

Special Order No. 017-1092

Date: October 7, 1992

Subject: **Use of Asphalt Concrete-old Mix For Permanent Surfacing of Small Utility Cuts - Conditions and Specifications (File BOE Manual Section Part C 300)**

On April 2, 1986, the Board of Public Works granted the Southern California Gas Company permission to run a five year field test of Dura Perm and Western Hy-Grade cold asphalt concrete mixes for the permanent resurfacing of small utility cut in local streets.

Field test cuts resurfaced with both products were thoroughly inspected and evaluated by both Bureau of Engineering and Bureau of Street Maintenance staff. There was no evidence of settlement, deterioration or cracking in the areas resurfaced with either product.

The use of cold mix asphalt concrete for permanent resurfacing reduces inconvenience to the driving public by eliminating the usual secondary step of removing temporary resurfacing and applying hot mix asphalt concrete. It also considerably reduces construction spoil that must be landfilled or recycled.

On June 29, 1992, the Board of Public Works approved the use of the two tested asphalt concrete-cold mixes and any others that may be tested and accepted in the future for the permanent resurfacing of small utility cuts in local and collector streets, subject to the following conditions and specifications:

CONDITIONS

1. Utility Company must obtain a class "U" Excavation Permit for each location or do the work under their Annual Permit.
2. Local and collector streets only (terminates at BCR) in isolated cuts.
3. Use only in full depth bituminous streets.
4. Only for cuts of a maximum of 4' x 4' in dimension.
5. All trench backfill methods shall be in accordance with the latest edition on the Standard Specification for Public Work Construction and most recent Bureau of Engineering Special Order on the subject of trench backfill.
6. Depth of resurfacing shall be the pavement thickness plus one (1) inch with a five (5) inch minimum.
7. Soil must be removed from the edges and sides the entire depth of the pavement cut.
8. All bituminous edges of the cut shall be vertical, and tack coated around edges and sides, the depth of pavement cut.
9. The cold asphalt shall be installed in two (2) inch (loose)

uncompacted lifts and fully compacted until one (1) inch below surface.

10. Apply tack coat to edges of cut and overlap on existing pavement and cold patch material approximately one-half (1/2) inch.
11. Install final lift approximately one (1) inch above existing street. Spread evenly and compact until asphalt is level with existing street (no highs or lows.)
12. Cuts must be tagged with the utility company name, date and material preexisting Special Order.
13. All installations made under the utility company's Annual Permit shall indicate the type of material used on the "Annual Permit Location Report" to City.
14. Resurfacing failures will be responded to by the utility company within 24 hours of the initial report of failure.
15. Resurfacing failures that are potentially hazardous shall be barricaded and repairs made as quickly as possible. The utility company will be billed for any emergency work performed by the City.
16. Resurfacing failures must be evaluated by the utility and appropriate corrective action taken.
17. The utility company assumes maintenance responsibility for all repairs for five years or until the street is overlaid or reconstructed.
18. Once a bag of cold mix asphalt concrete has been opened, it shall be used or disposed of, since opened bags shall not be stored.

#### SPECIFICATIONS

The following material and handling specifications shall be observed regarding cold mix asphalt concrete.

##### 1. SCOPE

This specification covers all size bags of cold mix asphaltic concrete used to make permanent street repairs. Sixty (60) pound bags are preferred because of the ease and safety of handling when loading and unloading from trucks.

##### 2. MATERIAL REQUIREMENTS

2.1 General. The cold mix asphaltic concrete shall be prepared for temperatures expected at various locations and shall retain workability for a minimum of six months from the date of bagging.

Each lot of material produced by an approved supplier shall be tested by an approved laboratory for aggregate gradation (Section 2.2) and stabilometer value (Section 2.3). The lab results shall be made

available to the local utility and to the Bureau of Engineering of the City of Los Angeles.

2.2 Supplier Qualification. In conjunction with laboratory testing, as described in Section 2.1, the material must maintain acceptable field testing results for a period of no less than 90 days.

After yielding favorable field testing results, an approved laboratory shall extract a core sample from the field test site and evaluate the same material (as referenced above) for aggregate gradation and asphalt binder percent age.

Note: In order for a new supplier to qualify, their material must satisfy all three testing requirements as described in Sections 2.1 -2.3. Once qualified, a supplier must only submit a copy of the lab test results for each lot of material produced as described in Section 2.1.

2.3 Aggregate. Composition and grading shall be as shown in the Standard Specifications for Public Works Construction for Class C2 Asphalt Concrete.

<u>Screen Size</u>	<u>Percent Passing</u>	
	<u>Minimum</u>	<u>Maximum</u>
3/4	100	-
1/2"	95	100
3/8"	72	88
#4	46	60
#8	28	42
#30	15	27
#50	10	20
#200	2	7

Asphalt Binder		
Percent	4.8	7.5

2.4 Stabilometer Value. The Stabilometer Value (~S~ Value) shall be a minimum of 30, as determined by Department of Transportation California Test 304 (Method of Preparation of Bituminous Mixtures for Testing) and California Test 366 (Method of Test for Stabilometer Value). The test shall be modified as follows for cold mix material:

- (A) Samples used for stabilometer testing shall be prepared at room temperature.
- (B) Prior to testing, the material shall be heated to 140 F and held at temperature for 1 and 1/2 hours.

### 3. BAGGING

Material shall be bagged at a temperature no greater than 175 F. If bagged above 140F, paper shall be used between each tier of bags on the pallet. The bags shall be sealed in plastic (seven mils minimum thickness) and shall be marked with the lot number, the date that the

cold mix asphalt was bagged and the temperature for which it was formulated to be used.

4. ACCEPTANCE INSPECTION

Quality acceptance sampling will be performed as described in Section 2. However, the utility reserves the right to make plant inspections or test additional samples to determine conformance with this specification. When samples tested indicate that items do not meet this specification, the utility will then, at its option, reject either the defective items or the entire lot.

If a field installed item fails to meet this specification, the unused portion of the lot is subject to further acceptance testing and possible rejection.

5. REFERENCES

ASTM D2026-72 Liquid Asphalt (Slow-Curing Type).

Standard Specification for Public Works Construction.

Department of Transportation, California Tests 304 and 366.

ASTM D979-89 Sampling Bituminous Paving Mixtures.