



Concrete Cylinder Test Report

PROJECT INFO

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

Client	HRC	Date Of Placement	10/07/2020
Project Name	HMA Resurfacing 20+ Locations	Specimen Type	Concrete Cylinder
Project Number	2019086C	Contractor	merlo
Project Location	Detroit, MI	Concrete Supplier	Superior Materials
MDOT Job Number	205935A, 207914A	Field Tested By	AndrewLee
MDOT Control Section	82000	Date Issued	11/04/2020
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 99.00 +/- yds ³ /ft ³ of concrete at the following location: bridge approach on Southfield service drive and Archdale									
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)
9:25 AM	3205	5.25	6.60	0.0	52	70	1	0	10

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	80795	4.00	12.57	8.32	3-(Vertical)	Unbonded Cap	5	10/12/2020	43560	3470
1	80796	4.00	12.57	8.25	3-(Vertical)	Unbonded Cap	7	10/14/2020	45260	3600
1	80797	4.00	12.57	8.29	6-(Double Edge)	Unbonded Cap	7	10/14/2020	49070	3900
1	80798	4.00	12.57	8.33	2-(Cone/Vertical)	Unbonded Cap	28	11/04/2020	68030	5410
1	80799	4.00	12.57	8.23	2-(Cone/Vertical)	Unbonded Cap	28	11/04/2020	68090	5420

Average 28 Day Compressive Strength (psi): 5415

*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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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)
11:00 AM	3204	5.25	6.60	0.0	57	70	2	0	50

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	80800	4.00	12.57	8.32	3-(Vertical)	Unbonded Cap	5	10/12/2020	47240	3760
2	80801	4.00	12.57	8.35	5-(Edge)	Unbonded Cap	7	10/14/2020	55640	4430
2	80802	4.00	12.57	8.36	3-(Vertical)	Unbonded Cap	7	10/14/2020	53760	4280
2	80803	4.00	12.57	8.28	2-(Cone/Vertical)	Unbonded Cap	28	11/04/2020	71360	5680
2	80804	4.00	12.57	8.26	2-(Cone/Vertical)	Unbonded Cap	28	11/04/2020	69650	5540

Average 28 Day Compressive Strength (psi): 5610

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