

BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, KANSAS

WEDNESDAY, MARCH 30, 2016

4:00 p.m.

-Proclamation to declare April 10-16, 2016 as "National Public Safety Telecommunicator's Week) - (Randy Roberts)

-Consider the minutes for January 13, January 20, February 3, February 17, February 24, March 2 and March 9, 2016.

CONSENT AGENDA

- (1) (a) Consider approval of Commission Orders;
- (b) Consent

REGULAR AGENDA

- (2) Consider awarding construction contract for Project No. 2015-15 Pavement rehabilitation for Routes 1-W & 1-S at Lone Star Lake Park (Keith Browning)-Backup to follow Monday

- (3) (a) Consider approval of Accounts Payable (if necessary)
- (b) Appointments
 - Board of Construction Codes Appeals (1) position 12/15
 - Heritage Conservation Council (2) positions 05/16
 - Community Corrections Board (2) positions 01/16 and 05/16
- (c) Public Comment
- (d) Miscellaneous

- (4) Adjourn

WEDNESDAY, APRIL 6, 2016

-Presentation of Champion for Child Abuse and Neglect Prevention Award (Diana Frederick)

-Proclamation for "Child Abuse Prevention Month" (Diana Frederick)

-Proclamation for "National Public Health Week" April 4-10, 2016. (Dan Partridge)

Regular:

2015 Annual Report (Dan Partridge)

TA-15-00571: Consider a Text Amendment to the *Zoning Regulations for the Unincorporated Territory of Douglas County, Kansas* to add Wind Energy Conversion Systems. *Initiated by County Commission on 10/21/15.* (Sandra Day is the Planner.)

MONDAY, APRIL 11, 2016

9:00 a.m. – Lecompton Election Canvass

WEDNESDAY, APRIL 13, 2016

WEDNESDAY, APRIL 20, 2016

WEDNESDAY, APRIL 27, 2016

WEDNESDAY, JUNE 8 - light

WEDNESDAY, JUNE 15 - light

Note: The Douglas County Commission meets regularly on Wednesdays at 4:00 P.M. for administrative items and 6:00 P.M. for public items at the Douglas County Courthouse. Specific regular meeting dates that are not listed above have not been cancelled unless specifically noted on this schedule.



Office of the County Commission

PROCLAMATION

National Public Safety Telecommunicator's Week

April 10-16, 2016

For Douglas County, Kansas

- WHEREAS: Emergencies can occur at anytime that require sheriff, police, fire or emergency medical services; and
- WHEREAS: When an emergency occurs the prompt response of law enforcement, firefighters and paramedics is critical to the protection of life and preservation of property; and
- WHEREAS: The safety of our sheriffs, police officers and firefighters is dependent upon the quality and accuracy of information obtained from citizens who telephone the Douglas County Emergency Communications Center; and
- WHEREAS: Public Safety Dispatchers are the first and most critical contact our citizens have with emergency services; and
- WHEREAS: Public Safety Dispatchers are the single vital link for our police officers, and firefighters by monitoring their activities by radio, providing them information and ensuring their safety; and
- WHEREAS: The Public Safety Dispatchers of the Douglas County Emergency Communications Center have contributed substantially to the apprehension of criminals, suppression of fires and treatment of patients; and
- WHEREAS: Each dispatcher has exhibited compassion, understanding and professionalism during the performance of their job in the past year.

NOW, THEREFORE, BE IT RESOLVED that the Board of County Commissioners of Douglas County, Kansas, hereby proclaim the week of April 10-16, 2016 as "NATIONAL PUBLIC SAFETY TELECOMMUNICATOR'S WEEK" and joins in honoring the men and women whose diligence and professionalism keep our county and citizens safe.

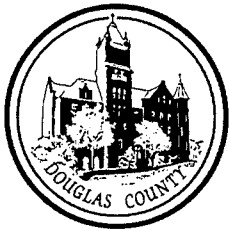
ADOPTED this 30th day of March, 2016.

BOARD OF COUNTY COMMISSIONERS
OF DOUGLAS COUNTY, KANSAS

Jim Flory, Chairman

Mike Gaughan, Vice-Chair

Nancy Thellman, Member



DOUGLAS COUNTY PUBLIC WORKS

3755 E. 25th Street
Lawrence, KS 66046
(785) 832-5293 Fax (785) 842-1201
dgcopubw@douglascountyks.org
www.douglascountyks.org

Keith A. Browning, P.E.
Director of Public Works/County Engineer

MEMORANDUM

To : Board of County Commissioners

From : Keith A. Browning, P.E., Director of Public Works/County Engineer *KAB*

Date : March 24, 2016

Re : Consider awarding construction contract for Project No. 2015-15
Pavement rehabilitation for Routes 1-W & 1-S at Lone Star Lake Park

We will open bids late this Friday afternoon, March 25 for the referenced project. A bid tabulation and contract award recommendation will be forwarded to BOCC members late Friday afternoon or the following Monday morning. Assuming we receive a valid bid, the contract document will be presented to the BOCC during the March 30 meeting for approval.

The referenced project consists of pavement rehabilitation work on Routes 1-W and 1-S at Lone Star Lake. The work involves pulverizing and mixing with cement the existing chip sealed surface, rock base, and soil subgrade to provide a stabilized base, then overlaying with a 2" asphalt surface course. The project will be completed by Memorial Day weekend.

The CIP includes \$450,000 for this work.

Action Required: Consider awarding a construction contract for Project No. 2015-15, pavement rehabilitation for Routes 1-W & 1-S at Lone Star Lake Park.

DOUGLAS COUNTY PUBLIC WORKS
PROJECT NO.2015-15/BID NO. 16-F-0003
DESCRIPTION: ROUTE 1W (EXCEPT DAM RD & SPILLWAY) & ROUTE 1S
BID TABULATION
March 25, 2016

ITEM NO.	BID ITEM	UNIT	QTY	ENGINEER'S ESTIMATE		Killough Construction, Inc.		Sunflower Paving, Inc.		Bettis Asphalt	
				UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
1	MOBILIZATION	L.S.	1	\$15,000.00	\$15,000.00	\$29,000.00	\$29,000.00	\$10,225.00	\$10,225.00	\$47,272.60	\$47,272.60
2	MILLING	S.Y.	592	\$3.00	\$1,776.00	\$2.00	\$1,184.00	\$4.25	\$2,516.00	\$5.00	\$2,960.00
3	MANIPULATION FOR IN-PLACE MATERIAL SUBGRADE MODIFICAITON (CEMENT)	S.Y.	21,932	\$5.50	\$120,626.00	\$5.25	\$115,143.00	\$4.60	\$100,887.20	\$4.89	\$107,247.48
4	CEMENT	TON	260	\$125.00	\$32,500.00	\$145.00	\$37,700.00	\$368.00	\$95,680.00	\$145.00	\$37,700.00
5	WATER (SUBGRADE MODIFICATION) (SET)	MGAL	285	\$35.00	\$9,975.00	\$35.00	\$9,975.00	\$35.00	\$9,975.00	\$35.00	\$9,975.00
6	HMA-COMMERCIAL GRADE (CLASS A) (SURFACE)	TON	2,599	\$60.00	\$155,940.00	\$60.89	\$158,253.11	\$64.50	\$167,635.50	\$62.77	\$163,139.23
7	SURFACING MATERIAL (AB-3)	TON	200	\$28.00	\$5,600.00	\$20.00	\$4,000.00	\$29.00	\$5,800.00	\$23.57	\$4,714.00
8	AGGREGATE FOR SHOULDERING (AS-1)	TON	829	\$28.00	\$23,212.00	\$17.80	\$14,756.20	\$28.00	\$23,212.00	\$23.57	\$19,539.53
9	CONSTRUCTION STAKING	L.S.	1	\$5,000.00	\$5,000.00	\$2,000.00	\$2,000.00	\$3,850.00	\$3,850.00	\$2,112.00	\$2,112.00
10	TEMPORARY SURFACING MATERIAL (AGG)(SET)	C.Y.	1	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00
11	MAILBOX INSTALLATION (SET)	EA.	1	\$140.00	\$140.00	\$140.00	\$140.00	\$140.00	\$140.00	\$140.00	\$140.00
12	MAINTENANCE AND RESTORATION OF HAUL ROAD (SET)	L.S.	1	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00
13	TRAFFIC CONTROL	L.S.	1	\$10,000.00	\$10,000.00	\$3,000.00	\$3,000.00	\$11,500.00	\$11,500.00	\$1,056.00	\$1,056.00
TOTAL BID -					\$381,804.00		\$377,186.31		\$433,455.70		\$397,890.84

ADDENDUM NO. 1 - _____

ADDENDUM NO. 2 - _____

Keith A. Browning, PE, Director of Public Works

Date

Jamie Shew, Douglas County Clerk

5

DOUGLAS COUNTY, KANSAS
OFFICE OF THE COUNTY ENGINEER
SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR
DOUGLAS COUNTY PROJECT NO. 2015-15

ROUTE 1W AND 1S
SUBGRADE MODIFICATION AND HMA SURFACE

BID #16-F-0003

Douglas County Commissioners

James E. Flory, Chairman

Mike Gaughan, Member

Nancy Thellman, Member

Approved By:

Keith A. Browning, P.E.
Director of Public Works
and County Engineer

Date: March 3, 2016

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

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SPECIAL PROVISIONS

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COLD RECYCLE DESIGN REPORT
PLANS

<http://www.ksdot.org/bureaus/burConsMain/specprov/2015specprov.asp>

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003
NOTICE TO CONTRACTORS

Notice is hereby given that sealed proposals for the performance of the contract above noted will be received in the Office of the Douglas County Clerk until 3:00 P.M., Friday, March 25, 2016, and then publicly opened in the Courthouse, 1100 Massachusetts Street, Lawrence, Kansas.

Douglas County Project 2015-15 consists of Subgrade Modification (8"), adding 4% cement for stabilization, HMA-Surfacing, Aggregate Shouldering, and Traffic Control. Douglas County Project 2015-15 is located on Douglas County Routes 1W and 1S located approximately 2.5 miles southwest of Lone Star, KS.

All bids must be submitted on forms obtainable at the Office of the Director of Public Works/County Engineer, 3755 E. 25th Street, Lawrence, Kansas 66046 or Demand Star @ www.demandstar.com, and are open for public inspection. Proposals shall be submitted in sealed envelopes, addressed to the Office of the County Clerk, Courthouse, 1100 Massachusetts, Lawrence, Kansas 66044, upon which is clearly written or printed "Proposal for Douglas County Project No." 2015-15", and the name and address of the bidder. Any bids received after the closing time will be returned unopened.

