

PRE-BID CONFERENCE

Street Surface Treatments Project – FY2019
(ITB No. 4530; City File No. 2018-020)

May 4, 2018
1:00 p.m., 4th Floor Conference Room
Larcom Building - City Hall, 301 East Huron Street, Ann Arbor, MI

AGENDA

This Bid Conference was called to order by the City's Project Manager, David Dykman, at 1:08 p.m. (local time).

I. Introductions

Those in attendance (see attached Attendance Record) introduced themselves.

a. Project Overview

The proposed project consists of work citywide that comprises approximately 6 miles of major and local streets or approximately 160,000 square yards of treatments. The current project schedule will span the majority of City's 2019 fiscal year starting on July 1, 2018, and ending on June 30, 2019.

b. Bid Documents

i. Instructions to Bidders

1. Bid Questions due via e-mail on or before Tuesday, May 8, 2018, 5:00 p.m. (Local Time)
2. Bid Opening – Wednesday, May 16, 2018, 2:00 p.m. (Local Time)

ii. Standard Specifications - Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction

iii. Detailed Specifications

1. General Conditions

Attention was given to this Detailed Specification, and those in attendance were advised to review its requirements.

2. Project Supervision

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements.

3. Certified Payroll Compliance and Reporting

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements. Davis Bacon wages rates will apply unless otherwise specified by the contract. The applicable wage decision is the one in affect 10 days prior to the bid date and it is not in the bid documents.

4. Resident Notification

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements.

5. Project Schedule

- Starting Date – On or after Thursday, July 5, 2018

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- Completion Date – On or before Sunday, June 30, 2019
- Project Schedule of Streets

The “Schedule of Streets” shows the proposed work locations and scheduling requirements/restrictions. There appear to be errors in this document with reference to City project/date restrictions. An addendum will address these errors.

6. No Parking Signs

Attention was given to this Detailed Specification, and those in attendance work were advised to review its requirements. It was noted that staff from various City departments/units are working to possibly revise the requirements of this detailed specification. An addendum will address these revisions if they have been finalized.

i. Notice(s) to Bidders

Attention was given to the Notice(s) to Bidders contained in the Appendix, and those in attendance work were advised to review its requirements. Several project locations associated with this project are within, or in close proximity to, various City projects, which may be occurring at the same time thus requiring coordination.

ii. MDOT Special Provisions and Supplemental Specifications

Attention was given to these special provisions and supplemental specifications, and those in attendance work were advised to review their requirements.

iii. Project Listing of Streets/Log/Location Maps (Major and Minor/Local Streets)

The appendix contains a “Project Listing of Streets” applicable to this project, and a a log identifying the estimated quantities and pay items of work related to each street. Missing from the log is documentation related to miscellaneous quantities related to the project. An addendum will address this omission.

II. Construction

- a. Hours of Work: 7:00 am – 8:00 pm Monday thru Saturday (Sundays w/approval)
- b. Maintenance of Traffic (lane closures/opening to traffic, local traffic access, etc)

All work on Major Streets as part this year project will require maintenance of traffic on one lane in both directions and the utilization of flag control during certain times. There are no planned detours. The bid documents include the applicable MDOT Maintenance of Traffic Typical.

- c. Permits (Right-of-Way, Lane Closure(s), etc)

The successful bidder will obtain a Right-of-Way permit with the City prior to the starting any project work. The City will issue press releases regarding the maintenance of traffic on the major streets; however, in special circumstances it may also require the successful bidder to obtain a Lane Closure permit to perform its work.

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(ITB No. 4530; City File No. 2018-020)

- d. Special Concerns (pedestrian access, notifications to residents/property owners, parking prohibitions, etc)

The successful bidder will maintain access for pedestrians and to residences/businesses at all times to the full extent possible. It will also notify property owners in advance of the work in accordance with the detailed specification in the bid documents.

III. Addendum Items

No addenda have been issued to date for this project; however, Addendum 1 is expected to be released by Tuesday, May 8, 2018, or Wednesday, May 9, 2018, at the latest unless other necessary revisions are encountered requiring its release be delayed further. This addendum will address the aforementioned items, the Pre-Bid Conference Summary, and any other items brought to the City's attention. Bid Questions due via e-mail on or before Tuesday, May 8, 2018, 5:00 p.m. (Local Time)

IV. Other Items/Questions

- 1. It was noted that the contract for this work includes the option for a one-year extension providing both parties are agreeable to doing so.*
- 2. It was noted that revisions to several of the thermoplastic longitudinal pavement marking items contained in the bid document are forthcoming and will be addressed in an addendum. Thermoplastic for 4 and 6 inch longitudinal markings will be replaced with waterborne paint and sprayable thermoplastic using a two-step process. An addendum will address these revisions.*
- 3. It was noted the City is considering eliminating the Detailed Specification for Slurry Seal and the pay item Seal, Slurry, Modified and instead applying the pay item Micro-Surface, Single Course to the minor (local) streets. If necessary, an addendum will address this revision.*

