F-2183

PORT DODGE April 29, 1959 Paoli Lab.

Mr. L. V. Rodenborn

LIGHT ACOUSTICAL PLASTER

J. R. Watt - md

Re: Zeehme Plastering Company

cc: Messrs. A. L. Meyer - Ardmore
C. E. Abbey - "
J. C. Wise - Twin Cities
Warren Irish - " "
H. J. Zelms - Ft. Dodge

PLAINTIFF'S EXHIBIT

GP-494

Refer to your letter of 4/23/59. Results of analysis made on the gypsum basecoat are as follows:

Combined water	16.20
Insoluble	13.41
SO_3	34.47
Recast	
Gypsum	74.1
Excess water	0.7
Vermiculite and other Acid insolubles	13.4
Limestone (by difference)	11.8
	100.0

Based on an estimated weight of 9 lbs. cu. ft. for the vermiculite, there is approximately two cubic feet per 100 lbs. plaster. High limestone content (by difference) indicates 9 - 10 percent lime or limestone was added. Basecoat was not very hard but doubt if it has much to do with the bond failure.

In my opinion, the bond failure was in all probability due to addition of lime to the acoustical plaster. As mentioned previously, the addition of only about one percent lime affects the gel strength of the clay binder. It causes the acoustical plaster to "water out" and be short working. It also tends to kill the foaming action. As you know, at the time we were told lime was added on the job we were skeptical and requested a final report on the job.

In answer to your question, we feel that the addition of lime should be prohibited insofar as possible. Any plasterer should be advised that he adds lime at his own risk and that we will accept no responsibility in case of failure.

This is the first instance we know of where lime was added to the acoustical plaster.

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