

2012 ROADWAY REHABILITATION PROGRAM 2012 ROAD & BRIDGE ASPHALT MATERIALS BID SPECIAL CONDITIONS MANUAL

To be used with General Conditions Project Manual

Bid No. ITB-12-21

Project No. C12-100

Revised By:

Public Works Staff

March 9, 2012

Approved by:

David M. Schmit, P.E., Public Works Director

Bryan D. Weimer, Transportation Division Manager

SPECIAL CONDITIONS MANUAL

And INSTRUCTION TO BIDDERS

TO BE USED WITH GENERAL CONDITIONS MANUAL

TABLE OF CONTENTS

101	В	IDDING REQUIREMENTS AND CONDITIONS	3
10	1.1	INVITATION TO BID:	3
10		INSTRUCTIONS TO BIDDERS:	
10	1.3	FORM OF PROPOSAL:	
		FORM OF CONTRACT:	18
		FORM OF BOND	
300	S	PECIAL CONDITIONS	24
30	l	PRECEDENCE OF CONTRACT DOCUMENTS	24
302		DESCRIPTION OF PROJECT.	
303		COORDINATION OF CONSTRUCTION	
303		CONTRACT TIME	
303	3.9	UTILITY ADJUSTMENTS	
304	1	DRAWINGS	38
304	1.2	SEQUENCE OF WORK	
305	5	CONTRACTOR'S REPRESENTATIVES	38
306	5.5	SALVAGE	38
306	5.6	CLEANING DURING CONSTRUCTION	
306	5.7	FINAL CLEAN UP	
307	7	MATERIALS TESTING	
308	3	CONSTRUCTION TRAFFIC CONTROL:	
308		PAVEMENT MARKING	
	3.10	CROSSWALKS AND STOP BARS	
)	REVISIONS AND ADDITIONS TO MGPEC SPECIFICATIONS	
		1 0, GENERAL	
		1 REMOVAL OF EXISTING PAVEMENT	
		1 2 EXCAVATION	
		1 3 EMBANKMENT	
		ised.	
		4 4 MOISTURE TREATMENT	
		M 5 STABILIZED SUBGRADE	
		M 6 CONCRETE CURBS, GUTTERS, AND SIDEWALKS	
		M 8 STABILIZATION FABRIC	
		4 8 STABILIZATION FABRIC	
		4 9 HOT MIX ASPHALT PAVEMENT	
		M 11 PORTLAND CEMENT CONCRETE PAVEMENT	
		111 ORTEAND CEMENT CONCRETE PAVEMENT PLANING/ROTOMILLING	
		M 13 JOINT AND CRACK SEALANT	
		1 14 FOG SEAL	
		M 15 CHIP SEAL	
		1 16 SLURRY SEAL	
		1 17 ASPHALT CONCRETE PATCH	
		1 18 UTILITY CUT AND BACKFILL	
310		SPECIAL CONDITIONS FOR ROAD & BRIDGE ASPHALT MATERIALS BID	

PROJECT MAP	54
ASPHALT FORM 9	53
TABULATION OF QUANTITIES (REHAB PROJECT BASE BID)	52
SUBSTITUTE FORM W-9 REQUEST FOR TAXPAYER ID NUMBER AND CERTIFICATION	50

101 BIDDING REQUIREMENTS AND CONDITIONS

101.1 INVITATION TO BID:

PUBLIC NOTICE is hereby given that there is on file with the Arapahoe County Department of Public Works and Development the 2012 project manual for **Arapahoe County Roadway Rehabilitation Program and Road & Bridge Asphalt Materials Bid, Bid No. ITB-12-21.**

Sealed bids will be received at the office of the Arapahoe County Purchasing Division, 5334 S. Prince St., Rm. 480, Littleton, CO, 80166, Attn. Keith Ashby, CPPO, Purchasing Manager, until 2:00 P.M. local time (our clock) on the 12th day of April 2012, for furnishing all labor, tools, materials, and equipment required to construct said public improvement per the plans and project manual. Such bids as are received will be publicly opened and read aloud in the Finance Conference Room, on the 4th floor of the County Administration Building, 5334 S. Prince St., Littleton, CO 80166, at 2:05 P.M. local time on the above stated day. Plans and specifications for this project are only available online through the Rocky Mountain E-Purchasing System Website: http://www.govbids.com/scripts/CO1/public/home1.asp.

Electronic versions of the Plans obtained by any other means than as described above may not be complete or accurate, and it is the Bidder's responsibility to obtain a complete set of the Project Plans and Specifications.

The project manual will be available for examination only, at the office of the Arapahoe County Department of Public Works and Development, 6934 S. Lima St., Centennial, CO 80112.

The work generally consists of pavement rehabilitation of suburban arterial, collector and local roadways located within unincorporated Arapahoe County. The project generally includes pavement reconstruction, asphalt patching, cold milling and asphalt overlay and includes a bid schedule for Arapahoe County Road & Bridge Asphalt Materials.

Each bid shall be made on a form provided in the Contract Documents section of the Project Manual and no bidder may withdraw its bid for a period of sixty (60) days from and after the date set for opening of bids. Each bid must be accompanied, in a sealed envelope, separate from the one containing the bid, by a bid bond, cashier's check or certified check in the amount equal to ten percent (10%) of the bid price. Bonds shall be made payable to The Board of County Commissioners, County of Arapahoe, State of Colorado. The bonds shall be considered as liquidated damages and shall be forfeited to the Owner if said bid is accepted and the bidder fails to execute the Contract Documents section within 10 calendar days after the acceptance of the contractor's bid by the County.

The work herein provided for shall be done under written contract with the contractor submitting the bid, which the Owner deems to be in the best interests of the Citizens. Upon review of bid prices, the County may, in its discretion, add or delete portions of work from this project.

The successful bidder will be required to furnish, as part of the contract documents, insurance certificates in the amount specified in the General Conditions, a Performance Bonds and Labor and Materials Payment Bonds, each in an amount equal to 100% of its contract price, said bonds to be issued by a responsible corporate surety approved by the Owner and shall guarantee the performance of the contracts and guarantee the prompt

payment of all materials and labor, shall protect and save harmless the Owner from claims and damages of any kind caused by the Contractor.

The County will hold a non-mandatory pre-bid conference for all interested parties at 10:00 A.M. on the 3rd day of April 2012. The conference will be held in the Lima Arapahoe Board Room at the County Public Works and Development offices located at 6924 S. Lima St. The pre-bid conference will be the last time before the bid opening at which the County will answer questions or provide clarifications/interpretations of the plans and contract documents. The County will post Pre-bid Meeting Minutes as Addendum 1, which must be acknowledged on the Rocky Mountain E-Purchasing System Website. The County is not responsible for ensuring receipt of the Pre-bid meeting minutes from the website or providing information or clarifications discussed at the pre-bid conference to those who did not attend.

Arapahoe County reserves the right to reject any and all proposals, to waive any informalities or irregularities therein, and to accept the proposal that is in the best interest of the County.

Published upon order of the Board of County Commissioners of Arapahoe County through the Deputy Clerk to the Board of Commissioners, as agent.

ARAPAHOE COUNTY, COLORADO

By: Nancy A. Doty Clerk to the Board

101.2 INSTRUCTIONS TO BIDDERS:

101.2.1 Owner:

The Board of County Commissioners, County of Arapahoe, State of Colorado is the OWNER of the work and shall be responsible for management of the project.

101.2.2 Engineer:

The Engineer for this project is the Arapahoe County Department of Public Works and Development, 6924 S. Lima St., Centennial, Colorado 80112.

101.2.3 Proposal Form:

Each bid must be submitted on the Proposal Form supplied by the Engineer.

101.2.4 Bid Security:

Each Proposal must be accompanied by a Bid Bond as outlined in the Invitation to Bid. The Bid Security will be retained until a Contract is entered into by the successful low Bidder and the required Bonds and Insurance Certificates filed.

101.2.5 Preparation of Proposal

The Bidder shall submit his proposal upon the forms furnished by the Owner. The Bidder shall specify a unit price in words or figures, or both if required, for each pay item for which a quantity is given, and shall also show the products of the respective unit prices and quantities written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amounts of the several items. All the words and figures shall be in ink or type. In case of a discrepancy between the prices written in words and those written in figures, when both are required, the prices written in words shall govern.

When an item in the proposal contains a choice to be made by the bidder, the bidder shall indicate his choice in accordance with the specifications for that particular item, and thereafter no further choice will be permitted.

The bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, or by two officers of a corporation, or by an agent of the Contractor legally qualified and acceptable to the Owner. If the proposal is made by an individual, his name and post office address

must be shown; by a partnership, the name and post office address of each partnership member must be shown; as a joint venture, the name and post office address of each member or officer of the firms represented by the joint venture must be shown; by a corporation, the name of the corporation and the business address of its corporate officials must be shown.

101.2.6 Submitting Proposals:

Each Proposal must be submitted in ink or typewritten in a sealed envelope with the following information on the outside: the Bidder's name, address, name of the project and the word "PROPOSAL". The bid security must be submitted in a separate sealed envelope with the following information on the outside: the Bidder's name, address, name of the project, and the words "BID SECURITY". If the Proposal is mailed, the two separate envelopes shall be placed in a mailing envelope, sealed and addressed to the Owner. The mailing envelope must have the Bidder's name, address, and the following words on the outside:

"PROPOSAL AND BID SECURITY FOR PROJECT"

Bids shall be submitted in bound form to:

Arapahoe County, Department of Finance Purchasing Division, Room 480 5334 South Prince Street Littleton, CO 80116 Attn. Keith Ashby, CPPO, Purchasing Manager ITB-12-21

Submittals will be accepted until 2:00 P.M. April 12, as determined by the Owner's clock.

101.2.7 Withdrawal Period:

No Bidder may withdraw a Proposal within <u>60</u> days after the date of opening of bids.

101.2.8 Informalities:

The Owners may waive any informality or reject any or all offers.

101.2.9 Qualifications of Bidder:

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work. The Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, the Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein. Conditional bids will not be accepted.

Corporations organized outside the State of Colorado must carry out the proper procedure to conduct business in the State of Colorado, designate a place of business within the State of Colorado, and appoint an agent for service of process, in accordance with Title 7, Article 9 of the Colorado Revised Statutes, prior to award of contract by the Owner. Such Corporation must furnish the Owner with a Certificate from the Colorado Secretary of State indicating the Corporation has authority to conduct business within the State of Colorado.

101.2.10 Conditions of Work:

Each Bidder must familiarize himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful Bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his Contract. Insofar as possible the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.

Reference is made in the Special Conditions of the availability of surveys and investigations made for the Owner by Independent Testing Laboratories of subsurface or physical conditions at the site or otherwise affecting performance of the work which have been relied upon by the City in preparing the Project Manual. Before submitting his bid, each Bidder shall, at his own expense, make such additional surveys and investigations as he may deem necessary to determine the level of effort and incidental materials for the work at his bid price within the terms of the Contract Documents.

101.2.11 Addenda and Interpretations:

No interpretation of the meaning of the Project Manual or other pre-bid documents will be made to any Bidder orally. Every request for such interpretation should be in writing addressed to: Arapahoe County Public Works Department, 6924 S. Lima St., Centennial, CO, 80112, fax number 720-874-6611 and to be given consideration must be received at least eight days prior to the date fixed for the opening of bids. Any and all such interpretation and any supplemental instructions will be in the form of written Addenda which, if issued, will generally be mailed by certified mail with return receipt requested to all parties recorded as having received bidding documents (at the respective addresses furnished for such purposes), prior

to the date fixed for the opening of bids, however, it will be the Bidder's responsibility to verify with the Engineer/Owner that all Addenda have been received prior to submitting a bid. All Addenda so issued shall become part of the Contract Documents.

101.2.12 Power of Attorney:

Attorneys-in-fact who sign Bid Bonds, Performance Bonds or Labor and Materials Payment Bonds must file with each bond a certified and effectively dated copy of their power of attorney.

101.2.13 Laws and Regulations:

The Bidder's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though therein written out in full.

101.2.14 Obligation of Bidder:

At the time of the opening of bids each Bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Project Manual and other Contract Documents including all Addenda. The failure or omission of any Bidder to examine any form, instrument or document shall in no way relieve any Bidder from any obligation in respect of his bid.

