



Concrete Cylinder Test Report

PROJECT INFO

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

Client	HRC	Date Of Placement	10/02/2020
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	Will faelduna
MDOT Control Section	82000	Date Issued	10/30/2020
Results Recorded In	English Units		
Supplier Mix Description	MDOT P1 - 6" Slump		

DESIGN PARAMETER

Mix Design Number	0748 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 75.00 +/- yds ³ /ft ³ of concrete at the following location: Street intersection of Paul Ave and M39 service drive on the West side									
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)
9:55 AM	3212	6.00	7.90	0.0	44	67	1	0	11

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	80693	4.00	12.57	8.26	2- (Cone/Vertica l)	Unbonded Cap	7	10/09/2020	46620	3710
1	80694	4.00	12.57	8.28	2- (Cone/Vertica l)	Unbonded Cap	7	10/09/2020	47390	3770
1	80695	4.00	12.57	8.25	2- (Cone/Vertica l)	Unbonded Cap	28	10/30/2020	65930	5250
1	80696	4.00	12.57	8.30	2- (Cone/Vertica l)	Unbonded Cap	28	10/30/2020	63950	5090

Average 28 Day Compressive Strength (psi): 5170

*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 meet project specifications.

Remarks:	
Results Reported To:	HRC(Kevin Surhigh)
Report Approved By:	Matthew Johnson



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TESTING DATA

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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)
11:50 AM	3208	5.00	5.90	0.0	50	70	2	0	55

MATERIAL DATA

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2	80697	4.00	12.57	8.54	2-(Cone/Vertical)	Unbonded Cap	7	10/09/2020	59240	4710
2	80698	4.00	12.57	8.57	2-(Cone/Vertical)	Unbonded Cap	7	10/09/2020	61410	4890
2	80699	4.00	12.57	8.52	3-(Vertical)	Unbonded Cap	28	10/30/2020	85900	6830
2	80700	4.00	12.57	8.55	3-(Vertical)	Unbonded Cap	28	10/30/2020	82820	6590

Average 28 Day Compressive Strength (psi): 6710

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

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