

Design Standards Letter

Letter Number: G-2002-03

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Section/Plan No.: None

Subject: Contract Leveling Course Projects

Body

In order to coordinate and expedite the preparation of projects for the 2001-2002 Contract Leveling Course Program (formerly referred to as Maintenance Leveling Surface Program), we request that all projects be prepared in English units and submitted to General Headquarters Design by August 1, 2002. This will enable the bidding and contract services section to adjust the groupings, if necessary, and to appropriately schedule the bid opening dates.

All references to Superpave have been removed from this instruction letter. Superpave is viewed as more involved work and shall not be included in the Contract Leveling Course Program

To shorten the processing time, improve the quality of plans and to standardize procedures across the state, the following should be used when preparing plans in English units:

1. Each project should have, as a minimum, the following plan sheets:
 - a. Title Sheet, with north arrow pointing to the top of the sheet, if possible.
 - b. Length of Project Sheet - should include "exceptions."
 - c. Typical Section Sheet - should include "estimate factors."
2. The plans are placed in a proposal that contains a vertical format. The plans should read accordingly when possible. Original plans should be submitted using the format shown on Figure 6-05.1 of the *Project Development Manual*. To improve the quality of printing, please send originals, not copies.
3. Do not break projects at district, county or city limit lines (short projects which abut should not be shown as separate projects).

4. Projects less than two (2) miles in length should have 268 square feet of construction signs. Projects greater than two (2) miles in length should have 288 square feet of construction signs.

5. General Headquarters Design will assign all project identification numbers.

6. Attached is an acceptable sample copy. Templates for the location sketch, project length and typical section(s) are available electronically in Microstation format as attachments to this letter in the Design Standards Letters database.

Tack quantities are based on tacking the entire roadway surface at an estimated rate of 0.05 gallons/square yard. The asphalt binder for the contract leveling course mixture (surface leveling) should typically be PG 64-22. Other quantities to use are as follows:

Sec 402 BP-2 Mix BP-1

Description Unit Type Plant Mix Rates Rates Mix Rates

Asphalt Binder 0.1 Ton 45.0 Tons/Mile 43.0 Tons/ 60.0 Tons/Mile
(Course Leveling) Mile

Mineral Aggregate 1.0 Ton 705 Tons/Mile 757 Tons/ 1080 Tons/Mile
(Course Leveling) Mile

Tack Coat 10.0 Gallon 585 Gallons/Mile 585 Gallons/ 585 Gallons/Mile
Mile

The above rates are based on statewide average estimate factors for 750 Tons/Mile of 20 foot traveled way compacted Plant Mix Bituminous Surface Leveling mixture, 800 Tons/Mile of 20 foot traveled way compacted Plant Mix Bituminous Pavement (BP-2) mixture and 1140 Tons/Mile of 20 foot traveled way compacted Plant Mix Bituminous Pavement (BP-1) mixture. Rates for individual projects will vary and should be shown on the typical section sheets for the project. Minimum thickness for BP-2 mixtures should be 1 ¼ inches, and for BP-1 mixtures 1 ¾ inches. The calculated rates for the BP-2 and BP-1 mixtures reflect these thicknesses accordingly.

The following table should be used as a guide for selecting bituminous mixtures for contract leveling course projects. If the district elects to use a mixture other than what is specified, the project manager should submit by letter to General Headquarters Design the justification for specifying a different mixture or thickness than given in the table. In addition, at the bottom of the letter an approval signature block similar to that on the Design Exception Information Form should be provided for the State Design Engineer.

Bituminous Mixtures Criteria for Contract Leveling Course Projects		
<u>Corridor Designation</u>	<u>Traffic</u>	<u>Recommended Mix & Thickness</u>

Light Duty	ADT \leq 1750	1" Sec 402 Mixture
Light Duty	1750 < ADT \leq 3500	1 1/4" BP-2 * (Sec 401)
Light Duty	ADT > 3500 and Total Avg 24-Hour Commercial Truck Traffic \leq 400	1 3/4" BP-1 (Sec 401)
*If the district feels warranted, a 1 3/4" BP-1 (Sec 401) mixture may be substituted for this application.		

If special situations require limiting loads on a given route, a "Haul Road Restriction" special provision will be considered on a project-by-project basis. Otherwise, the only load restrictions, other than the 80,000-pound legal load limit, will be any posted bridge load limits.

Traffic control plans, revised standard plans and job special provisions will be inserted by General Headquarters Design.

Copies of the traffic control sheets are available on district servers. The pay item and quantities should be provided for temporary raised pavement markers to mark the entire project. The pay item 612-90.40, Installing "No Center Stripe" Signs, per each should be included with the quantity needed to sign the entire project.

All pavement marking is to be done by contract. Permissible types of marking are 45 mil hot spray thermoplastic or acrylic copolymer. Quantities for lane lines and edge lines if appropriate should be included. Reference the new striping guidelines in PDM Section 8-04, specifically Figure 8-04.23. Another option is to prepare a district wide striping contract for these routes.

Below are the average prices that should be used for the 2003 Level Course Program in lieu of the prices obtained from Estimate 2000. The asphalt binder and mineral aggregate prices below are based on current quotes, however, their prices have been known to fluctuate as much as 25% in a matter of months, which could affect the final cost of the project. The prices for those items will be adjusted at the time of the final engineer's estimate:

- 402-11.10 - Asphalt Binder (surface leveling) PG64-22 - \$195/ton
- 402-20.10 - Mineral Aggregate (surface leveling) PG64-22 - \$19.00/ton
- 407-10.05 - Tack - \$1.10/gal
- 612-90.40 - Installing no center stripe signs - \$25.00/ea
- 616-10.05 - Construction Signs - \$5.50/sq.ft.
- 620-80.65 - Temp. Raised Pavement Markers - \$0.85/ea
- 620 - Paint striping - \$0.18/ft
- 620 - Thermoplastic striping - \$0.25/ft

Please contact General Headquarters Design if you have any questions.

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Attachments

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