



PURCHASING AND CENTRAL SERVICES

Telephone No.: (845) 808-1088

Fax No.: (845) 808-1914

Contract Award Notification

Title: COLD IN PLACE RECYCLING PROCESSES

Contract Period: FEBRUARY 1, 2017 – JANUARY 31, 2017
with an additional one year option

Bid Opening Date: JANUARY 4, 2017

BID No: RFB-07-17

Authorized User: County Agencies

Description: COLD IN PLACE RECYCLING PROCESSES

Contractor Information: GORMAN BROS., INC.
COLD IN PLACE RECYCLING
200 CHURCH STREET
ALBANY, NY 12202
518-462-5401
PECKHAM ROAD CORPORATION
COLD IN PLACE RECYCLING WITH FOAMED ASPHALT
375 BAY ROAD-SUITE 102
QUEENSBURY, NY 12804
518-792-3157

PURCHASING AGENT: Alex Maggetta **DATE:** 1/5/17

DEPARTMENT HEAD: [Signature] **DATE:** 1/18/17

COUNTY EXECUTIVE: Maryellen [Signature] **DATE:** 1.19.17

COUNTY OF PUTNAM - PURCHASING
 40 Gleneida Ave.-1st Floor-Room 105, Carmel, NY 10512
 TELEPHONE: 845-808-1088 / TELEFAX: 845-808-1914

TITLE: COLD IN PLACE RECYCLING PROCESSES

BID NUMBER: RFB-07-17

SPECIFICATIONS FOR COLD IN PLACE RECYCLING PROCESSES

SECTION 1.0 COLD IN-PLACE RECYCLING

It is the intent of this specification to describe the pulverizing of the existing bituminous surface to the specified width and depth, mixing an asphalt emulsion with the pulverizing material, then spreading and compacting said mixture. All of the above operation shall be done in-place and no trucking of RAP will be allowed except for the small amount needed to complete the paving at the end of the day.

1.1 Materials:

The pulverized bituminous material shall meet the following gradation requirements:

Sieve	% Passing
1-1/4"	100
1"	90-100

1.2 Construction Requirements:

The existing bituminous material shall be cold recycled in a manner that does not disturb the underlying material in the existing roadway. However, in some circumstances, a certain amount of the base material may have to be incorporated. In other instances it may be necessary for the contractor, with the consent of the authorized County representative, to decrease the depth of cut, for example, when large rocks or unsuitable materials are encountered.

Recycled operations shall not be performed when the atmospheric temperature is below 50°F or when the weather is foggy or rainy, or when weather conditions are such that proper mixing, spreading and compacting of the recycled material cannot be accomplished in the judgment of the project manager.

When commencing recycling operations, the asphalt emulsion shall be added to the pulverized bituminous material at the initial design rate determined by the contractor's laboratory. Said laboratory shall be capable of performing all test operations enumerated in the attached "Recommended Briquette Molding and Testing Procedure for Bulk Specific Gravity and Compressive Strength Determinations of Cold In-Place Recycled Bituminous Material" published by the Asphalt Recycling and Reclaiming Association. The exact application rate of asphalt emulsion will be determined and varied by the authorized County representative as required by existing pavement conditions. An allowable tolerance of +/- 0.2% of the initial design rate or project engineer directed rate of application shall be maintained at all times. The contractor may add water to the pulverized material to facilitate uniform mixing with the asphalt emulsion. Water may be added prior to or concurrently with the emulsion. Said water shall not cause any adverse effect on the emulsion or the recycled material.

The contractor shall demonstrate his ability to obtain a minimum density of 96% of a laboratory specimen prepared in accordance with AASHTO T-245 (50 blows). The authorized County representative may require a re-demonstration of rolling capabilities when a change in the recycled material is observed, whenever a change in the rolling equipment is made, or if densities are not being obtained with the rolling pattern being used.