101.2.15 Telegraphic Modification:

Bids received prior to the time of opening will be securely kept, The Purchasing Division officer will decide when the unopened. specified time has arrived, and no bid received thereafter will be considered. Modification by telegraph, of bids already submitted, will be considered, if received prior to the time set for opening, and written confirmation of such modification over the signature of the Bidder is placed in the mail and postmarked prior to the set time for bid opening; however, if written confirmation is not received within two days from the bid opening, no consideration will be given to the telegraphic modification. Bidders are cautioned that, while telegraphic modifications of bids may be received as provided above, such modifications, if not explicit and if in any sense subject to misinterpretation, shall make the bid, so modified or amended, subject to rejection by the Owner. The telegraphic communication shall not reveal the bid price, but shall provide the addition or subtraction or

other modification so that the final prices, or terms, will not be known by the Owner until the sealed bid is opened.

101.2.16 Method of Award:

- A. REJECTION OF OFFERS. The Owner may, at his sole and absolute discretion:
 - 1. Reject any and all, or parts of any or all, Offers submitted by prospective Vendors;
 - 2. Re-advertise this Solicitation;
 - 3. Postpone or cancel the process;
 - 4. Waive any irregularities in the Offers received in conjunction with this Solicitation; and/or
 - 5. Determine the criteria and process whereby Offers are evaluated and awarded. No damages shall be recoverable by any challenger as a result of these determinations or decisions by the Owners.
- B. If multiple Bid Schedules are set forth in the Proposals, Contractors must bid on all Schedules. The contractor's bid considered for award shall be the sum of individual (entire) Schedules determined to be in the best interest of the owner.
- C. The Owner intends to award all Bid Schedules to one contractor.
- D. The Owner reserves the right to include or remove any "Alternates or Contingent" portions of the project from the Contract at his sole option or discretion.
- E. The Bid Schedule(s) includes Contingent Bid Items, for which a unit price must be provided to produce a valid bid for that schedule. Contingent Bid Items may or may not be required for completion of the Contract and the Owner reserves the right to include or remove any or all Contingent Bid Items from the Contract at their sole option or discretion. The Contractor will not be compensated for diminished profits, administrative costs, or any other costs related to contingent or Alternate Bid Items, which are not needed or used.
- F. Bids may be considered unresponsive if they do not include bids for all Contingent or Alternate items, when bidding all alternates is required.

101.2.17 Permits and Regulations:

The Contractor shall be required to obtain the permits and pay the associated fees necessary for completion of the project.

Permits anticipated to be required for this project, but not necessarily limited to, include the following:

- Arapahoe County Public Improvements Construction Permit (No Fee, issued by owner)
- CDOT Right-of-Way Use Permit and associated Notice to Proceed (University Blvd. overlay)
- City of Centennial and or City and County of Denver Right-of-Way Use Permits (where applicable)

The Contractor shall be prepared to obtain additional Permits if needed:

- Grading, Erosion and Sediment Control (GESC) Permit and applicable BMP's, if applicable
- State of Colorado Storm Water Construction Permit (SWMP and/or Dewatering Permits), where applicable

Other permits may be required, as necessary.

101.3 FORM OF PROPOSAL:

Bidder:
pahoe County 2012 Roadway Rehabilitation Project, Project No. C12- TB-12-21.
Date:, 2012
The Board of County Commissioners, County of Arapahoe, State of Colorado.
The undersigned, having carefully examined the Project Manual, and all Addenda thereto and other Contract Documents prepared by Arapahoe County Public Works for the rehabilitation of roadways located within unincorporated Arapahoe County and for procurement of asphalt materials for Arapahoe County Road & Bridge, and having carefully examined the site of work and become familiar with all local conditions including labor affecting the cost thereof, and having familiarized himself with federal, state and local laws, ordinances, rules and regulations affecting performance of the work, do hereby propose to furnish all labor, mechanics, superintendence, tools, material, equipment, and all utilities and transportation services necessary to perform and complete said work and work incidental thereto, in a workmanlike manner, as described in said Drawings, Specifications, and other Contract Documents including Addenda No(s) issued thereto for the Low Bid Total of Bid Schedules "A" + "B", the Total Low Bid sum of:
Dollars (\$

The undersigned understands that the quantities mentioned below are subject to increase or decrease, and hereby proposes to perform all quantities of work, as increased or decreased, in accordance with the provisions of the Contract Documents, and at the unit price bid. The following is (are) the itemized bid schedule(s):

Arapahoe County Roadway Rehabilitation Program 2012 Overlay and Reconstruction Project

Project: C12-100 Bid Number: ITB-12-21

Bid Schedule "A"

		Estimated		Unit	Cost
<u>No.</u>	<u>Description</u>	Quantity		<u>Cost</u>	<u>Extended</u>
1	Removal of Pavement (includes haul)	3,204	SY	\$	\$
5	Stabilized Subgrade	3,204	SY	\$	\$
9.1a	(HMA, S75) (PG64-22) (20% RAP)	695	Ton	\$	\$
9.1b	(HMA, S75) (PG64-22) Overlay	725	Ton	\$	\$
9.1c	(HMA, S100) (PG64-22) Overlay	1,610	Ton	\$	\$
9.1d	(HMA, SX75) (PG58-28) Overlay	10,800	Ton	\$	\$
12	Planing / Rotomilling	59,000	SY	\$	\$
17a	Asphalt Patch (< 8' dimension)	400	Ton	\$	\$
17b	Asphalt Patch (8' min. dimension)	430	Ton	\$	\$
23a	Temporary Traffic Control	1	LS		\$
	CONTINGENT BID ITEMS				
	f Stabilizing agent (Class C Fly Ash)	150	Ton	\$	\$
13	Crack Sealant	3	Ton	\$	\$
17c	Asphalt Crack Patch (detail mill)	2,200	LF	\$	\$
17d	Mill Patch (large mill)	395	Ton	\$	\$
18a	Reset Range Point	2	EA	\$	\$
19f	Water Valve Adjustments (full)	4	EA	\$	\$
190	Water Valve Adjustments (ring)	175	EA	\$	\$
20f	Manhole Adjustment (full)	3	EA	\$	\$
20o	Manhole Adjustment (ring)	165	EA	\$	\$
21a	Signal Loop (6x40)	3	EA	\$	\$
21b	Micro Loop	1	EA	\$	\$
22a	Epoxy Pavement Marking	2,610	SF	\$	\$
22b	Temporary Pavement Marking	5,215	SF	\$	\$
22c	Preformed Thermoplastic Pavement markings	380	SF	\$	\$
22d	Preformed Thermoplastic Pavement (symbols)	31	SF	\$	\$
23b	Variable Message Sign	30	Day	\$	\$
23c	Uniformed Traffic Control Officer	32	HR	\$	\$
24	Inlet Protection	21	LF	\$	\$
25	Minor Contract Revisions	1	LS		\$ 20,000.00
Total Bid Schedule "A":					\$

Arapahoe County Road & Bridge Asphalt Materials Bid (F.O.B. Plant)

Bid Schedule "B"

9.1a (HMA, S75) (PG64-22) (20% RAP)	15,500	Ton	\$	\$
		<u>Tot</u>	al Bid	
Total Bid - Schedule "A":				
Total Bid - Schedule "B":				
Total Bid - "A" + "B":				

The undersigned hereby agrees, if awarded the Contract to furnish a Performance Bond in an amount equal to One Hundred percent (100%) of the Contract Sum as security for the faithful performance of the Contract (including guarantee provisions) and also a Labor and Materials Payment Bond in an amount not less than One Hundred percent (100%) of the Contract Sum as security for the payment of all persons performing labor on the project under the Contract and furnishing materials in connection with this Contract.

Should the Owner elect to accept this proposal, the undersigned also agrees to furnish the required Bonds and Insurance certificates and to execute the Contract on or before <u>Ten calendar days after Award of Contract by the Owner</u> and after the said acceptance and further agrees to begin and complete all Bid Schedule "A" Rehabilitation Project work under Contract within a maximum of 65 Working Days from the date of Notice to Proceed

It is hereby agreed that in case of failure of the undersigned either to execute the Contract or to furnish Bonds or Insurance Certificates which are satisfactory to the OWNER within the time limitations stated herein after issuance of Notice to Award, the amount of this proposal guaranty shall be forfeited to the Owner as liquidated damages arising out of the failure of the undersigned either to execute the Contract or to furnish Bonds or Insurance Certificates as proposed. It is understood that in case the undersigned is not awarded the work, the proposal guaranty will be returned as provided in the Contract Documents.

If awarded t	the Contract, our S	Surety will be
	of	
Nar	ne of Surety Com	pany

It is expressly agreed that if portions of the work are subcontracted, that awards of such subcontracts will be made to the subcontractor stated below:

<u>Work</u>	<u>Subcontractor</u>
	(Name)
	(Address)
<u>Work</u>	Subcontractor
	(Name)
	(Address)
<u>Work</u>	<u>Subcontractor</u>
	(Name)
	(Address)
<u>Work</u>	<u>Subcontractor</u>
	(Name)
	(Address)

In the event of a discrepancy between unit price quoted in this Proposal and the extensions or totals, the unit prices shall control.

Resp	ectfully Submitted,	
Signa	ature of Bidder:	
(a)	If an individual:	
		(Signature of Individual)
	doing business as:	
		(Name of Firm)
(b)	If a Partnership:	
		(Name of Partnership)
		(Signature of Partner)
		(Signature of Partner)
(c)	If a Corporation:	
		(Name of Corporation)
ATTE	EST:	
		(Officer's Signature)
Busin	ness Address:	(Title)
Dhon	e No	
LIIOU	e No	

"CERTIFICATE"

A Corporate Contractor, in submitting this Proposal hereby represents that the Corporation has complied with all <u>Colorado</u> Statutory requirements, which are prerequisite to its being qualified to do business in the State of <u>Colorado</u>, or that it will take all steps necessary to so qualify, if the successful bidder.

			Name of Co	orporation
			Ву	
			(Officer)	(Title)
If For	eign Corporation	:		
				Resident Agen
			SIS OF EXPERIENCE RECOR sis must accompany Proposal I	
Nam	ne of Bidder_			
	ness Address vidual () Part		Corporation () (Check C	One)
		essfully complet the work bid upo	ed within past five years similar n.	in size, scope, and difficulty
1	Owner	Project	Project Location	Contract Amnt
ა				
5			e for Completion of Projects Lis	sted
1.	Days Allow		Actual Number of	of Days to Complete
2 3				
5				· · · · · · · · · · · · · · · · · · ·
	(Company	Name)		
	(Signed By	y)		
	(Title)		Date	

101.4.1 FORM OF CONTRACT:

(Sheet 1 of 4)

CONTRACT

THIS CONTRACT AND AGREEMENT is made and entered into in quadruplicate this day of, (Contract Date) by and between the Board of County Commissioners, County of Arapahoe, State of
Colorado, Party of the First Part, and hereinafter called the Owner, and
, Party of the Second Part, and hereinafter called the
Contractor.
WITNESSETH: That the Contractor, for and in consideration of the sum of
Dollars (\$) payable as set forth in the Contract Documents constituting a part of this Contract, hereby agrees to construct:
complete in accordance with the Project Manual which includes the following: Drawings, Specifications, Supplementary and Standard Special Provisions and Addenda No(s) The various items of work awarded said Contractor by the acceptance of the Proposal are as follows:

It is mutually understood and agreed by the parties hereto that (1) the Notice inviting Contractors to bid as published, (2) the Instructions to Bidders, (3) Supplementary and Special Conditions and all enclosures issued therewith, (4) the General Conditions, (5) the Form of Proposal, (6) the Bonds each in consideration of one hundred percent (100%) of the sum hereinafter mentioned, (7) all proceedings by the governing body of said Owner relating to this improvement, (8) the Drawings, (9) Specifications, and (10) all Addenda including their attachments, if any, are a part of this Contract the same as if each had been fully set out and attached hereto, and that no substitution or change in said Drawings and Specifications shall be made except upon written consent of the Owner: Arapahoe County Board of Commissioners and such allowance shall in no manner be construed to release either party from any specified or implied obligation of said Drawings and Specifications and other Contract Documents.

The Contractor herein also agrees to pay all just claims for material, supplies, tools, fuels, lubricants, equipment, equipment rental, machinery, insurance premiums, and services used or consumed in the construction of the work by him or any of his subcontractors, and for the payment of all laborers and mechanics for all labor performed in the work by him or any of his subcontractors, and for all other just claims filed against him or any of his subcontractors in carrying out the provisions of this Contract and further agrees that the Bonds shall be held to cover all such claims.

The Contractor shall not assign any moneys due or to become due without the prior written consent of the Owner. The Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.

