



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	07/21/2020
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	Alex Hinz
MDOT Control Section	82000	Date Issued	07/21/2020
Results Recorded In	English Units		
Supplier Mix Description	Structure Adjustment		

DESIGN PARAMETER

Mix Design Number	0643 P155ERCNA002 (Plt. 2)				
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 30.00 +/- yds ³ /ft ³ of concrete at the following location: Sidewalks and ADA Ramps on Woodmere between Dix and Richards. Tested on Woodmere at Wendell.									
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)
10:50 AM	6356	5.00	6.40	0.0	70	83	1	0	4

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	78817						28	08/18/2020		
1	78818						28	08/18/2020		

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:	Alex Hinz

**CONCRETE QA CORRELATION**

DATE: 7/21/2020

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: Mohammed Karimi (HRC)

CONTRACTOR: Merlo

QC COMPANY: CTI

QC TESTER: Mallory

CONCRETE INFORMATION

CONCRETE COMPANY: Superior Materials

TRUCK NUMBER: 1392

MIX DESIGN #: P155E7CQA032

PLANT LOCATION (CITY): Detroit

CONCRETE GRADE: P1

TOTAL QUANTITY (CYDS): 4*

PWL/NON-PWL: NON-PWL

QUANTITY AT SAMPLE (CYDS): 2

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

Sidewalks and ADA Ramps on Woodmere between Dix and Richards. Tested on Woodmere at Pearl.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	8:10AM			
AIR CONTENT (%):	7.70	8.50	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	86	85	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):	69	69		

REMARKS:

*10 yards of the wrong mix were ordered by the contractor and delivered on the first truck of that mix. Water was added to mix on site before testing. Slump was 7.25 so inspector rejected the truck and had the contractors remove all that was placed(4 yards).

FIELD REPRESENTATIVE: Alexander Hinz

DATE: 7/21/2020

PROJECT MANAGER(s): Steve Drummond, P.E.

DATE:

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INSPECTOR: Mohammed Karimi (HRC)

CONTRACTOR: Merlo

QC COMPANY: CTI

QC TESTER: Mallory

CONCRETE INFORMATION

CONCRETE COMPANY: Superior Materials

TRUCK NUMBER: 3204

MIX DESIGN #: P155ERCNA002

PLANT LOCATION (CITY): Detroit

CONCRETE GRADE: P1

TOTAL QUANTITY (CYDS): 30*

PWL/NON-PWL: NON-PWL

QUANTITY AT SAMPLE (CYDS): 3

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

Sidewalks and ADA Ramps on Woodmere between Dix and Richards. Tested on Woodmere at Wendell.

TEST RESULTS

	QC (CONTRACTOR)	QA (SOMAT)	TOLERANCE	MEETS TOLERANCE (Y/N)
SAMPLE TIME (Hrs/Min):	9:30AM			
AIR CONTENT (%):	5.50	5.20	+/- 0.8 PERCENT	YES
CONCRETE TEMP. (°F):	84	82	+/- 2.0 DEGREES	YES
AIR TEMP. (°F):				

REMARKS:

*10 yards of the 5 inch Slump P1 mix was delivered on the first truck of that mix. Air Content was low on the first test so Air was added to the mix and it was resampled and retested. Air Content was only 5.2 after Air was added to the mix and the Slump was 6.75 so inspector rejected the truck and had the contractors remove all that was placed(4 yards).

FIELD REPRESENTATIVE: Alexander Hinz

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