****THIS IS A NEW APPENDIX – PLEASE READ CAREFULLY****

APPENDIX B
PROCEDURE FOR DETERMINING THE AGGREGATE CORRECTION
FOR FINES ADHERING TO COARSE AGGREGATE

PROCEDURE

To compensate for the amount of fine material that adheres to the coarse portion, obtain a coarse aggregate sample of approximately 1000 grams.

Oven dry to a constant weight, weigh, and wash this sample over one size smaller sieve than on which it was initially split. Again dry the coarse portion to constant weight, and weigh. Determine the amount of correction required from the following equation:

$$C = \frac{(A - B)}{A} \times Z$$

Where: "A" = oven dry sample weight before washing, g
                "B" = oven dry sample weight after washing, g
                "C" = % correction added to the % of total sample retained
                "Z" = % of total sample retained (from A-4 of Material Preparation)

Round "C" to the nearest whole number and apply the correction to the sample Form #820955 gradation and split sample proportions as necessary when batching.

EXAMPLE

Check on the #8 sieve

X = 45.0 pounds retained
Y = 32.5 pounds passing

Determine "Z" using the equation from Step A-9 of Materials Preparation.

$$Z = \frac{45.0}{45.0 + 32.5} \times 100$$

Z = 58.1% retained

A = 983 grams
B = 967 grams

Determine "C"

$$C = \frac{(983 - 967)}{983} \times 58.1$$

C   = 0.95%

This rounds off to 1.0%.

The sieve analysis shows the following gradation:

Sieve	% Passing
1"	100
3/4"	100
1/2"	99
3/8"	86
#4	61
#8	41
#16	20
#30	10
#50	6.2
#100	5.1
#200	4.6

The gradation indicates 59% retained on the #8 sieve.

59% retained on #8 + 1.0% correction equals 60% on #8 sieve.

To obtain the desired amount of coarse aggregate on the plus #8 sieve, the amount of the coarse portion would need to be increased while decreasing the fine portion accordingly.