Copies of the Contract Documents and Specifications are available from the Office of the Director of Public Works and County Engineer of Douglas County, Kansas. A Fifty Dollar (\$50.00) non-refundable deposit is required per set, which includes one "11 x 17" set of plans and a copy of the contract documents and specifications. The contract documents, specifications, and plans become the property of the prospective bidder and are not returnable. Copies of the contract documents, specifications, and plans are on file and open for public inspection at the Office of the County Engineer.

All bids must be accompanied by a CERTIFIED CHECK, CASHIER'S CHECK or a BID BOND for not less than Five Percent (5%) of the base bid as a guarantee that if awarded the Contract, the bidder will enter into a Contract and give bond as required. Said check or bond shall be made payable to the Board of County Commissioners, Douglas County, Kansas.

Contracts will be awarded only to such bidders as are on the list of Pre-Qualified Contractors for the Kansas Department of Transportation on the date established for receiving and opening of bids.

The Board of County Commissioners of Douglas County, Kansas reserve the right to reject any or all bids and to waive technicalities, and to award the contract to the bidder that the Commission deems best suited to accomplish the work.

DOUGLAS COUNTY PUBLIC WORKS
Keith A. Browning, P.E.
Director of Public Works
Date: March 3, 2016

Publication Date: Friday, March 4, 2016
Saturday, March 12, 2016

cc: Lawrence Journal World
Douglas County Commission
Douglas County Clerk

Douglas County Administrator
Douglas County Purchasing
Douglas County Operations

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

INFORMATION FOR BIDDERS

1. Proposals must be submitted on duly executed copy of the Proposal Forms obtained at the Office of the Director of Public Works, 3755 E. 25th Street, Lawrence, Kansas 66046 or Demand Star.
2. Proposals must be in sealed envelopes, addressed to the Office of the County Clerk, Courthouse, Lawrence, Kansas, upon which is clearly written, or printed, "Proposal for Douglas County Project No. 2015-15" and the name and address of the bidder.
3. Each bidder shall state in his Proposal, his name, place of residence and his exact post office address, and the names and addresses of all persons or parties interested with him therein. Anyone signing a Proposal as an agent for another must file, with the Proposal, acceptable evidence of his authority to do so.
4. Each bidder is required to deposit with his Proposal a Certified Check, Cashier's Check or Bid Bond in the amount of five percent (5%) of the base bid. The above required deposit will serve as a guarantee that the bidder will file all bonds required and enter into the Contract, should it be awarded to him, according to the terms of his bid, within twenty-one (21) days after the certification of the award. Should the Contractor fail to file approved surety bonds or enter into Contract with Douglas County, Kansas, the bid security shall be forfeited as liquidated damages, and the money realized therefrom turned into the County Treasury.
5. Contracts will be let only to such bidders as are on the list of Pre-Qualified Contractors for the Kansas Department of Transportation on the date established for receiving and opening of bids.
6. Bidders must show their unit prices, make extensions based on the unit price bid for each item and total the bid for all items.
7. In the event any discrepancy occurs between the unit prices and the gross sum bid, the unit price shall apply.
8. Proposals must be signed.
9. Failure to comply with one or all of the above stated requirements will be considered sufficient grounds for rejection of the Proposal.
10. The winning bidder shall, within twenty-one (21) days of the Award of the Contract, file an approved Statutory Bond and an approved Performance and Maintenance Bond in an amount equal to the total bid.

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

SPECIFICATIONS

THE STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION OF THE KANSAS DEPARTMENT OF TRANSPORTATION, EDITION OF 2015, shall be the Specifications for this Contract except the Sections and Articles which shall be deleted from the STANDARD SPECIFICATIONS and shall be revised as hereinafter shown.

DIVISION 100

GENERAL CLAUSES AND COVENANTS

Section 101.3

DEFINITIONS

BID BOND – DELETE item and ADD – The approved form of security, executed by the bidder and his surety or sureties, guaranteeing the execution of a satisfactory contract and the filing of an acceptable contract bond if the bidder's offer is accepted. The bid bond shall be a Certified Check, Cashier's Check or Bid Bond in the amount of five percent (5%) of the base bid. Said check or bond shall be made payable to the Board of County Commissioners, Douglas County, Kansas.

CONTRACT - DELETE item and ADD - The written agreement between the Board of County Commissioners of Douglas County, Kansas, and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

The Contract shall include the Contract Documents, which shall include the Proposal, Plans, Specifications, Contract Drawings, Supplemental Specifications, Special Provisions, Contract, Performance and Maintenance Bond, and the Statutory Bond, and also any change orders and agreements that are required to complete the construction of the work in an acceptable manner, including authorized extensions thereof, all of which constitute one instrument.

CONTRACT BOND - DELETE item and ADD - The Statutory Bond and the Performance and Maintenance Bond executed by the Contractor and his Surety, guaranteeing execution of the Contract and all Supplemental Agreements pertaining thereto and the payment of all legal debts pertaining to the construction of the Project.

DEPARTMENT - ADD - Douglas County, Kansas, represented by its Board of County Commissioners.

ENGINEER - DELETE item and ADD - Douglas County, Kansas, or the Director of Public Works of Douglas County, Kansas, acting directly or through his authorized representatives on behalf of Douglas County, Kansas.

LABORATORY - ADD - The testing laboratory designated by the Engineer.

SPECIFICATIONS (Continued)

RETAINAGE – ADD – From the grand total of the work completed as estimated by the Engineer, there shall be deducted five (5) percent to be retained by the County as required by KSA 68-521 until full and satisfactory completion of the Contract, Specifications and Contract Documents and the Engineer shall certify the balance to the Commission for payment; except that no amount less than Five Hundred Dollars (\$500.00) will be paid unless the total amount of the Contract remaining unpaid is less than Five Hundred Dollars (\$500.00).

SECRETARY - DELETE item and ADD - COUNTY - Douglas County, Kansas, represented by its Board of County Commissioners.

STATE - DELETE item and ADD - COUNTY - Douglas County, Kansas represented by its Board of County Commissioners.

Section 102

BIDDING REQUIREMENTS AND CONDITIONS

102.1 NOTICE TO CONTRACTORS (ADVERTISEMENT), DELETE item and ADD – Douglas County will publish a Notice to Contractor's to notify prospective Contractors of a letting. This notice describes the contemplated work, informs the Contractor how to obtain Bidding Proposal Forms, identifies the location of plans and specifications, identifies the time and place for receiving bids, and reserves Douglas County's right to reject bids. All proposal blanks shall be obtained by prequalified bidders from the Office of the Director of Public Works of Douglas County, 3755 E. 25th Street, Lawrence, Kansas 66046. Proposal forms will be issued up to, but not after the close of business on the day preceding the opening of bids.

102.2(a) Prequalification Requirements. - DELETE the first sentence beginning with "Before...." and ending with "....work" and ADD - Bidders shall be prequalified for the type and magnitude of work covered by this Contract with the Kansas Department of Transportation as of the date established for receiving and opening of bids and shall give signed permission, if requested by the Engineer, to Douglas County, Kansas, to obtain the bidder's qualification from the Kansas Department of Transportation. Bidders will be classified under one or more of the classifications listed under section 102.2(b).

102.11 BID BONDS - DELETE item and ADD - No Proposal will be accepted unless accompanied by a certified check, cashier's check or a bid bond in the amount of five percent (5%) of the base bid and made payable to the Board of County Commissioners, Douglas County, Kansas. The full amount of the proposed guaranty shall be forfeited to the County in liquidation of damages sustained in the event the bidder (or bidders) fail to execute a satisfactory Contract and file Contract Bonds within twenty-one (21) days after the notice of the award of Contract.

The Guarantees of the two (2) lowest responsible bidders shall remain in full force until such time as the execution of a Contract has been completed by the successful bidder and satisfactory Contract Bonds have been furnished. The Guarantees will be returned after the above has been accomplished.

SPECIFICATIONS (Continued)

102.12 SUBMITTING PROPOSALS - DELETE item and ADD - Each Proposal must be submitted on forms obtainable at the Office of the Director of Public Works, 3755 E. 25th Street, Lawrence, Kansas 66046, and must be submitted in sealed envelopes, addressed to the Office of the County Clerk, Courthouse, Lawrence, Kansas, upon which is clearly written or printed "Proposal for Douglas County Project No. 2015-15", and the name and address of the bidder. When a Proposal is sent by mail, the above mentioned envelope shall be enclosed in another envelope addressed to the County Clerk, Courthouse, Lawrence, Kansas. All Proposals shall be filed prior to the time and at the place specified in the Notice to Contractors. Proposals received after the stated time for filing will be returned to the bidders unopened. Faxed bids will not be accepted. Douglas County is not responsible for lost or misdirected bids, whether lost or misdirected by the postal or courier service of the bidder or the Douglas County mail room.

102.13 WITHDRAWING PROPOSALS BEFORE THE LETTING - DELETE item and ADD - A Proposal may be withdrawn after it has been delivered to the Office of the County Clerk, Courthouse, Lawrence, Kansas, by a letter or by written request of the bidder or his authorized representative in person, provided the request is in the hands of the County Clerk or Board of County Commissioners before the stipulated time for the opening of the Proposals.

102.14 REVISING PROPOSALS – DELETE item and ADD -A withdrawn Proposal may be corrected or altered in person by the bidder or his authorized representative and resubmitted before the stipulated time for opening of the Proposals.

Proposals cannot be altered or corrected by wire or letter.

Section 103

AWARD AND EXECUTION OF CONTRACT

103.3 CONTRACT BOND REQUIREMENTS - DELETE item and ADD - The successful bidder before entering into a Contract and within twenty-one (21) days after notice of the award of the Contract, shall execute a Statutory Bond and a Performance and Maintenance Bond in the form prescribed by the County and in the penal sum of the amount of the Contract, with a Surety to be approved by the County. The Statutory Bond and the Performance and Maintenance Bond shall be conditioned upon the faithful performance of the Contract and the payment of all indebtedness incurred for all labor, materials and supplies furnished therefore. The Bonds must be kept in full force for the time required by law and, if longer, during the applicable warranty periods. In the event the Surety or Bonding Company fails or becomes financially insolvent, then the Contractor shall, within five (5) business days of such failure or insolvency, file new and sufficient bonds in the amount designated by the County.