Contact Information:

David Dykman
Project Manager
Phone: (734) 794-6410 ext. 43685
Fax: (734) 994-1744
E-mail: ddykman@a2gov.org

PRE-BID CONFERENCE SIGN-IN SHEET

PROJECT: Street Surface Treatment Project - FY2019 (ITB No. 4530, City File No. 2018-020)

DATE: May 4, 2018

PLEASE PRINT

NAME	REPRESENTING	MAILING ADDRESS	TELEPHONE	EMAIL
David Dykman Project Manager	City of Ann Arbor - Project Management	Address: 301 E. Huron Street City, State: Ann Arbor, MI Zip: 48104	Office: (734) 794-6410, ext 43685 Mobile: Fax: (734) 994-1744	ddykman@a2gov.org
David Clemons Supervisor - Civil Engineering Specialists	City of Ann Arbor - Project Management	Address: 301 E Huron Street City, State: Ann Arbor, MI Zip: 48104	Office: (734) 794-6410, ext 43612 Mobile: Fax: (734) 994-1744	dclemons@a2gov.org
Benjamin Kreiss	Pavement Maintenance	Address: 384 Industrial PKWY City, State: Tmlay city MI Zip: 48444	Office: (810) 724-4767 Mobile: (989) 818-2753 Fax No. ()	Bkreiss@Ashphalt- materials.com
ANDREW FRIEND	Stevens Construction	Address: 1352 PUBLIC RD City, State: COLUMBUS OH Zip: 43215	Office: (614) 824-8782 Mobile: () Fax No. ()	andrew.friend @stevensconstruction.com
ADAM HARTLEY	AMERICAN PAVEMENTS	Address: 7475 MONTGOMERY City, State: PLAIN GRY, OH Zip: 46034	Office: (614) 873-2191 Mobile: (248) 787-1520 Fax No. ()	ESTIMATING @ AMERICANPAVEMENTS.COM
		Address: _____ City, State: _____ Zip: _____	Office: () _____ Mobile: () _____ Fax No. () _____	
		Address: _____ City, State: _____ Zip: _____	Office: () _____ Mobile: () _____ Fax No. () _____	
		Address: _____ City, State: _____ Zip: _____	Office: () _____ Mobile: () _____ Fax No. () _____	

BID FORM

Section 1 - Schedule of Prices

Street Surface Treatments - FY2019

File No. 2018-020

Bid No. 4530

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
10	1047051	_General Conditions, Max \$85,000.00	LSUM	1.00	\$ _____	\$ _____
20	1047051	_Project Supervision, Max \$50,000.00	LSUM	1.00	\$ _____	\$ _____
30	1047051	_Certified Payroll Compliance and Reporting	LSUM	1.00	\$ _____	\$ _____
40	1047051	_Resident Notification	LSUM	1.00	\$ _____	\$ _____
50	2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	135.00	\$ _____	\$ _____
60	2090001	Project Cleanup	LSUM	1.00	\$ _____	\$ _____
70	5017001	_Crack Filling with Asphalt Repair Mastic	Ft	1,000.00	\$ _____	\$ _____
80	5017011	_Cold Milling HMA Surface, Modified	Syd	3,882.00	\$ _____	\$ _____
90	5017031	_Hand Patching, Modified, Major Streets	Ton	377.00	\$ _____	\$ _____
100	5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	222.00	\$ _____	\$ _____
110	5040005	Micro-Surface, Rutfilling	Ton	100.00	\$ _____	\$ _____
120	5047011	_Micro-Surface, Single Course	Syd	159,908.24	\$ _____	\$ _____
130	5057011	_Seal, Single Chip, Modified	Syd	82,948.00	\$ _____	\$ _____
140	8110049	Pavt Mrkg, Ovly Cold Plastic, Direction Arrow Sym, Bike	Ea	1.00	\$ _____	\$ _____
150	8110058	Pavt Mrkg, Ovly Cold Plastic, Bike, Small Sym	Ea	1.00	\$ _____	\$ _____
160	8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	5,400.00	\$ _____	\$ _____
170	8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	14,400.00	\$ _____	\$ _____
180	8110155	Pavt Mrkg, Sprayable Thermopl, 6 inch, White	Ft	2,000.00	\$ _____	\$ _____
190	8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	500.00	\$ _____	\$ _____
200	8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	850.00	\$ _____	\$ _____
210	8110212	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, White	Ft	120.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____