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After the recycled material has been spread and compacted, the area may be opened to traffic. Before placing bituminous surfacing, the recycled material shall be allowed to cure such that the free moisture content is reduced to 1-1/2% or less.

1.3 Equipment:

Use of equipment capable of:

- Milling the existing pavement to the appropriate depth
- Processing the reclaimed material to pass a 2 inch sieve
- Mixing the reclaimed material with bituminous material
- Paving and compacting the reclaimed material to the correct grade

1.4 Contractor Requirements:

The contractor shall have a minimum of four (4) years' experience in cold in-place pavement recycling, including at least three (3) year experience with a recycling train including satisfactory performance on a project completed under Asphalt Recycling and Reclaiming Association (ARRA); State Department of Transportation; or similarly stringent specifications. The contractor shall own the equipment with which he intends to complete the contract, if so awarded.

The contractor shall have access to a working laboratory. The laboratory shall be equipped with all apparatus necessary to perform any specified tests on the asphalt emulsion, the reclaimed asphalt pavement (RAP), and briquette molding and testing procedures as per ARRA

The laboratory shall be operated by a full-time, qualified technician and shall be available for inspection and/or use by designated County personnel.

1.5 Method of Measurement:

Quality controlled cold in-place recycling shall be measured by the square yard. The depth of cut of the milling operation shall be designated by the Commissioner of Highways and Facilities.

The asphalt emulsion will be measured by the gallon.

Portland Cement or Aggregates if required will be measured by the ton.

1.6 Price Adjustments:

See Section 3.0

1.7 MS2-ST

1.7.1 Tests on Emulsion

	Min.	Max.
Viscosity, Saybolt Furol, 25°C, Sec.	100	
Viscosity, Saybolt Furol, 50°C, Sec.	100	400
Storage Stability Test 1 Day (difference in % residue)		1
Demulsibility, 35 ml. 0.02N CaCl ₂ , %		

Any alterations to this document made by the Offeror may be grounds for rejection of the proposal, cancellation of any subsequent award, or any legal remedies available to the County of Putnam.

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Sieve Test, percent, %		0.10
Residue by Distillation %	65	
Oil Distillate, Volume Total Emulsion, %	10	

1.7.2 Tests on Residue from Distillation Test	Min.	Max.
Penetration 25°C, 100g, 5 Sec.	100	250
Float Test, 60°C Note (2), Sec.		

1.7.3 Tests on Asphalt Base for Emulsion	Min.	Max.
Penetration 25°C, 100g, 5 sec.	100	200
Solubility or Trichlorethylene, %	99.0	
Ductility, 25°C, 5cm/min, cm	100	
Flashpoint, °C	177	

1.7.4 Suggested Temperature Range	Min.	Max.
Mixing, °C	40-75	40-75
Spraying, °C	55-75	55-75

1.7.5 Typical Applications

Base and Shoulder Stabilization, Cold Mixes, Shoulder Seal, Surface Treatment

1.8 HFMS-2

1.8.1 Tests on Emulsion	Min.	Max.
Viscosity, Saybolt Furol, 25°C, Sec.	100	
Viscosity, Saybolt Furol, 50°C, Sec.	100	400
Storage Stability Test 1 Day (difference in % residue)		1
Demulsibility, 35 ml. 0.02N CaCl ₂ , %		
Sieve Test, percent, %		0.10
Residue by Distillation %	65	
Oil Distillate, Volume Total Emulsion, %		10

1.8.2 Tests on Residue from Distillation Test	Min.	Max.
Penetration 77 C°, 100g, 5 Sec.	100	200
Float Test, 60°C, Sec.	1200	

(Float Test AASHTO T50, except that the residue from distillation shall be poured immediately into the float collar at 260°C)

1.8.3 Suggested Temperature Range	Min.	Max.
Mixing, °F	100	170
Spraying, °F	130	170

1.8.4 Typical Applications

Base and Shoulder Stabilization, Cold Mixes, Shoulder Seal

1.9 Medium Curing Liquid Asphalts:

Material Designation	702-22
1.9.1 Grade	MC-250
Water, Mas. (%)	0.2
Flash Point, C.O.C. °F. Min.	150

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Kinematic Vis. @ 140°F, Centistokes

250-500

1.9.2 Distillation: % Total Distillate

to 680°F, by volume

to 437°F.

to 500°F.

to 600°F.

