

Aggregate Optimization Chart

PLANT #: **P-101**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1070	6.54	2.62	34.9
IA	71-47	Presque Isle	800	4.89	2.62	26.1
2NS	75-051	Mid-Michigan	1200	7.23	2.66	39.1
Total Wt			3070	18.67		100.0

<---- Verify this number is 100%

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	49.6	100.0	100.0	82.4	17.6	17.6
3/4"	16.6	98.1	100.0	70.4	12.0	29.6
1/2"	3.5	75.7	100.0	60.0	10.4	40.0
3/8"	2.4	52.1	100.0	53.5	6.5	46.5
#4	1.8	9.0	99.0	41.7	11.8	58.3
#8	1.7	3.2	80.6	32.9	8.7	67.1
#16	1.6	2.3	64.3	26.3	6.6	73.7
#30	1.6	2.2	49.5	20.5	5.8	79.5
#50	1.5	2.1	25.9	11.2	9.3	88.8
#100	1.5	2.0	6.9	3.7	7.5	96.3
LBW	1.3	1.9	0.9	1.3	2.4	98.7

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



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 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

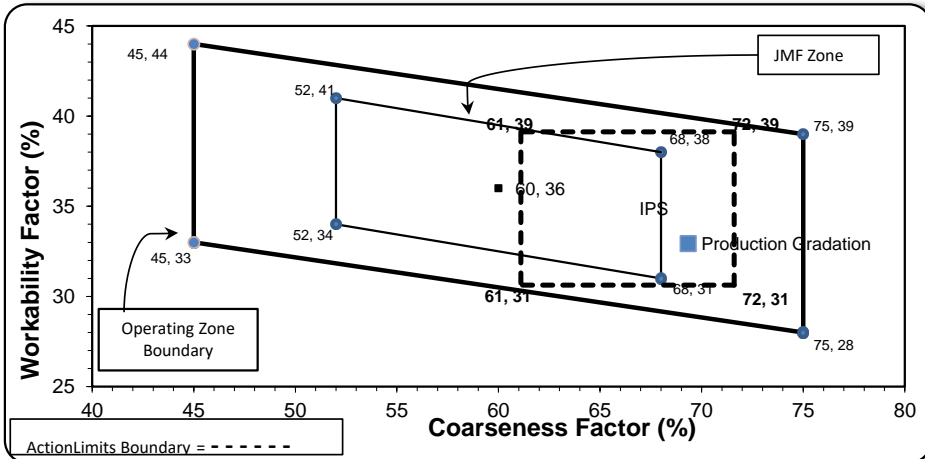
Coarseness Factor: **69** **Workability Factor:** **33**

Initial Production Sample (IPS)

Coarseness Factor: **66**

Workability Factor: **35**

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	84.3	15.3	15.7
3/4"	74.8	9.6	25.2
1/2"	64.3	10.4	35.7
3/8"	56.8	7.5	43.2
#4	43.0	13.8	57.0
#8	34.9	8.1	65.1
#16	26.4	8.5	73.6
#30	19.9	6.5	80.1
#50	10.4	9.5	89.6
#100	3.4	7.0	96.6
LBW	1.2	2.2	98.8



PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

PLANT #: **P-102**

Sample Date: 6/21/21

Concrete Grade: **P1M**

Contractor: _____

Dates Test Represents: 6/22/2021 through 6/28/2021

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1420	8.46	2.69	45.5
IA	58-003	Stoneco	500	2.98	2.69	16.0
2NS	63-114	Highland	1200	7.26	2.65	38.5
Total Wt			3120	18.70		100.0