It is understood and agreed that the Contractor shall not do any work or furnish any material not covered and authorized by this Contract, except under an executed Change Order. Any additional work, which may be done or any additional materials, which may be furnished by the Contractor without an authorized Change Order first being given, shall be at his own risk, cost and expense; and the Contractor hereby covenants and agrees that he shall make no claim for compensation for any work so done or any materials so furnished. Owner agrees not to issue any Change Order directing Contractor to perform additional compensable work, which causes the total contract amount to exceed the amount appropriated without first providing Contractor with written assurances that lawful appropriations have been made to pay the additional cost. Contractor agrees that its failure to so request and receive written authorization prior to performing additional compensable work constitutes its agreement to provide the work and materials free of charge as an accommodation to Owner, and releases Owner of any liability or responsibility for payment thereof.

In connection with the performance of the work under this Contract, the Contractor agrees not to refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, creed, sex, color, national origin or ancestry; the Contractor further agrees to insert the foregoing provision in all subcontracts hereunder.

Colorado labor shall be employed to perform the work herein to the extent of not less than 80% of each type or class of labor in the several classifications of skilled and common labor employed on the project. The term "Colorado labor", shall mean any person who is a resident of the State of Colorado.

(Sheet 3 of 4)

Preference shall be given to Colorado labor and to supplies, materials, and provisions produced, manufactured, or grown in Colorado, quality being equal to articles offered by competitors outside the state.

<u>ILLEGAL ALIENS</u>. As required by C.R.S. Section 8-17.5-102, the Contractor certifies and agrees as follows:

- (1) The Contractor shall not knowingly employ or contract with an illegal alien (a non-legal resident of the United States) to perform work under this Agreement.
- (2) The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.
- (3) The Contractor has verified or attempted to verify through participation in the "Basic Pilot Program, which is an employment eligibility confirmation program through the U.S. Department of Homeland Security and the Social Security Administration, that the Contractor does not employ any illegal aliens; however, if the Contractor is not accepted into the "Basic Pilot Program" prior to entering into this Agreement, Contractor shall apply to participate in the "Basic Pilot Program" every three months until the Contractor is accepted or this Agreement has been completed, whichever is earlier. (For information on applying to the "Basic Pilot Program," the Contractor may log on to https://www.vis-dhs.com/employerregistration). Notwithstanding the foregoing, compliance with this subsection is not required if the "Basic Pilot Program" is discontinued, if the Contractor does not employ any employees or if the Contractor is a governmental entity.
- (4) The Contractor shall not use the "Basic Pilot Program" procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.
- (5) If the Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, then the Contractor shall: (a) notify the subcontractor and the County within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract with the subcontractor if within three days of receiving the notice the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the subcontract if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
- (6) The Contractor shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established by C.R.S. Section 8-17.5-101(5).

(Sheet 4 of 4)

(7)If the Contractor violates any of the provisions of this section the County may immediately terminate this Agreement effective upon the receipt by Contractor of written notice of termination from the County, and the Contractor shall be liable for actual and consequential damages to the County.

Non-appropriation. Pursuant to Section C.R.S. § 29-1-110, as amended, the financial obligations of the County as set forth herein after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise available. This Agreement is automatically terminated on January 1st of the first fiscal year for which funds are not appropriated. The County shall give the Contractor written notice of such non-appropriation.

The Contract Documents constitute the entire agreement between the Owner and the Contractor and may only be altered, amended or repealed by a duly executed written instrument.

IN WITNESS WHEREOF, we, the contracting parties by our agents hereto affix our signatures and seals.

Board of County Commissioners, County of Arapahoe, State of Colorado

	State of Colorado
Attest: (Witness:)	OWNER - Party of the First Part
	By David M. Schmit, P.E., Director Public Works and Development by Resolution No
	Contractor-Party of the Second Part
	Ву
Attest (Witness):	Title

101.5 FORM OF BOND

101.5.1 Bid Bond

BID BOND

KNOW ALL MEN	BY THESE PRESENTS	, that we, the unde	rsigned,	
		as	Principal, and	
(Nar	ne and Address of Contra	actor)	•	
		as	Surety,	
(Nan	ne and Address of Surety	')		
are hereby held an	nd firmly bound unto			
		(Name	e of Owner)	
as OWNER in the	penal sum of			
for the payment of ourselves, success	f which, well and truly to sors, and assign.	be made, we here	by jointly and s	everally bind
Signed this	day of		20	
	ne above obligation is suc	, a certain	BID, attached	hereto and
hereby made a par	rt hereof to enter a contra	ct in writing, for the	!	
			· · · · · · · · · · · · · · · · · · ·	·

NOW THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (property completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by an extension of the time

within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

	(Principal, Contractor)	
	(Surety)	
	,	
BY:		

IMPORTANT - - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

300 SPECIAL CONDITIONS

301 PRECEDENCE OF CONTRACT DOCUMENTS

In the event of conflict between the Plans and the Specifications, or other Contract Documents, the provisions of the Contract Documents in the order listed below shall control.

- 1. Contract and Addenda to Contract
- 2. Change Orders
- 3. Field Orders
- 4. Project Specifications
 - 5a. Project Special Conditions (Sec. 300)
 - 5b. Project General Conditions (Sec. 200)
 - 5c. Metropolitan Government Pavement Engineer's Council (MGPEC) Technical Specifications
- 5. Construction Plans
 - 6a. Construction Details
 - 6b. Standard Plans
- 6. Arapahoe County Drainage and Roadway Design & Construction Standards
- 7. CDOT Standard Specifications for Road and Bridge Construction

All work accomplished under this contract shall be accomplished according to the specifications. Revisions to referenced MGPEC technical specifications are included in the Special Conditions and supersede the MGPEC technical specifications. All bidders will be required to submit asphalt mix designs meeting MGPEC materials specifications within ten (10) consecutive calendar days after award of the contract. Failure to comply with this requirement is sufficient cause for the Owner to reject the Contractor's bid and a make claim against the Bidder's Security.

Contract Extension

The OWNER, in its sole discretion, may opt to renew or extend this CONTRACT for additional work for up to one (1) additional year (or portion of a year) under the same or substantially similar terms and conditions; provided, however, that the OWNER and CONTRACTOR may mutually agree to a reasonable and justifiable rate of compensation, or to a different method of compensation, subject to an appropriation of funds by the OWNER, for the term of any renewal or extension. The OWNER makes no assurances or guarantees the CONTRACT will be

renewed, or extended, for any additional time periods or amounts. The renewal or extension option may be exercised by the Owner, at its discretion only, if the Owner deems the CONTRACTOR'S performance under this Agreement to be complete and fully satisfactory and all terms and conditions of the CONTRACT have been fulfilled. The CONTRACT may not be renewed or extended beyond December 31, 2013. Any renewal and/or extension shall be made in writing and be approved by the CONTRACTOR and the OWNER.

302 DESCRIPTION OF PROJECT

Bid Schedule A - Roadway Resurfacing Project

A project map has been included with the bid documents showing the work locations. The work consists of pavement reconstruction and overlay of arterial, collector and local roadways located within unincorporated Arapahoe County. Slurry seal streets are also shown on the project site map. Work on slurry seal streets is not currently part of this project, however the Contractor should be prepared to perform crack seal and/or patching on slurry streets, if requested by the Engineer.

<u>Bid Schedule B – Road & Bride Asphalt Materials (FOB Plant)</u>

This bid schedule is to provide HMA for use by County Road & Bridge crews for in-house paving projects. Prices provided for the Road & Bridge Asphalt Materials Bid Schedule shall be quoted FOB asphalt plant. Additional Special Conditions for Road & Bridge Materials are included below in this document in Section 310.

This project is based on plan quantities and the amount of work to be accomplished with this project is unit price dependent. Therefore the Contractor shall be prepared to perform more or less work within the general project areas, without additional charges for mobilization or traffic control. Potential alternate work locations are also shown on the map.

Work not specifically called for, but which must be accomplished to complete this Contract shall be considered part of this Contract, whether or not specifically detailed.

The contractor will be required to use appropriate best management practices to contain debris and prevent millings or other debris from entering the stormwater system during construction. Prompt clean up will be required as needed after milling and each work element is completed.

Temporary hot mix ramping or lowering of utilities on collector and arterial streets

The Contractor shall be required to lower or temporarily ramp all water valves and manholes protruding in traffic lanes as necessary to maintain safe movement of traffic through work zones,

On specified collector and arterial roadways, <u>temporary ramps shall be</u> <u>constructed with hot mix asphalt at both ends and at utilities as necessary, and shall be removed prior to overlay</u>. Temporary ramping and/or lowering of utilities shall not be measured or paid for separately, but will be considered incidental to the work.

The following paragraphs describe the work in particular.

Section 1971-36 S. University Blvd. Overlay

This work consists of full mill and overlay of the east half of S. University Blvd., beginning at E. Hampden Avenue and extending approximately ¼ mile north to E. Flora Place.

Detailed plans include the following:

- A CDOT Permit will be required for lane closures and/or traffic control device placement on State right-of-way, which will also specify allowable working times
- We are anticipating working hours of 9:00 2:00 or possibly 9:00 3:00 at this location based on a preliminary discussion with a CDOT representative
- Full width milling of NB lanes to 3" depth followed by temp paint, as needed
- Temporary hot mix ramping will be required at both ends of project and potentially at utilities and bus pads, as necessary
- Patching as needed (mill patching bid item may be used to facilitate construction)
- 3" overlay with an estimated 615 tons of (HMA, S100) (PG, 64-22) followed by re-striping
- Paving must begin within 48 hours after milling has been completed, unless otherwise approved by the Engineer
- The Contractor shall be prepared to coordinate paving work with other contractors that may be working in this area if necessary
- A bid item is available for UTC, if needed
- Cherry Hills Heights contact: Cheryl Brown, 303-761-1333

Section 1973-21 S. Quebec St. Overlay

This work consists of full mill and overlay of the east half of S. Quebec St., beginning near E. Florida Ave. and extending north approximately ¼ mile to the City and County of Denver border, which shall be designated by the Engineer.

Detailed plans include the following:

- The Contractor shall be responsible for obtaining any permits that may be required by surrounding agencies
- Working hours shall be 8:30 AM to 3:30 PM, unless otherwise approved by the Engineer
- There are designated bus stops on the east side of Quebec, north of Florida and north of Arkansas. The contractor shall notify and coordinate with RTD to maintain bus stop access, as necessary
- Full width milling of NB lanes, east half of street, to 3" depth followed by temp paint, as needed
- Temporary hot mix ramping will be required at both ends of project and potentially at utilities, as necessary
- Patching as needed (mill patching bid item may be used to facilitate construction)
- Signal loop replacement, if necessary
- Paving must begin within 48 hours after milling has been completed, unless otherwise approved by the Engineer
- 3" overlay with an estimated 950 tons of (HMA, S100) (PG, 64-22) followed by re-striping
- A bid item is available for UTC, if needed working near the Florida intersection

Section 2073-15 Local and collector overlays – Tuscany Subdivision

- Working hours are 7:00 A.M. to 6:00 P.M.
- Work nearing Rolling Hills Elementary School, Cherry Creek School
 District No. 5 (Danube St.) must be completed during summer vacation or
 during another time approved by the Engineer. The contractor is
 responsible for confirming the latest school schedule and for scheduling
 the work safely and to avoid disruption of school pickup and drop off
 traffic.
- Residential street work will generally involve a minimum 6' edge mill followed by patching, as required, and 2" (PG58-28, SX) overlay.
- Collector (Danube St.) work will generally involve a 14' edge mill, patching, if necessary and 2.5" (PG64-22, S) overlay.
- Temporary hot mix ramping will be required at both ends of Danube St. and potentially at utilities, as necessary
- Danube street includes signal loop replacement and replacement of pavement markings.
- Paving must begin within 7 calendar days from start of milling.
- If haul truck, equipment or work activities on Danube St. should impact traffic on E. Smoky Hill Rd., such work shall be accomplished between 8:30 AM and 3:30 PM to avoid traffic disruption during peak travel times.

Section 2073-21 Residential overlay – The Farm Subdivision

- Working hours are 7:00 A.M. to 6:00 P.M.
- Milling will generally involve a minimum 6' edge mill followed by patching, as required, and 2" (PG58-28, SX) overlay.
- Paving must begin within 10 calendar days from start of milling.
- The contractor shall be prepared to coordinate work in this area with the County's slurry seal contractor who will also be working in this area.

Section 2075-14 Local overlays – Lake Pointe Subdivision

- Working hours are 7:00 A.M. to 6:00 P.M.
- Milling will generally involve a minimum 6' edge mill, followed by patching, as required, and 2" (PG58-28, SX) overlay.
- Paving must begin within 10 calendar days from start of milling.
- Alternate overlay locations in this section may be added if funds are available

Section 2075-14 Local reconstruct – E. Progress Ave. The Hills at Cherry Creek

- Working hours are 7:00 A.M. to 6:00 P.M.
- The work generally consists of pavement removal, subgrade stabilization and fine grading followed by 6" depth paving. Bottom 4" lift (PG64-22, S, 20% RAP) Top lift 2" (PG58-28, SX).
- Progress Ave. is 32 feet in width. The contractor shall submit an MHT to the Engineer for approval at least 7 days prior to construction.
- The contractor will be required to use appropriate best management practices, including prompt clean up of all flow lines and downstream inlet protection, as necessary, to contain debris from entering the stormwater system during construction.
- The bottom pavement lift must be completed within 7 calendar days from pavement removal.