Residue from Distillation 680°F

by difference Min.

0-10

15-55

60-87

67

1.9.3 Tests on Residue

Absolute Viscosity 140°F (2)

Ductility 5 cm. /min. @77°F, cm.min

% Sol. in CCL4 Min.

Min.

Max.

300-1200

300-1200

100

100

99

99

1.9.4 Suggested Temperature Range °F

Mixing

Spraying

Min.

Max.

50-120

100-200

50-120

100-200

Portland Cement –

The Portland Cement to be used, if required and as approved by the authorized County representative, is either Type I or Type II meeting ASTM C150-86 AASHTO M85-89 standard specifications.

Aggregates –

Additional aggregates, if required and as approved by the authorized County representative, for cold in-place surface recycling of pavements, shall be crushed stone or crushed gravel conforming to the requirements of Section 703-02, coarse Aggregate, or fine Aggregate conforming to the requirements of 702-01, fine Aggregate of the NYS DOT current Standard Specifications. The gradation and source of the aggregates shall be specified by the contractor and be included in the proposed mix design.

The pulverized bituminous material shall meet the following gradation requirements:

Sieve Size: 1" % Passing: 100

Sieve Size: ¾" % Passing: 90-100

1.10 Street Preparation and Contractor Responsibilities:

Prior to the start of the CIPR, the Contractor will be responsible for the areas not accessible by the Recycler. These areas may include gas and water valves, catch basins and manholes.

Prior to the start of any CIPR work, the Contractor shall arrange to have all existing utilities marked out in accordance with State Law and Industrial Rule 53. Any underground utilities, (water valves, gas valves, manholes, etc.) shall be the responsibility of the Contractor. The Contractor will also be responsible for covering all storm drains and catch basins on the project and have the location of each clearly marked prior to commencement of recycling. Any downtime of the Recycler and affiliated

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equipment caused by damage due to striking underground utilities that have been left unmarked will not be cause for compensation to the Contractor.

The contractor shall supply water that may be required for all CIPR operations.

The Contractor will be responsible for all Maintenance and Protection of Traffic, (MPT) for the duration of the project. The Contractor shall supply water necessary to complete the CIPR project. All costs of any preparation and Contractor Responsibilities listed above must be included in the CIPR process.

SECTION 2.0 COLD IN-PLACE RECYCLING WITH FOAMED ASPHALT

This work shall consist of pulverizing the existing bituminous surface to the specified width and depth, mixing foamed asphalt with the pulverized material, then spreading and compacting said mixture. All of the above operation shall be done in-place and no trucking of RAP will be allowed except for the small amount needed to complete the paving at the end of the day.

2.1 Materials:

The asphalt shall be the type called for in the proposal.

The pulverized bituminous material shall meet the following gradation requirements:

Sieve Size: 2" % Passing: 100

Sieve Size: 1½" % Passing: 90-100

2.2 Construction Requirements:

The existing bituminous material shall be cold recycled in a manner that does not disturb the underlying material in the existing roadway. However, in some circumstances a certain amount of the base material may have to be incorporated. In other instances it may be necessary for the contractor, with the consent of the project engineer, to decrease the depth of cut – for example when large rocks or unsuitable materials are encountered.

Recycling operations shall not be performed when the atmospheric temperature is below 50°F or when the weather is foggy or rainy, or when weather conditions are such that proper mixing, spreading, and compacting of the recycled material cannot be accomplished in the judgment of the project engineer.