103.4 (a) EXECUTING THE CONTRACT - DELETE this section and ADD - The successful bidder shall furnish satisfactory Bonds, certificate(s) of insurance, and sign the contract within twenty-one (21) days after notice of the award of Contract.

SPECIFICATIONS (Continued)

103.5 FAILING TO EXECUTE THE CONTRACT - DELETE item and ADD - The failure of the successful bidder to execute a Contract and file Contract Bonds within twenty-one (21) days from the date of the notice of the award shall, at the option of the County, be just cause for the annulment of the award and for the forfeiture of the proposal guaranty to the County, not as a penalty but in liquidation damages sustained through delay.

In the event that the County opts to annul the award, the Contract may be reawarded to the next lowest responsible bidder, or Proposals may again be received at some later date.

Section 109

MEASUREMENT AND PAYMENT

109.2 SCOPE OF PAYMENT – ADD the following paragraph 109.2(f)RETAINAGE –: From the grand total of the work completed as estimated by the Engineer, there shall be deducted five (5) percent to be retained by the County as required by KSA 68-521 until full and satisfactory completion of the Contract, Specifications and Contract Documents and the Engineer shall certify the balance to the Commission for payment; except that no amount less than Five Hundred (\$500.00) will be paid unless the total amount of the Contract remaining unpaid is less than Five Hundred Dollars (\$500.00).

109.5 PROGRESS PAYMENTS, DELETE the last sentence of subsection 109.5(a) “Work Accomplished” and replace with the following – “The Engineer may withhold from progress payments, liquidated damages, reimbursement for remedial work under subsection 105.5f., excess costs for breach of contract, final cleanup work expenses, five (5) percent contract retainage as required by KSA 68-521, and other deducts the Contract Documents specify.

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003
PROPOSAL

TO THE BOARD OF COUNTY COMMISSIONERS OF
DOUGLAS COUNTY, KANSAS
COURTHOUSE
LAWRENCE, KANSAS 66044

1. Proposal of Killough Construction Inc. for the performance of "Douglas County Project No. 2015-15", in Douglas County, Kansas, by the construction of the work as described in the specifications and contract documents for the above mentioned project as set forth in the "Schedule of Prices".
2. The undersigned agrees to execute a contract for the proposed work within twenty-one (21) days after notice of the award of the Contract and to complete the work, if the proposal is accepted, within fifteen (15) working days. No weekend work will be allowed. The earliest anticipated date for the "Notice to Proceed" is April 18, 2016. The latest anticipated date for the "Notice to Proceed" is May 2, 2016.
3. In conformity with Article 108.8 of the Specifications, the liquidated damages for this Contract shall be as stated in TABLE OF LIQUIDATED DAMAGES.
4. In submitting this bid, the undersigned declares that he is the only person interested in said bid; that is made without any connection with any person or persons making another bid for the same Contract; that is in all respects fair and without collusion, fraud or misrepresentation.
5. The undersigned further declares that he has carefully examined the specifications, form of contract, and special provisions, and that he has inspected the actual location of the work, together with the local sources of supplies, and has satisfied himself as to all quantities and conditions, and understands that in signing this proposal he waives all right to plead any misunderstanding regarding the same.
6. The undersigned acknowledges receipt of the following Addenda:

Addendum No.

Dated

1
2

3-16-16
3-22-16

Killough Construction Inc.
Name of Organization

By:

[Signature]

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

SCHEDULE OF PRICES
ROUTES 1W AND 1S

LINE ITEM NO.	BID ITEMS	UNIT	QUANTITY	UNIT COST	AMOUNT
1	MOBILIZATION	L.S.	1	29,000	29,000
2	MILLING	S.Y.	592	2 ⁰⁰	1,184 ⁻
3	MANIPULATION FOR IN-PLACE MATERIAL SUBGRADE MODIFICATION (CEMENT)	S.Y.	21,932	5 ²⁵	115,143 ⁻
4	CEMENT	TON	260 ²³²	145 ⁻	37,700 ⁻
5	WATER (SUBGRADE MODIFICATION) (SET)	MGAL	285 ¹	\$35.00	9975 ⁻ \$35.00 ⁻
6	HMA-COMMERCIAL GRADE (CLASS A) (SURFACE)	TON	2,599	60 ⁸⁹	158,253 ¹¹
7	SURFACING MATERIAL (AB-3)	TON	200	20 ⁻	4,000 ⁻
8	AGGREGATE FOR SHOULDERING (AS-1)	TON	829	17 ⁸⁰	14,756 ²⁰
9	CONSTRUCTION STAKING	L.S.	1	2,000 ⁻	2,000 ⁻
10	TEMPORARY SURFACING MATERIAL (AGGREGATE) (SET)	C.Y.	1	\$35.00	\$35.00
11	MAILBOX INSTALLATION (SET)	EA.	1	\$140.00	\$140.00
12	MAINTENANCE AND RESTORATION OF HAUL ROAD (SET)	L.S.	1	\$2,000.00	\$2,000.00
13	TRAFFIC CONTROL	L.S.	1	3,000 ⁻	3,000 ⁻

NOTE: Bidder shall extend all items and total bid.

John GRAND TOTAL BID \$ 377,186³¹

VM

CONTRACTOR KILLOUGH CONSTRUCTION INC.

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

CONTRACT

THIS CONTRACT, made and entered into this _____ day of _____, 2015, by and between the BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, KANSAS, Party of the First Part, hereinafter referred to as the COUNTY, and _____, Party of the Second Part, hereinafter referred to as the CONTRACTOR.

WITNESSETH:

Article 1: It is hereby mutually agreed, that for and in consideration of the sum or sums to be paid the Contractor by the County as set forth in the General Clauses, the said Contractor shall furnish all labor, equipment, accessories and materials (except materials salvaged or otherwise furnished as specified) and shall perform all work necessary to construct and complete the improvements in a good, substantial and workmanlike manner, ready for use, and in strict accordance with the Specifications and Contract Drawings as approved and filed pursuant to law in the Office of the County Clerk of Douglas County, Kansas.

Article 2: It is hereby further agreed, that, in consideration of the faithful performance of the work by the Contractor, the County shall pay the Contractor the sum or sums due him by reason of said faithful performance of the work, at stated intervals and in amounts certified by the Engineer, in accordance with the Specifications and Contract Documents, and set forth in the Proposal as accepted by the County, subject to compliance with K.S.A 68, Article 11.

Article 3: It is hereby further agreed that Contractor will, for a period of twelve (12) months following the County's acceptance of the Contractor's work, at the request of County, correct any defects in the work due to faulty or defective materials or workmanship, without additional cost to the County; provided that neither final payment by the County nor the acceptance of the Contractor's work shall relieve Contractor, or its surety under the Performance and Maintenance Bond, from such obligation to cure any such defects.

Article 4: It is hereby further agreed that, at the completion of the work, and its acceptance by the County, all sums due the Contractor by reason of his faithful completion of the work, taking into consideration additions to or deductions from the contract price by reasons of alterations or modifications of the original contract or by reasons of "Force Account" work authorized under the Contract in accordance with the provisions of the General Clauses, will be paid the Contractor by the County within sixty (60) days after said completion and acceptance.

Article 5: It is hereby further agreed, that the "he" or "him" wherever used herein as referring to the Contractor shall be deemed to referring to the Contractor, his-her-theirs heirs, executors, administrators, successors, or assigns.

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

CONTRACT (continued)

Article 6: It is hereby further agreed that any reference herein to the "Contract Documents" shall include all "Contract Documents" as specifically set out in the Specifications and are hereby made a part of this Contract as fully as if set out in length herein.

IN WITNESS WHEREOF, the Party of the First Part and Party of the Second Part, respectively, have caused this agreement to be duly executed the day and year first hereinwritten, in quadruplicate, all copies of which to all intents and purposes shall be considered as the original.

ATTEST:

BOARD OF COUNTY COMMISSIONERS OF
DOUGLAS COUNTY, KANSAS

County Clerk

Chairman

Date

Commissioner

Commissioner

Approved as to Legality:

Douglas County Counselor

Name of Organization

Date

By: _____

Title of Signature

BOND NO. _____

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

STATUTORY (PAYMENT) BOND

KNOW ALL MEN BY THESE PRESENTS THAT:

We, _____, as Principal, and _____, a surety company duly authorized to do business in the State of Kansas, as Surety, are held and firmly bound unto the State of Kansas in the penal sum of _____ Dollars (\$_____) (the current amount of the contract price between Principal and Owner) lawful money of the United States of America, for the payment of which sum well and truly to be made, bind ourselves and our respective heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT, WHEREAS, the Principal has on the _____ day of _____, 20____, entered into a written Agreement with the Board of County Commissioners of Douglas County, Kansas, hereinafter called the Owner, for furnishing labor, equipment, material, and supplies used or consumed in connection with the installation, construction of, or in making such improvements, equipment, and services described in said Agreement, all in accordance with the plans, specifications and other Contract Documents described therein and as supplemented and otherwise changed during the project (the "Undertaking"). The Agreement (including but not limited to the plans, specifications and other Contract Documents) is by reference made a part hereof, and is hereinafter called the Contract.

NOW, THEREFORE, if the Principal or any Subcontractor or Subcontractors of the Principal shall pay all indebtedness incurred for the Undertaking as required under the Contract, then this obligation shall become null and void; otherwise, it shall remain in full force and effect. If the Principal or any Subcontractor or Subcontractors of the Principal fails to duly pay all indebtedness incurred for the Undertaking as required under the Contract, then the Surety shall pay the same in any amount not exceeding the amount of this obligation, together with any interest and attorneys' fees as provided by law.

PROVIDED, FURTHER, that the Surety hereby stipulates and agrees, for value received, that no change, extension of time, modification, supplement, alteration or addition to the undertakings, covenants, terms or conditions of the Contract or the Undertaking, shall in any way affect its obligations on this bond. The Surety does hereby waive notice of any change, extension of time, modification, supplement, alteration or addition to the terms or conditions of the Contract or Undertaking. The Surety stipulates and agrees that the penal sum of this bond shall be automatically increased or decreased by any change order(s) to the Contract as approved by the Owner.

Nonpayment of the bond premium will not invalidate this bond nor shall the Owner be obligated for the payment of any bond premium.

The Surety and Principal agree that any persons interested shall have a direct right of action hereunder against the Principal and Surety.

IN WITNESS WHEREOF, the Principal and Surety have caused this bond to be duly signed this ____ day of _____, 20____.

