

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P11**

Sample Date: **7/1/24**

Dates Test Represents: **7/2/2024** through **7/8/2024**

Concrete Grade: **P1M, 3500HP**

Contractor: _____

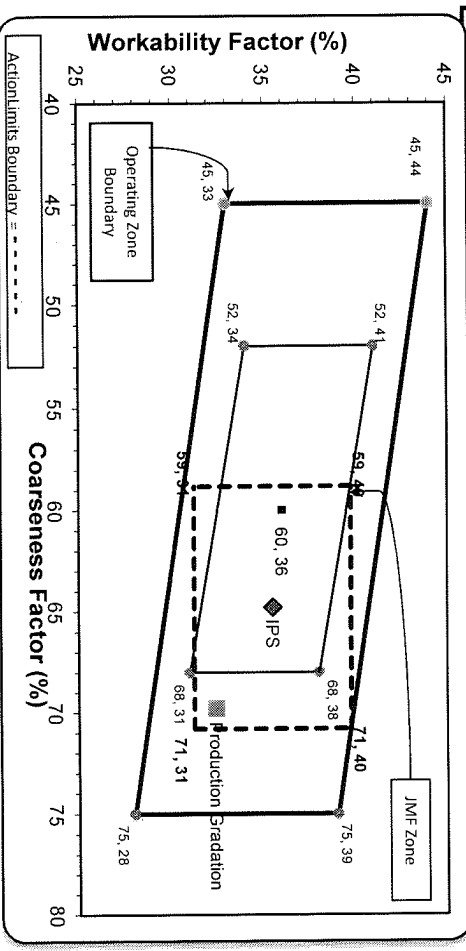
MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
CA	71-47	Presque Isle	920	5.63	2.62	30.0
IA	71-47	Presque Isle	950	5.81	2.62	30.9
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
Total Wt						100.0

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	97.0	100.0	100.0	99.1	0.9	0.9
1"	45.3	100.0	100.0	83.6	15.5	16.4
3/4"	14.5	100.0	100.0	73.2	10.4	26.8
1/2"	3.0	76.3	100.0	63.6	9.6	36.4
3/8"	2.7	41.8	100.0	52.8	10.8	47.2
#4	2.4	5.1	95.4	39.6	13.2	60.4
#8	2.2	2.2	79.5	32.4	7.2	67.6
#16	2.0	1.8	64.8	26.5	5.9	73.5
#30	1.9	1.7	50.3	20.8	5.7	79.2
#50	1.8	1.6	27.7	11.9	8.9	88.1
#100	1.7	1.6	6.6	3.6	8.3	96.4
LBW	1.3	1.3	1.0	1.2	2.4	98.8

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

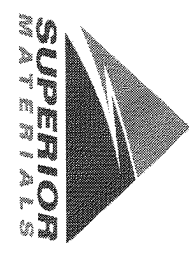
Coarseness Factor: **70** Workability Factor: **32**



Initial Production Sample (IPS)

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

Coarseness Factor: **65** Workability Factor: **36**

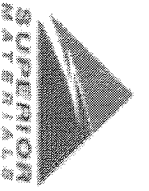


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*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max.
norm. max. #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max.
norm. max. #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. 1.5") aggregate is used.

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



Daily Summary Report

Date Monday, July 1, 2024

Sample Id	Plant	Product	Specification	Sample Type	Time
-674955060	S11	7920 INTERMED AGG P1M LS	Intermed Agg P1M LS Target	QA	08:10
-674904021	S11	1067 26A Mod LS	26A Mod LS Spec	QA	08:15
-1989660399	S101	7919 COARSE AGG P1M LS	Coarse Agg P1M LS Target	QA	08:25
-1989650308	S11	1051 6AA LS	6AA LS	QA	08:35
-1989643794	S11	1022 ZNS GR	ZNS GR Spec	QA	08:40
2" (50mm)					100.0
1 1/2" (37.5mm)					100.0
1" (25mm)					100.0
3/4" (19mm)					99.2
1/2" (12.5mm)					76.3
3/8" (9.5mm)					41.8
#4 (4.75mm)					5.1
#8 (2.36mm)					2.2
#16 (1.18mm)					1.8
#30 (.6mm)					1.7
#50 (.3mm)					1.6
#100 (.15mm)					1.6
#200 (75µm)					1.4
Pan					0.0
FM					
Wash Loss (#200/75µm)					1.3
Total Moisture					1.85
					1.8
					1.31
					100.0
					97.0
					45.3
					11.5
					3.0
					2.7
					2.4
					2.2
					2.0
					1.9
					1.8
					1.7
					1.7
					1.8
					1.67
					0.00
					2.76
					1.5
					2.91
					100.0
					95.4
					79.5
					64.8
					50.3
					27.7
					6.6
					1.3
					0.0
					2.76
					1.0
					3.93