When commencing recycling operations, the PG Binder for foamed asphalt shall be added to the pulverized bituminous material at the initial design rate determined by the contractor's laboratory. Said laboratory shall be capable of performing all test operations enumerated in the "Recommended Briquette Molding and Testing Procedure for Bulk Specific Gravity and Compressive Strength Determinations of Cold In-Place Recycled Bituminous Material" published by the Asphalt Recycling and Reclaiming Association.

The exact application rate of stabilizing agent will be determined and varied by the project engineer as required by existing pavement conditions. An allowable tolerance of ± 0.2% of the initial design rate or project engineer directed rate of application shall be maintained at all times. The contractor may add water to the pulverized material to facilitate uniform mixing with the stabilizing agent. Water may be added prior to or concurrently with the emulsion. Said water shall not cause any adverse effect on the stabilizing agent or the recycled material.

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The contractor shall demonstrate his ability to obtain a minimum density of 96% of a laboratory specimen prepared in accordance with AASHTO T-245 (50 blows). The project engineer may require a re-demonstration of rolling capabilities when a change in the recycled material is observed, whenever a change in the rolling equipment is made or if densities are not being obtained with the rolling pattern being used.

After the recycled material has been spread and compacted, the area may be opened to traffic. Before placing bituminous surfacing, the recycled material shall be allowed to cure such that the free moisture content is reduced to 1% or less.

2.3 Equipment:

Use of equipment capable of:

- Milling the existing pavement to the appropriate depth
- Processing the reclaimed material to pass a 2 inch sieve
- Mixing the reclaimed material with bituminous material
- Paving and compacting the reclaimed material to the correct grade

2.4 Contractor Requirements:

The contractor shall have a minimum of four (4) years experience in pavement recycling process with foamed asphalt including satisfactory performance on a project completed under Asphalt Recycling and Reclaiming Association (ARRA), State Department of Transportation, or similarly stringent specifications. The contractor shall own the equipment with which they intend to complete the contract. The contractor shall have access to a working laboratory. The laboratory shall be equipped with all apparatus necessary to perform any specified tests on the asphalt emulsion, the reclaimed asphalt pavement (RAP), and briquette molding and testing procedures as per ARRA

The laboratory shall be operated by a full-time, qualified technician and shall be available for inspection and/or use by designated County personnel.

2.5 Method of Measurement:

Quality controlled cold in-place recycling shall be measured by the square yard. The depth of cut of the milling operation shall be designated by the authorized representative of the County.

The foamed PG binder will be measured by the gallon.

Portland cement or Aggregates if required will be measured by the ton.

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2.6 Price Adjustments:

See Section 3.0

2.7 Miscellaneous Asphalt Cements:

MATERIAL DESIGNATION GRADES TEST REQUIREMENTS	702-0700 18-60	
	MIN.	MAX.
Penetration, 77°F (25°C), 100 g, 5 second (AASHTO T 49)	18	60
Flash Point, COC, °F (AASHTO T 48)	393	-
Solubility in trichloroethylene, % (AASHTO T 44)	99.5	-
Softening Pint, °F (AASHTO T 53)	130	167
Loss on Heating, 325°F (163°C), 5 hour, % (AASHTO T 47)	-	1.0
Penetration of Residue, % of Original (AASHTO T 49)	60	-
Ductility, 77°F (25°C), 5 cm/minute, cm (AASHTO T 51)	5	-
Typical Uses	Joint and Crack Filler	

Portland Cement –

The Portland Cement to be used, if required and as approved by the authorized County representative, is either Type I or Type II meeting ASTM C150-86 AASHTO M85-89 standard specifications.

Aggregates –

Additional aggregates, if required and as approved by the authorized County representative, for cold in-place surface recycling of pavements, shall be crushed stone or crushed gravel conforming to the requirements of Section 703-02, coarse Aggregate, or fine Aggregate conforming to the requirements of 702-01, fine Aggregate of the NYS DOT current Standard Specifications. The gradation and source of the aggregates shall be specified by the contractor and be included in the proposed mix design.