Principal

By _____

(Official Title)

Surety Company

By: _____
(Attorney-In-Fact)

By: _____
(Kansas Agent)

(A certified copy of the Attorney-in-Fact's Power of Attorney from the Surety, to include the date and amount of the bond, must be attached to this bond).

DOUGLAS COUNTY, KANSAS
PROJECT NO. 2015-15
BID #16-F-0003

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS THAT:

We, _____, as Principal, and _____, a surety company duly authorized to do business in the State of Kansas, as Surety, are held and firmly bound unto the Board of County Commissioners of Douglas County, Kansas, as Obligees, in the penal sum of _____ Dollars (\$_____) (the current amount of the contract price between Principal and Obligees), lawful money of the United States of America, for the payment of which sum well and truly to be made, bind ourselves, and our respective heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH THAT, WHEREAS, the Principal has, on _____, 20____, entered into a written Agreement with the Obligees for furnishing labor, equipment, material, and supplies in connection with the installation, construction of or in making such improvements, equipment, and services described in said Agreement, all in accordance with the plans, specifications and other Contract Documents described therein and as supplemented and otherwise changed during the project. The Agreement (including but not limited to the plans, specifications and other Contract Documents) is by reference made a part hereof, and is hereinafter called the Contract.

NOW, THEREFORE, if the Principal shall and will, in all particulars, well, duly and faithfully observe, perform and abide by each and every covenant, condition, obligation and part of the Contract, according to the true intent and meaning in each case, and hold the Obligees harmless against all claims, loss or damage which it may sustain or suffer by reason of any breach of said Contract by said Principal or by reason of any injury to persons or property occasioned by the action of said Principal or its employees, and if said Principal maintains the improvement, equipment, and service as provided for in said Contract and make good all defects in materials and workmanship as required under the Contract, then this obligation shall be and become null and void; otherwise, it shall remain in full force and effect. Whenever the Principal is, and is declared by the Obligees to be, in default under the Contract, the Surety shall remedy the default at its expense by promptly (a) completing the Contract in accordance with its terms and conditions, through its agents or independent contractors; or (b) obtaining a bid or bids for completing the Contract in accordance with its terms and conditions, and, upon determination by the Obligees of the lowest and best bid, arrange for an agreement between such bidder and the Obligees, secured by payment and performance bonds, and pay to Obligees the final cost of such agreements less the balance of the Contract Price, but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof as the same may be increased by change order(s) to the Contract as approved by the Obligees; or (c) work out such other arrangements as are accepted by Obligees in writing. The term "balance of the Contract Price," as used herein, shall mean the total amount payable by the Obligees to the Principal under the Contract, and any amendments thereto, less the amount paid by the Obligees to the Principal.

PROVIDED, FURTHER, that the Surety hereby stipulates and agrees, for value received, that no change, extension of time, modification, supplement, alteration or addition to the undertakings, covenants, terms or conditions of the Contract or the Undertaking, shall in any way affect its obligations on this bond. The Surety does hereby waive notice of any change, extension of time, modification, supplement, alteration or addition to the terms or conditions of the Contract or Undertaking. The Surety stipulates and agrees that the penal sum of this bond shall be automatically increased or decreased by any change order(s) to the Contract as approved by the Obligee. Principal and Surety further stipulate and agree that acceptance, approval or certification of completion of work under the Contract and/or payment (final or otherwise) by Obligee shall not relieve the Principal or Surety from any liability for any failure to fully perform the Contract or any other obligation on this bond.

Nonpayment of the bond premium will not invalidate this bond nor shall the Obligee be obligated for the payment of any bond premium.

IN WITNESS WHEREOF, the Principal and Surety have caused this bond to be duly signed this ____ day of _____, 20__.

Principal

By _____

(Official Title)

Surety Company

By: _____
(Attorney-In-Fact)

By: _____
(Kansas Agent)

(A certified copy of the Attorney-in-Fact's Power of Attorney from the Surety, to include the date and amount of the bond, must be attached to this bond).

Sufficiency of the Bond Approved by:

Chairperson of Board of County Commissioners

Date: _____

Attest:

County Clerk

Date: _____

Form and Amount of Bond Approved By:

County Counselor

Date: _____

NOTE:

1. Date of bond must not be prior to date of Agreement.
2. If Principal is a partnership, all partners should execute bond.
3. Surety companies executing bonds must appear on the U.S. Department of the Treasury's most current listing of approved sureties (Department Circular 570, as amended), and be authorized to transact business in the State of Kansas.
4. Accompany this bond with Attorney-in-Fact's authority from the Surety certified to include the date of the bond.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

SALES TAX EXEMPTION

In accordance with the provisions of K.S.A. 79-3606 (b), this Douglas County Project qualifies for Sales Tax Exemption. A sales tax exemption certificate number will be furnished to the Contractor following award of the Contract. The Contractor shall furnish to the Engineer copies of invoices on all materials incorporated in this project.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

DOUGLAS COUNTY
CONTRACTUAL PROVISIONS ATTACHMENT

- (a) Terms Herein Controlling Provisions: It is expressly agreed that the terms of each and every provision in this attachment shall prevail and control over the terms of any other conflicting position in any other document relating to and a part of the contract in which this attachment is incorporated. As used herein, the term "Douglas County" shall refer to Douglas County and any of its agencies, offices, and departments entering into the contract.
- (b) Agreement With Kansas Law: All contractual agreements shall be subject to, governed by, and construed according to the laws of the State of Kansas.
- (c) Termination Due to Lack of Funding Appropriation: If, in the judgment of the County Administrator, sufficient funds are not appropriated to continue the function performed in this agreement and for the payment of the charges hereunder, Douglas County may terminate this agreement at the end of its current fiscal year. Douglas County agrees to give written notice of termination to vendor/contractor at least 30 days prior to the end of its current fiscal year, and shall give such notice for a greater period prior to the end of such fiscal year as may be provided in the contract, except that such notice shall not be required prior to 90 days before the end of such fiscal year. Vendor/contractor shall have the right, at the end of such fiscal year, to take possession of any unpaid equipment provided Douglas County under the contract. Douglas County will pay to the vendor/contractor all regular contractual payments incurred through the end of such fiscal year, plus contractual charges incidental to the return of any such equipment. Upon termination, of the agreement by Douglas County, title to any such unpaid equipment shall revert to vendor/contractor at the end of Douglas County's current fiscal year. The termination of the contract pursuant to this paragraph shall not cause any penalty to be charged to Douglas County or the vendor/contractor.
- (d) Disclaimer of Liability: Douglas County shall not hold harmless or indemnify any vendor/contractor beyond that liability under the Kansas Tort Claims Act (K.S.A 75-6101 et seq.).
- (e) Arbitration, Payment Due, Interest, Warranties: Notwithstanding any language to the contrary, no interpretation shall be allowed to find Douglas County has agreed to binding arbitration, or the payment of damages or penalties upon the occurrence of a contingency.

Payment from Douglas County to vendor/contractor shall not be due sooner than 30 days after the delivery of an invoice from vendor/contractor to Douglas County. Further, Douglas County does not agree to pay attorney fees or late payment charges beyond those available under K.S.A. 16-201, and no provision will be given effect which attempts to exclude, modify, disclaim or otherwise attempt to limit implied warranties of merchantability and fitness for a particular purpose.

- (f) Representative's Authority To Contract: By signing this contract, the representative of the vendor/contractor hereby represents that such person is duly authorized by the vendor/contractor to execute this contract on behalf of the vendor/contractor and that the vendor/contractor agrees to be bound by the provisions thereof.
- (g) Responsibility For Taxes: Douglas County shall not be responsible for, nor indemnify vendor/contractor for, any federal, state, or local taxes which may be imposed or levied upon the subject matter of this contract.
- (h) Anti-Discrimination Clause: The vendor/contractor agrees: (a) to comply with the Kansas Act Against Discrimination (K.S.A. 44-1001 et seq.) and the Kansas Age Discrimination in Employment Act (K.S.A. 44-1111 et seq.) and the applicable provisions of the Americans with Disabilities Act (42 U.S.C. 12101 et seq.) (ADA) and to not discriminate against any person because of race, religion, color sex, disability, national origin or ancestry, or age in the admission or access to, or treatment or employment in, its programs or activities; (b) to include in all solicitations or advertisements for employees, the phrase "equal opportunity employer"; (c) to comply with the reporting requirements set out at K.S.A. 44-1031 and K.S.A. 44-1116; (d) to include those provisions in every subcontract or purchase order so that they are binding upon such subcontractor or vendor; (e) that a failure to comply with the reporting requirements of (c) above or if the vendor/contractor is found guilty of any violation of such acts by the Kansas Human Rights Commission, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by Douglas County; (f) if it is determined that the vendor/contractor has violated applicable provisions of ADA, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part by Douglas County.

Parties to this contract understand that the provisions of this paragraph (h) (with the exception of those provisions relating to the ADA) are not applicable to a vendor/contractor who employs fewer than four employees during the term of such contract or whose contracts with Douglas County cumulatively total \$5,000 or less during the fiscal year of Douglas County.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

GENERAL DESCRIPTION:

Douglas County Project 2015-15 consists of Subgrade Modification (8"), adding 4% cement for stabilization, HMA-Surfacing, Aggregate Shouldering, and Traffic Control.

Douglas County Project 2015-15 is located on Douglas County Routes 1W and 1S located approximately 2.5 miles southwest of Lone Star, KS.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

PLANS: The following plans accompany and supplement the Specifications:

<u>Sheet No.</u>	<u>Sheet Title</u>
1	TITLE SHEET
2	GENERAL NOTES AND QUANTITIES
3	TYPICAL SECTIONS
4-17	ROAD PLANS
18-19	TRAFFIC CONTROL PLANS

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

ENGINEER:

For the performance of work under this Contract, Douglas County, Kansas will perform the duties of the Engineer, as defined in the Specifications and hereinafter is referred to as the Engineer.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

OPERATIONS OF OTHERS:

The right is reserved by the County to have other work performed by other Contractors and to permit public utility companies and others to do work during the construction of and within the limits of or adjacent to the Project. The Contractor shall conduct his operations and cooperate with such other parties so that interference with such other work will be reduced to a minimum. The Contractor shall agree, and hereby does agree, to make no claims against the County for additional compensation due to delays or other conditions created by the operations of other such parties. Should a difference of opinion arise as to the rights of the Contractor and others working within the limits of or adjacent to the Project, the Engineer will decide as to the respective rights of the various parties involved in order to assure the completion of the work in general harmony and in a satisfactory manner and his decision shall be final and binding upon the Contractor.