<----- Verify this number is 100%



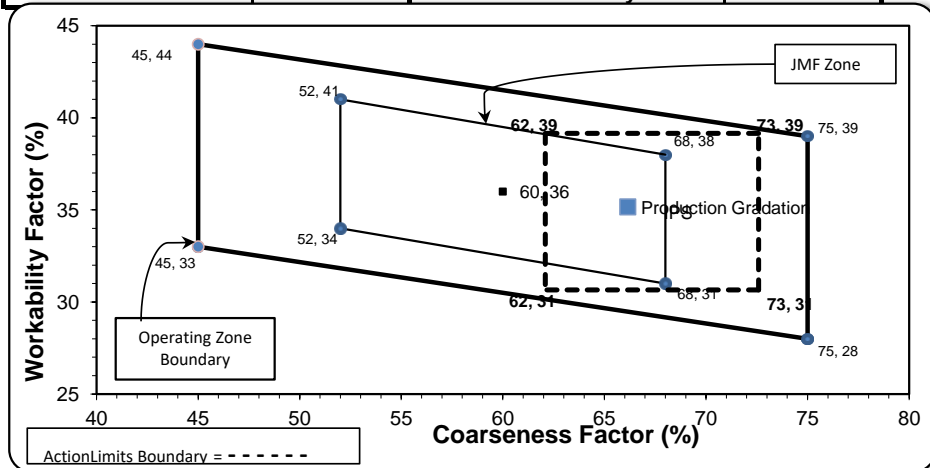
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	69.2	100.0	100.0	86.0	14.0	14.0
3/4"	52.1	100.0	100.0	78.2	7.8	21.8
1/2"	19.7	94.3	100.0	62.5	15.7	37.5
3/8"	11.9	82.6	100.0	57.1	5.4	42.9
#4	4.5	17.8	98.9	42.9	14.2	57.1
#8	2.3	7.5	85.6	35.2	7.8	64.8
#16	1.9	5.2	68.4	28.0	7.2	72.0
#30	1.6	2.8	48.5	19.8	8.2	80.2
#50	1.5	2.2	21.2	9.2	10.6	90.8
#100	1.4	2.0	4.4	2.7	6.5	97.4
LBW	1.3	1.6	0.9	1.2	1.5	98.8

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor:	66	Workability Factor:	35
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Initial Production Sample (IPS)

Coarseness Factor:	67		
Workability Factor:	35		
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

PLANT #: **P-12**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	800	4.89	2.62	26.1
2NS	63-115	Ray Rd	1250	7.56	2.65	40.7
Total Wt			3070	18.69		100.0

<----- Verify this number is 100%



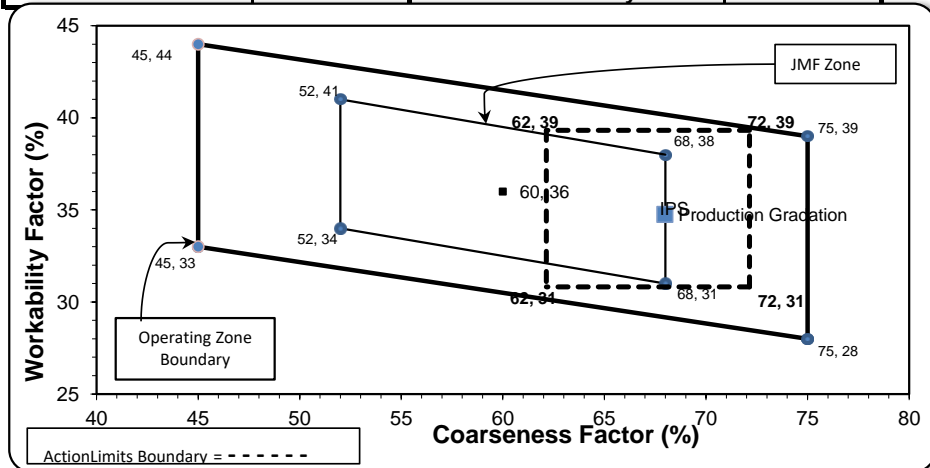
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.7	100.0	100.0	98.9	1.1	1.1
1"	41.8	100.0	100.0	80.7	18.2	19.3
3/4"	9.3	98.2	100.0	69.4	11.3	30.6
1/2"	3.0	79.9	100.0	62.5	6.9	37.5
3/8"	2.5	54.1	100.0	55.6	6.9	44.4
#4	2.3	12.2	97.2	43.5	12.1	56.5
#8	2.2	5.4	80.1	34.8	8.8	65.2
#16	2.2	3.6	64.3	27.8	6.9	72.2
#30	2.2	2.9	48.0	21.0	6.8	79.0
#50	2.1	2.6	24.2	11.2	9.8	88.8
#100	2.1	2.2	4.7	3.2	8.0	96.8
LBW	1.9	1.6	0.6	1.3	1.9	98.7

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **68** **Workability Factor:** **35**



Initial Production Sample (IPS)

Coarseness Factor: **67**
Workability Factor: **35**

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.0	9.8	26.0
1/2"	63.7	10.3	36.3
3/8"	56.4	7.3	43.6
#4	43.0	13.4	57.0
#8	35.1	7.9	64.9
#16	29.0	6.1	71.0
#30	20.9	8.0	79.1
#50	8.1	12.8	91.9
#100	1.6	6.5	98.4
LBW	0.9	0.8	99.1