The pulverized bituminous material shall meet the following gradation requirements:

Sieve Size: 1"	% Passing: 100
Sieve Size: ¾"	% Passing: 90-100

2.8 Street Preparation and Contractor Responsibilities:

Prior to the start of the CIPR, the Contractor will be responsible for the areas not accessible by the Recycler. These areas may include gas and water valves, catch basins and manholes.

Prior to the start of any CIPR work, the Contractor shall arrange to have all existing utilities marked out in accordance with State Law and Industrial Rule 53. Any underground utilities, (water valves, gas valves, manholes, etc.) shall be the responsibility of the Contractor. The Contractor will also be responsible for covering all storm drains and catch basins on the project and have the location of each clearly marked prior to commencement of recycling. Any downtime of the Recycler and affiliated

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equipment caused by damage due to striking underground utilities that have been left unmarked will not be cause for compensation to the Contractor.

The contractor shall supply water that may be required for all CIPR operations.

The Contractor will be responsible for all Maintenance and Protection of Traffic, (MPT) for the duration of the project. The Contractor shall supply water necessary to complete the CIPR project. All costs of any preparation and Contractor Responsibilities listed above must be included in the CIPR process.

SECTION 3.0 ASPHALT PRICE ADJUSTMENT

Price adjustments, allowed will be based on the current average of the F.O.B. terminal price per U.S. ton of unmodified PG 64-22 binder without anti-stripping agent (base average F.O.B. terminal price). The new monthly average terminal price will be determined by the NYSDOT based on prices of pre-approved primary sources of performance graded binder in accordance with the NYSDOT Standard Specification.

The December 2016 average is \$343.00 / U.S. ton.

NOTE: The same grade of asphalt cement used in establishing the base average F.O.B. terminal price shall be used in establishing the new average F.O.B. terminal price.

In the event that one or more of the NYSDOT pre-approved sources discontinue posting a price for asphalt cement, the base average F.O.B. terminal price shall not be recalculated.

SECTION 4.0 AWARD

The County of Putnam intends to enter into a contract for Cold in Place Recycling Processes for various County roads with the successful bidder(s).

Approximately 2 and 4 miles of County Roads may be selected for Recycling. Putnam County reserves the right to select all, some, a portion of, or none of the roads to be Recycled. No guarantee of any Cold in Place Recycling Processes for any roads is intended or implied by this bid process.

Each process will be awarded separately to the lowest, qualified bidder for square yardage of the recycling process. All sections do not have to be bid but all items of a section must be complete.

		GORMAN BROS., INC. 200 CHURCH ST. ALBANY, NY 12202				Peckham Road Corporation 375 Bay Road-Suite 102 Queensbury, NY 12804				
ITEM #	DESCRIPTION	ESTIMATED QUANTITY-SQUARE YARDS	BID PRICE-3" DEPTH PER SQUARE YARD	#1 Extended Price	BID PRICE-4" DEPTH PER SQUARE YARD	#2 Extended Price	BID PRICE-3" DEPTH PER SQUARE YARD	#1 Extended Price	BID PRICE-4" DEPTH PER SQUARE YARD	#2 Extended Price
1	0-10,000 SQ. YD.	10,000	\$1.90	\$19,000.00	\$1.90	\$19,000.00	\$2.19	\$21,900.00	\$2.24	\$22,400.00
2	10,001-20,000 SQ. YD.	15,000	\$1.90	\$28,500.00	\$1.90	\$28,500.00	\$2.14	\$32,100.00	\$2.19	\$32,850.00
3	20,001-30,000 SQ. YD.	25,000	\$1.90	\$47,500.00	\$1.90	\$47,500.00	\$2.09	\$52,250.00	\$2.14	\$53,500.00
4	OVER 30,000 SQ. YD.	30,000	\$1.65	\$49,500.00	\$1.65	\$49,500.00	\$2.04	\$61,200.00	\$2.09	\$62,700.00
EXTENDED PRICE TOTALS			3" DEPTH	\$144,500.00	4" DEPTH	\$144,500.00	3" DEPTH	\$167,450.00	4" DEPTH	\$171,450.00
SUM OF EXTENDED PRICE TOTALS #1 AND #2			\$289,000.00		\$289,000.00		SUM OF EXTENDED PRICE TOTALS #1 AND #2		\$338,900.00	
ITEM #	DESCRIPTION	GORMAN BROS.		RECLAMATION						
5	MS-2ST-Per Gallon	\$2.86		\$3.15						
6	HFMS-2-Per Gallon	\$3.59		\$3.45						
7	MC-250 MEDIUM CURING LIQUID ASPHALTS-Per Gallon	\$4.00		\$3.65						
8	Portland Cement-Type I or II Per Ton	\$300.00		\$306.00						
9	Aggregate-Conforming to NYS DOT Section703-01	\$38.00		\$41.00						