To expedite the completion of the over-all Project, it will be necessary for the work under this Contract to be coordinated with the construction under other contracts and by others. As far as possible, each Contractor shall so plan and conduct his operations and dispose of his materials as not to interfere with the operations of or damage the work of others engaged upon the construction of the overall Project. The Contractor shall perform his work in proper sequence with relation to that of the other Contractors and as the Engineer may direct. Each Contractor starting work while construction under other Contracts is in progress within the limits of the Project shall begin his work at certain locations which the Engineer may designate or approve and thereafter shall prosecute the work at such locations and in such order as the Engineer may from time to time prescribe or approve.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

- NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

INSPECTION:

The Contractor shall furnish access to all parts of the Project for inspection by the Engineer or authorized representative of the Engineer. The Contractor shall notify the Engineer twenty-four (24) hours in advance of beginning work which requires inspection.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

RIGHT-OF-WAY:

The right-of-way will be available for use by the Contractor for access roads and storage space; provided that such use does not interfere with the permanent construction of the overall Project under this or any other contract and shall be subject to similar use by other Contractors working on various parts of the Project. Such use shall not impair the safety of the traveling public. Right-of-way shall be restored by the Contractor to its original condition before final payment will be made.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

SPECIFICATIONS:

The bidder and/or Contractor(s) are required to furnish their own copies of the Standard Specifications for State Road and Bridge Construction of the Kansas Department of Transportation, Edition of 2015.

<http://www.ksdot.org/bureaus/burConsMain/specprov/2015specprov.asp>

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

INDEMNITY PROVISION:

The Contractor hereby agrees to indemnify and hold harmless the County for any liability resulting from the injury or death of any person, including Contractor's employees, arising from unsafe conditions at the work site. "Unsafe" shall mean a failure by the Contractor to adhere to any applicable federal, state or local government standards established to protect the health, safety and welfare of the Contractor's employee, other persons at the work site, and the public in general.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

RATES OF APPLICATION/ PROJECT CONTINGENCIES/GENERAL INFORMATION:

LOCATION	LENGTH	WIDTH	CONTINGENCIES		
			HMA (150 pcf)	CEMENT (4%)	AS-1 (156 pcf)
ROUTE 1W	7,200 L.F.	20'	5%	5%	10%
ROUTE 1S	2,450 L.F.	18'	5%	5%	10%

-HMA or AGGREGATE

Transitions (0'-3' in length) are required at all paved/aggregate entrances to construct a smooth transition from the newly constructed asphalt surface. HMA transitions will be required at all headers from milling operations or days end of paving operations. These should be removed prior to surfacing.

- Emulsified Asphalt (SS-1HP)

Tack is subsidiary to HMA-Commercial Grade. Place the tack oil at a rate of 0.08-0.10 gal/SY on milled surfaces and 0.05-0.07 on un-milled surfaces, or as directed by the Engineer.

-N668 SIDE ROAD

This project shall include milling and a 2" surface on N668 side road. HMA quantities for N668 are included in Route 1W.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this Special Provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

SECTION 804
MAINTENANCE AND RESTORATION
OF HAUL ROADS

SUBSECTION 804.1, DESCRIPTION, Page 800-11, Delete the second paragraph and replace with the following:

For the purpose of this specification and when the bid item is included in the contract items, a haul road is any public road in Kansas, excluding State highways, over which 2,000 tons or more material is hauled for the construction of the project. Such material includes both commercial delivery and Contractor production.

(Note: The following sentence has been deleted from Subsection 804.1: "The most direct route to the nearest state highway that is used for hauling commercial material into or from a commercially established plant site is not designated as part of the haul road. Roads into and from quarries are not designated as part of the haul road.")

SUBSECTION 804.4, MEASUREMENT AND PAYMENT, Page 800-11, Delete the first paragraph and replace with the following:

If the Contractor is obligated to perform maintenance and restoration as stated within Section 804, with exception of dust control, the Engineer will Measure and Pay "Maintenance and Restoration of Haul Roads (Set)" as a lump sum.

Labor, Equipment, Materials and incidentals necessary to reduce dust on active haul roads including return routes, in pits and staging areas, and on the project will not be measured directly but shall be considered subsidiary to other items in the contract.

SPECIAL PROVISION
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications of the Standard Specifications, this Special Provision shall govern.

ASPHALT SAFETY EDGE

1.0 DESCRIPTION:

The asphalt safety edge is a beveled edge to help lessen the severity of roadway departures. Incorporate a Safety Edge to the dimensions shown and at locations designated in the contract documents.

2.0 MATERIALS:

Construct the safety edge using the same material used to construct the adjoining pavement.

3.0 EQUIPMENT:

Equip the paver to ensure a 30 ± 5 degree wedge along the outside edge(s) of the roadway/shoulder (measured from the horizontal plane) in place after the final compaction. The Safety Edge system shall be adjustable to accommodate varying paving depths. The use of a single plate strike off will not be allowed. The Engineer may require proof that the device has been used on previous projects with acceptable results or may require a test section constructed prior to the beginning of work to demonstrate wedge compaction to the satisfaction of the Engineer. Use an approved Safety Edge system that will:

- Compact the safety edge to a density at least as dense as the compaction imparted to the rest of the HMA layer by the paving screed
- Produce a wedge that is free of objectionable voids, has a uniform texture, shape and density while automatically adjusting to varying heights encountered along the roadway shoulder.

4.0 CONSTRUCTION METHODS:

When a Safety Edge is required by the contract documents, attach a device to the paver screed to confine material at the end gate and extrude the asphalt material in a wedge shape having an angle between 30 ± 5 degrees (see figure). Ensure the wedge is compacted sufficiently as to eliminate objectionable voids. Maintain contact between the device and road shoulder surface, and allow automatic transition to cross roads, driveways and other obstructions. Use the device to constrain the asphalt head, reducing the area and increasing the density of the extruded profile.

The Engineer may allow short sections of handwork when necessary for transitions at driveways, intersections, bridges or other obstructions.

Safety edge shape shall be constructed as shown in the contract documents.

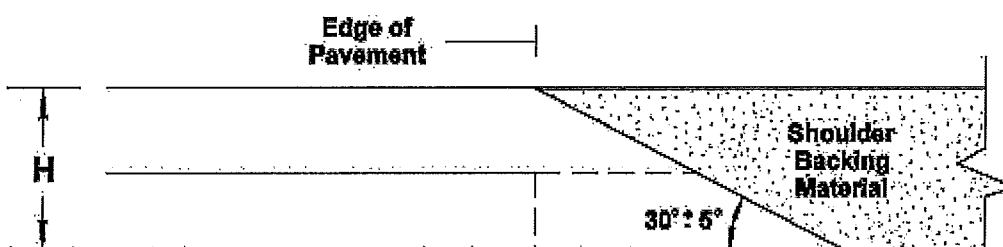
Prior to surfacing, remove any shoulder material higher than the milled surface a minimum of 6 inches outside the edge of pavement, except for entrances and side roads or as directed by the engineer, to allow for the safety edge.

5.0 METHOD OF MEASUREMENT:

Asphalt safety edge will not be measured for payment.

6.0 BASIS OF PAYMENT:

Include the cost of constructing the asphalt safety edge in the price bid for HMA – Commercial Grade pay items(s) included in the contract.



For H < 5 In.

GENERAL INFORMATION: The Kansas LTAP has two Advent-Edge shoes for loan, along with a universal bracket for attaching the shoe to a paving machine. For further information or to reserve this equipment contact the Kansas LTAP.

Kansas LTAP

1530 W. 15th Street #2160

Lawrence, Kansas 66045

Phone: 785-864-5658

Fax: 785-864-3199

<http://www.ksltap.org>

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

PRICE ADJUSTMENT FOR ASPHALT MATERIALS

Prices quoted for asphalt material (HMA – Commercial Grade (Class A)) will be based on the Computed Monthly Asphalt Material Index in effect for April, 2016 as listed @ <http://www.ksdot.org/burconsmain/ppreq/AsphaltPriceIndex.asp>. Hot mix asphalt provided/placed will be adjusted in subsequent months \$0.50/ton for each \$10.00 increase/decrease in the Computed Monthly Asphalt Material Index, based on the initial price index shown for April, 2016.

The adjusted unit cost will apply until all work is complete. If contract time expires, no additional increases will be allowed, but if the asphalt price decreases during this time the revised unit costs will reflect this change.

Example:

Change in Price of Asphalt Oil/Ton	Adjustment in the Bid Price of Asphalt Mat'l
\$0.00 - \$9.99	\$0.00
\$10.00 - \$19.99	\$0.50
\$20.00 - \$29.99	\$1.00
\$30.00 - \$39.99	\$1.50

SECTION 301 SUBGRADE MODIFICATION

301.1 DESCRIPTION

Modify the subgrade using the materials and methods shown in the Contract Documents.
When the Contract Documents specify, realign the shoulders and clean and reshape the ditches.

BID ITEMS

UNITS

Manipulation for Aggregate Subgrade Modification (*)(**)	Square Yard
Manipulation for In-Place Material Subgrade Modification (**)	Square Yard
Aggregate for Subgrade Modification (*)	Cubic Yard
Calcium Chloride	Ton
Cement	Ton
Fly Ash	Ton
Water (Subgrade Modification) (Set Price)	M Gallon
* Type, typically Rock, Silt or Millings	
** Calcium Chloride, Cement or Fly Ash	

301.2 MATERIALS

Provide materials that comply with the applicable requirements.

Aggregate for Subgrade Modification...	DIVISION 1100
Emulsified Asphalt (SS-1H or CSS-1H)	DIVISION 1200
Medium Cure Cutback Asphalt (MC-250)	DIVISION 1200
Calcium Chloride	DIVISION 1700
Portland Cement / Blended Hydraulic Cement	DIVISION 2000
Fly Ash	DIVISION 2000
Water for Subgrade Modification	DIVISION 2400
Admixtures / Retarders	DIVISION 1400

Provide silt for subgrade modification that complies with **TABLE 301-1**.

TABLE 301-1: SILT FOR SUBGRADE MODIFICATION		
% Retained - Square Mesh Sieve		P.I. (maximum)
No. 4	No. 200	
0-5	0-50	12

In-place material may be existing rock surfacing or milled pavement. When pavement millings are provided, the maximum size shall be 1½ inches.