BID FORM

Section 1 - Schedule of Prices

Street Surface Treatments - FY2019
File No. 2018-020
Bid No. 4530

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
220	8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	1,086.00	\$ _____	\$ _____
230	8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	275.00	\$ _____	\$ _____
240	8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	5,400.00	\$ _____	\$ _____
250	8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	14,400.00	\$ _____	\$ _____
260	8110233	Pavt Mrkg, Waterborne, 6 inch, White	Ft	2,000.00	\$ _____	\$ _____
270	8110332	Rem Raised Pavt Marker	Ea	100.00	\$ _____	\$ _____
280	8110343	Rem Spec Mrkg	Sft	1,025.00	\$ _____	\$ _____
290	8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	16.00	\$ _____	\$ _____
300	8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	3.00	\$ _____	\$ _____
310	8117050	_Pavt Mrkg, Thermopl, Thru Arrow Sym	Ea	2.00	\$ _____	\$ _____
320	8117050	_Pavt Mrkg, Thermopl, Only	Ea	12.00	\$ _____	\$ _____
330	8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	82.00	\$ _____	\$ _____
340	8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	82.00	\$ _____	\$ _____
350	8120030	Channelizing Device, 42 inch, Furn	Ea	703.00	\$ _____	\$ _____
360	8120031	Channelizing Device, 42 inch, Oper	Ea	703.00	\$ _____	\$ _____
370	8120140	Lighted Arrow, Type C, Furn	Ea	14.00	\$ _____	\$ _____
380	8120141	Lighted Arrow, Type C, Oper	Ea	14.00	\$ _____	\$ _____
390	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	21,800.00	\$ _____	\$ _____
400	8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	2,331.00	\$ _____	\$ _____
410	8120235	Pavt Mrkg, Wet Retrflc, Type NR, Paint, 4 inch, White, Temp	Ft	5,400.00	\$ _____	\$ _____
420	8120236	Pavt Mrkg, Wet Retrflc, Type NR, Paint, 4 inch, Yellow, Temp	Ft	14,400.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____

BID FORM

Section 1 - Schedule of Prices

Street Surface Treatments - FY2019
 File No. 2018-020
 Bid No. 4530

<u>Line No.</u>	<u>Item No.</u>	<u>Item Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
430	8120250	Plastic Drum, High Intensity, Furn	Ea	135.00	\$ _____	\$ _____
440	8120251	Plastic Drum, High Intensity, Oper	Ea	135.00	\$ _____	\$ _____
450	8120280	Raised Pavt Marker, Temp, Type 1, White, Monodirectional	Ea	108.00	\$ _____	\$ _____
460	8120281	Raised Pavt Marker, Temp, Type 1, Yellow, Bidirectional	Ea	288.00	\$ _____	\$ _____
470	8120310	Sign Cover	Ea	75.00	\$ _____	\$ _____
480	8120330	Sign, Portable, Changeable Message, Furn	Ea	6.00	\$ _____	\$ _____
490	8120331	Sign, Portable, Changeable Message, Oper	Ea	16.00	\$ _____	\$ _____
500	8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	2,972.00	\$ _____	\$ _____
510	8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	2,972.00	\$ _____	\$ _____
520	8120370	Traf Regulator Control	LSUM	1.00	\$ _____	\$ _____
530	8127050	_No Parking Sign	Ea	360.00	\$ _____	\$ _____
540	8127050	_Pedestrian Type II Barricade, Temp	Ea	20.00	\$ _____	\$ _____
550	8127051	_Minor Traffic Control, Max \$70,000.00	LSUM	1.00	\$ _____	\$ _____
TOTAL THIS PAGE						\$ _____
TOTAL FROM PAGE BF-1						\$ _____
TOTAL FROM PAGE BF-2						\$ _____
TOTAL BASE BID						\$ _____

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE

AA:DAD

1 of 2

05/23/18

Complete the entirety of work under this Contract in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

Organize, coordinate and diligently execute the work at the locations shown on the Schedule of Streets included herein. This schedule details the requirements, if any, for the Start of Work (on or after dates specified), the Completion of Work (on or before dates specified), Restricted Dates, the Maximum Calendar Days for Completion, and the Liquidated Damages per Calendar Day for each street. For the purpose of this Contract, the "Start of Work" definition is the date when either the "No-Parking" signs or the temporary traffic control measures become effective, whichever occurs first and relates only to the application of the designated surface treatment. Pavement repairs and other surface preparation work does not apply. The definition of the "Completion of Work" is the point in time when all work designated for a project location is complete. This includes, but is not limited to, placement of permanent pavement markings, street and underground utility and utility structure cleaning as required, removal of sedimentation and soil erosion control devices, removal of all temporary traffic control devices and "No Parking" signs, and other necessary project clean-up work as directed by the Engineer.

The Engineer shall limit the Contractor's work operations to a number of streets that, in the opinion of the Engineer, is reasonable to allow for proper and thorough inspection, and to reduce traffic control and/or safety problems. The contractor shall not have more than two (2) locations "active" at any given time with a maximum of one (1) of those locations being a Major Street. A location is "active" if work on the street has begun, and it has not yet complete. Regard an "Area" shown on the Schedule of Streets as one (1) location.

The City expects to furnish the Contractor with two (2) copies of the Contract, for its execution, on or before **June 4, 2018**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance documentation, to the City by **June 22, 2018**. The Contractor shall not begin the work before the applicable date(s) as described herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract and Notice to Proceed.