NOTE: The square yard range is for total square yards constructed on any single project or work site.

THE AWARD WILL BE BASED ON THE LOWEST QUALIFIED BIDDER FOR ITEMS 1 THROUGH 4-PRICES FOR ITEMS 5 THROUGH 9 MUST BE SUPPLIED; BUT WILL NOT BE PART OF THE BID AWARD.

GORMAN BROS., INC. 200 CHURCH ST. ALBANY, NY 12202	Peckham Road Corporation 375 Bay Road-Suite 102 Queensbury, NY 12804
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SECTION ONE-COLD IN PLACE RECYCLING WITH FOAMED ASPHALT

ITEM #	DESCRIPTION	ESTIMATED QUANTITY-SQUARE YARDS	BID PRICE-3" DEPTH PER SQUARE YARD	#1 Extended Price	BID PRICE-4" DEPTH PER SQUARE YARD	#2 Extended Price	BID PRICE-3" DEPTH PER SQUARE YARD	#1 Extended Price	BID PRICE-4" DEPTH PER SQUARE YARD	#2 Extended Price
1	0-10,000 SQ. YD.	10,000	\$2.19	\$21,900.00	\$2.24	\$22,400.00				
2	10,001-20,000 SQ. YD.	15,000	\$2.14	\$32,100.00	\$2.19	\$32,850.00				
3	20,001-30,000 SQ. YD.	25,000	\$2.09	\$52,250.00	\$2.14	\$53,500.00				
4	OVER 30,000 SQ. YD.	30,000	\$2.04	\$61,200.00	\$2.09	\$62,700.00				
EXTENDED PRICE TOTALS										
SUM OF EXTENDED PRICE TOTALS #1 AND #2										
			3" DEPTH	\$167,450.00	4" DEPTH	\$171,450.00				

NO BID

ITEM #	DESCRIPTION	Per Unit	SUM OF EXTENDED PRICE TOTALS #1 AND #2	DESCRIPTION	Per Unit
5	PG Binder Asphalt for Foaming			PG Binder Asphalt for Foaming	\$2.75
6	Portland Cement-Type I or II Per Ton			Portland Cement-Type I or II Per Ton	\$306.00
7	Aggregate-Conforming to NYS DOT Section 703-01			Aggregate-Conforming to NYS DOT Section 703-01	\$41.00
THE AWARD WILL BE BASED ON THE LOWEST QUALIFIED BIDDER FOR ITEMS 1 THROUGH 4- PRICES FOR ITEMS 5 THROUGH 7 MUST BE SUPPLIED; BUT WILL NOT BE PART OF THE AWARD.					

NOTE: The square yard range is for total square yards constructed on any single project or work site.

Please note Peckham's Extended Costs on their bid submission were incorrect on items 2, 3 & 4 as estimated quantities used were incorrect, they used 10,000 for all. Correct extended amounts are above.

LOW BID