ADD THE FOLLOWING-

301.2b EQUIPMENT

1. **Spreaders/Distributors** - Provide spreading equipment that is a screw type. Spreaders or Distributors used shall be able to demonstrate an even and consistent and accurate application rate. Spreaders or Distributors shall have a properly working Dust Free Vacuum System capable of capturing fugitive dust as a result of applying the stabilization chemical.

2. **Mixing/Reclaiming Equipment** - Use only self propelled, high powered rotary mixers/reclaimers capable of mixing the in place material to the specified depth. The cutting drum should be fitted with cutting teeth capable of trimming earth, aggregate and bituminous mixtures. The cutting drum should be able to be accurately adjusted vertically and be held in place.

301.3 CONSTRUCTION REQUIREMENTS**a. Aggregate Subgrade Modification.**

(1) General. Perform subgrade modification to the depth shown in the Contract Documents. Spread, mix and compact the materials as specified in the Contract Documents. Do not perform subgrade modification on frozen subgrade. Do not incorporate calcium chloride, cement or fly ash if air temperatures are expected below 32°F during the first 24 hours after compaction.

(2) Subgrade preparation. Scarify the existing roadbed to the depth and width shown in the Contract Documents to provide the binder material.

CHANGE THE FOLLOWING – “When the Contract Documents specify, provide binder material from the shoulder slopes, ditches and back slopes” to “If in the Engineer’s opinion, additional material is needed to bring the subgrade up to the typical cross sections shown in the plans, Douglas County will supply and deliver this material at no cost to the contractor”. It will be the Contractor’s responsibility to remove any excess material generated during the stabilization process from the project site.

(3) Aggregate. Pulverize and mix the specified binder material and aggregate for subgrade modification until no more than 5% of the material is retained on a 2-inch sieve.

If silt is the specified aggregate, a maximum of 20% by weight, minus No. 200 sieve material, is allowed in the combined mixture.

(4) Calcium Chloride, Cement or Fly Ash (additive) Modified Subgrade. Before incorporating the additive in the subgrade, blade the roadway to allow uniform distribution of the additive. On projects having more than 20,000 square yards of manipulation, use equipment with a recycling or mixing drum and with an automatic water proportioning system to incorporate the additive and water into the subgrade to the specified depth. This system may be pressurized or mechanical in nature, utilizing vane or augers feeding cement or fly ash through a funnel or hood at a controlled rate.

On projects having less than 20,000 square yards of manipulation, and in irregular areas, submit a plan to the Engineer for approval that includes equipment and procedures that address subgrade preparation and application process to spread the cement or fly ash at the specified rate.

CHANGE THE FOLLOWING- Replace “District Office” with “Douglas County”.

On projects having more than 20,000 square yards of manipulation, and consisting of multi-phased construction, contact the District Office for approval to waive the use of the controlled application system. Consideration will be based on the Contractor’s proposed alternate method of applying the cement or fly ash, the square yards of manipulation in each phase, and the size of individual areas within each phase.

The Engineer will conduct laboratory tests on site materials and the specified additive content to establish the optimum moisture content.

Distribute the additive in a manner that minimizes loss of the material. Do not apply the additive if conditions are such that the material is lost due to the wind or rain. Do not use an additive that was not properly handled and stored in weatherproof containers. When specified, apply a uniform coverage of a retarder to the additive, immediately following the spreading of the additive. If the moisture content of the pulverized subgrade will accommodate additional moisture, the retarder may be diluted with water to obtain a uniform application.

Mix the subgrade, additive and water. Continue mixing until a homogeneous, friable mixture that complies with **TABLE 301-2** is obtained.

TABLE 301-2: CALCIUM CHLORIDE, CEMENT OR FLY ASH MODIFIED SUBGRADE	
% Retained - Square Mesh Sieves	
1 ½-inch	½-inch
0	50, maximum

Complete the mixing within 30 minutes of adding the water to the additive and the subgrade.

The uniform moisture content of the mixture immediately before being compacted shall be within $\pm 3\%$ of the optimum moisture content. If the moisture content of the mixture exceeds the optimum moisture content, add additional cement or fly ash to lower the moisture content. Distribute the mixture as needed to maintain the optimum moisture content during the compaction operations.

(5) Compaction. Use a vibratory roller having a minimum operating weight of 12 tons, with a minimum centrifugal force of 24 tons for the initial compaction of the mixture. Use a rubber-tired or smooth-wheeled roller to complete the compaction of the surface. Compact the modified subgrade to a minimum of 95% of the combined materials dry density, as determined in Part V. The compacted subgrade shall have uniform density and remain stable under construction traffic. Complete the compaction operations within 2 hours of incorporating the additive into the subgrade. If any of these requirements are not satisfied, reprocess, recompact and refinish the deficient areas.

(6) Trimming. After compacting the modified subgrade, trim the surface to the specified lines and grades. On projects having more than 20,000 square yards of manipulation, use automatic grade controlled equipment to trim the compacted modified subgrade. In irregular areas, trim the subgrade by wetting, blading and rolling. Compact the trimmed surface of the modified subgrade with a smooth-wheel or a pneumatic-tire roller. If necessary during the final rolling, lightly scarify and blade the surface to eliminate equipment imprints.

(a) Option 1 for Cement or Fly Ash Treated Subgrade. After compaction is complete, trim and recompact the subgrade within 2 ½ hours of the time the water and cementing agent is added to the subgrade. Compact the trimmed surface of the treated subgrade with a smooth-wheel or a pneumatic-tire roller. Lightly scarify and blade the surface to eliminate equipment imprints while performing final rolling.

DELETE THE FOLLOWING – (b) Option 2.

(b) Option 2 for Cement or Fly Ash Treated Subgrade. After compaction is complete, trim the treated subgrade after 2 ½ hours of the time the water and cementing agent is added to the subgrade. Compact the trimmed surface of the treated subgrade with a smooth-wheel or a pneumatic-tire roller. Remove loose trimmed material from any low spots and fill with the next course of material at the Contractor's expense.

Clean and dress the shoulders and shoulder slopes. Remove all excess material and debris.

(7) Curing and Protection. Protect the finished subgrade against drying for 7 days after completion, or until the subgrade is covered with base or surfacing if covered before 7 days. Protect the finished subgrade from drying by spraying with water to maintain a continuous moist condition. The Contractor may apply an asphalt prime coat instead of keeping the finished surface moist with water during the curing period. If this option is chosen, apply SS-1H, CSS-1H or MC-250 at the rate of 0.22 gallons per square yard to achieve a minimum of 0.13 gallons per square yard residue. Multiple light applications may be necessary to obtain the specified rate of application without runoff.

b. In-Place Material Subgrade Modification. Pulverize or process the in-place material as specified in the Contract Documents.

Construct the subgrade modified with in-place materials according to **subsection 301.3a.**, using the specified in-place material for the aggregate.

c. Construction Traffic. Avoid placing construction loads or operating equipment until the treated subgrade has cured and can withstand the loads without damaging the subgrade. If the subgrade deforms under the construction loads and cannot return back to its original condition, or if it deflects more than 1 inch, allow the subgrade additional curing time before operating equipment on the subgrade. Repair any damaged subgrade.

d. Succeeding Course. Cover the finished treated subgrade with the specified lift of HMA or aggregate base before it is subjected to freezing. If the finished treated subgrade is not covered with a lift of HMA or aggregate base and is subjected to freezing, the Engineer will determine when the subgrade needs to be reworked. KDOT will not pay for the replacement and refinishing of the treated subgrade if the material loses the required stability, density or finish before the next course is placed.

301.4 MEASUREMENT AND PAYMENT

The Engineer will measure aggregate for subgrade modification and silt for subgrade modification by the cubic yard by vehicle measurement at the place of unloading. If weight is converted to cubic yards for payment, the moisture in the aggregate is not measured for payment.

The Engineer will measure water used for modified subgrade by the M Gallon using calibrated tanks or water meters. The Engineer will measure water used for subgrade preparation and mixing, compacting and curing the modified subgrade. The Engineer will not measure water used for dust control, water wasted through the Contractor's negligence or water in excess of the quantity required for mixing and compacting the modified subgrade.

If the Contractor opts to use asphalt material to cure the modified subgrade, the Engineer will not measure the asphalt material for payment.

The Engineer will measure calcium chloride, cement and fly ash by the ton. The Engineer will not measure additional cement or fly ash added to the mixture to reduce moisture content.

The Engineer will measure the various types of subgrade manipulation by the square yard.

Payment for "Manipulation for Aggregate Subgrade Modification", "Manipulation for In-Place Material Subgrade Modification", "Aggregate for Subgrade Modification", "Calcium Chloride", "Cement" and "Fly Ash" at the contract unit prices and "Water (Subgrade Modification) (Set Price)" at the contract set unit price is full compensation for the specified work.

SPECIAL PROVISIONS
TO THE
STANDARD SPECIFICATIONS
EDITION OF 2015

NOTE: Whenever this special provision conflicts with the Plans, Supplemental Specifications or Standard Specifications, this Special Provision shall govern.

SECTION 611

HOT MIX ASPHALT (HMA) – COMMERCIAL GRADE

SUBSECTION 611.1 DESCRIPTION, Add the following Bid Items:

<u>BID ITEMS</u>	<u>UNIT</u>
HMA – COMMERCIAL GRADE (CLASS A) (SURFACE)	TON
HMA – COMMERCIAL GRADE (CLASS A) (BASE)	TON
HMA – COMMERCIAL GRADE (CLASS A) (PATCHING)	TON

SUBSECTION 611.2 MATERIALS,

b. Asphalt. ADD- Provide asphalt (SS-1HP) for tack.

Provide asphalt for tack coat suitable for the intended use and approved by the Engineer.

c. Mix Design.

(1) Table 611-1,

Change the “Reclaimed Asphalt Pavement (RAP) (max. %)” from 25% to 10% for mixes designated for surface construction and 30% for mixes designated for asphalt base and patching.

Change the Binder requirement to PG64-22

Delete note (1) shown below table 611-1.

d. Process Control. Replace – “KDOT” with “Douglas County” and “Contractor’s lab” with “Douglas County’s lab”

KDOT will perform tests at the Contractor’s lab or at a location agreed to by the Engineer and Contractor.

Replace - “24 hours” with “48 hours”.

Testing will be completed and the results reported to the Contractor within 24 hours.

SUBSECTION 611.3 CONSTRUCTION REQUIREMENTS, (a) General, Add the following:

When placing HMA – Commercial Grade (Class A) (Surface), remix the material transferred from the hauling unit, prior to placement, utilizing a Material Transfer Device, as described in Division 155.5. If, in the opinion of the Engineer, the Material Transfer Device may damage the base asphalt the Material Transfer Device may not be used. A Material Transfer Device is not required when placing HMA for side roads and entrances, or as directed by the Engineer. Paver hopper inserts shall be required when using a Material Transfer Device.