Section 2075-23 Local overlays – Cherry Creek Vista Subdivision

- Working hours are 7:00 A.M. to 6:00 P.M.
- Milling will generally involve a minimum 6' edge mill, full milling at medians, followed by patching, as required, and 2" (PG58-28, SX) overlay.
- Paving must begin within 10 calendar days from start of milling.
- The contractor will be required to use appropriate best management practices to contain debris and prevent millings or other debris from entering the stormwater system during construction. Prompt clean up will be required as needed after milling and each work element is completed.

• The contractor should be prepared to complete additional overlays in this area if funds are available after original work has been completed.

Section 2075-23 Local collector reconstruct, E. Caley Ave. – Cherry Creek Vista Subdivision

- Working hours are 7:00 A.M. to 6:00 P.M.
- The work generally consists of pavement removal, subgrade stabilization and fine grading followed by 6" depth paving. Bottom 4" lift (PG64-22, S, 20% RAP), Top lift 2" (PG58-28, SX).
- Caley Ave. is 40 feet in width and is the only access for some residents in this area. Vehicular access must be maintained at all times under an approved method of handling traffic.
- The contractor will be required to use appropriate best management practices, including inlet protection, to contain debris from entering the stormwater system during construction.
- The bottom pavement lift must be completed within 7 calendar days from pavement removal.

Contingent bid items

Contingent bid items have been included in the proposal to be used, if necessary. Contingency bid items may include leveling, fly ash for subgrade stabilization, crack seal, crack patching and/or mill patching and inlet protection. Inlet protection will be required for street reconstructions and may be required at other locations, if determined necessary by the Engineer or by various permit requirements; including Arapahoe County Public Improvement Permit, Colorado Storm water Construction Permit or the Grading and Erosion Control (GESC) Permit, if required.

Crack Patching - Skid loader mounted detail mill or small self propelled mill

This line item is for repair of wide cracks in various locations throughout the project to repair excessively large cracks prior to overlay. Cracks generally vary in width from 1"-3." The Contractor's crack patching method is subject to approval by the Engineer.

In general, patching is to be accomplished by use of a skid loader, uni-loader or other detail-type mill or other small self propelled mill capable of removing a minimum depth of 3" longitudinally along cracks to create a t-patch configuration over the cracks prior to overlay. All patching areas are to be cleaned and tacked prior to patching with an approved HMA mix. Finished patch surfaces must otherwise meet typical patching requirements. In general the desired finished patch elevation should match street surface elevation, plus 1/8" - 1/4".

All crack patching locations shall be patched with hot mix asphalt within 48 hours of milling, unless otherwise approved by the Engineer.

All crack patching locations shall be as determined and designated by the Engineer. All mill patching locations (if included) shall be patched to final street elevation by the end of each workday.

General Construction Practices

Delivered material or excavated material shall not be placed in the flow line. Material must be removed from the flow line during construction operations; such as excavation, grading, mixing and milling. Excavation, grading, mixing and milling work should be scheduled for dry weather to avoid contamination of storm drainage facilities.

All storm drains, drainage swales and creeks shall be identified near the construction site and all subcontractors shall be made aware of their locations to prevent pollutants from entering them.

As little water as possible shall be used when making saw-cuts in pavement (asphalt or concrete). Storm drain inlets shall be covered per the inlet protection detail during the sawing operation and saw slurry shall be contained. Slurry residue shall be shoveled or vacuumed after the liquid drains or evaporates and removed from the site.

Portable toilets shall be kept in good working order. Toilets shall be checked frequently for leaks, serviced regularly, and adequately anchored so as to prevent them from tipping over.

Equipment:

The Contractor shall specify the type of equipment proposed for use at the preconstruction conference. The Contractor shall make the equipment available, sufficiently in advance of construction, to allow the Engineer time to evaluate it. The Engineer will reject equipment that is unsuitable for the intended purpose. One area should be designated for auto parking, equipment/vehicle refueling, and routine maintenance. The designated area should be well away from gutters, storm drains, and creeks. All vehicles and heavy equipment shall inspected frequently for leaks and repaired as necessary. Major equipment / vehicle repairs shall be made off-site. Washing of equipment and machinery shall not be allowed on site. Diesel oil shall not be utilized to lubricate equipment or parts.

Spills:

Leaks, drips, and other spills shall be cleaned up immediately. Spills, leaks and dirty pavement, or surfaces, shall not be hosed down, but shall be cleaned up using "dry" methods (with absorbent materials and/or rags). Soils contaminated by spills shall be dug up and removed. Drips from paving equipment not in use shall be caught with drip pans, or other non-flammable absorbent materials placed under the machine.

Asphalt Construction and Removal:

Approved storm drain inlet protection shall be installed at all nearby inlets at the beginning of construction. Saw-cut slurry shall be shoveled or vacuumed and removed from the site. Broken up pavement and concrete shall be removed to avoid exposure to rainfall and storm runoff.

Materials shall be removed from surfaces that drain to storm drain inlets, creeks and channels throughout the workday, especially when precipitation (rain or snow) is in the forecast. Excavations that have collected rain/irrigation water shall not be pumped/drained directly into the flow line or inlet. Collected water must be filtered before discharge. The inlet(s) that will receive the filtered water shall have approved inlet protection installed. The appropriate de-watering permits shall be obtained from CDPHE prior to discharging storm water. Tack oil shall not be sprayed if rain is eminent. Care shall be taken not to over-spray tack onto adjacent surfaces not intended for paving. The amount of tack to be applied shall be monitored so as not to apply excessive amounts. Streets must be completely swept immediately following milling operations. All areas that are not accessible to the street sweeper must be hand broomed. Excess asphalt is not to be stockpiled or broadcast, but is to be removed from the site. Projects that stockpile material outside of County Right-of-Way shall obtain a Low-Impact GESC Permit in accordance with the Arapahoe County GESC Manual.

303.0 COORDINATION OF CONSTRUCTION

The CONTRACTOR is responsible for coordination with all entities necessary to completed work associated with this project.

Public Works has contracted for concrete replacements to be completed prior to paving work, however it shall be the responsibility of the paving contractor to coordinate paving work with other work in or near the project areas so as to avoid delays, including any work by developers in the project areas.

The following general contact list is provided for convenience, but is not intended to be comprehensive and may not contain all contacts necessary for completion of this project.

Arapahoe County Contacts:

Public Works Main Office: 720-874-6500

- Bryan D. Weimer, Transportation Division Manager
- o Brian R. Love, P.E., Capital Improvement Program Manager
- Jim Katzer, P.E., Road & Bridge Division Manager, Millings contact: 720-874-6837
- Jon Heese, Engineering Inspector 720-874-6501

Utility / Other Contacts

- 1. Castlewood Water and Sanitation District: 303-770-7272.
- 2. CDOT, Scott McDaniel, 303-757-9942.
- 3. Cherry Creek Valley Water and Sanitation District: 303-755-4474.
- 4. Denver Water Department: Marty Buckstein, 303-628-6818.
- 5. East Cherry Creek Valley Water and Sanitation District: 303-693-3800.
- 6. Havana Water and Sanitation District, Mark Klee: 303-741-6000.
- 7. Xcel Energy, Paul Griggs, 303-671-3925

There are a number of existing utility systems in and around the project site. The CONTRACTOR is required to protect these utilities and keep them in service as a part of his work. Any utility relocations will be performed by others, unless provided for elsewhere in the Contract Documents. No measurement for payment shall be made for utility coordination. Compensation for this work shall be included in unit prices appearing in the bid proposal.

Prior to submitting his bid, the CONTRACTOR shall make contact with all affected agencies and shall satisfy himself as to the condition within which all work shall be performed.

The CONTRACTOR is responsible for coordinating public transportation needs with RTD and accommodating those needs. No separate payment shall be made for public transportation coordination. Any costs associated with public transportation coordination shall be included in bid unit prices.

Where the Drawings delineate work to be performed on private properties, the CONTRACTOR shall give the ENGINEER and the OWNERS of those properties written notice at least seven (7) calendar days prior to commencing his operations on those properties.

Pre-construction Meeting

 The successful bidder in consultation with the ENGINEER shall schedule a Pre-construction Conference to be held as soon as possible after the award of this contract. The CONTRACTOR's supervisory personnel for this project shall attend this meeting. The CONTRACTOR and ENGINEER shall jointly determine the time and place of this meeting.

Project Schedule

 The CONTRACTOR shall submit three (3) copies of his construction schedule at the pre-construction conference. The schedule shall show the areas of work and when they are to be performed. The schedule shall

Coordination Meetings

 A daily coordination meeting and a weekly status meeting will be held with the CONTRACTOR and the ENGINEER. The time and location of these meetings will be specified at the pre-construction meeting. During the daily (mandatory) meetings, the CONTRACTOR shall provide the work locations of all his crew for that particular day. If the CONTRACTOR deviates from the designated work area during the day, both the COUNTY and the testing agency's personnel shall be notified immediately.

Reporting of Pay Quantities

 The Contractor must report pay quantities to the Inspector on a daily basis. During mandatory daily meetings, the CONTRACTOR shall report all pay quantities for each crew for a particular day. All load tickets must be provided daily, as required.

303.5 CONTRACT TIME

The CONTRACTOR shall schedule his work such that all work is completed within <u>65 Working Days</u> from the date of Notice to Proceed for Bid Schedule "A" (Arapahoe County Rehab Project).

It is the Engineer's intent for this project to be completed generally during the May - August, 2012 timeframe. Consequently the tentative notice to proceed date is on or before May 14, 2012. At this point it appears that most concrete replacements have been completed, except for minor work in Section 2073-15, Tuscany and 2073-21, The Farm, which will be scheduled for early in the concrete replacement schedule. Consequently a work sequence generally from west-to-east is thought to be needed at this time.

The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

The CONTRACTOR will proceed with the WORK at such a rate of progress to ensure full completion within the Contract Time. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER that the Contract Time for the completion of the WORK described herein is a reasonable time, taking into consideration the climatic and economic conditions and other factors prevailing in the locality of the WORK.

Time of Completion is an essential element of the CONTRACT. Every effort shall be made by the CONTRACTOR to complete the project within the "Contract Time" shown in the proposal. The "Contract Time" anticipate "Normal" weather and climate conditions in and around the vicinity of the Project site during the times of year that the construction will be carried out. Extension of time based upon weather conditions shall be granted only if the CONTRACTOR demonstrates clearly that such conditions were "unusually severe", would not have been reasonably anticipated, and that such conditions adversely affected the CONTRACTOR's work and thus required additional time to complete the work.

The Contractor and the ENGINEER shall keep time counts for this project. The CONTRACTOR shall notify the ENGINEER within ten (10) calendar days of any disagreement with the Engineer's time count.

One working day will be charged for each working day in which the weather allows work to be effectively accomplished for six (6) or more hours. One half day will be charged for any day the weather allows work to be effectively accomplished for less than six (6) hours. Each day of the week, Monday through Friday, will be considered a working day. WEEKEND WORK IS NOT ALLOWED, unless authorized in writing by the Engineer. Saturdays will become a chargeable working day whenever any work is accomplished on that day. No time will be charged for Sundays or Holidays when work is not attempted. Should the CONTRACTOR request and receive the ENGINEERS permission to work on a Saturday, one working day will be charged for that day. Should the CONTRACTOR request and receive the ENGINEERS permission to work on a Sunday or Holiday, two (2) working days will be charged for each day.

Equipment breakdown or lack of performance by the CONTRACTOR will not be considered to be justification for an extension of time.

The CONTRACTOR'S desire to complete the work associated with this contract earlier than the time allotted, is limited by the ability of the ENGINEER to respond to said desire. Therefore, the following condition shall apply in case of early completion. Early finish or voluntary acceleration of the schedule by the CONTRACTOR is acceptable provided:

At the time of submission of the schedule indicating such acceleration the ENGINEER is notified of actions on the County's part necessary to accommodate the change(s) or acceleration.

The ENGINEER is agreeable to such change(s).

IN GENERAL, NO TIME RELATED CLAIMS WILL BE COMPENSATED TO THE CONTRACTOR FOR OWNER DELAY PRIOR TO THE PRESENT CONTRACTUAL END DATE.

