



CONCRETE QA CORRELATIO

DATE: 7/1/2020

MDOT CONTROL SECTION: 82000

MDOT JOB NUMBER: 205935A, 207914A

SOMAT JOB NUMBER: 2019086C

PROJECT NAME: HMA Resurfacing (fed-aid)

CITY: Detroit, MI (Various Routes)

CLIENT: Hubbell, Roth, & Clark (HRC)

PROJECT ENGINEER: Kevin Surhigh (HRC)

INSPECTOR: Andrew

CONTRACTOR: Merlo

QC COMPANY: CTI

QC TESTER: Gil

CONCRETE INFORMATION

CONCRETE COMPANY:	Superior Materials	TRUCK NUMBER:	1016
MIX DESIGN #:	P155E7CQA032	PLANT LOCATION (CITY):	Detroit
CONCRETE GRADE:	P1	TOTAL QUANTITY (CYDS):	60
PWL/NON-PWL:	Non-PWL	QUANTITY AT SAMPLE (CYDS):	1

POUR LOCATION (STATION, STRUCTURE, ETC...)

Pouring curb on E.Vernor and St.Aubin to Mt.Elliott.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	9:50 AM			
AIR CONTENT (%):	7.20	6.60	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	84	83	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):	77	77		

REMARKS:

Concrete arrived on site at 7:00 AM and I was schedule for 8:00 AM. I arrived during the end of the 2nd truck. I tested the third truck and was high air at 9%.

FIELD REPRESENTATIVE:	Ryan Castillo	DATE:	7/1/2020
PROJECT MANAGER(s):	Steve Drummond	DATE:	

*All results noted in this report relate only to items inspected or tested by Somat Engineering, Inc. and/or Somat Engineering of Ohio, Inc. (Somat). This report shall not be reproduced, except in full, without the prior written approval of Somat.

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Concrete Cylinder Test Report

PROJECT INFO - DRAFT ONLY

ASTM C31, ASTM C39, AASHTO T23, AASHTO T22, ASTM C172, AASHTO R60

Client	HRC	Date Of Placement	07/01/2020
Project Name	HMA Resurfacing 20+ Locations	Specimen Type	Concrete Cylinder
Project Number	2019086C	Contractor	merlo
Project Location	Detroit, MI	Concrete Supplier	Superior Materials, LLC
MDOT Job Number	205935A, 207914A	Field Tested By	Ryan Castillo
MDOT Control Section	82000	Date Issued	07/02/2020

Results Recorded In	English Units
Supplier Mix Description	Structure Adjustment

DESIGN PARAMETER

Mix Design Number	0674 P155E7CQA032				
Design Compressive Strength (psi)	3500				
Air (% Max)	8.5	Slump (in Max)	3.00	Unit Weight (lbs/ft ³)	
Air (% Min)	5.5	Slump (in Min)	1.50		

TESTING DATA

Placed 60.00 +/- yds ³ /ft ³ of concrete at the following location: Pouring curb at E.Vernor and St.Aubin to Mt.Elliott.									
Time Tested	Truck Num	Slump ASTM C143 (in)	Air ASTM C231 or C173 (%)	Unit Weight ASTM C138 (lbs/ft ³)	Air Temp (°F)	Mix Temp ASTM C1064 (°F)	Concrete Cylinder Set	Water Added (gal)	Cumulative Concrete Placed At Test (yds ³ /ft ³)
9:50 AM	1016	2.50	6.60	0.0	77	83	1	0	1

MATERIAL DATA

Concrete Cylinder Set	Concrete Cylinder Num	Diameter (in)	X-Sec Area (in ²)	Weight (lbs)	Fracture Type	Capping Process	Age Of Concrete Cylinder (Days)	Date Tested	Total Load At Failure (lbs)	Cumulative Strength (psi/mpa)
1	78552						28	07/29/2020		
1	78553						28	07/29/2020		

Average 28 Day Compressive Strength (psi): 0

*Cylinders tested with Unbonded Caps followed ASTM C1231, cylinders tested with Bonded Caps followed ASTM C617.

*All Air Content % tests were performed per C231 unless otherwise noted in the remarks.

*Inspector was notified of non-conformance items, if any.

*Average Compressive Strength results did not meet project specifications.