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Aggregate Optimization Chart

PLANT #: **P-20**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	950	5.81	2.62	30.9
IA	71-47	Presque Isle	920	5.63	2.62	30.0
2NS	63-92	Grange Hall	1200	7.26	2.65	39.1
Total Wt			3070	18.70		100.0

<----- Verify this number is 100%



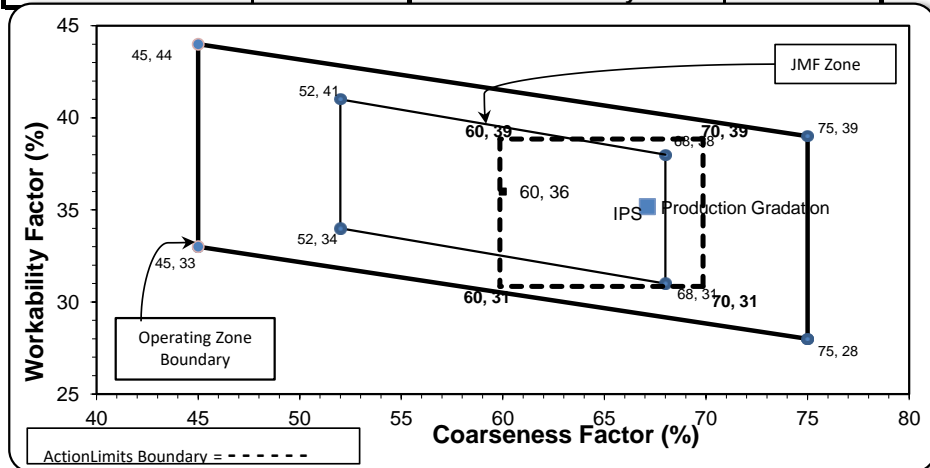
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.8	100.0	100.0	99.0	1.0	1.0
1"	42.9	100.0	100.0	82.3	16.7	17.7
3/4"	13.2	98.7	100.0	72.8	9.6	27.2
1/2"	2.6	79.9	100.0	63.8	8.9	36.2
3/8"	2.1	55.9	100.0	56.5	7.3	43.5
#4	1.8	13.3	97.8	42.8	13.7	57.2
#8	1.7	5.4	84.5	35.2	7.6	64.8
#16	1.5	3.2	68.3	28.1	7.1	71.9
#30	1.5	2.5	47.2	19.7	8.5	80.3
#50	1.4	2.3	19.4	8.7	11.0	91.3
#100	1.2	2.1	2.7	2.1	6.6	97.9
LBW	1.1	1.9	0.6	1.1	0.9	98.9

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **67** **Workability Factor:** **35**



Initial Production Sample (IPS)

Coarseness Factor: **65**
Workability Factor: **35**

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.1	0.9	0.9
1"	80.8	18.2	19.2
3/4"	71.3	9.6	28.7
1/2"	64.0	7.3	36.0
3/8"	57.7	6.2	42.3
#4	42.8	15.0	57.2
#8	34.8	7.9	65.2
#16	28.4	6.4	71.6
#30	20.2	8.2	79.8
#50	7.6	12.6	92.4
#100	1.6	6.0	98.4
LBW	1.0	0.6	99.0

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Aggregate Optimization Chart

PLANT #: **P-32**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	800	4.89	2.62	26.1
2NS	95-013	Smelter Bay	1250	7.56	2.65	40.7
Total Wt			3070	18.69		100.0

