all material shall be the loading or paint dock at the Department's Main Warehouse located at 1537 Alcazar Street, Los Angeles, California 90033. Imposition of the late delivery assessment shall be at the discretion of the Purchasing Agent based upon the causes cited and the intent to deliver of the Contractor. The Contractor's failure to make this notification shall waive his right to contest the amount of the late delivery assessment.

TN:

P/OSPUB/Gen/TN/Spec/B52 Spec

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