



Concrete Cylinder Test Report

PROJECT INFO

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

Client	HRC	Date Of Placement	06/18/2020
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	07/17/2020

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	70.00	+/- yds ³ /ft ³ of concrete at the following location:	Pouring sidewalk mix on NB M-10 service drive and Lafayette. Second set was on made on SB M-10 service drive and Warren.
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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)
12:55 PM	1378	5.00	7.00	0.0	83	80	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	78396	4.00	12.57	8.43	3-(Vertical)	Unbonded Cap	28	07/16/2020	73270	5830
1	78397	4.00	12.57	8.45	3-(Vertical)	Unbonded Cap	28	07/16/2020	75535	6010

Average 28 Day Compressive Strength (psi): 5920

*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:	Brian Gondek



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TESTING DATA

Placed	70.00	+/- yds ³ /ft ³ of concrete at the following location: Pouring sidewalk mix on NB M-10 service drive and Lafayette. Second set was on made on SB M-10 service drive and Warren.							
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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)
1:30 PM	3208	5.25	7.00	0.0	85	81	2	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)
2	78398	4.00	12.57	8.38	3-(Vertical)	Unbonded Cap	28	07/16/2020	72350	5760
2	78399	4.00	12.57	8.47	2-(Cone/Vertical)	Unbonded Cap	28	07/16/2020	80930	6440

Average 28 Day Compressive Strength (psi): 6100

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

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

*Average Compressive Strength results did meet project specifications.

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