<----- Verify this number is 100%



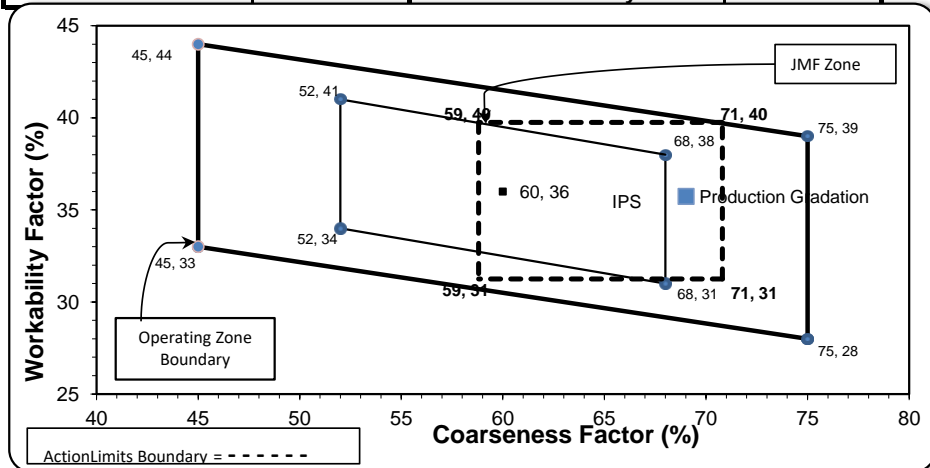
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.7	100.0	100.0	98.9	1.1	1.1
1"	41.8	100.0	100.0	80.7	18.2	19.3
3/4"	9.3	98.2	100.0	69.4	11.3	30.6
1/2"	3.0	79.9	100.0	62.5	6.9	37.5
3/8"	2.5	54.1	100.0	55.6	6.9	44.4
#4	2.3	12.2	95.2	42.7	12.9	57.3
#8	2.2	5.4	82.5	35.7	7.0	64.3
#16	2.2	3.6	67.5	29.2	6.6	70.8
#30	2.2	2.9	48.2	21.1	8.0	78.9
#50	2.1	2.6	21.3	10.0	11.1	90.0
#100	2.1	2.2	4.8	3.2	6.8	96.8
LBW	1.9	1.6	1.7	1.7	1.5	98.3

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **69** **Workability Factor:** **36**



Initial Production Sample (IPS)

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

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

PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

PLANT #: **P-35**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1420	8.46	2.69	45.5
IA	58-003	Stoneco	500	2.98	2.69	16.0
2NS	81-093	Burmeister	1200	7.26	2.65	38.5
Total Wt			3120	18.70		100.0

<----- Verify this number is 100%



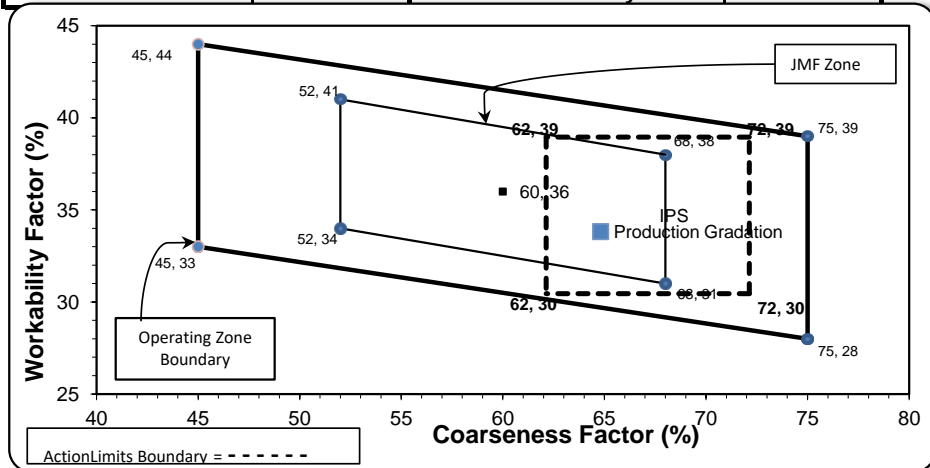
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	69.2	100.0	100.0	86.0	14.0	14.0
3/4"	52.1	100.0	100.0	78.2	7.8	21.8
1/2"	19.7	94.3	100.0	62.5	15.7	37.5
3/8"	11.9	82.6	100.0	57.1	5.4	42.9
#4	4.5	17.8	96.9	42.2	14.9	57.8
#8	2.3	7.5	82.1	33.8	8.3	66.2
#16	1.9	5.2	64.6	26.5	7.3	73.5
#30	1.6	2.8	45.4	18.6	7.9	81.4
#50	1.5	2.2	17.2	7.7	11.0	92.3
#100	1.4	2.0	3.0	2.1	5.5	97.9
LBW	1.3	1.6	1.0	1.2	0.9	98.8

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **65** **Workability Factor:** **34**



Initial Production Sample (IPS)

Coarseness Factor: **67**
Workability Factor: **35**

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	86.9	13.1	13.1
3/4"	76.1	10.8	23.9
1/2"	63.7	12.4	36.3
3/8"	56.2	7.5	43.8
#4	43.2	13.0	56.8
#8	34.7	8.5	65.3
#16	27.5	7.2	72.5
#30	20.6	7.0	79.4
#50	9.0	11.6	91.0
#100	2.1	6.9	97.9
LBW	1.0	1.1	99.0

PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

PLANT #: **P-36**

Sample Date: 6/21/21

Concrete Grade: **P1M**

Contractor: _____

Dates Test Represents: 6/22/2021 through 6/28/2021

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1050	6.42	2.62	34.2
IA	71-47	Presque Isle	820	5.02	2.62	26.7
2NS	63-92	Grange Hall	1200	7.26	2.65	39.1
Total Wt			3070	18.70		100.0

<----- Verify this number is 100%



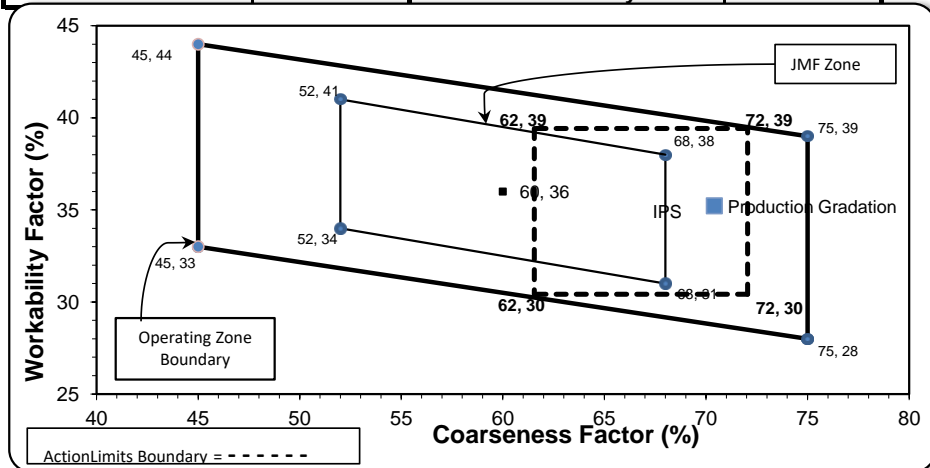
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.7	100.0	100.0	98.9	1.1	1.1
1"	41.8	100.0	100.0	80.1	18.8	19.9
3/4"	9.3	98.2	100.0	68.5	11.6	31.5
1/2"	3.0	79.9	100.0	61.5	7.0	38.5
3/8"	2.5	54.1	100.0	54.4	7.1	45.6
#4	2.3	12.2	97.8	42.3	12.1	57.7
#8	2.2	5.4	84.5	35.2	7.0	64.8
#16	2.2	3.6	68.3	28.4	6.8	71.6
#30	2.2	2.9	47.2	20.0	8.4	80.0
#50	2.1	2.6	19.4	9.0	11.0	91.0
#100	2.1	2.2	2.7	2.4	6.6	97.6
LBW	1.9	1.6	0.6	1.3	1.0	98.7

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor:	70	Workability Factor:	35
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Initial Production Sample (IPS)

Coarseness Factor:	67		
Workability Factor:	35		
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.0	15.0	15.0
3/4"	72.1	12.9	27.9
1/2"	64.5	7.6	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

PLANT #: **P-39**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1070	6.54	2.62	34.9
IA	71-47	Presque Isle	750	4.59	2.62	24.4
2NS	44-051	Krake Willis Rd	1250	7.56	2.65	40.7
Total Wt			3070	18.69		100.0

<----- Verify this number is 100%



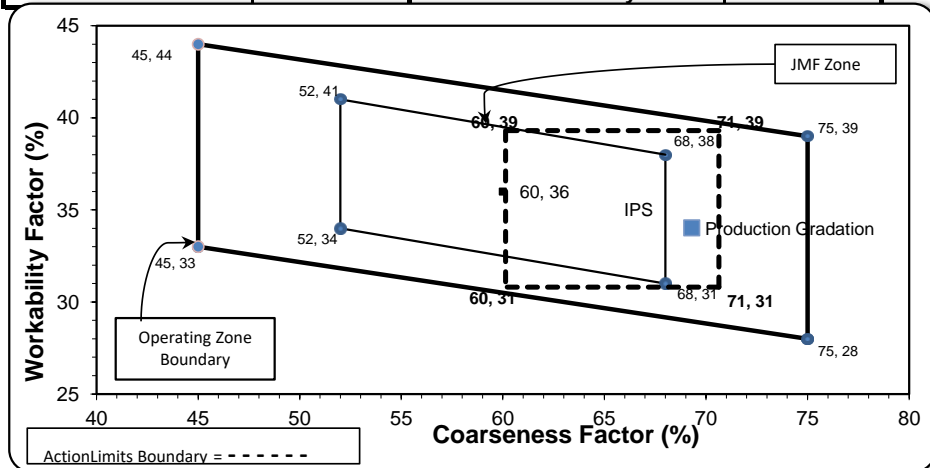
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	49.6	100.0	100.0	82.4	17.6	17.6
3/4"	16.6	98.1	100.0	70.5	12.0	29.5
1/2"	3.5	75.7	100.0	60.4	10.0	39.6
3/8"	2.4	52.1	100.0	54.3	6.1	45.7
#4	1.8	9.0	97.0	42.3	12.0	57.7
#8	1.7	3.2	80.2	34.0	8.3	66.0
#16	1.6	2.3	64.1	27.2	6.8	72.8
#30	1.6	2.2	47.4	20.4	6.8	79.6
#50	1.5	2.1	24.1	10.8	9.5	89.2
#100	1.5	2.0	7.6	4.1	6.7	95.9
LBW	1.3	1.9	1.5	1.5	2.6	98.5

