EXAMPLE A

Rev 05/09

Iowa Department Of Transportation
Office Of Materials
PORTLAND CEMENT CONCRETE

Form E820150E

Project No.: STPN-005-3(52)--2J-63 County : Marion

Mix No.: C-3WR-C20-S20 Abs Vol. Cement: 0.108 Type: I/II

Cement (IM 401):	571	lbs	Source: Lafarge I/II	Sp. Gr.:	3.14
	%				
Fly Ash (IM 491.17):	20	114	Source: HW Chillicothe	Sp. Gr.:	2.73
Slag (IM 491.14):	20	114	Source: Lafarge Newcem	Sp. Gr.:	2.93

Adjusted lbs. Cement: 343

Total Cementitious 571 Total % Replacement = 40

IM T203	Fine Aggregate Source:	A63512	Sp. Gr.:	2.67
IM T203	Interm. Aggregate Source:	A63002	Sp. Gr.:	2.51
IM T203	Coarse Agregate Source:	A63002	Sp. Gr.:	2.51

Basic w/c 0.430 Water (lbs/cy) = Design w/c (wt. cement + wt Fly Ash +Slag) = 246

Max w/c 0.489 Max. Water (lbs/cy) = Design w/c (wt. cement + wt Fly Ash +Slag) = 279

Absolute Volumes

Cement	(lbs/cy) / (Sp. Gr. X 62.4 X 27)	=	0.065
Fly Ash	(lbs/cy) / (Sp. Gr. X 62.4 X 27)	=	0.025
Slag	(lbs/cy) / (Sp. Gr. X 62.4 X 27)	=	0.023
Water	(lbs/cy) / (1.00 X 62.4 X 27)	=	0.146
Air			0.060
Subtotal		=	0.319
1.000 - Subtotal		=	0.681
Total		=	1.000

% FA Agg.:	45	Fine Aggregate (1.000 - Subtotal) X % In Mix	=	0.306
% In. Agg.:		Interm. Aggregate (1.000 - Subtotal) X % In Mix	=	
% CA Agg.:	55	Coarse Aggregate (1.000 - Subtotal) X % In Mix	=	0.375
		Aggregate Total	=	0.681

Aggregate Weights

Fine Aggregate (abs vol.) X Sp. Gr. X 62.4 X 27	=	1377
Intermediate Aggregate (abs vol.) X Sp. Gr. X 62.4 X 27	=	
Coarse Aggregate (abs vol.) X Sp. Gr. X 62.4 X 27	=	1586

Summary

Cement	343	(lbs/cy)
Fly Ash	114	(lbs/cy)
Slag	114	(lbs/cy)
Water	246	(lbs/cy)
Fine Agg.	1377	(lbs/cy)
Interm. Agg.		(lbs/cy)
Coarse Agg.	1586	(lbs/cy)

Distribution: ___ Materials, ___ DME, ___ Proj. Engr., ___ Contractor