

**MANISTEE AREA PUBLIC SCHOOLS**  
**High & Middle School – 525 12<sup>th</sup> Street**  
Manistee, MI 49660

Each bidder shall be required to attach a 5% bid security with their bid. Manistee Area Public Schools has the right to accept or reject any and all bids. Each bid shall be accompanied by a sworn statement disclosing any familial relationship that exist between the owner or any employee of the bidder and any member of the board, or the superintendent of the school district. Proposals will not be considered without these documents.

Each bid shall be accompanied by Affidavit of Compliance – Iran Economic Sanctions Act in compliance with “Iran linked business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012. The Board of Education shall not accept a bid that does not include the Affidavit of Compliance. As provided by law, the Board of Education may give preference to bidders from Michigan-based businesses.

Before any construction is started, a 100% Performance and Payment Bonds shall be required. Surety bonds must be issued by a surety company authorized to do business in the State of Michigan. The validity of such bonds shall be verified prior to the award of the contract to the contractor.

**SCOPE OF WORK AND SPECIFICATIONS**

Request for a proposal to repair the asphalt pavements, as indicated on the enclosed satellite imagery. The undersigned bidder has examined the plans and specifications for the work described in the proposal for this project, and are fully informed as to the nature of the work and the conditions at the existing site.

The Contractor hereby proposes to furnish all necessary machinery, tools, apparatus and other means of construction; do all the work; furnish all the materials except as otherwise specified; and, for the lump sum and/or unit prices indicated, to complete the work in strict accordance with the specifications included in this proposal, and in strict conformity with the requirements of the current Standard Specifications for Construction, Michigan Department of Transportation, and such other special provisions and other specifications as included in this proposal.

Any additional related work or services must be authorized by a Manistee Area School Facility Manager and documented by issuance of a Contract Supplement.

## **I. SCOPE OF WORK**

### **A. High & Middle School – Entrance Ring Road and Faculty Car Lot**

It is the intent of this contract to remove and repair the existing asphalt pavement per the attached satellite imagery. Cold mill the existing asphalt pavement and aggregate base, to a depth sufficient to allow the placement of five inches of new asphalt in ring road and four inches of new asphalt in faculty car lot as indicated on the enclosed satellite imagery.

After the asphalt pavement is removed, Contractor will proof roll aggregate base to determine if there any soft or unstable areas. If any areas are located, Owner's Engineer will mark the areas and Contractor will perform Subgrade Undercut Type IV, the contractor shall install Tensar Hx5.5 geogrid on subgrade before backfilling with 21AA limestone. Contractor shall furnish and install MDOT 21AA crushed limestone with the fine grading activity to produce proper line and grade will be paid for by the ton. New four-inch, geo textile wrapped underdrains to be furnished, installed, and connected to existing drainage structures, as directed. Costs associated with these connections shall be incidental to the underdrain pay item. Costs associated with removal of the excavated spoils associated with these operations shall be incidental to the underdrain pay item. All spoils shall be removed from the project site. Backfilling/Restoration of curb and gutter is incidental to that work item.

Upon acceptance of the aggregate base course by the Engineer, the contractor shall place three- and one-half inches of 3C Modified Hot Mix Asphalt, a bond coat, and one- and one-half inches of 5C Modified Hot Mix Asphalt in the entrance ring road. Upon acceptance of the aggregate base course by the Engineer, the contractor shall place two- and one-half inches of 13A Modified Hot Mix Asphalt, a bond coat, and one- and one-half inches of 36A Modified Hot Mix Asphalt in the faculty car lot.

### **B. High & Middle School – Food Service Apron & Car Parking Lot**

It is the intent of this contract to remove and repair the existing asphalt pavement per the attached satellite imagery. Cold mill the existing asphalt pavement and aggregate base, to a depth sufficient to allow the placement of five inches of new asphalt in food service truck lot and four inches of new asphalt in food service car lot as indicated on the enclosed satellite imagery.

After the asphalt pavement is removed, Contractor will proof roll aggregate base to determine if there any soft or unstable areas. If any areas are located, Owner's Engineer will mark the areas and Contractor will perform Subgrade Undercut Type IV, the contractor shall install Tensar Hx5.5 geogrid on subgrade before backfilling with 21AA limestone. Contractor shall furnish and install MDOT 21AA crushed limestone with the fine grading activity to produce proper line and grade will be paid for by the ton. New four-inch, geo textile wrapped underdrains to be furnished, installed, and connected to existing drainage structures, as directed. Costs associated with these connections shall be incidental to the underdrain pay item. Costs associated with removal of the excavated spoils associated with these operations shall be incidental to the underdrain pay item. All spoils shall be

removed from the project site. Backfilling/Restoration of curb and gutter is incidental to that work item.

Upon acceptance of the aggregate base course by the Engineer, the contractor shall place three- and one-half inches of 3C Modified Hot Mix Asphalt, a bond coat, and one- and one-half inches of 5C Modified Hot Mix Asphalt in the food service truck lot. Upon acceptance of the aggregate base course by the Engineer, the contractor shall place two- and one-half inches of 13A Modified Hot Mix Asphalt, a bond coat, and one- and one-half inches of 36A Modified Hot Mix Asphalt in the food service car lot.

Contractor is responsible for all layout and grade staking and shall be considered incidental to other items of work.

**Contract completion date of all work is August 15, 2025. Work earliest start date is June 9, 2025.**

**The successful bidder must provide any and all permits that may be required by the State of Michigan, Manistee County, City of Manistee, Filer Charter Township or any other controlling agency or entity. The costs associated with these permits shall be incidental to other items.**

Minimum traffic control shall provide for safe ingress and egress, and protection of employees from the construction operation. A traffic control plan provided by the Contractor shall be approved by Manistee School's Engineer.

All materials not incorporated into the work will be removed from the site; any areas that are disturbed by the construction will be repaired to a "like" condition. Payment for this work will be included in other items of work.

Bids are due **Wednesday, May 28, 2025 by 1:00pm** at Manistee Area School **525 12th Street** Manistee, MI 49660 Attn: Howard Vaas

School Board will NOT consider or accept late bids.

## II. TERMINOLOGY

Quality Control (QC) - All activities that have to do with making the quality of a product according to specifications, including training, materials sampling and testing, project oversight, and documentation.

Quality Assurance (QA) - All activities that have to do with making the quality of a product according to specifications including materials sampling and testing, construction inspection, and review of Contractor quality control documentation.

Bituminous Mix Design - The selection and proportioning of aggregate(s), mineral filler (if required), reclaimed asphalt pavement (RAP) and asphalt binder such that the specified mixture design criteria are met. Laboratory evaluation is required to determine if the stated mix design complies with specifications.

Job Mix Formula (JMF) - A bituminous mixture for a specific project. This may include adjustments to the mix design to optimize the field application.

Target Value - A JMF parameter value that may be adjusted, if approved by the Engineer, to account for changes in the physical properties of the mixture.

JMF Adjustment - The Contractor may propose an adjustment to the JMF based upon QC and/or QA test results. The proposed JMF must meet the requirements of the 2003 Standard Specifications for Construction. When approved by the Engineer, a JMF adjustment may be applied retroactively to one lot, for parameters with target values.

Voids in Mineral Aggregate (VMA) - The volume of void space between the aggregate particles of a compacted paving mixture that includes the air voids and the asphalt binder, including the absorbed asphalt binder, expressed as a percent of the total volume of mixture.

Effective Specific Gravity (G<sub>se</sub>) - The ratio of the oven dry weight in air of a unit volume of an aggregate (excluding voids permeable to asphalt) at a stated temperature to the weight of an equal volume of water at a stated temperature.

Bulk Specific Gravity of Aggregate (G<sub>sb</sub>) - The ratio of the oven dry weight in air of a unit volume of an aggregate at a stated temperature to the weight of an equal volume of water at a stated temperature.

Maximum Specific Gravity of Mixture (G<sub>mm</sub>) - The ratio of the weight in air of a unit volume of an uncompacted bituminous paving mixture at a stated temperature to the weight of an equal volume of water at the same temperature.

Lot - Bituminous mixture produced and placed under this special provision is evaluated on a lot-by-lot basis. A lot is made up of a discrete tonnage of one mixture. Each lot is made up of three sublots. These sublots will be of approximately equal size up to a maximum of 2000 tons. The subplot size shall be approved by the Engineer prior to the start of production. The Contractor may request a change in the subplot size during production based upon the Contractor's

ability to produce a mixture that meets the specification contained within the contract documents, and upon approval of the Engineer.

If only one or two sublots are included in a lot at the end of production, they will be combined with the previous lot using the same mix, and this combined lot will be evaluated based upon all subplot samples.

Lot Average Test Result - The average of all subplot QA test results, for a specific parameter, for the lot. Test results for any subplot removed from the project will not be used in calculating a lot average. However, the replacement material will be tested and the results included in the lot average.

Process Quality Control Targets - These targets are established by the Contractor based upon initial production lot test results (and from any approved trial run) for air voids, VMA, asphalt binder content and Gmm. QC tolerances will be applied to these established targets to determine the need for production changes, including stopping production, to control the quality of the product. Process quality control targets must be reported to the Engineer prior to the end of placement of the second lot.

Rounding of Numbers - Rounding of numerical data will follow ASTM E 29-93a, as described in the MDOT Bituminous QC/QA Procedures Manual of Field Testing.

Random Sampling - Selection of QA samples (bituminous mixture and density) and verification samples will be by a random process managed by the Engineer. The Contractor will be given the opportunity to observe the sampling process. However, the random numbers selected and the sampling locations will not be revealed to the Contractor until the time of sampling in order to avoid bias in the random sampling process.

### **III. SAMPLING AND TESTING**

The following sampling and testing procedures are to be followed in completing this work.

ASTM D 1559-89 Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (Section 4.5).

ASTM D 2172 Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures.

ASTM D 2041 Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures.

ASTM D 2726 Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Saturated Surface-Dry Specimens.

ASTM C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates.

ASTM C 117 Test Method for Materials Finer Than 75- $\mu$ m (no. 200) Sieve in Mineral Aggregates by Washing.

ASTM E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.

MTM (Michigan Test Method) 311 Determining Aggregate Gradation for Bituminous Mixture.

MTM 117 Determining Percentage of Crushed Particles in Aggregates.

MTM 118 Measuring Fine Aggregate Angularity.

MTM 110 Determining Deleterious and Objectionable Particles in Aggregates.

MTM 319 Determination of Asphalt Content from Asphalt Paving Mixtures by the Ignition Method.

MTM 313 Sampling Bituminous Mixtures.

**Equipment.** All equipment requirements to perform these sampling and testing procedures shall apply.

#### **IV. QUALITY CONTROL (CONTRACTOR)**

**a. Bituminous Mixture:** The Contractor will take random samples of loose mixture at least every 400 tons of mixture, or a sampling frequency agreed upon with the Engineer. The Engineer will be provided a split sample of all QC samples taken by the Contractor. This sample may be taken anywhere in the production process, except behind the paver. The Contractor will be responsible for establishing process quality control targets for air voids, asphalt binder content, aggregate gradation, Gmm, obtaining QC samples, and conducting QC testing in accordance with the Contractor's quality control plan (QCP).

Each QC sample shall be identified to allow all test reports to be linked to a specific lot or subplot within the project.

The Contractor shall maintain daily control charts and have them available for review at the plant at all times. Copies of these control charts shall be provided to the Engineer if requested. All test results shall be plotted and used in quality control decisions. When corrective action is necessary, the Contractor shall notify the Engineer in writing of the specific action taken, if it required a JMF adjustment.

**b. In-place Density:** The Contractor will have a density gauge available for quality control testing during the compaction process. The Contractor will also have the capability to take 6" cores from random locations throughout the paved area for acceptance testing. The Contractor may take up to three informational cores from each mixture type, to help correlate the density gage. Minimum in-place density shall average 95 percent of theoretical maximum density, Gmm.

## V. QUALITY ASSURANCE (ENGINEER)

**a. Bituminous Mixture:** The Engineer may collect bituminous mixture (loose) quality assurance samples and provide the Contractor with splits of these samples. If the criteria for the verification procedure are satisfied, the Contractor's test results may be incorporated into the acceptance and payment decisions for the mixture. During the course of production, the Engineer may acquire random samples at any point in the production process. These samples may be tested to determine if the mixture, the aggregate and the binder meet all of the specification requirements contained in the contract document. As the samples are collected, the Engineer may assign an alphanumeric identifier to the sample and split, which can be used to trace the test results to the lot and subplot. This alphanumeric identifier may be included on all Engineer test reports associated with that sample. An example is 4-2-A, which might designate the Engineer's split (A) of the sample from subplot 2 of lot 4 on a project.

A minimum 16,000 gram sample may be taken. The sample will be divided equally for Contractor and Engineer testing. The following tests may be conducted by the Engineer on the QA sample splits.

1. Maximum Specific Gravity, Gmm (ASTM D 2041)
2. Bulk Compacted Density (ASTM D 1559, paragraph 4.5)
3. Air Voids (calculated)
4. Voids in Mineral Aggregate, VMA (calculated)
5. Composition of the Mixture - Asphalt binder content based on calculated value using subplot maximum specific gravity (Gmm) and current JMF effective specific gravity (Gse). The retained Gmm sample may be used for gradation (ASTM C 136, C 117) and crushed particle content (MTM 117) from extracted (ASTM D 2172) or incinerated (MTM 319) aggregate, or from MTM 311.

**b. In-Place Density:** The Engineer may identify random core sample locations for each subplot based on longitudinal and transverse measurements. The Engineer will mark each core location with a paint dot, which represents the center of the core. The Contractor shall drill a 6" core sample at each core location. The Contractor shall notify the Engineer sufficiently in advance of coring to ensure that a representative can be present to witness the coring and take possession of the core. The core density shall be calculated using the TMD from the test data obtained from that day's sample. The core samples shall be taken after final rolling.

As an option, when mutually agreed to by the Owner and Contractor, the core samples may be waived and the density gauge will be used for acceptance testing.

Core samples shall not be damaged during removal from the pavement. If, for any reason, a core is damaged or determined not to be representative at the time of coring, the Engineer will evaluate and document the problem and determine if re-coring is necessary.

All previous pavement, base aggregate or bond coat material shall be sawed off the bottom of the core samples.

The core holes shall be filled with hot mixture and thoroughly compacted as part of

the coring operation. The method of filling holes and obtaining compaction shall be agreed upon prior to production. Pavement density acceptance testing will be completed within one (1) work day after the cores were taken. Testing will be in accordance with ASTM D 2726. The test results on the compacted bituminous mixture will be used as a basis of acceptance and payment.

## **VI. VERIFICATION OF QUALITY CONTROL TEST**

**a. General Procedure:** The Engineer will review the Contractor's sampling and testing procedures, their test results and any Engineer quality assurance test results. If, in the opinion of the Engineer, sampling and testing procedures are proper, the Contractor's quality control test data may be used for acceptance decisions.

The Contractor's QC test results may be considered verified if the following criteria are satisfied:

1. The difference between the Contractor's QC test results and the JMF falls within the single test tolerance shown in Table 1, or
2. The difference between the Engineer's test results and the Contractor's test results falls within the single test tolerance shown in Table 1.

If the difference between the Contractor's QC test results, compared to the JMF, exceeds the single test tolerances shown in Table 1, the Engineer's test results will be used as the acceptance test. If the subplot is not verified, the Contractor shall be notified and given a copy of the test results. Both the Contractor and the Engineer will verify that testing equipment is calibrated and operating properly, and correct testing procedures have been followed. Unless it is documented that the difference resulted from equipment or procedural problems, the Engineer's test results will remain as the acceptance test of record.

The cost of one verification test per mixture type shall be paid by the Owner. Any additional mixture verification testing for acceptance shall be paid for by the Contractor.

## **VII. PROJECT DOCUMENTATION**

**a. General:** The format of all test reports and quality control charts to be submitted by the Contractor will be approved by the Engineer before mixture production is allowed to commence. Suggested formats of reports and charts are available from the Engineer. Project documentation to be provided by the Contractor shall include, but may not be limited to, the following.

### **b. Lot Basis:**

1. A complete report of QC tests shall be submitted to the Engineer within 24 hours of the time the last tests were completed.
2. Control charts of all test data must be current (data should be plotted as soon as the test is complete) and available for review by the Engineer.

### **c. Project Summation:**

1. Control charts for all test data indicating individual test values, lot averages and the running average of five.
2. A tabulation of all test data including subplot data, lot averages, project



average, project standard deviation and a projection of which lots are subject to a price adjustment.

## VIII. MEASUREMENT AND PAYMENT

Bituminous mixture will be paid for at the bituminous mixture contract unit price.

### Bituminous Mixture Price Adjustment

**a. General:** Adjustments to the contract unit price for bituminous mixture will be calculated for each of four sets of criteria. The largest adjustment allowable in each case will be imposed and unit price adjustments will be applied cumulatively (lot pavement density + pavement density + bituminous mixture + failure to suspend operations) to the affected tonnage. Each of the unit price adjustments is detailed below.

**b. Bituminous Mixture:** If, for asphalt binder content, air voids, Gmm or VMA, the difference between the lot average and the JMF is within the lot average tolerance shown in Table 2, no adjustment will be made to the unit price for **Bituminous Mixture** under this criteria. If the lot average tolerance is exceeded for one or more parameter(s), a negative adjustment will be made to the contract unit price for **Bituminous Mixture** in accordance with Table 2. Only the largest of the four possible pay adjustments for this set of criteria will be assessed. This price adjustment is applied to the entire lot tonnage.

**c. Pavement Density:** Based on pavement cores or the density gage, either a 10 percent or a 25 percent adjustment in the **Bituminous Mixture** contract unit price may be imposed. The following criteria will be used and only the highest calculated pavement density price adjustment will be applied. This price adjustment is applied to the entire lot tonnage.

1. A negative 10 percent adjustment in the **Bituminous Mixture** contract unit price will be imposed if the lot average pavement density is less than 95.0 percent, but equal to, or greater than, 94.0 percent.
2. A negative 25 percent adjustment in the **Bituminous Mixture** contract unit price will be imposed if the lot average pavement density is less than 94.0 percent, but equal to, or greater than, 92.0 percent.

## IX. REMOVAL

- a. General:** The cost of the mixture removed and the removal cost will be borne by the Contractor. Removal decisions will be applied to individual sublots.
- b.** If the pavement density for any subplot (average of subplot cores) is less than 92.0 percent, the Contractor shall remove and replace the subplot.
- c.** The Engineer reserves the right to evaluate any subplot whose test results for asphalt binder content, Gmm, VMA, or air voids, exceed the single test tolerances shown in Table 1. If the Engineer determines that the in-place mixture will not perform in accordance with normal standards, the Contractor shall remove and replace the subplot.

<b>TABLE 1 : Bituminous Quality Assurance Testing Tolerances ( + or - ) from JMF</b>		
Parameter	Single Test	Lot Average
Air Voids	1.00%	0.60%
Voids in Mineral Aggregate (VMA)*	1.20%	0.75%**
Maximum Specific Gravity (G <sub>mm</sub> )*	0.019	0.012
Asphalt Binder Content*	0.50%	0.35%

\*Parameters with Target Values

\*\*Or less, determined by VMA Value from the 2003 Standard Specifications for Construction.

The engineer retains the authority to make necessary adjustments to the JMF to ensure compliance with the intent of the specifications.

<b>TABLE 2: Bituminous Mixture Pay Adjustments</b>		
Parameter (lot average)	Deviation (d)	Negative Unit Price Adjustment (%)
Asphalt Binder Content (deviation from JMF)	0.35 < d ≤ 0.55	10
	d > 0.55	25
Air Voids (deviation from JMF)	0.6 < d ≤ 0.7	2
	0.7 < d ≤ 0.8	4
	0.8 < d ≤ 1.0	6
	1.0 < d ≤ 1.1	8
	1.1 < d ≤ 1.2	10
	d > 1.2	25
Maximum Specific Gravity (G <sub>mm</sub> ) (deviation from JMF)	0.012 < d ≤ 0.014	2
	0.014 < d ≤ 0.015	4
	0.015 < d ≤ 0.017	6
	0.017 < d ≤ 0.019	8
	0.019 < d ≤ 0.021	10
	d > 0.021	25
Voids in Mineral Aggregate (VMA) (deviation below minimum value in the 2003 Standard Specifications for Construction)	0.0 < d ≤ 0.1	2
	0.1 < d ≤ 0.3	4
	0.3 < d ≤ 0.4	6
	0.4 < d ≤ 0.5	8
	0.5 < d ≤ 0.6	10
	d > 0.6	25

## X. Technical Specifications

### Section 304. Bituminous Mixtures

**304.01 Description.** Construct the bituminous leveling and surface courses.

The Contractor will furnish all necessary machinery, tools, apparatus and other means of construction to do all the work, and furnish all the materials, except as otherwise specified, to complete the work in strict accordance with the plans and specifications included in this proposal, and in strict compliance with the current Michigan Department of Transportation Standard Specifications for Construction and special provisions.

#### 304.02 Technical Specifications

1. Mix Design

A 4-point, fifty-blow each side, Marshall Mix Design will be completed for each mixture used on this project. This design will be done in accordance with the Asphalt Institutes MS-2 with the following clarifications. Two theoretical density (Gmm) tests will be conducted for each of the four test points, without dry back. The effective specific gravity (Gse) will then be calculated for each test point using the average Gmm, and then the mixture Gse will be the average of the four test points. The completed mixture design will include all data from all test points and a regression table showing the following data for each 0.1% of asphalt content; air voids, maximum theoretical specific gravity, compacted density, and voids in the mineral aggregate. This data, in its entirety, must be presented to and approved by the owner's representative at least two days before the mixture is placed. SuperPave asphalt mix designs maybe considered at the following volumetric properties as accepted by the engineer.

A. MIXTURE NUMBER:	<u>5C Mod.</u>	<u>3C Mod.</u>	<u>13A Mod.</u>	<u>36A Mod.</u>
VMA % (eff. spec. gravity)	16.5	15.0	15.5	16.5
Air voids %*	3.0	3.0	2.5*	2.5*
Fines to binder ratio (max.)	1.2	1.2	1.2	1.2
Fine angularity min. MTM 118	4.0	4.0	2.5	3.0
L.A. Abrasion % max.	40	40	40	40
Soft Particle % max.	8	8	8	6*

B. GRADATIONS - Percent passing indicated sieve:

1"	100	100	100	100
3/4"	100	99-100	100	100
1/2"	100	90 Max	75-95	100
3/8"	98-100	77 Max	60-90	92-00
#4	90 Max	57 Max	45-80	65-90
#8	40-70	15-45	30-65	55-75
#16	30-50	33 Max	20-50	--
#30	20-35	25 Max	15-40	25-45
#50	15-20	19 Max	10-25	--
#100	15 Max	15 Max	5-15	--
#200	3-6	3-6	3-6	3-7
Crush (min.) MTM 117	90	90	50*	60

▲ Modified from MDOT specifications.

▲

C. Final binder properties shall meet asphalt PG **58-28** for this project.

D. If the binder obtained from the RAP exceeds 17 percent of the total binder in the mixture, the Contractor shall furnish documentation (i.e., blending chart) in order to determine the proper grade of the virgin binder required to achieve the desired final binder properties. The Contractor shall provide the Engineer asphalt cement delivery tickets showing binder grade, date of delivery, and quantity delivered. The Contractor will provide the Owner a letter certifying that all materials approved on the mix design were used in the project mixture.

2. In-Place Density

The average in-place density of the mixture shall be a minimum of 95 percent of theoretical maximum density. Density technician and gauge shall be on the project for every asphalt paving day.

Aggregate base density to be minimum of 95 percent of maximum unit weight at a moisture content no greater than optimum for aggregate base under hot mix asphalt (HMA) pavement.

## **XI. FIVE-YEAR WARRANTY**

It is the intent of this document to provide the owner with a five-year warranty against defects caused by deficiencies in the materials and/or workmanship provided on this project. The warranty covers the following conditions:

1. Cracking as defined shall be any crack caused by improper joints in the pavement, either a construction joint, a butt joint, or any cracking caused by expansion or contraction of the pavement, i.e., thermal cracking. Cracks caused by fatigue or settlement will not be covered by this warranty.
2. Delamination as defined shall be any instance where the surface course de-bonds from the underlying layer of asphalt pavement, causing slippage or complete separation.
3. Raveling as defined shall be any area where the aggregate or matrix becomes loose, or separates from the asphalt pavement. This condition will generally be caused by poor density or segregation.

Remedies for the conditions described above will be as follows:

1. Cracking. Any cracks over 3' in length and/or wider than 1/8" shall be corrected by routing/sawing and sealing or overband sealing, as directed by the engineer, with a sealer approved by the engineer.
2. Delamination. Any area that exhibits delamination will be repaired by removing the surface course and cleaning the leveling course, installing a bond coat and furnishing and installing a new surface course of a like hot mix asphalt.
3. Raveling. Any area that exhibits raveling, or a loss of aggregate or matrix, will be repaired by removing the distressed area, cleaning the leveling course, applying a bond coat and furnishing and installing a new surface course of a like hot mix asphalt.

At least once a year, for the duration of the warranty period, the Owner will inspect the pavement to determine if any warranty work is necessary. If deficiencies are found, the Owner will notify the Contractor in writing as to the extent of the repairs needed. The Contractor may also inspect the lot from time to time to determine if any warranty work is necessary. The Contractor will be allowed to perform any warranty work that he feels will retard any further deterioration of any of the warranted conditions.

## XII. PAYMENT

Payment for this work will be by unit prices of actual quantities installed at the unit prices as listed in this proposal. Asphalt pavement and the aggregate base quantities placed in excess of 105 percent of plan quantity shall be at the Contractor's expense. The quantities shown on the bid sheet have five percent included in the quantity.

High & Middle School Entrance Ring Road and Faculty Car Lot				
Item	Unit	Quantity	Unit Price	Total
Cold Milling	SYD	7,750		
Saw Cut Bituminous	LFT	75		
4" Underdrain – Geotextile Wrapped	LFT	600		
Conc Curb & Gutter (R&R)	LFT	100		
Structure Reconstruction	EA	4		
Subgrade Undercut – Type IV	CYD	250		
Geogrid	SYD	775		
Aggregate Base – MDOT 21AA	TON	300		
Fine Grade	SYD	7,750		
Bituminous Mixture 13A Mod	TON	730		
Bituminous Mixture 36A Mod	TON	440		
Bituminous Mixture 3C Mod	TON	550		
Bituminous Mixture 5C Mod	TON	240		
Traffic Control	LS	1		
Private Utility Staking	LS	1		
Contractor Staking	LS	1		
Pavement Markings	LS	1		
Mobilization	LS	1		
5 Year Warranty	LS	1		
<b>Total</b>				

High & Middle School Food Service Truck Lot and Food Service Car Lot				
Item	Unit	Quantity	Unit Price	Total
Cold Milling	SYD	1,505		
Saw Cut Bituminous	LFT	50		
4" Underdrain – Geotextile Wrapped	LFT	300		
Conc Curb & Gutter (R&R)	LFT	75		
Structure Reconstruction	EA	2		
Subgrade Undercut – Type IV	CYD	50		
Geogrid	SYD	150		
Aggregate Base – MDOT 21AA	TON	90		
Fine Grade	SYD	1,505		
Bituminous Mixture 13A Mod	TON	90		
Bituminous Mixture 36A Mod	TON	50		
Bituminous Mixture 3C Mod	TON	200		
Bituminous Mixture 5C Mod	TON	85		
Traffic Control	LS	1		
Private Utility Staking	LS	1		
Contractor Staking	LS	1		
Pavement Markings	LS	1		
Mobilization	LS	1		
5 Year Warranty	LS	1		
<b>Total</b>				

Signed by \_\_\_\_\_ , \_\_\_\_\_

Print Name

Contractor \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Date \_\_\_\_\_



p: 97.3 ft  
a: 354.09 sq ft

$\Sigma p$  8,476 ft  
 $\Sigma a$  219,302 sq ft



12th St

12TH ST

12th St

45,356 sq ft

S.D. Lot

Island

Island

Island

24,372 sq ft

H.D. Loop

0 20ft



P: 503.2 ft  
Σa 232,802 sq ft  
Σp 9,273 ft

Tamarack St

Tamarack St

H.D. Service Lot

8,504 sq ft

S.D. Service Lot

4,996 sq ft

0 20ft

Manist / H





## AFFIDAVIT OF BIDDER

The undersigned, the owner or authorized officer of \_\_\_\_\_ (the "Bidder"), pursuant to the familial disclosure requirement provided in the **Manistee Area Public School** advertisement for construction bids and in compliance with MCL 380.1267, hereby represents and warrants, except as provided below, that no familial relationships exist between the owner(s) or any employee of \_\_\_\_\_ (the "Bidder") and any member of the Board of Education or the Superintendent of Manistee Area Public Schools.

List any Familial Relationships:

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### BIDDER:

\_\_\_\_\_  
Business Name

By: \_\_\_\_\_  
\_\_\_\_\_

Its: \_\_\_\_\_

STATE OF MICHIGAN

COUNTY OF \_\_\_\_\_

This instrument was acknowledged before me on the \_\_\_\_\_ day of \_\_\_\_\_, 2017, by

\_\_\_\_\_.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_ County, Michigan

My Commission Expires: \_\_\_\_\_  
Acting in the County of: \_\_\_\_\_

## IRAN ECONOMIC SANCTIONS ACT CERTIFICATION

I am the \_\_\_\_\_ of \_\_\_\_\_, or I am bidding in my individual capacity ("Bidder"), with authority to submit a binding bid for the provision of Construction services to Manistee Area Public Schools. I have personal knowledge of the matters described in this Certification, and I am familiar with the Iran Economic Sanctions Act, MCL 129.311, *et seq.* ("Act"). I am fully aware that the school district will rely on my representations in evaluating bids.

I certify that Bidder is not an Iran-linked business, as that term is defined in the Act. I understand that submission of a false certification may result in contract termination, ineligibility to bid for three (3) years, and a civil penalty of \$250,000 or twice the bid amount, whichever is greater, plus related investigation and legal costs.

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(signature)

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(printed)

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(date)