By no later than **July 6, 2018**, the Contractor shall submit a detailed schedule of work (progress schedule) for the Engineer's review and approval. The progress schedule must fully comply with the scheduling requirements contained on the Schedule of Streets. The schedule shall clearly indicate, in detail, the start and the finish date of each work task on each street. The Contractor shall update the approved progress schedule each week, and present it to the Engineer at the weekly progress meeting, and must consult with the Engineer for review and approval of any proposed deviations from the most current, approved, schedule.

The Contractor shall begin project work on or after **July 16, 2018**, and only upon receipt of the fully executed Contract, Notice to Proceed and approved Progress Schedule. The City will consider granting appropriate time extensions should delays prevent the Contractor from starting work on this date.

Complete the entire project on or before **June 30, 2019**. Completion of the project means all locations shown on the Schedule of Streets are complete and ready for use in accordance with the "Completion of Work" as defined above.

Failure to complete all work as specified within the times specified, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct dollar amounts specified in the Schedule of Streets as "Liquidated Damages" from the payments due the Contractor. The City will assess "Liquidated Damages" for delays in the completion of the work for each street, for each calendar day the work remains incomplete beyond the required contract completion date.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project by the intermediate (location specific) and final completion dates. Should the Contractor demonstrate that they must work on some Sundays in order to maintain the project schedule, they may only do so with prior approval from the City, and only during approved working hours. There will be no additional compensation due to the Contractor for work performed on Sundays.

The Engineer may delay or stop the work due to threatening weather conditions. No compensation shall be due the Contractor for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties resulting from its decision to work in the rain.

The Contractor shall not work in the dark except as approved by the Engineer and shall provide lighting for night work as detailed elsewhere in this contract. The Engineer may stop the work, or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the Contractor cannot be complete the work within the remaining daylight hours, or if inadequate daylight is present to properly perform or inspect the work. No compensation shall be due to the Contractor for unused materials or downtime, when the Engineer directs work stoppage for reasons due to darkness and/or inadequate remaining daylight. The Contractor is solely responsible for repairing all damages to the work and to the site, including any City infrastructure, and any adjacent properties, which result from working in the dark.

Assessment of Liquidated Damages will occur until the required work is complete in the current construction season. If, with the Engineer's approval, work extends beyond seasonal limitations, the assessment of Liquidated Damages will discontinue until the work resumes in the following construction season.

If the construction contract is not complete within the specified period(s) including any extensions of time granted thereto, at the sole discretion of the City of Ann Arbor it may terminate the Contract. Should this occur no additional compensation will be due to the Contractor, and the Contractor may be forbidden to bid on future City of Ann Arbor projects for a period of at least three (3) years. If the Engineer elects to terminate the Contract, payment for contract items with a Lump Sum unit price will be up to a maximum amount equal to the percentage of the contract work that is complete at the time of termination.

The City's decision to delete streets, add streets, change the construction limits on streets, or, the City's contribution to a delay of the construction on any one street shall not entitle the Contractor to receive additional compensation for work on any other street(s), nor shall it relieve the Contractor of any responsibilities for completion of work on any other street(s).

Include any/all to organize, coordinate, and schedule all of the project work in the contract unit price bid for the pay item **General Conditions, Max \$_____**.

Street Surface Treatment Project – FY2019
Project Schedule of Streets

Location (Street)	Limits of Work	Start of Work	Completion of Work	Restricted Dates	Maximum Calendar Days for Completion	Liquidated Damages per Calendar Day
Green Road	Plymouth Road to Gettysburg Road/Burbank Drive			CAA1, MMRL, UMFB	15	\$750.00
Fuller Road	East End of Huron River Bridge to Fuller Court			AAAF, LABR, MMRL, UMFB	15	\$1,000.00
Area 1	See Project Location List and Minor (Local) Streets Map			AAAF, *AAPS, LABR, MMRL, UMFB	21	\$500.00
Area 2	See Project Location List and Minor (Local) Streets Map			AAAF, LABR, MMRL, UMFB	20	\$500.00
Area 3	See Project Location List and Minor (Local) Streets Map			LABR, MMRL, UMFB	7	\$500.00
Area 4	See Project Location List and Minor (Local) Streets Map			LABR, MMRL, UMFB	10	\$500.00
Area 5	See Project Location List and Minor (Local) Streets Map			LABR, MMRL, UMFB	14	\$500.00

AAAF - No work permitted from July 19, 2018 thru July 22, 2018 due to the Ann Arbor Street Art Fairs.

AAPS - No work permitted when Ann Arbor Public Schools are in session (before June 18, 2018 or after September 3, 2018 until June 17, 2019).

*This only applies to Lorraine Street in the Area 1 project location.

CAA1 - No work permitted during the City of Ann Arbor Green Road Sidewalk Gap Project (anticipated to start on or after August 20, 2018, and be complete by October 1, 2018).

LABR - No work during the Labor Day holiday period from 3:00 p.m. August 31 to 7:00 a.m. September 4, 2018.

MMRL - No work during the Memorial Day holiday period from 3:00 p.m. May 25 to 7:00 a.m. May 29, 2018.

UMFB - No work permitted during scheduled home game dates for University of Michigan Football.

Notes:

1. Upon starting work on the Minor (Local) streets in Areas 1, 2, 3, 4 and/or 5, perform all work in each area until it is complete and before starting work on a new area. The only exception to this requirement applies to Area No. 1 and the work on Lorraine Street, which the Contractor should schedule and perform separately when the Ann Arbor Public Schools are not in session, and only if all other work within this area cannot be performed in that timeframe.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
MICRO-SURFACING

AA:DAD

1 of 2

05/23/18

a. Description. This work consists of preparing existing pavement and providing and placing a micro-surfacing mixture in accordance with section 504 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction, as directed by the Engineer, and as described herein.

b. Materials. Provide materials in accordance with subsection 504.02 of the MDOT 2012 Standard Specifications for Construction with the following modification.

1. Add the following to subsection 504.02.A of the MDOT 2012 Standard Specifications for Construction.

A. Screen 2FA fine aggregate used for micro-surfacing at the project site to ensure aggregate being introduced into the micro-surface mixture is not larger than the top size aggregate allowed in the mix design. Screen aggregate directly into the material transport units or micro-surface machine(s). Use aggregate screening unit capable of producing adequate tonnage to maintain project production in accordance with subsection 504.03.

2. Use CSS-1hM asphalt emulsion for micro-surfacing mixtures. The emulsified asphalt must conform to certification procedures described in the MDOT *Materials Quality Assurance Procedures Manual*.

c. Construction. Ensure all construction is in accordance with subsection 504.03 of the MDOT 2012 Standard Specifications for Construction with the following modifications.

1. Add the following to subsection 504.03.C of the MDOT 2012 Standard Specifications for Construction.

A. Use a pick-up sweeper to perform any sweeping required to prepare the existing surface.

2. Add the following to subsection 504.03.D of the MDOT 2012 Standard Specifications for Construction.

A. Take extreme care not to place micro-surface mixture on any concrete curb and gutter.

Conduct nighttime work between the hours of 8:00 p.m. and 7:00 a.m. at the locations shown on the "Project Schedule of Street" and in the "Project Log", unless otherwise directed. The Engineer may allow nighttime work at other locations with seven (7) day notification to the Engineer, and only after authorization by the City.

d. Measurement and Payment. Measure and pay for the completed work, as described, at the respective contract unit prices using the following respective pay items:

Pay Item	Pay Unit
Micro-Surface, Standard	Square Yard
Micro-Surface, Single Course	Square Yard
Micro-Surface, Single Course, Nighttime Work.....	Square Yard

Measure **Micro-Surface, Standard**; **Micro-Surface, Single Course**; and **Micro-Surface, Single Course, Nighttime Work** area in place by their respective units square yard and pay for them at their respective contract unit prices, which prices include the costs for all labor, equipment and materials necessary to complete the work.

The unit prices for **Micro-Surface**, regardless of the type required, include the cost of surface preparation; applying a bond coat; stationing and the establishment of yield intervals; placing temporary pavement markings; corrective action and any traffic control related to it; any required materials sampling and testing; and documentation.

The unit price for **Micro-Surface, Standard** also includes the cost for all materials, equipment, and labor required to place the micro-surfacing mixtures including the application of a rut filling course, a leveling course, and a surface course for full width coverage.

The unit price for **Micro Surface, Single Course** also includes the cost for all materials, equipment, and labor required to place the micro-surfacing mixtures by applying a single course of mixture for full width coverage.

The unit price for **Micro Surface, Single Course, Nighttime Work** also includes the cost for all materials, equipment, and labor required to place the micro-surfacing mixtures by applying a single course of mixture for full width coverage during the hours of work specified. Pay for lighting to conduct this work separately at the contract unit price for the pay item **Ltg for Night Work**.

The City will pay separately for temporary traffic control to place any mixture in accordance with the Detailed Specification for Maintaining Traffic, and removing pavement markings in accordance with subsection 812.04 of the MDOT 2012 Standard Specifications for Construction.

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
**FILLING AND LEVELING HOT MIX ASPHALT LONGITUDINAL JOINTS AND
CRACKS WITH ASPHALT REPAIR MASTIC**

CFS:ARB

1 of 2

APPR:CRB:KPK:07-10-15

a. Description. This work consists of cleaning, filling, and leveling the longitudinal construction joints and cracks with asphalt repair mastic material.

Clean and fill longitudinal joints and cracks at the locations shown in the contract or as directed by the Engineer.

b. Materials. Provide a hot applied, pre-packaged, pourable, aggregate filled, polymer modified asphalt repair mastic.

Use Deery Level and Go Repair Mastic, Crafcoc Mastic One, or an approved equal as determined by the Engineer.

c. Equipment. Heat the material with a mastic mixer with a full sweep horizontal agitator that is able to maintain a uniformly mixed product. Heat asphalt repair mastic in a thermostatically controlled hot oil jacketed heating system, and have an effective means of dispensing product.

d. Surface Preparation. Clean all surfaces of dust, dirt, oil, grease, and loose material prior to application of the mastic. Clean all surfaces with clean, dry, oil free compressed air at 90 pounds per square inch (psi) minimum. Ensure the surface of the pavement is completely dry at the time of mastic application.

Apply asphalt repair mastic when pavement temperature exceeds 40 degrees Fahrenheit (F). Use a heat lance that puts no direct flame on the pavement to heat the surface as recommended by the manufacturer. Install mastic within 10 minutes of warming the pavement area. Do not overheat pavement surfaces.

e. Installation. Ensure the Contractor is trained and approved by the mastic manufacturer.

Heat the asphalt repair mastic to the appropriate installation temperature using a mastic mixer. Place the mastic onto the properly prepared pavement surface.

Use a heated hand squeegee to level and smooth the mastic until the material has formed a durable, well-bonded, level repair.

Apply the mastic to the longitudinal joint or crack from the bottom up in lifts appropriate to the specific application. Multiple lifts may be required to level deeper repair areas. Fill the uppermost 0.5 to 1 inch with the final lift after prior lifts have sufficiently cooled.

f. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

Pay Item

Pay Unit

Crack Filling with Asphalt Repair Mastic.....Foot

Crack Filling with Asphalt Repair Mastic includes furnishing, hauling, and placing of all materials, the removal and disposal of old filler and debris, and for all labor, equipment, materials, and tools required to complete the work.

Street Surface Treatment Project - FY2019

Project Listing of Streets

Street Name	Limits		Beginning Milepoint	Ending Milepoint	Length (miles)		Area (Syd)	Proposed Surface Treatment
	Beginning	Ending			Centerline	Lane		
MAJOR STREETS								
Fuller Road	East End Huron River Bridge	Fuller Ct	0.000	0.949	0.949	3.322	29,115	Micro-Surface, Single Course
Green Road	Plymouth Rd	Gettysburg Rd/Burbank Dr	1.175	2.006	0.831	3.324	24,242	Micro-Surface, Single Course
MAJOR STREETS SUBTOTAL					1.780	6.646	53,357	
MINOR (LOCAL) STREETS								
AREA No. 1								
Creek Drive	La Fere St	Packard St	0.238	0.474	0.236	0.472	4,271	Cape Seal
Elmwood Street	Packard St	Norwood St	0.000	0.149	0.149	0.298	2,798	Cape Seal
La Fere Street	Creek Dr	La Salle St	0.000	0.105	0.105	0.210	1,540	Cape Seal
Lorraine Street	Platt Rd	Pittsview Dr	0.000	0.379	0.379	0.758	6,031	Cape Seal
Oakwood Street	Platt Rd	Bellwood Ave	0.000	0.198	0.198	0.396	3,486	Cape Seal
Redwood Avenue	Platt Rd	Creek Dr	0.312	0.427	0.115	0.230	1,620	Cape Seal
Elmwood Street	Norwood St	Edgewood Dr	0.149	0.440	0.291	0.582	5,217	Micro-Surface, Single Course
La Salle Street	Lorraine St	La Fere St	0.000	0.257	0.257	0.514	3,770	Micro-Surface, Single Course
Area No. 1 SUBTOTAL					1.730	3.460	28,733	
AREA No. 2								
Brooklyn Avenue	Packard St	Ferdon Rd	0.000	0.368	0.368	0.736	5,743	Cape Seal
Golden Avenue	E Stadium Blvd	Granger Ave	0.000	0.227	0.227	0.454	4,205	Cape Seal
Hermitage Road	Ferdon Rd	Wallingford Rd	0.000	0.185	0.185	0.370	2,607	Cape Seal
Lincoln Avenue	Shadford Rd	Granger Ave	0.000	0.194	0.194	0.388	2,920	Cape Seal
Morton Avenue	Lincoln Ave	Woodside Rd	0.091	0.545	0.454	0.908	8,352	Cape Seal
South Boulevard	Packard St	Ferdon Rd	0.096	0.330	0.234	0.468	3,720	Cape Seal
Woodlawn Avenue	Sheehan Ave	Packard St	0.000	0.185	0.185	0.370	2,822	Cape Seal
Area No. 2 SUBTOTAL					1.847	3.694	30,369	
AREA No. 3								
Frederick Drive	Green Rd	Greenbrier Dr/Middleton Dr	0.000	0.261	0.261	0.522	4,337	Cape Seal
Middleton Drive	Frederick Dr	Greenbrier Dr/Frederick Dr	0.000	0.346	0.346	0.692	6,091	Cape Seal
Area No. 3 SUBTOTAL					0.607	1.214	10,428	
AREA No. 4								
Crosby Crescent	Snyder Ave	Clague St	0.000	0.187	0.187	0.374	3,216	Cape Seal
Rugby Court	Wiltshire Dr	End of Cul-de-sac	0.000	0.060	0.060	0.120	1,092	Cape Seal
Van Dusen Drive	Crosby Cres	Pauline Blvd	0.000	0.177	0.177	0.354	3,116	Cape Seal
Algonac Street	Naples Ct	Clague St	0.688	0.784	0.096	0.192	1,690	Micro-Surface, Single Course
Clague Street	Algonac Ave	Van Dusen Dr	0.784	0.912	0.128	0.256	2,253	Micro-Surface, Single Course
Naples Court	Snyder Ave/Algonac St	End of Cul-de-sac	0.000	0.078	0.078	0.156	1,282	Micro-Surface, Single Course
Snyder Avenue	Birk Ave	Naples Ct	0.495	0.688	0.193	0.386	3,183	Micro-Surface, Single Course
Area No. 4 SUBTOTAL					0.919	1.838	15,832	