The CONTRACTOR shall not be charged for working days when the delay in completion of the Work is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

- To any preference, priority or allocation order duly issued by the OWNER.
- To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another Contractor in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather as provided above; and
- To any delays of SUBCONTRACTOR's occasioned by any of the causes specified in paragraphs a. and b. above.

303.9 UTILITY ADJUSTMENTS

The OWNER's policy concerning relocation or adjustment of facilities in the public right-of-way provides that the cost of adjusting valve boxes and manholes shall be borne by the respective water and sanitation district. Each individual district may perform this work itself or may have the OWNER perform the work at the Contract unit cost per item. The CONTRACT bid items for Manhole and Water Valve Adjustment have been provided for the purpose of determining unit prices for consideration by the water and sanitation districts. The Districts may choose to have the OWNER include their component of the total in this paving contract, or they may choose to perform the work themselves. Consequently the estimated quantity for each item therefore represents the maximum probable quantity for the item. Therefore manhole and water valve adjustments are contingent items to the CONTRACT, as directed by the OWNER through the ENGINEER.

In those areas where the District chooses to perform this work, the CONTRACTOR shall be responsible for coordinating construction activities with the District, or its representatives, and for providing opportunity for the District to

perform their work. At a minimum, this shall consist of providing a schedule to the District, at least 48 hours prior to paving.

The utility District shall have the final approval for work completed on their facilities. The CONTRACTOR is responsible for obtaining written approval from each District regarding acceptance of work and amount of work performed (i.e., number of manholes adjusted). The CONTRACTOR's retainage will not be released until the ENGINEER has received written approved of the CONTRACTOR'S work by the Districts. The CONTRACTOR may be subject to 10% of liquidated damages (section 203.28) if approval is not obtained within thirty (30) calendar days after the substantial completion walk-through.

The CONTRACTOR is responsible for adjusting all range point boxes. If any range point boxes are broken or damaged by the CONTRACTOR, he shall bear the cost of replacement. The box shall be installed in conformance with these Specifications and the "Drawings". When the range point is reset it will be paid as reset range point. When the adjustment can be performed using a riser ring, it shall be paid as a water valve adjustment.

The CONTRACTOR should be aware that he will be working on or near various existing utility mains, conduits, structures, pedestals, and poles. The CONTRACTOR must take sole responsibility for damage to any utility line encountered. The CONTRACTOR shall notify the utility companies for field locations before the start of construction. If the exact location and depth of existing underground utilities are unknown, the CONTRACTOR shall perform all necessary exploratory excavation to locate these facilities which may affect the work prior to beginning construction, at no additional cost to the ENGINEER. The CONTRACTOR shall notify the ENGINEER immediately of any utility discrepancies.

The CONTRACTOR shall be responsible for protecting sanitary and storm sewer facilities from any construction material debris found within these facilities. If material is found within these facilities, the CONTRACTOR will be required to remove and/or pay for removal by the respective district. The CONTRACTOR shall notify respective districts and the ENGINEER immediately if material is accidentally deposited or otherwise located in these facilities.

Two types of utility adjustments are recognized by this Contract. The District, the CONTRACTOR, and the ENGINEER will agree upon the type of adjustment that will be required during the <u>mandatory walk through</u>. Representatives from the CONTRACTOR, the utility district and the ENGINEER shall attend the meeting. This meeting shall result in agreement as to the extent or work required at each location, and what constitutes full adjustment vs. ring or minor adjustment. This walk through will serve to:

- 1) determine adjustment needs for each manhole and water valve,
- 2) confirm who will do the adjustment, and

3) confirm which party will pay for the adjustment.

If adjustments are needed due to impacts caused by the County's rehabilitation project, the CONTRACTOR will perform the adjustment and the OWNER will pay for and invoice the district. However, if a facility needs to be modified to meet standards prior to the CONTRACTOR performing the facility adjustment caused by the County project, the respective district will be responsible for that modification.

303.9.1 RING ADJUSTMENT

This item is primarily intended for, but may not be limited to, overlay. It shall consist of the installation of a steel riser ring of the correct diameter and height to allow placement of the cover 1/4" to 1/2" below the surface of the finished pavement. Asphalt or other debris that falls into a utility must be removed immediately.

303.92 FULL ADJUSTMENT

This item is primarily intended for, but not limited to, pavement reconstruction. Note: some utilities may need to be lowered prior to overlay. The extent of utility adjustment shall be agreed at the utility walk through. The CONTRACTOR shall loosen frames or upper sections in such a manner that existing structures will not be disturbed or damaged.

The Contractor shall be responsible for ensuring crews, including subcontractor crews, take precautions to prevent debris from entering sanitary or storm sewer conduits. The Contractor shall visually inspect any manholes that have been lowered or disturbed promptly, to ensure the facilities remain clear. The CONTRACTOR shall notify respective districts and the ENGINEER immediately if material is accidentally deposited or otherwise located in these facilities. If material is found within these facilities, the CONTRACTOR will be required to remove and/or pay for removal by the respective district. The Contractor is responsible for any costs associated with debris removal, cleanup, or emergency repairs resulting from contamination of sanitary or storm facilities.

All loose material and debris shall be removed from the excavation and the interiors of structures prior to resetting frames. Rings shall be set to the elevations established by the ENGINEER and shall be firmly blocked in place with masonry or metal supports. Spaces between the ring and the old seat shall be sealed on the inside to prevent any concrete from entering the hand hole or manhole. Concrete shall be placed under the rings to provide a seal and to properly seat the ring at the required elevation. Asphalt shall be placed around the rings and shall be struck off flush with the top of the existing pavement. The

manhole cover shall be <u>1/4" to 1/2"</u> below the finished pavement and match the line and grade of the finished pavement.

Only one payment and one type of payment will be made for each utility adjusted.

304 DRAWINGS

There are no separate contract drawings for this project. Project location maps and standard details are included in or with this project manual and hereinafter referred to as the "Drawings".

304.2 SEQUENCE OF WORK

If the Engineer does not provide a sequence of work to be followed, the sequence of work will be subject to agreement between the ENGINEER and CONTRACTOR. In general, the Contractor shall be responsible for coordinating street prep work and paving schedules with concrete replacement schedules so as to allow as much curing time for new concrete features as possible. In general, new concrete shall be allowed a minimum of 7 days curing time prior to beginning any street prep or paving work, unless approved otherwise by the Engineer. The Contractor shall be responsible for replacement of concrete features damaged during completion of this contract.

305 CONTRACTOR'S REPRESENTATIVES

The CONTRACTOR shall assign two personnel to be responsible for all aspects of this project after hours and over the weekend as emergency standby. Valid 24 hour telephone numbers for standby personnel shall be submitted to the ENGINEER and OWNER.

306.5 SALVAGE

Some items may be designated for salvage and may result in an excess of materials following their reinstallation. Where any such excesses occur, the excess materials shall become the property of the CONTRACTOR and shall be disposed of by and at his expense at a location off the project site.

Where items are designated for salvage, the CONTRACTOR shall have the option of removing those materials and replacing them with new materials of equal kind; however, no additional compensation will be allowed therefore. Should the CONTRACTOR wish to pursue this option, he shall identify any and all materials he intends to replace and shall submit manufacturer's product data for such materials to the ENGINEER for his review.

306.6 CLEANING DURING CONSTRUCTION

During execution of work, the CONTRACTOR shall clean the site, adjacent properties, and public access roadways on a daily basis or as directed by ENGINEER. The CONTRACTOR shall dispose of waste materials, debris, and rubbish to assure that building, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.

The CONTRACTOR shall wet down dry materials and rubbish to lay dust and prevent blowing dust. The CONTRACTOR shall provide containers for collection and disposal of waste materials, debris, and rubbish. The CONTRACTOR shall cover or wet loads of excavated material leaving the site or of material being imported to prevent blowing dust. The CONTRACTOR shall also clean the public access roadways to the site of any material falling from the haul trucks. The CONTRACTOR shall clean debris from pipelines and manhole structures, as necessary and directed by ENGINEER.

306.7 FINAL CLEAN UP

At the completion of the work and immediately prior to final inspection, the CONTRACTOR shall remove from the Construction Site all temporary structures and all materials, equipment, and appurtenances not required as part of, or appurtenant to, the completed work. The CONTRACTOR shall repair, patch, and touch-up marred surfaces to specified finish to match adjacent surfaces. The CONTRACTOR shall broom clean paved surfaces and rake clean other surfaces of ground as necessary and directed by ENGINEER.

307 MATERIALS TESTING

The CONTRACTOR shall be responsible for quality control (QC) testing and other activities necessary to ensure materials and workmanship meet project specifications. The Owner shall provide quality assurance (QA) testing for this project.

QC testing shall be according to MGPEC Table 9.15, or as approved by the Engineer. QC testing shall not be paid for separately, but shall be considered incidental to the work. Preliminary written field reports of all tests taken and observation results shall be given to the Contractor and the Engineer immediately after they are performed. Deficiencies shall be reported to the Contractor and the Engineer immediately.

The Contractor shall provide a detailed QC plan acceptable to the Engineer prior to construction. Any QA inspections and/or testing conducted by the Engineer do not relieve the CONTRACTOR of the responsibility to provide materials and workmanship meeting project specifications.

The cost of re-testing work and materials shall be borne by the CONTRACTOR. QA test results obtained by the Owner's representatives will be considered to be

correct, unless demonstrated otherwise by independent third-party testing. The cost of independent testing, if necessary, shall be borne by the CONTRACTOR.

The CONTRACTOR will be responsible for notifying the ENGINEER a minimum of 24 hours in advance of placing asphalt or concrete. The OWNER reserves the right to reject payment for materials placed with less than 24 hours notice.

The CONTRACTOR agrees to pay any and all minimum call out charges or standby time for QA testing incurred by the OWNER due to the CONTRACTOR's failure to place materials, or perform work on schedule, for any reason except by the action of the ENGINEER.

The Contractor shall ensure any necessary pollution controls are in effect and that existing facilities are protected or repaired, if damaged during the work. The Contractor shall ensure that permit conditions and provisions are followed, as specified.

308 CONSTRUCTION TRAFFIC CONTROL:

- 1. During construction, the CONTRACTOR shall provide for the safety of the workmen and for the safe and expeditious movement of traffic and pedestrians through the construction site by erecting and maintaining all necessary signs, barricades, or other traffic safety devices. He shall also provide and maintain in a safe condition temporary approaches or crossings at intersections with trails, roads, streets, businesses, parking lots, residences, garages, and farms unless this requirement is waived by the ENGINEER. The CONTRACTOR shall also have a Certified Traffic Control Supervisor (TCS) responsible for traffic control. The TCS shall be on site at all times work is being completed.
- 2. Before commencing with construction, the CONTRACTOR shall submit to the ENGINEER:
 - 1) the name of the certified Traffic Control Supervisor,
 - 2) a detailed traffic control plan for approval, including no parking requirements, and
 - 3) an access maintenance plan.

Details in the plans will include, but not be limited to: <u>number and width of lanes</u>, hours of work, placement of signs and barricades, signal control, temporary striping, maintenance of detours, dust abatement, speed limit and <u>length of lane closure tapers</u>.

The Contractor shall be responsible for monitoring project activities to ensure appropriateness and adequacy of traffic control. In general, the traffic control/access maintenance plan(s) shall cover all phases of the work (i.e. patching, milling, crackseal, overlay, etc.). All of these items shall be in

accordance with the "Manual of Uniform Traffic Control Devices" and any supplements thereto published by the U.S. Department of Transportation, Federal Highway Administration, latest date.

The access maintenance plan shall be developed by the CONTRACTOR and coordinated with, and based on requirements of the affected property owners and tenants.

Prior to commencing any work that affects access to a commercial property, the access maintenance plan must be signed by the property owner and submitted to the ENGINEER. The access maintenance plan shall include documentation of this coordination, including approval of access maintenance plan with a dated signature by each affected owner and tenant. Should the CONTRACTOR be unable to obtain approval and signatures, documentation of the efforts made to obtain said approval and signatures must be submitted. The CONTRACTOR shall maintain continuous access through the project for pedestrians, bicyclists, motorists, and disabled persons. All costs associated with maintenance of access shall not be paid separately, but shall be considered as incidental to the work.

The CONTRACTOR shall implement and maintain the approved traffic control/access maintenance plan throughout construction. The CONTRACTOR is solely responsible for claims, damages, losses, etc., arising or resulting from CONTRACTOR's failure to adhere to and maintain the traffic control plan as approved. It is understood that the traffic control plan's primary purpose is to foster the safe travel of the public while construction is in progress. It is not intended to specifically address on-site construction traffic. The CONTRACTOR is solely responsible for safety measures on the construction site.