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **69** **Workability Factor:** **34**



Initial Production Sample (IPS)

Coarseness Factor: **65**
Workability Factor: **35**

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.1	9.8	25.9
1/2"	64.3	9.7	35.7
3/8"	57.5	6.8	42.5
#4	44.5	13.1	55.5
#8	35.1	9.4	64.9
#16	27.9	7.2	72.1
#30	21.7	6.2	78.3
#50	12.6	9.1	87.4
#100	3.5	9.1	96.5
LBW	1.2	2.4	98.8

PREPARED BY:
 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

PLANT #: **P-02**

Sample Date: 6/21/21 Concrete Grade: **P1M**
 Dates Test Represents: 6/22/2021 through 6/28/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	800	4.89	2.62	26.1
2NS	63-115	Ray Rd	1250	7.56	2.65	40.7
Total Wt			3070	18.69		100.0

<----- Verify this number is 100%



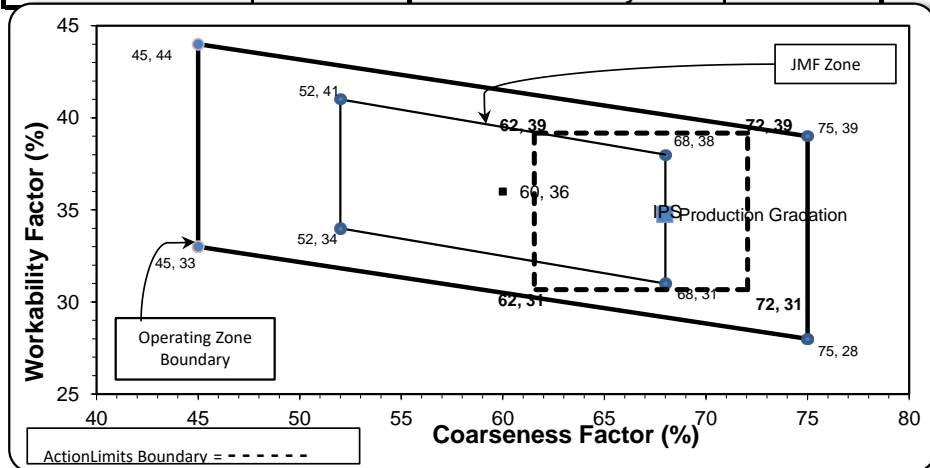
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.7	100.0	100.0	98.9	1.1	1.1
1"	41.8	100.0	100.0	80.7	18.2	19.3
3/4"	9.3	98.2	100.0	69.4	11.3	30.6
1/2"	3.0	79.9	100.0	62.5	6.9	37.5
3/8"	2.5	54.1	100.0	55.6	6.9	44.4
#4	2.3	12.2	97.2	43.5	12.1	56.5
#8	2.2	5.4	80.1	34.8	8.8	65.2
#16	2.2	3.6	64.3	27.8	6.9	72.2
#30	2.2	2.9	48.0	21.0	6.8	79.0
#50	2.1	2.6	24.2	11.2	9.8	88.8
#100	2.1	2.2	4.7	3.2	8.0	96.8
LBW	1.9	1.6	0.6	1.3	1.9	98.7

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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **68** **Workability Factor:** **35**



Initial Production Sample (IPS)

Coarseness Factor: **67**
Workability Factor: **35**

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.0	15.0	15.0
3/4"	72.3	12.7	27.7
1/2"	64.5	7.8	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY:
 SM, LLC Technical Service

Approved By: