



# Antrim County Road Commission

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April 30, 2012

## REQUEST FOR BIDS - CHIP SEAL AND FOG SEAL

Sealed bids will be received until 1:00 PM, Monday, May 14, 2012, for the 2012 chip seal program, at which time they will be publicly opened and read. Bids shall be received at the office of the Antrim County Road Commission, PO Box 308, 319 E. Lincoln St, Mancelona, Michigan 49659-0308. Bids will be tabulated and a recommendation will be made to the Board of County Road Commissioners at their next regular meeting.

### See enclosed list of roads and estimated quantities.

See enclosed Special Provision for Single and Double Chip Seal and Special Provision for Fog Seal for all specifications related to this bid.

All liability, worker's compensation and fleet insurances shall be as required in the current MDOT Standard Specifications for Construction.

The contractor shall hold harmless, indemnify and defend the Antrim County Road Commission, its employees, agents and officers from any and all claims arising from or out of and to the completion of the work. The Antrim County Road Commission, its employees, agents and officers shall be named additional insured on all contractor's liability policies required to perform the work described in this proposal and the enclosed special provision.

The bidder's signature on this proposal shall constitute full knowledge and acceptance of the terms contained herein and the special provisions. The successful bidder shall enter into a contract with and provided by the road commission, a copy of which is enclosed for informational purposes only.

Label bid "**CHIP SEAL BID**" plainly on the outside of a sealed envelope.

The Antrim County Road Commission reserves the right to accept or reject any or all bids, to waive any irregularity or defect in a bid, or to accept that bid which in the opinion of the Road Commission is in the best interest of the county. Bid prices may be extended to other projects if it is mutually agreeable to both the Road Commission and the successful bidder.

Burt R. Thompson, P.E.  
Engineer-Manager  
enclosures (4)

**Antrim County Road Commission  
2012 Single Chip Seal and Fog Seal Bid**

<b>Single Chip Seal</b>	<b>74,297</b> square yards @	\$ _____ / syd
<b>Fog Seal</b>	<b>74,297</b> square yards @	\$ _____ / syd

**ACKNOWLEDGMENT**

I acknowledge that I have thoroughly read all the pages of this document and if awarded the work will be done in full accordance with same.

\_\_\_\_\_  
Company name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Mailing address

\_\_\_\_\_  
City, State and zip

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Cell phone

\_\_\_\_\_  
Email

## ANTRIM COUNTY ROAD COMMISSION

SPECIAL PROVISION  
FOR  
**Single and Double Chip Seal**

ACRC/BRT

1 of 4

4/30/201204/30/12

**Description:**

The work consists of furnishing all materials, equipment and labor necessary for the surface preparation and application of a single chip seal. This work shall conform to the requirements of Section 505 of the Michigan Department of Transportation 2012 Standard Specification for Construction except as modified herein.

**Equipment:**

All equipment must meet the requirements under Section 505 of the Michigan Department of Transportation 2012 Standard Specifications for Construction, except as modified herein:

Pressure Distributor:

The pressure distributor shall have a computerized application rate and speed control device interconnected with the liquid asphalt pump such that the specified application rate will be supplied at any speed. This control shall have a radar ground sensing device that controls the application rate regardless of ground speed or spray bar width. The pressure distributor shall be capable of maintaining the asphalt at the specified temperature. The spray bar nozzles shall produce a uniform fan spray, and the shutoff shall be instantaneous with no dripping. Each pressure distributor shall be capable of maintaining the specified rate of application within +/- 0.015 gallons per square yard for each load.

Compacting Equipment:

Use a sufficient number of pneumatic-tired rollers weighing not less than 8 tons each.

Broom/Sweeper:

The use of a rotary-powered broom is required to remove the loose material from the surface to be treated and for removing loose aggregate after the work has been completed.

**Pre-paving Meeting:**

A pre-paving meeting will be held at a location designated by the Engineer before beginning work to discuss the following:

- Work schedule.
- Traffic control plan.
- Equipment calibration and adjustments.
- Condition of materials and equipment, including transport units.

- Mix design(s) including job-mix-formula (JMF); coarse aggregate gradation; application rate of asphalt emulsion and coarse aggregate (by stationing and course).
- Contractor's quality control plan (method of yield check, etc.).

### **General Placement Operations:**

1. The Contractor shall establish 1000-foot intervals along the entire length of the project, prior to placing materials. The stations shall be clearly identified and maintained until project completion.
2. Keep all vehicles and equipment involved in the chip sealing operation as close to each other as practical. Keep the asphalt emulsion distributor within 100 feet of the chip spreader. Do not place cover aggregate on asphalt after it has cured.
3. Perform rolling within five minutes of placing the coarse aggregate and before the asphalt has begun to cure. Make a minimum of two complete passes over the coarse aggregate. A complete pass is one trip, forward and backward, over the same path. Overlap each pass by one-half the width of the roller. Use a minimum of two rollers and proceed in a longitudinal direction at a speed not greater than 5 mph.

### **Quality Control:**

The following measures shall be taken by the Contractor to maintain quality control and uniformity. If the condition is identified that causes an unsatisfactory chip seal, all production work shall stop and corrective action must immediately be taken. The Contractor shall perform the corrective action at no additional cost to the contract. All truck demurrage will be the responsibility of the contractor.

1. **Liquid Asphalt.** The Contractor shall apply the liquid asphalt at a temperature between 260°F and 300°F.
2. **Visible Dust.** During normal traffic operations any dust that is a nuisance or slightly impairs visibility is unsatisfactory. The roadway must be wet broomed until the condition is eliminated.
3. **Loose Stone.** During normal traffic operations any stone picked off the surface by vehicles is unsatisfactory. The roadway must be wet broomed until the condition is eliminated.
4. **Bleeding or Tracking.** During normal traffic operations any bleeding or moderate tracking is unsatisfactory. The roadway must be sanded and swept clean. If the surface conditions call for further action, a heated aggregate meeting the physical properties of Table 2, shall be applied, rolled and broomed.
5. **Rough Joints.** Traverse and longitudinal construction joints from a chip seal application that creates a bump or poor riding joint is unsatisfactory. The bump shall be removed by grinding the surface and lightly applying a fog seal over the ground area.

6. **Surface Patterns.** Any asymmetric appearance seen in the chip seal surface characterized by longitudinal groves or ridges in the surface is unsatisfactory. The spray bar and nozzles must be readjusted to eliminate the surface pattern problem.

### Liquid Asphalt:

The Liquid Asphalt to be used shall be CM-90. The asphalt must meet the requirements stated in Table 1. The Contractor shall apply the Liquid Asphalt at a temperature between 260°F and 300°F, followed by a uniform application of coarse aggregate. The CM-90 placement rate shall be within a residual target range of 0.29 to 0.31 gallons per square yard (after correction for temperature expansion and distillate loss). Construct a 100-foot test strip at the residual target rate of 0.30 gallons per square yard followed by a uniform application of coarse aggregate and review the application. If this target rate is not the optimum application rate due to the gradation of the course aggregate or due to existing surface condition of the pavement, the Contractor shall notify the Engineer immediately and prior to any further application. Upon approval of adjustments to the application rate by the Engineer, the Contractor shall then document the new JMF rate(s) by stationing and resume the application at the new rate. The Contractor shall continue to monitor the new application rate and report any noticeable changes to the Engineer.

Target rate shall be adjusted appropriately for the second course of a Double Chip Seal.

All truck demurrage will be the responsibility of the contractor.

**Table 1 – Chip Seal Matrix Modified Asphalt (CSMMA) – CM 90 Amend table 904-2**

TESTS	Requirements
	CM 90
Modified Koppers Vacuum Viscosity, 25°C, P, ASTM D 4957	2,000 to 20,000
Flash Point, deg °C:	
Tag Flash Point, °C, min, ASTM D 3143-98	65.5
Water in Petroleum, ASTM D 95-05, %, max	1.0
Cut-Back Distillation, ASTM D 402-02	
Distillate, % by Vol of Total Distillate to 360° C	
To 225° C	0-2
To 260° C	0-5
To 315.5° C	10-65
Residue from Distillation to 360° C, min	90
Test on Residue from Distillation, ASTM D 402	
Penetration, 25° C, 100 g, 5 sec, ASTM D5-05a	90 to 150
Ductility at 25° C, cm, min, ASTM D 113	Report
Solubility in Trichloroethylene, %, min, ASTM D 2042-01	99.0
Softening Point, °C, min, ASTM D 36-95	76.7
Float Test, 60° C, sec, min, ASTM D 139-95	1200

**Coarse Aggregate:**

Cover material to be used will be 25A Slag. The aggregate shall be tested material or provided by a prequalified aggregate supplier. The 25A placement rate shall be within the range of 16 to 19 pounds per square yard with a target rate of 17 pounds per square yard. If the target rate is not the optimum application rate due to the gradation of the coarse aggregate or due to existing surface conditions of the pavement, the Contractor shall notify the Engineer immediately and prior to any further application. Upon approval of changes by the Engineer, the Contractor shall then document the new JMF rate(s) by stationing and resume the application at the new rate. The Contractor shall continue to monitor the new application rate and report any noticeable changes to the Engineer.

**Maintaining Traffic:**

The Contractor shall provide all equipment, labor, and materials to properly control traffic throughout the length of the project. All traffic control features shall be in accordance with the current Michigan Manual of Uniform Traffic Control Devices (MMUTCD) to protect the traveling public, their workforce and the work. Payment for maintaining traffic and minor traffic control devices shall be included in other pay items

**Delayed Acceptance:**

The delayed acceptance will not occur until after 30 days from the time of placement of the fog seal, if required, otherwise from the time of placement of the chip seal.

**Measurement and Payment:**

Completed work, as measured, will be paid for at the contract unit price for the following contract items:

<u>Pay Item</u>	<u>Pay Unit</u>
Seal, Single Chip	Square Yard
Seal, Double Chip	Square Yard

Payment for the Seal, Single Chip includes all equipment, labor and all material for placement of a single application of liquid asphalt and coarse aggregate, traffic control, surface preparation, brooming, establishment of yield intervals, documentation and delayed acceptance inspection.

Payment for the Seal, Double Chip includes all equipment, labor and all material for placement of a double application of liquid asphalt and coarse aggregate, traffic control, surface preparation, brooming, establishment of yield intervals, documentation and delayed acceptance inspection.

No adjustments in the unit price will be made for approved rate of liquid asphalt and/or coarse aggregate that is within the ranges identified in the Liquid Asphalt and Coarse Aggregate Application.

## ANTRIM COUNTY ROAD COMMISSION

SPECIAL PROVISION  
FOR  
**Fog Seal**

ACRC/BRT

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4/30/2012

**Description:**

The work consists of furnishing all materials, equipment and labor necessary for the surface preparation and application of a fog seal. This work shall conform to the requirements of Section 505 and 904 of the Michigan Department of Transportation 2012 Standard Specification for Construction except as stated within.

**Equipment:**

All equipment must meet the requirements under Section 505 of the Michigan Department of Transportation 2012 Standard Specifications for Construction, except as modified herein:

Pressure Distributor:

The pressure distributor shall have a computerized application rate and speed control device interconnected with the asphalt emulsion pump such that the specified application rate will be supplied at any speed. This control shall have a radar ground sensing device that controls the application rate regardless of ground speed or spray bar width. The pressure distributor shall be capable of maintaining the asphalt at the specified temperature. The spray bar nozzles shall produce a uniform fan spray, and the shutoff shall be instantaneous with no dripping. Each pressure distributor shall be capable of maintaining the specified rate of application within +/- 0.015 gallons per square yard for each load.

**General Placement Operations:**

1. Fog seal completed chip seal areas, after brooming and before placement of permanent pavement markings. Allow chip seal to cure a minimum 24 hours before fog sealing. Remove the protective covers from the temporary pavement marker tab after the placement of the fog seal. Removal of the protective covers shall be done within a lane closure. Allow a minimum of 3 days before placing permanent pavement markings.
2. Fog seal shall not be applied when the air temperature is below 60° F. The fog seal shall be applied to a clean, dry pavement surface. Do not apply fog seal when precipitation is imminent. If precipitation occurs, prior to the emulsion breaking, the effected areas shall be reapplied at the Contractors expense.
3. The fog seal shall be applied so that there is a minimum of a 1 foot overlap at the centerline of the roadway.
4. Traffic shall not be allowed on the fog seal until the emulsion has fully cured.
5. The fog seal Emulsified Asphalt shall be applied at the temperature recommended by the Supplier.

**Fog Seal Application Rate:**

The fog seal shall be an Emulsified Asphalt, SS-1h (at 50% dilution) as specified in Table 904-4 of the Michigan Department of Transportation 2012 Standard Specifications for Construction. A Cationic Emulsified Asphalt, CSS-1h (at 50% dilution) as specified in Table 904-5 is also acceptable. The SS-1h shall be spread at a target rate between 0.12 and 0.15 gallons per square yard. Construct a 100-foot test strip at the target rate of 0.135 gallons per square yard and review the application. If this target rate is not the optimum application rate due to the gradation of the course aggregate or due to existing surface condition of the pavement, the Contractor shall notify the Engineer immediately and prior to any further application. Upon approval of adjustments to the application rate by the Engineer, the Contractor shall then document the new JMF rates(s) by stationing and resume the application at the new rate. The Contractor shall continue to monitor the new application rate and report any noticeable changes the Engineer. All truck demurrage will be the responsibility of the Contractor.

**Submittals:**

Upon completion the Contractor shall provide an inspector's daily report for each day work was performed containing the following information:

- Control Section / project number / Road Name
- Date / air temperature / pavement temperature / humidity
- Asphalt Emulsion temperature
- Beginning and ending stations
- Yield checks on asphalt emulsion
- Length / Width / Total Square Yards
- Contractor's Signature

Provide the following additional materials documentation:

- Asphalt Emulsion: per current acceptance procedures.
- Bill of lading or delivery tickets for asphalt emulsion

The above submittals shall be placed in order by date in a folder with the certification statement in the back.

**Protection of Motor Vehicles:**

The Contractor is responsible for claims of damage to vehicles until the roadways and shoulders have been swept free of loose aggregate, the Fog Seal has been applied and the permanent pavement markings have been applied.

**Maintaining Traffic:**

The Contractor shall provide all equipment, labor, and materials to properly control traffic throughout the length of the project. All traffic control features shall be in



accordance with the current Michigan Manual of Uniform Traffic Control Devices (MMUTCD) to protect the traveling public, their workforce and the work. Payment for Traffic Control shall be included in the pay item for Fog Seal.

**Delayed Acceptance:**

A minimum of 30 days after placement of the fog seal, the Engineer will inspect the project with the Contractor for surface flushing, surface patterns, or loss of stone. If these deficiencies are found, corrective work is required.

Complete all corrective work within seven working days of the review, or by an agreed upon date. All costs associated with completing this corrective work, to the satisfaction of the Engineer, will be borne by the Contractor.

**Measurement and Payment:**

Completed work, as measured, will be paid for at the contract unit price for the following contract items:

<u>Pay Item</u>	<u>Pay Unit</u>
Fog Seal	Square Yard

Payment for the Fog Seal includes all equipment, labor, testing and materials for placement of an Emulsified Asphalt, SS-1h (at 50% dilution), traffic control, surface preparation, brooming, establishment of yield intervals, documentation and delayed acceptance inspection.

No adjustments in the unit price will be made for an approved rate of Emulsified Asphalt, SS-1h (at 50% dilution) that is within the ranges identified in Fog Seal application rate.

The contract unit price shall be payment in full for all labor and equipment needed to accomplish the work.

## AGREEMENT FOR SERVICES

THIS AGREEMENT shall be deemed effective on \_\_\_\_\_, between the Antrim County Road Commission, a Michigan municipal corporation, whose address is 319 E. Lincoln St., P.O. Box 308, Mancelona, Michigan 49659 (Road Commission) and \_\_\_\_\_, whose address is \_\_\_\_\_ (Contractor).

### Recitals

- A. The Road Commission desires to engage the services of Contractor to perform construction services in compliance with the proposal submitted by Contractor, dated \_\_\_\_\_ and attached hereto as Exhibit A. (Project)
- B. Contractor has the time, skills, and desire to complete the Project under the terms and conditions of this Agreement.
- C. The parties, therefore, desire to specify their respective rights and obligations in this Agreement.

### Agreement

NOW THEREFORE, in consideration of the mutual promises contained herein, the parties hereby agree as follows:

- 1. **Engagement of Services.** The Road Commission hereby engages Contractor to perform construction services in compliance with the proposal submitted by Contractor, dated \_\_\_\_\_ and attached hereto and incorporated herein by reference as Exhibit A. (Project)
- 2. **Duties.** Contractor shall perform the construction services necessary to complete the Project in a workmanlike manner. The work to be performed under this Agreement shall begin no later than \_\_\_\_\_, and shall be fully completed by no later than \_\_\_\_\_.
- 3. **Acceptance of Work.** Upon completion of the work to be performed under this Agreement, the Road Commission shall inspect the work and shall accept the work in writing when the Road Commission is satisfied the Project was performed as required under this Agreement.
- 4. **Warranty of Workmanship.** Contractor hereby warrants to the Road Commission that the work to be performed under this Agreement shall be free of defects in labor and materials for a period of one (1) year from the date the Road Commission accepts the work under paragraph 3 above. If a defect in labor or materials arises in connection with the work performed under this Agreement, the Road Commission shall notify Contractor of the defect in writing. Contractor shall then at its sole expense correct or repair the defect in a timely manner.

5. Manufacturers' Warranties. Upon completion of the work performed under this Agreement, Contractor shall transfer any manufacturers' warranties covering the material installed to the Road Commission.
6. Payment. The Road Commission shall pay Contractor following the Road Commission's written acceptance of the work as provided in paragraph 3 above a total of \$\_\_\_\_\_.
7. Independent Contractor. The parties hereby acknowledge and agree that Contractor is performing the services contemplated by this Agreement as an independent contractor and is not acting as an employee or agent of the Road Commission. As a result of Contractor' status as an independent contractor, the Road Commission shall not be responsible for any state or federal income tax withholdings and shall not be responsible for providing worker's compensation insurance coverage for Contractor or any of its employees.
8. Insurance. Throughout the time work is being performed under this Agreement, Contractor shall obtain and maintain public liability insurance in the sum of not less than ONE MILLION and 00/100 DOLLARS (\$1,000,000.00) for damages relating to any one person or for damages relating to any one occurrence. This insurance policy shall name the Road Commission as an additional named insured and shall contain a provision that the policy cannot be terminated, canceled, or substantially altered without thirty (30) days written notice to the Road Commission. Contractor shall provide notice of compliance with this insurance provision before beginning the work to be performed under this Agreement.
9. Indemnification. Contractor shall indemnify and hold harmless the Road Commission, its officers, board members, assigns, agents, servants, employees, and insurance companies from any and all damages, legal fees or expenses, losses, claims and actions which may arise out of performing the services contemplated by this Agreement.
10. No Assignment without Written Consent. Contractor shall not assign this Agreement to any other person or entity without first obtaining the written consent of the Road Commission.
11. Termination. The Road Commission may terminate this Agreement by giving to Contractor seven (7) days written notice of the intent to terminate this Agreement. In the event this Agreement is terminated as provided herein, Contractor shall only be paid the pro rata compensation based on the percentage of work completed as required in this Agreement to the date of termination.
12. Notice. Any notice required under this Agreement by either party shall be in writing to the party to be so notified and sent by certified mail, return receipt requested, to such address as noted herein, unless such address is changed and both parties have been notified consistent with this paragraph.
13. Governing Law. The parties agree that the validity, construction, enforcement and interpretation of this Agreement shall be governed by the laws of the State of Michigan.

- 14. Amendments. This Agreement may be amended by the mutual consent of both parties that is documented in writing and signed by both parties.
- 15. Entire Agreement. The Agreement contains the entire Agreement of the parties hereto and supersedes all prior agreements and understandings, oral or written, if any, between the parties.
- 16. Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the other provisions, and this Agreement shall be construed as if such invalid or unenforceable provision were omitted.

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective the day and year first above written.

ANTRIM COUNTY ROAD COMMISSION, a Michigan municipal corporation

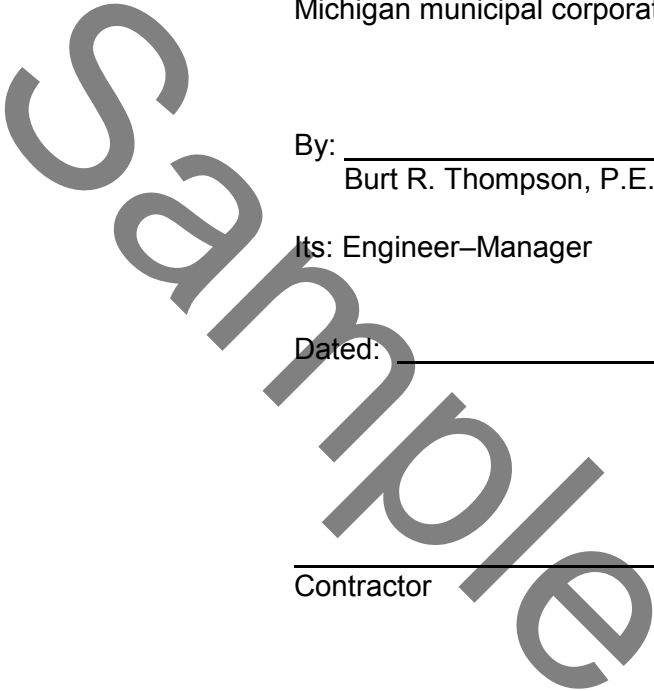
By: \_\_\_\_\_  
Burt R. Thompson, P.E.

Its: Engineer-Manager

Dated: \_\_\_\_\_

\_\_\_\_\_  
Contractor

Dated: \_\_\_\_\_



2012 Chip Seal Program (revised April 30, 2012)

road	termini	length	width	cul de sac		
				- syd	syd	
Custer Township						
Kurfman	Del Mason	Shanty Creek	1215	25.0		3375
Del Mason	Shanty Creek	Kurfman	1270	25.0		3528
Alpenhaus Ln	Del Mason	end	261	25.0	545	1270
Grindel Strause	Schuss Mtn Dr	end	1705	20.0	491	4280
Grindel Strause	east leg		200	24.0		533
Gretel St	Grindal Strause	end	252	25.0	601	1301
Hansel St W	Grindal Strause	end	448	25.0	558	1802
Wasservalden St	Schuss Mtn Dr	Pralogwn Ln	735	25.0		2042
Heideldorf Dr	Schuss Mtn Dr	Heideldorf Ln	3720	25.0		10333
Banhof Ln	Heideldorf Dr	Heideldorf Ln	1400	25.0		3889
Bergbannen St	Heideldorf Dr	Banhoff	1025	25.0		2847
Heideldorf Ln	Heideldorf Dr	end	2133	25.0	517	6442
Schafen Strasse	Heideldorf Dr	end	910	25.0	517	3045
Klaffen Strasse	Heideldorf Dr	end	1869	25.0	517	5709
Val D'Isere	Heideldorf Dr	Courchevel	970	25.0		2694
Schutzen Ln	Heideldorf Dr	end	668	25.0	517	2373
Hauschen Ln	Heideldorf Dr	end	155	25.0	517	948
Undervalden Dr	Schuss Mtn Dr	Grindelwald	1000	20.0		2222
Grindelwald Dr	Schuss Mtn Dr	end	938	20.0	369	2453
Obervalden Dr	Schuss Mtn Dr	end	2300	20.0		5111
Tanne Valden St East	N Obervalden	Obervalden	1315	20.0		2922
Tanne Valden St West	N Obervalden	Obervalden	1125	20.0		2500
N Obervalden Dr	Obervalden	end	1205	20.0		2678
		GRAND TOTAL	26819			74297
		Miles	5.08			