Remarks:	
Results Reported To:	
Report Approved By:	Ryan Castillo



Concrete Cylinder Test Report

PROJECT INFO - DRAFT ONLY

ASTM C31, ASTM C39, AASHTO T23, AASHTO T22, ASTM C172, AASHTO R60

Client	HRC	Date Of Placement	07/01/2020
Project Name	HMA Resurfacing 20+ Locations	Specimen Type	Concrete Cylinder
Project Number	2019086C	Contractor	merlo
Project Location	Detroit, MI	Concrete Supplier	Superior Materials, LLC
MDOT Job Number	205935A, 207914A	Field Tested By	Ryan Castillo
MDOT Control Section	82000	Date Issued	07/02/2020
Results Recorded In	English Units		
Supplier Mix Description	Structure Adjustment		

DESIGN PARAMETER

Mix Design Number	0674 P155E7CQA032			
Design Compressive Strength (psi)	3500			
Air (% Max)	8.5	Slump (in Max)	3.00	Unit Weight (lbs/ft ³)
Air (% Min)	5.5	Slump (in Min)	1.50	

TESTING DATA

Placed	60.00	+/- yds ³ /ft ³ of concrete at the following location: Pouring curb at E.Vernor and St.Aubin to Mt.Elliott.							
Time Tested	Truck Num	Slump ASTM C143 (in)	Air ASTM C231 or C173 (%)	Unit Weight ASTM C138 (lbs/ft ³)	Air Temp (°F)	Mix Temp ASTM C1064 (°F)	Concrete Cylinder Set	Water Added (gal)	Cumulative Concrete Placed At Test (yds ³ /ft ³)
11:50 AM	1392	2.50	7.40	0.0	81	85	2	0	51

MATERIAL DATA

Concrete Cylinder Set	Concrete Cylinder Num	Diameter (in)	X-Sec Area (in ²)	Weight (lbs)	Fracture Type	Capping Process	Age Of Concrete Cylinder (Days)	Date Tested	Total Load At Failure (lbs)	Cumulative Strength (psi/mpa)
2	78554						28	07/29/2020		
2	78555						28	07/29/2020		

Average 28 Day Compressive Strength (psi): 0

*Cylinders tested with Unbonded Caps followed ASTM C1231, cylinders tested with Bonded Caps followed ASTM C617.

*All Air Content % tests were performed per C231 unless otherwise noted in the remarks.

*Inspector was notified of non-conformance items, if any.

*Average Compressive Strength results did not meet project specifications.

Remarks:	
Results Reported To:	
Report Approved By:	Ryan Castillo



Concrete Cylinder Test Report

PROJECT INFO - DRAFT ONLY

ASTM C31, ASTM C39, AASHTO T23, AASHTO T22, ASTM C172, AASHTO R60

Client	HRC	Date Of Placement	07/01/2020
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MDOT Control Section	82000	Date Issued	07/02/2020

Results Recorded In	English Units
Supplier Mix Description	Structure Adjustment

DESIGN PARAMETER

Mix Design Number	0675 P155ERCQA032				
Design Compressive Strength (psi)	3500				
Air (% Max)	8.5	Slump (in Max)	6.00	Unit Weight (lbs/ft ³)	
Air (% Min)	5.5	Slump (in Min)	3.50		

TESTING DATA

Placed	34.00	+/- yds ³ /ft ³ of concrete at the following location: Pouring sidewalk mix on Shoemaker and McClellan.
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Time Tested	Truck Num	Slump ASTM C143 (in)	Air ASTM C231 or C173 (%)	Unit Weight ASTM C138 (lbs/ft ³)	Air Temp (°F)	Mix Temp ASTM C1064 (°F)	Concrete Cylinder Set	Water Added (gal)	Cumulative Concrete Placed At Test (yds ³ /ft ³)
2:30 PM	123	4.50	7.20	0.0	87	82	1	0	1

MATERIAL DATA

Concrete Cylinder Set	Concrete Cylinder Num	Diameter (in)	X-Sec Area (in ²)	Weight (lbs)	Fracture Type	Capping Process	Age Of Concrete Cylinder (Days)	Date Tested	Total Load At Failure (lbs)	Cumulative Strength (psi/mpa)
1	78556						28	07/29/2020		
1	78557						28	07/29/2020		

Average 28 Day Compressive Strength (psi): 0

*Cylinders tested with Unbonded Caps followed ASTM C1231, cylinders tested with Bonded Caps followed ASTM C617.

*All Air Content % tests were performed per C231 unless otherwise noted in the remarks.

*Inspector was notified of non-conformance items, if any.

*Average Compressive Strength results did not meet project specifications.

Remarks:	
Results Reported To:	
Report Approved By:	Ryan Castillo