- 3. The ENGINEER will provide project advisory signs to the CONTRACTOR. The CONTRACTOR shall provide an appropriate contact number for the signs and erect them at locations approved by the ENGINEER. These advisory signs shall be installed at least seven (7) consecutive days prior to the beginning of construction. All other traffic control signs/devices shall be installed 72 hours prior to the start of construction. All CONTRACTOR costs whatsoever associated with the advisory signs will be considered incidental to the Traffic Control bid item.
- 4. The CONTRACTOR will not be permitted to have construction equipment or materials in the lanes open to traffic. If the ENGINEER temporarily waives the above condition, the CONTRACTOR must provide a flag person to control traffic. The CONTRACTOR shall remove and reset all construction signs prior to construction. Any damaged signs shall be replaced in kind by the CONTRACTOR.

Parking of personal vehicles and construction equipment will be prohibited where it conflicts with safety, access, or the flow of traffic.

5. The CONTRACTOR shall provide written notice to all affected residents a minimum of 48 hours prior to beginning any construction activity that interferes with, or restricts any access. The ENGINEER shall provide the content of the notices and may provide door hanger bags for delivery. The CONTRACTOR shall fill in any missing information, place the notices in the bags, if provided, and deliver the notices. The ENGINEER reserves the right to deduct \$5.00 from the CONTRACTOR'S payment requests, for each written notice the CONTRACTOR fails to deliver, or fails to deliver on time. If for any reason, including weather, the notices are off by more than two days, the CONTRACTOR will be required to give affected resident's new written notices. Contractor costs associated with public notices shall not be measured or paid for separately but shall be included with the work.

The CONTRACTOR shall be responsible for notifying the ENGINEER regarding vehicle violation of no parking posting. The ENGINEER will arrange for removal of illegally parked vehicles. Should the CONTRACTOR require vehicle towing, the above written notices shall have been distributed a minimum of 48 hours prior to towing and No Parking signs shall have been in place for a minimum of 24 hours prior to vehicle removal.

The CONTRACTOR shall remove all traffic control devices within 48 hours after they are no longer needed.

6. Working hours for local and collector residential roadways are typically from 7:00 a.m. to 6:00 p.m. Monday through Friday. The CONTRACTOR is <u>not</u> allowed to work on Saturdays, Sundays or Holidays unless specifically authorized in writing by the OWNER. If the OWNER authorizes work on Saturdays, Sundays, or Holidays, the CONTRACTOR will be charged 1 day time for each Saturday and 2 days for each Holiday or Sunday worked.

Work on Arterial roadways and commercial collector roadways will generally be restricted to the hours of 8:30 a.m. to 3:30 p.m., Monday through Friday.

The ENGINEER may modify work hours during construction if determined such modifications may reduce user costs or lessen overall impact to citizens.

It is agreed that the Engineer will <u>deduct</u> monies paid to the CONTRACTOR, for work performed during restricted working hours, according to the following schedule:

\$100.00 for the first 15-minute period, or portion thereof, that the contractor interferes with traffic outside approved working times.

\$400.00 for the second 15-minute period that the contractor interferes with traffic outside approved working times.

\$650.00 for the third 15-minute period that the contractor interferes with traffic outside approved working times.

\$650.00 for any additional portion of a 15-minute period that the contractor interferes with traffic outside approved working times.

308.9 PAVEMENT MARKING

The type of pavement marking material to be used shall be designated for each location by the ENGINEER prior to placement. All striping shall be replaced as per original, or as modified by the ENGINEER.

The CONTRACTOR shall be responsible for measuring/locating all pavement markings prior to construction and for restoring them after construction, unless modified by the ENGINEER.

308.10 CROSSWALKS AND STOP BARS

Crosswalks: All crosswalks and stop bars shall be thermoplastic and shall be "continental" style. If curb ramps are present, crosswalks shall be placed so that the bottom of the ramp is fully within the crosswalk. All crosswalks shall be placed so that each bar of the crosswalk is either centered on a lane line or centered between lane lines.

Local Streets

Neighborhood streets generally require 1' X 8' crosswalk bars and 1' wide stop bars.

Arterial/Collector Streets

Streets 5 lanes or wider generally require 2' X 10' crosswalk bars and 2' wide stop bars.

309 REVISIONS AND ADDITIONS TO MGPEC SPECIFICATIONS

ITEM 0, GENERAL

Reference to "Uniform Manual of Traffic Control Devices" should read "Manual on Uniform Traffic Control Devices."

ITEM 1 REMOVAL OF EXISTING PAVEMENT 1.1 DESCRIPTION

Depths of existing pavements are generally not available.

Note: "Removal of pavement...will be measured by the square yard in its original position, regardless of its thickness." (also see 1.4 Measurement).

1.2 EQUIPMENT

Pavement may be cut by methods other than saw cutting. A straight true line with a vertical face is required.

1.3 CONSTRUCTION METHODS

The location of removals is not shown on the plans. Removal limits will be field-marked prior to the construction.

1.4 MEASUREMENT

The "Removal of Pavement" bid item shall include removal of sufficient materials to allow placement of new asphalt pavement, without further excavation. Removal shall be sufficient to allow for placement of stabilization agents and any swell resulting from the subgrade stabilization process.

The owner is to retain clean millings at the Road & Bridge facility as described elsewhere. The owner, in its discretion, may accept processed pavement materials (reduced in size by milling machine), but does not accept unprocessed pavement chunks or soils.

ITEM 2 EXCAVATION

Not used.

ITEM 3 EMBANKMENT

Not used.

ITEM 4 MOISTURE TREATMENT

4.7 PAYMENT

No separate payment will be made for moisture treatment or water. Any cost associated with water and moisture treatment shall be included in unit costs for Item 5 Stabilized Subgrade.

ITEM 5 STABILIZED SUBGRADE

5.5 Mix design

The Owner may provide mix design(s) for this project. If the OWNER provides mix designs, treated subgrade must meet 90% of the design unconfined compressive strength, or the minimum unconfined compressive strength listed in MGPEC Section 5.5.

5.6 Processing Materials

The depth of completed treatment shall be 12".

ITEM 6 CONCRETE CURBS, GUTTERS, AND SIDEWALKS

Not used.

ITEM 7 AGGREGATE BASE COURSE

Not used.

ITEM 8 STABILIZATION FABRIC

Not used.

ITEM 9 HOT MIX ASPHALT PAVEMENT

All Asphalt shall be compacted to between 92.0% and 96.0% of Maximum Theoretical (Rice) Density. Material tickets must be collected on site by the Contractor and delivered to the Owner's representative on the site. Tickets must be provided for all mix placed on the project.

9.13.1 Surface Tolerances

Roadway profile testing - High Speed Profiler (if specified)

Roadway profile testing, if specified, shall be according to CDOT Hot Mix Asphalt Pavement Roadway Smoothness (High Speed Profiler) Dated October 19, 2006. Incentive/disincentive shall be according to Table 105-9, HMA Pavement Smoothness Urban Construction, Percent Improvement (%I).

The contractor shall perform all profile testing for this project. All test results shall be provided to the Engineer. All costs associated with profile testing, including traffic control, flaggers, etc., shall not be measured or paid for separately but shall be included in the work. An incentive/disincentive line item will be included in the proposal if this specification applies.

Profile testing will be required for the following overlay locations, which are eligible for percent improvement incentive/disincentive: <u>NA</u>

If an incentive amount appears in the bid proposal, the amount is based on plan quantity. The actual incentive shall be based on the smoothness of the actual SY of through lanes on each roadway, excluding accel/decel and turn lanes.

9.17 Payment

Tack coat will not be measured or paid for separately but shall be considered incidental to the work.

ITEM 10 PAVING FABRIC

Not used.

ITEM 11 PORTLAND CEMENT CONCRETE PAVEMENT

Not used.

ITEM 12 ASPHALT CEMENT CONCRETE PAVEMENT PLANING/ROTOMILLING

12.1 DESCRIPTION

Milling may only be required along the edges of the streets, or may be required over the entire street surface. Milling is generally undertaken to profile existing asphalt such that the finished surface of new pavement will be

1/4" to 1/2" above the lip of "catch" curb and gutter, cross pans, or existing structures and to allow new pavement surfaces to match the lip of "spill" curb and gutter. Milling may also be required to provide a more uniform surface for overlay, or to reduce excessive crowns in existing pavement surfaces

Edge milling of 6' min. width shall generally be performed at the lip of the curb, or along cross pans. Milled butt joints are generally created at street ends without pans. Milled butt joints at street entrances shall be a minimum of 6 feet or as required to properly transition existing street surfaces to new overlay elevation. In other instances, the length of milling transitions shall be equal to the width of the roadway.

Edge milling on Collector and arterial streets generally requires a minimum width of 12 feet, or as specified by ENGINEER.

The Contractor shall overlay all milled surfaces within 10 calendar days of milling, unless otherwise specified by the Engineer. More stringent specifications may apply for particular roadways.

Asphalt millings (clean millings without gravel or soil, generally edge millings) will become the property of Arapahoe County upon completion of the project. The CONTRACTOR shall transport and stockpile the millings in the designated area at the Arapahoe County Road and Bridge Shops located at 7600 South Peoria Street, near Centennial Airport in unincorporated Arapahoe County. Millings contaminated by aggregate base course or soils will not be accepted, unless approved in advance by Arapahoe County Road & Bridge.

The Contractor shall contact Jim Katzer, Road & Bridge (720-874-6820) a minimum of 24 hours in advance of each milling operation, so that arrangements can be made to receive and store the asphalt millings.

12.4 QUALITY CONTROL TESTING

If milling does not meet the quality standards set forth in the specifications, the contractor shall re-mill the area at the contractor's expense.

ITEM 13 JOINT AND CRACK SEALANT 13.2 MATERIALS

Materials used for crack sealing shall meet the requirements of ASTM D6690 - Type II.

13.4 CONSTRUCTION REQUIREMENTS

Routing of cracks will not be required. Cracks shall be filled according to this section, unless directed otherwise by Engineer.

13.7 PAYMENT

The engineer will require verification of the amount of sealant used on a daily basis. How this verification is determined will be made prior to placement of any material. Payment will be based on the actual weight of material placed.

ITEM 14 FOG SEAL

Not used.

ITEM 15 CHIP SEAL

Not used.

ITEM 16 SLURRY SEAL

Not used.

ITEM 17 ASPHALT CONCRETE PATCH

17.1 DEFINITION

The minimum full-depth asphalt patch shall be 4 feet in both length and width.

17.12 DEFINITION OF EMERGENCY PATCHING (if included)

This item (if included) consists of patching next to newly poured concrete features in the event the Concrete Replacement Program Contractor fails to meet the asphalt patching requirements associated with that program. The CONTRACTOR shall be able to arrange and complete emergency patch back within 24 hours of notice by the ENGINEER. This bid item is intended to be all inclusive, including traffic control requirements and may include stripping of forms, minor clean-up, etc., as necessary to patch existing pavements along newly placed concrete, prior to paving work.

17.2 MATERIALS

17.2.1 Asphalt Concrete Pavement

The Contractor may use either PG58-28 or PG64-22 asphalt binder in patching and leveling mixes.

17.3 CONSTRUCTION REQUIREMENTS

Patching locations are generally not field marked until after milling has occurred.

Pavement cuts for patching must be along a straight true line with a vertical face. Cuts may be made by saw cutting or other method approved by the Engineer.

17.3.1 Subgrade Preparation

Delete the reference to replacing failed subgrade with flow fill.

17.3.2 Spreading and finishing

The minimum lift thickness for asphalt patching shall be 1-1/2"; the maximum lift thickness shall be 4".

17.4 MEASUREMENT

Material will be measured based on the number of tons that are actually incorporated into an area designated for patching.

17.5 PAYMENT

Payment will be made for the weight of the material that is actually incorporated into an area designated for patching.

ITEM 18 UTILITY CUT AND BACKFILL

Not used.

310 SPECIAL CONDITIONS FOR ROAD & BRIDGE ASPHALT MATERIALS BID

PURPOSE OF SOLICITATION (Bid Schedule B) - TO ESTABLISH A CONTRACT FOR MATERIALS: The purpose of this Solicitation is to purchase ASPHALT MATERIALS as specified herein from a source(s) of supply that will give prompt and efficient service to the County.

TERM OF CONTRACT: This contract shall be in effect on the date it is executed by the Owner and shall remain in effect through December 31, 2012.