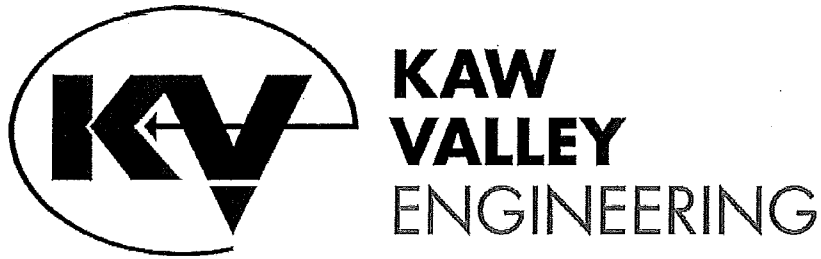
If the Engineer removes the Material Transfer Device and/or Paver Hopper Insert: Do not raise (dump) the wings of the paver receiving hopper at any time during the paving operation. The Engineer may waive this requirement if it is determined that raising (dumping) the wings will not produce detrimental segregation. If segregation or irregularities in the pavement surface or density are noted, review the plant, hauling and paving operations and take corrective action.

Spread the HMA and finish to the specified crown and grade using an automatically controlled HMA paver. Operate the paver at a speed which shall provide a uniform rate of placement without undue interruption. At all times, keep the paver hopper sufficiently full to prevent non-uniform flow of the HMA to the augers and screed.

Achieve grade control by use of 1 or more of the following grade reference devices. Approval of any of these devices will be based upon satisfactory performance.

- (a) Traveling Stringline. Attach a traveling stringline or ski type attachment, a minimum length of 30 feet, to the paver and operate parallel with its line of travel.
- (b) Reference Shoe; Attach a short reference shoe or joint matching device to the paver for control in matching surface grades along longitudinal joints of a newly placed mat.
- (c) Erect Stringline. Use an erected stringline consisting of a tightly stretched wire or string offset from and parallel to the pavement edge on 1 or both sides. Erect the stringline parallel to the established pavement surface grade and support at intervals as necessary to maintain the established grade and alignment.
- (d) Stringless Paving. Control line, grade and pavement cross-section as shown in the Contract Documents. Use electronic guidance systems that meet the requirements and tolerances listed in **SECTION 802**. Horizontal control is guided by GPS. Vertical control is guided by Total Stations. GPS will not be allowed for Vertical control.

c. Pavement Smoothness. Remove "Section 603 and"



**COLD RECYCLE DESIGN REPORT
LONE STAR LAKE ROUTES 1W AND 1S
DOUGLAS COUNTY, KANSAS**

Prepared For:

DOUGLAS COUNTY PUBLIC WORKS DEPARTMENT
3755 East 25th Street
Lawrence, Kansas 66046

Prepared By:

KAW VALLEY ENGINEERING, INC.
14700 West 114th Terrace
Lenexa, Kansas 66215

February 26, 2016

Project No. **C16G8658**

1.0 EXECUTIVE SUMMARY

The results of the cold recycle design study for Routes 1W and 1S at Lone Star Lake indicate a Portland cement content of 4 percent will provide an acceptable level of compressive strength and maximum compacted density for the cold recycled pavement layer. The results from the dynamic cone penetration tests at each of the test borings indicate the existing base course and subgrade materials have sufficient strength to support the paving train during construction.

Based on the results of the field work and our laboratory tests, it is the opinion of Kaw Valley Engineering that the cold recycling of the upper 8 inches of the existing pavement can be accomplished using standard cold recycling equipment. The resulting minimum 8 inch thick cement stabilized base course should provide uniform support for the planned 2 inch thick bituminous surface course. Following sections in this report present the detailed findings of our investigation and recommendations for the roadways on Route 1W and 1S.

2.0 INTRODUCTION

Kaw Valley Engineering, Inc. (KVE) was requested by the Public Works Department of Douglas County to conduct a cold recycle design study on the pavements for Route 1W and 1S at Lone Star Lake in Douglas County, Kansas. The services provided were in general accordance with our proposal dated January 5, 2016.

This report contains the results of the cold recycle design study for Route 1W and 1S at Lone Star Lake in Douglas County, Kansas. Conclusions and recommendations presented in this report are based on limited visual field evaluations, sampling, laboratory testing, and the items noted in the LIMITATIONS section of this report.

3.0 REGIONAL AND SITE GEOLOGY

Route 1W and 1S are located along the western and southern shoreline, respectively, of Lone Star Lake in southwestern Douglas County, Kansas.

The subgrade soils on site in the depths explored are identified as lean (low plasticity) and lean to fat (medium to high plasticity) clay. The underlying material typical for the area is identified as the Vinland-Rock outcrop complex which consists of somewhat excessively drained silty clay loam. The Vinland-Rock silty clay loam is derived from sandy and silty residuum weathered from shale. The bedrock unit underlying the site is thought to be the Ireland Sandstone Member of the Lawrence Formation belonging to the Pennsylvanian Age Douglas Group.

4.0 PAVEMENT SAMPLING AND SUBGRADE CONDITION

Kaw Valley Engineering explored the subsurface conditions at the site by coring and sampling fourteen locations identified as B-1 through B-10 on Route 1W and B-11 through B-14 on Route 1S on February 3, 2016. The approximate locations of the core holes are shown on Plate 1, which is included in Appendix A of this report. The following discussion presents a general summary of the pavement and subgrade conditions encountered during our subsurface exploration.

The cores indicate the pavement was constructed of 1.5 to 4.1 inches of dense-graded bituminous surfacing or with multiple layers of chip seal. Most of the cores from the project showed very minor to no environmental damage to the bituminous surfacing. However, the bituminous surfacing in the pavement cores taken from Borings B-1, B-11, B-12, and B-14 showed evidence of stripping and moisture damage. Beneath the bituminous surfacing, the pavement also had a 1.5 to 7.0 inch thick layer of what appeared to be Portland cement treated base in 12 out of the 14 borings. The thicknesses of the pavement cores are reported in Table 1 and photographs of the recovered cores are presented in Figures 1 through 3.

Table 1 – Pavement Thickness

Boring Number	Bituminous Surfacing Thickness (inches)	Portland Cement Treated Base Thickness (inches)	Aggregate Base Course Thickness (inches)
B-1	2.0	2.0	17.1
B-2	4.1	3.5	16.1
B-3	4.0	3.5	16.0
B-4	3.5	2.0	12.0
B-5	2.0	4.0	13.5
B-6	2.5	3.0	17.4
B-7	3.0	-	17.6
B-8	1.5	7.0	12.2
B-9	3.0	5.5	9.9
B-10	3.0	-	15.3
B-11	2.5	2.5	20.0
B-12	2.5	3.5	18.0
B-13	3.5	1.5	18.0
B-14	1.5	3.5	12.5

The layers of bituminous and Portland cement treated paving materials were underlain by a layer of dense graded aggregate base in all of the borings. The thickness of this aggregate base layer ranged from 9.9 to 20.0 inches. The subgrade soil beneath the aggregate base layer was a brown, gravelly, lean to fat clay that extended to the depths explored.

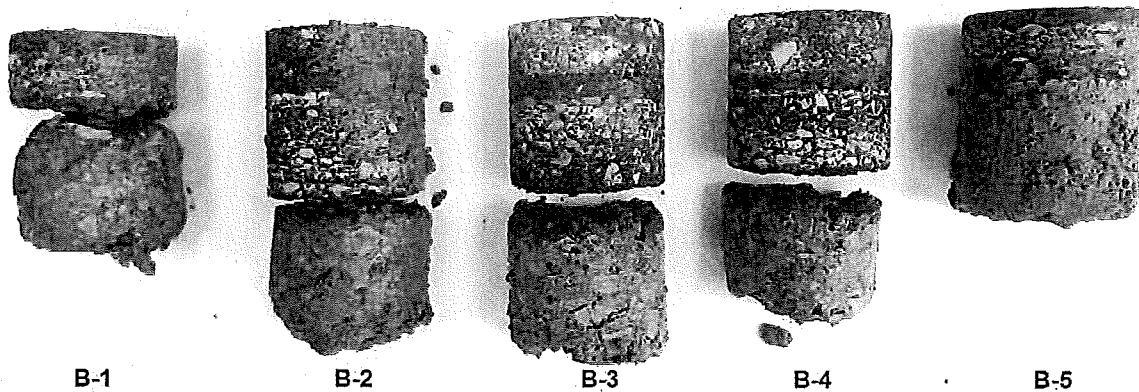


Figure 1 – Core Photographs for Borings B-1 through B-5.

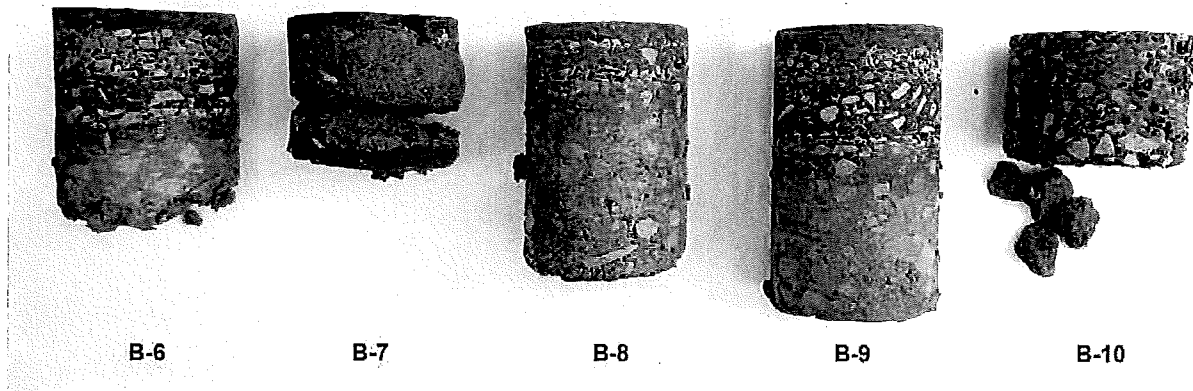


Figure 2 – Core Photographs for Borings B-6 through B-10.

