EXHIBIT C

CONVERSION FACTORS FOR ESTIMATING QUANTITIES

1. Graded Aggregate (148.5#/Cu.Ft.) 2.373 M. TON/m^3 =2.00 Tons/Cu.Yd.

2. Pit or Bank Run (140#/Cu.Ft.) =1.89 Tons/Cu.Yd.

3. Select Fill (135#/Cu.Ft.) =1.82 Tons/Cu.Yd.

AC. 4. Plant Mix (144#/Cu.Ft.) 2.306 M. TON/m^3 =1.944 Tons/Cu.Yd.

   1 Sq.Yd. x 1" = $\frac{1.944}{36}$ =054. Tons/Sq.Yd.

5. Sand (100#/Cu.Ft.) =1.35 Tons/Cu.Yd.

6. Paving Asphalt for Plant Mix =6% by weight of Plant Mix

7. Liquid Asphalt for Prime Coat or Liquid Asphalt Application (1/4 Gallon/Sq.Yd.) 1.13 liter/m^2 =.001 Ton/Sq.Yd.

8. Liquid Asphalt for Seal Coat 3/8 Gallon/Sq.Yd. =.0015 Ton/Sq.Yd.
   " " " Tack " " " " " =.0015 Ton/Sq.Yd.

9. Liquid Asphalt for Road Mix =6% by weight of Road Mix Material (Binder)

10. Liquid Asphalt for Dust Palliative (1/4 Gallon/Sq.Yd.) =.001 Ton/Sq.Yd.

11. Cover Aggregate for Type "A" Seal Coat 15#/Sq.Yd. =.0075 Ton/Sq.Yd.

12. Cover Aggregate for Type "C" Seal Coat 25#/Sq.Yd. =.0125 Ton/Sq.Yd.

13. Water for Compaction Crushed Mineral Aggregate
    $\frac{15 \text{ gals.} \times \text{Ton}}{1000}$ = M. gals.

14. Water for Compaction Embankment $\frac{40 \text{ gals.} \times \text{Cu.Yd.}}{1000}$ = M. gals.
    (Add to above for dust control)

15. Filter Material =1.6 Tons/Cu.Yd.

16. Cobbles =1.7 Tons/Cu.Yd.

17. Quarry Stone =1.6 Tons/Cu.Yd.

18. Net Embankment (Cu.Yd.) x 1.~~43~~ 1.33 (30%) =Req'd. gross excavation

19. (Class "A" Concrete: 5.5 Sacks Cement/Cu.Yd.)
(Class "C" Concrete: 3.5 Sacks Cement/Cu.Yd.)
(1 Sack Cement = 1 Cu.Ft.)
(4 Sacks Cement = 1 Barrel)
(250 Gals. Asphalt = 1 Ton)

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LEVEE SECTION STANDARDS
QUANTITY COMPUTATIONS

On levee and channel work embankment material must come from either required excavation, borrow or a combination. Required excavation is either utilized in embankment or disposed of in spoil areas or a combination thereof.

RESPONSIBLE SECTION	SYMBOL	DERIVATION OF QUANTITY ESTIMATE
		TO DETERMINE NET EMBANKMENT
Levee	A	Compute quantity in the net section (measured between nat.grd. & template)
Levee	B	Compute miscellaneous embankment such as inspection ditch, pads, ramps, berms, etc.
Levee	C	Compute stripping under embankment (plus 5 feet outside)
Levee	D	Net Embankment (A+B+C+)(Bid Item)
		TO DETERMINE THE REQUIRED GROSS EXCAVATION
Levee	E	Compute quantity between natural ground & template
Levee	F	Compute inspection ditch quantities
Levee	G	Compute ditch exc. (irrigation and/or drainage)
Levee	H	Total gross excavation quantity (E+F+G)
		TO DETERMINE TOTAL EXCAVATION TO CONSTRUCT REQUIRED EMBANKMENT WHERE GROSS EXCAVATION IS IN EXCESS OF EMBANKMENT AND MATERIAL MUST BE SPOILED
Levee	D	Net Embankment
Levee	I	Overbuilding percentage of A
Soils	J	Shrinkage percentage of D

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LEVEE SECTION STANDARDS
QUANTITY COMPUTATIONS

RESPONSIBLE SECTION	SYMBOL	DERIVATION OF QUANTITY ESTIMATE
Soils	K	Foundation settlement percentage of A _____
Levee	L	Total excavation to constr. required embankment (D+I+J+K)
		TO DETERMINE NEXT EXCAVATION SUITABLE FOR LEVEE CONSTRUCTION
Levee	H	Total gross excavation
Levee	M	Compute stripping from required excavation
Soils	N	Compute unsuitable material
Levee	O	Estimated spillage
		Subtotal Minus _____
Levee	P	Net excavation suitable for levee construction (H-M-N-O)
		TO DETERMINE MATERIAL TO BE PLACED IN ZONE B SPOIL AREA
Levee	P	Net excavation suitable for levee construction
Levee	L	Total exc. to construct req'd embank. Minus _____
Levee	R	Amt. of excess suitable embankment material (P-L) (Bid Item)
		NOTE: To determine volume for Zone B material multiply R by a factor (from Soils)
		TO DETERMINE MATERIAL TO BE PLACED IN SPOIL AREAS OTHER THAN ZONE B
Levee	R	Amount of excess suitable embankment material
Levee	C	Stripping under embankment

EXHIBIT C
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LEVEE SECTION STANDARDS
QUANTITY COMPUTATIONS

RESPONSIBLE SECTION	SYMBOL	DERIVATION OF QUANTITY ESTIMATE
Levee	M	Stripping from req'd excavation
Soils	N	Unsuitable material
Levee	S	Amt. of excess matl. to spoil areas (R+C+M+N) (Bid Item)
		TO DETERMINE BORROW QUANTITY WHERE GROSS EXCAVATION IS NOT SUFFICIENT TO CONSTRUCT EMBANKMENT AND BORROW MUST BE SECURED
Levee	L	Total exc. to constr. req'd embankment.
Levee	P	Net exc. suitable for levee construction construction Minus
Levee	T	Amt. req'd from borrow area (L-P)
		NOTE: Multiply T by a factor (secured from Soils) to get the quantity to be taken from the borrow area.

EXHIBIT C
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