COOPERATIVE PURCHASING EFFORTS: The County is a member of the Multiple Assembly of Procurement Officials (MAPO). The geography of the MAPO lies along the front range of the Rocky Mountains from the Fort Collins/Greeley area in the north to Colorado Springs in the south. The County hereby requests that any member of the MAPO be permitted to avail itself of this contract (Road & Bridge Asphalt Materials Bid - Schedule B) and purchase any and all items specified herein from the successful Vendor(s) at the contract price(s) established herein. Each MAPO member, which uses a contract(s) resulting herefrom, would establish its own contract, issue its own orders, be invoiced therefrom, make its own payments, and issue its own exemption certificates as required by the Vendor. It is understood and agreed that the County is not a legally binding party to any contractual agreement made between a MAPO member and the Vendor as a result of this Solicitation.

Vendors shall not include federal, state, or local excise or sales taxes in prices offered, as the County is exempt from payment of such taxes.

- Federal Identification Number 84-6000740
- State of Colorado Tax Exempt Number 98-04527-0000

ESTIMATED QUANTITIES: Estimated quantities or estimated dollars are provided in this solicitation for the Vendor's guidance only. No guarantee is expressed or implied as to quantities or dollars that will be used during the contract period. The County is not obligated to place an order for any given amount subsequent to the award of this Solicitation. Estimates quoted on the Specification and Pricing Form are based on the County's actual needs and usage during the previous contractual period or prior twelve month period, whichever is longer. Said estimates may be used by the County for purposes of determining the low Vendor meeting Specifications.

ASPHALT MATERIAL SPECIFICATIONS: Asphalt materials shall be according to Metropolitan Government Pavement Engineer's Council (MGPEC) Item 9, latest revision, and the attached Form #9 Mixture Designs for Hot Mix Asphalt.

Any official interpretation of this Solicitation must be made by an agent of the County's Purchasing Division who is authorized to act on behalf of the County. The County shall not be responsible for interpretations offered by employees of the County who are not agents of the County's Purchasing Division.

SUBSTITUTE FORM W-9 REQUEST FOR TAXPAYER ID NUMBER AND CERTIFICATION



SUBSTITUTE FORM W-9 Vendor# REQUEST FOR TAXPAYER (For Office Use Only) **IDENTIFICATION NUMBER AND CERTIFICATION** (A copy of the W-9 instructions is available upon request) 1. NAME OF FIRM: NAME (Legal Name) BUSINESS NAME (If different from above e.g. DBA) 2. ADDRESS WHERE NOTIFICATIONS, PURCHASE ORDERS ETC. SHOULD BE MAILED (if different from above): NAME (As it appears on invoice) ADDRESS CITY, STATE, ZIP 3. PAY TO OR REMITTANCE INFORMATION (If more than one remit to address, please attach on additional page.)

The Internal Revenue Service requires that you submit a Taxpayer Identification Number to comply with this regulation, please fill in the required information on this form, sign and return it to:

By fax (303) 738 – 7929

By mail

STREET ADDRESS

CITY, STATE, ZIP

Arapahoe County Government Finance Dept 5334 South Prince Street Littleton, CO 80166-0001

TAXPAYER IDENTIFICATION NUMBER (TIN)							
Social Security Number OR	-						
							
Name of Business Owner (please print)							
Check Appropriate Box: [] Corporation							
CERTIFICATION Under penalties of perjury, I certify that: (1) The number shown on this form is my correct Tax Identification Number, and (2) I am not subject to backup withholding. (3) I am a US person (including a US resident alien)							
Signature	Date						
Print Name_							
Telephone Number ()							
Individual/Sole Proprietorships: [] Merchandise Only [] Employee expense reimbursement [] Garnishment / Child Support [] Damage awards & other reimbursements For Corporation: [] Attorney [] Non Attorney	[] Services [] Contract Labor [] Other (Explain) [] Sale of Land						

NOTICE! CHECKS OR PURCHASE ORDERS WILL NOT BE ISSUED BY ARAPAHOE COUNTY UNTIL YOUR TAX PAYER ID NUMBER IS ON FILE AT PURCHASING!

TABULATION OF QUANTITIES (Rehab Project Base Bid)

Project No. C12-100							1			1	1	(S75)	I			1				Epoxy				I	$\overline{}$	
Estimated Qantity Worksh	eet						Remove	Stab.		(SX75)	(S75)	(PG64-22)	(S100)		Patch	Patch	Mill	Crack Ptch	Signal	Pvmt.	Temp	Preformed	Preformed	Variable	Inlet	
					Effective		Pvmnt.	Subgrd	Fly Ash	(PG58-28)	(PG64-22)	(RAP)	(PG64-22)	Milling	Small	Large	Patch	(Detail Mill)	Loop	Mkg.	Mkg.	XW, SB	Symbols	Msg Sign	Protction	UTC
Section Seg.	Treatment	Street	From	То	Length W	SF	(SY)	(SY)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(SY)	(Ton)	(Ton)	(Ton)	(LF)	(EA)	(SF)	(SF)	(SF)	(SF)	(Day_	(EA)	(HR)
1971-36 00676-1	Full Mill to 3" Depth, 3" Overlay		E FLOYD AVE	E HAMPDEN AVE	1288 26	33488							614	3721			94			1031	2062			10		16
1973-21 00135-1		S QUEBEC ST	END	E FLORIDA AVE	1331 39	51909		, i			,		952	5768			250		1	1330	2661	160		10		16
2073-15 02262-1	7.25' Edge mill, 2" Overlay	S DANUBE CIR	S DANUBE ST	S BISCAY ST	1068.629 32	34196				418				1808	16											
2073-15 02263-1	14.5' Edge mill, 2.5" Overlay	S DANUBE ST	S DANUBE CIR	S BISCAY ST	209.364 40	8375					128			708	4							140				
2073-15 02264-1	14.5' Edge mill, 2.5" Overlay	S DANUBE ST	E SMOKY HILL RD	S DANUBE CIR	971.031 40	38841					593			3285	23				2	247	493	60	31	10		
2073-21 09694-1	Edge mill, 2" Overlay	E CALEY CIR	END	E CALEY CIR	135.641 32	4,341				53				219	2											
2073-21 09696-1	Edge mill, 2" Overlay	E CALEY CIR	E WEAVER AVE	E CALEY CIR	1375.535 32	44,017				538				2216	20											
2073-21 09698-1	Edge mill, 2" Overlay	E CALEY CIR	END	E CALEY CIR	185.873 32	5,948				73				299	3											
2073-21 09700-1	Edge mill, 2" Overlay	E CALEY CIR	E CALEY CIR	END	79.795 32	2,553				31				129	1											
2073-21 09702-1	Edge mill, 2" Overlay	E CALEY DR	E WEAVER AVE	S WALDEN WAY	966.596 32	30,931				378				1557	14											
2073-21 09704-1	Edge mill, 2" Overlay	S WALDEN CT	END	E CALEY DR	135.015 32	4,320				53				218	2											
2073-21 09706-1	Edge mill, 2" Overlay	E CALEY PL	S WALDEN WAY	END C WALDEN WAY	196.611 32 322.187 32	6292				77				333	0											
2073-21 09718-1 2073-21 09731-1	Edge mill, 2" Overlay	E WEAVER PL S URAVAN CT	END E PEAKVIEW PL	S WALDEN WAY S VENTURA CT	322.187 32 390.876 32	10310 12,508				126 153				545 630	0	U										
2073-21 09731-1	Edge mill, 2" Overlay Edge mill, 2" Overlay	S VENTURA CT	E PEAKVIEW PL	S URAVAN CT	390.876 32 427.629 32	12,508				153 167				630		-										
	Edge mill, 2" Overlay	E PEAKVIEW PL		S VENTURA CT	512.301 32	16,394				200				825		1		+								
	Edge mill, 2" Overlay	S WALDEN CT	E CALEY DR	END	321.053 32	10,394				126				517	5	 									+	
	Edge mill, 2" Overlay	S WALDEN CT	E CALEY DR	END	273.981 32	8,767				107				441	4											
2073-21 09777-1	Edge mill, 2" Overlay	S YAMPA CT	END	S WALDEN WAY	157.854 32	5051				62				267	7	8										
2073-21 09783-1	Edge mill, 2" Overlay	S WALDEN WAY	S TOWER RD	E CALEY DR	615.115 32	19684				241				1041	26	4										
	Edge mill, 2" Overlay	S WALDEN WAY	E CALEY DR	E CALEY PL	600.465 32	19215				235				1016	20	7										
2073-21 09793-1	Edge mill, 2" Overlay	S ZENO CT	S WALDEN WAY	END	398.796 32	12761				156				675	0	0										
2075-14 02700-2		E PROGRESS AVE	S KENTON WAY	CHERRY CREEK DR	150 32	4800	533	533	26	59		117													14	
2075-14 02801-1	Lake Pointe, edge mill, 2" ol	E BERRY AVE	E BERRY DR	S NOME ST	652.927 32	20,894				255				1052	10	225	50	418								
2075-14 02802-1	Lake Pointe, edge mill, 2" ol	E BERRY PL	E BERRY DR	S NOME ST	426.424 32	13,646				167				687	6	10		273								
2075-14 02803-1	Lake Pointe, edge mill, 2" ol	E BERRY DR	E BERRY AVE	S NOME ST	834.746 32	26,712				326				1345	12	20		534								
2075-14 02804-1	Lake Pointe, edge mill, 2" ol	S NEWARK ST	E BERRY DR	CHERRY CREEK DR	176.159 28	4,932				60				284	2	4		113								
2075-14 02806-1	Lake Pointe, edge mill, 2" ol	S NOME ST	E BERRY DR	END	153.127 32	4,900				60				247	2	4		98								
2075-14 02807-1	Lake Pointe, edge mill, 2" ol		E BERRY AVE	E BERRY DR	576.936 32	18,462				226				930	8	14		369								
2075-23 04250-1		E LAKE PL	S MOLINE WAY	S NOME CT	741.683 32	23734				290				1255	11	7										
2075-23 04257-1		E MAPLEWOOD AVE	S MOLINE CT	END	657.14 32	21028				257				1112	10	6		80								
2075-23 04290-1	7' edge mill, 2" overlay	S JAMAICA WAY	E ORCHARD RD	S JAMAICA CIR	637.088 32	20387				249				1078	9	6										
2075-23 04290-2	Ü ,	S JAMAICA WAY	S JAMAICA CIR	E MAPLEWOOD AVE	595.213 32	19047				233				1007	9	6										
2075-23 04295-1	7' edge mill, 2" overlay	S JAMAICA CIR	S JAMAICA CIR	S JAMAICA CIR	510.62 32	16340				200				864	7	5					-					
2075-23 04295-2 2075-23 04295-3	7' edge mill, 2" overlay 7' edge mill, 2" overlay	S JAMAICA CIR S JAMAICA CIR	S JAMAICA CIR S JAMAICA CIR	E MAPLEWOOD AVE END	644.924 32 98.028 32	20638 3137				252 38				1091 166	9	6										
2075-23 04295-3	7' edge mill, 2' overlay	S JAMAICA CIR	E MAPLEWOOD AVE		131.794 32	4217				52				223	2	1	1	1				1				
2075-23 04295-4	7' edge mill, 2" overlay	S JAMAICA CT	END	E MAPLEWOOD AVE	193.78 36	6976				85				328	3	2										
2075-23 04305-1	7' edge mill, 2" overlay	E ORCHARD PL	END	S KENTON ST	302.022 36	10873				133				511	5	3									+	
2075-23 04330-1	2010 ALT- 7' mill, 2" overlay		E ORCHARD RD	S KINGSTON CIR	709.052 32	22690				277				1199	10	7									+	
2075-23 04340-2		S KENTON WAY	S KINGSTON CIR	E MAPLEWOOD AVE	657.154 32	21029				257				1112	10	6										
2075-23 04360-1		S LIMA ST	E ORCHARD RD	S LIMA WAY	434.549 32	13906				170				735	6	4										
2075-23 04360-2	7' edge mill, 2" overlay	S LIMA ST	S LIMA WAY	S LIMA ST	414.795 32	13273				162				702	6	4										
2075-23 04360-3	7' edge mill, 2" overlay	S LIMA ST	S LIMA ST	E MAPLEWOOD AVE	884.49 32	28304				346				1496	13	9										
2075-23 04360-4	7' edge mill, 2" overlay	S LIMA ST	END	S LIMA ST	112.63 32	3604				44				191	2	1										
2075-23 04365-1	7' edge mill, 2" overlay	E ORCHARD PL	S LIMA ST	END	218.245 32	6984				85				369	3	2										
2075-23 04370-1	7' edge mill, 2" overlay	S MACON WAY	E MAPLEWOOD AVE		1089.025 32	34849				426				1842	16	11										
2075-23 04375-1	7' edge mill, 2" overlay	S LIMA WAY	S LIMA ST	E MAPLEWOOD AVE	1552.611 32	49684		`		607	,			2627	23	15										
2075-23 04375-2	7' edge mill, 2" overlay	S LIMA WAY	E MAPLEWOOD AVE		1182.069 32	37826				462				2000	17	12										
2075-23 04380-1	7' edge mill, 2" overlay		END	S LIMA WAY	108.999 32	3488				43				184	2	1										
2075-23 04391-1	2010 ALT- 7' mill, 2" overlay	S MOLINE CT	E MAPLEWOOD AVE		312.452 32	9998				122				529	5	3		80								
2075-23 04392-1	Ü ,	S MOLINE CT	S MOLINE WAY	E MAPLEWOOD AVE	274.999 36	9900				121				465	5	3										
2075-23 04393-1	7' edge mill, 2" overlay	S MOLINE CT	E LAKE PL	S MOLINE WAY	377.356 32	12075				148				638	6	4										
2075-23 04396-1	2010 ALT- 7' mill, 2" overlay	S NOME CT	E LAKE PL	E MAPLEWOOD AVE	643.776 32	20601				252				1089	9	6		80								
2075-23 04397-1	2010 ALT- 7' mill, 2" overlay		E MAPLEWOOD AVE		285.001 32	9120				111				482	4	3		80								
2075-23 04398-1	2010 ALT- 7' mill, 2" overlay		S NOME CT	E MAPLEWOOD AVE	640.88 32	20508	0500	0500	40:	251		EE?		1084	9	6		80				20				
2075-23 04418-1	6" stabilized reconstruct	E CALEY AVE	S HAVANA ST	S IOLA CT	571 40	22840	2538 3.071.11	2538 3.071.11	124	279	704.05	558	1 505 04	EE 007.00	272.40	430.85	201.15	2 205 22	2.00	2 600 25	E 040 40		24.00	20.00	/ 21.00	20.00
	1	Total:		1	1	975,260	3,071.11	3,0/1.11	150.64	10,299.02	721.35	675.64	1,565.61	55,827.30	373.12	430.85	394.15	2,205.00	3.00	∠,608.05	5,216.10	380.00	31.00	30.00	21.00	32.00