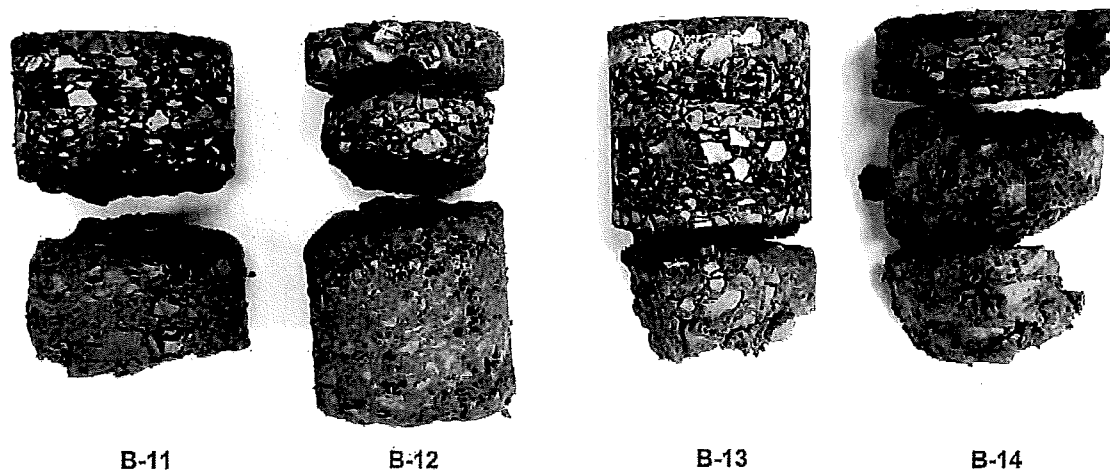


Figure 3 – Core Photographs for Borings B-11 through B-14.

Dynamic cone penetration (DCP) tests were run through the aggregate base layer and into the subgrade at each of the boring locations. These tests indicated the estimated in-place average California bearing ratio (CBR) values below the top 12 inches of surfacing in each of the borings ranged from 15 to greater than 58 with the overall pavement population average trending toward a value of 34. These in-place CBR values for the unstabilized base and subgrade materials indicate a very good base layer strength when compared to other subgrades in this geographic area. These test results indicate the underlying aggregate base should provide a stable working platform for the cold recycle paving train. The data sheets for the DCP tests are included in Appendix B of this report.

5.0 COLD RECYCLE DESIGN PROCESS

The recovered pavement, base, and subgrade materials from the borings on Routes 1W and 1S and bulk samples from two locations on Route 1W were taken from the site and delivered to the Kaw Valley Engineering Lenexa laboratory for study and further analysis.

The design process for a Portland cement-stabilized cold recycle design began by evaluating the Atterberg limits, moisture-density relationship, and California bearing ratio (CBR) for the untreated paving materials. The roadway materials were then blended with 4, 6, and 8 percent Type I/II Portland cement on a dry weight basis and the laboratory tests were repeated for the cement stabilized mixtures.

All of the test specimens were compacted in accordance with ASTM D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort. The CBR for each cement content was determined in accordance with ASTM D1883, Standard Test Method for California Bearing Ratio (CBR) of Laboratory-Compacted Soils. A one-hour delay between

mixing and compaction of the specimens was used to simulate field conditions during construction. Following compaction, the test specimens were extruded from their molds, wrapped in plastic film and aluminum foil, cured for a period of 7 days in an insulated cure box, and tested to determine the unconfined compressive strength, moisture content, and CBR of the specimens. The data was then plotted to determine the optimum moisture content at which maximum strength occurred for each cement content.

Table 2 summarizes the results of the laboratory testing which are also presented in detail in Appendix C of this report. Because the in-place paving materials have excellent characteristics in the untreated state, acceptable improvement was obtained using a 4 percent Portland cement content. The maximum compressive strength and highest CBR values were achieved by blending 8 percent Portland cement into the top 8 to 12 inches of the reprocessed pavement. The use of a lower cement content (4 percent) is recommended in order to maintain some flexibility in the cold recycle layer and reduce the tendency for shrinkage cracking in the recycled base. Maximum strength for the recycled material was generally achieved at moisture contents that were near to slightly above the optimum moisture content for compaction.

Table 2 - Summary of Laboratory Test Results

Stabilization Additive	Optimum Moisture Density Basis (%)	Maximum Dry Density (pcf)	Optimum Moisture Strength Basis (%)	Maximum Compressive Strength (psi)	CBR
Untreated Material	9.3	123.7	-	-	26
4% Portland Cement	10.5	124.5	10.5	380	100+
6% Portland Cement	9.9	125.6	11.0	480	100+
8% Portland Cement	10.5	123.8	11.0	650	100+

6.0 CONSTRUCTION CONSIDERATIONS

The results of the field and laboratory work for this project indicate the condition and strength of the subsurface pavement layers are very good to excellent throughout the project alignment and should provide good support for construction equipment during the cold recycling process. Our field sampling discovered no evidence of groundwater issues or soft subgrades along the proposed construction alignment. KVE did not examine the condition of the subgrade support for the pavement at utility crossings because of the potential for damage to the utilities. It is possible that these areas may be softer and less rigid than the undisturbed roadway sections and could possibly pose some problems during construction.

KVE recommends setting the recycling depth to not less than 8 inches below the surface because of the existence of an underlying Portland cement treated base layer. By setting the minimum recycling depth at 8 inches, the existing cemented layer will be broken up and a uniform recycled layer with some flexibility will be established that will provide uniform support to the bituminous surface course.

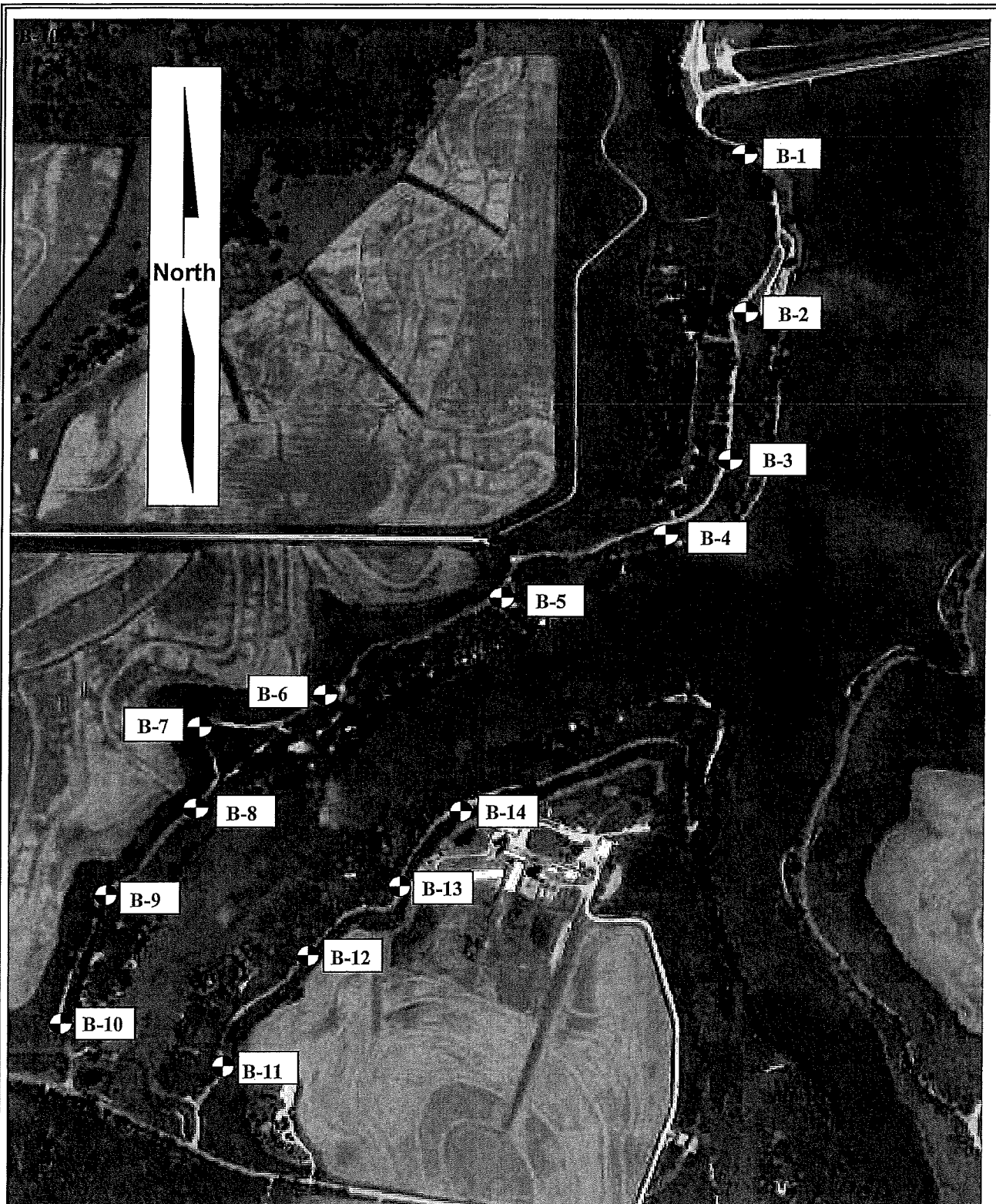
Based on the results of the field work and our laboratory tests, it is the opinion of Kaw Valley Engineering that the cold recycling of the upper 8 inches of the existing pavement can be accomplished using standard cold recycling equipment. The resulting cement stabilized base course should provide uniform support for the 2 inch thick bituminous surface course.

7.0 GENERAL COMMENTS

Kaw Valley Engineering recommends that a periodic pavement condition survey be conducted at least every two years after completion of the cold recycle repaving project in order to gauge the condition of the roadways surrounding Lone Star Lake and to plan future rehabilitation actions. If minor, low-cost rehabilitation actions are planned on a routine basis, major expensive rehabilitation or repaving actions can be avoided.

8.0 LIMITATIONS

The analyses, conclusions, and recommendations contained in this report are based on the site conditions at the time of the pavement condition survey. This report was prepared for the exclusive use of the Douglas County Public Works Department and their designated representatives for evaluating the condition of their pavements as it relates to the pavement management aspects discussed herein. It should be made available to others for information on factual data only and not as a warranty of pavement or subsurface conditions included in the report.



Site Plan and Boring Locations

Plate 1

Lone Star Lake Cold Recycle Design
Route 1W and 1S
Douglas County, Kansas

Approved By: JAF

Not to Scale

Project No. C16G8658



Kaw Valley Engineering, Inc.