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Project Listing of Streets

Street Name	Limits		Beginning Milepoint	Ending Milepoint	Length (miles)		Area (Syd)	Proposed Surface Treatment
	Beginning	Ending			Centerline	Lane		
AREA No. 5								
Churchill Drive	End of Cul-de-sac	Scio Church Rd	0.000	0.332	0.332	0.664	5,860	Cape Seal
Delaware Drive	S 7th St	Mershon Dr	0.320	0.540	0.220	0.440	3,614	Cape Seal
Steeplechase Drive	Churchill Dr	Blaney Dr	0.000	0.102	0.102	0.204	1,736	Cape Seal
Wiltshire Drive	Churchill Dr	End of Cul-de-sac	0.000	0.212	0.212	0.424	3,771	Cape Seal
Morehead Drive	Churchill Dr	S 7th St	0.000	0.367	0.367	0.734	6,208	Micro-Surface, Single Course
Area No. 5 SUBTOTAL					1.233	2.466	21,189	
MINOR (LOCAL) STREETS SUBTOTAL					6.336	12.672	106,551	
PROJECT TOTALS (MAJOR & MINOR)					8.116	19.318	159,908	
					4.926	9.852	82,948	Cape Seal
					3.190	9.466	76,960	Micro-Surface, Single Course

NOTES:

- 1) See Detailed Specification for Progress Schedule and the associated "Schedule of Streets" for scheduling requirements/restrictions.
- 2) Cape Seal involves placing a single course of chip seal followed a single course of micro-surfacing on both major streets and minor (local) streets. This work will be paid respectively as Seal, Single Chip, Modified and Micro-Surface, Single Course.

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Addendum 3

Project Log of Streets

Major Street Location - Fuller Road

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	1,222.00
5017031	_Hand Patching, Modified, Major Streets	Ton	202.00
5047011	_Micro-Surface, Single Course	Syd	29,115.00
8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	2,600.00
8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	9,200.00
8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	170.00
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	750.00
8110218	Pavt Mrkg, Thermopl, 24 inch, Stop Bar	Ft	275.00
8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	2,600.00
8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	9,200.00
8110343	Rem Spec Mrkg	Sft	784.00
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	14.00
8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	2.00
8117050	_Pavt Mrkg, Thermopl, Thru Arrow Sym	Ea	2.00
8117050	_Pavt Mrkg, Thermopl, Only	Ea	9.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	7.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	7.00
8120030	Channelizing Device, 42 inch, Furn	Ea	351.00
8120031	Channelizing Device, 42 inch, Oper	Ea	351.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	11,800.00
8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	1,195.00
8120235	Pavt Mrkg, Wet Retrflc, Type NR, Paint, 4 inch, White, Temp	Ft	2,600.000
8120236	Pavt Mrkg, Wet Retrflc, Type NR, Paint, 4 inch, Yellow, Temp	Ft	9,200.000
8120250	Plastic Drum, High Intensity, Furn	Ea	20.00
8120251	Plastic Drum, High Intensity, Oper	Ea	20.00
8120280	Raised Pavt Marker, Temp, Type 1, White, Monodirectional	Ea	52.000
8120281	Raised Pavt Marker, Temp, Type 1, Yellow, Bidirectional	Ea	184.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	4.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	4.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	1,246.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	1,246.00

Street Surface Treatment Project - FY2019

Addendum 3

Project Log of Streets

Major Street Location - Green Road

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	1,060.00
5017031	_Hand Patching, Modified, Major Streets	Ton	175.00
5047011	_Micro-Surface, Single Course	Syd	24,242.24
8110049	Pavt Mrkg, Ovly Cold Plastic, Direction Arrow Sym, Bike	Ea	1.00
8110058	Pavt Mrkg, Ovly Cold Plastic, Bike, Small Sym	Ea	1.00
8110153	Pavt Mrkg, Sprayable Thermopl, 4 inch, White	Ft	2,800.00
8110154	Pavt Mrkg, Sprayable Thermopl, 4 inch, Yellow	Ft	5,200.00
8110155	Pavt Mrkg, Sprayable Thermopl, 6 inch, White	Ft	2,000.00
8110212	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, White	Ft	120.00
8110213	Pavt Mrkg, Thermopl, 12 inch, Cross Hatching, Yellow	Ft	916.00
8110214	Pavt Mrkg, Thermopl, 12 inch, Crosswalk	Ft	100.00
8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	2,800.00
8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	5,200.00
8110233	Pavt Mrkg, Waterborne, 6 inch, White	Ft	2,000.00
8110343	Rem Spec Mrkg	Sft	241.00
8117050	_Pavt Mrkg, Thermopl, Lt Turn Arrow Sym	Ea	2.00
8117050	_Pavt Mrkg, Thermopl, Rt Turn Arrow Sym	Ea	1.00
8117050	_Pavt Mrkg, Thermopl, Only	Ea	3.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	5.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	5.00
8120030	Channelizing Device, 42 inch, Furn	Ea	352.00
8120031	Channelizing Device, 42 inch, Oper	Ea	352.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	10,000.00
8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	Ft	1,136.00
8120235	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, White, Temp	Ft	2,800.000
8120236	Pavt Mrkg, Wet Retrflec, Type NR, Paint, 4 inch, Yellow, Temp	Ft	5,200.000
8120250	Plastic Drum, High Intensity, Furn	Ea	20.00
8120251	Plastic Drum, High Intensity, Oper	Ea	20.00
8120280	Raised Pavt Marker, Temp, Type 1, White, Monodirectional	Ea	56.000
8120281	Raised Pavt Marker, Temp, Type 1, Yellow, Bidirectional	Ea	104.000
8120330	Sign, Portable, Changeable Message, Furn	Ea	2.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	726.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	726.00

Street Surface Treatment Project - FY2019

Addendum 3

Project Log of Streets

Minor (Local) Street Location - Area 1

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	431.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	60.00
5047011	_Micro-Surface, Single Course	Syd	28,733.00
5057011	_Seal, Single Chip, Modified	Syd	19,746.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	20.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	20.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	25.00
8120251	Plastic Drum, High Intensity, Oper	Ea	25.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

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Addendum 3

Project Log of Streets

Minor (Local) Street Location - Area 2

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	456.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	63.00
5047011	_Micro-Surface, Single Course	Syd	30,369.00
5057011	_Seal, Single Chip, Modified	Syd	30,369.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	20.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	20.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	25.00
8120251	Plastic Drum, High Intensity, Oper	Ea	25.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

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Addendum 3

Project Log of Streets

Minor (Local) Street Location - Area 3

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	157.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	22.00
5047011	_Micro-Surface, Single Course	Syd	10,428.00
5057011	_Seal, Single Chip, Modified	Syd	10,428.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	15.00
8120251	Plastic Drum, High Intensity, Oper	Ea	15.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

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Addendum 3

Project Log of Streets

Minor (Local) Street Location - Area 4

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	238.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	33.00
5047011	_Micro-Surface, Single Course	Syd	15,832.00
5057011	_Seal, Single Chip, Modified	Syd	7,424.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	15.00
8120251	Plastic Drum, High Intensity, Oper	Ea	15.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

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Addendum 3

Project Log of Streets

Minor (Local) Street Location - Area 5

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
5017011	_Cold Milling HMA Surface, Modified	Syd	318.00
5017031	_Hand Patching, Modified, Minor (Local) Streets	Ton	44.00
5047011	_Micro-Surface, Single Course	Syd	21,189.00
5057011	_Seal, Single Chip, Modified	Syd	14,981.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	10.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	10.00
8120140	Lighted Arrow, Type C, Furn	Ea	2.00
8120141	Lighted Arrow, Type C, Oper	Ea	2.00
8120250	Plastic Drum, High Intensity, Furn	Ea	15.00
8120251	Plastic Drum, High Intensity, Oper	Ea	15.00
8120331	Sign, Portable, Changeable Message, Oper	Ea	2.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	200.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	200.00

Street Surface Treatment Project - FY2019

Project Log of Streets

Miscellaneous - Project Wide

<u>ItemCode</u>	<u>Item Description</u>	<u>Unit</u>	<u>Quantity</u>
1047051	_General Conditions, Max \$85,000.00	LSUM	1.00
1047051	_Project Supervision, Max \$50,000.00	LSUM	1.00
1047051	_Certified Payroll Compliance and Reporting	LSUM	1.00
1047051	_Resident Notification	LSUM	1.00
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	135.00
2090001	Project Cleanup	LSUM	1.00
5017001	_Crack Filling with Asphalt Repair Mastic	Ft	1,000.00
5040005	Micro-Surface, Rutfilling	Ton	100.00
8110197	Pavt Mrkg, Thermopl, 6 inch, Crosswalk	Ft	500.00
8110332	Rem Raised Pavt Marker	Ea	100.00
8120310	Sign Cover	Ea	75.00
8120370	Traf Regulator Control	LSUM	1.00
8127050	_No Parking Sign	Ea	360.00
8127050	_Pedestrian Type II Barricade, Temp	Ea	20.00
8127051	_Minor Traffic Control, Max \$70,000.00	LSUM	1.00