ASPHALT FORM 9

Agency: Arapahoe County Date: March 9, 2012	Projec	ct Number: <u>C12-</u>	100					
Date: <u>March 9, 2012</u>	Proje	ct Name: <u>Rσαλω</u>	my Rehab	Road + Bridge				
MGPEC Form # 9 (1/26/2012)	• M	ixture Design Re t Mix Asphalt Pa	quirement	s for				
Project Special Pro	vision Sheet for	Hot Mix Asphalt Pa	avements (H	IMA)				
This MGPEC Form #9 is a mandatory part of The Contractor shall include a copy of this form w	f the bid documen with each Mix Design	ts , and shall be filled out b submittal after the contract	y the AGENCY for the sawarded.	or each mix specified.				
Street Classification: A Industrial, Parking Lot or actual name	n c/ for Project)	(examples: Resident	tial, Collector,	Arterial,				
→ Construction Application:	☐ Top Lift ☑ Patching	☐ Intermediate L☐ Other	.ift(s)	Bottom Lift				
→ Aggregate Gradation:	→ Aggregate Gradation: □ Grading ST (1.5" or less lifts, 3/8" NMPS) □ Grading SX (2.5" or less lifts) □ Grading S (2.5+" to 3.5" lifts) □ Grading SG*¹ (3.5" or thicker lifts) SMA (Top lift only) □ 3/8" □ ½" □ 3/4"							
→ RAP Quantity, Maximum:	*1Note = Grading SC	rading SG depends or B lower lift(s) only.		xture of mix,				
Notes: ⁻ A quality control plan - Top lift Maximum RA	for RAP will be req P content allowed in	uired when RAP is used						
→ Superpave Gyratory Mix Design binder(s):	Compaction Le	vel, Recommended	usage and I	Recommend				
Design Level Recomm	ended Traffic I	_evels Reco	mmended F	PG Binder(s)				
N _{design} =50 Low volur	me	☐ P	G 58-28 or	☐ PG 64-22				
☑ N _{design} =75 0 to <3 m								
☐ N _{design} =100 3 million t								
 Notes: - The binders are shown in order they should be considered. - Polymer modified PG Binders are typically used in the top lift only - PG 58-28 Binder recommended for residential developments with less than 2 million ESAL's 								
	 Target job Mix Optimum Asphalt Content Selection, Choose target % as close to 4.0 as possible (3.5% to 4.5% air voids per MGPEC 2008) 							
Target Job Mix optimum Binder co	 Target Job Mix optimum Binder content for SMA grading at 3.0% to 4.0% air voids 							
**Warm mix asphalt (WMA) is allowed requirements and specification standar	as an alternate t ds are met and a	o hot mix asphalt pro s approved by the Ag	vided that all ency.	material				

A completed MGPEC Form #9 shall supplement the MGPEC Construction Specifications defining the contract specific requirements of Item 9: Hot Mix Asphalt Pavement (HMA). Refer to the Specifications for details,

Date: March 9, 2012	Project Number: <u>C12-100</u> Project Name: <u>Road Way</u> Rehab,						
MGPEC Form # 9 (1/26/2012)		gn Requirements for alt Pavements (HMA)					
Project Special Prov	vision Sheet for Hot Mix Asp	phalt Pavements (HMA)					
This MGPEC Form #9 is a mandatory part of The Contractor shall include a copy of this form w	the bid documents , and shall be fi ith each Mix Design submittal after the	lled out by the AGENCY for each mix specified. e contract is awarded.					
Street Classification: Collector Industrial, Parking Lot or actual name	for Project) (examples: R	Residential, Collector, Arterial,					
→ Construction Application:	☐ Top Lift ☐ Intermed ☐ Patching ☐ Other	diate Lift(s) Bottom Lift					
 → Aggregate Gradation: □ Grading ST (1.5" or less lifts, 3/8" NMPS) □ Grading SX (2.5" or less lifts) □ Grading S (2.5+" to 3.5" lifts) □ Grading SG*1 (3.5" or thicker lifts) SMA (Top lift only) □ 3/8" □ ½" □ 3/4" 							
	* ¹ Note = Grading SG dep Grading SG lower lift(s) o	ends on approved texture of mix, nly.					
→ RAP Quantity, Maximum: □ 0% □ 20% □ 25% Notes: A quality control plan for RAP will be required when RAP is used Top lift Maximum RAP content allowed is 20%							
→ Superpave Gyratory Mix Design (binder(s):	Compaction Level, Recomm	ended usage and Recommend					
N _{design} =50 Low volum N _{design} =75 0 to <3 mil N _{design} =100 3 million to Notes: - The binders are shown - Polymer modified PG - PG 58-28 Binder recor Target job Mix Optimum Asphalt (3.5% to 4.5% air voids per MGF	Ilion ESALs o <30 million ESALs in order they should be considered Binders are typically used in the to mmended for residential developm t Content Selection, Choose ta PEC 2008)	op lift only nents with less than 2 million ESAL's rget % as close to 4.0 as possible					
• Target Job Mix optimum Binder content for SMA grading at 3.0% to 4.0% air voids **Warm mix asphalt (WMA) is allowed as an alternate to hot mix asphalt provided that all material requirements and specification standards are met and as approved by the Agency.							
requirements and specification standart		the Agency.					

A completed MGPEC Form #9 shall supplement the MGPEC Construction Specifications defining the contract specific requirements of Item 9: Hot Mix Asphalt Pavement (HMA). Refer to the Specifications for details.

Agency: Arapahoc County Date: March 9, 2012	Project Number: C12-100 Project Name: Roadway Rehab							
MGPEC Form # 9 (1/26/2012)	mixture Design Nequirements for							
Project Special Provision Sheet for Hot Mix Asphalt Pavements (HMA)								
This MGPEC Form #9 is a mandatory part of the bid documents , and shall be filled out by the AGENCY for each mix specified. The Contractor shall include a copy of this form with each Mix Design submittal after the contract is awarded.								
Street Classification: Arterial (examples: Residential, Collector, Arterial, Industrial, Parking Lot or actual name for Project)								
→ Construction Application:	☐ Top Lift ☐ Patching ☐	Intermediate Lift(s) Other	☐ Bottom Lift —					
→ Aggregate Gradation: □ Grading ST (1.5" or less lifts, 3/8" NMPS) □ Grading SX (2.5" or less lifts) □ Grading S (2.5+" to 3.5" lifts) □ Grading SG*¹ (3.5" or thicker lifts) SMA (Top lift only) □ 3/8" □ ½" □ ¾"								
	* ¹ Note = Gradi Grading SG lo	ing SG depends on approved wer lift(s) only.	d texture of mix,					
→ RAP Quantity, Maximum: Notes: ⁻ A quality control plant - Top lift Maximum RAF	for RAP will be require							
→ Superpave Gyratory Mix Design (binder(s):	→ Superpave Gyratory Mix Design Compaction Level, Recommended usage and Recommend binder(s):							
Design Level Recomme	ended Traffic Lev	rels Recommende	d PG Binder(s)					
□ N _{design} =50 Low volum								
☐ N _{design} =75 0 to <3 mi	llion ESALs	☐ PG 64-22	or 🖵 PG 58-28					
N _{design} =100 3 million to	o <30 million ESAL	_s	or 🖵 PG 76-28					
 Notes: - The binders are shown in order they should be considered. Polymer modified PG Binders are typically used in the top lift only PG 58-28 Binder recommended for residential developments with less than 2 million ESAL's 								
 Target job Mix Optimum Asphalt Content Selection, Choose target % as close to 4.0 as possible (3.5% to 4.5% air voids per MGPEC 2008) 								
Target Job Mix optimum Binder co	 Target Job Mix optimum Binder content for SMA grading at 3.0% to 4.0% air voids 							
**Warm mix asphalt (WMA) is allowed as an alternate to hot mix asphalt provided that all material requirements and specification standards are met and as approved by the Agency.								

A completed MGPEC Form #9 shall supplement the MGPEC Construction Specifications defining the contract specific requirements of Item 9: Hot Mix Asphalt Pavement (HMA). Refer to the Specifications for details.

Date: March 9, 2012	Project Number: <u>A</u>	oadway Rehab						
MGPEC Form # 9 (1/26/2012)	Mixture Design Requirements for Hot Mix Asphalt Pavements (HMA)							
Project Special Pro	vision Sheet for Hot Mix Asp	halt Pavements (HMA)						
This MGPEC Form #9 is a mandatory part of The Contractor shall include a copy of this form w	the bid documents, and shall be fil ith each Mix Design submittal after the	lled out by the AGENCY for each mix specified.						
Street Classification: Res Industrial, Parking Lot or actual name	(dential (examples: R for Project)	esidential, Collector, Arterial,						
→ Construction Application:	☐ Top Lift ☐ Intermed ☐ Patching ☐ Other	diate Lift(s)						
→ Aggregate Gradation: □ Grading ST (1.5" or less lifts, 3/8" NMPS) □ Grading SX (2.5" or less lifts) □ Grading S (2.5+" to 3.5" lifts) □ Grading SG*¹ (3.5" or thicker lifts) SMA (Top lift only) □ 3/8" □ ½" □ ¾"								
→ RAP Quantity, Maximum: Notes: ⁻ A quality control plant - Top lift Maximum RAF	*¹Note = Grading SG depends on approved texture of mix, Grading SG lower lift(s) only. → RAP Quantity, Maximum:							
→ Superpave Gyratory Mix Design (binder(s):	Compaction Level, Recomm	ended usage and Recommend						
□ N _{design} =50 Low volum □ N _{design} =75 0 to <3 mi □ N _{design} =100 3 million to Notes: - The binders are shown - Polymer modified PG - PG 58-28 Binder record	Ilion ESALs 0 <30 million ESALs n in order they should be considere Binders are typically used in the to mmended for residential developm	op lift only nents with less than 2 million ESAL's						
(3.5% to 4.5% air voids per MGI	 Target job Mix Optimum Asphalt Content Selection, Choose target % as close to 4.0 as possible (3.5% to 4.5% air voids per MGPEC 2008) 							
 Target Job Mix optimum Binder content for SMA grading at 3.0% to 4.0% air voids **Warm mix asphalt (WMA) is allowed as an alternate to hot mix asphalt provided that all material 								
requirements and specification standard	ds are met and as approved by	the Agency.						

A completed MGPEC Form #9 shall supplement the MGPEC Construction Specifications defining the contract specific requirements of Item 9: Hot Mix Asphalt Pavement (HMA). Refer to the Specifications for details.

PROJECT MAP

